Davis Wright Tremaine LLP

Suite 800
1919 Pennsylvania Avenue NW
Washington, DC 20006-3401

David Oxenford
202.973.4256 tel
202.973.4456 fax

davidoxenford@dwt.com

September 10, 2010

VIA HAND DELIVERY

Copyright Royalty Board
Library of Congress
James Madison Memorial Building
101 Independence Avenue, S.E., Room LM-401
Washington, D.C. 20559-6000

Re: ***Live365, Inc.'s Trial Exhibits***
In the Matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings**, Docket No. 2009-1 CRB Webcasting III**

Dear Judges:

Live365, Inc. ("Live365") hereby submits to the Court the exhibits – both Restricted and Public versions – that it introduced (and that were admitted) into evidence in the above-referenced proceeding.

SoundExchange has moved for application of the Protective Order as to certain portions Live365 Rebuttal Exhibit 1 (the Written Rebuttal Testimony of Dr. Michael Salinger). Live365 has not objected to that request, and this document is being treated as Restricted in the attached binders, pending the Court's order on SoundExchange's motion.

Similarly, Live365 understands that SoundExchange will be submitting to the Judges a binder of the exhibits that it introduced (and that were admitted) into evidence in this proceeding. Live365 has also moved for application of the Protective Order as to certain portions of SoundExchange Trial Exhibits 28 and 30, and SoundExchange has not objected to that motion. It is Live365's understanding that SoundExchange will be submitting those two documents with the Restricted version of its exhibits, pending the Court's order on Live365's motion.

Live365 and SoundExchange have coordinated the submission of these exhibits and, except for one instance – i.e., Live365 Trial Exhibit 29, which is the Corrected Written Direct Testimony of Johnie Floater – the parties agree that the documents that are being submitted today are the SoundExchange and Live365 exhibits that have been admitted into evidence in this proceeding. Live365 Trial Exhibit 29 is discussed below.

Live365 Trial Exhibit 29 is the Corrected Written Direct Statement of Johnie Floater ("Floater CWDT" or "Exhibit 29"). At the direct hearing on April 26, 2010, Live365 moved for the admission of that exhibit into evidence. SoundExchange objected to the admission of Exhibit 29 "only on the ground that it contains at least a couple of references to the written testimony of Mark Lam which now is not part of the record." 4/26/10 Tr. at 870:22-871:7 (Floater) (relevant transcript pages attached as Exhibit 1). Live365's counsel acceded to the objection, and asked that the exhibit be accepted with an understanding, and stated that Live365 "will resubmit [Exhibit 29] with those references to the testimony of Mark Lam excised." *Id.* at 872:7-9. The Court responded in the affirmative (CHIEF JUDGE SLEDGE: "All right") – *id.* at 872:7-10 – and permitted Live365 to present the oral testimony of Mr. Floater, and allowed SoundExchange to fully cross-examine Mr. Floater for several hours about that testimony.

However, when attempting to assemble with SoundExchange an agreed upon, complete set of the exhibits that were admitted in this case, SoundExchange indicated that it would not agree that Exhibit 29, redacted as discussed at the hearing following the objection, was part of the record. It is Live365's understanding that SoundExchange's current objection is based on the fact that there is no unambiguous statement that the exhibit "is admitted." However, there is no question that the exhibit was offered, that the parties and the Court treated it as having been accepted (see below), and that there was never any statement that the exhibit had been "rejected."

Clearly, the parties and the Court have acted as if the Exhibit was accepted. Per 37 C.F.R. § 351.10(b), the direct and cross-examination of Mr. Floater would not have been possible if his written testimony was not admitted – or not expected to be admitted as redacted – into evidence. 37 C.F.R. § 351.10(b) ("Parties are entitled to conduct direct examination (consisting of the testimony of the witness in the written statements and an oral summary of that testimony); cross-examination (limited to matters raised on direct-examination)".)

The rebuttal phase of the hearing also confirms Live365's understanding that Exhibit 29 was admitted into evidence (or should be admitted into evidence now that the redacted version of Exhibit 29 has been submitted). SoundExchange submitted the Written Rebuttal Testimony ("WRT") of Kyle Funn and presented him as a witness during the rebuttal trial. On August 2, 2010, SoundExchange sought to admit into evidence Mr. Funn's WRT, to which Live365 objected to certain portions. In part, Live365 claimed that Mr. Funn's WRT was not rebutting any direct testimony it had presented. 8/2/10 Tr. 433:5-434:19 (Funn) (relevant transcript pages attached as Exhibit 2). In its ruling to admit Mr. Funn's entire WRT, Chief Judge Sledge stated that Mr. Funn's WRT is proper rebuttal testimony based, in part, on "Live365 Exhibit 29 of the testimony of Johnie Floater at page 11 addresses at length the benefits from Live365 as an aggregator.... The conclusion is that the testimony is both relevant and rebuttal of direct evidence." 8/2/10 Tr. 436:1-13 (Funn).

SoundExchange's only objection to Mr. Floater's CWDT (Live365 Exhibit 29) has fully been addressed by the removal of references to Mr. Lam's written testimony. These redactions have been made in the manner discussed at the April hearing, and Live365 does not understand SoundExchange to have any objection to the manner in which the redactions have been made. In addition, the parties and the Court have all acted as if Live365 Exhibit 29 has been admitted into evidence, as demonstrated by Mr. Floater's direct and cross examinations and Chief Judge Sledge's reference to Live365 Exhibit 29 during the Court's ruling on Mr. Funn's testimony. No prejudice exists if this exhibit is treated as admitted, and great prejudice would exist if the exhibit were deemed not to be admitted. Therefore, Live365 has included this exhibit in the binders accompanying this letter, and submits that this exhibit should be considered to be part of the record in this proceeding.[1]

Should there be any questions concerning this matter, please contact the undersigned.

Respectfully submitted,

David D. Oxenford

cc: Service List

[1] If the Judges feel that a formal motion is necessary to renew the request for admission made at hearing, Live365 will be happy to provide such a motion.

EXHIBIT 1

[RELEVANT TRIAL TRANSCRIPT PAGES FROM APRIL 26, 2010]

BEFORE THE UNITED STATES COPYRIGHT ROYALTY JUDGES

LIBRARY OF CONGRESS

WASHINGTON, D.C.

- - - - - - - - - - - - - - - - x

IN THE MATTER OF: :

DIGITAL PERFORMANCE RIGHT IN : Docket No. 2009-1

SOUND RECORDINGS and EPHEMERAL: CRB Webcasting III

RECORDINGS : Volume V

- - - - - - - - - - - - - - - - x

Washington, D.C.

Monday, April 26, 2010

The following pages constitute the proceedings held in the above-captioned matter held at the Library of Congress, Madison Building, 101 Independence Avenue, Southeast, Washington, D.C., before Denise M. Brunet, RPR, of Capital Reporting Company, a Notary Public in and for the District of Columbia, beginnint at 9:32 a.m., when were present on behalf of the respective parties:

APPEARANCES

Copyright Royalty Tribunal:
CHIEF JUDGE JAMES SLEDGE
JUDGE WILLIAM ROBERTS
JUDGE STANLEY C. WISNIEWSKI

On behalf of SoundExchange, Inc.:
DAVID A. HANDZO, ESQUIRE
MICHAEL B. DeSANCTIS, ESQUIRE
GARRETT A. LEVIN, ESQUIRE
TAJ N. WILSON, ESQUIRE
JARED O. FREEDMAN, ESQUIRE
Jenner & Block, LLP
1099 New York Avenue, Northwest
Suite 900
Washington, D.C. 20001
(202) 639-6000

(Appearances continued on the next page.)

APPEARANCES (Continued)

On behalf of Live365, Inc.:
DAVID D. OXENFORD, ESQUIRE
Davis Wright Tremaine, LLP
1919 Pennsylvania Avenue, Northwest
Suite 200
Washington, D.C. 20006
(202) 973-5256

ANGUS MacDONALD, ESQUIRE
ABRAHAM YACOBIAN, ESQUIRE
Hovanesian & Hovanesian, PC
301 E. Colorado Boulevard
Suite 514
Pasadena, California 91101
(626) 737-7288

(Appearances continued on the next page.)

APPEARANCES (Continued)

On behalf of Live365, Inc. (continued):
DAVID ROSENBERG, ESQUIRE
Live365, Inc.
950 Tower Lane
Suite 1550
Foster City, California 94404
(650) 345-7400

On behalf of Intercollegiate Broadcasting System:
WILLIAM MALONE, ESQUIRE
Miller & VanEaton, PLLC
1120 Connecticut Avenue, Northwest
Suite 1000
Washington, D.C. 20036
(202) 785-0600

CONTENTS

868

the tracks and they waived the sound recording performance royalties to have additional promotion and simple inclusion in the webcaster's broadcast.
Q Now, Mr. Floater, are you familiar with the document behind tab number 3?
A Yes, I am.
Q And is this an accurate copy of the agreement between Live365 and GarageBand Records?
A Yes, this seems to be the original copy of the agreement.
Q You say it seems to be.
A Yes, this is the agreement that I am familiar with.
Q Thank you. I ask you to turn to the document behind tab number 4. Can you identify that document, please.
A This is a similar agreement to the GarageBand agreement, another music company that provided Live365 a variety of royalty-waived performances, again, to receive promotion and inclusion in the Live365 webcasters that sold performances within their stations.

869

Q And are you familiar with that agreement?
A Yes, I'm familiar with this agreement.
Q And is this a true and accurate copy of the agreement between Live365 and --
A This one is with a company INgrooves. Yes, this is another similar -- this is the agreement.
Q Thank you. And I ask you to turn to the document behind tab number 5.
A Yes.
Q Can you identify that document?
A Yes. This is, again, another similar agreement between a music company and Live365 for -- where they provided us with musical tracks for inclusion of webcaster's performances on the webcaster channels. In exchange for promotion of the stations, they waived the royalties related to the sound recording performance to secure those performances.
Q And are you familiar with that document?
A Yes, I am.
Q And is this an accurate copy of the agreement between Live365 and DMI?
A Yes, it is.

870

Q Finally, Mr. Floater, I ask you to turn to the document behind tab number 6 in the binder. Can you identify that document, please?
A Yes, I can. It's, again -- once again, it is an agreement between a record label and Live365 that they would provide us musical tracks included into our library that our webcasters would have access to to include in their station performances. And they waived the rights in order to receive those performances and promotions related to those artists.
Q Which record label is that?
A And this is a company called Soleilmoon.
Q And are you familiar with the agreement between Live365 and Soleilmoon Records?
A Yes.
Q And is this, in fact, that agreement?
A This is that agreement.
MR. OXENFORD: Your Honor, Live365 would like to offer into evidence the written statement and attached six tabs of material at this time.
CHIEF JUDGE SLEDGE: Any objection?
MR. DeSANCTIS: Your Honor, I do object only

871

on the ground -- I do object with respect to the written direct statement only on the ground that it contains at least a couple of references to the written testimony of Mark Lam which now is not part of the record, so I think it risks making a particularly confusing record in the case, but that would be my only objection.
MR. OXENFORD: Your Honor, we would certainly agree to having any reference to the statements of Mark Lam struck from this testimony.
MR. DeSANCTIS: I should clarify that I'm not saying there are statements from Mark Lam in the testimony. There are simply references to Mark Lam's written direct testimony which now has not come into evidence.
CHIEF JUDGE SLEDGE: So are you withdrawing the exhibit?
MR. OXENFORD: No, we're withdrawing those statements that refer to the evidence of Mark Lam. Clearly, there's no evidence to refer to. So the court will give those references no weight because there's nothing to refer to.

CHIEF JUDGE SLEDGE: What do we do with Exhibit 29, then?

MR. OXENFORD: We would accept it into evidence with the understanding that --

CHIEF JUDGE SLEDGE: Are you going to change it and resubmit it?

MR. OXENFORD: Yes, Your Honor. We will resubmit it with those references to the testimony of Mark Lam excised.

CHIEF JUDGE SLEDGE: All right.

MR. OXENFORD: Thank you, Your Honor.

BY MR. OXENFORD:

Q Mr. Floater, could you please describe your higher education.

A I graduated with an MBA from University of California Los Angeles in arts management. This was a program set up in the late '70s by the business school there, now the Anderson Business School, to assist art organizations to be able to run as businesses. Funding for symphony orchestras and ballet companies and, in my case, public radio were being decreased, and so I picked up an MBA in order to learn how to run

these art organizations as businesses. So I have an MBA from UCLA.

Prior to that, I had in -- my undergraduate degree was from Aquinas College in Grand Rapids, Michigan. I had a mathematics and psychology background with a teaching certification. I was working in radio when I was a kid and I had always thought that Sesame Street and Electric Company were pretty cool, and I was going to figure out how to use education in broadcasting. So I got a teacher's degree in my undergraduate.

I attended Michigan State University for a summer broadcast program on a scholarship that I received from the local broadcaster, WOOD-TV.

That's my basic three degrees.

Q And can you -- I'm sorry. Mr. Floater, have you worked in over-the-air broadcasting prior to your employment with Live365?

A I would say that I've worked -- my first job outside of being a paper boy -- my first paycheck came from WLAV, Sheppard Broadcasting, AM and FM, in Grand Rapids, Michigan. I worked my way through high school

there. I managed the music library, assisted the advertising department in carting up the commercials to go on the air.

I started a junior achievement company back in high school, Marconi and Zworykin, which received air time from local television and radio channels, and we produced programs and sold our own advertising for it.

Following my MBA degree -- I was working at the public radio station in Los Angeles while I was working on my MBA, a station called KCRW. At the time, we became a national public radio station, and I used my business degree to set up the initial business aspects of the station.

When I graduated from my MBA, I became the business manager and membership coordinator for the station. I did the corporate underwriting, wrote grants to expand our web -- our broadcasts throughout southern California with additional repeaters. I started syndicating some of the radio programs.

We -- Tim Hauser from Manhattan Transfer was one of our broadcasters and had interest in

syndicating to other public radio stations. So I started a syndication group for the station. That led me to meet what is commonly known as the father of syndication, Mr. Tom Rounds. He had a company, ABC Watermark, that had created programs like Casey Kasem's American Top 40 and American Country Countdown with Bob Kingsley. And so I left public radio to learn syndication, as I thought it was a business opportunity for public radio. So I spent a number of years handling the syndication of radio programs.

When ABC took complete control of the company, we formed a company called Radio Express. And I served there as the general manager distributing these programs and other broadcast tools to a growing market of radio around the world, as private radio in the '80s were becoming allowed in other countries and needed basic services to start up. So we created a company that would provide programming and broadcast tools.

So that was my experience bringing radio tools to new radio stations around the globe.

Q Now, following your experience in the

EXHIBIT 2

[RELEVANT TRIAL TRANSCRIPT PAGES FROM AUGUST 2, 2010]

BEFORE THE UNITED STATES COPYRIGHT ROYALTY JUDGES
LIBRARY OF CONGRESS
Washington, D.C.

IN THE MATTER OF:	Docket No. 2009-1
	CRB Webcasting III
DIGITAL PERFORMANCE RIGHT in	
SOUND RECORDINGS and	REBUTTAL PHASE
EPHEMERAL RECORDINGS.	Volume 3
	(Pages 307 - 496)

Washington, D.C.

Monday, August 2, 2010

The following pages constitute the Rebuttal Phase in the above-captioned matter at the Library of Congress, Madison Building, 101 Independence Avenue, Southeast, Washington, D.C., before Vicky Reiner, RMR, CRR, of Capital Reporting Company, a Notary Public in and for the District of Columbia, beginning at approximately 9:30 a.m. when were present on behalf of the respective parties:

APPEARANCES

Copyright Royalty Tribunal:
CHIEF JUDGE JAMES SLEDGE
JUDGE WILLIAM ROBERTS
JUDGE STANLEY C. WISNIEWSKI
Library of Congress
Madison Building
101 Independence Avenue, Southeast
Washington, D.C. 20540

On behalf of SoundExchange, Inc.:
JARED O. FREEDMAN, ESQUIRE
GARRETT A. LEVIN, ESQUIRE
DAVID HANDZO, ESQUIRE
Jenner & Block, L.L.P.
1099 New York Avenue, Northwest
Suite 900
Washington, D.C. 20001
(202) 649-6000

On behalf of Live365, Inc.:
DAVID D. OXENFORD, ESQUIRE
Davis Wright Tremaine, L.L.P.
1919 Pennsylvania Avenue, Northwest
Suite 200
Washington, D.C. 20006
(202) 973-5256

- and -

ANGUS MacDONALD, ESQUIRE
ABRAHAM YACOBIAN, ESQUIRE
Hovanesian & Hovanesian, P.C.
301 E. Colorado Boulevard, Suite 514
Pasadena, California 91101
(626) 737-7288

APPEARANCES

On behalf of Live365, Inc.: (Continued)
DAVID ROSENBERG, ESQUIRE
Live365, Inc.
950 Tower Lane
Suite 1550
Foster City, California 94404
(650) 345-7400

On behalf of Intercollegiate Broadcasting System:
WILLIAM MALONE, ESQUIRE
Miller & VanEaton, P.L.L.C.
1120 Connecticut Avenue, Northwest
Suite 1000
Washington, D.C. 20036
(202) 785-0600

ALSO PRESENT:
Colin Rushing
Susan Chertkof
Michael J. Huppe

CONTENTS

(*Exhibits retained.)

PROCEEDINGS

CHIEF JUDGE SLEDGE: Everyone looks chipper this morning. I suspect that's a reflection of the weekend and the cool weather.

Mr. Handzo, I think you're in the barrel this morning.

MR. HANDZO: I am, Your Honor. SoundExchange will begin its rebuttal testimony with the testimony of Dr. Ordover.

CHIEF JUDGE SLEDGE: All right, sir. Please raise your right hand.

Whereupon,

JANUSZ A. ORDOVER

was called as a witness, and, having first been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HANDZO:

Q Good morning. Would you introduce yourself to the Court, please.

A My name is Janusz Ordover. I am professor of economics at New York University.

Q I think for the benefit of the court

432

A Yes, it is.
Q Did you help prepare this form?
A Yes, I did.
Q Does SoundExchange make it available to webcasters?
A Yes, we do, on the SoundExchange web site. And, you know, we also make it available at webcasters' request.
Q If I could please have you turn to the second tab behind your written testimony.
A Okay.
Q Do you recognize this document?
A Yes.
Q And what is it?
A It is the October 2009 statement of account provided by Live365.
Q And provided by -- to whom?
A Oh, to SoundExchange, by Live365.
Q Did you see this document in the ordinary course of business?
A Yes, I did.
MR. FREEDMAN: Your Honor, at this time I move the admission of SoundExchange Trial Exhibit 46 into evidence.

433

CHIEF JUDGE SLEDGE: Any objections to Exhibit 46?
MR. OXENFORD: Yes, Your Honor. Live365 would like to object to the exhibit beginning at the top of page 2 through the end of the first paragraph on page 4.
Our argument, Your Honor, is that this exhibit does not rebut the direct case testimony of Live365. Dr. Fratrik, when testifying about an aggregator discount, talked about an aggregator discount with respect to an industry-wide rate. He did not talk about an aggregator discount with respect to Live365 in particular. He talked about it as an industry-wide rate. He talked about industry-wide savings that SoundExchange could achieve. He talked about comparables in other industries giving aggregator discounts in connection with ASCAP and BMI.
The entire testimony that we seek to have struck is dealing solely with alleged compliance issues of Live365 that have nothing to do with this broader general question about whether an aggregator discount is appropriate.

434

While certainly Your Honor has ruled that compliance issues may be relevant to impeaching the testimony or weighing the credibility of particular witnesses who are testifying, that is not the case here. This evidence is seemingly being used to bolster arguments that somehow Live365 is a bad actor. Whether or not we're a bad actor -- and we certainly would be prepared to challenge whether some of these issues are violations or problems at all -- has nothing to do with whether a discount is provided to an aggregator or not. It's a question that would apply to any webcaster, regardless of what class they sought to be included.
So this testimony is both irrelevant and on -- and is not a rebuttal to the testimony of Dr. Fratrik.
CHIEF JUDGE SLEDGE: Your response.
MR. FREEDMAN: Yes, Your Honor. If Live365 wants to cross-examine Mr. Funn about what it perceives to be the limitations of his testimony, I think they're free to do so. And that's basically what I understand Mr. Oxenford to be describing here.

435

Live365 has proposed an aggregator discount. And they've defined the eligible parties for that discount in such a way that it clearly applies to them and to our knowledge does not apply to other services or other entities who are paying SoundExchange now.
So while they can act as if somehow this is about a discount for any number of services, in reality, this is a Live365 discount they're asking for. And Mr. Funn's testimony provides rebuttal to that.
CHIEF JUDGE SLEDGE: Yes, sir.
MR. OXENFORD: Your Honor, I believe that there -- I'm sorry. I shouldn't even say believe. There have in fact been aggregators in the past. And there's nothing to say that there won't be aggregators in the future. So this is an industry-wide rate, not one directed to Live365.
CHIEF JUDGE SLEDGE: Thank you.

All right. We'll recess.

(Whereupon, a recess was taken between 1:40 p.m. and 1:52 p.m.)

CHIEF JUDGE SLEDGE: On the objection to the portions of the written testimony that it is not proper rebuttal and that it's not relevant, the Live365 Exhibit 29 of the testimony of Johnie Floater at page 11 addresses at length the benefits from Live365 as an aggregator. The testimony of Dr. Fratrik, Exhibit 30, at page 38 describes the benefits of Live365 as an aggregator. The conclusion is that the testimony is both relevant and rebuttal of direct evidence.

The exhibit is admitted.

(SoundExchange Exhibit Number 46 was received into evidence.)

CHIEF JUDGE SLEDGE: Yes, sir.

MR. OXENFORD: Your Honor, we just ask that the protective order be extended to tab 2.

CHIEF JUDGE SLEDGE: Any objection?

MR. FREEDMAN: No, Your Honor.

CHIEF JUDGE SLEDGE: Motion is granted.

All right.

BY MR. FREEDMAN:

Q Mr. Funn, do you recall that Live365 is seeking a discount in this proceeding for services that meet a certain definition of webcast aggregation service?

A Yes.

Q What is your understanding about whether Live365 would meet that definition?

A I believe they do.

Q And are you aware of other services that pay royalties --

JUDGE WISNIEWSKI: You may have to explain that to us.

THE WITNESS: I'm sorry?

JUDGE WISNIEWSKI: You may have to explain that to us because that's been a problem from the beginning of this proceeding.

THE WITNESS: In the --

JUDGE WISNIEWSKI: I want to hear what your understanding is.

THE WITNESS: Oh. It's my understanding

that by, I believe the term is webcasting aggregation service, they mean a service that operates under the statutory license on behalf of at least 100 independently operated services, which would include paying royalties on their behalf.

JUDGE WISNIEWSKI: Are they a service or are the other folks the 100 services? Who is the webcaster? That's the question.

THE WITNESS: I see. Well, I'm not sure I know enough about Live365's business to say whether they would technically be considered a webcaster under the statute. The only thing that I know is that they purport to operate under the statute --

JUDGE WISNIEWSKI: I --

THE WITNESS: -- under a statutory license.

JUDGE WISNIEWSKI: I'm trying to get to your understanding here. It's important because what your counsel asked you about was in the context of the proposal that Live365 has made here.

THE WITNESS: Sure.

JUDGE WISNIEWSKI: And so the question that is raised is whether -- what your understanding of

their business is relative to that proposal.

THE WITNESS: Well, at least -- I believe at least some portion of their business consists of making eligible transmissions on behalf of a number of webcasters. I just don't know if that's exclusively their business or not.

JUDGE WISNIEWSKI: Thank you.

CHIEF JUDGE SLEDGE: So the answer to your question earlier, you're qualifying it? The earlier question to you is, under their proposal, do they qualify. And you said yes.

THE WITNESS: Yes.

CHIEF JUDGE SLEDGE: So now I hear you not so categorically saying yes.

THE WITNESS: Well, under the assumption that they are eligible for the statutory license.

CHIEF JUDGE SLEDGE: Well, that's a big assumption.

THE WITNESS: Right. Understood.

CHIEF JUDGE SLEDGE: So with that assumption, then your answer is yes?

THE WITNESS: Yes. Correct.

CERTIFICATE OF SERVICE

I, Tracy Johnson, a secretary with the law firm of Davis Wright Tremaine LLP, do hereby certify that copies of the foregoing **"Live365, Inc.'s Trial Exhibits (Restricted and Public Versions)"** were sent via electronic email and via **Federal Express, this 10th day of September, 2010 to the following:

David A. Handzo
Michael B. DeSanctis
Jared O. Freedman
Jenner & Block LLP
1099 New York Avenue, N.W.
Washington, D.C. 20001
Counsel for SoundExchange, Inc.
dhandzo@jenner.com
mdesanctis@jenner.com
jfreedman@jenner.com

William B. Colitre*
Royalty Logic, LLC
21122 Erwin Street
Woodland Hills, CA 91367
bcolitre@royaltylogic.com

William Malone
Matthew K. Schettenhelm
Miller & Van Eaton, P.L.L.C.
1155 Connecticut Avenue, N.W., Suite 1000
Washington, D.C. 20036-4320
wmalone@millervaneaton.com
mschettenhelm@millervaneaton.com
Counsel for Intercollegiate Broadcasting System, Inc. and Harvard Radio Broadcasting Co. Inc.

Catherine R. Gellis
P.O. Box 2477
Sausalito, CA 94966
cbi@cathygellis.com
Counsel for College Broadcasters, Inc.

Mitchell L. Stoltz
Constantine Cannon LLP
1301 K Street, N.W., Suite 1050 East
Washington, D.C. 20005
mstoltz@constantinecannon.com
Counsel for College Broadcasters, Inc.

Tracy Johnson
Tracy Johnson

*Public Version Only
**Exhibits served by overnight delivery on CD as agreed by the parties.

PUBLIC

Before the
COPYRIGHT ROYALTY BOARD
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS	)))))))	Docket No. 2005-1 CRB DTRA

TESTIMONY OF

MICHAEL PELCOVITS

Principal, Microeconomic Consulting & Research Associates (MiCRA)

RESTRICTED -
SUBJECT TO PROTECTIVE ORDER
IN DOCKET NO. 2005-1 CRB DTRA

October 2005

EXHIBIT
tabbies
Live365# 5

Before the

UNITED STATES COPYRIGHT OFFICE

Library of Congress
Washington D.C.

Testimony of MICHAEL D. PELCOVITS

I. INTRODUCTION AND QUALIFICATIONS

My name is Michael Pelcovits. I am a Principal of the consulting firm Microeconomic Consulting & Research Associates, Inc. ("MiCRA"), which specializes in the analysis of antitrust and regulatory economics. My business address is 1155 Connecticut Avenue, Washington, D.C. 20036.[1]

Since joining MiCRA in 2002, I have prepared reports and testimony on a wide range of telecommunications and applied microeconomic issues. I have consulted for major corporations in telecommunications and other industries and provided testimony before the Federal Communications Commission, many state regulatory commissions, the Office of Telecommunications (Oftel) in the United Kingdom, the European Commission, and the Ministry of Telecommunications of Japan.

Prior to joining MiCRA, I was Vice President and Chief Economist at WorldCom. In this position, and in a similar position at MCI prior to its merger with WorldCom, I was responsible for directing economic analysis of regulatory and antitrust matters before federal, state, foreign, and international government agencies, legislative bodies, and courts. Prior to my employment at MCI, I was a founding principal of a consulting firm,

[1] A copy of my curriculum vitae is attached as Appendix B.

Cornell, Pelcovits & Brenner. From 1979 to 1981, I was Senior Staff Economist in the Office of Plans and Policy, Federal Communications Commission.

I have conducted analysis and research on economic issues related to the Internet for the last several years. During my tenure at MCI, I worked closely with the Internet engineering group to help formulate public policy positions relating to the Company's wide ranging business activities in the Internet.

I have lectured widely at universities and published several articles on telecommunications regulation and international economics. I hold a B.A. from the University of Rochester (*summa cum laude)* and a Ph.D. in Economics from the Massachusetts Institute of Technology, where I was a National Science Foundation fellow.

II. OVERVIEW OF TESTIMONY

I have been asked by counsel for SoundExchange to analyze the market for Internet music services and provide a recommended rate for the compulsory license fee to be set in this proceeding for the digital audio transmission of sound recordings under the statutory licenses set forth in 17 U.S.C. § 114(f)(2)(B) and 17 U.S.C § 112(a)(1). My goal has been to develop a rate that fully comports with the statutory requirement, discussed more fully in Section III of my testimony, that license rates should "most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and willing seller."[2]

In summary, I have concluded that a market rate can best be derived by analyzing the license fees that have been negotiated in the recent past between willing buyers and

[2] 17 U.S.C. § 114(f)(2)(B).

willing sellers in a very similar market. The economic rationale for this "benchmark" approach is explained in Section IV of my testimony. In that section, I also explain that the market I have selected as the most appropriate benchmark from which a statutory license fee can be derived in this proceeding is the market for non-portable interactive digital music services (for example, interactive music services such as Rhapsody or Napster Membership). The sellers of copyrighted material in the market for interactive digital music services are the same entities who are "sellers" in this proceeding, and many of the buyers in that market are also "buyers" in this proceeding. The license fees negotiated in the interactive digital music services market transferred the right to use the same digital audio transmissions that are the subject of this proceeding. Because of these similarities, among others, I have used the contracts (described in Section V of my testimony) negotiated by the four major record companies in the interactive digital music services market as the benchmark from which to derive an appropriate statutory license rate for the services at issue here.

There are, of course, some differences between the benchmark market and the market at issue here, most notably that the music service providers who were buyers in the benchmark market provide interactive services to their customers, while the "buyers" in this proceeding provide non-interactive services. In Section VI of my testimony, I describe adjustments to the proposed statutory license fee that account for these differences. These adjustments reflect differences in the value of an interactive and a non-interactive license, as well as differences in the way the services are used and the impact that each type of service may have on other revenue streams for the willing buyer and willing seller.

Section VII presents evidence on copyright fees in some other markets, which serve to verify the methodology and recommendations that I have made. Finally, in Section VIII, I discuss the rapidly evolving market for streaming services provided on mobile devices. Music services may utilize the statutory license to make transmissions to mobile devices, and in the free market copyright owners would command a premium for a distribution of their works in any fashion that makes them portable or accessible via a wireless device. I propose that the Board establish royalty rates that recognize this market premium placed on mobile services.

III. FRAMEWORK FOR ANALYZING THE WILLING BUYER/WILLING SELLER STANDARD

A. Willing Buyer/Willing Seller Standard

In its prior decision setting the compulsory license fees for non-subscription, non-interactive webcasting, a Copyright Arbitration Royalty Panel ("CARP") ruled that "the willing buyer/willing seller standard is the *only* standard to be applied."[3] The Panel explained that the two other factors enumerated in the statute (i.e., substitution/promotion effects on phonorecords, and relative roles of the parties) do not constitute additional standards or policy considerations.[4]

I am in complete agreement that the willing buyer/willing seller standard can and should be interpreted broadly enough to encompass these two other factors and any other consideration that would affect the outcome of a negotiation in the free market. Markets function very effectively to take account of all the considerations that are important to

---

[3] *In re Rate Setting for Digital Performance Right in Sound Recordings and Ephemeral Recordings*, No. 2000-9 CARP DTRA 1&2, slip op. at 21 (CARP Feb. 20, 2002) (Report of the Copyright Arbitration Royalty Panel to the Librarian of Congress).

[4] *Id.*

buyers and sellers. By using a benchmark analysis, I avoid the necessity of having to separately value each of the considerations relevant to buyers and sellers, because the market already has done so -- my task is simply to adjust for any relevant differences between the benchmark market and the market at issue here.

B. The Marketplace

I also understand that the willing buyer under this statutory standard is a webcasting service that seeks to make non-interactive transmissions of copyrighted sound recordings to consumers. The willing seller is an owner of copyrights in a single or multiple sound recordings, usually a record company. I further assume that no party has monopoly power, but that the owner of copyrighted sound recordings has, due to the nature of the copyright itself as a monopoly, a unique asset that is different from the bundle of sound recordings offered by other copyright owners.

I also assume that an individual webcaster will seek to obtain the best price that it can in the marketplace and that it might forego providing some digital music services if others are more profitable. Similarly, an individual record company will try to maximize profits across all of its various revenue streams. Such behavior is consistent with the concept of a willing seller of a differentiated product in a competitive market. Thus, for example, the willing seller might set a higher rate in a market than it otherwise would, if sales in that market would substitute for more profitable sales in a different market.

I also assume that both the willing buyer and willing seller in this hypothetical marketplace are commercial entities fully motivated to maximize profits. "Sellers expect to make a profit and will extract from the market what they can, just as buyers will do everything in their power to get the product at the lowest possible price." *Determination* *of Reasonable Rates and Terms for the Digital Performance of Sound Recordings and Ephemeral Recordings*, 67 Fed. Reg. 45,240, 45,245 (July 8, 2002) ("67 Fed. Reg. 45,240"). Thus, I do not attempt to set separate rates for noncommercial entities or hobbyists that are not seeking to maximize profit, or even those small webcasters that may be unable to survive without the benefit of a below-market statutory license. As the Librarian has explained, the willing buyer/willing seller standard requires the setting of rates "that a willing buyer and willing seller would have agreed upon in a hypothetical marketplace that was not constrained by a compulsory license." *Id.* at 45,244.

That a rate might cause consolidation in the marketplace for webcasting is neither a bad nor a good thing. It is, however, the way that a free market economy functions. Firms in a free market are free to thrive and free to fail. Almost all markets go through constant changes as firms enter and exit the business. Indeed, a rate that is set too low may have serious economic dangers. By setting the rate too low, inefficient entry may be encouraged, and inefficient levels of production will be encouraged, which can hinder the development of an efficient market. It is also worth noting that setting the statutory rate too high will not necessarily be harmful to the market. If the price is too high, parties can (and are almost certain to) negotiate agreements for rates lower than the statutory standard. Thus, a rate set too high is likely to "self-adjust" because of the sellers' natural incentive to meet the market. But a rate set too low will create permanent distortion because there is no incentive for the buyers to pay extra -- they may obtain the product at the lower rate without any market correction.

C. *The Product*

In evaluating this market, I have understood the product at issue to be a blanket license from a record company "which allows use of that company's complete repertoire of sound recordings." 67 Fed. Reg. 45,240, 45,244. This license includes only a license for the sound recording copyright, not the separate musical works copyright. It is worth noting that this is not necessarily the equilibrium that a free market would have reached. Willing sellers may have refused to license certain sound recordings (for any of a number of reasons), may have required premium payments for certain sound recordings, or may have held back some sound recordings from widespread distribution in order to offer exclusive deals to a single music service.

I also understand the product to be offered to be a license for non-interactive (as that term is defined in the statute) webcasting, including the right to provide such a service through the making of multiple ephemeral copies used to facilitate transmissions and performing copyrighted sound recordings through digital audio transmissions. Although there are two separate rights at issue (reproduction and performance), each with independent value, I have not sought to quantify them separately in this report. It appears that, in the current marketplace, parties negotiate for a single rate to encompass both the public performance and the reproduction rights.

Finally, I am aware that there may be disputes between record companies and webcasters concerning the definition of "non-interactive" under the statute and thus disputes over the scope of services that fall inside and outside the statutory license. I take no position on that legal issue. For purposes of this analysis, I have presumed that non-interactive webcasting does not permit any form of user input to "customize" particular stations. As noted below, to the extent that the statutory license allows any degree of customization, its value would almost certainly increase and the royalty would have to increase as well.

IV. NEGOTIATED RATES FROM SIMILAR MARKETS SHOULD BE USED AS THE BENCHMARK FOR THE COMPULSORY LICENSE

In the discussion below, I will describe the nature of the supply and demand side of the hypothetical market for blanket licenses to use copyrighted sound recordings. Although the market is hypothetical, the participants are not, and it is possible to gain a very good understanding of the likely behavior of the participants were it not for the compulsory license. By looking carefully at the characteristics of the music services offered in the market, I have been able to derive proposed fee levels and a rate structure for the compulsory licenses that should closely approximate the result of a market negotiation between willing buyers and willing sellers.

I recommend that the Copyright Royalty Board adopt compulsory license fees for non-interactive digital audio transmissions ("NI-DATs") derived from current market negotiated rates for copyright licenses used by music services providing interactive digital audio transmissions (interactive DATs). These benchmarks can be used for the compulsory fee after adjusting for the different characteristics of the two markets. I believe that benchmarking is superior to other approaches that might be proposed in this proceeding or to techniques that economists have used in other contexts. The reason for this is that there are reliable, comprehensive, and statistically meaningful data available on negotiated prices in the market for interactive DATs, which is nearly identical to the "hypothetical" market for NI-DATs in virtually all respects. As discussed below, where there are differences between the two markets, it is possible to adjust the royalty rates for these differences using basic economic principles. This will minimize the complexity of the modeling used to develop the compulsory fee and make it much easier to focus the analytical efforts and identify a range of reasonableness for the compulsory fee.

In this section, I will explain the rationale for using prices from benchmark transactions to set the compulsory fees. Then, I will explain my choice of the benchmark. Finally, I will discuss other approaches to setting the rate for NI-DATs that I have considered and rejected.

A. *Benchmark Rates Satisfy the Willing Buyer/Willing Seller Standard*

In its prior decision, the CARP recognized the superiority of actual marketplace agreements as a benchmark for the compulsory fees:

> The Panel believes that the quest to derive rates which would have been negotiated in the hypothetical willing buyer/willing seller marketplace is best based on a review of actual marketplace agreements, if they involve comparable rights and comparable circumstances.

In re Rate Setting for Digital Performance Right in Sound Recordings and Ephemeral Recordings, No. 2000-9 CARP DTRA 1&2, slip op. at 43 (CARP Feb. 20, 2002) (Report of the Copyright Arbitration Royalty Panel to the Librarian of Congress) ("*CARP I*").

As the CARP explained, the use of benchmark agreements is invited by the statute and supported by the reasoning that "because … it is extraordinarily difficult to predict marketplace results from purely theoretical premises, it is clearly safer to rely upon the outcomes of actual negotiations than upon academic predictions of rates those negotiations might produce." *Id.*

The use of benchmark rates solves many of the informational and conceptual problems associated with trying to predict the outcome of an unobserved or "hypothetical" market. A market brings together buyers and sellers and "solves the equations" that specify the willingness of these parties to engage in a transaction at a particular price. The buyers' equation consists of the sum of the willingness to pay of all of the existing and potential customers of a service. Their willingness to pay is dependent, among other things, upon the characteristics of the service, the income of the customers, and the prices of substitutes and complements to the service. The willingness of a seller to offer a service at a particular price is in large measure a function of its costs, the effect of sales of one service on sales of other services sold by the same company, and the intensity of competition in the marketplace both in the short and long run.

In the absence of a benchmark, the Board would need to weigh all of these factors and estimate their numerous and complex interactions and interdependencies. For example, if there were no data from markets where sound recordings were transmitted on the Internet, it would be very hard to estimate from the prices paid in other markets how much consumers would value this functionality. Consequently, it would be very hard to estimate the willingness of an Internet music service to pay for the right to play particular sound recordings, since this is derived from the underlying consumer demand for the music service. Use of a benchmark provides us with a shortcut through most of this analytical and informational thicket and creates a solid foundation for setting the compulsory fee for NI-DATs. It avoids the complexity of analyzing numerous factors in the market, and allows us to focus on only those few factors required to adjust from the known voluntary rates to the statutory rates.

Benchmarks are used in other situations, such as where government agencies set prices in an attempt to emulate the functioning of a competitive marketplace. When tasked with the job of setting regulated rates for cable television not subject to effective competition, the FCC adopted a benchmark approach that simulated the rates that would be charged by comparable cable systems subject to effective competition.[5] The FCC has also relied on benchmarking in setting rates and judging practices of regulated telephone companies, stating that the alternatives to benchmarking are "more intrusive and costly methods of regulation."[6]

B. Contracts for Interactive Digital Audio Transmissions Are the Best Benchmark for the Compulsory NI-DAT Fees

The goal in this proceeding is to set a blanket compulsory license fee for the use of copyrighted sound recordings for non-interactive digital audio transmissions for both subscription and non-subscription services. As the last CARP recognized, if there were negotiated agreements between webcasters and the major copyright owners of sound recordings for the precise types of services at issue, such agreements would likely provide the best available benchmark for setting the market rate. Absent such agreements (and I am informed that no major record label has entered into an agreement for non-interactive webcasting, other than to restate the current rate), the first issue is to determine the most closely analogous market that provides the best benchmark for the market at issue.

---

[5] *In re Implementation of Section of the Cable Television Consumer Protection and Competition Act of 1992 Rate Regulation*, 8 F.C.C.R. 5631 (1993) ("*Rate Order*").
[6] *In re Applications of AMERITECH Corp., Transferor and SBC Communications Inc., Transferee*, 14 F.C.C.R. 14,712, ¶ 58 (1999).

Prices in a candidate market will serve as a good benchmark for price-setting in the target market if three conditions are met. First, the candidate market must have similar characteristics to the target market. Second, information on prices in the candidate market must be available and statistically valid. Third, it must be possible to adjust the prices in the candidate market for any major differences between the two markets. Based on my analysis of conditions in the market for interactive DATs and NI-DATs, I believe that all of these conditions are met and the use of this benchmark will generate a compulsory license fee that meets the statutory standard and is consistent with well-established economic principles.

1. Common Characteristics of the Benchmark and Target Markets

The following characteristics are common to both the non-interactive and interactive markets:

1. Similar buyers: The buyers and sellers in these markets are essentially the same -- Internet music services and sound recording copyright owners. Indeed, many of the major buyers in the two markets are the same companies. Music services, such as AOL, Yahoo! and Real Networks, have obtained copyright licenses (directly or through third-party providers such as MusicNet) for interactive DATs from all of the major record companies. These companies also use the compulsory blanket licenses on NI-DATs in order to offer a full range of service options to their customers.
2. Similar sellers: Owners of copyrights in sound recordings are the sellers in both markets. The vast majority of the market for sound recordings results from the

sales of the four major recording companies. Those companies have entered into contracts for interactive DATs and also are compelled to license their sound recordings under the statute at issue in this proceeding. Their willingness to license music in these two markets is affected by similar factors, including the effect that licensing a music service has on other revenue streams, such as the sale of CDs or the receipt of license fees from other types of music services.

3. Similar products: In both the interactive and non-interactive markets, the product being delivered to consumers at any given moment is essentially identical -- a digital audio transmission of a sound recording. The primary difference derives from whether the consumer selects the sound recording or the webcaster selects it.

4. Similar experience for the consumer: Consumers of interactive and non-interactive music services experience service offerings that are identical with respect to most features, including: the types of equipment needed or optimized for listening to music over those services (a computer, broadband access, etc.), the place where the services can be received (generally through a home computer), the range of titles, the option to receive commercial-free service (although non-subscription NI-DAT services have commercials, subscription NI-DAT services generally do not), and information about the songs played. Each service allows the user to listen to music, but not to keep a permanent copy. The commonality of the music experience and the similarity of the transaction allow us to draw inferences about the underlying value of the non-interactive license to the buyers.

2. Abundant and Robust Pricing Data Are Available

The second necessary condition for a good benchmark is that reliable and statistically valid data must be available on transactions in the candidate market. This condition is easily satisfied for the interactive DAT market. I have been given access to contracts between all four major record companies and the music services providing interactive services. These contracts state the terms and conditions of the transactions. Prices are stated explicitly in the contracts, and for the most part they can be easily summarized and compared across different companies. Also, as I will explain in greater detail in Section 5 below, the statistical properties of the data are very good and allow for strong inferences to be drawn about the level of prices in the market as a whole.

3. Few Differences Exist Between the Benchmark and Target Markets

1. Interactivity: There is one major difference between the benchmark and the target markets. The benchmark music services give the listener the ability to choose which titles to listen to at any point in time. All of the major music services that I have relied on for benchmarking provide their customers with a large music library from which they can select songs, build playlists, customize their listening experience (e.g., shuffling or repeating songs), or use various programming aids to identify and select music titles. By contrast, the music services that adhere to the requirements of the compulsory license stream music on channels targeted to particular genres, themes, or eras. Listeners cannot select particular songs, but rather can pick from many sub-genres of music, which will be provided to them upon request. In Section VI below, I will

explain how I adjusted the benchmark music licenses to account for the restriction on interactivity contained in the compulsory license.

2. Tethered downloads: Most of the benchmark interactive music services give listeners the option to download music to their computer. These downloads are "conditional," which means that they will only play for as long as the customer subscribes to the service. I have not attempted to measure the value placed on conditional downloads to a fixed computer. Interactive music services do not charge consumers separately for the ability to receive tethered downloads, and I have found no evidence showing whether or by how much this option is separately valued by consumers. In part, it seems to be a benefit to the music services, which can save on Internet capacity by not having to stream music to customers whenever they listen to songs. Indeed, Yahoo! provides tethered downloads rather than on-demand streaming as the default option to their customers, which means that music is not streamed unless the customer actively selects this option. In any event, to the extent that tethered downloads provide some additional value to consumers, that value is already captured in the market price and therefore adjusted for in my analysis.

3. Portability: There are some interactive music services that offer users not only the ability to stream music to their computers and conditionally download such music, but also to transfer such conditional downloads to portable devices, such as certain mp3 players. This portability feature significantly changes the consumer experience. No longer are the users able to listen to music only over their personal computers; they can also take the music with them and listen to it wherever and whenever they want. It is clear that the market places a premium on such portability. Music services pay

significantly higher royalty rates for the portable (as opposed to non-portable) interactive DATs, and consumers generally pay more in the marketplace for such services.

Because of the significant difference in consumer experience, I have generally excluded such portable services as a relevant benchmark. Instead, in analyzing the benchmark market, I have focused on data available for those interactive DAT services that are non-portable, i.e., that prohibit consumers from transferring music from their computers and generally require consumers to listen to music over their personal computer or another home device. Such non-portable services are much closer to the market for non-interactive services.

4. Holdbacks: I have excluded from consideration one other difference between the licenses for the interactive DATs and the compulsory license for NI-DATs. The contracts for the interactive DATs are not blanket licenses. Rather, all of the record companies retain the right to withhold certain titles from the licensees for different purposes. As a result, listeners will not be able to play some or all titles of particular artists on demand. These holdback provisions may be the result of a popular artist's ability to control distribution of its music in digital form. For example, Rhapsody's online Frequently Asked Questions responds to "Why are some artists not listed on Rhapsody?" with "If you can't find certain artists in Rhapsody, we may not yet have the rights to offer their music."[7] The Beatles are an example of a band not available via on-demand streaming. By contrast, a user of a non-interactive service under the compulsory

[7] The complete response to the question is available on Rhapsody's Customer Support website at http://reclisten.custhelp.com/cgi-bin/reclisten.cfg/php/enduser/std_adp.php?p_faqid=134&p_created=&p_sid=IRp145Th&p_lva=1021574031&p_sp=&p_li=cF9zcmNoPTEmcF9zb3J0X2J5PSZwX2dyaWRzb3J0PSZwX3Jvd19jbnQ9NCZwX3Byb2RzPSZwX2NhdHM9JnBfcHY9JnBfY3Y9JnBfc2VhcmNoX3R5cGU9YW5zd2Vycy5zZWFyY2hfbmxmcF9wYWdlPTEmcF9zZWFyY2hfdGV4dD1iZWF0bGVz&p_prod_lvl1=&p_prod_lvl2=&tabName=&p_topview=1

license can listen to a "Beatles" station that plays a substantial number of Beatles songs (so long as it complies with the sound recording performance complement requirements). In other cases, the record company may exercise its right to hold back certain sound recordings in order to release that sound recording exclusively to one service or in one particular form (e.g., on CD, but not over an Internet music service).

The holdback provision in the negotiated contracts reduces the value of this license to the music services, because their subscribers will not be willing to pay as much for access to a music library that is missing some titles from the "shelves." Certainly the buyer of the license would be willing to pay to have access to all titles. This means that the benchmark license fees for interactive DATs are below the level that would be negotiated for a license without holdbacks. Since I have not made this adjustment, there is good reason to believe that my recommended rate for the compulsory license is conservative.

C. Other Possible Benchmarks Would Not Be Suitable

1. Rates for Copyrighted Musical Works

In the previous CARP proceeding, the music services proposed a fee for sound recordings derived from the fees charged by the performance rights organizations ("PROs") for public performances of copyrighted musical works. *CARP I* at 27-32, 40-42. They argued that since rights to the musical work and the sound recordings both were essential to public performances, it was reasonable to compare the fees paid for the two rights. Further, the music services claimed that the fees charged by the PROs should be expected to be greater than the appropriate compulsory fees for non-interactive DATs. *Id.*

The first response I have to this hypothesis is that it does not fit the facts. In several markets where the two copyright fees are negotiated freely among the parties, the license fees for the sound recordings are much higher than the license fees charged for the musical work.[8] The music services providing interactive DATs voluntarily agreed to license fees for sound recordings that are in the range of [40 to 50 percent of revenues.] By comparison, the fees paid for the right to perform musical works by interactive services are substantially less.[9]

These facts do not support the theory that the license fees for the two rights should be comparable. Rather, I believe that economic theory supports the notion that the fees paid to two key factors of production (such as the musical work and sound recording) do not necessarily bear any close relationship to each other. The primary reason for this is that the *ex ante* value of the two factors of production will depend on their scarcity value. To the extent that popular recording artists are "scarcer" than musical composers, the returns to the recording artists will be higher. By analogy, the profit shares of screenwriters, actors, and directors (all of whom are "essential" to production of a movie) will be very hard to predict based on a simple formula. The

---

[8] There is currently a dispute concerning the amount that PROs will be paid by interactive music services. Sarah McBride, "Music Royalty Talks Hit Impasse," *Wall St. Journal*, at B2 (Aug. 26, 2005). Although ASCAP at least has published rates for performance of musical works by interactive services, the dispute centers around whether a "mechanical" fee must be paid because a reproduction of a copyrighted musical work occurs in the transmission of an on-demand stream. According to published reports, the current dispute ranges from 6.9% (which the interactive services have offered) to 14% (which the PROs are requesting). Even under the highest amount that has been suggested by the PROs (and rejected by the interactive music services), the PROs would receive dramatically less than the sound recording copyright owner. In the only marketplace agreement for this type of license of which I am aware, the PROs provided a license to Streamwaves with a royalty rate that was the greater of 10% of revenue or $1.00 per subscriber. *See* September 21, 2001 press release, available at http://www.nmpa.org/pr/streamwaves.html. This again is far less than the copyright owners in sound recordings receive from interactive music services.

[9] Information about acquiring license fees from the three major publishing firms (ASCAP, BMI, and SESAC) for Internet webcasting is available at their respective websites: http://www.ascap.com/weblicense/license.html; http://www.bmi.com/licensing/webcaster; and http://www.sesac.com/licensing/internetLicensing.asp.

market will compensate a particular actor more than a director or screenwriter if attendance at the movie increases substantially when that actor plays the lead role. It would be improper to second guess the market and conclude that the compensation for actors, writers, and directors should be the same because all are needed to produce a movie.

2. Rates for Use of Sound Recordings for Customized Web Radio Broadcasts

Another possible benchmark for the NI-DAT fees is the fees negotiated for customized web radio services, which do not fall within the definition of a non-interactive service. There are, or at least have been, a number of custom web radio services that allow the user to interact with the radio station by rating the artists or songs or by controlling the play of music by pausing or repeating tracks. User interaction with these digital audio transmissions removes the service from eligibility for the compulsory license and requires the music service to negotiate licenses with the copyright holders to transmit the sound recordings to their customers.

Although the use of copyrighted music is similar between customized radio and NI-DATs, this does not mean that the license contracts for the customized radio services should serve as a benchmark for the compulsory fees set in this proceeding. The negotiated rates are not a good measure of a price that would emerge from a free and undistorted market where willing buyers and willing sellers were negotiating for the rights to use copyrighted sound recordings. Rather, for two reasons, the negotiations in this market are strongly influenced by the rates previously set by the CARP for NI-DATs.

First, at least one custom radio service has argued that its service falls within the scope of the current statutory rate for non-interactive services, and litigation is pending over this issue. To the extent there is uncertainty about whether a particular service falls inside or outside of the statutory rate, any negotiated agreement for the use of such music will be affected by the cloud of litigation. Second, even if the legal status of the custom radio services were perfectly clear, the fact that they are close substitutes for the non-interactive services means that their prices will be strongly influenced by the compulsory fees. If the copyright holders try to set a much higher price for a nonstatutory customized service, the music services will simply not offer these services but instead limit their offerings to ones that can be provided under the compulsory license. This has the effect of driving down the rates that a willing seller can negotiate for custom radio services; this effect would not exist in a truly free market. *See* Testimony of Mark Eisenberg at 17; Lawrence Kenswil at 12; Stephen Bryan at 13; and Ken Parks at 9.

3. Compulsory License Fees for Other Digital Music Services

Compulsory license fees have also been set under the provisions of the Copyright Act for "preexisting subscription services," such as residential subscription services providing music over digital cable or satellite television. *In re Determination of Statutory License Terms and Rates for Certain Digital Subscription Transmissions of Sound Recordings*, No. 96-5 CARP DSTRA (CARP Nov. 28, 1997); *In re Rate Adjustment for the Satellite Carrier Compulsory License*, No. 96-3 CARP-SRA (CARP Aug. 28, 1997) ("*Satellite CARP*"). These rates were not established in the free market. Moreover, the statutory standard under which such fees have been set is different than the "willing buyer-willing seller" standard that must be applied to the non-interactive music services at issue in this proceeding. Consequently, the license fees for these services cannot be used as a benchmark.

4. The Current Rates

The last possible benchmark is the current rates, which were originally set by the Librarian following the last CARP, but which were pushed forward, with some modifications, by both sides for 2003 and 2004. The agreement in 2003 and 2004 to extend these rates does not provide a useful benchmark. First, that agreement does not reflect a negotiation in a marketplace that is unconstrained by the statutory license, and therefore comes nowhere near meeting a "willing buyer/willing seller" standard.[10] Second, as explained in the Statement of John Simson, the agreement occurred during a period when the last CARP was still on appeal and it made little sense to re-litigate the same issues over again.

V. RECENT COPYRIGHT AGREEMENTS IN THE INTERACTIVE DIGITAL AUDIO TRANSMISSION MARKET

I have been provided with the contracts entered into between the four major recording companies (EMI, Warner Music Group, Universal Music Group, and Sony BMG) and the Internet music companies offering interactive music services. In the analysis below, I have focused on the contracts that are currently operating between willing buyers and willing sellers, with the exception of some contracts that are subject to restrictions that may affect their use in this proceeding. I have also excluded those

[10] *Cf. Satellite CARP*, slip op. at 30 (refusing to select a highly comparable service as the benchmark, in part, because "the compulsory rates prescribed under [that] section [ ] are not fair market rates and cannot be utilized as a benchmark for a fair market valuation").

contracts which are specifically limited to, for example, college students, rather than the general population.

A. Summary of Information Found in the Contracts

I have looked at approximately 40 contracts from the four major music studios that were executed between 2000 and 2005, covering uses of sound recordings during the period 2000 through 2006. [After looking at the major fee provisions of these agreements, I have found that they typically are structured in a similar manner. Nearly all include a "greater of" rate structure that establishes the fee owed to the record label as the maximum value calculated from a number of different formulas. The three most common components of these formulas are (i) the pro rata percentage of revenues, (ii) the price per track streamed on-demand by a single listener, and (iii) the pro rata share of the total fees paid each month by subscribers to the service.

The term "pro rata share" (in some contracts this notion is referred to as the "proportionate share") is used to refer to the ratio of the number tracks licensed by a specific music company that were streamed in a given time period (usually a month) to the total number of tracks streamed during that period. If, for instance, 25% of the tracks streamed to end users in a given month were owned by record company X, and the contract between that record company and the subscription service stipulates that music company X is entitled to the pro rata share of $3.00 per subscriber per month, the value generated by that equation would be $3.00 x 0.25 per subscriber, or $0.75 per subscriber.]

I have summarized the key contract terms of the current agreements between the four major music companies and the interactive DAT services in Table 1 of Appendix A.

For seventeen contracts currently in effect,[11] Table 1 lists the dates when the terms of each contract become effective and expire and the [values of the three] components of the rate structure stipulated in the contract. In addition, the average rate [for each of the three fees] is given at the bottom of the table.

B. Contrast Between Negotiated Contracts and Compulsory License

The negotiated contracts in the interactive market provide the parties with the same basic rights and obligations as the compulsory license (i.e., the right to stream music in exchange for the payment of royalties). The negotiated contracts, however, contain many additional provisions of value to copyright owners. These differences between the market licenses and the statutory license are presented and explained in the table below.

[11] Because the contract terms have changed over time, I restrict my analysis to the contracts currently in effect. The most recent agreements best represent the current market for interactive DAT services. [It is worth noting that the royalty rates for these services appear to be increasing somewhat over time.] Thus, to the extent that my analysis weights contracts signed two years ago the same as contracts signed recently, it is conservative.

Table 5.1: Differences Between Market Licenses and the Statutory License

Special Features of Contracts for Interactive Services	Explanation	Benefit to Copyright Holder	Comparison to Compulsory License
Regular contract does not allow music to be used on a mobile or portable device	The major music services pay substantially more for portability	Limits substitutability for paid downloads or CDs	Can be used for mobile streaming service without extra payment (currently)
Promotional Consideration	Agreements with music services contain detailed promotional provisions	These promotions are guaranteed and individually negotiated	Provides no special promotional benefits
Advances	Guaranteed substantial payments from licensee	Reduces risk of unsuccessful venture by licensee; ensures that negotiations are only with serious business partners	Provides no advances, other than low minimum fees, to copyright owners
Data Reports	Licensees provide detailed reports regarding royalties and consumers' usage of sound recordings	Enforcement of royalties; valuable information for business development purposes	Data reports contain only minimal information of limited use to copyright owners
Audit Rights	Annual right to review licensees' books and records; [5-10%] underpayment requires licensee to pay for audit	Allows proper enforcement of royalty obligations	Copyright owners do not have audit rights
Stream Security	Requires digital rights management software to protect against illegal or unauthorized downloads	Prevents/limits unauthorized copying or unpaid uses	Streams can be captured by end-user and converted to MP3 without payment of copyright fees
Holdbacks	Copyright holder reserves right to holdback some titles from licensees	Allows copyright holders to control release of music and obtain more revenue from sales of certain titles	Blanket license does not allow any music to be held back

As a general rule, these features in the voluntary agreements between the record companies and the music services are not incorporated into the statutory license. Because the statutory license lacks some of the types of consideration bargained for in the negotiated agreements, the royalty rate for the statutory license should be relatively higher as a result (compared to a rate derived from the benchmark agreements without accounting for the absence of this consideration). If copyright owners were to negotiate in the free market, one would expect them to license non-interactive services only if they received terms such as those noted in the table or if they received some other valuable consideration, such as a higher royalty rate.

I have not, however, sought to quantify the value of the additional consideration contained in the benchmark agreements and have not adjusted the benchmark rates to account for the absence of that consideration. Since I have not quantified that increase, the compulsory fee that I derive in the subsequent discussion is conservative (i.e., lower) than it otherwise would be.

VI. ADJUSTMENTS CAN BE MADE TO THE BENCHMARK FEES TO ESTABLISH RATES FOR THE COMPULSORY LICENSE

Selecting a benchmark is the first step in developing the proper copyright fee. As discussed above, the benchmark provides a useful starting point because it captures what a willing buyer and willing seller would agree to in the marketplace. The next step is to make appropriate adjustments to the fee to account for differences in the two markets -- in this case the interactive and non-interactive DAT markets.

A. Overview

Below I provide a more detailed discussion of the economics behind making some of the adjustments. An overview of the steps can be provided in simpler terms.

- First, I will consider what rate *structure* would likely be negotiated between willing buyers and sellers in the non-interactive DAT market, using the interactive DAT market as a benchmark. I conclude that the appropriate royalty is the greater of a per subscriber rate (where applicable), a percentage of revenue, and a per play rate.
- Second, I determine the relationship between the license fees and the prices charged to consumers in the market for interactive music services. I apply that ratio to the consumer prices in the market for non-interactive services in order to derive an appropriate license fee for that market. Before doing so, I adjust the consumer prices to ensure that those prices reflect only the difference in value resulting from the absence of interactive functions.
- Third, having made that adjustment, I then consider another potentially relevant difference between the two markets that affects the per play rate. Because of the more passive listening experience of non-interactive services, non-interactive services may be used more than interactive services. Although such differences have no impact on a per subscriber minimum or a percent of revenue calculation, they do have an impact on the per play rate. To account for this difference, I adjust the per play rate down (to the benefit of webcasters).
- Finally, I examine a fourth factor that may impact the royalty rates for the two different types of services -- the possibility that one may have a greater substitution impact on CD sales. Although I find no evidence to support such an impact, my

analysis demonstrates that, even if a significant differential substitution effect could be proven (e.g., even if interactive services replace two CD sales per year and non-interactive webcasting replaces none), a significant increase in the current statutory rate is warranted.

The approach described above has two virtues. First, it accounts for the observable differences between the two markets. In the last CARP proceeding, copyright owners submitted a variety of "corroborating" agreements to the Panel, but made no effort to explain their relevance or to adjust the royalty fees in those agreements to account for differences in the statutory license. This approach accounts for those differences and thus provides a reliable benchmark. Second, it is my view that this approach comports with the way that willing buyers and willing sellers would actually think about negotiating agreements in the marketplace. As explained in the testimony of Stephen Bryan at 10-11, record companies use existing agreements in closely analogous markets as benchmarks in evaluating the proper copyright fee in other markets. They also seek to account for differences in functionality (such as portability) that may increase or lower the appropriate price. And they also consider the impact that a particular service may have on other revenue streams through substitution. Thus, I believe my analysis accurately captures the thinking of the willing buyer and willing seller and provides a reasonable approximation of the fee that would be negotiated in the marketplace.

B. *Derivation of a Rate Structure for the Non-Interactive Market*

In order to create a fee structure for the compulsory license, I propose adopting [the same structure found in the market for interactive DATs. As discussed above and shown in Table 6.1 below, the agreements negotiated in the market for interactive music services almost universally contain] a three-part fee structure which requires the music service to pay the greater of (i) a fixed percentage of revenue, (ii) a per subscriber fee, or (iii) a per play fee. [This "greater of" formula is well-established in the market and used in the vast majority of interactive DAT contracts.]

In my opinion, it is essential to adopt this parallel rate structure for the compulsory license fee, because it is the only way to capture the willing buyers' and willing sellers' recognition of the uncertainty about marketplace developments over the next several years. [Also, it is the only way to capture all of the factors that the parties to these negotiations took into consideration.]

The holders of the copyrights in sound recordings face significant uncertainty as to the way in which their sound recordings will be used. The number of plays, the popularity and vintage of the recordings played, and the value of the music services to the customers are all difficult to predict well in advance of the end point of the contract. [In the interactive market, the record companies have chosen to protect themselves against the risk of giving away more than they bargained for by using this three-part "greater of" fee structure.]

Through the percentage of revenue, the record companies ensure that they will receive a share of royalties that properly compensates them for their valuable copyrighted material, [in the event that the interactive services become big money makers.] The per play and per subscriber minima protect the record companies from significant use of their music that is priced at below-market prices to consumers (either because prices are not at a long run equilibrium or because a music service wants to attract consumers to its site with low prices so that it can earn a profit from the consumer in other ways, e.g., selling the consumer non-music products and services). For example, Yahoo! has priced its music services well below its competitors' rates in order to attract customers to its portal.[12] The per play and per subscriber components of the fee structure protect record companies in such situations.

[In considering a fee structure for non-interactive digital audio transmissions, it makes sense to look to this three-part structure. The same uncertainties that exist in the market for interactive services also exist in the non-interactive market; indeed there are even more uncertainties for the record companies because, with the compulsory license, they cannot choose their business partners as they do in the market for interactive services. For instance, a record company cannot refuse to license a service with poor credit or a history of noncompliance with license conditions. Moreover, because both the record companies and the interactive services (which are often the major players in the non-interactive services market) have accepted this rate structure, it is a very good reflection of what a willing buyer and willing seller would agree to in a free market.]

Because [the marketplace evidence for this three-part "greater of" rate structure is so clear, and because] the business justification for this structure is so compelling, it should be adopted as the rate structure for the statutory license. It would not be proper to cherry-pick only one or two elements of the three-part rate structure without analyzing

[12] *See* interview with Dave Goldberg, a Vice President and GM at Yahoo!, Inc. from May 10, 2005 available at www.paidcontent.org/pc/arch/2005_05_10.shtml#013667. I understand that Yahoo! recently raised its prices to bring those prices in line with those of its competitors.

and potentially adjusting the applicable rates. [The willing buyers and willing sellers have entered into numerous contracts that required tradeoffs of overall price levels for greater protection from uncertainty. Removing one element that is the norm in such closely analogous services would unravel the complex set of factors that affected the negotiations, and undoubtedly would change the underlying rates. If one element of the negotiated rate structure was removed, this would reduce the protection that the willing seller bargained for, which would almost certainly require an increase in the rates for the remaining elements of the rate structure.]

In the sections that follow, I will discuss how to derive from the contracts in the interactive market the rate in the non-interactive market for each of the three elements of this fee structure, beginning with the per subscriber rate. The adjustments to the interactive market rates proposed below have meaning primarily in the context of this rate structure. If the Board were to select a different rate structure, different adjustments would be appropriate.

C. *Derivation of a Per Subscriber Rate*

Common sense suggests that if willing buyers and willing sellers agreed to a royalty rate in the market for interactive music services, and if the value to consumers of non-interactive services is, for example, 25% lower than the value to consumers of interactive music services, a market-based royalty rate for non-interactive services ought to be 25% of the royalty rate set in the interactive market. Common sense is, in this case, essentially correct. The economic theory which demonstrates the conditions under which this is true, however, requires some explanation. In the following sections, I will provide that explanation and outline the adjustments I have made in order to derive royalty rates in the non-interactive market from the rates freely negotiated in the interactive market.

[As previously discussed, the agreements negotiated in the interactive market universally incorporate a tripartite fee structure under which royalty payments are the greater of a percentage of revenue rate, a per subscriber rate, and a per play rate.] I will begin by deriving the per subscriber rate for non-interactive services, and in later sections will separately derive the percentage of revenue rate and the per play rate.

1. Calculating the Ratio of License Fee to Consumer Price

We can observe in the market the subscription prices charged to consumers for interactive music services, and we can extract from the agreements between record companies and interactive music services the per subscriber royalty rate to which the parties in that market agreed. Simple math allows us to calculate the ratio between the amount of the average price charged to subscribers by music services, and the amount of the average per subscriber royalty paid by music services to record companies.

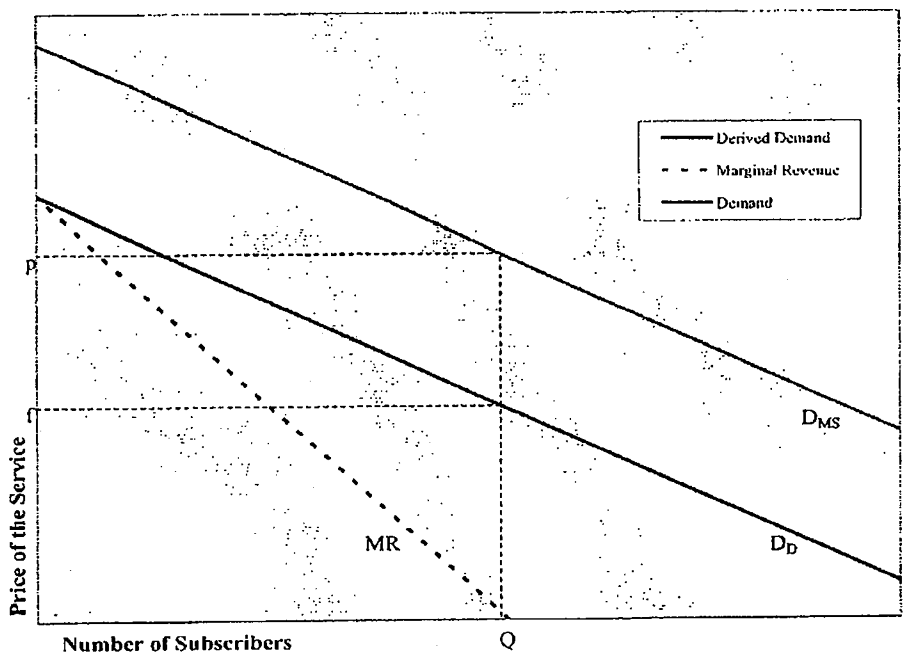
We also can observe in the market the average subscription price charged to consumers for subscriptions to non-interactive music services. If we assume that the ratio of subscription price to per subscriber royalty is the same in both the interactive and non-interactive markets, we can then calculate what the per subscriber royalty rate should be in the non-interactive market. For example, if the average subscription price paid by consumers for an interactive music service is $9 per month, and the average per subscriber royalty paid to a record company is $3 per subscriber (a 3-to-1 ratio), then we can predict that the per subscriber royalty that would be negotiated in the non-interactive market would be $1 per subscriber if the average monthly subscription price charged to consumers for non-interactive services is $3 per month.

The key to this analysis, of course, is the assumption that the ratio of consumer price to royalty rate would be the same in both markets if the royalty rate were freely negotiated. I believe this assumption is correct because the sensitivity of demand to changes in price (i.e., demand elasticity) in both markets is likely to be very similar.

To understand why this is so requires a basic understanding of how prices are set for information goods in a free market. For these types of goods, or for other goods with very low marginal cost, prices are set as a function of demand and demand elasticity. Elasticity of demand refers to the effect that changing price has on the quantity sold. The more elastic the demand, the more the percentage of quantity sold diminishes as the percentage of price is raised.

In Figure 1, I have drawn the demand curve for the interactive music services, which is labeled as D_{MS}. I measure output in the industry as the number of subscribers. Therefore, the horizontal axis measures number of subscribers and the vertical axis measures monthly subscription price per subscriber. Demand is downward sloping, which is the nature of virtually all markets. (For exposition purposes, I am using a linear demand curve.)

Figure 1: Derived Demand Curve for Interactive Music Services



From the demand curve for interactive music services, one can derive the demand curve for copyrighted sound recordings. This type of demand curve is referred to in economics as a "derived demand," because it is the demand for an input in a production process, and is derived from the underlying demand for the product or service sold to consumers. It is particularly apt in this context, because sound recordings are an essential and non-substitutable input for music services. In economic parlance, interactive music services have a "fixed-proportions production function," meaning that every "unit" of output sold to a consumer requires a "unit" of input bought from the record companies.

As a consequence, music services cannot substitute away from the copyrighted music as its price increases.[13]

On Figure 1, the line beneath D_{MS}, which is labeled as D_D, is the derived demand for the copyright license. This is the demand by the music services for a license to play copyrighted music, where the license fee is paid on a per subscriber basis. I have drawn the derived demand curve parallel to the demand curve for music services for two reasons. First, as discussed above, sound recordings are a non-substitutable input for music services -- thus, a change of one unit in the demand for music services results in a change of one unit in the demand for copyrighted material. Second, I assume that any change in the copyright fee is passed on dollar-for-dollar to consumers. This is the normal assumption in a competitive market with constant average and marginal cost. The distance between the two demand curves is the amount that would cover the other production costs of the music services, including a reasonable profit margin. In other words, the demand by music services for copyrighted music is essentially the same as the

---

[13] That consumer demand (and thus consumer price) should provide important information about the value of an underlying fixed factor also is a relatively basic concept. The value of interactive and non-interactive music services is a direct function of the music itself. This has been recognized in the context of licensing of musical works:

> What retail customers pay to receive the product or service in question (in this case, recorded music) seems to us to be an excellent indicator of its fair market value. While in some instances there may be reason to approximate fair market value on the basis of something other than the prices paid by consumers, in the absence of factors suggesting a different measure the price willing buyers and willing sellers agree to in arm's length transactions appears to be the best measure.
>
> It is true without doubt that to make the music available to its customers, the retail seller must incur expenses for various processes and services not provided by the owner of the music . . . . However, this is in no way incompatible with the proposition that retail revenues derived from the sale of the music fairly measure the value of the music. The customer pays the retail price because the customer wants the music, not because the customer wants to finance the laying of cable or the launching of satellites.

United States v. Broadcast Music, Inc., 316 F.3d 189, 195 (2d Cir. 2003) (footnote and citation omitted).

consumers' demand for music services using that work, less the music services' costs of production (other than the copyright fee itself) and a reasonable profit.

Thus, at any given level of output, the price point on the derived demand curve is the amount the music services are willing to pay for the license, while the price point on the demand curve for the music service is the amount that subscribers are willing to pay for the service. From these demand curves we can show how prices in the market will be set.

The line drawn in Figure 1, labeled as MR, is the marginal revenue curve of the derived demand curve. Marginal revenue is the change in revenue with respect to a change in output. As output increases, customers' willingness to pay declines, i.e., market price declines, and the revenue collected from all units sold in the market will fall. This is the reason why the marginal revenue curve is more steeply sloped than the demand curve. Standard economic theory shows that a firm will maximize profit at the level of output where marginal revenue equals marginal cost. In this market, there arguably is little or no marginal cost for the record companies associated with extending the copyright license to an additional subscriber. Therefore, the optimal price of the license from the copyright holder's standpoint is where marginal revenue is zero, i.e., where it crosses the horizontal axis. The level of output where this is achieved is labeled in Figure 1 as Q. Corresponding to this equilibrium level of output, the equilibrium license fee is labeled as "f." And the corresponding price that consumers will pay to the music service at this output level is labeled as "p."

If the same graph was drawn to depict optimum pricing of the copyright royalty fee in the market for non-interactive music services, the demand curves would appear somewhat lower on the graph. I believe that it is reasonable to assume that the demand elasticity in the interactive and non-interactive markets would be very close in the relevant range of the demand curves.[14] Thus, the consumer demand curve and the derived demand curve in the non-interactive market would have essentially the same relationship to each other as the corresponding demand curves in the interactive market. Setting the optimum price for the license fee and observing the resulting price to consumers based on these demand curves, in the same manner that I described above, would yield an equilibrium license fee and a corresponding consumer price that would be lower than the prices in the interactive market (because the demand curves are lower).

The conclusion that the ratio of license fee to consumer price is the same in both the interactive and non-interactive markets allows us to derive an appropriate market-based license fee for the non-interactive market. As shown in Table 1 of Appendix A, the average per subscriber copyright fee in the interactive market is [$2.97] (corresponding to "f" on Figure 1). Furthermore, the average retail monthly subscription price is $8.69 on a month-to-month contract and $7.88 on an annual contract. *See* Table 2 in Appendix A. The average monthly subscription price, therefore, is $8.29 per month (i.e., ($8.69 + $7.88)/2 = $8.29) (corresponding to "p" on Figure 1). The ratio of the fee to the average

[14] Although there are many factors that can influence demand in this market, it is reasonable that the two services, which are nearly identical in virtually all respects save one, would have similar demand elasticities. At bottom, the music services are selling the same sound recordings in both markets, and it is therefore entirely logical that demand elasticity is very similar. Confirming this, there is a great deal of evidence in the marketplace (based on agreements between the major record labels and a wide variety of digital music services) that record companies receive a similar (though not identical) percentage of the retail prices of services the sell this copyrighted material. That is further evidence that the demand elasticities of similar music services should be relatively close in value. Note that this assumption neither redounds to the benefit of the record company or to the services. If demand elasticity were to differ significantly between the two markets, it could increase the copyright fee or decrease it.

monthly subscription price is approximately [36% ($2.97/$8.29 = 0.36)].[15] Knowing the ratio of license fee to consumer price is [36%] in the interactive market, we can apply that same ratio to solve for the license fee in the non-interactive market if we know what subscription price is charged to consumers in the non-interactive market.

2. Calculating the Value of Interactivity

Subscription prices for non-interactive services exist in the current marketplace. However, those prices may reflect differences between interactive and non-interactive services beyond merely the presence or absence of interactivity. Factors such as sound quality and the number of channels offered might account for, or at least influence, the difference in the subscription rates observed in the market for interactive and non-interactive music services. For the purpose of this analysis, we want to use a subscription price that reflects only the absence of interactivity. It is the presence or absence of interactivity which determines whether the use of a copyrighted digital sound recording falls within the statutory license. And for that reason, the foregoing analysis of how prices would be set based on demand elasticity posited demand curves where the difference in demand resulted from the value of interactivity. Stated differently, if we are going to use the interactive market as our benchmark for setting fees in the non-interactive market, we should compare apples-to-apples -- that is, we should compare based on services that are highly similar except for interactivity.

I used two methods to compute the effect of non-interactivity on the demand (and therefore the price) for music subscriptions. First, I conducted an econometric analysis of demand in order to estimate the added value obtained by consumers from "interactivity."

[15] The correct number is actually [0.358.] Decimals are carried throughout the calculations made in this paper, but are rounded in the text.

Second, I estimated the simple average difference in retail rates for the music services that offer service in both markets, i.e., a non-interactive, radio-type service and an interactive on-demand service. The results of the regression and the simple average provide an adjustment factor for transposing the market-determined interactive DAT copyright fees to the non-interactive market.

I used a hedonic demand model to isolate the value of interactivity to consumers of online music services. The nature of a hedonic model is to use

> measures of the quality of a product as independent variables instead of measures of the market for that product... Hedonic models are most useful when the product being analyzed is heterogeneous in nature because we need to analyze *what causes products to be different and therefore to have different prices.*[16]

The model used data on different music services, and estimated the effects on prices of the several variables, including: the number of radio stations; interactivity; ability to download to portable device; and sound quality. The results of the model are summarized in Table 6.1 below.

[16] A.H. Studenmund, *Using Econometrics*, Fourth Edition, 2001, at 404 (emphasis added).

Table 6.1. Regression of Subscription Price on Service Characteristics

Dependent Variable: Logarithm of Monthly Price

Variable	Coefficient	Standard Error	T-Value
Intercept	1.74	0.13	13.06
Log(No. Radio Stations)	-0.08	0.07	-1.17
Square of Log(No. of Radio Stations)	0.009	0.008	1.02
Interactivity	0.60	0.13	4.5
Download to Portable Device	0.48	0.19	2.57
Sound Quality	-0.34	0.38	-0.88

No. of Observations: 30

Adjusted R-Squared: 0.71

Note: Regression also included dummy variables for Digitally Imported's service and BellSouth's 1.99 Webtunes Gold service.

The key result is the coefficient on interactivity, 0.60, which is significant at the 99% confidence level. The interpretation of this coefficient is that interactivity raises the price of an online music service by 60% above the level of a non-interactive service that is identical in every other respect. An equivalent way of stating this result is that the ratio of the price of a non-interactive service to a comparable interactive service is 0.63.[17]

A simple "apples-to-apples" comparison of the major online music services' offerings yields a similar adjustment. As shown in Table 6.2, the simple average of the ratio of the prices of the non-interactive to the interactive options of the major music services is between 0.53 and 0.60 (depending on whether monthly or annual subscriptions are compared).

---

[17] If the price of the non-interactive service were $1.00, then the regression would predict that the price of the interactive service would be $1.60. The ratio of the two prices 1.00 ÷ 1.60 is 0.63.

Table 6.2. Comparison of the Subscription Price of Internet Radio vs. On-Demand Service

Row	Music Service	Monthly Subscription Price	Annual Subscription Price
(1)	Yahoo!'s LaunchCast Plus	$3.99	$2.99
(2)	Y! Music Unlimited	$6.99	$4.99
(3)	Ratio of (1) to (2)	0.57	0.60
(1)	MusicMatch Gold	$4.95	$2.95
(2)	MusicMatch On Demand	$6.99	$4.99
(3)	Ratio of (1) to (2)	0.71	0.59
(1)	Rhapsody Radio	$4.99	$3.33
(2)	Rhapsody Unlimited	$9.99	$8.33
(3)	Ratio of (1) to (2)	0.50	0.40
(1)	Radio Free Virgin Royal	4.95	NA
(2)	Virgin Digital	7.99	NA
(3)	Ratio of (1) to (2)	0.62	NA
	Average of Ratios	0.60	0.53

Notes:
LaunchCast includes customized features that may fall outside the compulsory license.
Source: Prices listed on the Internet for these services as of 10/21/05.

These two methods to determine the value of interactivity yield a factor ranging from .53 to .63 of the fees in the interactive market. I propose using an adjustment factor of .55, which is toward the lower end of this range. This adjustment factor should be interpreted as the amount by which the observed per subscriber fees for the interactive DAT market should be multiplied to yield the compulsory license fees for NI-DATs.

3. Calculating the Per Subscriber Fee

I can now recommend an appropriate compulsory license fee, on a per subscriber basis, for subscription non-interactive DAT services. I believe that it is appropriate to adjust the per subscriber fee in the interactive DAT market to a corresponding per subscriber fee in the non-interactive DAT market using the demand adjustment factor to determine the appropriate consumer subscription price in the non-interactive market and then applying the same ratio of license fee to subscription price that exists in the interactive DAT market.

As shown in Table 2 in Appendix A, the average retail monthly subscription price for subscription interactive DAT services is $8.69 on a month-to-month contract and $7.88 on an annual contract, yielding an overall average fee of $8.29 per month. If we apply the adjustment factor calculated above of .55, the subscription price for a non-interactive service that is in all other respects comparable to the interactive services is $4.56 per month. The analysis at the outset of this section showing that per subscriber license fees in the interactive market are [36%] of the subscriber price yields a calculation that the fee which would be negotiated between a willing buyer and willing seller in the market for NI- DATs is [$1.63 per subscriber (i.e., $4.56 x 36%).]

This analysis is conservative in several respects. First, because I calculated the ratio of license fee to consumer price in the interactive market using per subscriber minima from a range of contracts entered into over a three-year period, rather than only the most recent contracts, the fee ratio will not reflect the fact that, in many cases, the per subscriber minima is increasing in more recent agreements. Second, the preceding analysis applies the [36%] factor while assuming the subscription price in the non-interactive market will remain unchanged. In reality, this is a very conservative assumption, because it is likely that the copyright fee increase will be passed on to consumers.[18] Third, many of the interactive DAT services include, with the purchase price, access to non-interactive DAT services such as those at issue in this proceeding. To the extent that subscribers to the interactive DAT services use their non-interactive components extensively, the adjustment factor I have developed above may greatly understate the value of non-interactive services and the value of copyright licenses necessary to provide those non-interactive music services. In short, the ratio of the fee to the price used for this analysis may be too low, and the consumer subscription price used for this analysis may likewise be too low. A higher ratio applied to a higher consumer price would, of course, yield a higher per subscriber license fee.

D. *Derivation of a Percentage of Revenue Rate*

When it comes to setting the percentage fee for the non-interactive market, there are two choices. The first is to import the actual percentage of revenue fee observed in the contracts in the interactive market -- [typically 40% or more.] This would be reasonable, in my opinion. If, as I have said, the ratio of the license fee to the subscription price charged to consumers is the same in the interactive and non-interactive markets, the same percentage of revenue fee would be charged in both markets. That is because the actual amount paid on a percentage of revenue basis would be self-correcting, i.e., if the consumer demand for non-interactive music services is lower than the consumer demand for interactive services, the non-interactive music services will

[18] For the reasons discussed in section VI.F.1 of my testimony, the prices charged to consumers in the market for non-interactive services may affect the prices charged in the market for interactive music services. An increase in the subscription price for non-interactive services may allow music services to raise subscription prices by some degree in the interactive market.

earn less revenue and the license fee paid to record companies, in absolute dollars, will decrease by a commensurate amount.

Thus, there is a good argument that the percentage of revenue applied in the interactive market should simply be adopted for the non-interactive market. A more conservative approach, however, would be to derive the percentage of revenue fee based on the ratio of the per subscription fees to the retail price. As stated above, the per subscriber license fee is [$1.63] and the average monthly subscription price is $4.56, resulting in a percentage of revenue of [36%.] To be conservative, I propose using [36%] for the percentage of revenue component of the compulsory license.

E. Derivation of a Per Play Rate

The third component in the fee structure is the price per play. [The agreements negotiated in the market for interactive services uniformly contain a per play rate of 1¢ per play. *See* Table 1 of Appendix A. It is my understanding that the per play rate in interactive DAT contracts would yield payments well below the amounts actually paid in the interactive market. Because of the "greater of" fee structure in the interactive market contracts, music services generally pay under one of the other two components of the fee structure, and the per play rate of 1¢ is rarely used. Indeed, the actual amounts paid under these contracts would, if converted to a per play rate, yield an effective per play rate of 2¢ per play or more -- 200% of the actual per play rate in the contracts. *See* Testimony of Lawrence Kenswil at 16; Stephen Bryan at 19; and Ken Parks at 13.]

Applying the methodology employed earlier, it is appropriate to set the per play rate for the non-interactive market by maintaining in that market the same ratio of license fee to consumer subscription price that exists in the interactive market. Since I have determined that value to consumers of a non-interactive service is 55% of the value of an interactive service, in order to maintain the same ratio of license fee to consumer subscription price employed in earlier sections of my testimony, [the 1¢ per play rate must be multiplied by .55. This will generate a per play rate for the third element of the three part fee of $.0055.]

There is an alternative market outcome, however. Evidence exists indicating that use of non-interactive services by subscribers or users is greater than the use made of interactive services. That is, users of non-interactive services may on average spend more time listening to music on the service, and therefore on average may listen to more "plays," than subscribers to interactive services. If so, the per play fee could become the predominant basis for calculating license fees because (contrary to the experience in the interactive market) it might produce revenues higher than those that would be generated under the percentage of revenue or per subscriber fees.

Under these circumstances, it is possible that the music services might seek to negotiate a different per play rate in a free market. As I noted earlier, the per play fee and per subscriber fee protect the copyright owner in the event that the music service prices its services below market (*see* Section VI.B for a fuller discussion). In the non-interactive market, where many of the music services are non-subscription services, this protection must be supplied by the per play rate. [It is reasonable to expect, therefore, that if music services wanted to negotiate a per play rate that differed significantly from the per play rate in the interactive market (as adjusted to reflect the absence of interactivity), the copyright owners would attempt to obtain the same level of protection that they receive with respect to non-interactive subscription services from the per subscriber rate.]

Accordingly, to predict the per play rate that would be negotiated if the adjusted [1¢] play proved unacceptable to music services, my starting point is the per subscriber minimum derived for the non-interactive market. In this scenario, the per play rate should be equal to the per subscriber rate divided by the number of plays.

Live 365 reports that the average "active" listener uses its service 32 hours per month,[19] and I have assumed even higher usage of 45 hours per month. This results in 697.5 plays per month at an average of 15.5 plays per hour -- substantially higher than the average number of plays per subscriber for the interactive music services. Interview by Eric J. Savitz with Rob Glaser, CEO, RealNetworks, Inc. (stating that the "average Rhapsody subscriber listens to over 200 songs a month"), in *Real Rivalry Comes to Online Music*, SmartMoney Magazine, June 15, 2005, available at http://www.smartmoney.com/mag/ceo/index.cfm?story=july2005&src=&nav=RSS20&pageid=display-in-the-news.module&pageregion=itn-body. [Using the per subscriber fee of $1.63 calculated in the preceding section, and dividing this number by the estimated number of plays, 697.5, results in a per play fee of 0.234¢.]

Once again, I note that this is conservative. In my analysis I assumed that if -- because of the greater number of plays in the non-interactive market -- the record companies and music services negotiated a per play rate in a manner different than the way that rate was negotiated in the interactive market, the record companies would attempt to obtain the protection of a rate equivalent to the per subscriber rate. It is

---

19 *See* http://www.streamingmedia.com/press/printversion.asp?id=2550.

possible, however, that the record companies would seek to obtain a rate that equaled the effective per play rate they obtain in the interactive market [(2¢ per play)] adjusted in the manner discussed above to account for the lower value of a non-interactive service and the greater number of plays in the non-interactive market. [In that case, the per play rate would be higher than the rate of 0.234¢ that I forecast here.]

F. Substitutability for or Promotion of Other Services

The question of whether DATs are net substitutes or complements for other sales of recorded music is raised explicitly in the statute governing this proceeding. Among the considerations that a willing seller would take into account in setting license fees in the marketplace is "whether use of the service may substitute for or may promote the sale of phonorecords or otherwise may interfere with or may enhance the sound recording copyright owner's streams of revenue from its sound recordings."[20]

In the discussion above I assumed that the copyright holder would maximize profits in each market (interactive and non-interactive) independent of the effects of the fee on any other markets where the copyright holder receives revenues. We must now consider the effect of relaxing this assumption. First, I will examine the issue of interdependence across the two DAT markets. Second, I will examine the effect of DAT markets on sales of CDs.

1. Substitutability for or Promotion of other Music Services

Consumers are presented with a wide array of competing music services in the marketplace. They will make their choices based on the characteristics and prices

[20] 17 U.S.C. § 114(f)(2)(B)

charged for the services. It is reasonable to expect that lowering the price of one type of service, e.g., a non-interactive service, will cause some customers to switch away from a substitute service, such as an interactive service. In technical terms the cross-elasticity of demand for these two services should be positive. This means the two services are substitutes for each other.

The implication of substitutability of these two services is that the current compulsory license for NI-DATs has constrained the copyright fees charged to the music services providing interactive DATs. Under the current compulsory license, the low copyright fee permits subscription-based non-interactive services to charge less than they otherwise would. This in turn pulls down the rate that can be charged for interactive services which, at least to some degree, will compete with the subscription-based non-interactive services. Referring back to Figure 1, this means that the demand curve for the interactive services has been shifted down by the artificially low compulsory license fee for non-interactive services. The absolute level of our benchmark copyright license fees therefore is artificially lower than it otherwise would be, and the absolute level of the fees recommended for the compulsory license is conservatively lower than it ought to be in a free market.

Moreover, as discussed above, if indeed there is a positive cross-elasticity between interactive and non-interactive DATs, the non-interactive DATs will cannibalize some of the higher margin interactive sales. That is, some consumers who otherwise would subscribe to an interactive service will subscribe instead to a non-interactive service, to the detriment of the record companies, which earn higher license fees from interactive services. As a result, in a free market a copyright owner would increase the price demanded for non-interactive DATs.

I have not, however, sought to quantify either the negative effect that the non-interactive market has on prices in the interactive market, or the effect the non-interactive market has on diverting sales from the more lucrative (for the record companies) interactive market. Again, therefore, the estimates I am providing are conservative.

2. Substitutability for or Promotion of CD Sales

With respect to the interplay between Internet music services and sales of CDs, non-interactive DATs have been analogized to terrestrial radio, which has long been assumed to be complementary to CD sales (i.e., with promotional effects dominating). The simple reasoning is that listeners learn about new music on the radio and then buy the music on phonorecords. In other words, radio exposes listeners to new music, which some claim results in increased sales of new CDs.

There are many questionable assumptions in that claim, and there is scholarship that challenges it directly. The flaws in the argument are several. First, it ignores the impact of radio on the amount of time that consumers spend listening to recorded music.[21] Radio and recorded music compete for the listener's time, and the less time spent listening to CDs, the fewer CDs will be sold. This will have the effect of offsetting some, all, or even exceeding any possible promotional effects from exposure to new music. Moreover, it has also been pointed out that the increased exposure to music on radio does not necessarily have a positive impact on sales, and thus doesn't necessarily work to offset the substitution effect. The reason is that learning more about a product

[21] Stan J. Liebowitz, *The Elusive Symbiosis: The Impact of Radio on the Record Industry*, Review of Economic Research on Copyright Issues, 2004, vol. 1(1) pp. 93-118.

prior to purchase may make the consumer a better and wiser consumer, which may allow him to purchase fewer, but more desirable, CDs. In his attempt to test whether terrestrial radio is a net complement or substitute for record sales, Professor Liebowitz found that radio play does not benefit overall record sales.

Second, that radio play, combined with a wide variety of other focused promotion efforts, may help sell some sound recordings does not mean that, overall, radio play increases the sale of recorded music. Where, as here, we are dealing with a blanket license, the individual effects on particular songs which are in heavy rotation on over-the-air radio says nothing about the effect on all music -- which is likely to be purchased less when consumers have other listening options.

Third, as was true in the last webcaster proceeding, even if one were to assume that over-the-air radio overall increased record sales, it is an enormous unsupported leap to claim that webcasting is also promotional. The wide number of niche stations and the different experience of webcasting suggests that there are strong reasons to believe that non-interactive webcasting supplants rather than enhances CD purchases. I note that Wall Street analysts have recognized this effect in the context of satellite radio, finding that the future of the music industry is threatened by the many programming options offered by competitors such as XM and Sirius, that such services cannibalize record sales, and that the music industry's continued viability depends on getting fair market rates in proceedings such as this.[22]

Finally, one can simply look at the alternatives to see how webcasting likely affects other revenue streams for the record companies. Time spent listening to NI-DATs must be coming from one of several alternative uses of time: (1) listening to CDs; (2)

[22] SX Exhibit 210 DP at 35-40 (Citibank analyst report on Warner Music Group).

listening to interactive DATs; (3) listening to terrestrial radio; (4) other activities, e.g., watching TV. Of these four alternatives, only the fourth may lead to increased CD sales through the exposure effect. Substitution for time spent listening to CDs or interactive DATs will be costly to the copyright holder. Time spent listening to radio is unlikely to make much of a difference in terms of exposure to music if one were to assume a similar promotional effect between the two. Therefore, I would expect that increased listening to NI-DATs would not lead to an increase in CD sales.

In any event, the relevant empirical issue for the benchmark approach is not whether non-interactive DATs are substitutes or complements to CD sales. Rather, all that matters is whether non-interactive and interactive DATs affect CD sales differently. Where interactive music services are concerned, the question of whether such services are promotional or substitutional with respect to CD sales has already been answered by the market -- that is, when the parties negotiated a license fee, they presumably took into account the likely impact of that license on CD sales. If the impact of non-interactive services on CD sales is the same as the impact of interactive music services, no adjustment to the rates proposed above would be necessary, because that impact was already accounted for in the give and take between willing buyer and willing seller. If there is a *different* promotional or substitutional effect on CD sales in the non-interactive market, compared to our benchmark interactive market, an adjustment may be appropriate.

I have seen no evidence to suggest that there is any difference between these two markets with respect to their promotional or substitutional effects. One might argue that the on-demand characteristics of interactive DATs will lead to greater substitution for recorded music than would be expected for non-interactive DATs. And one might argue, to the contrary, that non-interactive music services tend to substitute for CD sales to a greater degree than interactive services because subscribers to non-interactive services spend relatively more time listening to those services (thus reducing the amount of time available to listen to CDs). Although I have found no empirical support for either position, I have been asked to provide a sensitivity analysis to show the maximum possible effect on rates that would result if interactive services substituted for CD sales to a greater degree than non-interactive services.

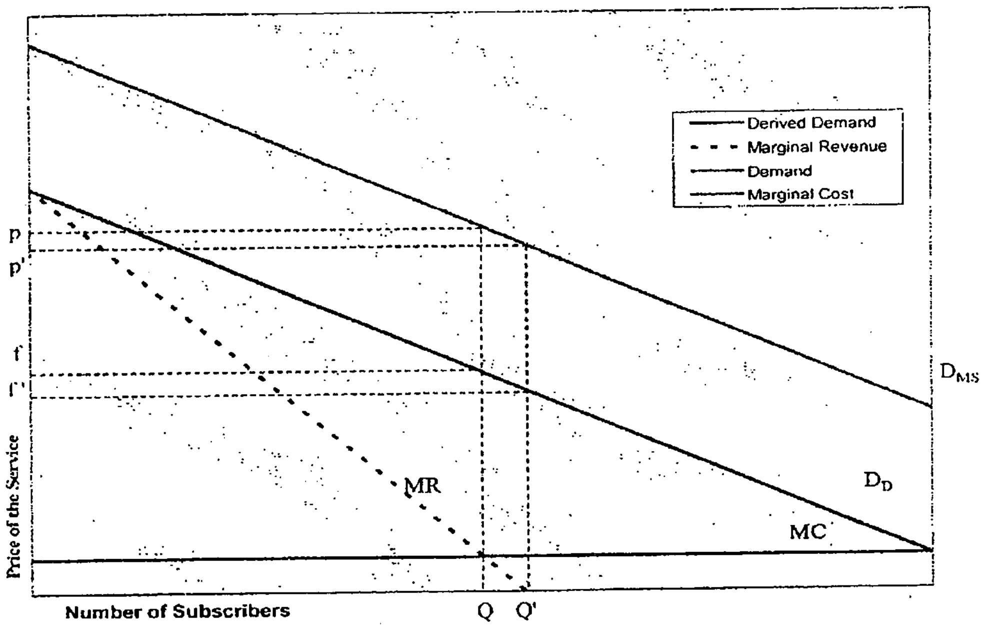
The model depicted in Figure 1 can be adjusted to take account of the possibility that interactive music services may substitute for CD sales to a greater degree than non-interactive music services. I will show this adjustment assuming that, for the average consumer, subscribing to an interactive DAT will decrease the consumer's purchases of CDs by two CDs per year. Further assuming that the margin on a CD is $5.60, this yields a loss of $11.20 in annual profit from the effect of interactive DAT subscription on CD sales.

The loss in CD sales can be treated analytically as an increase in the marginal cost of the copyright holder of providing (or licensing) interactive DAT services, i.e., each additional interactive music service subscriber will "cost" the copyright holder lost sales and profits from CDs. This increase in marginal cost will change the equilibrium conditions in the market. Prices will increase and total license fees (or profits to the copyright holder) will decrease. Using the neutral assumption of a linear demand curve, it is possible to show that prices will increase by 47¢/month/subscriber and the fee will increase by 47¢/month/subscriber.

The next step in our sensitivity analysis is to remove the effect of lost CD sales from the observed copyright fees charged for interactive DATs. This will allow us to estimate what benchmark fees would be charged, were it not for the assumed differential substitution effect. These adjusted benchmark fees will then be used to estimate the compulsory license fees for non-interactive DATs making the same adjustments as before for non-interactivity.

In order to quantify the effect of CD substitution on the benchmark rates, we must assign numerical values to the model. I have selected the average monthly retail rate of $8.29. As shown in Figure 2 below, we can adjust for the effect of CD substitution by observing that the optimal fee with substitution (the hypothesized current situation) would be obtained where marginal revenue equals the marginal cost, where marginal cost is now $.93 per subscriber per month reflecting the lost profits on CD sales. The equilibrium price and fee are labeled in Figure 2 as "p" and "f." [They should correspond to current prices and fees of $8.29 and $2.97.]

Figure 2: Copyright Fees Given Lost Profits from Substitution Away from CDs



To remove the substitution effect, we now need to show what the copyright fee would have been if marginal cost were zero, instead of $.93 per month. Removal of the substitution effect will restore us to a situation where marginal cost to the copyright holder is zero. This will now yield a new equilibrium where the fee has declined by 47¢ per month and the retail price has fallen by 47¢ per month. As shown in Figure 2, the new fee f* will be [$2.50,] the new retail price p* will be $7.82. The ratio of the new per subscriber license fee to the old per subscriber license fee is 0.84 [($2.50 ÷ $2.97).]

The percentage of revenue and per play components of the fee structure should be adjusted by the same ratio -- .84 -- to reflect the impact that the substitution of two CDs per year resulting from subscription to an interactive service might have on license fees.

The results of these adjustments, using the most conservative numbers from sections VI.C, D and E of this testimony, are shown in Table 6.3 below.

Table 6.3: Adjustment of License Fees for Effect on CD Sales

Copyright Fee as "Greater of" Formula		
Percent of Revenue	36%	30%
Dollar/Month	\$1.63	\$1.37
Per Play	0.234¢	0.197¢

G. *Application of the Rates Derived from Subscription Services to Ad-Supported Services*

To this point, I have focused on subscription services, finding that such services are the best benchmark to use for deriving the proper rate. These services demonstrate what consumers are willing to pay and, because of the existence of free, ad-supported services, are likely priced below what consumers would pay if there was not a free alternative. For that reason, using them again is a conservative assumption.

I believe that the basic rate structure discussed above should be applied to all music services -- subscription and non-subscription -- that use copyrighted music under the compulsory license. There are a number of reasons for this conclusion.

First, the best evidence from the marketplace of the value that consumers attach to a good or service is the price they are willing to pay for the service in the free market. Indirect measures, such as the advertising revenue collected by non-subscription services, are likely to underestimate the true value of the music in the marketplace.

Second, it is by no means the case that ad-supported webcasters are, or will remain, the poor cousins to subscription services. Revenues from advertising (or bundled services) are likely to increase over time as these business models develop in the market. For example, it was recently reported that Google's ability to achieve scale efficiencies with its growing online advertising network may allow it to introduce "free service" offerings that will challenge a number of traditional fee-based models. Google has made remarkable gains over the past year in increasing the revenue it generates each time it shows ads to consumers, and similar gains can be expected of music services. Indeed, the marketplace for Internet radio is populated by those who believe that ad-supported models ultimately will prove the better business model. I note that Yahoo! -- one of the largest and most sophisticated players in the market -- has said publicly that it believes that ad-supported models are likely to be the most profitable. Paul Maloney, *Yahoo! Launch's Goldberg Sees Ad-Supported Version as Future*, Radio & Internet Newsletter, Feb. 14, 2003, http://www.kurthanson.com/archive/news/021403/index.asp ("Yahoo! Music's Dave Goldberg says the future for his company's Internet radio business is with the ad-supported channels, and its listener-influence 'rating' systems.").

Third, even if, in the long run, ad-supported services prove less profitable than subscription services, that does not mean that a copyright fee should be set in order to accommodate the ad-supported model. In a free market, the owner of the intellectual property, e.g., the record companies, would set a fee based on the highest-valued use of its property, rather than sell at a lower price to an alternative delivery mechanism that would undermine sales of the higher-priced service option. Moreover, it is not practical to set different rates for different business models. The market is fluid and rapidly evolving based on a number of different business models. There is no clear boundary between the subscription and non-subscription services. Rather, music services may earn revenue by combining subscriptions with advertising, as well as sales of other goods and services promoted by the website or portal offering the music service. In short, the record companies in a free market would set a rate targeted at the most profitable segment of the music service business. If this meant that inefficient or less-profitable businesses did not survive, that is not a bad outcome from the standpoint of economic efficiency, nor is it an indication that the compulsory fee has caused an outcome that is different from what happens in the free market. Rather, markets should be expected to yield an industry structure that supports only the most efficient firms.

Fourth, setting similar fees for subscription and non-subscription services simply preserves the status quo, where the same per stream rate applies to both business models (although subscription services currently have alternative calculations available to them). I see no compelling economic reason to change the status quo in this regard.

Fifth, although the majority of listeners use free non-interactive services, subscription services do make up a significant part of overall listening. Many people obtain non-interactive webcasting services bundled with other subscription services such as AOL. The fact that these services are bundled does not detract from the validity of using their unbundled prices to determine their value.

For all of these reasons, I believe that the rates I propose based on my analysis of subscription services should apply to both subscription and non-subscription services (with the exception of the per subscriber rate).

VII. Additional Information From Other Marketplace Agreements

A review of a number of other marketplace agreements, as well as publicly available data, suggest that the copyright fees derived above are within the range of reasonableness of what a willing buyer and willing seller would agree to in the marketplace. I discuss each of these in turn.

Licenses for Music Videos: Music videos are one of the only areas in which record companies are able to negotiate licenses that include both interactive and non-interactive streaming. These services are very similar to interactive and non-interactive DATs, except that they involve music videos, rather than simply music. They do provide, however, a useful benchmark for seeing what a willing buyer and willing seller would negotiate in the marketplace and how they would value interactive streaming relative to non-interactive streaming.

Although there are a variety of different agreements with different rate calculations, as described in the statements of Mark Eisenberg at 25; Lawrence Kenswil at 17-18; Stephen Bryan at 20-21; Ken Parks at 15, [it appears common for willing buyers and willing sellers to agree to a rate formulation for music videos that is the greater of (i) between 30-35 percent of revenue and (ii) between $.005 and $.008 per play for interactive streaming and $.001 and $.0015 per play for non-interactive streaming.][23]

These agreements show two things. [First, they demonstrate that willing buyers and sellers regularly agree to a "greater of" formulation with a per play floor for non-interactive services (including ad-supported services). Second, they demonstrate that willing buyers and willing sellers, when they negotiate, agree to copyright royalty rates

[23] Music video services are generally ad-supported, [so there is no per subscriber minimum.]

that value non-interactive streams at roughly 1/5 the price of interactive streams (.008 per play divided by .0015 per play equals 5.33 -- thus, the interactive per stream rate is roughly five times the non-interactive per stream rate in the music video market). Applying this ratio to the audio streaming market, that would suggest that the copyright fee for non-interactive DATs should be approximately $.00188 ($.01 per play in the interactive DAT agreements divided by 5.33).]

<u>PRO Royalties:</u> Also as discussed above, I do not believe that one can use the amounts paid for music publishing for non-interactive DATs as a benchmark for setting the copyright fee for sound recordings. The differences between the value that the market places on blanket licenses for sound recordings and music publishing licenses are simply too great.

Nonetheless, the *ratio* of the rate that music publishers are paid for interactive services vs. non-interactive services is somewhat more instructive. As a ratio, some of the effects of the different values that the market places on sound recordings and musical works drops out and we are left with more of a measure of the value of interactivity. On a percentage of revenue basis, the music publishers receive approximately 5.1% of revenue for non-interactive DAT services. As noted above, there is a dispute about the amount that music publishers will be paid for interactive services. *See* footnote 7. Nonetheless, the only agreement of which I am aware is consistent with a mid-point between the reported dispute between interactive services and music publishers -- approximately 10% of revenue.

[Applying the ratio between the percentages of revenue for music publishers (10.0% to 5.1%) to the average percent of revenue in record company agreements for interactive services (47.7%) leads to a value of 24% of revenue.]

Clip Sampling: Clip samples are the 30-second samples provided to users considering the purchase of a sound recording. They are highly promotional for record sales (they can only be used in situations where there is an express offer of a sound recording for sale), and they are in no way substitutional for CD sales or other sources of record industry revenue.

As described in the statements of Mark Eisenberg at 23-24; Lawrence Kenswil at 19-20; Stephen Bryan at 11-12; Ken Parks at 15-16,where a company makes a business off of clip sampling, purporting to promote sound recordings, record companies nonetheless are paid a percentage of revenue (sometimes in a greater of formulation with a per play floor). The percentage of revenue generally ranges from [15% to 18%]. In my opinion, the percentage of revenue that record companies should receive for non-interactive DATs (in conjunction with a per play floor and a per subscriber minimum) cannot possibly be less than [18%.] No matter how promotional webcasters might claim their services to be, they could not be more promotional (and less substitutional) than clip samples.

VIII. MOBILE SERVICES SHOULD PAY A PREMIUM

Several new services have recently been offered or announced that provide streaming of music on cellular phones and other mobile devices. For example, Sprint now offers unlimited access to 20 commercial-free channels of SIRIUS Music on its multimedia handsets for $6.95 per month. This is a major evolution in how music licensed under the compulsory license at issue in this proceeding is being used. As stated by the two partners involved in the Sprint/SIRIUS deal, "Sirius Music broadens Sprint's portfolio of music offerings and puts content from the biggest names in music right in the hands of millions of Sprint customers nationwide."[24]

These new mobile services appear to command a premium in the marketplace. As shown in the table below, all but one of the services is priced at or above $5.95 per month. By comparison, a substantial percentage of the non-mobile services are available at a lower price. Notwithstanding the higher price, the typical mobile service offers fewer channels than the non-mobile service, and the music is carried at lower bit rate.

Table 8.1 Subscription Mobile Phone Internet Radio Services

Service	Monthly Price	No. of Stations
Mobzilla	$ 3.98	30
Music Choice	$ 5.95	6
MSpot Radio	$ 5.95	13
MSpot Music Radio	$ 5.95	17
Sirius Sprint	$ 6.95	20
Rhapsody Radio	$ 6.95	100

I believe that the unique positioning in the marketplace of mobile music services means that the recommended license fees I derived in Section VI based on non-mobile services should be adjusted for mobile services. The previous comparison between consumers' valuation of interactive and non-interactive DATs only applies to stationary music services. To the extent that consumers attach a value to mobility, then appropriate comparison should be between *mobile* interactive services and *mobile* non-interactive services. Since there are no mobile interactive services (i.e., interactive services that can

[24] http://www.shareholder.com/sirius/ReleaseDetail.cfm?ReleaseID=172838&cat-&newsroom=

be accessed over a wireless network), and thus there is insufficient information to perform this valuation, I recommend instead that the fees derived in Section VI apply only to uses of the compulsory license for stationary services. I propose that services available to consumers over wireless networks that utilize the blanket compulsory license pay an adjustment above the stationary rate.

I would prefer to expand the hedonic regression to derive a measure of the added value of mobility; however, the data is not rich enough to provide meaningful hedonic measurements. Therefore I propose a premium based on two significant pieces of evidence from this nascent marketplace. First, the best apples-to-apples measurement of the value of mobility is the difference between the prices of the two Rhapsody radio services, which are virtually identical with the exception of mobility. The monthly price of the stationary Rhapsody Radio service is $4.99. The monthly price of the Rhapsody Mobile Radio Service is $6.95. The mobility premium is 39%.

A second basis for setting a premium license fee is to compare the median subscription rate on mobile Internet radio services ($5.95) to the median subscription rate on stationary Internet radio services ($4.99).[25] The mobile premium derived from the ratio of the two medians is 19%.

Because I presently have no further data, I can say only that a premium between 19% and 39% would be in the range of reasonableness, but market evidence is compelling that some premium for portability is appropriate.

[25] I reject comparing the mean of the subscription prices of the two types of services, because the mean price of the stationary services is skewed by a small number of observations in the tail of the distribution. These observations do not appear to be particularly relevant to a measurement of how much value consumers attach to mobility.

IX. CONCLUSION

The market for interactive music services provides a significant number of contracts, freely negotiated between willing buyers and willing sellers, that establish a compelling benchmark by which to set the rates for non-interactive digital audio transmissions in this proceeding. [I recommend that the rate structure found in the interactive contracts be adopted as the structure for rates in this proceeding.] Further, adjusting those rates to account for the absence of interactivity and other relevant factors, I believe that the appropriate rates are the greater of 36% of revenue, $1.63 per subscriber, or 0.234¢ per play if the rates are not adjusted for any differential substitution effect, and 30% of revenue, $1.37 per subscriber, and 0.197¢ per play if a substitution adjustment is employed.

Appendix A

Data on Contract Terms and Retail Subscription Prices for DAT Music Services.

Table 1. Key Terms of Current Contracts Between Studios and Tethered Interactive DAT Music Services.[26]

[Beginning Date[27]	Ending Date	Pro rata Subscription Fee	Price Per Play	Pro rata Revenue Share
10/21/02	4/4/06	$2.50	$0.01	50%
5/18/04	5/18/06	$2.50	$0.01	50%
4/30/04	5/8/06	$3.00	$0.01	50%
3/18/03	3/18/05	$2.50	$0.01	40%
7/1/04	7/1/06	$2.50	$0.01	50%
3/1/05	11/6/05	$3.45	$0.01	50%
10/1/02	10/31/05	$2.50	$0.01	50%
4/1/05	3/31/06	$4.00	$0.01	43.5%
3/16/05	3/16/06	$3.25	$0.01	46%
11/13/04	11/13/05	$3.25	$0.01	46%
7/1/04	6/30/06	$4.00	$0.01	50%
5/14/04	5/14/06	$4.00	$0.01	50%
8/1/02	12/31/05		$0.01	50%
1/1/05	12/31/05	$2.50	$0.01	45%
10/15/04	5/3/06	$2.50	$0.01	45%
11/13/02	11/13/05	$2.50		50%
3/5/02	3/5/04	$2.50	$0.01	45%
	Average:	**$2.97**	**$0.01**	**47.7%]**

[26] [As mentioned in the text, I did not use the rates and terms from various agreements because of confidentiality restrictions. I also did not use the rates and terms from two agreements because the rate structure -- using paid slots and absolute percentages of revenue -- was entirely unique and difficult to quantify.]

[27] This column identifies the date of the agreement that set the primary terms. Sometimes this was the date of the original agreement, other times it was the date of an amendment to the original agreement.

Table 2. Current Retail Prices for Tethered Subscription Interactive DATs

Service	Monthly Retail Price	Monthly Retail Price with Annual Contract
Y! Music Unlimited	$6.99	$4.99
Musicmatch On Demand	$6.99	$4.99
Rhapsody Unlimited	$9.99	$8.33
Napster Membership	$9.95	$9.95
MusicNow	$9.95	$9.95
AOL - MusicNet	$8.95	$8.95
Virgin Digital	$7.99	$7.99
Average	**$8.69**	**$7.88**

I declare under penalty of perjury that the foregoing testimony is true and correct to the best of my knowledge.

Michael D. Pelcovits

Michael D. Pelcovits

Date: 10-31-05

Appendix B

MiCRA *Microeconomic Consulting & Research Associates, Inc.*

MICHAEL D. PELCOVITS

PRINCIPAL
Microeconomic Consulting & Research Associates, Inc. (MiCRA)
1155 Connecticut Avenue, N.W., Suite 900
Washington, D.C. 20036

Phone: (202) 467-2513 mp@micradc.com Fax: (202) 296-5694

CURRICULUM VITÆ

(April 2005)

EDUCATION

Massachusetts Institute of Technology, Ph.D. (Economics), 1976
University of Rochester, B.A. (Economics), *summa cum laude*, 1972

EMPLOYMENT

MiCRA
Principal: October 2002 – Present

MCI Communications (WorldCom, subsequent to its acquisition of MCI)
Vice President and Chief Economist: 1998 - 2002
Executive Director: 1996 1998
Director: 1992 – 1996
Senior Policy Adviser: 1988 – 1992

Cornell, Pelcovits & Brenner Economists Inc
Vice President and Treasurer: 1982 – 1988

Owen, Cornell, Greenhalgh & Myslinski Economists Inc.
Senior Economist: 1981 – 1982

Federal Communications Commission, Office of Plans and Policy
Senior Economist: 1979 · 1981

Civil Aeronautics Board, Bureau of International Aviation
Industry Economist: 1978 – 1979

University of Maryland, College Park, Department of Economics
Assistant Professor: 1976 – 1978

ACADEMIC AWARDS

National Science Foundation Graduate Fellowship, 1972 – 1975
Phi Beta Kappa, 1972
Isaac Sherman Graduate Fellowship, 1972 (University of Rochester)
John Dows Mairs Prize in Economics, 1971 (University of Rochester)

PUBLICATIONS

"Long Distance Telecommunications" in Diana L. Moss, editor, Network Access, Regulation and Antitrust, (Routledge), 2005.

"The WorldCom-Sprint Merger" in John Kwoka, Jr. and Lawrence J. White, editors, The Antitrust Revolution, The Role of Economics, 4th Edition (Oxford University Press), 2003.

"Economics of the Internet," (with Vinton Cerf), in Gary Madden and Scott Savage, editors, The International Handbook On Emerging Telecommunications Networks (Edward Elgar), 2003.

"Application of Real Options Theory to TELRIC Models: Real Trouble or Red Herring" in James Alleman and Eli Noam, editors, The New Investment Theory of Real Options and its Implications for Telecommunications Economics, (The Netherlands, Kluwer Academic Publishers, 1999).

"The Promise of Internet Access over Cable TV: Should the government force open access requirements?" (with Richard Whitt), CCH Power and Telecom Law, Vol. 2, No. 7, November/December 1999.

"Toward Competition in Phone Service: A Legacy of Regulatory Failure," (with Nina W. Cornell and Steven R. Brenner), Regulation, July/August 1983.

"Access Charges, Costs, and Subsidies: The Effect of Long Distance Competition on Local Rates," (with Nina W. Cornell), in Eli Noam, editor, Telecommunications Regulation Today and Tomorrow, (New York: Harcourt Brace Jovanovich, 1983).

"The Equivalence of Quotas and Buffer Stocks as Alternative Stabilization Policies," Journal of International Economics, May 1979.

"Revised Estimates U.S. Tax Revenue (with Jagdish Bhagwati), in Bhagwati and Partington editors, Taxing the Brain Drain, (North Holland, 1976).

"Quotas Versus Tariffs," Journal of International Economics, November, 1976.

OTHER PROFESSIONAL ACTIVITIES

Speaker and Panelist (selected examples):

National Association of State Utility Consumer Advocates, "Telco Structural Separations, Costs & Benefits," June 19, 2001

LeBoeuf, Lamb, Greene & MacRae, "Telecom Restructuring: The Road to Profitability -- Is there a Map?" June 11, 2001

Columbia University, Graduate School of Business, Institute for Tele-Information, "European Lessons in Liberalization: The German Experience in Telecommunications & Internet Applications," February 16, 1999

Massachusetts Institute of Technology, "Economics of the Internet: Lessons from Regulation of Telephony," April 30, 1998

National Association of State Utility Consumer Advocates, "The Telecommunications Act Two Years Later," February 10, 1998

Columbia University, Graduate School of Business, Institute for Tele-Information, "From the Blueprint to Reality: A Look Into the Second Year of the Telecommunications Act of 1996," April 10, 1997

Federal Communications Commission, Federal State Joint Board on Separations, February 26, 1997

Alliance for Public Technology, "Technologies of Freedom: Linking the Home to the Highway," February 21, 1997

Federal Communications Commission, Federal-State Joint Board on Universal Service, June 5, 1996

Columbia University, Graduate School of Business, Institute for Tele-Information, "Telecommunications Act of 1996: The Morning After," February 6, 1996

New York Law School, Communications Media Center, "Universal Service in Context: A Multidisciplinary Perspective," December 6, 1995

Kansas University, "Stakeholders Symposium on Telecommunications," November 2, 1995

California Foundation of the Environment and the Economy, "Roundtable on Telecommunications Policy, October 27, 1994

Guest lecturer in graduate and undergraduate courses at:

New York University, Stern School of Business
Georgetown University, McDonnough School of Business
George Washington University
Johns Hopkins University
University of Maryland
American University
Northeastern University

RECENT TESTIMONIES

COURT

In The United States District Court for The District of Colorado, Civil Action No. 03-F-2084 (CBS), QWEST CORPORATION, Plaintiff, v. AT&T CORP, Defendant. (Deposition taken; case settled)

STATE UTILITY COMMISSIONS

State of Connecticut, Department of Public Utility Control, DPUC Investigation of Intrastate Access Charges, Docket No. 02-05-17.

State of Connecticut, Department of Public Utility Control, Application of Southern New England Telephone Company for Approval to Reclassify Certain Private Line Services from Noncompetitive to Competitive Category, Docket No. 03-02-17.

Pennsylvania Public Utility Commission, AT&T Communications of Pennsylvania, Inc. v. Verizon North, Inc. Docket Number C-20027195.

Pennsylvania Public Utility Commission, Investigation into the Obligations of Incumbent Local Exchange Carriers to Unbundle Network Elements, Docket No. I-00030099.

Pennsylvania Public Utility Commission, Generic Investigation in re: Impact On Local Carrier Compensation if A Competitive Local Exchange Carrier Defines Local Calling Areas Differently Than the Incumbent Local Exchange Carrier's Local Calling Areas but Consistent With Established Commission Precedent, Docket No. I - 00030096.

Pennsylvania Public Utility Commission v. Verizon Pennsylvania Inc. Tariff No. 216 Revisions Regarding Four Line Carve Out, Docket No. R – 00049524; Pennsylvania Public Utility Commission v. Verizon Pennsylvania Tariff No. 216 Revisions Regarding Switching, Transport and Platform for High Capacity Loop, Docket No. R – 00049525.

RECENT FCC DECLARATIONS

In the Matter of Review of the Commission's Rule Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers

In the Matter of AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services

In the Matter of Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers

In the Matter of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities

In the Matter of Tyco Telecommunications, *Assignor*, VSNL Telecommunications (US) Inc., *Assignee*

Center for Communications Management Information, Econobill Corporation, and On Line Marketing, Inc., Complainants, v. AT&T Corporation, Defendant

RECENT CONSULTING ASSIGNMENTS

Telecommunications Industry

Prepared expert reports for the Infocomm Development Authority of Singapore on access to submarine cable landing stations and regulation of local leased line circuits

Prepared and presented an analysis of the market for termination of calling on mobile phones to Ofcom, the independent regulator and competition authority for the UK communications industries

Hired to provide expert analysis of liability and damage issues in Civil Action No. 5:03-CV-229: *Z-Tel Communications Inc.* v. *SBC Communications Inc. et al:* In the United States District Court for the Eastern District of Texas, Texarkana Division (case settled)

Other Industries

Hired by a rural electric power company to develop a damage model for a case involving the failure of a lessee to properly maintain and utilize a coal-powered electric power plant (case settled)

Analysis of economic benefits and tax revenues from the construction and operations of a hotel and villa complex in the British Virgin Islands

Exhibit Sponsored by Michael Pelcovits

210 DP	Citigroup research report on Warner Music Group (Sept. 22, 2005)

Live365 Trial Exhibit 8 Is Omitted from the Public Version of Live365's Admitted Trial Exhibits

Live365 Trial Exhibit 9 Is Omitted from the Public Version of Live365's Admitted Trial Exhibits

Live365 Trial Exhibit 10 Is Omitted from the Public Version of Live365's Admitted Trial Exhibits

Live365 Trial Exhibit 11 Is Omitted from the Public Version of Live365's Admitted Trial Exhibits

Notes from meeting with Tucker McGrady of WMG: August 19, 2009

- Digital legal affairs position
- Number of subscription services is increasing a lot
- Mobile services especially are growing: Imeen, my space; some are ad supported, overall the use of these services is increasing because can be operated as an "app" on mobile phone
- Several gray services: slacker, Pandora; programming is highly individualized
- Jango is even more interactive because the first song they play is the one you request
- Small broadcasters were not simultaneous because of concern over performance complement
- Industry refers to webast models as "lean back" (let someone else do the programming) or "lean forward"
- Interactive like rhapsody pays somewhere in the range of two to three cents per play
- Does not think that any of these services has paid using the per play rate
- Per play rate has become less important to the extent that the pattern of usage on these services has become more predictable
- Slacker has opted into the per play deal and made sure that its free service conforms with the statutory requirements; pay service pays an uplift premium for caching and some other things
- Pandora and other webcasters becoming more like SDARs; and if customer has mobile Internet service, then these services function like Sirius
- Music net has become media net

EXHIBIT
tabbies
Live365#13

Live365 Trial Exhibit 14 Is Omitted from the Public Version of Live365's Admitted Trial Exhibits

Average Price: All Services

The MEANS Procedure

Analysis Variable : Price_per_Month Price per Month				
N	Mean	Std Dev	Minimum	Maximum
41	4.2734146	6.2832124	0	19.9800000

EXHIBIT
Give365# 15

Preliminary Analysis

Average Price: Subscription Only

The MEANS Procedure

Analysis Variable : Price_per_Month Price per Month				
N	Mean	Std Dev	Minimum	Maximum
18	9.7338889	6.0508659	2.8300000	19.9800000

The MEANS Procedure

Interactive Service=0

Analysis Variable : Price_per_Month Price per Month				
N	Mean	Std Dev	Minimum	Maximum
28	1.0314286	1.9424835	0	6.9500000

Interactive Service=1

Analysis Variable : Price_per_Month Price per Month				
N	Mean	Std Dev	Minimum	Maximum
13	11.2561538	6.7645960	0	19.9800000

Average Price: by Interactivity and Subscription Only

The MEANS Procedure

Interactive Service=0

Analysis Variable : Price_per_Month Price per Month				
N	Mean	Std Dev	Minimum	Maximum
7	4.1257143	1.4442167	2.9900000	6.9500000

Interactive Service=1

Analysis Variable : Price_per_Month Price per Month				
N	Mean	Std Dev	Minimum	Maximum
11	13.3027273	4.9964189	2.8300000	19.9800000

Average Price: All Services

The MEANS Procedure

Analysis Variable : price_alt Price per Month				
N	Mean	Std Dev	Minimum	Maximum
41	4.3787805	6.3612075	0	19.9800000

Average Price: Subscription Only

The MEANS Procedure

Analysis Variable : price_alt Price per Month				
N	Mean	Std Dev	Minimum	Maximum
18	9.9738889	6.0103275	2.9900000	19.9800000

The MEANS Procedure

Interactive Service=0

Analysis Variable : price_alt Price per Month				
N	Mean	Std Dev	Minimum	Maximum
28	1.0314286	1.9424835	0	6.9500000

Interactive Service=1

Analysis Variable : price_alt Price per Month				
N	Mean	Std Dev	Minimum	Maximum
13	11.5884615	6.6285617	0	19.9800000

Average Price: by Interactivity and Subscription Only

The MEANS Procedure

Interactive Service=0

Analysis Variable : price_alt Price per Month				
N	Mean	Std Dev	Minimum	Maximum
7	4.1257143	1.4442167	2.9900000	6.9500000

Interactive Service=1

Analysis Variable : price_alt Price per Month				
N	Mean	Std Dev	Minimum	Maximum
11	13.6954545	4.5807802	5.0000000	19.9800000

Listing of Services by Interactivity

Obs	Service_Name	Price_per_Month	price_alt	interactive
1	Classical Archives (radio)	$0.00	$0.00	0
2	Pandora (free)	$0.00	$0.00	0
3	Pandora One	$3.00	$3.00	0
4	MTV.com	$0.00	$0.00	0
5	Yahoo! Music	$0.00	$0.00	0
6	Last.fm (free)	$0.00	$0.00	0
7	Last.fm Premium	$3.00	$3.00	0
8	AOL Music	$0.00	$0.00	0
9	Live365 (free)	$0.00	$0.00	0
10	Live365 VIP	$6.95	$6.95	0
11	iLike	$0.00	$0.00	0
12	Radiolicious.fm	$0.00	$0.00	0
13	MSN Music	$0.00	$0.00	0
14	Deezer	$0.00	$0.00	0
15	Sirius XM Radio	$2.99	$2.99	0
16	Slacker Radio (free)	$0.00	$0.00	0
17	Slacker Radio Plus	$3.99	$3.99	0
18	Radio Disney	$0.00	$0.00	0
19	Musicovery (free)	$0.00	$0.00	0
20	Musicovery Premium	$4.00	$4.00	0
21	MeeMix	$0.00	$0.00	0
22	FineTune	$0.00	$0.00	0
23	Accuradio	$0.00	$0.00	0
24	we7	$0.00	$0.00	0
25	sky.fm (free)	$0.00	$0.00	0
26	Digitally Imported (free)	$0.00	$0.00	0
27	Digitally Imported/sky.fm Premium	$4.95	$4.95	0
28	Jango	$0.00	$0.00	0
29	Classical Archives	$9.95	$9.95	1
30	ZunePass	$12.84	$14.99	1
31	Rhapsody Unlimited	$12.99	$12.99	1
32	Rhapsody To Go	$14.99	$14.99	1
33	Altnet (or Kazaa)	$19.98	$19.98	1

Listing of Services by Interactivity

Obs	Service_Name	Price_per_Month	price_alt	interactive
34	Napster	$2.83	$5.00	1
35	Napster To Go	$14.95	$14.95	1
36	imeem (free)	$0.00	$0.00	1
37	MySpace Music	$0.00	$0.00	1
38	iMesh.com Premium	$7.95	$7.95	1
39	iMesh.com ToGo	$14.95	$14.95	1
40	Pasito Tunes PC	$14.95	$14.95	1
41	Pasito Tunes Unlimited (Mobile)	$19.95	$19.95	1

Regression Model of Music Service Retail Price
Dependent Variable: Adjusted Retail Price (USD)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: Price_per_Month Price per Month

Number of Observations Read	41
Number of Observations Used	41

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	13	1482.57747	114.04442	31.88	<.0001
Error	27	96.57285	3.57677		
Corrected Total	40	1579.15032			

Root MSE	1.89124	R-Square	0.9388
Dependent Mean	4.27341	Adj R-Sq	0.9094
Coeff Var	44.25584		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	3.46557	1.24824	2.78	0.0099
multi_product	Multiproduct Webcaster	1	-0.91105	0.87823	-1.04	0.3088
app_mobile	Mobile App Available	1	1.42222	0.90479	1.57	0.1276
app_desktop	Desktop App Available	1	-0.57818	1.09299	-0.53	0.6011
portable	Tethered Downloads	1	2.99303	0.97658	3.06	0.0049
interactive	Interactive Service	1	6.91636	1.28869	5.37	<.0001
ads	Advertising Content	1	-3.68788	1.05437	-3.50	0.0016
imeem	imeem	1	-5.78300	2.36580	-2.44	0.0213
myspace	MySpace	1	-6.69405	2.34214	-2.86	0.0081
kazaa	Altnet (Kazaa)	1	9.59807	2.44115	3.93	0.0005
di	Digitally Imported	1	1.76442	1.57669	1.12	0.2730
class	Classical Archives	1	-1.95604	1.69671	-1.15	0.2591

Regression Model of Music Service Retail Price
Dependent Variable: Adjusted Retail Price (USD)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: Price_per_Month Price per Month

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
pasito	Pasito Tunes	1	6.34967	1.58454	4.01	0.0004
imesh	iMesh	1	1.06078	1.69004	0.63	0.5355

Regression Model of Music Service Retail Price
Dependent Variable: Unadjusted Retail Price (USD)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: price_alt Price per Month

Number of Observations Read	41
Number of Observations Used	41

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	1546.71968	110.47998	39.96	<.0001
Error	26	71.87876	2.76457		
Corrected Total	40	1618.59844			

Root MSE	1.66270	R-Square	0.9556
Dependent Mean	4.37878	Adj R-Sq	0.9317
Coeff Var	37.97174		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	4.20938	1.15055	3.66	0.0011
multi_product	Multiproduct Webcaster	1	-1.09722	0.78358	-1.40	0.1733
app_mobile	Mobile App Available	1	0.61925	0.85782	0.72	0.4768
app_desktop	Desktop App Available	1	-0.17254	0.97446	-0.18	0.8608
portable	Tethered Downloads	1	3.12583	0.86792	3.60	0.0013
interactive	Interactive Service	1	7.74932	1.17118	6.62	<.0001
downloads	Number of Free Non-Tethered Downloads	1	-0.22132	0.20778	-1.07	0.2966
ads	Advertising Content	1	-4.08686	0.94484	-4.33	0.0002
imeem	imeem	1	-6.77462	2.10528	-3.22	0.0034
myspace	MySpace	1	-7.87184	2.10974	-3.73	0.0009
kazaa	Altnet (Kazaa)	1	8.02130	2.24024	3.58	0.0014
di	Digitally Imported	1	1.40627	1.39139	1.01	0.3215
class	Classical Archives	1	-3.40220	1.60259	-2.12	0.0434

Regression Model of Music Service Retail Price
Dependent Variable: Unadjusted Retail Price (USD)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: price_alt Price per Month

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
pasito	Pasito Tunes	1	4.88852	1.50655	3.24	0.0032
imesh	iMesh	1	-0.80186	1.65731	-0.48	0.6326

Regression Model of Music Service Retail Price
Dependent Variable: Log of Adjusted Retail Price (USD)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price Log of Retail Price

Number of Observations Read	41
Number of Observations Used	41

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	13	52.42574	4.03275	41.37	<.0001
Error	27	2.63169	0.09747		
Corrected Total	40	55.05742			

Root MSE	0.31220	R-Square	0.9522
Dependent Mean	0.95439	Adj R-Sq	0.9292
Coeff Var	32.71212		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	1.62672	0.20606	7.89	<.0001
multi_product	Multiproduct Webcaster	1	-0.12188	0.14498	-0.84	0.4079
app_mobile	Mobile App Available	1	0.22279	0.14936	1.49	0.1474
app_desktop	Desktop App Available	1	-0.40717	0.18043	-2.26	0.0323
portable	Tethered Downloads	1	0.27044	0.16121	1.68	0.1050
interactive	Interactive Service	1	1.13031	0.21274	5.31	<.0001
ads	Advertising Content	1	-1.62175	0.17405	-9.32	<.0001
imeem	imeem	1	-1.01330	0.39054	-2.59	0.0151
myspace	MySpace	1	-1.13518	0.38664	-2.94	0.0067
kazaa	Altnet (Kazaa)	1	0.23771	0.40298	0.59	0.5602
di	Digitally Imported	1	0.10578	0.26028	0.41	0.6876
class	Classical Archives	1	-0.64921	0.28009	-2.32	0.0283

Regression Model of Music Service Retail Price
Dependent Variable: Log of Adjusted Retail Price (USD)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price Log of Retail Price

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
pasito	Pasito Tunes	1	0.37438	0.26157	1.43	0.1638
imesh	iMesh	1	0.02574	0.27899	0.09	0.9272

Regression Model of Music Service Retail Price
Dependent Variable: Log of Unadjusted Retail Price (USD)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price_alt

Number of Observations Read	41
Number of Observations Used	41

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	14	50.88907	3.63493	60.80	<.0001
Error	26	1.55430	0.05978		
Corrected Total	40	52.44337			

Root MSE	0.24450	R-Square	0.9704
Dependent Mean	0.91864	Adj R-Sq	0.9544
Coeff Var	26.61552		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	1.35342	0.16919	8.00	<.0001
multi_product	Multiproduct Webcaster	1	-0.12812	0.11523	-1.11	0.2764
app_mobile	Mobile App Available	1	0.03923	0.12614	0.31	0.7583
app_desktop	Desktop App Available	1	-0.04339	0.14329	-0.30	0.7645
portable	Tethered Downloads	1	0.36695	0.12763	2.88	0.0080
interactive	Interactive Service	1	1.21869	0.17222	7.08	<.0001
downloads	Number of Free Non-Tethered Downloads	1	-0.04671	0.03055	-1.53	0.1384
ads	Advertising Content	1	-1.32894	0.13894	-9.56	<.0001
imeem	imeem	1	-1.11494	0.30958	-3.60	0.0013
myspace	MySpace	1	-1.24306	0.31024	-4.01	0.0005
kazaa	Altnet (Kazaa)	1	0.42263	0.32943	1.28	0.2108
di	Digitally Imported	1	0.23891	0.20460	1.17	0.2535
class	Classical Archives	1	-0.82590	0.23566	-3.50	0.0017

Regression Model of Music Service Retail Price
Dependent Variable: Log of Unadjusted Retail Price (USD)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price_alt

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
pasito	Pasito Tunes	1	0.24528	0.22154	1.11	0.2784
imesh	iMesh	1	-0.19513	0.24371	-0.80	0.4306

Regression Model of Music Service Retail Price
Dependent Variable: Adjusted Retail Price (USD)
Subscription and Nonsubscription Services (No FE)
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: Price_per_Month Price per Month

Number of Observations Read	41
Number of Observations Used	41

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	1257.56032	209.59339	22.16	<.0001
Error	34	321.59000	9.45853		
Corrected Total	40	1579.15032			

Root MSE	3.07547	R-Square	0.7964
Dependent Mean	4.27341	Adj R-Sq	0.7604
Coeff Var	71.96756		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	6.20687	1.73209	3.58	0.0010
multi_product	Multiproduct Webcaster	1	-1.70258	1.19845	-1.42	0.1645
app_mobile	Mobile App Available	1	1.56265	1.16235	1.34	0.1877
app_desktop	Desktop App Available	1	-1.61396	1.49225	-1.08	0.2871
portable	Tethered Downloads	1	2.89558	1.46620	1.97	0.0564
interactive	Interactive Service	1	6.77611	1.41165	4.80	<.0001
ads	Advertising Content	1	-6.45369	1.48427	-4.35	0.0001

Regression Model of Music Service Retail Price
Dependent Variable: Unadjusted Retail Price (USD)
Subscription and Nonsubscription Services (No FE)
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: price_alt Price per Month

Number of Observations Read	41
Number of Observations Used	41

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	1331.98446	190.28349	21.91	<.0001
Error	33	286.61398	8.68527		
Corrected Total	40	1618.59844			

Root MSE	2.94708	R-Square	0.8229
Dependent Mean	4.37878	Adj R-Sq	0.7854
Coeff Var	67.30364		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	6.69553	1.69058	3.96	0.0004
multi_product	Multiproduct Webcaster	1	-2.12054	1.18567	-1.79	0.0829
app_mobile	Mobile App Available	1	1.18412	1.13359	1.04	0.3038
app_desktop	Desktop App Available	1	-1.21724	1.44529	-0.84	0.4057
portable	Tethered Downloads	1	3.13366	1.42293	2.20	0.0347
interactive	Interactive Service	1	6.97902	1.35511	5.15	<.0001
downloads	Number of Free Non-Tethered Downloads	1	-0.26155	0.30641	-0.85	0.3995
ads	Advertising Content	1	-6.67826	1.42952	-4.67	<.0001

Regression Model of Music Service Retail Price
Dependent Variable: Log of Adjusted Retail Price (USD)
Subscription and Nonsubscription Services (No FE)
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price Log of Retail Price

Number of Observations Read	41
Number of Observations Used	41

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	49.52078	8.25346	50.68	<.0001
Error	34	5.53665	0.16284		
Corrected Total	40	55.05742			

Root MSE	0.40354	R-Square	0.8994
Dependent Mean	0.95439	Adj R-Sq	0.8817
Coeff Var	42.28217		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	1.76572	0.22727	7.77	<.0001
multi_product	Multiproduct Webcaster	1	-0.19381	0.15725	-1.23	0.2262
app_mobile	Mobile App Available	1	0.29842	0.15251	1.96	0.0586
app_desktop	Desktop App Available	1	-0.42290	0.19580	-2.16	0.0379
portable	Tethered Downloads	1	0.32226	0.19238	1.68	0.1031
interactive	Interactive Service	1	0.90705	0.18522	4.90	<.0001
ads	Advertising Content	1	-1.82232	0.19475	-9.36	<.0001

Regression Model of Music Service Retail Price
Dependent Variable: Log of Unadjusted Retail Price (USD)
Subscription and Nonsubscription Services (No FE)
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price_alt

Number of Observations Read	41
Number of Observations Used	41

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	47.33983	6.76283	43.73	<.0001
Error	33	5.10354	0.15465		
Corrected Total	40	52.44337			

Root MSE	0.39326	R-Square	0.9027
Dependent Mean	0.91864	Adj R-Sq	0.8820
Coeff Var	42.80885		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	1.53554	0.22559	6.81	<.0001
multi_product	Multiproduct Webcaster	1	-0.21284	0.15822	-1.35	0.1877
app_mobile	Mobile App Available	1	0.17932	0.15127	1.19	0.2443
app_desktop	Desktop App Available	1	-0.16665	0.19286	-0.86	0.3938
portable	Tethered Downloads	1	0.38149	0.18988	2.01	0.0528
interactive	Interactive Service	1	0.94790	0.18083	5.24	<.0001
downloads	Number of Free Non-Tethered Downloads	1	-0.01905	0.04089	-0.47	0.6443
ads	Advertising Content	1	-1.57444	0.19076	-8.25	<.0001

Regression Model of Music Service Retail Price
Dependent Variable: Adjusted Retail Price (USD)
Subscription Services Only
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: Price_per_Month Price per Month

Number of Observations Read	18
Number of Observations Used	18

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	579.62573	57.96257	9.48	0.0034
Error	7	42.79490	6.11356		
Corrected Total	17	622.42063			

Root MSE	2.47256	R-Square	0.9312
Dependent Mean	9.73389	Adj R-Sq	0.8330
Coeff Var	25.40157		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	2.06885	3.35955	0.62	0.5575
multi_product	Multiproduct Webcaster	1	-5.85077	3.76651	-1.55	0.1643
app_mobile	Mobile App Available	1	7.27692	2.62628	2.77	0.0277
app_desktop	Desktop App Available	1	0.23654	2.18658	0.11	0.9169
portable	Tethered Downloads	1	2.01385	1.77064	1.14	0.2928
interactive	Interactive Service	1	8.52077	1.99933	4.26	0.0037
kazaa	Altnet (Kazaa)	1	9.39038	4.30997	2.18	0.0658
di	Digitally Imported	1	8.73192	4.00845	2.18	0.0658
class	Classical Archives	1	2.96077	3.76651	0.79	0.4576
pasito	Pasito Tunes	1	7.82923	2.23970	3.50	0.0101
imesh	iMesh	1	5.46769	2.90945	1.88	0.1023

Regression Model of Music Service Retail Price
Dependent Variable: Unadjusted Retail Price (USD)
Subscription Services Only
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: price_alt Price per Month

Number of Observations Read	18
Number of Observations Used	18

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	586.92280	53.35662	11.78	0.0033
Error	6	27.18582	4.53097		
Corrected Total	17	614.10863			

Root MSE	2.12861	R-Square	0.9557
Dependent Mean	9.97389	Adj R-Sq	0.8746
Coeff Var	21.34180		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	13.59065	7.93354	1.71	0.1375
multi_product	Multiproduct Webcaster	1	-12.70870	5.85472	-2.17	0.0730
app_mobile	Mobile App Available	1	2.61304	3.38023	0.77	0.4688
app_desktop	Desktop App Available	1	0.14326	1.88308	0.08	0.9418
portable	Tethered Downloads	1	2.38696	1.53753	1.55	0.1715
interactive	Interactive Service	1	9.08043	1.74742	5.20	0.0020
downloads	Number of Free Non-Tethered Downloads	1	-1.02113	0.78399	-1.30	0.2405
kazaa	Altnet (Kazaa)	1	-2.69109	8.53754	-0.32	0.7633
di	Digitally Imported	1	4.06804	4.26877	0.95	0.3774
class	Classical Archives	1	-2.54261	4.39385	-0.58	0.5839
pasito	Pasito Tunes	1	4.84435	2.51077	1.93	0.1019
imesh	iMesh	1	0.15087	3.80518	0.04	0.9697

Regression Model of Music Service Retail Price
Dependent Variable: Log of Adjusted Retail Price (USD)
Subscription Services Only
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price Log of Retail Price

Number of Observations Read	18
Number of Observations Used	18

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	5.85979	0.58598	2.76	0.0958
Error	7	1.48850	0.21264		
Corrected Total	17	7.34830			

Root MSE	0.46113	R-Square	0.7974
Dependent Mean	2.17376	Adj R-Sq	0.5081
Coeff Var	21.21356		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	2.04638	0.62656	3.27	0.0137
multi_product	Multiproduct Webcaster	1	-0.67897	0.70245	-0.97	0.3660
app_mobile	Mobile App Available	1	0.60628	0.48980	1.24	0.2557
app_desktop	Desktop App Available	1	-0.63710	0.40780	-1.56	0.1622
portable	Tethered Downloads	1	0.17339	0.33022	0.53	0.6157
interactive	Interactive Service	1	1.12471	0.37288	3.02	0.0195
kazaa	Altnet (Kazaa)	1	-0.17636	0.80381	-0.22	0.8326
di	Digitally Imported	1	0.23198	0.74758	0.31	0.7654
class	Classical Archives	1	0.26916	0.70245	0.38	0.7130
pasito	Pasito Tunes	1	0.60411	0.41770	1.45	0.1913
imesh	iMesh	1	0.44723	0.54261	0.82	0.4370

Regression Model of Music Service Retail Price
Dependent Variable: Log of Unadjusted Retail Price (USD)
Subscription Services Only
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price_alt

Number of Observations Read	18
Number of Observations Used	18

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	11	7.60580	0.69144	6.52	0.0157
Error	6	0.63624	0.10604		
Corrected Total	17	8.24205			

Root MSE	0.32564	R-Square	0.9228
Dependent Mean	2.09233	Adj R-Sq	0.7813
Coeff Var	15.56345		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	2.88305	1.21369	2.38	0.0551
multi_product	Multiproduct Webcaster	1	-1.71468	0.89567	-1.91	0.1041
app_mobile	Mobile App Available	1	0.07241	0.51711	0.14	0.8932
app_desktop	Desktop App Available	1	0.08513	0.28808	0.30	0.7776
portable	Tethered Downloads	1	0.21610	0.23521	0.92	0.3937
interactive	Interactive Service	1	1.18878	0.26732	4.45	0.0043
downloads	Number of Free Non-Tethered Downloads	1	-0.16657	0.11994	-1.39	0.2143
kazaa	Altnet (Kazaa)	1	-1.07709	1.30609	-0.82	0.4411
di	Digitally Imported	1	0.43102	0.65304	0.66	0.5337
class	Classical Archives	1	-0.36081	0.67218	-0.54	0.6107
pasito	Pasito Tunes	1	0.26244	0.38410	0.68	0.5199
imesh	iMesh	1	-0.16139	0.58212	-0.28	0.7909

Regression Model of Music Service Retail Price
Dependent Variable: Adjusted Retail Price (USD)
Subscription Services Only (No FE)
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: Price_per_Month Price per Month

Number of Observations Read	18
Number of Observations Used	18

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	454.60709	90.92142	6.50	0.0038
Error	12	167.81354	13.98446		
Corrected Total	17	622.42063			

Root MSE	3.73958	R-Square	0.7304
Dependent Mean	9.73389	Adj R-Sq	0.6180
Coeff Var	38.41815		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	6.42787	3.36495	1.91	0.0803
multi_product	Multiproduct Webcaster	1	-3.94200	3.29211	-1.20	0.2543
app_mobile	Mobile App Available	1	3.74016	2.24023	1.67	0.1209
app_desktop	Desktop App Available	1	-3.27265	2.68869	-1.22	0.2469
portable	Tethered Downloads	1	2.12852	2.14770	0.99	0.3412
interactive	Interactive Service	1	10.55419	2.56856	4.11	0.0014

Regression Model of Music Service Retail Price
Dependent Variable: Unadjusted Retail Price (USD)
Subscription Services Only (No FE)
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: price_alt Price per Month

Number of Observations Read	18
Number of Observations Used	18

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	524.86615	87.47769	10.78	0.0005
Error	11	89.24248	8.11295		
Corrected Total	17	614.10863			

Root MSE	2.84832	R-Square	0.8547
Dependent Mean	9.97389	Adj R-Sq	0.7754
Coeff Var	28.55781		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	11.45293	3.13603	3.65	0.0038
multi_product	Multiproduct Webcaster	1	-9.27502	3.17233	-2.92	0.0138
app_mobile	Mobile App Available	1	2.25648	1.77298	1.27	0.2294
app_desktop	Desktop App Available	1	-0.55019	2.24963	-0.24	0.8113
portable	Tethered Downloads	1	2.29653	1.64007	1.40	0.1890
interactive	Interactive Service	1	9.42039	2.00433	4.70	0.0007
downloads	Number of Free Non-Tethered Downloads	1	-0.85230	0.37917	-2.25	0.0461

Regression Model of Music Service Retail Price
Dependent Variable: Log of Adjusted Retail Price (USD)
Subscription Services Only (No FE)
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price Log of Retail Price

Number of Observations Read	18
Number of Observations Used	18

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	5.37691	1.07538	6.55	0.0037
Error	12	1.97139	0.16428		
Corrected Total	17	7.34830			

Root MSE	0.40532	R-Square	0.7317
Dependent Mean	2.17376	Adj R-Sq	0.6199
Coeff Var	18.64589		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	1.81749	0.36471	4.98	0.0003
multi_product	Multiproduct Webcaster	1	-0.23182	0.35682	-0.65	0.5281
app_mobile	Mobile App Available	1	0.37167	0.24281	1.53	0.1518
app_desktop	Desktop App Available	1	-0.62766	0.29142	-2.15	0.0523
portable	Tethered Downloads	1	0.24745	0.23278	1.06	0.3087
interactive	Interactive Service	1	1.22367	0.27840	4.40	0.0009

Regression Model of Music Service Retail Price
Dependent Variable: Log of Unadjusted Retail Price (USD)
Subscription Services Only (No FE)
Intercept: Noninteractive Services

The REG Procedure
Model: MODEL1
Dependent Variable: log_price_alt

Number of Observations Read	18
Number of Observations Used	18

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	6	6.98390	1.16398	10.18	0.0006
Error	11	1.25815	0.11438		
Corrected Total	17	8.24205			

Root MSE	0.33820	R-Square	0.8474
Dependent Mean	2.09233	Adj R-Sq	0.7641
Coeff Var	16.16365		

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	1	2.04192	0.37236	5.48	0.0002
multi_product	Multiproduct Webcaster	1	-0.81295	0.37667	-2.16	0.0539
app_mobile	Mobile App Available	1	0.12212	0.21051	0.58	0.5735
app_desktop	Desktop App Available	1	0.00139	0.26711	0.01	0.9959
portable	Tethered Downloads	1	0.25959	0.19473	1.33	0.2095
interactive	Interactive Service	1	1.10259	0.23799	4.63	0.0007
downloads	Number of Free Non-Tethered Downloads	1	-0.08479	0.04502	-1.88	0.0863

Simultaneous Regression Model of Music Service Retail Price and Adverts
Dependent Variables: Adjusted Retail Price (USD) and Adverts (Discrete)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The QLIM Procedure

Summary Statistics of Continuous Responses							
Variable	Mean	Standard Error	Type	Lower Bound	Upper Bound	N Obs Lower Bound	N Obs Upper Bound
price_per_month	4.273415	6.283212	Regular	.			

Discrete Response Profile of ads			
Index	Value	Frequency	Percent
1	0	19	46.34
2	1	22	53.66

Model Fit Summary	
Number of Endogenous Variables	2
Endogenous Variable	ads price_per_month
Number of Observations	41
Log Likelihood	-84.58352
Maximum Absolute Gradient	2977
Number of Iterations	83
Optimization Method	Newton-Raphson
AIC	215.16705
Schwarz Criterion	254.57920

Algorithm converged.

Parameter Estimates						
Parameter	DF	Estimate	Standard Error	t Value	Approx Pr > |t|	Parameter Label
price_per_month.Intercept	1	-0.193492	0.588538	-0.33	0.7423	
price_per_month.multi_product	1	0.199702	0.824655	0.24	0.8087	
price_per_month.app_mobile	1	1.560437	0.891475	1.75	0.0800	
price_per_month.app_desktop	1	0.335090	0.833898	0.40	0.6878	
price_per_month.portable	1	2.044315	0.778319	2.63	0.0086	

Simultaneous Regression Model of Music Service Retail Price and Adverts
Dependent Variables: Adjusted Retail Price (USD) and Adverts (Discrete)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The QLIM Procedure

Parameter Estimates						
Parameter	DF	Estimate	Standard Error	t Value	Approx Pr > |t|	Parameter Label
price_per_month.interactive	1	9.132958	1.056535	8.64	<.0001	
price_per_month.kazaa	1	11.040538	2.201230	5.02	<.0001	
price_per_month.di	1	2.468731	1.507389	1.64	0.1015	
price_per_month.class	1	-0.954807	1.686248	-0.57	0.5712	
price_per_month.pasito	1	6.173475	1.589952	3.88	0.0001	
price_per_month.imesh	1	0.953747	1.688776	0.56	0.5722	
price_per_month.imeem	1	-9.139088	2.088778	-4.38	<.0001	
price_per_month.myspace	1	-8.939579	2.201232	-4.06	<.0001	
_Sigma.price_per_month	1	1.902575	0.210182	9.05	<.0001	
ads.Intercept	1	2.101936	0.178998	11.74	<.0001	
ads.multi_product	1	-2.090968	0.179159	-11.67	<.0001	
ads.interactive	1	-3.526432	2.542296	-1.39	0.1654	
ads.kazaa	1	-0.773742	0	.	.	
ads.di	1	-0.211093	0	.	.	
ads.class	1	-1.032283	0	.	.	
ads.pasito	1	-0.385169	0	.	.	
ads.imeem	1	3.538898	3.588660	0.99	0.3241	
ads.myspace	1	1.459782	0.000511	2858.40	<.0001	
_Rho	1	-0.999990	0	.	.	
Restrict1	-1	2977.443749	.	.	. *	-0.999990 <= _Rho

* Probability computed using beta distribution.

Simultaneous Regression Model of Music Service Retail Price and Adverts
Dependent Variables: Unadjusted Retail Price (USD) and Adverts (Discrete)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The QLIM Procedure

Summary Statistics of Continuous Responses							
Variable	Mean	Standard Error	Type	Lower Bound	Upper Bound	N Obs Lower Bound	N Obs Upper Bound
price_alt	4.37878	6.361208	Regular				

Discrete Response Profile of ads			
Index	Value	Frequency	Percent
1	0	19	46.34
2	1	22	53.66

Model Fit Summary	
Number of Endogenous Variables	2
Endogenous Variable	ads price_alt
Number of Observations	41
Log Likelihood	-81.99400
Maximum Absolute Gradient	2986
Number of Iterations	72
Optimization Method	Newton-Raphson
AIC	211.98800
Schwarz Criterion	253.11373

Algorithm converged.

Parameter Estimates						
Parameter	DF	Estimate	Standard Error	t Value	Approx Pr > |t|	Parameter Label
price_alt.Intercept	1	-0.019969	0.578078	-0.03	0.9724	
price_alt.multi_product	1	0.165497	0.778972	0.21	0.8318	
price_alt.app_mobile	1	1.093628	0.898387	1.22	0.2235	
price_alt.app_desktop	1	0.740832	0.815179	0.91	0.3635	
price_alt.portable	1	2.108471	0.736168	2.86	0.0042	

Simultaneous Regression Model of Music Service Retail Price and Adverts
Dependent Variables: Unadjusted Retail Price (USD) and Adverts (Discrete)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The QLIM Procedure

Parameter Estimates						
Parameter	DF	Estimate	Standard Error	t Value	Approx Pr > |t|	Parameter Label
price_alt.interactive	1	9.704701	1.073213	9.04	<.0001	
price_alt.downloads	1	-0.027162	0.218572	-0.12	0.9011	
price_alt.kazaa	1	10.295628	2.146523	4.80	<.0001	
price_alt.di	1	2.329526	1.417422	1.64	0.1003	
price_alt.class	1	-1.817868	1.681186	-1.08	0.2796	
price_alt.pasito	1	5.257957	1.612502	3.26	0.0011	
price_alt.imesh	1	-0.195089	1.764077	-0.11	0.9119	
price_alt.imeem	1	-9.849946	2.022072	-4.87	<.0001	
price_alt.myspace	1	-9.685028	2.146523	-4.51	<.0001	
_Sigma.price_alt	1	1.786112	0.197312	9.05	<.0001	
ads.Intercept	1	1.698121	.	.	.	
ads.multi_product	1	-1.765371	.	.	.	
ads.interactive	1	-3.037405	.	.	.	
ads.kazaa	1	-0.664535	0	.	.	
ads.di	1	-0.164283	0	.	.	
ads.class	1	-0.730694	0	.	.	
ads.pasito	1	-0.278462	0	.	.	
ads.imeem	1	3.137761	.	.	.	
ads.myspace	1	1.381774	0	.	.	
_Rho	1	-0.999990	0	.	.	
Restrict1	-1	2986.319809	.	.	. *	-0.999990 <= _Rho

* Probability computed using beta distribution.

Simultaneous Regression Model of Music Service Retail Price and Adverts
Dependent Variables: Log of Adjusted Retail Price (USD) and Adverts (Discrete)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The QLIM Procedure

Summary Statistics of Continuous Responses							
Variable	Mean	Standard Error	Type	Lower Bound	Upper Bound	N Obs Lower Bound	N Obs Upper Bound
log_price	0.954392	1.173216	Regular				

Discrete Response Profile of ads			
Index	Value	Frequency	Percent
1	0	19	46.34
2	1	22	53.66

Model Fit Summary	
Number of Endogenous Variables	2
Endogenous Variable	ads log_price
Number of Observations	41
Log Likelihood	-31.37906
Maximum Absolute Gradient	0.0007786
Number of Iterations	38
Optimization Method	Newton-Raphson
AIC	108.75812
Schwarz Criterion	148.17028

Algorithm converged.

Parameter Estimates						
Parameter	DF	Estimate	Standard Error	t Value	Approx Pr > |t|	Parameter Label
log_price.Intercept	1	-0.059909	0.164036	-0.37	0.7149	
log_price.multi_product	1	0.214375	0.233948	0.92	0.3595	
log_price.app_mobile	1	0.384444	0.247173	1.56	0.1199	
log_price.app_desktop	1	0.342697	0.269057	1.27	0.2028	
log_price.portable	1	0.252509	0.268583	0.94	0.3471	

Simultaneous Regression Model of Music Service Retail Price and Adverts
Dependent Variables: Log of Adjusted Retail Price (USD) and Adverts (Discrete)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The QLIM Procedure

Parameter Estimates						
Parameter	DF	Estimate	Standard Error	t Value	Approx Pr > |t|	Parameter Label
log_price.interactive	1	1.660597	0.341527	4.86	<.0001	
log_price.kazaa	1	1.394043	0.638792	2.18	0.0291	
log_price.di	1	0.645278	0.422791	1.53	0.1270	
log_price.class	1	-0.304879	0.462590	-0.66	0.5099	
log_price.pasito	1	0.372734	0.435819	0.86	0.3924	
log_price.imesh	1	0.104927	0.464619	0.23	0.8213	
log_price.imeem	1	-1.814961	0.634712	-2.86	0.0042	
log_price.myspace	1	-1.600587	0.638792	-2.51	0.0122	
_Sigma.log_price	1	0.520172	0.057445	9.06	<.0001	
ads.Intercept	1	0.910636	.	.	.	
ads.multi_product	1	-0.856611	.	.	.	
ads.interactive	1	-1.212319	.	.	.	
ads.kazaa	1	-0.424248	0	.	.	
ads.di	1	-0.115411	0	.	.	
ads.class	1	-0.456825	.	.	.	
ads.pasito	1	-0.071115	0	.	.	
ads.imeem	1	1.185768	.	.	.	
ads.myspace	1	0.724927	0	.	.	
_Rho	1	-0.999990	0	.	.	
Restrict1	-1	0.000779	.	.	. *	-0.999990 <= _Rho

* Probability computed using beta distribution.

Simultaneous Regression Model of Music Service Retail Price and Adverts
Dependent Variables: Log of Unadjusted Retail Price (USD) and Adverts (Discrete)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The QLIM Procedure

Summary Statistics of Continuous Responses							
Variable	Mean	Standard Error	Type	Lower Bound	Upper Bound	N Obs Lower Bound	N Obs Upper Bound
log_price_alt	0.91864	1.145026	Regular				

Discrete Response Profile of ads			
Index	Value	Frequency	Percent
1	0	19	46.34
2	1	22	53.66

Model Fit Summary	
Number of Endogenous Variables	2
Endogenous Variable	ads log_price_alt
Number of Observations	41
Log Likelihood	-22.00796
Maximum Absolute Gradient	0.16160
Number of Iterations	40
Optimization Method	Newton-Raphson
AIC	92.01592
Schwarz Criterion	133.14165

Algorithm converged.

Parameter Estimates						
Parameter	DF	Estimate	Standard Error	t Value	Approx Pr > |t|	Parameter Label
log_price_alt.Intercept	1	-0.070999	0.135921	-0.52	0.6014	
log_price_alt.multi_product	1	0.173472	0.187607	0.92	0.3551	
log_price_alt.app_mobile	1	0.254191	0.210117	1.21	0.2264	
log_price_alt.app_desktop	1	0.503944	0.222386	2.27	0.0234	
log_price_alt.portable	1	0.318203	0.215874	1.47	0.1405	

Simultaneous Regression Model of Music Service Retail Price and Adverts
Dependent Variables: Log of Unadjusted Retail Price (USD) and Adverts (Discrete)
Subscription and Nonsubscription Services
Intercept: Noninteractive Services

The QLIM Procedure

Parameter Estimates						
Parameter	DF	Estimate	Standard Error	t Value	Approx Pr > |t|	Parameter Label
log_price_alt.interactive	1	1.556113	0.285354	5.45	<.0001	
log_price_alt.downloads	1	0.009886	0.050742	0.19	0.8455	
log_price_alt.kazaa	1	1.509643	0.523418	2.88	0.0039	
log_price_alt.di	1	0.697280	0.336719	2.07	0.0384	
log_price_alt.class	1	-0.394742	0.391560	-1.01	0.3134	
log_price_alt.pasito	1	0.400235	0.374015	1.07	0.2846	
log_price_alt.imesh	1	0.067310	0.409923	0.16	0.8696	
log_price_alt.imeem	1	-1.658477	0.515152	-3.22	0.0013	
log_price_alt.myspace	1	-1.485035	0.523418	-2.84	0.0046	
_Sigma.log_price_alt	1	0.413888	0.045707	9.06	<.0001	
ads.Intercept	1	0.828400	0.166651	4.97	<.0001	
ads.multi_product	1	-0.971132	0.166651	-5.83	<.0001	
ads.interactive	1	-1.336137	0.166651	-8.02	<.0001	
ads.kazaa	1	-0.406867	0	.	.	
ads.di	1	-0.111384	0	.	.	
ads.class	1	-0.448425	0	.	.	
ads.pasito	1	-0.106038	0	.	.	
ads.imeem	1	1.513309	0.000106	14281.8	<.0001	
ads.myspace	1	0.705266	0	.	.	
_Rho	1	-0.999990	.	.	.	
Restrict1	-1	0.161603	.	.	. *	-0.999990 <= _Rho

* Probability computed using beta distribution.

Service Name	Base Country	Firm	Subscription	Multiproduct
Classical Archives	US	Classical Archives	Yes	Yes
Classical Archives (radio)	US	Classical Archives	No	Yes
ZunePass	US	Microsoft	Yes	No
Pandora (free)	US	Pandora	No	Yes
Pandora One	US	Pandora	Yes	Yes
MTV.com	US	MTV Networks	No	No
Yahoo! Music	US	CBS Radio	No	Yes
Last.fm (free)	UK	Last.fm	No	Yes
Last.fm Premium	UK	Last.fm	Yes	Yes
AOL Music	US	CBS Radio	No	Yes
Rhapsody Unlimited	US	RealNetworks	Yes	Yes
Rhapsody To Go	US	RealNetworks	Yes	Yes
Live365 (free)	US	Live365	No	Yes
Live365 VIP	US	Live365	Yes	Yes
iLike	US	iLike	No	No
Radiolicious.fm	US	Radiolicious.fm	No	Yes
MSN Music	US	MSN	No	No
Altnet (or Kazaa)	US	Altnet	Yes	No
Deezer	FR	Deezer	No	No
Napster	US	Napster	Yes	Yes
Napster To Go	US	Napster	Yes	Yes
Grooveshark (free)	US	Grooveshark	No	Yes
Grooveshark VIP	US	Grooveshark	Yes	Yes
Lala	US	Lala	No	No
Sirius XM Radio	US	Sirius	Yes	Yes
Slacker Radio (free)	US	Slacker	No	Yes
Slacker Radio Plus	US	Slacker	Yes	Yes
Radio Disney	US	Disney	No	No
Musicovery (free)	UK	Musicovery	No	Yes
Musicovery Premium	UK	Musicovery	Yes	Yes
MeeMix	US	MeeMix	No	No
FineTune	US	NextRadio	No	No
Accuradio	US	Accuradio	No	No
we7	UK	we7	No	No
Spotify (free)	SE	Spotify	No	Yes
Spotify Premium	SE	Spotify	Yes	Yes
Stitcher	US	Stitcher	No	Yes
sky.fm (free)	US	sky.fm	No	Yes
Digitally Imported (free)	US	Digitally Imported	No	Yes
Digitally Imported/sky.fm Premium	US	Digitally Imported	Yes	Yes
imeem (free)	US	imeem	No	Yes
imeem VIP Lite	US	imeem	Yes	Yes
imeem VIP	US	imeem	Yes	Yes
imeem VIP Plus	US	imeem	Yes	Yes

EXHIBIT
tabbies
Live365# 16

Jango	US	Jango	No	No
MySpace Music	US	MySpace	No	No
iMesh.com Premium	US	iMesh.com	Yes	Yes
iMesh.com ToGo	US	iMesh.com	Yes	Yes
Pasito Tunes PC	US	La Curacao	Yes	Yes
Pasito Tunes Unlimited (Mobile)	US	La Curacao	Yes	Yes

Price per Month		Adverts	Skips Allowed	Rewind	Repeat	Mobile App	Portable Downloads	Desktop App
$	9.95	No	Yes	Yes	Yes	No	Yes	Yes
$	-	No	No	No	No	No	No	Yes
$	14.99	No	Yes	Yes	Yes	No	Yes	Yes
$	-	Yes	limited	No	No	Yes	No	No
$	3.00	No	limited	No	No	Yes	No	Yes
$	-	Yes	No	No	No	No	No	No
$	-	Yes	limited	No	No	No	No	No
$	-	Yes	limited	No	limited	Yes	selected	Yes
$	3.00	No	*	No	limited	Yes	selected	Yes
$	-	Yes	limited	Yes	Yes	No	No	No
$	12.99	No	Yes	Yes	Yes	Yes	No	Yes
$	14.99	No	Yes	Yes	Yes	Yes	Yes	Yes
$	-	Yes	No	No	No	Yes	No	No
$	6.95	No	No	No	No	Yes	No	Yes
$	-	Yes	Yes	No	Yes	No	No	No
$	-	Yes	No	No	No	Yes	No	No
$	-	Yes	No	No	No	No	No	No
$	19.98	No	Yes	Yes	Yes	No	No	No
$	-	Yes	Yes	No	Yes	Yes	No	Yes
$	5.00	*	Yes	Yes	Yes	No	No	Yes
$	14.95	*	Yes	Yes	Yes	Yes	Yes	Yes
$	-	Yes	Yes	No	Yes	No	No	No
$	3.00	No	Yes	No	Yes	No	No	No
$	-	No	Yes	Yes	No	No	No	No
$	12.95	No	No	No	No	Yes	No	No
$	-	Yes	limited	No	No	Yes	Yes	No
$	3.99	No	Yes	No	No	Yes	Yes	Yes
$	-	Yes	No	No	No	Yes	No	No
$	-	Yes	No	No	No	No	No	No
$	4.00	No	Yes	No	No	Yes	No	No
$	-	Yes	limited	No	No	No	No	No
$	-	Yes	limited	No	No	No	No	No
$	-	Yes	limited	No	No	No	No	No
$	-	Yes	Yes	Yes	Yes	No	No	No
$	-	Yes	*	*	*	Yes	*	Yes
$	14.00	No	*	*	*	Yes	*	Yes
$	-	Yes	No	No	No	Yes	No	No
$	-	Yes	No	No	No	No	No	No
$	-	Yes	No	No	No	No	No	No
$	4.95	No	No	No	No	No	No	No
$	-	Yes	Yes	Yes	Yes	No	No	No
$	0.83	Yes	Yes	Yes	Yes	Yes	No	Yes
$	2.50	Yes	Yes	Yes	Yes	Yes	No	Yes
$	8.33	Yes	Yes	Yes	Yes	Yes	No	Yes

$	-	Yes	Yes	No	No	No	No	No
$	-	Yes	Yes	Yes	Yes	No	No	No
$	7.95	No	Yes	Yes	Yes	No	No	Yes
$	14.95	No	Yes	Yes	Yes	No	Yes	Yes
$	14.95	No	Yes	Yes	Yes	No	No	Yes
$	19.95	No	Yes	Yes	Yes	Yes	Yes	Yes

Unlimited Listening	Interaction Timeout	Music Quality (kbps)	Create Playlist	Social
Yes	No	*	Yes	No
Yes	No	*	No	No
Yes	No	*	Yes	Yes
No	1 hour	128	No	No
Yes	6 hours	192	No	No
Yes	*	*	No	No
Yes	*	*	No	No
Yes	1 hour	*	No	Yes
Yes	5 hours	*	No	Yes
Yes	*	*	No	No
Yes	No	128	Yes	No
Yes	No	192	Yes	No
No	*	128	No	
Yes	*	256	No	
Yes	*	*	Yes	
Yes	*	*	No	
Yes	*	*	No	
Yes	No	*	Yes	
Yes	*	*	Yes	
Yes	*	*	Yes	
Yes	*	*	Yes	
Yes	*	*	Yes	
Yes	*	*	Yes	
No	*	*	Yes	
Yes	*	128	No	
Yes	*	*	Limited	
Yes	*	*	Yes	
Yes	*	*	No	
Yes	*	*	No	
Yes	*	*	Yes	
Yes	*	*	No	
Yes	*	*	No	
Yes	*	32	No	
No	*	*	No	
Yes	*	*	Yes	
Yes	*	320	Yes	
Yes	*	*	No	
Yes	*	*	No	
Yes	*	*	No	
Yes	*	*	No	
Yes	*	*	Yes	Yes
Yes	*	*	Yes	Yes
Yes	*	*	Yes	Yes
Yes	*	*	Yes	Yes

Yes	*	*	No	
Yes	*	*	Yes	
Yes	*	*	Yes	Yes
Yes	*	*	Yes	Yes
Yes	*	*	Yes	No
Yes	*	*	Yes	No

Execution Copy

INTERACTIVE RADIO AGREEMENT

This INTERACTIVE RADIO AGREEMENT ("Agreement") is made and entered into effective as of February 1, 2007 (the "Effective Date") by and between Warner Music Inc., a Delaware corporation, with offices located at 75 Rockefeller Plaza, New York, New York 10552 ("Warner"), and Last.fm Ltd., a company registered in England and Wales No. 04569646, with its registered address at Clearwater House, 4 – 7 Manchester Street, London W1U 3AE ("Licensee") (each a "Party" and, collectively, the "Parties").

WHEREAS, Licensee desires to develop, implement, operate, maintain and make available Sound Recordings to End Users via the Licensee Interactive Service (as such terms are defined below);

WHEREAS, the Licensee Interactive Service is experimental in nature and Warner is willing to grant the non-precedential licenses set forth in Section 2(a) hereof for a limited period of time solely to determine consumer interest in accessing Warner Masters (as such term is defined below) via the Licensee Interactive Service; and

WHEREAS, subject to the terms and conditions herein and in exchange for Licensee's obligations as set forth herein, Warner is willing to allow Licensee to include Warner Masters within the Licensee Interactive Service.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein, and for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties hereby agree as follows:

1. Definitions.

(a) "Advertisement" means any advertisement, sponsorship or other promotion delivered by or on behalf of Licensee to an End User's Personal Computer or otherwise transmitted or displayed in connection with the Licensee Interactive Service, as more fully described on Exhibit A hereto.

(b) "Authorized Contractor" means a third party that (i) provides services for or on behalf of Licensee, including, without limitation, Fulfillment Activities under Licensee's supervision and in accordance with the terms and conditions of this Agreement and (ii) is recognized in the industry as capable of professionally and competently performing such services.

(c) "Authorized Website" means Licensee's Internet website located at http://www.last.fm, provided that such website is solely (i) owned and/or controlled by Licensee or its permitted successor or assign, and (ii) marketed and branded using the name "Last.fm."

(d) "Clip" means a thirty (30) second audio clip of a Warner Master, as approved by Warner in writing in advance in each instance, including by way of the provision or designation of such a clip in connection with Warner's delivery of Warner Masters hereunder.

(e) "Commissioned Ad Revenues" means, in the applicable calendar month (or portion thereof) and as allocable to the applicable Tier (as defined below), the sum of all monies or other consideration received by or on behalf of Licensee from: (i) audio Advertisements transmitted in connection with the transmission of Sound Recordings via such Tier or in any promotional communications sent by or on behalf of Licensee to End Users; and (ii) Advertisements delivered or displayed in connection with the actual transmission of Sound Recordings via such Tier, and in the case

EXHIBIT
Live365 # 17

(n) "Licensee Servers" means computer servers storing phonorecords or making public performances licensed hereunder that at all times (i) remain under the control of Licensee (including via its Authorized Contractors), (ii) incorporate security measures that meet or exceed prevailing best practices in the industry and (iii) to the extent owned or controlled by Authorized Contractors, are covered by agreements between Licensee and Authorized Contractors, provided that Licensee manages and controls the hosting activities. For the avoidance of doubt and notwithstanding the foregoing at (iii), above, Licensee may utilize Authorized Contractors that perform so-called "edge serving" services.

(o) "On-Demand" means the digital transmission, via the Licensee Interactive Service, of a particular Sound Recording to a particular End User, at or immediately following a request by such End User.

(p) "Other Materials" means artwork, graphic images (*e.g.*, album artwork), artists' names, images and likenesses, and other information or materials relating to Warner Masters that are provided by or on behalf of Warner to Licensee in Warner's sole discretion, solely for Licensee's use in accordance with the terms and conditions hereof and any additional terms and conditions of which Warner notifies Licensee.

(q) "Personal Computer" means an electronic device that supports the Security Solution.

(r) "Person" means a natural person, a corporation, a limited liability company, a partnership, a trust, a joint venture, any governmental authority or any other entity or organization.

(s) "Play" means a Stream of a Sound Recording of more than thirty (30) consecutive seconds, other than Sponsored Plays.

(t) "Security Solution" means the digital rights management and content protection system for Warner Content as described on Exhibit B hereto (which may be modified from time to time pursuant to the Parties' agreement), and as further set forth in the White Paper.

(u) "Similarly Situated Service" means a service offering On-Demand and interactive radio functionality, with rights in the Territory substantially similar to those granted to Licensee hereunder.

(v) "Sound Recording" means a work that results from the fixation of a series of musical, spoken or other sounds, but not including the sounds accompanying a motion picture or other audiovisual work, regardless of the nature of the material objects, such as disks, tapes or other phonorecords, in which they are embodied.

(w) "Sponsored Play" means a Stream of a Sound Recording of more than thirty (30) consecutive seconds that is supported by a Sponsorship.

(x) "Sponsorship" means any arrangement mutually agreed to by and between Licensee and the applicable record company, by which a particular advertiser purchases web site or audio advertisements (for purposes of clarity, not including PowerPlay) against one or more particular Warmer tracks, one or more particular Warner artists' content, a particular record label's content, or any other, similar category of content agreed to between Licensee and the applicable record company.

(y) "Sponsorship Revenues" means, in the applicable calendar month (or portion thereof) and as allocable to the applicable Tier (as defined below), the sum of all Commissioned Ad Revenues and Direct Sale Ad Revenues from Sponsorships.

of (i) and (ii), for which *bona fide* third-party sales representative costs were actually paid by Licensee to sales representatives, less (A) *bona fide* third-party ad agency commissions actually paid or payable by Licensee to an ad agency for such Advertisements (not to exceed fifteen percent (15%) per such Advertisement), and (B) such *bona fide* third-party sales representative costs actually paid or payable by Licensee to sales representatives for such Advertisements (not to exceed thirty percent (30%) per such Advertisement).

(f) "Direct Sale Ad Revenues" means, in the applicable calendar month (or portion thereof) and as allocable to the applicable Tier (as defined below), the sum of all monies or other consideration received by or on behalf of Licensee from: (i) audio Advertisements transmitted in connection with the transmission of Sound Recordings via such Tier or in any promotional communications sent by or on behalf of Licensee to End Users; and (ii) Advertisements delivered or displayed in connection with the actual transmission of Sound Recordings via such Tier, and in the case of (i) and (ii), for which no *bona fide* third-party sales representative costs were actually paid or payable by Licensee to sales representatives for such Advertisements, less *bona fide* third-party ad agency commissions actually paid or payable by Licensee to an ad agency for such Advertisements (not to exceed fifteen percent (15%) per such Advertisement). For ease of calculation, any revenues set forth in this subsection (f) that are not easily allocable to a particular Tier shall be allocated to Tier One.

(g) "End User" means any Person who views or otherwise accesses the Authorized Website, including without limitation Streaming Sound Recordings via a Tier.

(h) "Fulfillment Activities" means all activities associated with the use and distribution of Warner Masters and Other Materials, including without limitation, hosting, encoding, serving, transmitting, promoting, Streaming, downloading, processing of files, and implementing the Security Solution.

(i) "Gross Revenues" means, in the applicable calendar month (or portion thereof) and as allocable to the applicable Tier (as defined below), the sum of all monies or other consideration (i) paid or payable by End Users to Licensee for access to such Tier (the "Retail Revenues"), (ii) received or receivable by or on behalf of Licensee from the sale of products, goods and services (other than Retail Revenues) to End Users less the cost to Licensee of such products, goods and services (the "Product Revenues") and (iii) Commissioned Ad Revenues (other than Sponsorship Revenues), less (in the case of (i) and (ii) above), bad debt and credit card expenses (not to exceed two and one half percent (2.5%) of total Retail Revenues and Product Revenues for such period). For ease of calculation, any revenues set forth in this subsection (i) that are not easily allocable to a particular Tier shall be allocated to Tier One.

(j) "Internet" means the wide area cooperative network of university, corporate, government and private computer networks communicating predominately through Transmission Control Protocol/Internet Protocol which network is commonly referred to as "the Internet" (but which specifically excludes wireless transmissions other than IEEE 802.11x transmissions).

(k) "Law" means any local, state or federal law, statute, ordinance, rule, regulation, code, order, judgment or decree.

(l) "Launch Date" means the Effective Date.

(m) "Licensee Interactive Service" means Licensee's Internet-based service available via the Authorized Website, flash player, and client that permits End Users to Stream authorized Sound Recordings via a Tier as described on Exhibit A hereto, and which is (i) wholly owned and/or controlled by Licensee and (ii) operated by Licensee and/or an Authorized Contractor.

(z) "Stream" or "Streaming" (as a verb or gerund) means the process or action of making a single digital transmission (other than as a download) of a Sound Recording (or any part thereof) delivered to an End User's Personal Computer via the Internet from Licensee Servers, whereby such transmission is contemporaneous or nearly contemporaneous with the performance of, as applicable, the sound recording embodied therein, and which is not intended to be, or capable of being (other than via an unauthorized hack not facilitated or encouraged in any way by Licensee), copied or stored on the End User's Personal Computer (other than any ephemeral copies used solely for caching or buffering purposes, and provided that such cached or buffered copies are automatically deleted after being played). "Stream" (as a noun) means the digital audio transmission made in the process of Streaming.

(aa) "Territory" means the United States and its territories and possessions, including without limitation Puerto Rico.

(bb) "Tier" means Tier One, Tier Two, Tier Three or Tier Four of the Licensee Interactive Service (as each is defined on Exhibit A hereto).

(cc) "Warner Content" means all Warner Masters, Other Materials and any other materials provided by or on behalf of Warner to Licensee hereunder, in Warner's sole discretion. Warner Content is provided to Licensee solely for Licensee's use in accordance with this Agreement. Licensee shall comply with any usage and other guidelines pertaining to the Warner Content that are made available to Licensee by or on behalf of Warner from time to time, including without limitation any revisions Warner may reasonably request to the guidelines on Exhibit A hereto.

(dd) "Warner Masters" means those Sound Recordings delivered to Licensee by or on behalf of Warner and identified on a list provided by Warner to Licensee hereunder (which list Warner shall update on a biweekly basis) and which by being on such list (as updated) are deemed to be approved by Warner, in its sole discretion, for Licensee's use in connection with the Interactive Licensee Service.

(ee) "Warner Share" means a fraction, the numerator of which is the total number of times that any Warner Masters incorporated into or made available through the applicable Tier are Streamed by End Users during the applicable calendar month for more than thirty (30) consecutive seconds, and the denominator of which is the total number of times that all Sound Recordings (including without limitation Warner Masters) available in their entirety (*i.e.*, not as Clips) through such Tier are Streamed by End Users during such calendar month for more than thirty (30) consecutive seconds.

(ff) "White Paper" means that document describing the features, functionality, specifications and other details of or relating to the Licensee Interactive Service as set forth on Exhibit B hereto.

2. License.

(a) Subject to all the terms and conditions of this Agreement, Warner hereby grants to Licensee during the Term a non-exclusive, non-assignable, non-transferable, non-sublicensable (except to Authorized Contractor(s) in accordance with this Agreement) right and license, solely within the Territory, to:

(i) store and reproduce Warner Content on Licensee Servers, solely as necessary for Licensee to exercise those rights set forth in Sections 2(a)(ii) through (v) below;

(ii) allow End Users to Stream Warner Masters via the Licensee Interactive Service to Personal Computers in the Territory in their entirety (or part thereof, if an End User terminates a Stream prior to the end of the applicable Warner Master) solely in the manner set forth herein and in the format and structure designated by Warner; and

(iii) subject to Warner's prior written consent, on a case-by-case basis, digitize and display Other Materials that have been provided by or on behalf of Warner to Licensee (A) on the Authorized Website, (B) via the Licensee Interactive Service or (C) in other promotional communications sent directly from Licensee to those End Users who have consented to such receipt, in each case, in the same size and prominence as all other similar content in each such location or communication and solely to promote the availability of Warner Masters via the Licensee Interactive Service;

(iv) pursuant to Section 5(b), and otherwise on Warner's prior written consent on a case-by-case basis, display in connection with the Streaming of Warner Masters as part of the Licensee Interactive Service, (A) the names, logos and trade names of Warner, as such names, logos and trade names appear on records which embody Warner Masters, (B) the album titles for Warner Masters and the titles of the records which embody each Warner Master and (C) the names of the artists whose performances are embodied in Warner Masters referred to in subsection (B) as such Warner names, logos, tradenames, album titles, and artist names have been provided by or on behalf of Warner to Licensee; and

(v) to the extent Licensee is authorized to offer or facilitate downloads of Warner Masters via the Licensee Interactive Service, to Stream the Clip associated with each such Warner Master, solely for the purpose of facilitating the sale of such Warner Master.

(b) Licensee will not edit, change or alter in any way any Warner Masters or Other Materials provided by or on behalf of Warner hereunder without Warner's prior written consent, except as necessary to render visual displays appropriately (*e.g.*, adjustment of pixels). Without limiting the foregoing, the license granted herein does not include any adaptation (derivative work) rights or the right to alter the fundamental character of any Warner Content.

(c) Without Warner's prior written consent, Licensee: (i) shall use commercially reasonable efforts to ensure that all Advertisements displayed on or in connection with the Licensee Interactive Service are not tied to any individual recording artist or Sound Recording and are clearly distinguished from the performance of any such Sound Recording; and (ii) may not take any action, directly or indirectly, so as to imply an artist or Warner endorsement, or artist or Warner commercial tie-in of any product or service, including, without limitation, the Authorized Website or the Licensee Interactive Service.

(d) All rights not expressly conferred to Licensee are expressly reserved to Warner. For the avoidance of doubt, Warner is not restricted from sales (either its own or via third parties) of Warner Masters in any format or channel in the Territory. Except as expressly set forth herein, Licensee shall not use or make available any Warner Masters, Other Materials or other property of Warner (including the names and/or likenesses of any artist whose performances are embodied in Warner Masters), provided that the foregoing shall not prevent Licensee from using any artist name or likeness embodied in any Warner Masters or Other Materials in any manner that does not require consent from Warner or any other Person.

(e) Except as embodied in Warner Masters and/or Other Materials as provided to Licensee, the Authorized Website, the Licensee Interactive Service and the Advertisements shall not contain content or engage in activities (and shall not frame, link to, advertise, be embedded on or otherwise endorse any other website or media that contains content or engages in activities) that Licensee is or reasonably should be aware: (i) is or are unlawful, harmful, threatening, defamatory, obscene, harassing or discriminatory; (ii) violate(s) or infringe(s) the rights of any third party (including intellectual property, name and likeness and privacy/publicity rights); (iii) depict(s) sexually explicit images; (iv) promote(s) violence, discrimination, illegal activities, or alcohol or tobacco products; or (v) is or are objectionable to Warner based upon reasonable grounds that Warner may notify Licensee from time to time. Warner acknowledges that, because the flash player and/or client may be embedded on websites by End Users pursuant to Section 2(g) below, Licensee may not always be aware of particular violations of this subsection (e) and, as such, Licensee shall be considered in compliance with this subsection to the extent that it takes commercially reasonable efforts to remedy such violations in a timely manner as it becomes aware of them, including by terminating the applicable End User's account when appropriate.

(f) For the avoidance of doubt, except as expressly set forth herein or otherwise agreed to by Warner in advance in writing, nothing in this Agreement grants Licensee, nor does this Agreement authorize Licensee to grant to any other Person (including without limitation any End User or any Authorized Contractor), the right to: (i) host, display or use in any manner any Warner Masters (or portions thereof) on the Licensee Interactive Service or otherwise; (ii) perform publicly, by means of digital transmission or otherwise, any Warner Master; or (iii) Stream any Warner Master on a "pay-per-view" or "pay-per-play" basis.

(g) Unless Warner agrees otherwise in writing during the Term, neither Licensee nor any Authorized Contractor shall: (i) Stream (or encode to permit the Streaming of) Warner Masters at a transmission rate greater than 128 kbps; (ii) license or otherwise authorize a third party to "deep link" (providing a direct means to download or Stream a Sound Recording outside of the Licensee Interactive Service) from outside of the Licensee Interactive Service for the purpose of Streaming a Warner Master; (iii) permit any End User to make downloads of any Warner Masters; or (iv) frame or otherwise superimpose Warner Masters into any other website, sublicense or "syndicate" (as that term is commonly understood in the Internet marketing industry) Warner Masters to any third party except that Licensee may permit its end users to embed the Licensee's flash player and client, provided that Licensee shall not offer the flash player or client in such a manner as to change the underlying economic arrangement hereunder, *e.g.*, by not displaying the advertisements typically displayed (if any) in connection with the applicable Tier, as described on Exhibit A.

(h) Warner acknowledges that Licensee may use Authorized Contractors to perform its obligations hereunder in accordance with the provisions of this Agreement, provided that Licensee must maintain control over, and retains liability hereunder for all such obligations, including, without limitation, all Fulfillment Activities. Licensee shall cause each Authorized Contractor to abide by the terms and conditions of this Agreement applicable to Licensee (regardless of whether Authorized Contractors are expressly covered by such obligation). If any Authorized Contractor takes any action or omits to take any action that would breach this Agreement if it were Licensee: (i) Licensee shall promptly notify Warner of same; (ii) upon notice to Licensee from Warner, Licensee shall immediately cease providing any Warner Content to such Authorized Contractor and cease permitting such Authorized Contract to perform Licensee's obligations hereunder, and such entity shall cease to be an "Authorized Contractor" hereunder; and (iii) Licensee shall be deemed to be in breach of this Agreement as if such action or omission were or were not taken by Licensee.

3. Warner's Rights and Obligations.

(a) Warner shall provide Licensee with all Warner Masters in mp3 format at a bit rate of 128 kbps or other mutually agreed format(s). Warner shall provide Licensee a list of Warner Masters that may be used as part of the Licensee Interactive Service in accordance with the terms and conditions hereunder, and may update it from time to time during the Term in its sole discretion.

(b) Warner shall be responsible for the following: (i) all artist royalties, producer royalties or other record royalties payable to artists and producers and other record royalties payable to third parties in the Territory resulting from agreements made by Warner or the relevant artists pertaining to Licensee's authorized use of Warner Masters hereunder; and (ii) payments that may be required hereunder pursuant to the American Federation of Musicians (AFM) and/or the American Federation of Television and Radio Artists (AFTRA) collective bargaining agreements applicable to Warner. For the avoidance of doubt Warner shall have no responsibility for obtaining any licenses or permissions to use, or for paying any royalties, fees or other payments (A) for the use of any musical compositions underlying the Warner Content (including, without limitation, mechanical rights and public performance rights) or (B) not expressly assumed by Warner in this Section 3(b), all of which are Licensee's sole responsibility.

(c) Warner may terminate Licensee's prospective rights to use any Warner Content and/or Other Materials at any time by notifying Licensee in writing. Upon receipt of such notice, Licensee shall: (i) cease to offer such materials on a prospective basis as promptly as possible, but in no event later than two (2) business days following receipt of notice; and (ii) promptly following such notice, return to Warner or destroy, at Warner's option and in accordance with Warner's instructions, such Warner Content and/or Other Materials (including, without limitation, from Licensee Servers). Warner shall not exercise its rights under this subsection to frustrate or defeat the purposes of this agreement, including by discriminating against Licensee in bad faith with respect to Similarly Situated Services. If, notwithstanding the foregoing, Warner elects to terminate Licensee's prospective rights to all or substantially all Warner Content prior to the end of the Initial Term, Warner shall refund a pro-rated portion of any unrecouped advance paid by Licensee pursuant to Section 7(b) hereunder. The pro-rated portion in the foregoing sentence shall be calculated by multiplying the amount of the unrecouped advance by the number of complete calendar months remaining in the Initial Term, and dividing by twelve.

(d) Each Party will designate a single contact person to address all technical, marketing or other business issues (other than accounting as contemplated by Exhibit C hereto) relating to this Agreement.

4. Licensee's Security.

(a) Licensee shall at all times during the Term use mutually-agreed, robust "state of the art" (*i.e.*, best available) practices and systems (including without limitation the Security Solution) to enforce the territorial, use and other restrictions of this Agreement and to prevent and (to the extent of Licensee's applicable awareness) take prompt and proper remedial action against unauthorized physical or electronic access, copying, modification or distribution of Warner Content, including without limitation the sharing of any End User accounts. In no event shall Licensee modify any part of the Licensee Interactive Service or its functionality in a manner that would impair the security of Warner Content or otherwise limit any of Warner's rights or Licensee's obligations hereunder. If there is any commercial release of any upgrade, update, repair, patch, new release or modification to software or technology that could materially improve the Security Solution, Licensee shall notify Warner and add it to the Licensee Interactive Service to the extent commercially practicable.

(b) Licensee shall operate the Licensee Interactive Service with functionality and features consistent with the description set forth in Exhibit A hereto. Licensee shall ensure through all commercially available technological means, including without limitation by its financial and clearinghouse process and credit card address verification and reverse IP address lookup, that all End Users reside in the Territory at all times. Warner may, on its own or through an independent firm subject to its signing a confidentiality and non-disclosure agreement containing confidentiality restrictions substantially similar to those hereunder, conduct a technical audit of the Authorized Website and Licensee Interactive Service (including related technical systems, servers, content preparation and functionality) one (1) time per year (or more often, if justified under the circumstances) during reasonable business hours and upon at least thirty (30) days' notice to ensure Licensee's compliance with this Agreement. Licensee shall promptly procure any and all rights and permissions, documentation and availability of personnel of Licensee or any Authorized Contractor necessary for Warner to exercise its audit rights hereunder. Any information initially disclosed by Licensee to Warner in the course of such an audit also shall be treated as Confidential Information of Licensee hereunder.

5. Licensee's Obligations.

(a) If Warner, in its sole discretion, provides a parental advisory warning due to explicit lyrics or otherwise, Licensee shall promptly and clearly disclose such warning to End Users prior to their playing of the applicable Warner Master. If Warner, in its sole discretion, provides a copyright notice for Warner Masters or Other Materials, Licensee shall include such notice so it can be readily viewed by End Users. Licensee shall take all commercially reasonable steps to ensure that no current or future signals, identifying codes, watermarks, copy protection codes or similar content or features integrated by Warner into Warner Content are removed or otherwise hampered by or on behalf of Licensee. To the extent that Warner wishes to integrate any such content or features into Warner Content already delivered to Licensee, Licensee shall permit Warner to re-deliver such Warner Content with such features, and thereafter shall use such Warner Content only as re-delivered. At Warner's commercially reasonable request, Licensee shall institute systems to read any unique identifiers to Warner Masters contained in the Warner Content. Licensee shall not cover, impair or alter in any way any watermark (or similar item) in Warner Masters. Neither party shall exercise any rights under this subsection 5(a) in bad faith, so as to frustrate or defeat the purposes of this Agreement.

(b) The Licensee Interactive Service will display the track title and name of the artist for each Warner Master during the playing thereof by an End User.

(c) Licensee shall require all End Users, prior to delivery of any Warner Masters or Other Materials hereunder, to agree to "Terms of Use" that: (i) require End Users to comply with all applicable Laws in their use of Warner Masters and to protect Warner's rights therein; and (ii) state that End Users are not granted any commercial, sale, resale, reproduction, distribution or promotional use rights for Warner Masters. Licensee shall provide Warner with its End User "Terms of Use" which shall be at least as protective as this Section 5(c) and the terms and conditions on Exhibit A hereto and shall allow Warner, upon reasonable notice to Licensee, to revise provisions pertaining to Warner's rights and interests. Licensee shall, on a regular basis, monitor End User activity to ensure compliance with such "Terms of Use."

(d) Except as expressly assumed by Warner in Section 3(b) hereof, Licensee shall obtain and pay for all licenses, rights, permissions and consents and pay all costs relating to the exercise of its rights and performance of its obligations under this Agreement and all Fulfillment Activities, including, without limitation: (i) royalties payable for the performance, reproduction or any other rights in or to musical compositions underlying Warner Masters; (ii) all promotional activities conducted by or on behalf of Licensee; and (iii) all activities after Licensee receives any Warner Content, including encoding, hosting and serving such Warner Content. As between Warner and Licensee, Licensee shall be responsible for obtaining all licenses necessary for the operation of the Licensee Interactive Service (except as expressly assumed in Section 3(b) hereof). Warner agrees to use commercially reasonable efforts to assist Licensee in obtaining publishing consents and licenses in the Territory, provided that (A) Warner shall have no obligation to pay any costs associated with such consents and licenses and (B) Licensee will reimburse Warner for all reasonable expenses incurred by Warner in assisting to obtain such consents and licenses.

(e) Licensee shall not release any Warner Master to any End User prior to the release date designated by Warner. Licensee will not utilize or leverage any Warner Masters or Other Materials provided by Warner hereunder in connection with any offer other than the Licensee Interactive Service, and all such materials shall only be made available, as permitted hereunder, from those areas of the Authorized Website dedicated to the Licensee Interactive Service.

(f) During the Term of this Agreement and for one (1) year thereafter, Licensee shall maintain in full force and effect, at its own expense, Internet media liability, network security liability or other suitable insurance with limits of no less than three million pounds (£3,000,000.00) per claim and three million pounds (£3,000,000.00) as an annual aggregate to cover technology errors and omissions and negligent acts, with worldwide coverage including, without limitation, loss of data, theft of personal information or Warner Content resulting from hacker attacks or viruses, breaches of security, unauthorized access, credit card liability or other similar loss to Warner (the "Policy"). The Policy shall be with a reputable licensed insurance company. Within thirty (30) days from the Effective Date, Licensee shall submit to Warner a certificate of insurance naming Warner, its subsidiaries, affiliates and assigns as additional insured parties, and requiring that the insurer not terminate or materially modify such policy without written notice to Warner at least twenty (20) days in advance thereof. For the avoidance of doubt, insurance required by Warner hereunder shall in no way reduce or limit Licensee's actual obligation to indemnify and defend Warner for claims, suits or allegations brought as a result of, or as related to the performance of this Agreement.

(g) For the avoidance of doubt, (i) all terms set forth herein regarding restrictions on the use of Warner Content, including, without limitation, the content usage rules set forth herein and (ii) the economic terms, shall be applicable to all end users of the Licensee Interactive Service, regardless of whether such end user is considered an "End User" under this Agreement. Payment for such use of Warner Masters shall not relieve Licensee of its obligations hereunder or constitute a waiver by Warner of any rights and remedies it may have under law or equity.

6. Promotional Opportunities.

(a) Licensee shall provide to Warner, at no cost to Warner, advertising space valued at five hundred thousand dollars ($500,000.00) at Licensee's then-current market rates, to permit Warner to run its own advertisements, as designated by Warner in its discretion (subject in each case to Licensee's approval, not to be unreasonably withheld), in the Licensee Interactive Service (or in other promotional communications sent by or on behalf of Licensee to End Users), which advertisements Warner may use to promote Warner or its labels, Sound Recordings or artists.

(b) During the display, playback or other viewing via the Licensee Interactive Service of each Warner Master and from each area of the Authorized Website where artist, album title and/or song title information for any Warner Master is made available, Licensee shall include: (i) a space where Warner may place its banner advertisements related to that artist, which may link to an artist web site or other mutually agreeable destination; Licensee shall provide such ads at half of Licensee's then-current market rates, and Warner shall be permitted to use its allocation under 6(a) above towards such ads (but at the lower rate); and (ii) prominently-placed buttons or links in the Licensee Interactive Service that seek to encourage End Users to purchase the applicable Warner artist's album or digital download from one or more legally operating third-party providers, it being understood that if Licensee operates a service which makes available Warner album or digital download sales to end users, such buttons or links may direct end users to purchase opportunities within Licensee's service. In connection with subsection (ii), and while a Warner Master is being Streamed, Licensee shall, at a minimum, provide a link to buy the related album or digital download. Notwithstanding the foregoing, however, Warner acknowledges that such links to buy will likely not be live by the Launch Date, and Licensee agrees to use commercially reasonable efforts to implement such links over the course of the following several months.

(c) Licensee shall provide to Warner promotional opportunities reasonably requested by Warner and shall use reasonable efforts to send mutually-agreed promotional messages via the Licensee Interactive Service's dashboard and advertising space thereon. Each such campaign may, at Warner's request, contain a Warner approved song clip or link to a stream and/or artist-related information (*e.g.*, tour dates, album release information) that has been provided by Warner. Without limiting the foregoing, but solely to the extent permitted by applicable Law, Licensee shall not make available to any other record label any more favorable promotional opportunities than those available to Warner hereunder in terms of prominence, placement, quality and quantity (other than limited, special promotional arrangements that are exclusive or provided to such third parties in exchange for other special, non-monetary consideration, provided that upon Warner's request, Licensee shall extend to Warner similar types of special promotional arrangements on substantially similar terms).

(d) Subject to applicable Laws and Licensee's privacy policy that has been provided to Warner, Licensee shall furnish Warner with weekly "flash" reports by noon of each Tuesday, setting forth, in a medium and format reasonably acceptable to Warner, (i) the identity and date of each Play of a Warner Master via the Licensee Interactive Service and (ii) the following information relating to End Users who play Warner Masters on an aggregate, anonymous basis: (A) age; (B) gender; (C) geographical area; (D) data relating to the number and type of Plays of Warner Masters by End Users; and (E) any additional information relating to End Users or the use of Warner Masters of a type that Licensee provides to any other record companies about the use of such other record companies' own content (such subsections (i) and (ii), collectively, "<u>End User Data</u>"). It is understood and acknowledged by Warner that such flash reports on End User Data shall set forth only the data in Licensee's possession as of the date of the report, and that such flash reports may therefore not be as accurate as the monthly reporting Licensee will provide under Section 8. Licensee shall use all reasonable efforts to notify Warner of any proposed changes to its privacy policy at least thirty (30) days in advance of implementing any such changes, at the same time and in the same manner that it notifies third parties of such changes, it being understood that if a change is required to be implemented in a time period of less than thirty (30) days for Licensee to comply with applicable law, Licensee's compliance with such law shall not constitute a breach of this Agreement. Except as further required by law, or (in the good-faith judgment of Licensee's legal advisers) as reasonably necessary to reduce Licensee's liability exposure, Licensee shall not change its privacy policy in a manner that would impact the nature of the parties' relationship, *e.g.* by further restricting the amount or type of information that Licensee discloses hereunder.

(e) For purposes of this Agreement, "<u>User Information</u>" means information that is collected in connection with or otherwise concerning Warner Masters licensed and exploited under this Agreement as part of the Licensee Interactive Service that would be competitively useful to Warner's direct competitors (*i.e.*, other record companies), which for purposes of clarity shall include End User Data, but shall not include data relating to other record companies' content (including information related to End Users who play such other record companies' content) or data collected in connection with plays of Warner content other than via the plays of Warner Masters from the Licensee Interactive Service.

(f) If Licensee wishes to disclose User Information to any third party, Licensee must seek Warner's prior written approval, which Warner may provide or withhold in its sole discretion. In the event that any such disclosure is approved by Warner, Licensee shall provide to Warner at no charge any copy of User Information provided to third parties or otherwise used by Licensee, to the extent that such User Information has not already been provided to Warner hereunder. Notwithstanding the foregoing, however, Licensee may freely use for its own internal purposes any information that is collected and processed by the Licensee application (such application, the "Audio Scrobbler" and information that is collected and processed by the Audio Scrobbler, "Scrobbler Information"). For purposes of clarity, Licensee's permissible internal use of User Information includes providing information or other services to third parties (such as programming recommendations, Top Ten charts, etc.) in a manner that would not disclose such underlying User Information, as well as for providing the Licensee Interactive Service (*e.g.* for use in Licensee's music recommendation service, for profiling of End Users, for use in programming customized Tier Four channels, for tracking listening trends, and for reporting hereunder). Except as otherwise required by applicable Law, Licensee shall maintain a copy of the User Information for a minimum of two (2) years following the termination or expiration of this Agreement (or such longer period as reasonably requested by Warner).

(g) For the avoidance of doubt, User Information shall not be deemed to constitute the Confidential Information (as defined below) of Licensee hereunder; otherwise, however, Scobbler Information shall be deemed to constitute the Confidential Information of Licensee.

7. Royalties.

(a) Within ten (10) days after the Effective Date, Licensee shall remit to Warner a non-refundable, non-recoupable content preparation and delivery fee of twelve thousand five hundred dollars ($12,500.00) for Warner's preparation and delivery of Warner Masters hereunder. For each Renewal Term, if any, Licensee shall remit to Warner a non-refundable, non-recoupable content preparation and delivery fee of one thousand forty-two dollars ($1,042.00), on the first day of each such Renewal Term. However, and notwithstanding the foregoing, Licensee shall have no obligation to remit to Warner the amounts under this Section 7(a) for so long as, and to the extent that, Licensee elects not to receive digital copies of Warner Masters from Warner, but rather from a third party such as 7 Digital.

(b) Within ten (10) days after the Effective Date, Licensee shall remit to Warner a non-refundable, advance payment in the amount of fifty thousand dollars ($50,000.00), which amount shall be fully recoupable from the fees set forth in Section 7(c) hereof (the "Service Fees") hereunder. For each Renewal Term, if any, Licensee shall remit to Warner an additional advance payment in the amount of four thousand one hundred sixty-seven dollars ($4,167.00) on the first day of each such Renewal Term, which amount shall be fully recoupable against future Service Fees under Section 7(c) hereof.

(c) For each calendar month of the Term (or portion thereof), Licensee shall pay to Warner the following amounts:

(i) with respect to Tier One, the greater of (A) the Warner Share for such calendar month multiplied by the sum of (x) sixty-five percent (65%) of Tier One Gross Revenues during such calendar month, and (y) fifty percent (50%) of Tier One Direct Sale Ad Revenues, and (B) the applicable rate set forth herein for each Play of a Warner Master via Tier One during such calendar month, which rate (1) shall equal four tenths of one cent ($0.004) for each Play of a Warner Master during the first six calendar months after the Effective Date and (2) shall be one cent ($0.01) for each Play of a Warner Master thereafter;

(ii) with respect to Tier Two, the greater of (A) the Warner Share for such calendar month multiplied by fifty percent (50%) of Tier Two Gross Revenues and Tier Two Direct Sale Ad Revenues during such calendar month and (B) two cents ($0.02) for each Play of a Warner Master via Tier Two during such calendar month, provided that such rate shall be renegotiated by the parties, acting in good faith, commencing in the seventh month after the Effective Date;

(iii) with respect to Tier Three, the greatest of (A) the Warner Share for such calendar month multiplied by fifty percent (50%) of Tier Three Gross Revenues and Tier Three Direct Sale Ad Revenues during such calendar month, (B) the Warner Share for such calendar month multiplied by two dollars fifty cents ($2.50) for each End User of Tier Three and (C) one cent ($0.01) for each Play of a Warner Master via Tier Three during such calendar month; and

(iv) with respect to Tier Four, the greatest of (A) the Warner Share for such calendar month multiplied by twenty-five percent (25%) of the Tier Four Retail Revenues, (B) the Warner Share for such calendar month multiplied by fifty cents ($0.50) for each End User of Tier Four and (C) one tenth of one cent ($0.001) for each Play of a Warner Master via Tier Four during such calendar month, <u>plus</u>, regardless of whether subsection (A), (B) or (C) is applicable, the Warner Share for such calendar month multiplied by fifty percent (50%) of Tier Four Gross Revenues (other than revenues from the Tier Four Retail Revenues) and Tier Four Direct Sale Ad Revenues during such calendar month.

(v) with respect to Sponsored Plays, the sum of (x) sixty-five percent (65%) of Sponsorship Revenues that are Commissioned Ad Revenues during such calendar month, and (y) fifty percent (50%) of Sponsorship Revenues that are Direct Sale Ad Revenues during such calendar month.

(d) All calculations with respect to amounts payable to Warner hereunder shall be made by carrying out all fractional amounts to the fourth digit following the decimal point, completing the necessary additions, and then rounding to the nearest penny (*i.e.*, no number should be rounded to the nearest penny prior to the completion of all necessary additions).

(e) All payments hereunder shall be in U.S. dollars and made by check, wire or ACH. Payments made by check can be sent via regular mail to Warner/Elektra/Atlantic Corporation Dept. CH10125, Palatine, Illinois 60055-0125 or via overnight delivery to Mellon Bank Chicago Regional, Lockbox 5505, North Cumberland Avenue, Suite #301, Chicago, Illinois 60656, Attention: Lockbox #10125. Payments made via wire or ACH should be sent to Mellon Financial Corporation ABA #043000261, for the Account: Warner/Elektra/Atlantic Corporation, 3400 West Olive Avenue, Burbank, California 91505, Account Number: 070-1325, Lockbox Number: 500005. Any past due amounts will bear interest daily until paid at a rate of interest equal to the lesser of: (i) the prime rate as published in *The Wall Street Journal* on the payment due date plus two percent (2%); or (ii) the maximum rate of interest allowed by applicable Law.

(f) Licensee shall collect, bear and pay any and all taxes, duties and customs of any kind, however designated, levied or based in any way anywhere in the Territory upon the sale or resale of any products or provision of services by Licensee, including, for the avoidance of doubt and without limitation, all sales, use, excise, purchase, value added or similar taxes (other than U.S. federal and state income taxes payable by Warner on monies earned by Warner hereunder). Licensee shall execute any documents Warner may reasonably deem necessary or desirable to evidence Licensee's liability for such taxes. If any claim is made against Warner for such taxes, Licensee shall indemnify and hold Warner harmless for any liability for such sums and shall promptly remit to Warner such sums together with any penalties and interest assessed.

(g) Except as otherwise set forth in subsection (f) above, all payments hereunder made by Licensee to Warner shall be made free and clear of, and without deduction or withholding for or on account of any and all taxes, levies, imposts, duties, charges, fees, deductions or withholdings now or hereafter imposed, levied, collected, withheld or assessed by any governmental authorities. If any taxes, levies, imposts, duties, charges, fees, deductions or withholdings are required to be withheld or deducted from any amounts payable to Warner hereunder, the amounts so payable shall be increased to the extent necessary to yield to Warner the full amount specified hereunder.

(h) Licensee will maintain and preserve in its principal place of business, during the Term and for at least three (3) years thereafter, complete and accurate records of accounts and other records pertaining to its obligations hereunder ("Licensee Records"). At Warner's expense, and during reasonable business hours and upon thirty (30) days' notice, Warner may select an independent firm to audit the Licensee Records once during each successive twelve (12) month period beginning on the Effective Date ("Audit"), subject to such firm's signing a confidentiality and non-disclosure agreement containing confidentiality restrictions substantially similar to those hereunder. In the event that an Audit reveals an underpayment by Licensee hereunder, Licensee shall, without limitation of Warner's other rights and remedies, promptly pay to Warner such underpayment, together with interest thereon as calculated in accordance with this Agreement; and, in the event that such underpayment exceeds five percent (7.5%) of any payment obligations during such period covered by the Audit, Licensee shall, in addition to paying Warner such underpayment and interest, (i) reimburse Warner for all reasonable costs of the audit, including, without limitation, accountants' fees and attorneys' fees incurred in accordance with this Section 7(h) and (ii) permit Warner to conduct an additional Audit of Licensee's accounts and records in accordance with this Section 7(h) during the same twelve (12) month period. Any information initially disclosed by Licensee to Warner in the course of such an Audit also shall be treated as Confidential Information of Licensee hereunder.

8. Reporting.

(a) Within ten (10) days after each calendar month, Licensee shall deliver to Warner, together with the related payments, statements showing, in a clearly understandable manner and in reasonable detail as may be necessary to calculate the amounts owed to Warner hereunder (and broken down on a Tier-by-Tier basis): (i) the total number of Plays of Warner Masters during the applicable calendar month and year-to-date, collectively as well as separately on a Warner Master-by-Warner Master basis and identified using any code or other designation assigned by Warner (*e.g.*, POID, ISRC, UPC or Grid #); (ii) the total Service Fees; (iii) Licensee's total Gross Revenues during the applicable calendar month and year-to-date; (iv) the total number of End Users; (v) any other category of information relating to End Users or their use of Warner Masters as is provided by Licensee to any other music company or record label the same data on an anonymous aggregate basis (*e.g.*, no sound recordings, music companies or record labels other than Warner will be identified) for all other music companies or record labels with Sound Recordings used in the Licensee Interactive Service; (vi) all other information reasonably necessary to calculate the Service Fees hereunder (*e.g.*, the total number of Plays of all Sound Recordings); and (vii) any additional information that Warner reasonably requires to fulfill any third party reporting or auditing obligation. Such statements shall be provided to Warner in a mutually agreeable format necessary to satisfy Warner's reporting or auditing obligations to third parties and in a manner that is compatible with Warner's royalty accounting systems. The current version of such format is set forth on Exhibit C hereto.

(b) Licensee shall provide to Warner the following information and materials throughout the Term: (i) real time access on a continuous basis, via a password-protected online account using a mutually-agreeable query system to, and (ii) by noon of each Tuesday following Licensee's first distribution of Sound Recordings hereunder, or if a holiday, the next business day thereafter, unofficial "flash" reports setting forth for the previous week Plays of Sound Recordings made as part of the Licensee Interactive Service from Licensee Servers, in each case, all information set forth on Exhibit C hereto. It is understood and acknowledged by Warner that such flash reports shall set forth only the data in Licensee's possession as of the date of the report, and that such flash reports may therefore not be as accurate as the monthly reporting Licensee will provide under Section 8. For purposes of clarity, such unofficial flash reports may be consolidated with the flash reports required under Section 6(d). Warner also acknowledges that the real-time access required under subsection (i) above will not likely be available by the Launch Date, and that Licensee shall implement such real-time access within a reasonable timeframe.

(c) At six (6) month intervals from the Effective Date during the Term, Licensee will present to Warner the strategic marketing plans for the Licensee Interactive Service that Licensee plans to implement for the next six (6) months (the "Marketing Plans"). Licensee will give Warner a meaningful opportunity to comment and reasonably consult on the Marketing Plans.

(d) Licensee shall conduct comprehensive research and testing to better understand consumer preferences related to the music experience of the Licensee Interactive Service. Licensee shall provide Warner with access to detailed research results, with the terms of such research and testing to be determined by mutual agreement of the parties. To the extent any such research and testing specifically requested by Warner would be unduly burdensome for Licensee, the parties shall discuss in good faith the ways in which Warner can assist with such research and testing, including by sharing any undue portion of costs. In addition, but solely to the extent consistent both with Law and with Licensee's contracts with third parties (as construed by Licensee in its reasonable discretion), Licensee shall share all Advertisement-placement information with Warner (including, without limitation, CPM and "sell-through" data) and otherwise be reasonably responsive to requests from Warner regarding Advertisements. Although Licensee will disclose to Warner in accordance with the preceding sentence Licensee's standard, "rack" rates, aggregate advertisement-related information and the identities of its advertising partners, Warner expressly acknowledges that certain of Licensee's contracts with third parties may prevent Licensee from sharing some other types of Advertisement-placement information, including certain CPM and "sell-through" data. Licensee shall not determine or intentionally otherwise set charges or other consideration for Advertisements or advertising-related services, or otherwise structure its business, so as to reduce the amounts that Warner would otherwise receive from Licensee hereunder.

9. Ownership. The parties acknowledge that, as between the Parties, all right, title and interest in the Warner Content (including, without limitation, all intellectual property rights therein; any digitized files produced by Licensee hereunder; the physical and tangible embodiments thereof; and all intellectual property rights in the foregoing) are and shall remain the sole property of Warner. Licensee shall not contest or assist others in contesting the validity of any property or intellectual property rights owned by Warner pursuant to this Section 9 or otherwise. Notwithstanding anything in this Agreement to the contrary, (a) Licensee shall take possession of Warner Content (including any copy thereof) only for the purpose of facilitating the use of Warner Masters via the Licensee Interactive Service in accordance with the terms and conditions set forth herein and (b) Licensee shall not be deemed to have taken ownership of or title to any Warner Content (including any copy thereof).

10. Term; Termination.

(a) The initial term of this Agreement shall commence on the Effective Date and expire December 31, 2007 (the "Initial Term"), unless sooner terminated pursuant to the terms of this Agreement. This Agreement shall renew automatically for additional successive renewal terms of one (1) month each (each, a "Renewal Term"), unless either party gives notice of non-renewal to the other party at least one (1) month prior to the expiration of the then-current Initial Term or Renewal Term or unless sooner terminated pursuant to the terms of this Agreement (the Initial Term and any Renewal Terms, collectively, the "Term").

(b) Warner may terminate this Agreement, effective upon written notice to Licensee, in the event of: (i) Licensee's failure to comply with the payment obligations set forth in Section 7 above and fails to cure such non-compliance within ten (10) working days after written notice; (ii) Licensee's use or allows the use of the Warner Content (or any part thereof) other than as expressly authorized herein; (iii) Licensee's breach of Section 14(f) hereof; (iv) Licensee repeatedly fails to remove Warner Masters or Other Materials from the Authorized Website and/or Licensee Interactive Service pursuant to Section 3(c) hereof, notwithstanding Licensee's cure of such breach; (v) if Licensee transmits Sound Recordings fails to maintain a mechanism that permits Licensee to count reliably the number of Plays of Sound Recordings so that Warner may reliably audit such count; or (vi) the termination of any other agreement between Licensee and Warner by Warner prior to the expiration of the term thereof due to a breach of such agreement by Licensee.

(c) Each Party may terminate this Agreement, effective upon written notice to the other Party, if the other Party: (i) materially breaches any of the provisions of this Agreement and fails to cure same within thirty (30) days after written notice; or (ii) is unable to pay its debts when due, makes any assignment for the benefit of creditors, files any petition under the bankruptcy or insolvency Laws, has a receiver or trustee to be appointed for its business or property, or is adjudicated bankrupt or insolvent.

(d) Upon any expiration or termination of this Agreement, (i) Licensee shall immediately cease exercise of its rights under Section 2(a) hereof and shall, at Warner's option, promptly destroy or return all materials pertaining to same, including all copies thereof, that are in Licensee's possession or subject to its control (including, without limitation, in the possession or control of Authorized Contractor(s)); and (ii) Sections 1, 2(d), 3(b), 5(d), 5(f)-(g), 6(a), 6(e)-(g), 7, 8, 9, 10(d), 12, 13 and 14 shall survive any such event. For the avoidance of doubt, any Streams of Warner Masters made by Licensee in violation of the terms of this Agreement or after the expiration or termination of this Agreement for any reason shall be fully subject to, among other things, Warner's rights under 17 U.S.C. § 106(6) and the remedies in 17 U.S.C. § 501 et seq.

11. Representations and Warranties. Each Party represents and warrants that it has the right, power and authority to enter into this Agreement and to fully perform its obligations hereunder. EXCEPT FOR THE FOREGOING SENTENCE, WARNER MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THIS AGREEMENT OR THE WARNER CONTENT, AND EXPRESSLY DISCLAIMS ALL SUCH REPRESENTATIONS AND warranties, INCLUDING ANY WITH RESPECT TO TITLE, NON-INFRINGEMENT, MERCHANTABILITY, VALUE, RELIABILITY OR FITNESS FOR USE. EXCEPT AS EXPRESSLY SET FORTH HEREIN, AND WITHOUT LIMITING SECTION 12 BELOW, LICENSEE'S USE OF WARNER MASTERS OR OTHER MATERIALS IS AT ITS OWN RISK ON AN "AS IS" BASIS.

12. Indemnification.

(a) Warner will defend at its expense, indemnify and hold harmless Licensee and its affiliates and their respective directors, officers, employees, agents and representatives ("Related Parties") from any loss, liability, damage, award, settlement, judgment, fee, cost or expense (including reasonable attorneys' fees and costs of suit) ("Losses") arising out of or relating to any third-party (other than Authorized Contractors or other parties acting on behalf of Licensee) claim, allegation, action, demand, proceeding or suit ("Action") against any of them that arises out of or relates to: (i) any breach by Warner of this Agreement or its representations, warranties and covenants hereunder; or (ii) any claim that Licensee's use of the Warner Masters as explicitly authorized by this Agreement infringes the intellectual property rights of a third party.

(b) Licensee will defend at its expense, indemnify and hold harmless Warner and its affiliates and their respective Related Parties from any Losses arising out of or relating to any third-party Action against any of them that arises out of or relates to: (i) any breach by Licensee of this Agreement or its representations, warranties and covenants hereunder; (ii) Licensee's operation of the Licensee Interactive Service; or (iii) any claim that Licensee's use of the Warner Content, other than as explicitly authorized by this Agreement, infringes the rights of a third party.

(c) The indemnified Party will promptly notify the indemnifying Party in writing of any Action and promptly tender its defense to the indemnifying Party. Any delay in such notice will not relieve the indemnifying Party from its obligations to the extent it is not prejudiced thereby. The indemnified Party will cooperate with the indemnifying Party at the indemnifying Party's expense. The indemnifying Party may not settle any Action in a manner that adversely affects the indemnified Party without such Party's consent (which shall not be unreasonably withheld or delayed). The indemnified Party may participate in its defense with counsel of its own choice at its own expense.

(d) EXCEPT WITH RESPECT TO (Y) SECTIONS 12 AND 13(B) HEREOF AND (Z) WILLFUL, INTENTIONAL OR GROSSLY NEGLIGENT BREACHES OF SECTION 2(D) HEREOF, NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY FOR SPECIAL, INDIRECT, CONSEQUENTIAL, STATUTORY, EXEMPLARY, PUNITIVE OR INCIDENTAL DAMAGES (INCLUDING LOST PROFITS OR GOODWILL, BUSINESS INTERRUPTION AND THE LIKE) RELATING TO THIS AGREEMENT, EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. EXCEPT AS SET FORTH IN THE PRECEEDING SENTENCE, IN NO EVENT WILL WARNER'S TOTAL LIABILITY FOR A DISPUTE RELATING TO THIS AGREEMENT EXCEED THE SERVICE FEES RECEIVED BY WARNER FROM LICENSEE UNDER THIS AGREEMENT DURING THE TERM.

13. Security; Confidentiality.

(a) In the event that robust methods of secure Streaming (including but not limited to such a method for flash Streaming) become generally available for all internet streaming platforms (including, *e.g.*, a method of encryption for "flash" Streaming) on commercially reasonable terms, Warner shall notify Licensee and Licensee shall use commercially reasonable efforts to implement the appropriate method(s) as soon as is reasonably practicable for Licensee to do so. In addition, Licensee shall use diligent efforts to prevent unauthorized copying or use of Warner Masters or Other Materials, including, without limitation, by implementation of the Security Solution. Licensee shall not knowingly under any circumstances provide any functionality via the Licensee Interactive Service to facilitate, or otherwise encourage, any such unauthorized copying or use. If Licensee becomes aware of any infringement or misuse of the Warner Content (including the existence of popular "stream-rippers" or other applications or tools available for facilitating such infringement or misuse), it shall promptly notify Warner and fully cooperate with Warner's reasonable requests to remedy same, at Licensee's expense. Warner acknowledges that certain such "stream-rippers" are available as of the Effective Date, and that despite Licensee's reasonable efforts hereunder, Licensee is unlikely to be able to prevent the continued proliferation of such tools; Licensee, however, acknowledges that there are likely to be reasonable efforts that Licensee may take to make stream-ripping or misuse more difficult, or to otherwise limit the extent of such stream-ripping or misuse. With respect to End Users accessing the Licensee Interactive Service via Tier Two, Tier Three or Tier Four, Licensee shall configure the Licensee Interactive Service such that such End Users may only Stream Warner Masters when such End Users are logged onto their End User accounts, using in each case a unique user name and password. Licensee agrees that any digital computer file copy of Warner Content shall: (i) reside only on Licensee Servers; and (ii) be encrypted or protected by secure, password-protected access available to no more than five (5) essential personnel. Licensee shall restrict access to all physical or tangible copies of Warner Content solely to essential personnel who are informed of and accept the terms of this Agreement and shall store such items or any hardware or media embodying them in a secure location. If any security breaches occur in connection with this Agreement, the parties shall promptly consult with each other and all applicable third parties and shall cooperate in all appropriate remedial actions. If a security breach that is system-wide, material or otherwise adverse to Warner occurs, Warner may suspend Licensee's rights under Section 2(a) until such breach is remedied. Licensee shall not through its business practices or otherwise take any action that Licensee knows or reasonably should know would compromise the efficacy or the security of the Security Solution or the Warner Content distributed hereunder. For the avoidance of doubt, Warner Masters will not be accessible or usable outside the Licensee Interactive Service.

(b) Neither Party shall disclose, share, communicate or provide access to any non-public, confidential or proprietary information of the other Party including the terms of this Agreement and any confidential information concerning the other Party's business, finances, plans, customers, technology and products) that it learns in connection with this Agreement ("Confidential Information") to anyone other than (x) its employees or Authorized Contractors who need to know such Confidential Information to exercise such Party's rights or to perform such Party's obligations hereunder and who are obligated to comply with confidentiality provisions no less restrictive than those set forth in this Agreement, and (y) as may be necessary to support third party reporting, royalty or audit obligations (*e.g.*, imposed by Warner artists, publishers or otherwise). Neither Party shall use the other Party's Confidential Information, except as required to exercise such Party's rights or perform such Party's obligations hereunder. Confidential Information shall not include any information which: (i) is or becomes publicly known other than from a breach of this Agreement; (ii) is independently developed or obtained by the receiving Party from another legitimate source; or (iii) is required to be disclosed by Law or the rules of any nationally recognized stock exchange, provided that the receiving Party shall promptly inform the disclosing Party of any such requirement and cooperate with any attempt to procure a protective order or similar treatment. Licensee shall not make or issue any public statement or press release regarding this Agreement or its subject matter without the prior written approval of Warner.

14. General Provisions.

(a) *Independent Contractors.* Warner and Licensee are independent contractors, and shall not be deemed partners, franchisees, agents or joint venturers of each other. Neither Party will have any right or authority to obligate or bind the other Party in any manner whatsoever.

(b) *No Third-Party Beneficiaries.* Nothing in this Agreement shall confer upon any person any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement, and no person (including End Users or Authorized Contractors) shall be deemed a third party beneficiary under or by reason of this Agreement.

(c) *Entire Agreement; Amendment.* This Agreement, including all Exhibits hereto, constitutes the entire agreement between the Parties concerning the subject matter hereof and supersedes any prior understandings and agreements among the Parties with respect thereto. There are no representations, warranties, terms, conditions, undertakings or collateral agreements, expressed, implied or statutory, between the Parties related to the subject matter hereto other than as expressly set forth herein. No amendment of this Agreement, including this Section 14(c) shall be effective unless in writing, executed by both Parties, and expressly identifying the provision(s) to be amended and the changes to be made to such provision(s).

(d) *Waiver.* No waiver of any term of this Agreement will be effective unless executed in writing by the Party charged therewith or will excuse the performance of any acts other than those specifically referred to therein.

(e) *Severability.* If any term of this Agreement is held to be invalid or unenforceable, such holding will not affect the validity or enforceability of any other term hereto, and this Agreement will be interpreted and construed as if such term, to the extent the same will have been held to be invalid or unenforceable, had never been contained herein.

(f) *Assignment.* Licensee may not assign, confer any right in, assume in bankruptcy, pledge, mortgage or otherwise encumber this Agreement (or as applicable, Warner Masters or Other Materials), in whole or in part, without the prior written consent of Warner, which shall not unreasonably be withheld or delayed. For the avoidance of doubt, a merger, change of control, reorganization (in bankruptcy or otherwise) or stock sale of Licensee shall be deemed an "assignment" requiring such consent, regardless of whether Licensee is the surviving entity. Licensee acknowledges that this Agreement is a contract for personal services and that its identity is a material condition that induced Warner to enter into this Agreement. Any attempted action in violation of the foregoing shall be null and void *ab initio* and of no force or effect.

(g) *Notices.* All notices required hereunder shall be given by hand, overnight delivery service, or facsimile transmission (confirmed by letter sent by registered or certified mail) to the address below. Either Party may amend its address set forth above at any time by written notice to the other Party. All such notices will be deemed given when the same will be delivered, so addressed, by hand, facsimile or overnight delivery service.

To Warner:

Warner Music Inc.
75 Rockefeller Plaza
New York, New York 10019
Attn: Executive Vice President & General Counsel
Fax: (212) 258-3092

To Licensee:

Last.fm Ltd.
Clearwater House
4 – 7 Manchester Street
London, UK W1U 3AE
Attn: Chief Operating Officer
Fax: (44) 207-780-7082

(f) *Governing Law; Consent to* Jurisdiction. This Agreement will be construed in accordance with the laws of the State of New York as applied to contracts made and performed entirely therein. All disputes relating to this Agreement shall be brought solely in the state or federal courts located in the borough of Manhattan, New York, New York. Licensee hereby consents to the exclusive jurisdiction of the State of New York and waives any defense of forum inconveniens. EACH PARTY HEREBY EXPRESSLY WAIVES ANY RIGHT TO A TRIAL BY JURY IN ANY ACTION OR PROCEEDING BROUGHT BY OR AGAINST EITHER PARTY IN CONNECTION WITH THIS AGREEMENT.

(g) *Counterparts.* This Agreement may be executed in counterparts, each of which shall be deemed an original and both of which together shall constitute one and the same document.

(h) *Remedies.* The rights and remedies of the Parties provided under this Agreement are cumulative and in addition to any other rights and remedies of the Parties at law or equity.

(i) *Headings.* The titles used in this Agreement are for convenience only and are not to be considered in construing or interpreting the Agreement.

(j) *Further Assurances.* The Parties hereto shall execute such further documents and perform such further acts as may be necessary to comply with the terms of this Agreement and consummate the transactions herein provided.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed as of the Effective Date by their respective offices thereunto duly authorized.

Execution Copy

WARNER MUSIC INC.

By: [signature]

Name: STEPHEN BRYAN

Title: VP, Bus. Dev.

LAST ~~FM LTD~~.

By: [signature]

Name: FELIX MILLER

Title: CEO

TM 17391-17

EXHIBIT A

LICENSEE INTERACTIVE SERVICE

Licensee currently offers an Internet radio service called "Last.fm" with a variety of pre-programmed genre stations that Licensee intends to be compliant with the regulations promulgated under the Digital Millennium Copyright Act (referred to herein as "DMCA-Compliant Stations"). Licensee desires to offer a Tier One, Tier Two, Tier Three and Tier Four service (as each is defined below) as an up-sell from the DMCA Compliant Stations. For purposes of this Agreement:

1. "Tier One" means Licensee's free to the consumer service that generates revenues primarily through the display of Advertisements to End Users, and which permits such End Users to Stream Sound Recordings on an On-Demand basis, provided that each such End User shall only be permitted to Stream each Warner Master (or any portion thereof) available via Tier One a maximum of three (3) times (the "Use Limitations"). Licensee shall monitor and enforce such Use Limitations on a Personal Computer-by-Personal Computer basis.

2. "Tier Two" means Licensee's pay service that is offered by Licensee to End Users based on a fee, and which permits each such End User to Stream a fixed number of Sound Recordings (including without limitation Warner Masters) on an On-Demand basis (such Tier Two ability, an End User's "Credits"). In no event shall an End User's Credits not used be available for redemption by such End User more than six (6) months after purchase of such credits.

3. "Tier Three" means Licensee's pay service that is offered by Licensee to End Users based on a recurring monthly fee (*i.e.*, on a subscription basis), and which permits each such End User to Stream an unlimited number of Sound Recordings (including without limitation Warner Masters) during each such month on an On-Demand basis.

4. "Tier Four" means Licensee's pay service that is offered by Licensee to End Users based on a recurring monthly fee (*i.e.*, on a subscription basis), and which permits each such End User to create and listen to Interactive Station(s) (as defined below) and meets the following criteria:

(a) An "Interactive Station" means any customized station created by Licensee for an End User, which does not permit On-Demand Streaming, but which may be (i) based on such End User selecting one or more artists as the basis for such station and/or (ii) otherwise tailored to such End User musical preferences;

(b) Licensee may not program an Interactive Station consisting solely of the Sound Recordings of a single artist;

(c) Licensee may include a function that permits End Users to skip Sound Recordings; provided, however, Licensee shall not permit End Users to utilize a rewind, record or fast forward feature with respect to any Sound Recording; and

(d) a Sound Recording may not be performed more than once in any ninety (90) minute period.

EXHIBIT C

ACCOUNTING FORMAT

PLEASE SEE ATTACHED. [LAST.FM: IN ORDER TO DETERMINE YOUR ABILITY TO COMPLY WITH THE ATTACHED DIGITAL ACCOUNTING FORMAT, A TEST FILE MUST BE PROVIDED TO AND APPROVED BY LEELEE LIAUDAT PRIOR TO EXECUTION. PLEASE CONTACT LEELEE DIRECTLY REGARDING THIS MATTER AT leelee.liaudat@wmg.com.]

The current contact at Warner-Elektra-Atlantic for accounting matters is Robert Baker, at Warner-Elektra-Atlantic by email at bob.baker@wmg.com and by telephone at (818) 238-6431. Warner may update such contact from time to time.

SalesReportToRecordCompanyMessage

OCCURS		
1	MUST	required
1-n	MUST	required
0-1		required
	CAN	optional
0-n		required
	CAN	optional

FLAG		
r	MUST	required
o	can	optional

Message Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
SchemaVersionId	r	1	The Identifier of the Version of the XML Schema used for the Message. This is represented in an XML Schema as an XML Attribute.	
MessageSender	r	1	The Message Sender identified by the following for the SalesReportToRecordCompanyMessage.	
MessageThreadId	o	1		
Message Id	r	1	Sequential Id generated by Report sender	
wmg_message_filenname	r	1		**DspName_W_20051003_20051009.xml for Weekly File** **DspName_M_20051001_20051031.xml for Monthly File**
Party Id	r	1	Clearing House id as assigned by MI3p or the identifier per WMG	id Mi3p-123

Message Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
Party Name	r	1	Name of the party sending the sales information. This is a composite identified by the following	
Language Code	0	1		
CharacterCode	0	1		
FullName	r	1		
FullNameTranscribed	0	1		
FullNameIndexed	0	1		
NamesBeforeKey	0	1		
KeyName	0	1		
NamesAfterKey	0	1		
SentOnBehalfOf	r	1	Composite identified by following elements	
Party Id	r	1	If a third party is sending the data on behalf of MSP/DSP then this element will be populated with MSP/DSP Id	id Mi3p-123

SXW3_00010511

essage Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
Party Name	r	1	Name of the party on whose behalf data is being sentsending the sales information. This is a composite identified by the following	
Language Code	0	1		
CharacterCode	0	1		
FullName	r	1		
FullNameTranscribed	0	1		
FullNameIndexed	0	1		
NamesBeforeKey	0	1		
KeyName	0	1		
NamesAfterKey	0	1		
iessage Recepient	r	1		Warner Music Group
iessage Created Date/Time	r	1		20050731

SXW3_00010512

essage Element	Reqd Flag	Occurs	Element Description	Comments/ Example
essage Audit Trail	o	0-1	Audit Trail Details if applicable	
Message Audit Trail Event	o	1-n		
Messaging Party Descriptor	o	1		
Date Time	o	1		
omment	o	0-1		
essageControlType	o	0-1		
essageNotificationPeriod	r	1		
StartDate	r	1	The Date that marks the beginning of the Period (In ISO 8601:2004 format: YYYY-MM-DD). This may not be a Date in the future.	This is at a file level
EndDate	r	1	The Date that marks the end of the Period (in ISO 8601:2004 format: YYYY-MM-DD). This may not be a Date in the future.	This is at a file level
essageContentRevenueType	o	0-1	The Type of the SalesReportToRecordCompanyMessage according to its Content	Identifies as transactional /reporting purpose

Message Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
ContainedReleaseSummary	0	1-n	A Composite containing a summary of details of an MI3P Release for which sales data is provided in the SalesReportToRecordCompanyMessage	First level Summary Record Block at a Release Level
ReleaseID	0	1-n	A Composite containing details of Identifiers of a Release. If available, a GRid Should always to be used. If the Release contains only one SoundRecording, the ISRC of the SoundRecording may be used instead. If the Release is an abstraction of a complete physical product (such as a CD Album), the ICPN of the physical product may be used instead.	
[illegible]	[illegible]	0-1	The GRid identifying the Release. This is the preferred element and should be used if a GRid is	GRID when available is required
[illegible]	0	0-1	The ISRC used as proxy for identification of the Release. Only applicable when the Release only contains one SoundRecording or one MusicVideo	In the absence of GRID we will need ISRC on a required basis
ICPN/UPC	0	0-1	A Composite containing details of the ICPN used as proxy for identification of the Release. Only applicable when the Release is an abstraction of a complete physical product	
[illegible]	[illegible]	0-1	A Flag indicating whether the ICPN is specifically an EAN (=True) or a UPC (=False). This is represented in an XML Schema as an XML	

SXW3_00010514

Message Element		Reqd. Flag	Occurs	Element Description	Comments/ Example
	CatalogNumber	o	0-1	A Composite containing details of the CatalogNumber of the Release.	
	Namespace	o	0-1	The Namespace of the CatalogNumber. This is represented in an XML Schema as an XML [illegible]	
	ProprietaryId	o	0-1	A Composite containing details of a ProprietaryId of the Release.	
	Namespace	o	0-1	The Namespace of the ProprietaryId. This is represented in an XML Schema as an XML [illegible]	
ReferenceTitle		o	1	A Composite containing details of the ReferenceTitle of the Release as specified in the ReferenceDescriptiveMetadataSet.	Second level Summary Record Block at Title level, since a title can have more than one language
	TitleText	o	0-1	The Title.	
	LanguageCode	o	0-1	The Language of the ReferenceTitle (represented by an ISO 639-2 Language Code). The default is [illegible]	
	TitleType	o	0-1	The Type of the ReferenceTitle.	
	[illegible]	o	0-1	The Character Coding of the ReferenceTitle.	
ReleaseSummaryByTerritory		o	1-n	A Composite containing summary details of Descriptors, ReleaseDates and other attributes of the Release which may vary according to Territory of Release.	Second level Summary Record Block at Territory level [illegible]
	TerritoryCode	[illegible]	1-n	A Territory to which the ReleaseSummary details apply (represented by an ISO 3166-1 Territory Code). Either this element or ExcludedTerritory must be present, but not both.	

SXW3_00010515

Message Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
ExcludedTerritoryCode	o	0-n	A Territory to which the ReleaseSummaryDetails do not apply (represented by an ISO 3166-1 TerritoryCode). Either this element or Territory must be present, but not both.	
DisplayArtistName	o	1	The Name of the DisplayArtist of the Release	
LabelName	o	1	The Name of the Label for the Release	
[illegible]	o	0-n	A Musical Work License Identifier identifying a License for the Musical Work(s) used in the Release	
[illegible]	o	0-n	A Musical Work License Identifier identifying a License for the Musical Work(s) used in the Release	
SalesReportToRecordCompany	r	1-n	A Composite containing details of sales by a DistributionPartner reported to a RecordCompany	A first level Summary Record Block
DSP	r	1	A Composite containing details of the DSP whose sales are being reported.	
FullName	r	1	The FullName of the DSP.	
PartyId	r	1	A Composite containing details of the Identifier for the DSP. If no namespace is given, the Identifier is a Mi3pPartyId (MPId).	In the absence of an MI3P assigned id, this will contain WMG Dealer Account Id Code. WMG will issue unique Dealer Account Id Code for different approved accounts.
Namespace	r	1	The Namespace of the PartyId if it is from a proprietary Party ID scheme. If it is from the MI3P namespace, no value is required. This is represented in an XML Schema as an XML Attribute.	
URL	o	0-n	A URL for the DSP's Website.	

SXW3_00010516

essage Element	Reqd Flag	Occurs	Element Description	Comments/ Example
TerritoryCode	r	1	The Territory from which the DSP operates (represented by an ISO 3166-1 TerritoryCode).	
SalesToRecordCompanyByCommercialModel	r	1-n	A Composite containing details of sales reported by the DSP to the RecordCompany for a specific	A second level Summary Record Block by commercial model type
CommercialModelType	r	1	The CommercialModelType for which sales are reported.	**FreeofChargeModel, PayAsYouGoModel, SubscriptionModel**
CurrencyOfAccounting	r	1	The Currency in which the Sales are accounted (represented by an ISO 4217 CurrencyCode).	
SalesToRecordCompanyByTerritory	r	1-n	A Composite containing details of sales reported by the DSP to the RecordCompany for a specific Territory.	A third level Record that give Deal details at a territory level
TerritoryCode	r	1-n	A Territory for which sales are reported (represented by an ISO 3166-1 TerritoryCode).	
VatRate	o	0-1	The VATRate as a Percentage of the total Amount to be paid. VATRate may be the total of multiple tax rates. Within the DSR Message, only one of the two VATRate elements (here and in dsr:Deal) may be filled.	Synonym for Sales Tax
SourceTaxRate	o	0-1	The SourceTaxRate applicable for inter-Territory revenue flows.	Not relevant for US
RecordCompanyMarketShareData	r	0-n	A Composite containing information to support the calculation of the RecordCompany's market share of all Releases provided by a DSP to Consumers for a specified	This is summary level record at a territory level required for Subscription

SXW3_00010517

Usage Element	Reqd-Flag	Occurs	Element Description	Comments/ Example
ReleaseContentType	r	1	The Type of Release sold, according to its Content, Duration and/or number of components.	**Album,** **Single,** **PhoneContent,** **VideoSingle,** **CustomerBundle,** **WMGBundle**
TotalUnitSales	r	1	The total number of Releases sold of the ContentType.	
UsageType	r	1	The Type of Usage for which the market share calculation applies. **A code is expected in this element based on the list**	**01 Wireless Mono / Poly / Audio Only Ringtone Download** **02 Wireless Hi-Fi /Real Tone/ Music Tone / Label Tone /Audio Tone/Cart Ringtone Download** **04 Wireless Ringback Stream** **05 Wireless Screensaver Download** **06 Wireless Video Ringer Download** **08 Wireless Animated Ringtone Download** **09 Wireless Voice Ringtone Download** **10 Wireless Video Download** **11 Wireless Audio Download** **12 Wireless Video Stream** **13 Wireless Audio Stream** **14 Internet Video Download** **15 Internet Audio Download** **16 Internet Video Stream** **17 Internet Audio Stream** **27 Kiosk Video Download**
ReleaseTransactionsToRecordCompany	r	1-n	A Composite containing details of the sales Transactions for a Release, reported by the DSP to the RecordCompany.	Release Id data at a territory level

SXW3_00010518

ssage Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
ReleaseId	r	1	A Composite containing details of Identifiers of the Release. If available, a GRid has to be used. If the Release contains only one SoundRecording, the ISRC of the SoundRecording may be used instead. If the Release is an abstraction of a complete physical product (such as a CD Album), the ICPN of the physical product may be used instead.	Identified by one or more of the following elements
Grid	r	0-1	The GRid identifying the Release. This is the preferred element and should be used if a GRid is available	GRID when available is required
ISRC	r	0-1	The ISRC used as proxy for identification of the Release. Only applicable when the Release only contains one SoundRecording or one MusicVideo.	In the absence of GRID we will need ISRC on a required basis
ICPN/UPC	r			Where Applicable a UPC is required
IsEan	r		If this flag = Y then ICPN/UPC field contains EAN else contains UPC	Default to false and value is blank if either GRID or ISRC are specified. Else true and value is populated indicating UPC
CatalogNumber	r		A Composite containing details of the CatalogNumber of the Release.	Will Contain WMG Contract Id - **Cart Ringtones, Audio Ringtones, Video Streaming, Digital Jukebox, Real Tones, Subscription, Video Streaming, Webcasting, Midi Ringtones, Video Ringers, Video Game Development.**
ProprietaryId	r		A Composite containing details of a ProprietaryId of the Release	Will Contain WMG Product Offer id
WMGArtistName	r		Artist Name	
WMGTitle	r		Title Name	
WMGLabel	r		Marketing Label	

ssage Element	Reqd Flag	Occurs	Element Description	Comments/ Example
WMGReleaseContentType	r		Same as Release Content Type	**Album, Single, PhoneContent, VideoSingle, CustomerBundle,**
Deal	r	0-1	A Composite containing details of the terms and conditions of the Deal under which sales were transacted. **The following elements constitute the Deal Composite Type**	Deal details at a Release Id level
CurrencyCode	r	0-1	The Currency in which the Transactions are made (represented by an ISO 4217 CurrencyCode) if different from the	
PriceRangeType	r	0-1	A Composite containing details of the PriceCode applicable to the SalesTransaction.	
Namespace	o	1	The Namespace of the PriceRangeType. This is represented in an XML Schema as an XML Attribute.	**Standard, Standard/Brew, Premium, Premium/Brew, Exclusive, Exclusive/Brew, Exclusive Premium,**
DealReference	r	1	The Reference (in the form of an Identifier, Name or Description) to a Document containing details of the Deal governing the SalesTransaction.	
WholesalePricePerUnit	r	1	**The PPD or Guaranteed Minimum Payment per unit**	

SXW3_00010520

Message Element	Reqd Flag	Occurs	Element Description	Comments/ Example
VatRate	o	0-1	The VATRate as a Percentage of the total amount to be paid as value added tax. VATRate may be the total of multiple tax rates. Within the DSR Message, only one of the two VATRate elements (here and in the SalesToRecordCompanyByTerritory or in the SalesToSocietyByTerritory Composite) may be filled	
PriceConsumerPaidExcVAT	r	1	**The RetailPrice excluding VAT.**	
CalculationType	r	1	A Composite containing details of a Type of Calculation method used by which the royalties are to be determined. This is a text string with no prescribed allowed values.	A detailed formula should be entered here
SequenceNumber	o	1	The SequenceNumber of the CalculationType. This is represented in an XML Schema as an XML Attribute	
RoyaltyRateType	r	1	The Type of RoyaltyRate upon which the per unit royalty is calculated	**MinimumWholesalePrice, PercentageRoyaltyRate**
RoyaltyRate	r	1	The RoyaltyRate upon which the royalty payment is calculated. Note that when this Composite is used in a sales reporting message for a RecordCompany, the RoyaltyRate refers to the rate due to the RecordCompany, not the royalties due to individual Artists.	
AgreedUnitPriceExcVAT	r	1	The Price per unit (excluding VAT) agreed between DSP and the RecordCompany as representing the notional unit price for Subscription sales, as a basis for Royalty and other calculations.	Relevant for Subscription, same as Wholesale price

SXW3_00010521

ssage Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
DeductionRateType	r	1-n	Agreed Deduction Type	
DeductionRate	r	1-n	Rate as a percentage	
DeductionDescription	r	1-n	The Description of the deduction to be applied to an Amount to determine the actual Amount paid. This is a text string with no prescribed allowed values.	
NetEffectiveUnitRate	r	1	The RoyaltyRate which applies after all calculations and deductions have been applied.	
AmountPayable	r	1	The extended Amount due to the RecordCompany or MusicalWorkLicensor for each SalesTransaction. (The Amount reported in this field is an estimate based on best knowledge on the side of the Message Sender with respect to the Intellectual property rights controlled by the Message Receiver. The default is that 100% ownership is assumed).	
AmountPayableInCurrency-OfAccounting	r	1	The AmountPayable, measured in the Currency in which it has been accounted	
CurrencyConversionRate	r	1	The ConversionRate applicable to the AmountPayableInCurrencyOf Accounting. **Default to 1 for USD**	
SalesTransactionToRecordCompany	r	1-n	A Composite containing details of a SalesTransaction for specified Usages of the Release.	Transactional Data
UsageType	r	1	The Type of Usage covered by the Sales Transactions.	

SXW3_00010522

Usage Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
Deal	o	0-1	A Composite containing details of the terms and conditions of the Deal under which sales were transacted. (Note: The Amount reported in this Composite is an estimate based on best knowledge on the side of the Message Sender with respect to the Intellectual property rights controlled by the Message Receiver. The default is that 100% ownership is assumed)	This is at a Usage Type Level and could possibly contain WMG Product offer id or other equivalent if applicable
SalesDataToRecordCompany	r	1-n	A Composite containing details of sales of the Release governed by the Deal	
SalesDataGroupingTo-RecordCompany	o	0-1	A Composite containing details of the criteria by which sales reports to Record Companies are grouped	
StartDate	r	1	The StartDate or actual Date of the sales report.	Lowest level
EndDate	r	1	The EndDate of the sales report if different from EndDate of the transaction Period which is given in the MessageHeader.	
PostCode	r	0-n	A PostCode or zip code of a Consumer of the Releases.	
MinimumDuration	o	0-1	The MinimumDuration of the Release (applicable only to Release containing a single SoundRecording or MusicVideo).	Default to 0
MaximumDuration	o	0-1	The MaximumDuration of the Release (applicable only to Release containing a single SoundRecording or MusicVideo).	Default to 0
TelcomType	o	0-n	A Type of Telecom used by a Consumer of the Releases.	Default to Unknown

SXW3_00010523

ssage Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
CustomerId	o	0-n	A DSP's Identifier for a Consumer of the Releases sold	
TransactionId	o	0-1	The DSP's Identifier for the Transaction.	
StoreLocation-Descriptor	o	0-1	The Descriptor (typically an ID assigned by the DSP) of the store in which the Kiosk is located.	
PromotionalActivity-Description	o	0-1	The freetext Description of a promotional activity.	
Deal	o	0-1	A Composite containing details of the terms and conditions of the Deal under which sales were transacted. (Note: The Amount reported in this Composite is an estimate based on best knowledge on the side of the Message Sender with respect to the Intellectual property rights controlled by the Message Receiver. The default is that 100% ownership is assumed)	This is at a date level if applicable
GrossNumberOfConsumer-Sales	r	1	The Number of unit sales of the Release from the DSP to Consumers, gross of returns (not including units made available free of charge).	
NumberOfUnitsReturned	r	0-1	The Number of sold units of a Release returned (with refund) to the DSP	
NumberOfFreeToConsumers	r	1	The gross Number of units of a Release provided free to Consumers.	
NumberOfFreeUnits-Returned	o	0-1	The Number of free units of a Release returned to the DSP	

SXW3_00010524

Message Element	Reqd Flag	Occurs	Element Description	Comments / Example
DataToBeForwarded	o	0-1	A Flag indicating whether sales data will be forwarded by the DSP (or any Organization reporting on behalf of the DSP) to the appropriate MusicalWork Licensor (=False) or if this has to be done by the MessageRecipient (=True).	Not relevant for US. Default to false
Comment	o	0-1	The Comment about the ReleaseTransactionsToRecordCompany Composite	
DurationUsed	o	0-n	A Composite containing details of the total Duration (in ISO format) of the Release that has been used (this may be less than the total Duration of the Release), specified for a UsageType. This applies only to single-Resource Releases.	required for Subscription model
UsageType	o	1	Usage Type for the sales transaction. **A code is expected in this element based on the list**	**01 Wireless Mono / Poly / Audio Only Ringtone Download** **02 Wireless Hi-Fi /Real Tone/ Music Tone / Label Tone /Audio Tone/Cart Ringtone Download** **04 Wireless Ringback Stream** **05 Wireless Screensaver Download** **06 Wireless Video Ringer Download** **08 Wireless Animated Ringtone Download** **09 Wireless Voice Ringtone Download** **10 Wireless Video Download** **11 Wireless Audio Download** **12 Wireless Video Stream** **13 Wireless Audio Stream** **14 Internet Video Download** **15 Internet Audio Download** **16 Internet Video Stream** **17 Internet Audio Stream** **27 Kiosk Video Download**

SXW3_00010525

ssage Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
NumberOfSubscribers	o	0-1	The Number of Subscribers- **break-up** by the UsageType for the DSP (applicable only where a Subscription Service is	Required for Subcription model. This is at a territory level
UsageType	o	1	A UsageType for which the Quantity applies.	
ReleaseContentType	o	1	A ReleaseContentType for which the Quantity applies.	
DspGrossRevenue	o	1	A Composite containing details of the GrossRevenue of the DSP for the Territory, specified **UsageType.**	Required for Subscription model DSP . This is at a territory level
UsageType	o	1	A UsageType for which the Quantity applies.	
ReleaseContentType	o	1	A ReleaseContentType for which the Quantity applies.	
DspDeductionsAmount	o	0-1	A Composite containing details of the Amount deducted by the DSP from NetRevenue, specified for **a UsageType.**	Required for Subscription model DSP . This is at a territory level
UsageType	o	1	A UsageType for which the Quantity applies.	
ReleaseContentType	o	1	A ReleaseContentType for which the Quantity applies.	
PercentageNetRevenueShare	o	0-1	A Composite containing details of the Percentage which represents a share of a NetRevenue generated by the Licensee which is due to the Licensor, specified for a **UsageType.**	Required for Subscription model DSP . This is at a territory level
UsageType	o	1	A UsageType for which the Quantity applies.	
ReleaseContentType	o	1	A ReleaseContentType for which the Quantity applies.	

SXW3_00010526

ssage Element	Reqd. Flag	Occurs	Element Description	Comments / Example
MinimumAmountPerCustomer	o	0-1	The minimum Amount that has to be paid by each Customer to the DSP for a Subscription for the UsageType (applicable only where a Subscription Service is employed) specified for a **usage type**	Required for Subscription model DSP . This is at a territory level
UsageType	o	0-1	A UsageType for which the Quantity applies.	
TotalWholesaleAmount	r	0-1	The Amount representing the total wholesale revenue	This is at a territory level
TotalWholesaleAmountInCurrency- OfAcco	r	0-1	The Amount representing the total wholesale revenue reported in the CurrencyOfAccounting.	This is at a territory level
TotalAmountPayableInCurrency-OfAccounting	r	0-1	The calculated Total of AmountPayables in the CurrencyOfAccounting	
CurrencyConversionRate	r	0-1	The ConversionRate applicable to the TotalAmountPayableInCurrencyOfAccounting	Default to 1 for USD
talSalesByReleaseContentType	r	1-n	A Composite containing details of total sales of Releases of a specific Type.	At a summary level as well - serves as a file trailer check
ReleaseContentType	r	1	The Type of Release sold, according to its Content, Duration and/or NumberOfComponents.	**Album, Single, PhoneContent, VideoSingle, CustomerBundle,**
TotalUnitSales	r	1	The total number of Releases sold of the ContentType	

SXW3_00010527

essage Element	Reqd Flag	Occurs	Element Description	Comments / Example
yaltyAmount	r	0-1	A Composite containing details of the RoyaltyAmount due. This is an estimate based on best knowledge on the side of the MessageSender with respect to the intellectual property Rights controlled by the MessageRecipient (The default is that 100% ownership is assumed).	Amount payable to WMG
CurrencyCode	r	1	The Currency of the Amount (represented by an ISO 4217 Currency Code). This is represented in an XML Schema as an XML Attribute.	Deafult to USD for US
mulativeRoyaltyAmount	o	0-1	A Composite containing the sum of all royalty payments from the DSP to the Licensor from the start of their commercial relationship. This is an estimate based on best knowledge on the side of the MessageSender with respect to the intellectual property Rights controlled by the MessageRecipient (The default is that 100% ownership is assumed).	If available - total amount paid to date to WMG from inception for digital sales
CurrencyCode	o	1	The Currency of the Amount (represented by an ISO 4217 Currency Code). This is represented in an XML Schema as an XML Attribute.	Default to USD for US

SXW3_00010528

EXECUTION COPY

INTERACTIVE RADIO AND MUSIC SERVICES AGREEMENT

This INTERACTIVE RADIO AND MUSIC SERVICES AGREEMENT ("Agreement") is made and entered into effective as of April 17, 2007 (the "Effective Date") by and between Warner Music Inc., a Delaware corporation, with offices located at 75 Rockefeller Plaza, New York, New York 10552 ("Warner"), and Slacker, Inc., a Delaware corporation, with offices located at 16935 W. Bernardo Dr., Ste. 101, San Diego, CA 92127 ("Licensee") (each a "Party" and, collectively, the "Parties").

WHEREAS, Licensee desires to develop, implement, operate, maintain and make available Sound Recordings to End Users via the Licensee Music Service (as such terms are defined below);

WHEREAS, the Licensee Music Service is experimental in nature and Warner is willing to grant the non-precedential licenses set forth in Section 2(a) hereof for a limited period of time solely to determine consumer interest in accessing Warner Masters (as such term is defined below) via the Licensee Music Service; and

WHEREAS, subject to the terms and conditions herein and in exchange for Licensee's obligations as set forth herein, Warner is willing to allow Licensee to include Warner Masters within the Licensee Music Service.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein, and for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties hereby agree as follows:

1. Definitions.

(a) "Advertisement" means any advertisement, sponsorship or other promotion or the like delivered by or on behalf of Licensee to an End User's Permitted Device or otherwise embedded in the Authorized Website or the Licensee Music Service, as more fully described on Exhibit A hereto.

(b) "Authorized Contractor" means a third party that (i) provides services for or on behalf of Licensee, including, without limitation, Fulfillment Activities under Licensee's supervision and in accordance with the terms and conditions of this Agreement and (ii) is recognized in the industry as capable of professionally and competently performing such services.

(c) "Authorized Website" means Licensee's Internet website located at www.slacker.com, provided that such website is solely (i) owned and/or controlled by Licensee, (ii) operated in the Territory and (iii) marketed and branded using the name "Slacker."

(d) "Cached Stream" or "Cached Streaming" of a Sound Recording will mean a public performance of the Sound Recording from a cached electronic digital copy on the hard or flash drive of an End User's Portable Device, which cached electronic digital copy (i) has been made from Licensee Servers, (ii) does not require a simultaneous active connection to the Internet, (iii) is not capable of being copied to another device, and (iv) can only be accessed by the End User to the extent such access is authorized via the applicable Tier.

(e) "Conditional Download" means an electronic digital copy made by an End User of a Warner Master that is being Streamed, Cached Streamed or accessed by the End User on the On Demand for Personal Computer Only and the On Demand Portable Services, which electronic digital copy complies with the following: (i) the electronic digital copy may reside only on Permitted Devices owned or controlled exclusively by the End User; (ii) the electronic digital copy must be capable of being, and must be, automatically disabled and/or deleted and permanently erased from the End User's Permitted

TM 17391-1

EXHIBIT
Live365# 18

SXW3_00021455

Devices within thirty (30) days of the expiration or termination of the end user's subscription to the Service; and (iii) the electronic digital copy is not capable of being copied to other devices or other storage mechanisms or formats.

(f) "End User" means any Person who views or otherwise accesses the Authorized Website, or accesses the Licensee Servers through a WiFi connection or through a satellite transmission, to receive Streams or Cached Streams via a Tier.

(g) "Fulfillment Activities" means all activities associated with the use and distribution of Warner Masters and Other Materials, including without limitation, hosting, encoding, serving, transmitting, promoting, Streaming, downloading, processing of files, and implementing the Security Solution.

(h) "Gross Revenues" means, in the applicable calendar month (or portion thereof) and as allocable to the applicable Tier (as defined below), the sum of all monies or other consideration (i) paid or payable by End Users to Licensee for access to such Tier (and with respect to annual subscriptions, as allocated on a monthly basis) minus bona fide cancellations actually refunded by Licensee (the "Retail Price"), (ii) received or receivable by or on behalf of Licensee from the sale of products, goods and services (other than Retail Price) to End Users minus (A) the wholesale price of the products and services of, and actually paid to, unrelated third Persons, and minus (B) returns, sales and use taxes, shipping, bad debts, credit card and other service fees actually paid to unrelated third Persons in connection with the sale of such products, goods or services (the "Product Revenue") and (iii) received or receivable by or on behalf of Licensee from Advertisements displayed, performed, delivered or otherwise transmitted in connection with the display, performance, distribution, transmission or other delivery of Sound Recordings via such Tier or in any promotional communications sent by or on behalf of Licensee to End Users ("Advertising Revenues"), less Licensee's actual, out-of-pocket expenditures for advertising sales agency commissions actually paid by Licensee to unaffiliated third party advertising sales agencies (subject to a maximum deduction in all events of fifteen percent (15%) of Advertising Revenues). For purposes of determining any non-cash component of Gross Revenues, such non-cash consideration will be accounted for based on the fair market value of any goods, services or other real, personal, tangible or intangible property received. Notwithstanding the foregoing, Gross Revenues do not include revenues received from sales of hardware through which End Users access the Licensee Music Service, and accessories thereto, or revenues received from End Users to access any music subscription service operated by BBI under license from Warner other than the Licensee Music Service.

(i) "Internet" means the wide area cooperative network of university, corporate, government and private computer networks communicating predominately through Transmission Control Protocol/Internet Protocol which network is commonly referred to as "the Internet" (but which specifically excludes wireless transmissions other than IEEE 802.11x transmissions).

(j) "Law" means any local, state or federal law, statute, ordinance, rule, regulation, code, order, judgment or decree.

(k) "Launch Date" means the date on which Licensee makes first makes a Sound Recording available for Streaming via the Licensee Music Service.

(l) "Licensee Music Service" means Licensee's music service available via the Authorized Website, or the Licensee Servers through a WiFi connection or through a satellite transmission, that permits End Users to Stream or Cache Stream authorized Sound Recordings via a Tier as described on Exhibit A hereto, and which is (i) wholly owned and/or controlled by Licensee and (ii) operated by Licensee and/or an Authorized Contractor.

(m) "Licensee Servers" means computer servers storing phonorecords or making public performances licensed hereunder that at all times (i) are located in the Territory, (ii) remain under the control of Licensee, (iii) incorporate security measures that meet or exceed prevailing best practices in the industry and (iv) to the extent owned or controlled by Authorized Contractors, are covered by agreements between Licensee and Authorized Contractors, provided that Licensee manages and controls the hosting activities.

(n) "On-Demand Stream" means the digital transmission, via the Licensee Music Service, of a particular Sound Recording at or immediately following a request by an End User.

(o) "Other Materials" means artwork, graphic images (*e.g.*, album artwork), artists' names, images and likenesses, and other information or materials relating to Warner Masters that are provided by or on behalf of Warner to Licensee in Warner's sole discretion, solely for Licensee's use in accordance with the terms and conditions hereof and any additional terms and conditions of which Warner notifies Licensee.

(p) "Permitted Device" means a Personal Computer or a Portable Device.

(q) "Personal Computer" means a traditional-sized laptop or desktop personal computer designed for an individual user that would not replicate the portable device experience and that supports the Security Solution.

(r) "Person" means a natural person, a corporation, a limited liability company, a partnership, a trust, a joint venture, any governmental authority or any other entity or organization.

(s) "Portable Device" means a small, light-weight electronic device that supports the Security Solution and that is easily transported from one location to another and may be usable during travel.

(t) "Security Solution" means the digital rights management and content protection system for Warner Content as described on Exhibit B hereto (which may be modified from time to time pursuant to the Parties' agreement), and as further set forth in the White Paper.

(u) "Sound Recording" means a work that results from the fixation of a series of musical, spoken or other sounds, but not including the sounds accompanying a motion picture or other audiovisual work, regardless of the nature of the material objects, such as disks, tapes or other phonorecords, in which they are embodied.

(v) "Stream" or "Streaming" (as a verb or gerund) means the process or action of making a single digital transmission (other than as a download) of a Sound Recording (or any part thereof) delivered to an End User's Personal Computer via the Internet from Licensee Servers, in compliance with the Security Solution, whereby such transmission is contemporaneous or nearly contemporaneous with the performance of, as applicable, the sound recording embodied therein, and which is not intended to be, or capable of being, copied or stored on the End User's Personal Computer (other than any ephemeral copies used solely for caching or buffering purposes, and provided that such cached or buffered copies are automatically deleted after being played). "Stream" (as a noun) means the digital audio transmission made in the process of Streaming.

(w) "Territory" means the United States and its territories and possessions, including without limitation Puerto Rico.

(x) "Tier" means Tier One, Tier Two or Tier Three of the Licensee Music Service (as each is defined on Exhibit A hereto).

(y) "Warner Content" means all Warner Masters, Other Materials and any other materials provided by or on behalf of Warner to Licensee hereunder, in Warner's sole discretion. Warner Content is provided to Licensee solely for Licensee's use in accordance with this Agreement. Licensee shall comply with any usage and other guidelines pertaining to the Warner Content that are made available to Licensee by or on behalf of Warner from time to time, including without limitation any revisions to the guidelines on Exhibit A hereto.

(z) "Warner Masters" means those Sound Recordings identified on a list provided by Warner to Licensee hereunder (which list Warner may update from time to time, in its sole discretion), to the extent that such identified Sound Recordings are wholly owned and/or controlled by Warner, are in compliance with all applicable requirements provided by Warner and for which Warner has the right to permit the uses hereunder, it being understood that Warner may include requirements (upon reasonable notice to Licensee, including via xml feed) as to how each such Sound Recording is to be presented and offered for use hereunder (*e.g.*, sequence of Sound Recordings and/or inclusion of artwork), and which are approved by Warner, in its sole discretion, solely for Licensee's use in connection with the Licensee Music Service.

(aa) "Warner Share" means a fraction, the numerator of which is the total number of times that any Warner Masters incorporated into or made available through the applicable Tier is Streamed or Cached Streamed by End Users during the applicable calendar month, and the denominator of which is the total number of times that all Sound Recordings (including without limitation Warner Masters) available in their entirety (*i.e.*, not as clips) through such Tier are Streamed or Cached Streamed by End Users during such calendar month.

(bb) "White Paper" means that document describing the features, functionality, specifications and other details of or relating to the Licensee Music Service as set forth on Exhibit B hereto.

2. License.

(a) Subject to all the terms and conditions of this Agreement, Warner hereby grants to Licensee during the Term a non-exclusive, non-assignable, non-transferable, non-sublicensable (except to Authorized Contractor(s) in accordance with this Agreement) right and license, solely within the Territory, to:

(i) store and reproduce Warner Content on Licensee Servers and Portable Devices, solely as necessary for Licensee to exercise those rights set forth in Sections 2(a)(ii) through (iv) below;

(ii) allow End Users to Stream, Cache Stream and On-Demand Stream Warner Masters via the Licensee Music Service (as permitted by the applicable Tier) to Permitted Devices in the Territory in their entirety (or part thereof, to the extent an End User terminates a Stream, Cache Stream or On-Demand Stream prior to the end of the applicable Warner Master) solely in the manner set forth herein and in the format and structure designated by Warner;

(iii) to permit End Users of Tier 2 to make a Conditional Download of a Stream or Cached Stream while such End User is listening to such Stream or Cached Stream and to playback such Conditional Download during the period in which such End

User subscribes to Tier 2;

(iv) to permit End Users of Tier 3 to have on demand control over any Stream or On Demand Stream;

(v) to permit End Users of Tier 4 to make a Conditional Download of an On Demand Stream that has been requested by such End User and to playback such Conditional Download during the period in which such End User subscribes to Tier 3, and to have on demand control over any Stream, Cached Stream, Conditional Download or On Demand Stream;

(vi) subject to Warner's prior written consent, on a case-by-case basis, digitize and display Other Materials (A) on the Authorized Website, (B) via the Licensee Music Service or (C) in other promotional communications sent directly from Licensee to those End Users who have consented to such receipt, in each case, in the same size and prominence as all other similar content in each such location or communication and solely to promote the availability of Warner Masters via the Licensee Music Service; and

(vii) subject to Warner's prior written consent, on a case-by-case basis, display in connection with the Streaming of Warner Masters as part of the Licensee Music Service, (A) the names, logos and trade names of Warner, as such names, logos and trade names appear on records which embody Warner Masters, (B) the album titles for Warner Masters and the titles of the records which embody each Warner Master and (C) the names of the artists whose performances are embodied in Warner Masters referred to in subsection (B).

(b) Licensee will not edit, change or alter in any way any Warner Masters or Other Materials provided by or on behalf of Warner hereunder without Warner's prior written consent. Without limiting the foregoing, the license granted herein does not include any adaptation (derivative work) rights or the right to alter the fundamental character of any Warner Content.

(c) Without Warner's prior written consent, Licensee: (a) shall ensure that all Advertisements displayed on or in connection with the Licensee Music Service are not tied to any individual recording artist or Sound Recording and are clearly distinguished from the performance of any such Sound Recording; and (b) may not take any action, directly or indirectly, so as to imply an artist or Warner endorsement, or artist or Warner commercial tie-in of any product or service, including, without limitation, the Authorized Website or the Licensee Music Service.

(d) All rights not expressly conferred to Licensee are expressly reserved to Warner. For the avoidance of doubt, Warner is not restricted from sales (either its own or via third parties) of Warner Masters in any format or channel in the Territory. Except as expressly set forth herein, Licensee shall not use or make available any Warner Masters, Other Materials or other property of Warner (including the names and/or likenesses of any artist whose performances are embodied in Warner Masters), provided that the foregoing shall not prevent Licensee from using any artist name or likeness embodied in any Warner Masters or Other Materials in any manner that does not require consent from Warner or any other Person.

(e) Except as embodied in Warner Masters and/or Other Materials as provided to Licensee and in other Sound Recordings or related artwork or other materials provided by or on behalf of other record labels that are used in the Licensee Music Service, the Authorized Website, the Licensee Music

Service and the Advertisements shall not contain content or engage in activities (and shall not frame, link to, advertise, or otherwise endorse any other website or media that contains content or engages in activities) that: (i) is or are unlawful, harmful, threatening, defamatory, obscene, harassing or discriminatory; (ii) violate(s) or infringe(s) the rights of any third party (including intellectual property, name and likeness and privacy/publicity rights); (iii) depict(s) sexually explicit images; (iv) promote(s) violence, discrimination, illegal activities, or alcohol or tobacco products; or (v) in any manner which, in Warner's reasonable judgment, might subject Warner to unfavorable regulatory action, violate any applicable laws, or subject Warner or any Warner Artist, to liability.

(f) For the avoidance of doubt, except as expressly set forth herein or otherwise agreed to by Warner in advance in writing, nothing in this Agreement grants Licensee, nor does this Agreement authorize Licensee to grant to any other Person (including without limitation any End User or any Authorized Contractor), the right to: (i) host, display or use in any manner any Warner Masters (or portions thereof) on the Licensee Music Service or otherwise; (ii) perform publicly, by means of digital transmission or otherwise, any Warner Master; or (iii) Stream any Warner Master on a "pay-per-view" or "pay-per-play" basis.

(g) Unless Warner agrees otherwise in writing during the Term, neither Licensee nor any Authorized Contractor shall: (i) Stream (or encode to permit the Streaming of) Warner Masters at a transmission rate greater than 128 kbps; (ii) license or otherwise authorize a third party to "deep link" (providing a direct means to download or Stream a Sound Recording outside of the Licensee Music Service) from outside of the Licensee Music Service for the purpose of Streaming a Warner Master; (iii) except as permitted in Tiers 2, 3 and 4, permit any End User to make downloads of any Warner Masters; or (iv) frame or otherwise superimpose Warner Masters into any other website, sublicense or "syndicate" (as that term is commonly understood in the Internet marketing industry) Warner Masters to any third party.

(h) Warner acknowledges that Licensee may use Authorized Contractors to perform its obligations hereunder in accordance with the provisions of this Agreement, provided that Licensee must maintain control over, and retains liability hereunder for all such obligations, including, without limitation, all Fulfillment Activities. Licensee shall cause each Authorized Contractor to abide by the terms and conditions of this Agreement applicable to Licensee (regardless of whether Authorized Contractors are expressly covered by such obligation). If any Authorized Contractor takes any action or omits to take any action that would breach this Agreement if it were Licensee: (i) Licensee shall promptly notify Warner of same; (ii) upon notice to Licensee from Warner, Licensee shall immediately cease providing any Warner Content to such Authorized Contractor and cease permitting such Authorized Contract to perform Licensee's obligations hereunder, and such entity shall cease to be an "Authorized Contractor" hereunder; and (iii) Licensee shall be deemed to be in breach of this Agreement as if such action or omission were or were not taken by Licensee.

3. <u>Warner's Rights and Obligations</u>.

(a) Warner shall provide Licensee with all Warner Masters in WMA format at a bit rate of 128 kbps and AAC+V2 format at a bit rate of 30 kbps and 44 kbps, or other mutually agreed format(s). Warner shall provide Licensee a list of Warner Masters that may be used as part of the Licensee Music Service in accordance with the terms and conditions hereunder, and may update it from time to time during the Term in its sole discretion.

(b) Warner shall be responsible for the following: (i) all artist royalties, producer royalties or other record royalties payable to artists and producers and other record royalties, costs, fees or other charges payable to third parties in the Territory resulting from agreements made between Warner and the relevant performing artists or producers pertaining to Licensee's authorized use of Warner Masters hereunder; and (ii) payments that may be required hereunder pursuant to the American Federation of Musicians (AFM) and/or the American Federation of Television and Radio Artists (AFTRA) collective bargaining agreements applicable to Warner. For the avoidance of doubt Warner shall have no responsibility for obtaining any licenses or permissions to use, or for paying any royalties, fees or other payments (A) for the use of any musical compositions underlying the Warner Content (including, without limitation, mechanical rights and public performance rights) or (B) not expressly assumed by Warner in this Section 3(b), all of which are Licensee's sole responsibility.

(c) Warner may terminate Licensee's prospective rights to use any Warner Content and/or Other Materials at any time by notifying Licensee in writing. Upon receipt of such notice, Licensee shall: (i) cease to offer such materials on a prospective basis as promptly as possible, but in no event later than two (2) days following receipt of notice; and (ii) promptly following such notice, return to Warner or destroy, at Warner's option and in accordance with Warner's instructions, such Warner Content and/or Other Materials (including, without limitation, from Licensee Servers).

(d) Each Party will designate a single contact person to address all technical, marketing or other business issues (other than accounting as contemplated by Exhibit C hereto) relating to this Agreement.

4. Licensee's Security.

(a) Licensee shall at all times during the Term use mutually-agreed, robust "state of the art" (*i.e.*, best available) practices and systems (including without limitation the Security Solution, which the parties agree is deemed acceptable under this Section 4(a) as of the Effective Date of this Agreement) to enforce the territorial, use and other restrictions of this Agreement and to prevent and take prompt and proper remedial action against unauthorized physical or electronic access, copying, modification or distribution of Warner Content, including without limitation the sharing of any End User accounts. In no event shall Licensee modify any part of the Licensee Music Service or its functionality in a manner that would impair the security of Warner Content or otherwise limit any of Warner's rights or Licensee's obligations hereunder. If there is any commercial release of any upgrade, update, repair, patch, new release or modification to software or technology that could materially improve the Security Solution, Licensee shall notify Warner and add it to the Licensee Music Service to the extent commercially practicable.

(b) Licensee shall operate the Licensee Music Service with functionality and features consistent with the description set forth in Exhibit A hereto. Licensee will use commercially reasonable efforts to ensure that all End Users are located within the Territory, which may include the following: (i) verify that the End User has an IP address in the Territory through a reverse domain procedure or similar verification system pre-approved by Warner in writing; and/or (ii) verify that the End User's mailing address as reflected in the files of the financial institution providing such End User's credit card is located within the Territory. Warner may, on its own or through an independent firm, conduct a technical audit of the Authorized Website and Licensee Music Service (including related technical systems, servers, content preparation and functionality) one (1) time per year (or more often, if justified under the circumstances) during reasonable business hours and upon reasonable notice to ensure Licensee's compliance with this Agreement. Licensee shall promptly procure any and all rights and permissions, documentation and availability of personnel of Licensee or any Authorized Contractor necessary for Warner to exercise its audit rights hereunder.

5. Licensee's Obligations.

(a) If Warner, in its sole discretion, requests a parental advisory warning due to explicit lyrics or otherwise for a particular Warner Master, Licensee shall clearly disclose such warning to End Users immediately prior to their playing of the applicable Warner Master. If Warner, in its sole discretion, provides a copyright notice for Warner Masters or Other Materials, Licensee shall include such notice so it can be readily viewed by End Users. Licensee shall take all commercially reasonable steps to ensure that Warner Content contains any current and future signals, identifying codes, watermarks, copy protection codes and similar content or features provided by Warner. Licensee shall institute systems to read any unique identifiers to Warner Masters contained in the Warner Content. Licensee shall not cover, impair or alter in any way any watermark (or similar item) in Warner Masters.

(b) The Licensee Music Service will display the track title and name of the artist for each Warner Master during the playing thereof by an End User.

(c) Licensee will comply with all applicable Laws in its performance of its obligations and exercise of its rights under this Agreement and the operation of its business relating thereto. Licensee shall require all End Users (except for End Users accessing the Service through the Authorized Website for the first 24 hours only prior to registration for an End User account), prior to delivery of any Warner Masters or Other Materials hereunder, to agree to "Terms of Use" that: (i) require End Users to comply with all applicable Laws in their use of Warner Masters and to protect Warner's rights therein; (ii) state that End Users are not granted any commercial, sale, resale, reproduction, distribution or promotional use rights for Warner Masters; and (iii) state that certain Sound Recordings provided through Licensee's Music Service may contain explicit lyrics and that parents of minors should be advised of the same. Licensee shall provide Warner with its End User "Terms of Use" which shall be at least as protective as this Section 4(c) and the terms and conditions on Exhibit A hereto. Licensee shall, on a regular basis, monitor End User activity to ensure compliance with such "Terms of Use."

(d) Except as expressly assumed by Warner in Section 3(b) hereof, Licensee shall obtain and pay for all licenses, rights, permissions and consents and pay all costs relating to the exercise of its rights and performance of its obligations under this Agreement and all Fulfillment Activities, including, without limitation: (i) royalties payable for the performance, reproduction or any other rights in or to musical compositions underlying Warner Masters; (ii) all promotional activities conducted by or on behalf of Licensee; (iii) all activities after Licensee receives any Warner Content, including encoding, hosting and serving such Warner Content; and (iv) obtaining all other rights, clearances and consents relating to any of the foregoing. As between Warner and Licensee, Licensee shall be responsible for obtaining all licenses necessary for the operation of the Licensee Music Service (except as expressly assumed in Section 3(b) hereof). Warner agrees to use commercially reasonable efforts to assist Licensee in obtaining publishing consents and licenses in the Territory, provided that (A) Warner shall have no obligation to pay any costs associated with such consents and licenses and (B) Licensee will reimburse Warner for all reasonable expenses incurred by Warner in assisting to obtain such consents and licenses.

(e) Licensee shall not release any Warner Master to any End User prior to the release date designated by Warner. Licensee will not utilize or leverage any Warner Masters or Other Materials provided by Warner hereunder in connection with any offer other than the Licensee Music Service, and all such materials shall only be made available, as permitted hereunder, from those areas of the Authorized Website dedicated to the Licensee Music Service or the Licensee Servers for the Tiers accessed through a Portable Device.

(f) During the Term of this Agreement and for one (1) year thereafter, Licensee shall maintain in full force and effect, at its own expense, Internet media liability, network security liability or other suitable insurance with limits of no less than five million dollars ($3,000,000.00) per claim and five million dollars ($3,000,000.00) as an annual aggregate to cover technology errors and omissions and negligent acts, with worldwide coverage including, without limitation, loss of data, theft of personal information or Warner Content resulting from hacker attacks or viruses, breaches of security, unauthorized access, credit card liability or other similar loss to Warner (the "Policy"). The Policy shall be with a licensed insurance company with a Best's Rating of no less than A-VIII. Within thirty (30) days from the Effective Date, Licensee shall submit to Warner a certificate of insurance naming Warner, its subsidiaries, affiliates and assigns as additional insured parties, and requiring that the insurer not terminate or materially modify such policy without written notice to Warner at least twenty (20) days in advance thereof. For the avoidance of doubt, insurance required by Warner hereunder shall in no way reduce or limit Licensee's actual obligation to indemnify and defend Warner for claims, suits or allegations brought as a result of, or as related to the performance of this Agreement.

(g) For the avoidance of doubt, (i) all terms set forth herein regarding restrictions on the use of Warner Content, including, without limitation, the content usage rules set forth herein and (ii) the economic terms, shall be applicable to all end users of the applicable Tier of the Licensee Music Service, regardless of whether such end user is considered an "End User" under this Agreement. Payment for such use of Warner Masters shall not relieve Licensee of its obligations hereunder or constitute a waiver by Warner of any rights and remedies it may have under law or equity.

(h) By June 2008, Licensee shall implement a feature whereby Tier 2 customers may access via their Personal Computers a list of tracks saved to such customers' Portable Devices via the "Heart" button, accompanied by the ability to immediately purchase and download such tracks.

6. Promotional Opportunities.

(a) To the extent that Licensee communicates marketing news and information (via emails or otherwise) to End Users as part of the provision of the Licensee Music Service, Licensee will, at Warner's request, communicate marketing news (e.g., announcements regarding new releases of Warner Masters) and information regarding Warner Artists designated by Warner to End Users who have opted to receive such emails or other communications.

(b) If the Licensee offers Promotional Opportunities to other providers of recorded music content to the Licensee Music Service, Licensee shall offer to Warner on a gratis basis Warner's Album Market Share of such Promotional Opportunities on appropriately similar terms. "Album Market Share" means the proportionate share as determined by reference to the number of albums sold by Warner as compared to the number of albums sold by each other Person that is also a provider of recorded music content to the Service in the Territory during the preceding calendar month, in each case, as reported by SoundScan (or another provider of reasonably comparable sales data with reasonably equivalent authority, accuracy and reliability in the event that SoundScan ceases publication of such information). As used herein, "Promotional Opportunities" means, individually and collectively, features, placements, and banner ads.

(c) During the display, playback or other viewing via the Licensee Music Service of each Warner Master and from each area of the Authorized Website where artist, album title and/or song title information for any Warner Master is made available, at Warner's request, Licensee shall include: (i) a direct link to the applicable Warner artist website as designated by or on behalf of, and provided by, Warner to Licensee; and (ii) prominently-placed buttons or links in the Licensee Music Service that seek to encourage End Users to purchase the applicable Warner artist's album or digital download from one or more legally operating third-party providers. In connection with subsection (ii), and while a Warner Master is being Streamed, Licensee shall, at a minimum, provide a link to buy the related album or digital download. The link requirements provided in subparagraph 6(d)(i) shall not apply to a Portable Device to the extent such type of display is not then generally supported, for which similar requirements shall be mutually agreed upon by Warner and Licensee.

(d) On a weekly basis commencing as of the date that is ninety (90) days after the Effective Date, Licensee will deliver to Warner Aggregate Information compiled by Licensee in connection with the Service in form and format to be mutually agreed upon. For the purposes of this Section 6(e), "Aggregate Information" shall mean information concerning the usage habits, patterns and/or demographic classification of an End User as a group but which does not specify the identity of any individual End User. Subject to applicable Laws and Licensee's privacy policy that has been provided to Warner, and to the extent, in Slacker's sole discretion, End Users are provided with the opportunity to "opt in" to sharing their email addresses with third parties, commencing as of the date that is ninety (90) days after the Effective Date, upon Warner's request, Licensee shall furnish Warner with, in a medium and format mutually agreed upon by Warner and Slacker, (i) the identity, time and date of each Warner Master Streamed via the Licensee Music Service and (ii) the following information relating to each End User: (A) age; (B) gender; (C) zip/postal code; (D) email address; and (E) any additional information relating to End Users or the use of Warner Masters of a type that Licensee provides to any other record companies, on at least the same terms and conditions as it is provided to such other record companies, provided that information with respect to other record company sales shall be provided to Warner on an anonymous, aggregate basis (such subsections (i) and (ii), collectively, "End User Data"). Licensee shall notify Warner of any proposed changes to its privacy policy at least ten (10) days in advance of implementing any such changes.

(e) For purposes of this Agreement, "Warner Information" means information collected in connection with or otherwise concerning Warner Content or Warner artists (whether or not such information personally identifies any End User(s)), including without limitation any End User Data.

(f) If Licensee wishes to disclose Warner Information to or use Warner Information for the benefit of any third party (including without limitation any affiliate of Licensee), or commercially exploit the Warner Information, Licensee must seek Warner's prior written approval, which Warner may provide or withhold in its sole discretion. In the event that any such use or disclosure is approved by Warner, Licensee shall provide to Warner at no charge any copy of Warner Information provided to third parties or otherwise used by Licensee, to the extent that such Warner Information has not already been provided to Warner hereunder. Except as otherwise required by applicable Law, Licensee shall maintain a copy of the Warner Information for a minimum of two (2) years following the termination or expiration of this Agreement (or such longer period as reasonably requested by Warner).

(g) For the avoidance of doubt, End User Data and Warner Information shall be deemed to constitute the Confidential Information (as defined below) of Licensee hereunder, provided that such information may be used for the additional purposes of marketing of Warner Masters to End Users and internal research for marketing and business development purposes.

7. Royalties.

(a) Within ten (10) days after the Effective Date, Licensee shall remit to Warner a non-refundable, non-recoupable content preparation and delivery fee of twenty-five thousand dollars ($25,000.00) for Warner's preparation and delivery of Warner Masters hereunder. For each Renewal Term, if any, Licensee shall remit to Warner a non-refundable, non-recoupable content preparation and delivery fee of one thousand six hundred sixty-six dollars and sixty-seven cents ($1,666.67), on the first day of each such Renewal Term.

(b) Within ten (10) days after the Effective Date, Licensee shall remit to Warner a non-refundable, advance payment in the amount of five hundred thousand dollars ($500,000.00), which amount shall be fully recoupable from the fees set forth in Section 6(c) hereof (the "Service Fees") hereunder. For each Renewal Term, if any, Licensee shall remit to Warner an additional advance payment in the amount of thirty-three thousand, three hundred thirty-three dollars and thirty-three cents ($33,333.33) on the first day of each such Renewal Term, which amount shall be fully recoupable against future Service Fees under Section 6(c) hereof.

(c) From March 14, 2007 through the duration of the Term, for each calendar month (or portion thereof), Licensee shall pay to Warner the following amounts:

(i) Fees for End Users of the Tier 1 (Basic Radio Service). The greater of:

(1) Per Play Fees. The product of (x) One Hundred Thirty Percent (130%) of the then-prevailing "statutory rate" payable by so-called "large commercial webcasters" making digital public performances of sound recordings by means of eligible nonsubscription transmissions and for the making of ephemeral copies in furtherance of those digital public performances pursuant to the statutory licenses under 17 U.S.C. Sections 112 and 114, respectively (and the implementing regulations thereunder) that is expressed as a "per play" basis, multiplied by (y) the total number of times that any Warner Masters incorporated into or made available through Tier 1 is Streamed or Cached Streamed by End Users during the applicable calendar month for more than thirty (30) consecutive seconds; or

(2) Gross Revenues. The product of (x) the Warner Share multiplied by (y) twenty-two and one-half percent (22.5%) of Tier 1 Gross Revenues in the applicable month.

(ii) Fees for End Users of Tier 2 (Premium Radio Service). The greater of:

(1) Per Play Fees. The sum of (A) and (B), as follows: (A) equals the product of (x) One Hundred Fifty Percent (150%) of the then-prevailing "statutory rate" payable by so-called "large commercial webcasters" making digital public performances of sound recordings by means of eligible nonsubscription transmissions and for the making of ephemeral copies in furtherance of those digital public performances pursuant to the statutory licenses under 17 U.S.C. Sections 112 and 114, respectively (and the implementing regulations thereunder) that is expressed as a "per play" basis, multiplied by (y) the total number of times that any Warner Masters incorporated into or made available through Tier 2 is Streamed or Cached Streamed by End Users during the applicable calendar month for more than thirty (30) consecutive seconds (excluding Warner Masters covered in (B)); and (B) equals the total number of times that any Warner Masters incorporated into or made available through Tier 2 that have been captured via the "Save Feature" described in Section II of Exhibit A attached hereto are Streamed or Cached Streamed by End Users during the applicable calendar month for more than thirty (30) consecutive seconds multiplied by (b) One and Fifteen One Hundredths Cents (US$0.0115); or

(2) Gross Revenues. The product of (x) the Warner Share multiplied by (y) thirty percent (30%) of Tier 2 Gross Revenues in the applicable month; or

(3) Per Subscriber Fee. The product of (x) the Warner Share multiplied by (y) the number of End Users of Tier 2 during such month multiplied by (z) Two Dollars and Twenty-Five Cents (US$2.25).

(iii) Fees for End Users of Tier 3 (On Demand for Personal Computer Only Service). The greater of:

(1) Gross Revenues. The product of (x) the Warner Share multiplied by (y) fifty percent (50%) of Tier 3 Gross Revenues in the applicable month;

(2) Per Subscriber Fee. The product of (x) the Warner Share multiplied by (y) the number of End Users of Tier 3 during such month multiplied by (z) Five Dollars (US$5.00); or

(3) Per-play Fees. One cent (US$0.01) multiplied by the total number of times that any Warner Masters incorporated into or made available through Tier 3 is Streamedor On-Demand Streamed by End Users during the applicable calendar month for more than thirty (30) consecutive seconds.

(iv) Fees for End Users of Tier 4 (On Demand Portable Service). The greater of:

(1) Gross Revenues. The product of (x) the Warner Share multiplied by (y) fifty percent (50%) of Tier 4 Gross Revenues in the applicable month;

(2) Per Subscriber Fee. The product of (x) the Warner Share multiplied by (y) the number of End Users of Tier 4 during such month multiplied by (z) Seven Dollars and Fifty Cents (US$7.50); or

(3) Per-play Fees. One cent (US$0.01) multiplied by the total number of times that any Warner Masters incorporated into or made available through Tier 4 is Streamed, Cached Streamed or On-Demand Streamed by End Users during the applicable calendar month for more than thirty (30) consecutive seconds.

(d) All calculations with respect to amounts payable to Warner hereunder shall be made by carrying out all fractional amounts to the fourth digit following the decimal point, completing the necessary additions, and then rounding to the nearest penny (*i.e.*, no number should be rounded to the nearest penny prior to the completion of all necessary additions).

(e) All payments hereunder shall be in U.S. dollars and made by check, wire or ACH. Payments made by check can be sent via regular mail to Warner/Elektra/Atlantic Corporation Dept. CH10125, Palatine, Illinois 60055-0125 or via overnight delivery to Mellon Bank Chicago Regional, Lockbox 5505, North Cumberland Avenue, Suite #301, Chicago, Illinois 60656, Attention: Lockbox #10125. Payments made via wire or ACH should be sent to Mellon Financial Corporation ABA #043000261, for the Account: Warner/Elektra/Atlantic Corporation, 3400 West Olive Avenue, Burbank, California 91505, Account Number: 070-1325, Lockbox Number: 500005. Licensee will pay a finance charge of one and one-half percent (1½%) per month, or the maximum rate permitted by law, whichever is less, from the date that any payment was first due under the Agreement until the date such payment is made; or (ii) the maximum rate of interest allowed by applicable Law, whichever is less.

(f) Licensee shall collect, bear and pay any and all taxes, duties and customs of any kind, however designated, levied or based in any way anywhere in the Territory upon the sale or resale of any products or provision of services by Licensee, including, for the avoidance of doubt and without limitation, all sales, use, excise, purchase, value added or similar taxes (other than U.S. federal and state income taxes payable by Warner on monies earned by Warner hereunder). Licensee shall execute any documents Warner may deem necessary or desirable to evidence Licensee's liability for such taxes. If any claim is made against Warner for such taxes, Licensee shall indemnify and hold Warner harmless for any liability for such sums and shall promptly remit to Warner such sums together with any penalties and interest assessed.

(g) All payments hereunder made by Licensee to Warner shall be made free and clear of, and without deduction or withholding for or on account of any and all taxes, levies, imposts, duties, charges, fees, deductions or withholdings now or hereafter imposed, levied, collected, withheld or assessed by any governmental authorities. If any taxes, levies, imposts, duties, charges, fees, deductions or withholdings are required to be withheld or deducted from any amounts payable to Warner hereunder (expect with respect to any U.S. income tax liability against Warner for amounts paid to Warner hereunder), the amounts so payable shall be increased to the extent necessary to yield to Warner the full amount specified hereunder.

(h) Licensee will, and if applicable, will cause all Authorized Contractors to, maintain and preserve in its principal place of business, during the Term and for at least three (3) years thereafter, complete and accurate records of accounts and other records pertaining to its obligations hereunder ("Licensee Records"). At Warner's expense, and during reasonable business hours and upon reasonable notice, Warner may select an independent firm to audit the Licensee Records once during each successive twelve (12) month period beginning on the Effective Date ("Audit"). In the event that an Audit reveals an underpayment by Licensee hereunder, Licensee shall, without limitation of Warner's other rights and remedies, promptly pay to Warner such underpayment, together with interest thereon as calculated in accordance with this Agreement; and, in the event that such underpayment exceeds five percent (5%) of any payment obligations during such period covered by the Audit, Licensee shall, in addition to paying Warner such underpayment and interest, (i) reimburse Warner for all reasonable costs of the audit, including, without limitation, accountants' fees and attorneys' fees incurred in accordance with this Section 6(h) and (ii) permit Warner to conduct an additional Audit of Licensee's accounts and records in accordance with this Section 6(h) during the same twelve (12) month period.

8. Reporting.

(a) Within ten (10) days after each calendar month, Licensee shall deliver to Warner, together with the related payments, statements showing, in a clearly understandable manner and in reasonable detail as may be necessary to calculate the amounts owed to Warner hereunder (and broken down on a Tier-by-Tier basis): (i) the total number of plays of Warner Masters during the applicable calendar month and year-to-date, collectively as well as separately on a Warner Master-by-Warner Master basis and identified using any code or other designation assigned by Warner (*e.g.*, POID, ISRC, UPC or Grid #); (ii) the total Service Fees; (iii) Licensee's total Gross Revenues during the applicable calendar month and year-to-date; (iv) the total number of End Users; (v) any other category of information relating to End Users or their use of Warner Masters as is provided by Licensee to any other music company or record label on the same terms and conditions as such information is provided thereto, and the same data on an anonymous aggregate basis (*e.g.*, no sound recordings, music companies or record labels other than Warner will be identified) for all other music companies or record labels with Sound Recordings used in the Licensee Music Service; (vi) all other information reasonably necessary to calculate the Service Fees hereunder (*e.g.*, the total number of plays of all Sound Recordings); and (vii) any additional information that Warner requires to fulfill any third party reporting or auditing obligation. Such statements shall be provided to Warner in a mutually agreeable format necessary to satisfy Warner's reporting or auditing obligations to third parties and in a manner that is compatible with Warner's royalty accounting systems. The current version of such format is set forth on Exhibit C hereto.

(b) Commencing as of the date that is ninety (90) days after the Effective Date, on a weekly basis during the Term, Licensee shall provide to Warner throughout the Term, unofficial "flash" reports setting forth for the previous week Streams of Sound Recordings made as part of the Licensee Music Service from Licensee Servers in a form and format to be mutually agreed upon, including at a minimum the average number of tracks saved via the "Heart" button by Tier 2 customers on each applicable Permitted Device.

(c) At Warner's request, at six (6) month intervals from the Effective Date during the Term, Licensee will present to Warner the general strategic marketing plans for the Licensee Interactive Service that Licensee plans to implement for the next six (6) months (the "Marketing Plans"). Licensee will give Warner a meaningful opportunity to comment and reasonably consult on the Marketing Plans.

(d) Licensee shall conduct comprehensive research and testing to better understand consumer preferences related to the music experience of the Licensee Interactive Service.

(e) Licensee shall not determine or otherwise set charges or other consideration for Advertisements or advertising-related services, or otherwise structure its business, so as to reduce the amounts that Warner would otherwise receive from Licensee hereunder.

9. Ownership. The parties acknowledge that, as between the Parties, all right, title and interest in the Warner Content (including, without limitation, all intellectual property rights therein; any digitized files produced by Licensee hereunder; the physical and tangible embodiments thereof; and all intellectual property rights in the foregoing) are and shall remain the sole property of Warner. Licensee shall not contest or assist others in contesting the validity of any property or intellectual property rights owned by Warner pursuant to this Section 9 or otherwise. Notwithstanding anything in this Agreement to the contrary, (a) Licensee shall take possession of Warner Content (including any copy thereof) only for the purpose of facilitating the use of Warner Masters via the Licensee Music Service in accordance with the terms and conditions set forth herein and (b) Licensee shall not be deemed to have taken ownership of or title to any Warner Content (including any copy thereof).

10. Term; Termination.

(a) The initial term of this Agreement shall commence on the Effective Date and expire fifteen months thereafter (the "Initial Term"), unless sooner terminated pursuant to the terms of this Agreement. This Agreement shall renew automatically for additional successive renewal terms of one (1) month each (each, a "Renewal Term"), unless either party gives notice of non-renewal to the other party at least one (1) month prior to the expiration of the then-current Initial Term or Renewal Term or unless sooner terminated pursuant to the terms of this Agreement (the Initial Term and any Renewal Terms, collectively, the "Term").

(b) Warner may terminate this Agreement, effective upon written notice to Licensee, in the event of: (i) Licensee's failure to comply with the payment obligations set forth in Section 7 above and fails to cure such non-compliance within ten (10) days after written notice; (ii) Licensee's use or allows the use of the Warner Content (or any part thereof) other than as expressly authorized herein and the same is not cured within five (5) business days; (iii) Licensee's breach of Section 14(f) hereof; (iv) Licensee repeatedly fails to remove Warner Masters or Other Materials from the Authorized Website and/or Licensee Music Service pursuant to Section 3(c) hereof, notwithstanding Licensee's cure of such breach;

(v) if Licensee fails to maintain a mechanism that permits Licensee to count reliably the number of Streams of Sound Recordings made through the Licensee Music Service so that Warner may reliably audit such count; or (vi) the termination of any other agreement between Licensee and Warner by Warner prior to the expiration of the term thereof due to a breach of such agreement by Licensee.

(c) Each Party may terminate this Agreement, effective upon written notice to the other Party, if the other Party: (i) materially breaches any of the provisions of this Agreement and fails to cure same within thirty (30) days after written notice; or (ii) is unable to pay its debts when due, makes any assignment for the benefit of creditors, files any petition under the bankruptcy or insolvency Laws, has a receiver or trustee to be appointed for its business or property, or is adjudicated bankrupt or insolvent.

(d) Upon any expiration or termination of this Agreement, (i) Licensee shall immediately cease exercise of its rights under Section 2(a) hereof and shall, at Warner's option, promptly destroy or return all materials pertaining to same, including all copies thereof, that are in Licensee's possession or subject to its control (including, without limitation, in the possession or control of Authorized Contractor(s)); and (ii) Sections 1, 2(d), 5(f), 6(g), 8, 9, 10(d), 12, 13 and 14 shall survive any such event. For the avoidance of doubt, any Streams of Warner Masters made by Licensee in violation of the terms of this Agreement or after the expiration or termination of this Agreement for any reason shall be fully subject to, among other things, Warner's rights under 17 U.S.C. § 106(6) and the remedies in 17 U.S.C. § 501 et seq. Expiration of the Term or earlier termination of this Agreement will not relieve Licensee of Licensee's obligation to pay Service Fees for the periods prior thereto in accordance herewith. Notwithstanding the foregoing, Licensee need not destroy the digital files embodying Warner Masters for which Licensee has otherwise procured, by agreement with Warner or by law, all rights required by law (e.g., in connection with DMCA-compliant webcasted radio), and to the extent such rights include the right to use such digital files, so long as Licensee provides Warner with satisfactory evidence of such rights. Notwithstanding the foregoing, after termination of this Agreement, (i) if use of the digital files is contemplated under DMCA-compliant webcasted radio regulations, Licensee shall operate such radio service at a minimum in compliance with 17 U.S.C. § 114 and § 112 with respect to ephemeral copies, and (ii) the right not to destroy the digital files embodying Warner Masters is not intended to enlarge the scope of Licensee's rights under 17 U.S.C. § 112 or the DMCA.

11. Representations and Warranties.

Each Party represents and warrants that it has the right, power and authority to enter into this Agreement and to fully perform its obligations hereunder. EXCEPT FOR THE FOREGOING SENTENCE, WARNER MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THIS AGREEMENT OR THE WARNER CONTENT, AND EXPRESSLY DISCLAIMS ALL SUCH REPRESENTATIONS AND WARRANTIES, INCLUDING ANY WITH RESPECT TO TITLE, NON-INFRINGEMENT, MERCHANTABILITY, VALUE, RELIABILITY OR FITNESS FOR USE. WITHOUT LIMITING WARNER'S OBLIGATIONS AS SET FORTH IN SECTION 12 BELOW AND EXCEPT AS EXPRESSLY SET FORTH HEREIN, LICENSEE'S USE OF WARNER MASTERS OR OTHER MATERIALS IS AT ITS OWN RISK ON AN "AS IS" BASIS.

12. Indemnification.

(a) Warner will defend at its expense, indemnify and hold harmless Licensee and its affiliates and their respective directors, officers, employees, agents and representatives ("Related Parties") from any loss, liability, damage, award, settlement, judgment, fee, cost or expense (including reasonable attorneys' fees and costs of suit) ("Losses") arising out of or relating to any third-party (other than Authorized Contractors or other parties acting on behalf of Licensee) claim, allegation, action, demand, proceeding or suit ("Action") against any of them that arises out of or relates to, and to the extent not covered under Licensee Actions: (i) any breach by Warner of this Agreement or its representations, warranties and covenants hereunder; or (ii) any claim that Licensee's use of the Warner Masters as explicitly authorized by this Agreement infringes the intellectual property rights of a third party ("Warner Actions").

(b) Licensee will defend at its expense, indemnify and hold harmless Warner and its affiliates and their respective Related Parties from any Losses arising out of or relating to any third-party Action against any of them that arises out of or relates to, and to the extent not covered under Warner Actions: (i) any breach by Licensee of this Agreement or its representations, warranties and covenants hereunder; (ii) Licensee's operation of its business; or (iii) any claim that Licensee's use of the Warner Content, other than as explicitly authorized by this Agreement, infringes the rights of a third party ("Licensee Actions").

(c) The indemnified Party will promptly notify the indemnifying Party in writing of any Action and promptly tender its defense to the indemnifying Party. Any delay in such notice will not relieve the indemnifying Party from its obligations to the extent it is not prejudiced thereby. The indemnified Party will cooperate with the indemnifying Party at the indemnifying Party's expense. The indemnifying Party may not settle any Action in a manner that adversely affects the indemnified Party without such Party's consent (which shall not be unreasonably withheld or delayed). The indemnified Party may participate in its defense with counsel of its own choice at its own expense.

(d) EXCEPT WITH RESPECT TO (Y) DAMAGES AWARDED OR PAID IN SETTLEMENT TO THIRD PARTIES UNDER THE INDEMNIFICATION OBLIGATIONS OF SECTION 12, AND SECTION 13(A) HEREOF AND (Z) WILLFUL, INTENTIONAL OR GROSSLY NEGLIGENT BREACHES OF SECTION 2(D) HEREOF, NEITHER PARTY WILL BE LIABLE TO THE OTHER PARTY FOR SPECIAL, INDIRECT, CONSEQUENTIAL, STATUTORY, EXEMPLARY, PUNITIVE OR INCIDENTAL DAMAGES (INCLUDING LOST PROFITS OR GOODWILL, BUSINESS INTERRUPTION AND THE LIKE) RELATING TO THIS AGREEMENT, EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. EXCEPT WITH RESPECT TO DAMAGES AWARDED OR PAID IN SETTLEMENT TO THIRD PARTIES UNDER THE INDEMNIFICATION OBLIGATIONS OF SECTION 12, IN NO EVENT WILL WARNER'S TOTAL LIABILITY FOR A DISPUTE RELATING TO THIS AGREEMENT EXCEED THE SERVICE FEES RECEIVED BY WARNER FROM LICENSEE UNDER THIS AGREEMENT DURING THE TERM.

13. Security; Confidentiality.

(a) Licensee shall use diligent efforts to prevent any unauthorized copying of Warner Masters or Other Materials, including, without limitation, by implementation of the Security Solution. If Licensee becomes aware of any infringement or misuse of the Warner Content, it shall promptly notify Warner and fully cooperate with Warner to remedy same, at Licensee's expense. With respect to End Users accessing the Licensee Music Service via such End User's Personal Computer, such End User may only Stream Warner Masters when such End User is logged onto his or her End User account, using a unique user name and password, provided that the foregoing shall not be required during the first 24 hours with respect to Tier 1. Except with respect to copies residing on Portable Devices, Licensee shall restrict access to all physical or tangible copies of Warner Content solely to essential personnel who are informed of and accept the terms of this Agreement and shall store such items or any hardware or media embodying them in a secure location. If any security breaches occur in connection with this Agreement, the parties shall promptly consult with each other and all applicable third parties and shall cooperate in all appropriate remedial actions. If a security breach that is system-wide, material or otherwise adverse to Warner occurs, Warner may suspend Licensee's rights under Section 2(a) until such breach is remedied. Licensee shall not through its business practices or otherwise take any action that would compromise the efficacy or the security of the Security Solution or the Warner Content distributed hereunder. For the avoidance of doubt, Warner Masters will not be accessible or usable outside the Licensee Music Service.

(b) Neither Party shall disclose, share, communicate or provide access to any non-public, confidential or proprietary information of the other Party including the terms of this Agreement and any confidential information concerning the other Party's business, finances, plans, customers, technology and products) that it learns in connection with this Agreement ("Confidential Information") to anyone other than its employees, directors, consultants or Authorized Contractors who need to know such Confidential Information to exercise such Party's rights or to perform such Party's obligations hereunder and who are obligated to comply with confidentiality provisions no less restrictive than those set forth in this Agreement, or as may be necessary to support third party reporting, royalty or audit obligations (*e.g.*, imposed by Warner artists, publishers or otherwise). Neither Party shall use the other Party's Confidential Information, except as required to exercise such Party's rights or perform such Party's obligations hereunder. Confidential Information shall not include any information which: (i) is or becomes publicly known other than from a breach of this Agreement; (ii) is independently developed or obtained by the receiving Party from another legitimate source; or (iii) is required to be disclosed by Law or the rules of any nationally recognized stock exchange, provided that the receiving Party shall promptly inform the disclosing Party of any such requirement and cooperate with any attempt to procure a protective order or similar treatment. Licensee shall not make or issue any public statement or press release regarding this Agreement or its subject matter without the prior written approval of Warner.

14. General Provisions.

(a) *Independent Contractors.* Warner and Licensee are independent contractors, and shall not be deemed partners, franchisees, agents or joint venturers of each other. Neither Party will have any right or authority to obligate or bind the other Party in any manner whatsoever.

(b) *No Third-Party Beneficiaries.* Nothing in this Agreement shall confer upon any person any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement, and no person (including End Users or Authorized Contractors) shall be deemed a third party beneficiary under or by reason of this Agreement.

(c) *Entire Agreement; Amendment.* This Agreement, including all Exhibits hereto, constitutes the entire agreement between the Parties concerning the subject matter hereof and supersedes any prior understandings and agreements among the Parties with respect thereto. There are no representations, warranties, terms, conditions, undertakings or collateral agreements, expressed, implied or statutory, between the Parties related to the subject matter hereto other than as expressly set forth herein. No amendment of this Agreement, including this Section 14(c) shall be effective unless in writing, executed by both Parties, and expressly identifying the provision(s) to be amended and the changes to be made to such provision(s).

(d) *Waiver.* No waiver of any term of this Agreement will be effective unless executed in writing by the Party charged therewith or will excuse the performance of any acts other than those specifically referred to therein.

(e) *Severability.* If any term of this Agreement is held to be invalid or unenforceable, such holding will not affect the validity or enforceability of any other term hereto, and this Agreement will be interpreted and construed as if such term, to the extent the same will have been held to be invalid or unenforceable, had never been contained herein.

(f) *Assignment.* Licensee may not assign, confer any right in, assume in bankruptcy, pledge, mortgage or otherwise encumber this Agreement (or as applicable, Warner Masters or Other Materials), in whole or in part, without the prior written consent of Warner in its sole discretion. For the avoidance of doubt, a merger, change of control, reorganization (in bankruptcy or otherwise) or stock sale of Licensee shall be deemed an "assignment" requiring such consent, regardless of whether Licensee is the surviving entity. Licensee acknowledges that this Agreement is a contract for personal services and that its identity is a material condition that induced Warner to enter into this Agreement. Any attempted action in violation of the foregoing shall be null and void *ab initio* and of no force or effect. Notwithstanding the foregoing, a bona fide underwritten initial public offering of Licensee's common stock will not constitute an assignment that requires Warner's prior written consent.

(g) *Notices.* All notices required hereunder shall be given by hand, overnight delivery service, or facsimile transmission (confirmed by letter sent by registered or certified mail) to the address below. Either Party may amend its address set forth above at any time by written notice to the other Party. All such notices will be deemed given when the same will be delivered, so addressed, by hand, facsimile or overnight delivery service.

To Warner:	To Licensee:
Warner Music Inc. 75 Rockefeller Plaza New York, New York 10019 Attn: Executive Vice President & General Counsel Fax: (212) 258-3092	Slacker, Inc. 16935 W. Bernardo Dr., Ste. 101 Attn: General Counsel Fax: (858) 943-5001

(h) *Governing Law; Consent to Jurisdiction.* This Agreement will be construed in accordance with the laws of the State of New York as applied to contracts made and performed entirely therein. All disputes relating to this Agreement shall be brought solely in the state or federal courts located in the borough of Manhattan, New York, New York. Licensee hereby consents to the exclusive jurisdiction of the State of New York and waives any defense of forum inconveniens. EACH PARTY HEREBY EXPRESSLY WAIVES ANY RIGHT TO A TRIAL BY JURY IN ANY ACTION OR PROCEEDING BROUGHT BY OR AGAINST EITHER PARTY IN CONNECTION WITH THIS AGREEMENT.

(i) *Counterparts.* This Agreement may be executed in counterparts, each of which shall be deemed an original and both of which together shall constitute one and the same document.

(j) *Remedies.* The rights and remedies of the Parties provided under this Agreement are cumulative and in addition to any other rights and remedies of the Parties at law or equity.

(k) *Headings.* The titles used in this Agreement are for convenience only and are not to be considered in construing or interpreting the Agreement.

(l) *Further Assurances.* The Parties hereto shall execute such further documents and perform such further acts as may be necessary to comply with the terms of this Agreement and consummate the transactions herein provided.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be duly executed as of the Effective Date by their respective offices thereunto duly authorized.

WARNER MUSIC INC.

By: ______________________

Name: STEPHEN BRYAN

Title: VP, Bus. Dev.

SLACKER, INC.

By: Seema Burke

Name: Seema Burke

Title: Chief Legal Counsel

EXHIBIT A

LICENSEE MUSIC SERVICE

Licensee currently offers an interactive music service called "Slacker" with a variety of pre-programmed genre stations and other functionality as follows:

Tier 1: BASIC RADIO FUNCTIONALITY

Basic Radio consists solely of non-interactive, pre-programmed radio stations (except as otherwise set forth below), and shall operate in conformity with 17 U.S.C. § 114 (including conformity with the sound recording performance complement as defined in 17 U.S.C. § 114(j)), subject to the following exceptions, clarifications and other terms set forth below and in the Agreement:

1. **DCMA Performance Complement.** Notwithstanding anything to the contrary, all stations in Tier 1 must follow the DMCA performance complement.
2. **Format stations.** The service may play stations based on traditional radio formulations, genres, subgenres, decades, etc.
3. **MyStation.** The service may monitors user's genre radio station preferences, and thumbs up / thumbs down ratings of particular tracks to create a personalized MyStation. However, the service will use thumbs up / thumbs down ratings solely to influence the frequency with which such tracks are played, and not to influence the programming of a MyStation in any other way.
4. **Artistmatch Stations:** Users may select reference artists to define and play either a single or multiple artist Artistmatch station. Each Artistmatch station will play music from the selected reference artist(s), and music from artists related to the reference artist(s).
5. **More Like This Stations.** Users may select reference tracks to define and play a "More Like This" station. Each "More Like This" station will play the selected reference track(s), and tracks related to the selected reference track(s).
6. **Thumbs up / thumbs down ratings**. Users may rate artists and tracks on a thumbs up / thumbs down scale. Thumbs down bans an artist or track so it will never play again. Thumbs up signifies that an artist or track is a favorite, so it may play more frequently in the appropriate stations. Thumbs up / thumbs down ratings will not otherwise influence the programming of stations.
7. **Sliders Settings:** Users may select slider settings that for any type of station adjust the music that the station will play along one or more continuums. Sliders may include the ability to adjust the stations for the following continuums only (except as amended by mutual written agreement of the parties): 1. newer or older release dates, 2. higher or lower energy levels (i.e., smooth vs hard), 3. more alternative vs more popular, 4. faster or slow tempo, 5. more or less "thumbs up" favorites, 6. various moods, 7. various situations, 8. more or less profanity, and 9. established artists vs. up-and-coming artists.
8. **Station Mixing.** Users may mix together any number of radio stations.
9. **Limited skipping.** Users may skip up to 6 tracks per hour per station.
10. **Other restrictions.** No re-winding or re-starting is permitted on any Tier 1 station. Backward skips are not permitted, and only the next artist (not the next track) may be identified.
11. **Caching.** Users may play cached radio stations even without a live connection, but may not re-wind or re-start a cached radio station once the applicable portion of the station has been played. Devices may be pre-bundled with cached radio tracks. Cached radio stations may be refreshed and updated periodically to match the type of music each given user is playing.
12. **Use on Devices and PCs.** End Users may use their Basic Radio on any one of such End User's Personal Computers at any one given time and one of such End User's Portable Device.

Tier 2: PREMIUM RADIO FUNCTIONALITY

Premium Radio provides all features and functions in Basic Radio, but in addition offers:

1. **Better Skipping.** No maximum on number of forward skips. However; like Basic Radio, backward skips are not permitted, and only next artist, not next track may be identified.
2. **Save Feature.** Customers may save tracks by manually clicking a "Heart" button only while listening to that track in Premium Radio. "Saved Tracks" will be saved to the users device library and favorites playlist, and be accessible as On-Demand Streams. They are locked to the device on to which they were originally saved. At the end of the subscription period, the saved tracks will be disabled, and may not be played again until or unless the subscription is renewed. Users may log into and play saved tracks on any one of such End User's Personal Computers at any given time and any one of such End User's Portable Devices.
3. **No Advertisements.**

Tier 3: ON-DEMAND FOR PERSONAL COMPUTER ONLY FUNCTIONALITY

The On-Demand for Personal Computer Only Service ("On Demand PC Service") shall include all of the functionality and features disclosed in Tiers 1 and 2 above, and the following additional features:

1. Selection of Tracks. The End User may request and receive specific Warner Masters as On-Demand Streams.

2. Stations. End Users may program the selected On-Demand Streams on Personal Computers into playlists for their own use, without regard to the DMCA performance complement.

3. Tracks. End Users shall have on demand control over any Streams, without regard to any DMCA performance complement or other such limitations.

End Users may use their On Demand PC Service on up to three of such End User's Personal Computers.

Tier 4: ON-DEMAND PORTABLE FUNCTIONALITY

The On-Demand Portable Service shall include all of the functionality and features disclosed in Tiers 1 and 2 above, and the following additional features:

1. Selection of Tracks. The End User may request and receive specific Warner Masters as On-Demand Streams and/or Conditional Downloads.

2. Stations. End Users may program the selected On-Demand Streams and Conditional Downloads on Permitted Devices into playlists for their own use, without regard to the DMCA performance complement.

3. Tracks. End Users shall have on demand control over any Streams or Cached Streams, without regard to any DMCA performance complement or other such limitations.

End Users may use their On Demand Portable Service on up to three of such End User's Personal Computers and up to three of such End User's Portable Devices.

EXHIBIT B

CONTENT USAGE RULES

End Users may access Warner Masters and Other Materials, in all instances, for personal, non-commercial use only. End Users are not granted any commercial, sale, resale, reproduction, distribution or promotional use rights for Warner Masters or Other Materials, including any rights for uses that require a public performance license with respect to the underlying musical composition.

SECURITY SOLUTION

See attached

DELIVERY FORMAT

Warner shall provide Licensee with all Warner Masters in WMA format at a bit rate of 128 kbps and AAC+V2 format at a bit rate of 30 kbps and 44 kbps, or other mutually agreed format(s).

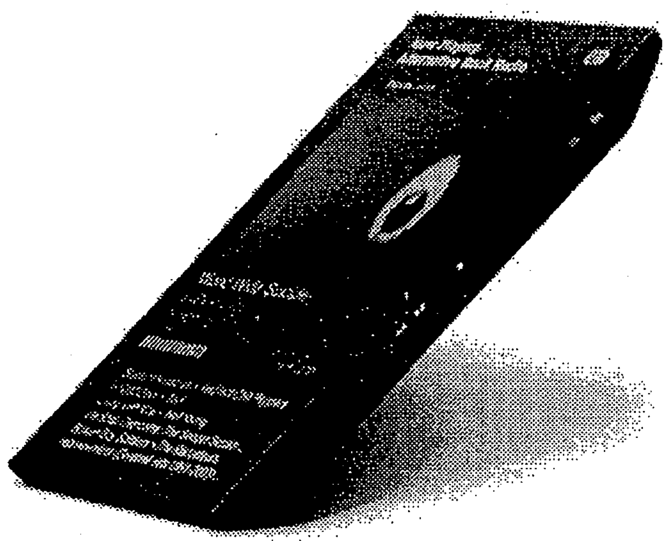
BBI Radio Service

Description of Service

Broadband Instruments Corporation

Confidential

April 2007
Revision 1.4.4



SXW3_00021477

Introduction

BBI products and services are designed to deliver a premium lean-back, music experience: 1. in a car environment, 2. in a home environment and 3. in a portable environment. .

BBI Satellite Radio is the BBI premium audio service delivered over K_u band satellite to a proprietary consumer electronic receiver designed primarily for use in the car. Content is broadcast on a multiple digital satellite transponders, each operating at 400-1600 kbps. Audio content is encoded at 32-40 kbps, yielding a content transfer rate of many virtual channels per transponder.

The BBI Satellite Radio receiver may store incoming songs rather than play them directly from the satellite feed. Using metadata received with the songs and embedded sequencing logic, the receiver may also create radio song sequences from the inventory of songs stored in the device.

The receiver may also make the decision to keep or discard an incoming track (inventory management). "Radio station profiles" (algorithmic logic which creates a customized "virtual radio station" experience based on user preferences) is loaded onto the device in order to define the rules and settings for song sequencing and inventory management.

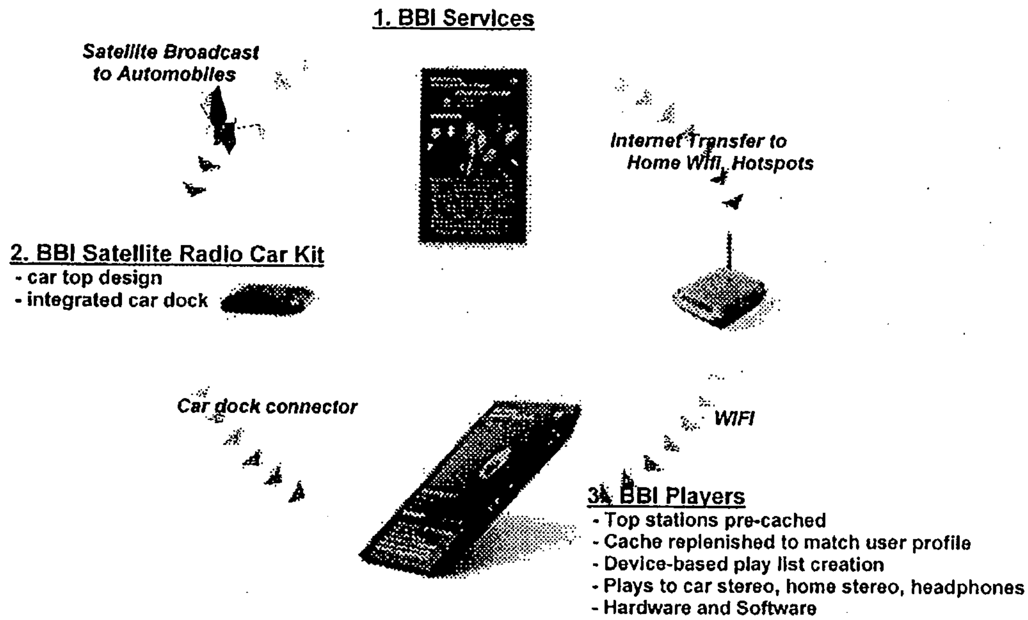
BBI Satellite Radio receivers may also play the more traditional real-time content feeds from the satellite or utilize caching and scalable codecs to provide a very large number of simulated real-time channels.

BBI Wireless is the BBI audio service delivered over 802.11 wireless protocols to the portable BBI Player. Like BBI Satellite Radio, BBI Wireless may cache content from the service locally on the device and uses the content metadata and smart sequencing to deliver fresh, customized programming.

The BBI Portable Player device connects to the BBI Wireless service opportunistically via 802.11 to refresh its content cache and/or receive real-time programming.

The BBI Internet service delivers BBI radio stations as streaming audio over the internet.

System Overview



1. BBI Services

BBI servers, located in a secure datacenter, schedule the content to be broadcast across the BBI satellite network. Scheduled content is transmitted via satellite uplink dish to a K_u band satellite. BBI servers also handle requests from wifi connected players for content refresh.

2. Satellite

Leased K_u band satellite transponder receives the uplink signal and re-broadcasts. Initial satellite coverage will be for North America only.

3. BBI Satellite Radio Car Kit

BBI proprietary Satellite Antenna designed for automotive applications with connected Car Dock. The Car Dock decodes the signals received by the antenna and transmits digital data to the docked Portable Player.

4. *Portable Player (BBI Player)*

The Portable Player is a full featured MP3/WMA portable player with 802.11 wireless connectivity. A USB interface is also present. The Portable Player has a rich user interface including a large color display and selection and scrolling input devices.

The storage on the Portable Player is partitioned into two areas. The first partition stores regular files transferred onto the device by the user in the style of a typical mp3 player. The second partition stores files associated with the BBI Wireless or BBI Satellite Radio service. The Portable Player will connect to the Satellite Radio service when docked in the BBI Satellite Radio Car Kit, and will opportunistically connect to 802.11 networks and synchronize with the BBI service to refresh content in the second partition

System Availability

The system will be available for private demos to partners starting with the Consumer Electronics Show in early January, 2007. Public release is slated for March, 2007.

BBI Detailed Components Legend

The following chart lists the hardware and software components comprising the BBI services.

Table 1: Hardware Compoents

Component Name	Description	Access	Physical Location
Production App Server	Hosts Web Services software supporting Web Player and Portable Player	IT Staff and public via exposed HTTP and HTTPs interfaces	San Diego Datacenter
Feed Harvest Server	Hosts Feed Harvesting software supporting 3rd Party content ingestion	IT Staff	San Diego Datacenter
Transcoding Server	Hosts Transcoding software to perform any necessary transcoding and packaging of content	IT Staff	San Diego Datacenter
Content Server	Serves authorized content requests in the production environment	IT Staff, Authorized requests from end-users or Content Delivery Network	San Diego Datacenter
Database Server	SQL Production Database platform for support of Production App Servers	IT Staff, Production App Servers	San Diego Datacenter
Production Content Repository	High capacity storage array for asset storage	IT Staff, Content Server	San Diego Datacenter
Backend Content Repository	High speed storage array for asset storage	IT Staff	San Diego Datacenter
Content Delivery Network	Edge servers used to distribute content to end users	Limelight Networks	Limelight Networks
Car Antenna	BBI proprietary antenna used to receive Ku Band Satellite signals	N/A	Mounted on roof of consumer's car
Scheduling Server	Hosts Scheduler software used to send content to Satellite Uplink	IT Staff	San Diego Datacenter
Satellite Uplink	Hardware and	IT Staff	Austin Satellite

	software used to convert digital data to Ku band satellite signal		Uplink Facility
Satellite Dish	Hardware used to transmit Ku band satellite signal to Satellite Transponder	IT Staff	Austin Satellite Uplink Facility
Ku Band Satellite Transponder	Hardware used to transceive Ku band satellite signals	N/A	Geosynchronous Orbit
Car Dock	Hardware used to demodulate and decode Ku band satellite signals	N/A	Installed in consumer's car
Portable Player	Hardware used to render digital media to the consumer.	N/A	With Consumer

Table 2: Software Components

Component Name	Description	Access	Physical Location
Player Services	Software to support Portable Player, Web Player, and Jukebox	Build: QA Staff Deploy: IT Staff	Production App Server
Production Database	Oracle 10g database	IT Staff (Database Administrators)	Database Server
Web Player	Software to render media to the consumer in a web-only environment	Build: QA Staff Deploy: IT Staff	Consumer Browser (served from Production App Server)
Jukebox	Software to render media to the consumer	Build: QA Staff	Consumer PC
Portable Player Firmware	Firmware to render media to the consumer	Build: QA Staff	Portable Player
Feed Harvester	Software to ingest and store content from 3rd parties	Build: QA Staff Deploy: IT Staff	Feed Harvest Server
Transcoder	Software to transcode or post process 3rd party media content	Build: QA Staff Deploy: IT Staff	Transcoding Server

Table 3: Physical Locations and 3rd Parties

Name	Role	Address
San Diego Datacenter	Physical hosting of servers and services	American Internet Services (AIS) 9725 Scranton Road San Diego, CA 92121
Content Delivery Network	Distribution of content to end users	Limelight Networks 2220 W 14th St Tempe, AZ 85281
Austin Satellite Uplink Facility	Physical hosting of Satellite Dish	Broadband Instruments 4505 Spicewood Springs Rd Suite 304 Austin, TX 78759
Ingenient	Some development of Portable Player Firmware	Ingenient Inc. 1701 W. Golf Road, Tower 1, Suite 1200 Rolling Meadows, IL 60008, U.S.A.
Payment Gateway	Processing of payment instruments, storage of end-user payment information	Cybersource Corporation 1295 Charleston Rd. Mountain View, CA 94043
Security Auditor	Independent company to scan BBI systems for security vulnerabilities and Payment Card Industry Data Security Standards compliance.	Ambiron TrustWave 120 N. LaSalle Street Chicago, IL 60602

BBI Premium Music and Audio Service

The BBI Premium services are designed to work with dedicated devices (not personal computers) that cache content locally and with connections that are intermittent and potentially unidirectional. Alternatively, the service can operate by caching a portion of each music file and receiving the remainder over real-time channels. Using a scalable codec, the user receives higher quality when the file is in cache, but receives lower quality on a cache miss.

Users will be able to select radio channel presets for their device. The presets determine whether a received track will be cached on the device. Users can select presets from a catalog of ~ 120 pre-programmed station formats: Top Hits, Alternative Rock, Modern Country, 80s, etc.

Users may also create custom stations by mixing station formats, selecting artists, genres, decades, or other attributes. User may move "sliders" associated with pre-programmed stations to bias the content more or less towards favorites, popular tracks, harder or softer tracks, and newer or older tracks.

Users may personalize the content stored on their device and in their stations by rating the music that they hear using the device itself (not a PC). A positive rating may 'pin' the track to the device (meaning it won't be replaced by incoming content). A negative rating may ban the track or artist meaning that these tracks won't be cached or played in the future. The favorites slider can bias a station to play more or less of a user's rated favorites.

BBI Satellite Radio Service Description

The Satellite Radio Service is delivered to the Car Dock via the Satellite Antenna mounted on the roof of the car. When the Portable Player is in the car dock, the Portable Player will receive tracks from the Satellite service via the Satellite Antenna and Car Dock.

- The BBI Satellite Radio station offering will consist of:
  - ~20 standard music stations, based on various radio formats and genres, as well as a number of news and traffic stations
  - Option to create custom music stations by: 1. mixing formats, 2. biasing content by various parameters, including:
    - 1. popular vs. eclectic
    - 2. harder vs. softer
    - 3. newer vs. older
    - 4. more favorites vs less favorites
    - Other similar sliders

- Users will be able to view cover art, album reviews, artist photos and artist bios associated with tracks played in all radio stations.
- DJ voiceovers will be used to introduce some or all songs, provide occasional format-specific music news updates, and station identification.
- Station profiles are stored in the device. The device uses station profiles to decide which incoming tracks to keep and to sequence the station from the available tracks.
- The Scheduler defines the satellite broadcast schedule, balancing the need for content freshness on popular stations with variety for deeper stations.
- BBI will preload radio tracks on the player. Preloaded or subsequently received radio tracks cannot be copied from the device other than by recording its analog output in real time during playback.

BBI Wireless Radio Service Description

- Stations available through the Wireless Radio Service are a superset of the stations available through the BBI Satellite Radio offering. It will offer an additional 100 fringe format music stations, and approximately 10,000 "Artist" stations, that will play music from the selected artist, and representational music from related artists, and approximately 100,000 track match stations, that will play music related to a particular reference track. It will also offer the ability to connect to stations that combined multiple track-match, artist and standard genre stations.
- The Wireless service requires the Portable Player and intermittent 802.11 connectivity
- When connected, the Portable Player transmits station profiles to the server along with a list of content currently on the device.
- The server selects replacement content and sends the list of content to the Player. The Player downloads and caches the content as fast as possible. [See Content Flow and Security in Portable Player (Wireless) Synchronization.]

BBI Internet Radio Service Description

- BBI Internet Radio will offer the same ability to customize stations as available in the BBI Wireless Radio offering
- The user creates and edits station profiles using the Web Player or internet conntected Jukebox.
- The Player Services implements the Content selection and sequencing logic.
- Tracks are streamed via secure progressive download to a no-install Web Player (Flash, Quicktime, or Windows Media Player powered as available on the target computer). [See Content Flow and Security in Web Player Service.]
- Alternatively, tracks may be streamed via secure progressive download to a PC Jukebox application as AAC plus v2 at 40 kbps. [See Content Flow and Security in Jukebox Radio Service.]

- Users may synchronize custom radio stations profiles created in the Web Player or Jukebox with the Portable Player. (This synchronizes the settings associated with a station, not the station Content.)

Free versus Pay Services

Regardless of whether the service is received over Satellite, Wireless or Internet, there is a differentiation between the free user experience and that of the paid subscriber. Most significantly, premium users will not receive advertisements. See the partner term-sheet for full details on differentiation. Content playlists for all radio-style playback in ***all*** BBI services will be compliant with the Performance Complement of the Digital Millennium Copyright Act (DMCA).

Other Programming

Non-musical content consists of traffic, news, weather, and talk. The device will provide access to these channels via presets. Audio presets will be configured in a manner similar to custom music stations.

Traffic

BBI Satellite will support traffic reports for some number of major markets. When customizing a traffic station, the user will enter zipcode and/or city information to select the traffic reports to subscribe to.

Programming rules will need to enforce expiration on traffic reports such that reports that are older than a certain time interval are not played.

News, Weather, Talk

BBI users may subscribe to one or more news or talk stations that are made available through the service.

Ads

Ads are targeted to users without premium subscriptions. The player will cache ads that are globally targeted or that are targeted to the zipcode, demographics and self-described interests of the user who has registered the given device.

Overview of Service Tiers and Clients

Radio: In all cases, radio playlists are always generated by BBI (never by the user), and are always DMCA-compliant.

Opportunistic device loading: In all cases, the device can be loaded with new content transparently to the user whether connected by USB to computer, or receiving via Wireless (IP), or by Satellite broadcast. User never has direct control over such content loading, though devices may eliminate (or never keep) content known to be unwanted by user.

Back Channel: Satellite connected devices do not have a Back Channel for communication of information (e.g. play logs) back to the services. However, all BBI devices, including those that are typically satellite connected, will opportunistically connect to Wireless networks to upload cached back channel data.

Favorites: In all cases, the user can update their profile by pressing the 'Favorites' button during track playback. The profile is used to influence the BBI radio playlist generation. In the premium tier, the BBI client will additionally save a bookmark to the stream, while the device additionally saves (preserves) a copy of the audio file.

On Demand Playback: In the premium tier, the devices may access saved recordings from the service for On Demand playback. In the premium tier, the BBI client may play saved bookmarks to streams On Demand.

User-MP3 Support: The BBI devices and the BBI client offer support for managing the user's personal mp3 collection. In the premium tier, the user may create their own playlists that co-mingle their personal MP3 files with "favorite" tracks recorded from BBI transmissions.

	Format	Back Channel	Favorites: Update Profile	Favorites: Save Recordings	On Demand Playback	User-MP3 Support
Free Internet (Web Player)	MP3 (128kbps) streamed	Yes	Yes	No	No	N/A
Free Internet (Jukebox)	AAC+ (40kbps) streamed	Yes	Yes	No	No	Unlimited (only user files, no BBI recordings)
Free Wireless (Portable Player)	AAC+ (40kbps) cached	Yes	Yes	No	No	Unlimited (only user files, no BBI recordings)
Free Satellite (Portable Player + Satellite Receiver)	AAC+ (40kbps) cached	No	Yes	No	No	Unlimited (only user files, no BBI recordings)
Premium Internet (Web Player)	MP3 (128kbps) streamed	Yes	Yes	No	No	N/A
Premium Internet (Jukebox)	AAC+ (40kbps) streamed	Yes	Yes	Yes: bookmark to stream	Yes	Unlimited
Premium Wireless (Portable Player)	AAC+ (40kbps) cached	Yes	Yes	Yes: audio file	Yes	Unlimited
Premium Satellite	AAC+	No	Yes	Yes: audio	Yes	Unlimited

(Portable Player + Satellite Receiver)	(40kbps) cached			file		

Content Security

Authorized Access Controls

Access to Content and to production machines with access to the content will be subject to Authorized Access Controls. These controls enforce access to these resources is on an 'as needed' basis and that the list of users authorized to access a resource is periodically reviewed and adjusted.

The BBI IT director is responsible for implementing the access controls and conducting the access reviews. Access reviews will occur at least every 6 months.

Software Deployment Controls

Deployment of software to environments with access to partner content is subject to Software Deployment Controls. These are written policies that detail the processes that must be followed to assure software quality and conformance to specification before deployment to hardware.

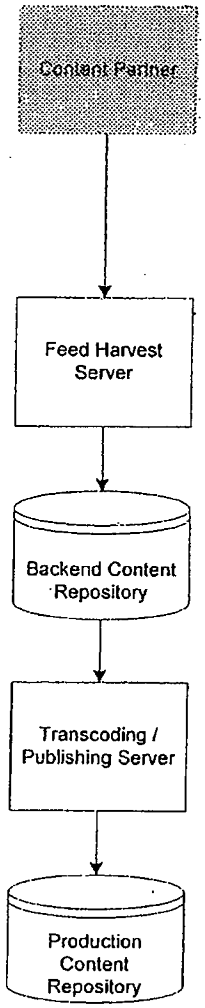
At a minimum, the policies require that the QA department approve the deployment and that the IT department execute the deployment. The QA manager is responsible for implementing the controls and reviewing the process at least every 6 months.

Content Deployment Controls

Deployment of Content from the processing pipeline to production is subject to Content Deployment Controls. These are written policies that detail the processes that must be followed to assure Content packaging quality and conformance to specification before deployment to end-user accessible environments.

The QA manager is responsible for implementing the controls and reviewing the process at least every 6 months.

Content Flow and Security in Backend Processing



Content Partner → Feed Harvest Server

Transmission protocol between the Content Partner and the Feed Harvest Server is at the discretion and control of the Partner. Most likely, HTTPS or FTPS will be used for secure content transfers.

Feed Harvest Server

Content passes through the Feed Harvest Server on its way to the Backend Content Repository. The Feed Harvest Server has read and write access to the Backend Content Repository and is subject to Authorized Access Controls and Software Deployment Controls.

Feed Harvest Server → Backend Content Repository

Content passes from the Feed Harvest Server to the Backend Content Repository over NFS protocols across a private network within the San Diego Datacenter.

Backend Content Repository

The Content is stored on the Backend Content Repository. The Backend Content Repository is subject to Authorized Access Controls. Specifically, Access Control Lists (ACLs) are enabled such that only authorized servers can connect.

Content at rest is stored encrypted in the Backend Content Repository using industry accepted "strong" encryption algorithms and key lengths. Decryption keys are under the control of the BBI IT Director and are made available to services on an as-needed basis. Backups of the Backend Content Repository may be made. These backups will store the encrypted files only. Backups of decryption keys are stored separately from content backups.

Transcoding / Publishing Server ← → Backend Content Repository

Content passes between the Transcoding / Publishing Server and the Backend Content Repository over NFS protocols across a private network within the San Diego Datacenter.

Transcoding / Publishing Server

The Transcoding / Publishing Server decrypts the 'at rest' content stored in the Backend Content Repository, performs transcoding and packaging (if necessary) and writes the End-User formatted files to the Production Content Repository.

Some content may need to be transcoded to end-user compatible formats. The following formats are made available to consumers:

- 40 kbps AAC v2 (enhanced) with parametric stereo in ADTS with error correction and concealment with proprietary BBI header prepended.
- 30 kbps AAC v2 (enhanced) with parametric stereo in ADTS with error correction and concealment with proprietary BBI header prepended.
- 128 kbps mp3 stereo (delivered as progressive downloaded streams)

It the Content Provider can provide content in these formats, transcoding will not be required. The transcoding server may be responsible for pre-pending of BBI proprietary headers. AAC Content can be provided in a compatible format such that error correction and concealment can be added without transcoding.

In the cases where the Content provider cannot provide content in the end-user format or a compatible format, a high quality master file will be provided. The Transcoding / Publishing server transcodes to end-user formats from the high quality master file. The preferred master file formats are FLAC and WMA Lossless. Only the end-user formats are transferred to the Production Content Repository: high quality masters are not transferred and remain archived and encrypted on the Backend Content Repository.

The Transcoding / Publishing Server has read/write access to the Backend Content Repository and read/write access to the Production Content Repository and is subject to Authorized Access Controls and Software Deployment Controls. The Transcoding / Publishing services have access to the content decryption key(s).

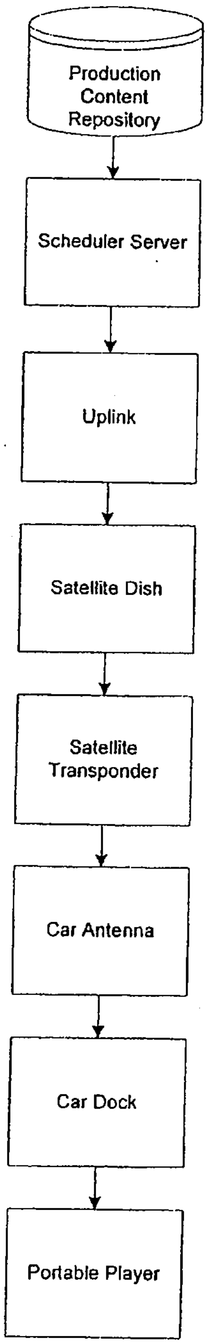
Production Content Repository

The Content is stored on the Production Content Repository. The Production Content Repository is subject to Authorized Access Controls. Specifically, Access Control Lists (ACLs) are enabled such that only authorized servers can connect.

Transcoding / Publishing Server → Production Content Repository

Content passes from the Publishing Server to the Production Content Repository over NFS protocols across a private network within the San Diego Datacenter.

Content Flow and Security in Satellite Radio Service



Production Content Repository → Scheduling Server

Content passes from the Production Content Repository to the Scheduling Server over NFS protocols across a private network within the San Diego Datacenter.

Scheduling Server

Content passes through the Scheduling Server. The Scheduling server runs Scheduler software that decides what Content should be transmitted across the satellite link. Content is transmitted as 30 or 40 kbps AAC plus v2 in ADTS format with error correction and concealment enabled. The Scheduler prepends a proprietary BBI header to each file and pads the file to multiples of the transmission frame length.

There is no interface to request content from the Scheduling Server. The Scheduling server is only able to connect to the configured Satellite Uplink and push content according to its scheduling algorithms.

The Scheduling Server is subject to Authorized Access Controls and Software Deployment Controls.

Scheduling Server → Satellite Uplink

Content is transmitted from the Scheduling Server to the Satellite Uplink across a virtual private network (VPN) using the internet as the underlying transport layer. The VPN is based on 128 bit SSL or IPSEC security standards. Content flows from the Scheduling Server to the Satellite uplink at a total rate of 800 kbps.

Satellite Uplink

Content passes through the Satellite Uplink on its way to the Satellite. The Satellite uplink modulates the digital data received from the Scheduling Server into a Spread Spectrum signal.

The Satellite Uplink is located in a secured equipment building proximal to the Satellite Dish in the Austin Satellite Uplink facility.

Satellite Uplink → Satellite Dish

Content passes from the Satellite Uplink to the Satellite dish across a coaxial cable. The coaxial cable is located within a secured perimeter.

Satellite Dish → Satellite Transponder

Content is beamed from the Satellite dish to the Satellite Transponder located in geosynchronous orbit.

Satellite Transponder → Satellite Antenna

Content is broadcast from the Satellite Transponder in orbit. The signal may be received in most of North America.

The content is secured from the satellite via spread-spectrum technology. Spread spectrum technology was originally developed for military applications based on its properties of being difficult to jam or eavesdrop upon. The BBI satellite service employs a form of Direct Sequence Spread Spectrum (DSSS). The challenges to reverse engineering the de-spreading algorithms are formidable.

The first challenge for someone attempting to hijack the signal is acquiring the signal itself. If the attacker uses the BBI antenna, they will need to handle higher error rates and the proprietary signal processing used in the car dock to boost signal gain and correct errors. More likely, the attacker would need a satellite dish obtain a suitably strong signal to attempt de-spreading.

Next the attacker would need to determine the de-modulation technique for turning the RF carrier signal into a stream of bits (chips). Quadrature Phase Shift Keying or QPSK is the most common of many standards. BBI uses a variant of this call OQPSK or Orthoginal Quadrature Phase Shift Keying. The attacker would most likely concentrate on QPSK and would be working with the wrong string of bits.

Assuming the attacker guesses the correct de-modulation technique, the next hurdle would be to guess the correct code word length and the code sequence / key.

The BBI service uses a code-length of 13 bits and the code sequence key is a 13 bit pseudo-random number. The attacker would have to guess both, with little or no information to suggest whether the guess is correct.

The result of applying the sequence key to 13 bits of incoming data is a single bit of demodulated, de-spread data. The bits must then be combined on a code boundary, de-scrambled, de-interleaved, and grouped into frames. The attacker must be able to correctly identify frame boundaries and apply a Reed-Solomon error correction algorithm on each frame.

Finally, the attacker must separate administrative, metadata, and audio files from the frames. The audio files are encoded as AAC plus v2 at 40kbps with additional scrambling applied to the headers. The attacker would need to reverse engineer the header scrambling to yield effective files.

Satellite Antenna → Car Dock

The Satellite Antenna transmits the raw signal as described above over coaxial cable to the Car Dock.

Car Dock

The Car Dock contains the hardware and firmware required to decode the DSSS signal described above into digital data. It de-modulates, de-scrambles, de-interleaves and applies forward error correction. The Car Dock firmware is implemented in FPGA (Field Programmable Gate Array) semiconductor technology.

Car Dock → Portable Player

The Car Dock transmits serial, digital data to the Portable Player when the Portable Player is in the dock. The communication occurs across a Foxconn connector pair with separate universal asynchronous receiver/transmitter (UART) and Synchronous Peripheral Interface (SPI) pin-outs.

The Portable Player must authenticate itself by writing 8 bits to one of 64K addresses across the UART interface to enable the SPI communication.

Portable Player

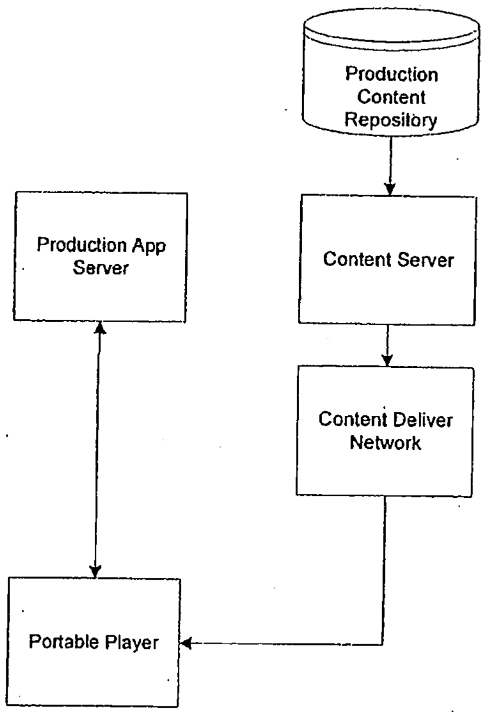
The Portable Player stores the Content in either flash RAM or hard disk. In either case, the storage is soldered directly onto the printed circuit boards of the device and is non-removable.

Content is stored in a proprietary file format consisting of a proprietary metadata header followed by 30 or 40 kbps AAC plus v2 in ADTS format with error correction and concealment enabled.

The Portable Player does not have an interface that allows the content to be extracted from the device. The Portable Player does not support the USB Mass Storage Device Class protocols (MSC) that make the device appear as an external drive to end-users.

The Portable Player does implement the Media Transfer Protocol (MTP) to allow users to transfer their own media files to and from the device. The device does not expose the Content (radio service files) to the MTP interface, and does not allow radio service files to be transferred across its MTP interface. Therefore, MTP software cannot be used to extract the Content from the device.

Content Flow and Security in Portable Player (Wireless) Synchronization



The Portable Player may refresh the Content stored on the device across wireless (802.11) networks. The Portable Player refreshes content on a per radio station basis: a list of the current stored content for the station is uploaded to the Production App Server running the Player Services software.

The Player Services generates a list of content to download from the Content Delivery Network. A URL to each media file is provided to the Portable Player from the Player Services. Each URL is signed with a secure digital signature using a secret key.

The Portable Player cannot request specific content: the Player Services decides what content is best to refresh the given station and returns only those URLs to the Portable Player.

Portable Player ← → Production App Server

While Content does not transit this link, the secured URLs used to obtain the Content does. Communication between the Portable Player and the Production App Server occurs over HTTPS with Client Authentication.

The Portable Player must present a Certificate signed by the BBI private key to establish the communications link. The communications link is encrypted using 128 bit Secure Sockets Layer 3.0 (SSL).

The URLs to Content returned by the Production App Server include a timeout parameter that makes them valid for no longer than 20 minutes. The entire URL (other than the signature itself) is signed by a secret key that ensures that only BBI can generate the URL.

The Portable Player may connect to the Production App Server over an 802.11 wireless network. The Portable Player may also connect to the Production App Server using a USB connection to an internet connected personal computer. This is accomplished by using the Communications Device Class (CDC) USB profile.

Portable Player ← → Content Delivery Network

The Portable Player retrieves Content from the Content Delivery Network using the URLs provided by the Production App Server. The Content Delivery Network shares the secret used to sign the URLs. The Content Delivery Network denies access to Content if the signature is invalid or if the URL has expired.

Content is transmitted and stored in a proprietary file format consisting of a proprietary metadata header followed by 30 or 40 kbps AAC plus v2 in ADTS format with error correction and concealment enabled. This Content does not play as-is on any known non-BBI media player, but is not encrypted between the CDN and the device unless HTTPS is used as the transport protocol.

The Portable Player may connect to the Content Delivery Network over an 802.11 wireless network. The Portable Player may also connect to the Production App Server using a USB connection to an internet connected personal computer. This is accomplished by using the Communications Device Class (CDC) USB profile. Communications to the Content Delivery Network are always over the HTTPS protocol when using the USB / personal computer link to the Content Delivery Network.

Content Delivery Network

Content may be cached in the Content Delivery Network. The Content Delivery Networks depend on content security for their business.
See http://www.limelightnetworks.com/terms.html

Content Delivery Network ← → Content Server

On a cache miss, the Content Delivery Network attempts to retrieve the Content from the BBI Content Server. The signed URL is passed through to the Content Server. The Content Server denies access to Content if the signature is invalid or if the URL has expired. ACLs (Access Control Lists) are setup so that only authorized Content Delivery Network hosts may connect to the Content Server.

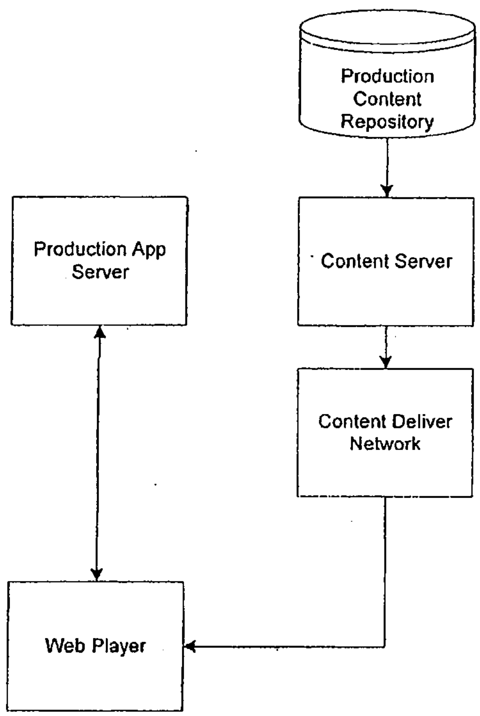
Content Server ← → Production Content Repository

Content passes to the Content Server from the Production Content Repository over NFS protocols across a private network within the San Diego Datacenter.

Content Flow and Security in Web Player Service

In the Web Player service, a zero-install Web Player is used to render streamed content to all popular browsers on Mac and PC platforms. The Web Player is an AJAX application (javascript + DHTML) that makes use of either the Macromedia Flash, Windows Media, or Quicktime plugins to render audio without requiring a separate component installation.

The Web Player uses web service calls to a Production App Server running the Player Services software to determine the content to play. The Web Player requests the next track for its current station from the Player Services and receives a signed URL. The Web Player streams the content from the signed URL until the Content finishes and then requests the next URL.



Web Player ← → Production App Server

While Content does not transit this link, the secured URLs used to obtain the Content does. Communication between the Web Player and the Production App Server occurs over HTTP.

The Web Player can only request the next track for its current radio station. The Production App Server denies the request if the request rate for tracks from the player is substantially greater than real time.

The URLs to Content returned by the Production App Server include a timeout parameter that makes them valid for no longer than 5 minutes. The entire URL (other than the signature itself) is signed by a secret key that ensures that only BBI can generate the URL.

Web Player ← → Content Delivery Network

The Web Player retrieves Content from the Content Delivery Network using the URLs provided by the Production App Server. The Content Delivery Network shares the secret used to sign the URLs. The Content Delivery Network denies access to Content if the signature is invalid or if the URL has expired.

- Content is transmitted as 128kbps mp3 streams. The streams are progressively downloaded and played by either the Macromedia Flash, Windows Media Player, or Quicktime browser plugin. The Content is not encrypted, but is not stored in a user accessible location and any caching is cleared as soon as the playback ends. Content is not buffered to user accessible disk.

Content is typically played by handing the Content URL to the available plugin.

Content Delivery Network

Content may be cached in the Content Delivery Network. The Content Delivery Networks depend on content security for their business.

Content Delivery Network ← → Content Server

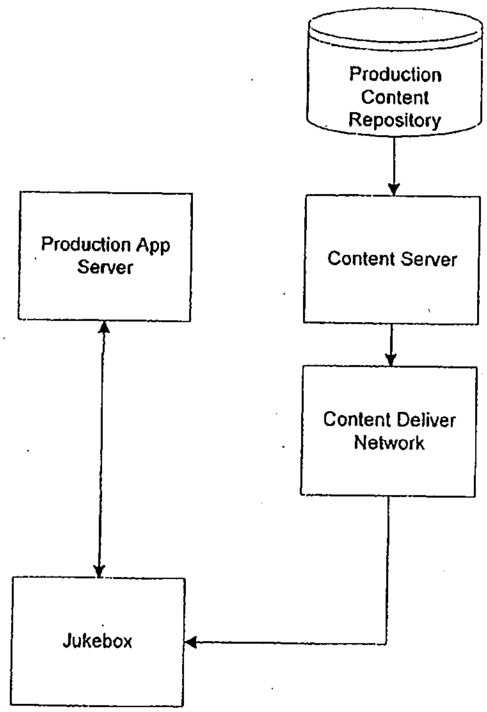
On a cache miss, the Content Delivery Network attempts to retrieve the Content from the BBI Content Server. The signed URL is passed through to the Content Server. The Content Server denies access to Content if the signature is invalid or if the URL has expired. ACLs are setup so that only authorized Content Delivery Network hosts may connect to the Content Server.

Content Server ← → Production Content Repository

Content passes to the Content Server from the Production Content Repository over SAN protocols across a private network within the San Diego Datacenter.

Content Flow and Security in Jukebox Radio Service

The software Jukebox player can also play the radio service. The content flow and security is the same as for the Web Player excepting that Content may also be transmitted in a proprietary format consisting of a proprietary metadata header followed by 30 or 40 kbps AAC plus v2 in ADTS format with error correction and concealment enabled.



Rights Management Synopsis

The BBI services manage rights through a proprietary rights management system and a closed system architecture. Rights management enforcement features are different for Portable Player and streaming applications of the Web Player and Jukebox.

Portable Player Rights Management Features

The Portable Player locks Content to the device through its proprietary, closed design. Radio service Content cannot be transferred off of the device by design. Hard disk storage and flash memory is soldered onto the device and cannot be removed without destroying the device.

The Content stored on the Portable Player is in a proprietary format that will not play in other's media players without custom software and reverse engineering.

Content files stored on the device are not encrypted. As the decryption keys would need to be stored on the device as well, encryption only adds an additional layer of security by obfuscation.

Portable Players must connect periodically to obtain a new License File. The License File enables or disables Content on a per-content-provider basis. The License File can be used to revoke devices or content. See Device and Content Revocation.

Streaming Service Rights Management Features

The Web Player and Jukebox play Content through streaming services. The Web Player streams content as 128 kbps mp3. The Jukebox streams content as enhanced AAC in proprietary format. Streams are not encrypted. Streams may be progressively downloaded, such that an individual track may be downloaded substantially faster than its total playback time. Any buffering ahead of the streams will not be stored in a user accessible location. All buffering required for playback is cleared on track completion.

Content request URLs must be signed by the BBI services with a private key, and therefore the BBI servers have control over the Content that may or may not be accessed by the Web Player or the Jukebox.

The BBI servers enforce the following usage rules:

- Radio requests must come from a Radio station program that follows sequencing rules as defined by agreements with the Content owners (e.g. DMCA performance complement.)
- Radio Content may not be requested at rates substantially greater than real-time playback rates. Content may be requested slightly faster than real-time to accommodate skipping as permitted by agreements with the Content owners.

- Premium users may stream saved tracks on demand. These tracks must have been saved from a Radio program that was not played at substantially greater than real-time rates.

Abuse and Breach Protection

Device and Content Revocation

Each Portable Player requires a digitally signed license file be received periodically in order to render Content. Portable Players include a secure clock that cannot be reset by the end-user.

BBI can revoke devices by synchronizing an empty license file to the device on 802.11 synchronization, or by broadcasting the device ID in the revoked devices list on the Satellite. The Portable Player must successfully receive a license file via the Satellite or 802.11 connection periodically in order to enable Content playback.

The license file revokes content. Content can be revoked individually, or all content for a given provider can be revoked via the license file.

User Revocation

Any detected abuse or violation of the End User License Agreement will result in the termination of the user's subscription and/or deactivation of a free account.

Content Takedowns

On appropriate takedown notice, Content can be disabled from distribution by the Content Servers within 7 days.

Territorial Enforcement

Portable Players will be sold only in licensed territories.

Premium subscribers must enter a billing address within the territory of the licensed service to which they are subscribing.

The Satellite services are currently limited to North America by the coverage of the satellite signals.

Private Key Protection

Production resources that need access to private keys or other secrets must access them through a protected Key Store. The Key Store is stored encrypted and is installed only on production resources that require access. The BBI IT Director manages the access to the Key Store.

Private keys or secrets stored in the Portable Player will be stored in non-removable and tamper-resistant storage on the device.

Client Breach Response Plan

Should BBI become aware that a device has been cloned, the device will be revoked through the device revocation mechanism described above.

Should a breach occur that compromises the entire population of devices, BBI can force a firmware upgrade by requiring a minimum firmware revision before allowing the synchronization of additional content.

Should a breach occur that compromises the Jukebox, a mandatory software upgrade can be forced by requiring a minimum software revision before streaming additional licensed content.

Should a breach occur that compromises the Web Player, a new version of the player can be required before streaming additional licensed content.

BBI Server Breach Detection and Response Plan

A written Breach Detection and Response Plan will be in place at public launch. The Security Auditor will assist in the development and monitoring of this plan.

Content Archiving

Content master files or other Content assets will be archived according to the policies of the Content owner. This may include deletion of the assets after ingestion or storing the assets encrypted.

Commerce Security

Commerce Systems

Free users will be encouraged to upgrade to premium subscriptions through the use of house advertisements. Users upgrade and manage their account through a website secured with HTTPS. Account statuses, purchase history (invoices) and login credentials are stored in the Production Database.

Credit cards are not stored in the BBI systems. Credit cards are stored in the Payment Gateway. An independent Security Auditor will be used to scan the production network and to verify Payment Card Industry Data Security Standards (PCI/DSS) compliance.

Premium users must login with username and password to access premium features. Passwords are not stored in the Production Database or other BBI system. A one-way hash of the password is stored for authentication purposes. Authenticated premium users may register a single Portable Player.

Subscription Enforcement

The Portable Player participating in the Satellite service receives a list of premium subscribers periodically over their administrative data channel. The level and term of the subscription is broadcast along with the Portable Player identifier. A list of revoked Portable Player identifiers is also broadcast periodically.

The Portable Player may receive a digitally signed ticket over the 802.11 connection. The ticket may be valid for the current term of the subscription. The ticket is signed with a BBI private key, but may be validated with a public key stored on the player.

The device uses the subscription status received from the server to determine whether to operate in a basic or premium mode.

Premium status for the Internet services is established by login with username and password over an HTTPS connection.

Advertising Systems

As the user base builds, a market for 3rd party advertisements will be developed. A commercial ad server and / or ad network will be employed to serve ads and manage campaigns.

System Redundancy

All Production App Servers will operate in clusters: one or more individual servers can fail without affecting the end-user service.

The Production Database will operate in a Hot/Warm configuration in which one database instance handles live traffic and the other is kept synchronized and in stand-bye mode. If the database handling the live traffic fails, traffic is switched to the warm stand-bye.

The Production Content Server and Backend Content Server are storage appliances with built-in redundant drives, power supplies, and CPU heads. Individual components can fail and be swapped out without affecting functionality.

The San Diego Datacenter provides redundant power, air conditioning, and network connections.

All routers, switches, and load-balancers employed in the internal BBI networks are redundant and designed to avoid single points of failure.

All systems are continuously monitored with alerts and alarms setup to notify IT staff of anomalies or outages.

EXHIBIT C

ACCOUNTING FORMAT

PLEASE SEE ATTACHED. [IN ORDER TO DETERMINE YOUR ABILITY TO COMPLY WITH THE ATTACHED DIGITAL ACCOUNTING FORMAT, A TEST FILE MUST BE PROVIDED TO AND APPROVED BY LEELEE LIAUDAT PRIOR TO EXECUTION. PLEASE CONTACT LEELEE DIRECTLY REGARDING THIS MATTER AT leelee.liaudat@wmg.com.]

The current contact at Warner-Elektra-Atlantic for accounting matters is Robert Baker, at Warner-Elektra-Atlantic by email at bob.baker@wmg.com and by telephone at (818) 238-6431. Warner may update such contact from time to time.

SalesReportToRecordCompanyMessage

Occurs		
1	MUST	required
1-n	MUST	required
0-1	CAN	required optional
0-n	CAN	required optional

Flag		
r	MUST	required
o	can	optional

Message Element	Reqd. Flag	Occurs	Element Description	[illegible]
SchemaVersionId	r	1	The Identifier of the Version of the XML Schema used for the Message. This is represented in an XML Schema as an XML Attribute.	
MessageSender	r	1	The Message Sender identified by the following for the SalesReportToRecordCompanyMessage.	
MessageThreadId	o	1		
Message Id	r	1	Sequential id generated by Report sender	
wmg_message_filename	r	1		**DspName_W_20051003_20051009.xml for Weekly File** **DspName_M_20051001_20051031.xml for Monthly File**
Party Id	r	1	Clearing House id as assigned by MI3p or the identifier per WMG	id Mi3p-123

SXW3_00021510

Message Element	Reqd Flag	Occurs	Element Description	Comments / Example
Party Name	r	1	Name of the party sending the sales information. This is a composite identified by the following	
Language Code	0	1		
CharacterCode	0	1		
FullName	r	1		
FullNameTranscribed	0	1		
FullNameIndexed	0	1		
NamesBeforeKey	0	1		
KeyName	0	1		
NamesAfterKey	0	1		
SentOnBehalfOf	r	1	Composite identified by following elements	
Party Id	r	1	If a third party is sending the data on behalf of MSP/DSP then this element will be populated with MSP/DSP Id	id Mi3p-123

SXW3_00021511

Message Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
Party Name	r	1	Name of the party on whose behalf data is being sentsending the sales information. This is a composite identified by the following	
Language Code	0	1		
CharacterCode	0	1		
FullName	r	1		
FullNameTranscribed	0	1		
FullNameIndexed	0	1		
NamesBeforeKey	0	1		
KeyName	0	1		
NamesAfterKey	0	1		
Message Recepient	r	1		Warner Music Group
Message Created Date/Time	r	1		20050731

SXW3_00021512

Message Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
Message Audit Trail	o	0-1	Audit Trail Details if applicable	
Message Audit Trail Event	o	1-n		
Messaging Party Descriptor	o	1		
Date Time	o	1		
Comment	o	0-1		
MessageControlType	o	0-1		
MessageNotificationPeriod	r	1		
StartDate	r	1	The Date that marks the beginning of the Period (in ISO 8601:2004 format: YYYY-MM-DD). This may not be a Date in the future.	This is at a file level
EndDate	r	1	The Date that marks the end of the Period (in ISO 8601:2004 format: YYYY-MM-DD). This may not be a Date in the future.	This is at a file level
MessageContentRevenueType	o	0-1	The Type of the SalesReportToRecordCompanyMessage according to its Content	Identifies as transactional /reporting purpose

SXW3_00021513

Message Element	Reqd Flag	Occurs	Element Description	Comments / Example
ContainedReleaseSummary	o	1-n	A Composite containing a summary of details of an MI3P Release for which sales data is provided in the SalesReportToRecordCompanyMessage.	First level Summary Record Block at a Release Level
ReleaseID	o	1-n	A Composite containing details of identifiers of a Release. If available, a GRid should always to be used. If the Release contains only one SoundRecording, the ISRC of the SoundRecording may be used instead. If the Release is an abstraction of a complete physical product (such as a CD Album), the ICPN of the physical product may be used instead.	
Grid	o	0-1	The GRid identifying the Release. This is the preferred element and should be used if a GRid is available.	GRID when available is required
ISRC	o	0-1	The ISRC used as proxy for identification of the Release. Only applicable when the Release only contains one SoundRecording or one MusicVideo.	In the absence of GRID we will need ISRC on a required basis
ICPN/UPC	o	0-1	A Composite containing details of the ICPN used as proxy for identification of the Release. Only applicable when the Release is an abstraction of a complete physical product.	
IsEan	o	0-1	A Flag indicating whether the ICPN is specifically an EAN (=True) **or a UPC (=False).** This is represented in an XML Schema as an XML	

Message Element	Reqd-ness	Occurs	Element Description	Comment / Example
CatalogNumber	o	0-1	A Composite containing details of the CatalogNumber of the Release	
Namespace	o	0-1	The Namespace of the CatalogNumber. This is represented in an XML Schema as an XML Attribute.	
ProprietaryId	o	0-1	A Composite containing details of a ProprietaryId of the Release.	
Namespace	o	0-1	The Namespace of the ProprietaryId. This is represented in an XML Schema as an XML Attribute.	
ReferenceTitle	o	1	A Composite containing details of the ReferenceTitle of the Release as specified in the ReferenceDescriptiveMetadataSet.	Second level Summary Record Block at a Title Level since a title can have more than one language
Title	o	0-1	The Title.	
LanguageCode	o	0-1	The Language of the ReferenceTitle (represented by an ISO 639-2 Language Code). The default is English.	
TitleType	o	0-1	The Type of the ReferenceTitle.	
CharacterCoding	o	0-1	The CharacterCoding of the ReferenceTitle.	
ReleaseSummaryByTerritory	o	1-n	A Composite containing summary details of Descriptors, ReleaseDates and other attributes of the Release which may vary according to Territory of Release.	Second level Summary Record Block at a Territory Level by Artist
TerritoryCode	o	1-n	A Territory to which the ReleaseSummaryDetails apply (represented by an ISO 3166-1 Territory Code). Either this element or ExcludedTerritory must be present, but not both.	

SXW3_00021515

Message Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
ExcludedTerritoryCode	o	0-n	A Territory to which the ReleaseSummaryDetails do not apply (represented by an ISO 3166-1 TerritoryCode). Either this element or Territory must be present, but not both.	
DisplayArtistName	o	1	The Name of the DisplayArtist of the Release.	
LabelName	o	1	The Name of the Label for the Release.	
MWLI	o	0-n	A Musical Work License Identifier identifying a License for the Musical Work(s) used in the Release.	
MWLI	o	0-n	A Musical Work License Identifier identifying a License for the Musical Work(s) used in the Release.	
SalesReportToRecordCompany	r	1-n	A Composite containing details of sales by a DistributionPartner reported to a RecordCompany	A first level Summary Record Block
DSP	r	1	A Composite containing details of the DSP whose sales are being reported.	
FullName	r	1	The FullName of the DSP.	
PartyId	r	1	A Composite containing details of the Identifier for the DSP. If no namespace is given, the Identifier is a Mi3pPartyId (MPId).	In the absence of an MI3P assigned id, this will contain WMG Dealer Account Id Code. WMG will issue unique Dealer Account Id Code for different approved accounts.
Namespace	r	1	The Namespace of the PartyId if it is from a proprietary Party ID scheme. If it is from the MI3P namespace, no value is required. This is represented in an XML Schema as an XML Attribute.	
URL	o	0-n	A URL for the DSP's Website.	

SXW3_00021516

Message Element	Reqd. Flag	Occurs	Element Description	Comment / Example
TerritoryCode	r	1	The Territory from which the DSP operates (represented by an ISO 3166-1 TerritoryCode).	
SalesToRecordCompanyByCommercialModel	r	1-n	A Composite containing details of sales reported by the DSP to the RecordCompany for a specific	A second level Summary Record Block by commercial model type
CommercialModelType	r	1	The CommercialModelType for which sales are reported.	**FreeofChargeModel, PayAsYouGoModel, SubscriptionModel**
CurrencyOfAccounting	r	1	The Currency in which the Sales are accounted (represented by an ISO 4217 CurrencyCode).	
SalesToRecordCompanyByTerritory	r	1-n	A Composite containing details of sales reported by the DSP to the RecordCompany for a specific Territory.	A third level Record that give Deal details at a territory level
TerritoryCode	r	1-n	A Territory for which sales are reported (represented by an ISO 3166-1 TerritoryCode).	
VatRate	o	0-1	The VATRate as a Percentage of the total Amount to be paid. VATRate may be the total of multiple tax rates. Within the DSR Message, only one of the two VATRate elements (here and in dsr:Deal) may be filled.	Synonym for Sales Tax
SourceTaxRate	o	0-1	The SourceTaxRate applicable for Inter-Territory revenue flows.	Not relevant for US
RecordCompanyMarketShareData	r	0-n	A Composite containing information to support the calculation of the RecordCompany's market share of all Releases provided by a DSP to Consumers for a specified	This is summary level record at a territory level required for Subscription

SXW3_00021517

Message Element	Reqd. Flag	Occurs	Element Description	Comments / Example
ReleaseContentType	r	1	The Type of Release sold, according to its Content, Duration and/or number of components.	**Album, Single, PhoneContent, VideoSingle, CustomerBundle, [illegible]**
TotalUnitSales	r	1	The total number of Releases sold of the ContentType.	
UsageType	r	1	The Type of Usage for which the market share calculation applies. **A code is expected in this element based on the list**	**01 Wireless Mono / Poly / Audio Only Ringtone Download 02 Wireless Hi-Fi /Real Tone/ Music Tone / Label Tone /Audio Tone/Cart Ringtone Download 04 Wireless Ringback Stream 05 Wireless Screensaver Download 06 Wireless Video Ringer Download 08 Wireless Animated Ringtone Download 09 Wireless Voice Ringtone Download 10 Wireless Video Download 11 Wireless Audio Download 12 Wireless Video Stream 13 Wireless Audio Stream 14 Internet Video Download 15 Internet Audio Download 16 Internet Video Stream 17 Internet Audio Stream 27 Kiosk Video Download**
ReleaseTransactionsToRecordCompany	r	1-n	A Composite containing details of the sales Transactions for a Release, reported by the DSP to the RecordCompany.	Release Id data at a territory level

SXW3_00021518

Message Element	Reqd. Flag	Occurs	Element Description	Comments / Example
ReleaseId	r	1	A Composite containing details of Identifiers of the Release. If available, a GRid has to be used. If the Release contains only one SoundRecording, the ISRC of the SoundRecording may be used instead. If the Release is an abstraction of a complete physical product (such as a CD Album), the ICPN of the physical product may be used instead.	Identified by one or more of the following elements
Grid	r	0-1	The GRid identifying the Release. This is the preferred element and should be used if a GRid is available	GRID when available is required
ISRC	r	0-1	The ISRC used as proxy for identification of the Release. Only applicable when the Release only contains one SoundRecording or one MusicVideo.	In the absence of GRID we will need ISRC on a required basis
ICPN/UPC	r			Where Applicable a UPC is required
IsEan	r		If this flag = Y then ICPN/UPC field contains EAN else contains UPC	Default to false and value is blank if either GRID or ISRC are specified. Else true and value is populated indicating UPC
CatalogNumber	r		A Composite containing details of the CatalogNumber of the Release.	Will Contain WMG Contract Id - **Cart Ringtones, Audio Ringtones, Video Streaming, Digital Jukebox, Real Tones, Subscription, Video Streaming, Webcasting, Midi Ringtones, Video Ringers, Video Game Development.**
ProprietaryId	r		A Composite containing details of a ProprietaryId of the Release	Will Contain WMG Product Offer id
WMGArtistName	r		Artist Name	
WMGTitle	r		Title Name	
WMGLabel	r		Marketing Label	

Message Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
WMGReleaseContentType	r		Same as Release Content Type	**Album, Single, PhoneContent, VideoSingle, CustomerBundle,**
Deal	r	0-1	A Composite containing details of the terms and conditions of the Deal under which sales were transacted. **The following elements constitute the Deal Composite Type**	Deal details at a Release Id level
CurrencyCode	r	0-1	The Currency in which the Transactions are made (represented by an ISO 4217 CurrencyCode) if different from the	
PriceRangeType	r	0-1	A Composite containing details of the PriceCode applicable to the SalesTransaction.	
Namespace	o	1	The Namespace of the PriceRangeType. This is represented in an XML Schema as an XML Attribute.	**Standard, Standard/Brew, Premium, Premium/Brew, Exclusive, Exclusive/Brew, Exclusive Premium,**
DealReference	r	1	The Reference (in the form of an Identifier, Name or Description) to a Document containing details of the Deal governing the SalesTransaction.	
WholesalePricePerUnit	r	1	**The PPD or Guaranteed Minimum Payment per unit**	

SXW3_00021520

Message Element	Reqd. Flag	Occurs	Element Description	Comments / Example
VatRate	o	0-1	The VATRate as a Percentage of the total amount to be paid as value added tax. VATRate may be the total of multiple tax rates. Within the DSR Message, only one of the two VATRate elements (here and in the SalesToRecordCompanyByTerritory or in the SalesToSocietyByTerritory Composite) may be filled	
PriceConsumerPaidExcVAT	r	1	**The RetailPrice excluding VAT.**	
CalculationType	r	1	A Composite containing details of a Type of Calculation method used by which the royalties are to be determined. This is a text string with no prescribed allowed values.	A detailed formula should be entered here
SequenceNumber	o	1	The SequenceNumber of the CalculationType. This is represented in an XML Schema as an XML Attribute	
RoyaltyRateType	r	1	The Type of RoyaltyRate upon which the per unit royalty is calculated	**MinimumWholesalePrice, PercentageRoyaltyRate**
RoyaltyRate	r	1	The RoyaltyRate upon which the royalty payment is calculated. Note that when this Composite is used in a sales reporting message for a RecordCompany, the RoyaltyRate refers to the rate due to the RecordCompany, not the royalties due to individual Artists.	
AgreedUnitPriceExcVAT	r	1	The Price per unit (excluding VAT) agreed between DSP and the RecordCompany as representing the notional unit price for Subscription sales, as a basis for Royalty and other calculations.	Relevant for Subscription, same as Wholesale price

Message Element	Reqd. Flag	Occurs	Element Description	Comments / Example
DeductionRateType	r	1-n	Agreed Deduction Type	
DeductionRate	r	1-n	Rate as a percentage	
DeductionDescription	r	1-n	The Description of the deduction to be applied to an Amount to determine the actual Amount paid. This is a text string with no prescribed allowed values.	
NetEffectiveUnitRate	r	1	The RoyaltyRate which applies after all calculations and deductions have been applied.	
AmountPayable	r	1	The extended Amount due to the RecordCompany or MusicalWorkLicensor for each SalesTransaction. (The Amount reported in this field is an estimate based on best knowledge on the side of the Message Sender with respect to the intellectual property rights controlled by the Message Receiver. The default is that 100% ownership is assumed).	
AmountPayableInCurrency-OfAccounting	r	1	The AmountPayable, measured in the Currency in which it has been accounted	
CurrencyConversionRate	r	1	The ConversionRate applicable to the AmountPayableInCurrencyOfAccounting. **Default to 1 for USD**	
SalesTransactionToRecordCompany	r	1-n	A Composite containing details of a SalesTransaction for specified Usages of the Release.	Transactional Data
UsageType	r	1	The Type of Usage covered by the Sales Transactions.	

SXW3_00021522

Message Element	Reqd Flag	Occurs	Element Description	Comments/ Example
Deal	o	0-1	A Composite containing details of the terms and conditions of the Deal under which sales were transacted. (Note: The Amount reported in this Composite is an estimate based on best knowledge on the side of the Message Sender with respect to the intellectual property rights controlled by the Message Receiver. The default is that 100% ownership is assumed)	This is at a Usage Type Level and could possibly contain WMG Product offer id or other equivalent if applicable
SalesDataToRecordCompany	r	1-n	A Composite containing details of sales of the Release governed by the Deal	
SalesDataGroupingTo-RecordCompany	o	0-1	A Composite containing details of the criteria by which sales reports to Record Companies are grouped	
StartDate	r	1	The StartDate or actual Date of the sales report.	Lowest level
EndDate	r	1	The EndDate of the sales report if different from EndDate of the transaction Period which is given in the MessageHeader.	
PostCode	r	0-n	A PostCode or zip code of a Consumer of the Releases.	
MinimumDuration	o	0-1	The MinimumDuration of the Release (applicable only to Release containing a single SoundRecording or MusicVideo).	Default to 0
MaximumDuration	o	0-1	The MaximumDuration of the Release (applicable only to Release containing a single SoundRecording or MusicVideo).	Default to 0
TelcomType	o	0-n	A Type of Telecom used by a Consumer of the Releases.	Default to Unknown

Message Element	Req'd Flag	Occurs	Element Description	Comments/Example
CustomerId	o	0-n	A DSP's Identifier for a Consumer of the Releases sold	
TransactionId	o	0-1	The DSP's Identifier for the Transaction.	
StoreLocation-Descriptor	o	0-1	The Descriptor (typically an ID assigned by the DSP) of the store in which the Kiosk is located.	
PromotionalActivity-Description	o	0-1	The freetext Description of a promotional activity.	
Deal	o	0-1	A Composite containing details of the terms and conditions of the Deal under which sales were transacted. (Note: The Amount reported in this Composite is an estimate based on best knowledge on the side of the Message Sender with respect to the intellectual property rights controlled by the Message Receiver. The default is that 100% ownership is assumed)	This is at a date level if applicable
GrossNumberOfConsumer-Sales	r	1	The Number of unit sales of the Release from the DSP to Consumers, gross of returns (not including units made available free of charge).	
NumberOfUnitsReturned	r	0-1	The Number of sold units of a Release returned (with refund) to the DSP	
NumberOfFreeToConsumers	r	1	The gross Number of units of a Release provided free to Consumers.	
NumberOfFreeUnits-Returned	o	0-1	The Number of free units of a Release returned to the DSP	

Message Element	Reqd. Flag	Occurs	Element Description	Comments / Sample
DataToBeForwarded	o	0-1	A Flag indicating whether sales data will be forwarded by the DSP (or any Organization reporting on behalf of the DSP) to the appropriate MusicalWork Licensor (=False) or if this has to be done by the MessageRecipient (=True).	Not relevant for US. Default to false
Comment	o	0-1	The Comment about the ReleaseTransactionsToRecordCompany Composite	
DurationUsed	o	0-n	A Composite containing details of the total Duration (in ISO format) of the Release that has been used (this may be less than the total Duration of the Release), specified for a UsageType. This applies only to single-Resource Releases.	required for Subscription model
UsageType	o	1	Usage Type for the sales transaction. **A code is expected in this element based on the list**	**01 Wireless Mono / Poly / Audio Only Ringtone Download** **02 Wireless Hi-Fi /Real Tone/ Music Tone / Label Tone /Audio Tone/Cart Ringtone Download** **04 Wireless Ringback Stream** **05 Wireless Screensaver Download** **06 Wireless Video Ringer Download** **08 Wireless Animated Ringtone Download** **09 Wireless Voice Ringtone Download** **10 Wireless Video Download** **11 Wireless Audio Download** **12 Wireless Video Stream** **13 Wireless Audio Stream** **14 Internet Video Download** **15 Internet Audio Download** **16 Internet Video Stream** **17 Internet Audio Stream** **27 Kiosk Video Download**

SXW3_00021525

Message Element	Reqd Flag	Occurs	Element Description	Comments/ Example
NumberOfSubscribers	o	0-1	The Number of Subscribers- **break-up** by the UsageType for the DSP (applicable only where a Subscription Service is	Required for Subcription model. This is at a territory level
UsageType	o	1	A UsageType for which the Quantity applies.	
ReleaseContentType	o	1	A ReleaseContentType for which the Quantity applies.	
DspGrossRevenue	o	1	A Composite containing details of the GrossRevenue of the DSP for the Territory, specified **UsageType.**	Required for Subscription model DSP . This is at a territory level
UsageType	o	1	A UsageType for which the Quantity applies.	
ReleaseContentType	o	1	A ReleaseContentType for which the Quantity applies.	
DspDeductionsAmount	o	0-1	A Composite containing details of the Amount deducted by the DSP from NetRevenue, specified for **a UsageType**.	Required for Subscription model DSP . This is at a territory level
UsageType	o	1	A UsageType for which the Quantity applies.	
ReleaseContentType	o	1	A ReleaseContentType for which the Quantity applies.	
PercentageNetRevenueShare	o	0-1	A Composite containing details of the Percentage which represents a share of a NetRevenue generated by the Licensee which is due to the Licensor, specified for a **UsageType**.	Required for Subscription model DSP . This is at a territory level
UsageType	o	1	A UsageType for which the Quantity applies.	
ReleaseContentType	o	1	A ReleaseContentType for which the Quantity applies.	

Message Element	Reqd. Flag	Occurs	Element Description	Comments/ Example
MinimumAmountPerCustomer	o	0-1	The minimum Amount that has to be paid by each Customer to the DSP for a Subscription for the UsageType (applicable only where a Subscription Service is employed) specified for a **usage type**	Required for Subscription model DSP . This is at a territory level
UsageType	o	0-1	A UsageType for which the Quantity applies.	
TotalWholesaleAmount	r	0-1	The Amount representing the total wholesale revenue	This is at a territory level
TotalWholesaleAmountInCurrency-OfAccounting	r	0-1	The Amount representing the total wholesale revenue reported in the CurrencyOfAccounting.	This is at a territory level
TotalAmountPayableInCurrency-OfAccounting	r	0-1	The calculated Total of AmountPayables in the CurrencyOfAccounting	
CurrencyConversionRate	r	0-1	The ConversionRate applicable to the TotalAmountPayableInCurrencyOfAccounting	Default to 1 for USD
TotalSalesByReleaseContentType	r	1-n	A Composite containing details of total sales of Releases of a specific Type.	At a summary level as well - serves as a file trailer check
ReleaseContentType	r	1	The Type of Release sold, according to its Content, Duration and/or NumberOfComponents.	**Album, Single, PhoneContent, VideoSingle, CustomerBundle,** [illegible]
TotalUnitSales	r	1	The total number of Releases sold of the ContentType	

SXW3_00021527

Message Element	Req'd/Pap	Occurs	Element Description	Comments/Example
RoyaltyAmount	r	0-1	A Composite containing details of the RoyaltyAmount due. This is an estimate based on best knowledge on the side of the MessageSender with respect to the intellectual property Rights controlled by the MessageRecipient (The default is that 100% ownership is assumed).	Amount payable to WMG
CurrencyCode	r	1	The Currency of the Amount (represented by an ISO 4217 Currency Code). This is represented in an XML Schema as an XML Attribute.	Deafult to USD for US
CumulativeRoyaltyAmount	o	0-1	A Composite containing the sum of all royalty payments from the DSP to the Licensor from the start of their commercial relationship. This is an estimate based on best knowledge on the side of the MessageSender with respect to the intellectual property Rights controlled by the MessageRecipient (The default is that 100% ownership is assumed).	If available - total amount paid to date to WMG from inception for digital sales
CurrencyCode	o	1	The Currency of the Amount (represented by an ISO 4217 Currency Code). This is represented in an XML Schema as an XML Attribute.	Default to USD for US

SXW3_00021528

MEETING OF THE BOARD OF DIRECTORS
September 23, 2009

A meeting of the Board of Directors of SoundExchange, Inc., was held telephonically on Wednesday, September 23, 2009 at 5:30 PM (EDT).

Mr. John Simson, Executive Director of SoundExchange, chaired the meeting and Mr. Michael Huppe, Corporate Secretary, kept the minutes.

BOARD ATTENDEES:

NAME	SEAT	PRESENT	PARTICIPATION
Bainwol, Mitch	RIAA		
Bengloff, Richard	Label – American Association of Independent Music	X	By phone
Cooper, Jay	Artist – At Large	X	By phone
Finkelstein, Andrea	Label – Sony	X	By phone
Harleston, Jeff	Label – UMG	X	By phone
Hausman, Michael	Artist – At Large	X	By phone
Huey, Dick	Label – Small Independent		
Marks, Steven	Label – 5th Major	X	By phone
McCrady, Tucker	Label - Warner Music Group	X	By phone
McDonough, Walter	Artist – At Large		
McMullan, Alasdair	Label – EMI	X	By phone
Minter, Kendall	Artist - At Large	X	By phone
Polach, Patricia	Artist – AFM	X	By phone
Rains, Patrick	Artist – At Large	X	By phone
Reeves, Martha	Artist - At Large		
Resnick, Perry	Artist – At Large	X	By phone
Roberts-Hedgpeth, Kim	Artist – American Federation of Television and Radio Artists	X	By phone
Silverman, Tom	Label – Large Independent		

SOUNDEXCHANGE STAFF ATTENDEES:

John Simson	SX, Executive Director	By phone
Michael Huppe	SX, Executive Vice President & General Counsel and Corporate Secretary	By phone

EXHIBIT
tabbies
LNO3O5H 19

SXW3_00008266

Barrie Kessler	SX, COO	By phone
Ryan Lehning	SX, Senior Counsel	By phone
Colin Rushing	SX, Senior Counsel	By phone

A quorum of the Board being present, the meeting was called to order at 5:40 PM (EDT).

EPHEMERAL RATE PROPOSAL

Mr. Simson commenced the meeting, the sole topic of which was SoundExchange's proposal of an ephemeral rate in the "Web III" rate proceeding (for which the rate proposal is due on September 29, 2009), the CABSAT II rate proceeding, and the remand of the SDARS appeal. Mr. Huppe gave a summary of discussions among certain Board members about the ephemeral rate and the need for determining such a rate as part of the Web III rate proposal. He further explained the additional importance of setting an ephemeral rate in the context of the SDARS remand and the CABSAT II pending settlement, and discussed how these would further impact the placeholder language in the Webcaster Settlement Act deals. The Board discussed the issue, and agreed that SoundExchange was authorized to adopt an ephemeral rate of 5% as outlined above.

MOTION TO ADOPT AN EPHEMERAL RATE OF 5% FOR INCLUSION IN THE "WEB III" RATE PROPOSAL, THE "CABSAT II" SETTLEMENT PROPOSAL, AND THE REMAND OF THE SDARS DECISION.

MOTION PASSED; UNANIMOUS

ADJOURNMENT

MOTION TO ADJOURN

There being no further business to come before the meeting of the Board, the meeting was adjourned at 6:30 PM (EDT).

ADJOURNED. A true record.

ATTEST

Michael J. Huppe

Michael J. Huppe, Secretary

SOUNDEXCHANGE ANNUAL REPORT FOR 2007
PROVIDED PURSUANT TO 37 C.F.R. § 370.5(d)

SoundExchange, Inc. ("SoundExchange") is a 501(c)(6) tax exempt organization incorporated in Delaware and headquartered in Washington, D.C. It is controlled by an eighteen member board of directors comprised of equal numbers of representatives of sound recording copyright owners and featured and non-featured recording artists. SoundExchange was incorporated on September 22, 2003.

During Calendar Year 2007, SoundExchange employed 30 Full-Time Equivalent employees.

The presentation of financial information in this annual report is intended to comply with SoundExchange's requirements under 37 C.F.R. § 370.5(d) and is not intended to be a presentation in accordance with generally accepted accounting principles.

Royalty Collection

During 2007, SoundExchange was the sole entity designated by the Librarian of Congress and the Copyright Royalty Board to collect royalties paid by services operating under the statutory licenses set forth in Sections 112 and 114 of the Copyright Act and the implementing regulations established thereunder. 17 U.S.C. §§ 112 & 114; 37 C.F.R. Parts 260, 262, 380, 382, and 383. The services paying royalties to SoundExchange fall into the following statutorily defined categories:

- Preexisting Subscription Services
- Preexisting Satellite Digital Audio Radio Services
- Eligible Nonsubscription Transmission Services
- New Subscription Services (i.e., subscription webcasters; "CABSAT" services)
- Services exempt from liability for transmissions to business establishments under 17 U.S.C. § 114(d)(1)(C)(iv) but liable for ephemeral phonorecords made to facilitate such transmissions ("Business Establishment Services")

During 2007, the Copyright Royalty Board completed rate adjustment proceedings adopting rates and terms for many of the above referenced statutory categories. As a result of these Copyright Royalty Board proceedings, certain of these categories of services were subject to a new rate in 2007, while other categories received new rates that would go into effect in 2008. The following categories of services are now subject to new rates and terms as a result of Copyright Royalty Board proceedings held in 2007:

- Eligible Nonsubscription Services and Certain New Subscription Services (i.e., statutory webcasters) – established for the period January 1, 2006 through December 31, 2010; see 72 Fed. Reg. 24084 (May 1, 2007) (to be codified at 37 CFR Part 380)

EXHIBIT
Live365 #22

- Preexisting Satellite Digital Audio Radio Services – established for the period January 1, 2007 – December 31, 2012; see 73 Fed. Reg. 4080 (Jan. 24, 2008) (to be codified at 37 CFR Part 382 Subpart B)
- New Subscription Services (i.e., noninteractive digital audio services making transmissions over cable and satellite television) – established for the period from inception of the service through December 31, 2010; see 72 Fed. Reg. 72253 (Dec. 30, 2007) (to be codified at 37 CFR Part 383)
- Preexisting Subscription Services – established for the period January 1, 2008 through December 31, 2012; see 72 Fed. Reg. 71795 (Dec. 19, 2007) (to be codified at 37 CFR Part 382 Subpart A)

SoundExchange collects royalties on a periodic basis. During 2007, services most frequently paid royalties based upon either their revenues or their consumption of music, expressed as the number of Performances or Aggregate Tuning Hours ("ATH") streamed to recipients. Each of "Performance" and "Aggregate Tuning Hours" are terms defined in Copyright Royalty Board regulations. See 37 C.F.R. §§ 380.2(a) & (i). During 2007, SoundExchange also collected royalties based on "Revenues" and "Gross Revenues," which are also defined terms. See 37 C.F.R. §§ 260.2(e)(1), 382.11, & 383.2(g). A service's liability is calculated on a Statement of Account, a form created by SoundExchange and made available on its web site. See www.soundexchange.com under the download forms page for digital music services.

Services paying royalties to SoundExchange are doing so under rates and terms established by the Librarian of Congress or Copyright Royalty Judges. In certain instances, SoundExchange has also negotiated separate rates and terms for certain groups of services on behalf of sound recording copyright owners who have granted SoundExchange the ability to do so on their behalf (i.e., SoundExchange "members"). Services availing themselves of the statutory license are able to do so by operation of law and are not "SoundExchange licensees" even though they are frequently referred to as such. Congress created a statutory regime under which any service complying with the statutory and regulatory conditions may obtain a license via federal statute. This license permits such services to reproduce or transmit sound recordings lawfully released to the public without having to negotiate directly with the copyright owner for the rights to those recordings.

In order for a service to avail itself of the statutory license, it must first file a Notice of Use of Sound Recordings (an "Initial Notice") with the U.S. Copyright Office. See http://www.copyright.gov/forms/form112-114nou.pdf. This Initial Notice must be filed before the service makes any ephemeral phonorecords or digital audio transmissions of sound recordings. Otherwise, the service may be subject to liability for copyright infringement. In addition, a service must also comply with the applicable conditions of the statutory license, pay royalties and provide reports of use as required in order to avoid liability for copyright infringement.

No Invoicing. SoundExchange does not invoice services for their monthly payments. Each service is separately responsible for calculating its own liability and remitting payment to SoundExchange along with a Statement of Account. Because services are obligated to self-report and pay royalties on an honor system, there may be many more services making digital audio transmission or ephemeral phonorecords of sound recordings than there are services paying appropriate royalties to SoundExchange.

SoundExchange monitors Initial Notices filed with the Copyright Office and reserves the right to demand payment from services that have failed to pay royalties. SoundExchange also reserves the right to demand late fees from services that have failed to pay royalties when required. Federal regulations set forth the requirements for reporting and payment, as well as some of the penalties for failure to meet these requirements.

Although SoundExchange collects royalties from individual services pursuant to Copyright Office regulations, SoundExchange does not make determinations as to whether each of the many services that rely on the statutory licenses under Sections 112 and 114 of the Copyright Act are eligible for statutory licensing. Similarly, SoundExchange does not continuously verify that such services are in full compliance with all applicable requirements. To avoid any confusion in the marketplace, SoundExchange has posted on its web site the following notification:

> **IMPORTANT NOTICE: NO WAIVER OF RIGHTS**
>
> Services that have filed with the Copyright Office a Notice of Use of Sound Recordings under Statutory License are obligated to comply with all requirements of the statutory licenses under Sections 112 and 114 of the Copyright Act. It is the responsibility of each such service to ensure that it is in full compliance with the requirements of the statutory licenses under 17 U.S.C. §§ 112 & 114. SoundExchange is not in a position to determine whether each of the many services that rely on the statutory licenses is eligible for statutory licensing and does not in fact make any such determination. Nor does SoundExchange verify that such services are in full compliance with all applicable requirements of the two statutory licenses. Accordingly, <u>SoundExchange's acceptance of a service's payment does not express or imply any acknowledgment that a service is in compliance with the requirements of the statutory licenses. SoundExchange, its members and other copyright owners reserve all their rights to take enforcement action against a service that is not in compliance with those requirements, regardless of any royalty payments such service may have made to SoundExchange</u>.

<u>Royalty Allocation</u>

When a service pays royalties to SoundExchange, those royalties are allocated on a *pro rata* basis among the sound recordings transmitted by that service. By this we mean that if the net royalties (after deducting costs) paid by Service A total $100 for period X and Service A reported 10,000 discrete sound recordings during that period, then each distinct sound recording would be valued at one cent ($0.01) ($100 ÷ 10,000).

Certain licensees, such as webcasters and simulcasters transmitting over the internet, are not required under the statutory regulations to provide census reporting. Rather, they are only required to submit the sound recordings used for a two week period each calendar quarter. When a service only reports a sample, artists and copyright owners may not be compensated for sound recording transmitted in the weeks missed by the sample. SoundExchange continues to advocate for full census reporting and works with licensees otherwise not obligated to report on a census basis, to provide full reporting.

When SoundExchange is not provided with reports of use from a service (e.g., where a service fails to provide a report of use or regulations exempt a service from providing a report of use), SoundExchange may, in the alternative, seek to allocate royalties using a proxy. In 2004, the Copyright Office issued a ruling allowing SoundExchange to distribute certain royalties paid by eligible nonsubscription transmission services, new subscription services and Business Establishment services through March 31, 2004, using proxy data received from the three preexisting subscription services. On October 6, 2006,the Copyright Royalty Board established interim regulations requiring the aforementioned digital music services to deliver reports of use to SoundExchange for their transmissions. These regulations apply to transmissions retroactive to April 1, 2004.

Under the Small Webcaster Settlement Act of 2002, noncommercial entities were permitted to pay an additional fee of $25 for 2005 in lieu of providing reports of use for that year and those royalties will have to be distributed using a proxy. This requirement has since been nullified by the regulations established by the Copyright Royalty Board on October 6, 2006. As such, all noncommercial entities are required to provide reports of use for transmissions occurring in 2005.

Royalties may remain undistributed when there is an ongoing legal proceeding, including appeals, which may alter a previously established rate. Royalties may also remain undistributed if SoundExchange has not received reports of use information and the Copyright Office has not approved a proxy in lieu of actual report of use data.

The royalties paid by a service are allocated on a nondiscriminatory basis. Each sound recording is valued equally, regardless of whether the sound recording copyright owner of, or featured performer on, the sound recording has specifically authorized SoundExchange to collect and distribute royalties on their behalf. SoundExchange allocates all royalties received for domestic performances equally among all performers, regardless of whether or not they have executed appropriate membership documents with SoundExchange.

The royalties collected by SoundExchange are allocated according to the percentages set forth in Sections 114(g)(2)(A)-(D) of the Copyright Act. 17 U.S.C. §§ 114(g)(2)(A)-(D). The statute requires that:

(A) 50 percent of the receipts shall be paid to the copyright owner of the exclusive right under section 106(6) of [the Copyright Act] to publicly perform a sound recording by means of a digital audio transmission.

(B) 2½ percent of the receipts shall be deposited in an escrow account managed by an independent administrator jointly appointed by copyright owners of sound recordings and the American Federation of Musicians or any successor entity) to be distributed to nonfeatured musicians (whether or not members of the American Federation of Musicians) who have performed on sound recordings.

(C) 2½ percent of the receipts shall be deposited in an escrow account managed by an independent administrator jointly appointed by copyright owners of sound recordings and the American Federation of Television and Radio Artists (or any successor entity) to be distributed to nonfeatured vocalists (whether or not members of the American Federation of Television and Radio Artists) who have performed on sound recordings.

(D) 45 percent of the receipts shall be paid, on a per sound recording basis, to the recording artist or artists featured on such sound recordings (or the persons conveying rights in the artists' performance on sound recordings). 17 U.S.C. §§ 114(g)(2)(A)-(D).

Royalties among a featured artist are generally allocated on a pro rata basis unless all of the members of a featured artist instruct SoundExchange as to an alternative allocation. By this we mean that where the featured artist is a band with four members, each member shall be entitled to 25% of the featured artist's share. When the members of a featured artist disagree as to the appropriate allocation of royalties, the amount of royalties in dispute are held pending resolution of the dispute.

<u>Royalty Distribution</u>

Pursuant to the provisions of Section 114(g)(3) of the Copyright Act, SoundExchange deducts from its receipts, prior to their distribution, the reasonable costs incurred in:

(A) the administration of the collection, distribution, and calculation of the royalties;

(B) the settlement of disputes relating to the collection and calculation of the royalties; and

(C) the licensing and enforcement of rights with respect to the making of ephemeral recordings and performances subject to licensing under section 112 and [section 114], including those [costs] incurred in participating in negotiations or arbitration proceedings under section 112 and [section 114], except that all costs incurred relating to the section 112 ephemeral recordings right [are] only . . . deducted from the royalties received pursuant to section 112. 17 U.S.C. § 114(g)(3).

SoundExchange distributes royalties directly to copyright owners and featured artists when provided with the information necessary to effectuate payment. SoundExchange may also distribute royalties to featured artists pursuant to reciprocal payment agreements with foreign collecting societies when those artists have appropriately authorized SoundExchange to undertake this activity. For example, SoundExchange may pay the Dutch collecting organization all of the royalties due the featured artists who have designated the Dutch organization to collect U.S. statutory royalties on their behalf. SoundExchange may also consider paying a featured artist's royalties to a third party under a letter of direction received from a featured artist as an accommodation to such featured artist; provided the featured artist has executed SoundExchange's Designation and Authorization form and the third-party is: 1) considered creative personnel credited or recognized publicly for the commercially released sound recording on which the featured artist performs, or 2) is a usual and customary royalty participant in such sound recording.

When SoundExchange is unable to distribute allocated royalties to either a copyright owner or featured artist, those royalties are held for the copyright owner or featured artist pending further attempts to effectuate payment.

SoundExchange expends significant resources to reduce the amount of allocated but undistributed royalties. Under Copyright Office regulations, SoundExchange retains all such undistributed royalties for not less than three years from the date of payment, and thereafter may release those funds for the benefit of all other copyright owners, featured artists and nonfeatured performers entitled to royalties. During 2007, SoundExchange made a single release of a portion of the allocated but undistributed royalties permitted to be released under federal regulations. A portion of this release was used to repay some start up costs of SoundExchange, and the balance was held in reserve should a rights owner or artist entitled to these royalties come forward at a later date.

SoundExchange distributes royalties on a periodic basis. In 2007, SoundExchange distributed $36,235,714 in royalties.

Royalties Collected

In previous years, SoundExchange was limited in its ability to disclose the sources of collected statutory royalties from the various classes of statutory services. See, for example, 37 C.F.R. § 262.5(c). However, during 2007, SoundExchange was granted permission to disclose its royalty receipts to copyright owners and performers on a more transparent basis for many of the various classes of statutory services through amended regulatory regulations. See 37 C.F.R. §§ 380.5(d)(3), 382.4(d)(3), 382.14(d)(3), and 383.4(a). SoundExchange is not permitted, however, to disclose the information for individual statutory licensees to the general public.

In 2007, SoundExchange collected statutory royalties from all statutory classes of services in the amount of $140,412,226. Non-statutory royalties collected amounted to $2,574,129. This represents an increase in statutory royalty collections of 123% percent. In 2006, SoundExchange collected statutory royalties in the amount of $63,008,184.

SoundExchange maintains royalties in money market funds, discounted notes, corporate bonds and government bonds. SoundExchange net earned interest on its cash accounts totaling $4,484,731 during 2007.

Administrative Expenses

SoundExchange incurs expenses to operate as the sole entity designated by the Librarian of Congress to collect and distribute royalties. Its expenses are divided into the following broad categories: Personnel, Operations, External Affairs, Legal & Licensing, and Royalty Systems.

SoundExchange incurs current, capital, and amortized expenses. Current expenses include, by way of example and not limitation, salaries, benefits, payroll taxes, office administration, occupancy, accounting, travel, conferences, outreach, information systems and technology, and legal and licensing. Capital expenses include royalty systems' extensions and modifications, computers and equipment, furniture and fixtures, and organizational costs. Amortized expenses are expenses that are amortized over a period of years for which the expense applies. For example, if SoundExchange incurred $1 million in legal expenses to establish royalty rates for a five-year term, those legal expenses would be amortized over the five-year term of the license for which the expense was incurred.

In 2007, SoundExchange incurred the following expenses:

Personnel	$ 2,848,813
Operating Expenses	$ 1,530,266
External Affairs	$ 1,027,719
Legal & Licensing	$ 4,387,558
Royalty Systems	$ 719,646
Total Expenses	$ 10,514,002

Administrative Rate

The administrative expenses of SoundExchange are paid first with interest income earned and then through an administrative charge applied to royalties available for distribution in the form of an Administrative Rate. SoundExchange expresses its administrative rate as a fraction, the numerator of which is the total annual expenses less annual net interest income and the denominator of which is total annual royalties received. If SoundExchange's administrative rate is less than 20%, SoundExchange shall pay the difference between its administrative rate and 20% to repay the principal and interest outstanding on the Promissory Note entered into with the Recording Industry Association of America, Inc. for the repayment of costs incurred in the initial arbitrations to establish rates and terms for preexisting subscription services and eligible nonsubscription transmission services. This note was fully paid off in March 2007.

SoundExchange expresses its administrative rate for 2007 as 4.2 percent (4.2%).

Summary

The following table summarizes SoundExchange's collections, allocations and distributions:

Period	**Y/E 12/31/07**	**Y/E 12/31/06**	**Y/E 12/31/05**
Royalty Receipts[1]	$142,986,355	$63,080,179	$44,220,062
Interest Earned	$4,484,731	$3,497,537	$1,471,928
Total Income	$147,471.086	$66,577,716	$45,691,990
Expenses			
Personnel	$2,848,813	$2,411,311	$1,679,528
Operating Expenses	$1,530,266	$1,493,665	$874,822
External Affairs	$1,027,719	$324,959	$491,567
Legal and Licensing	$4,387,558	$2,168,520	$607,282
Royalty Systems	$719,646	$913,047	$1,054,366
Total Expenses	$10,514,002	$7,311,502	$4,707,565
Blended Administrative Rate	4.2%	6.0%	7.3%

[1] Statutory royalties are typically paid 45 days following the end of the month for the month in which the liability accrued. "Royalty Receipts" means that royalties were collected and allocated according to the period for which the service reported the liability.

SOUNDEXCHANGE ANNUAL REPORT FOR 2008
PROVIDED PURSUANT TO 37 C.F.R. § 370.5(d)

SoundExchange, Inc. ("SoundExchange") is a 501(c)(6) tax exempt organization incorporated in Delaware and headquartered in Washington, D.C. It is controlled by an eighteen member board of directors comprised of equal numbers of representatives of sound recording copyright owners and featured and non-featured recording artists. SoundExchange was incorporated on September 22, 2003.

During Calendar Year 2008, SoundExchange employed 35 Full-Time Equivalent employees.

The presentation of financial information in this annual report is intended to comply with SoundExchange's requirements under 37 C.F.R. § 370.5(d) and is not intended to be a presentation in accordance with generally accepted accounting principles.

Royalty Collection

During 2008, SoundExchange was the sole entity designated by the Librarian of Congress and the Copyright Royalty Board to collect royalties paid by services operating under the statutory licenses set forth in Sections 112 and 114 of the Copyright Act and the implementing regulations established thereunder. 17 U.S.C. §§ 112 & 114; 37 C.F.R. Parts 262, 380, 382, and 383. The services paying royalties to SoundExchange fall into the following statutorily defined categories:

- Preexisting Subscription Services
- Preexisting Satellite Digital Audio Radio Services
- Eligible Nonsubscription Transmission Services
- New Subscription Services (i.e., subscription webcasters; "CABSAT" services)
- Services exempt from liability for transmissions to business establishments under 17 U.S.C. § 114(d)(1)(C)(iv) but liable for ephemeral phonorecords made to facilitate such transmissions ("Business Establishment Services")

During 2008, the Copyright Royalty Board completed rate adjustment proceedings adopting rates and terms for Business Establishment Services for the period January 1, 2009 through December 31, 2013. See 73 Fed. Reg. 16,199 (March 27, 2008).

In late 2008 Congress passed the Webcaster Settlement Act which gives SoundExchange the authority to enter into agreements with webcasting services at rates and terms different from those established by the Copyright Royalty Board. Under the legislation, these agreements can then be presented to the Copyright Office for publication in the Federal Register where they will be available industry-wide as alternatives to those rates set by the Copyright Royalty Board.

In February 2009, SoundExchange concluded agreements under the Webcaster Settlement Act with the Corporation for Public Broadcasting, on behalf of certain

EXHIBIT
Livoy'es #23

noncommercial webcasters, the National Association of Broadcasters, and a group of eighteen small commercial webcasters. The Corporation for Public Broadcasting Agreement covers the period January 1, 2005 through December 31, 2010. The National Association of Broadcasters and small commercial webcaster agreements cover the period January 1, 2006 through December 31, 2015. These agreements were published in the Federal Register on March 3, 2009 and became available to qualifying webcasters as alternative rates and terms on that date. See 74 Fed. Reg. 9293 (March 3, 2009).

SoundExchange collects royalties on a periodic basis. During 2008, services were required to pay royalties based upon either their revenues or their consumption of music, expressed as the number of Performances streamed to recipients. "Performance"is a term defined in Copyright Royalty Board regulations. See 37 C.F.R. §§ 380.2(i). During 2008, SoundExchange also collected royalties based on "Revenues" and "Gross Revenues," which are also defined terms. See e.g., 37 C.F.R. §§ 382.2(e)(1), 382.11, & 383.2(g). A service's liability is calculated on a Statement of Account, a form created by SoundExchange and made available on its web site. See www.soundexchange.com under the download forms page for digital music services.

Services paying royalties to SoundExchange are doing so under rates and terms established by the Librarian of Congress or Copyright Royalty Judges. In certain instances, SoundExchange has also negotiated separate rates and terms for certain groups of services on behalf of sound recording copyright owners who have granted SoundExchange the ability to do so on their behalf (i.e., SoundExchange "members"). Services availing themselves of the statutory license are able to do so by operation of law and are not "SoundExchange licensees" even though they are frequently referred to as such. Congress created a statutory regime under which any service complying with the statutory and regulatory conditions may obtain a license via federal statute. This license permits such services to reproduce or transmit sound recordings lawfully released to the public without having to negotiate directly with the copyright owner for the rights to those recordings.

In order for a service to avail itself of the statutory license, it must first file a Notice of Use of Sound Recordings (an "Initial Notice") with the U.S. Copyright Office. See http://www.copyright.gov/forms/form112-114nou.pdf. This Initial Notice must be filed before the service makes any ephemeral phonorecords or digital audio transmissions of sound recordings. Otherwise, the service may be subject to liability for copyright infringement. In addition, a service must also comply with the applicable conditions of the statutory license, pay royalties and provide reports of use as required in order to avoid liability for copyright infringement.

No Invoicing. SoundExchange does not invoice services for their monthly payments. Each service is separately responsible for calculating its own liability and remitting payment to SoundExchange along with a Statement of Account. Because services are obligated to self-report and pay royalties on an honor system, there may be many more services making digital audio transmission or ephemeral phonorecords of sound recordings than there are services paying appropriate royalties to SoundExchange.

SoundExchange monitors Initial Notices filed with the Copyright Office and reserves the right to demand payment from services that have failed to pay royalties.

SoundExchange also reserves the right to demand late fees from services that have failed to pay royalties when required. Federal regulations set forth the requirements for reporting and payment, as well as some of the penalties for failure to meet these requirements.

Although SoundExchange collects royalties from individual services pursuant to Copyright Office regulations, SoundExchange does not make determinations as to whether each of the many services that rely on the statutory licenses under Sections 112 and 114 of the Copyright Act are eligible for statutory licensing. Similarly, SoundExchange does not continuously verify that such services are in full compliance with all applicable requirements. To avoid any confusion in the marketplace, SoundExchange has posted on its web site the following notification:

> **IMPORTANT NOTICE: NO WAIVER OF RIGHTS**
>
> Services that have filed with the Copyright Office a Notice of Use of Sound Recordings under Statutory License are obligated to comply with all requirements of the statutory licenses under Sections 112 and 114 of the Copyright Act. It is the responsibility of each such service to ensure that it is in full compliance with the requirements of the statutory licenses under 17 U.S.C. §§ 112 & 114. SoundExchange is not in a position to determine whether each of the many services that rely on the statutory licenses is eligible for statutory licensing and does not in fact make any such determination. Nor does SoundExchange verify that such services are in full compliance with all applicable requirements of the two statutory licenses. Accordingly, SoundExchange's acceptance of a service's payment does not express or imply any acknowledgment that a service is in compliance with the requirements of the statutory licenses. SoundExchange, its members and other copyright owners reserve all their rights to take enforcement action against a service that is not in compliance with those requirements, regardless of any royalty payments such service may have made to SoundExchange.

Royalty Allocation

When a service pays royalties to SoundExchange, those royalties are allocated on a *pro rata* basis among the sound recordings transmitted by that service. By this we mean that if the net royalties (after deducting costs) paid by Service A total $100 for period X and Service A reported 10,000 discrete sound recordings during that period, then each distinct sound recording would be valued at one cent ($0.01) ($100 ÷ 10,000).

Certain licensees, such as webcasters and simulcasters transmitting over the internet, are not required under the statutory regulations to provide census reporting. Rather, they are only required to submit the sound recordings used for a two week period each calendar quarter. When a service only reports a sample, artists and copyright owners may not be compensated for sound recording transmitted in the weeks missed by the sample. SoundExchange continues to advocate for full census reporting and works with licensees otherwise not obligated to report on a census basis, to provide full reporting.

Royalties may remain undistributed when there is an ongoing legal proceeding, including appeals, which may alter a previously established rate. Royalties may also remain undistributed if SoundExchange has not received reports of use information and the Copyright Office has not approved a proxy in lieu of actual report of use data.

The royalties paid by a service are allocated on a nondiscriminatory basis. Each sound recording is valued equally, regardless of whether the sound recording copyright owner of, or featured performer on, the sound recording has specifically authorized SoundExchange to collect and distribute royalties on their behalf. SoundExchange allocates all royalties received for domestic performances equally among all performers, regardless of whether or not they have executed appropriate membership documents with SoundExchange.

The royalties collected by SoundExchange are allocated according to the percentages set forth in Sections 114(g)(2)(A)-(D) of the Copyright Act. 17 U.S.C. §§ 114(g)(2)(A)-(D). The statute requires that:

(A) 50 percent of the receipts shall be paid to the copyright owner of the exclusive right under section 106(6) of [the Copyright Act] to publicly perform a sound recording by means of a digital audio transmission.

(B) 2½ percent of the receipts shall be deposited in an escrow account managed by an independent administrator jointly appointed by copyright owners of sound recordings and the American Federation of Musicians or any successor entity) to be distributed to nonfeatured musicians (whether or not members of the American Federation of Musicians) who have performed on sound recordings.

(C) 2½ percent of the receipts shall be deposited in an escrow account managed by an independent administrator jointly appointed by copyright owners of sound recordings and the American Federation of Television and Radio Artists (or any successor entity) to be distributed to nonfeatured vocalists (whether or not members of the American Federation of Television and Radio Artists) who have performed on sound recordings.

(D) 45 percent of the receipts shall be paid, on a per sound recording basis, to the recording artist or artists featured on such sound recordings (or the persons conveying rights in the artists' performance on sound recordings). 17 U.S.C. §§ 114(g)(2)(A)-(D).

Royalties among a featured artist are generally allocated on a pro rata basis unless all of the members of a featured artist instruct SoundExchange as to an alternative allocation. By this we mean that where the featured artist is a band with four members, each member shall be entitled to 25% of the featured artist's share. When the members of a featured artist disagree as to the appropriate allocation of royalties, the amount of royalties in dispute are held pending resolution of the dispute.

Royalty Distribution

Pursuant to the provisions of Section 114(g)(3) of the Copyright Act, SoundExchange deducts from its receipts, prior to their distribution, the reasonable costs incurred in:

(A) the administration of the collection, distribution, and calculation of the royalties;

(B) the settlement of disputes relating to the collection and calculation of the royalties; and

(C) the licensing and enforcement of rights with respect to the making of ephemeral recordings and performances subject to licensing under section 112 and [section 114], including those [costs] incurred in participating in negotiations or arbitration proceedings under section 112 and [section 114], except that all costs incurred relating to the section 112 ephemeral recordings right [are] only . . . deducted from the royalties received pursuant to section 112. 17 U.S.C. § 114(g)(3).

SoundExchange distributes royalties directly to copyright owners and featured artists when provided with the information necessary to effectuate payment. SoundExchange may also distribute royalties to featured artists pursuant to reciprocal payment agreements with foreign collecting societies when those artists have appropriately authorized SoundExchange to undertake this activity. For example, SoundExchange may pay the Dutch collecting organization all of the royalties due the featured artists who have designated the Dutch organization to collect U.S. statutory royalties on their behalf. SoundExchange may also consider paying a featured artist's royalties to a third party under a letter of direction received from a featured artist as an accommodation to such featured artist; provided the featured artist has executed SoundExchange's Designation and Authorization form and the third-party is: 1) considered creative personnel credited or recognized publicly for the commercially released sound recording on which the featured artist performs, or 2) is a usual and customary royalty participant in such sound recording.

When SoundExchange is unable to distribute allocated royalties to either a copyright owner or featured artist, those royalties are held for the copyright owner or featured artist pending further attempts to effectuate payment.

SoundExchange expends significant resources to reduce the amount of allocated but undistributed royalties. Under Copyright Office regulations, SoundExchange retains all such undistributed royalties for not less than three years from the date of payment, and thereafter may release those funds for the benefit of all other copyright owners, featured artists and nonfeatured performers entitled to royalties. During 2008, there were no releases.

SoundExchange distributes royalties on a periodic basis. In 2008, SoundExchange distributed $100,024,779 in royalties.

Royalties Collected

Pursuant to Copyright Office regulations, SoundExchange is permitted to disclose its royalty receipts to copyright owners and performers pursuant to an appropriate confidentiality agreement. See 37 C.F.R. §§ 380.5(d)(3), 382.4(d)(3), 382.14(d)(3), and 383.4(a). SoundExchange is not permitted, however, to disclose the information for individual statutory licensees to the general public.

In 2008, SoundExchange collected statutory royalties from all statutory classes of services in the amount of $167,170,099. Non-statutory royalties collected amounted to $2,265,720. This represents an increase in statutory royalty collections of 19% percent. In 2007, SoundExchange collected statutory royalties in the amount of $140,412,226.

SoundExchange maintains royalties in money market funds, discounted notes, corporate bonds and government bonds. SoundExchange net earned interest on its cash accounts totaling $4,022,365 during 2008.

Administrative Expenses

SoundExchange incurs expenses to operate as the sole entity designated by the Librarian of Congress to collect and distribute royalties. Its expenses are divided into the following broad categories: Personnel, Operations, External Affairs, Legal & Licensing, and Royalty Systems.

SoundExchange incurs current, capital, and amortized expenses. Current expenses include, by way of example and not limitation, salaries, benefits, payroll taxes, office administration, occupancy, accounting, travel, conferences, outreach, information systems and technology, and legal and licensing. Capital expenses include royalty systems' extensions and modifications, computers and equipment, furniture and fixtures, and organizational costs. Amortized expenses are expenses that are amortized over a period of years for which the expense applies. For example, if SoundExchange incurred $1 million in legal expenses to establish royalty rates for a five-year term, those legal expenses would be amortized over the five-year term of the license for which the expense was incurred.

In 2008, SoundExchange incurred the following expenses:

Personnel	$ 3,639,592
Operating Expenses	$ 2,431,326
External Affairs	$ 803,398
Legal & Licensing	$ 4,966,007
Royalty Systems	$ 803,297
Unrealized (gain)loss on investments	$ (231,515)
Total Expenses	$ 12,412,105

Administrative Rate

The administrative expenses of SoundExchange are paid first with interest income earned and then through an administrative charge applied to royalties available for distribution in the form of an Administrative Rate. SoundExchange expresses its administrative rate as a fraction, the numerator of which is the total annual expenses less annual net interest income and the denominator of which is total annual royalties received.

SoundExchange expresses its administrative rate for 2008 as 5.0 percent (5.0%).

Summary

The following table summarizes SoundExchange's collections, allocations and distributions:

Period	Y/E 12/31/08	Y/E 12/31/07	Y/E 12/31/06
Royalty Receipts[1]	$169,435,819	$142,986,355	$63,080,179
Interest Earned	$4,022,365	$4,484,731	$3,497,537
Total Income	**$173,458,184**	**$147,471,086**	**$66,577,716**
Expenses			
Personnel	$3,639,592	$2,848,813	$2,411,311
Operating Expenses	$2,431,326	$1,530,266	$1,493,665
External Affairs	$803,398	$1,027,719	$324,959
Legal and Licensing	$4,966,007	$4,387,558	$2,168,520
Royalty Systems	$803,297	$719,646	$913,047
Unrealized (gain) loss on investment	$(231,515)	-	-
Total Expenses	**$12,412,105**	**$10,514,002**	**$7,311,502**
Blended Administrative Rate	**5.0%**	**4.2%**	**6.0%**

[1] Statutory royalties are typically paid 45 days following the end of the month for the month in which the liability accrued. "Royalty Receipts" means that royalties were collected and allocated according to the period for which the service reported the liability.

SOUNDEXCHANGE DRAFT ANNUAL REPORT FOR 2009 PROVIDED PURSUANT TO 37 C.F.R. § 370.5(d)

SoundExchange, Inc. ("SoundExchange") is a 501(c)(6) tax exempt organization incorporated in Delaware and headquartered in Washington, D.C. It is controlled by an eighteen member board of directors comprised of equal numbers of representatives of sound recording copyright owners and featured and non-featured recording artists. SoundExchange was incorporated on September 22, 2003.

As of December 31, 2008, SoundExchange employed 48 Full-Time Equivalent employees.

The presentation of financial information in this annual report is intended to comply with SoundExchange's requirements under 37 C.F.R. § 370.5(c) and is not intended to be a presentation in accordance with generally accepted accounting principles. The information provided in this presentation is based upon pre-audited financials statements and is therefore subject to revision upon the completion of the 2009 audit.

Royalty Collection

During 2009, SoundExchange was the sole entity designated by the Librarian of Congress and the Copyright Royalty Board to collect royalties paid by services operating under the statutory licenses set forth in Sections 112 and 114 of the Copyright Act and the implementing regulations established thereunder. 17 U.S.C. §§ 112 & 114; 37 C.F.R. Parts 380, 382, and 383. The services paying royalties to SoundExchange fall into the following statutorily defined categories:

- Preexisting Subscription Services
- Preexisting Satellite Digital Audio Radio Services
- Eligible Nonsubscription Transmission Services
- New Subscription Services (i.e., subscription webcasters; "CABSAT" services)
- Services exempt from liability for transmissions to business establishments under 17 U.S.C. § 114(d)(1)(C)(iv) but liable for ephemeral phonorecords made to facilitate such transmissions ("Business Establishment Services")

During 2008, the Copyright Royalty Board completed rate adjustment proceedings adopting rates and terms for Business Establishment Services for the period January 1, 2009 through December 31, 2013. See 73 Fed. Reg. 16,199 (March 27, 2008).

In late 2008 Congress passed the Webcaster Settlement Act of 2008 which gave SoundExchange the authority to enter into agreements with webcasting services at rates and terms different from those established by the Copyright Royalty Board. Under the legislation, these agreements can then be presented to the Copyright Office for publication in the Federal Register where they will be available industry-wide as alternatives to those rates set by the Copyright Royalty Board.

EXHIBIT
tabbies
Live365#22

In February 2009, SoundExchange concluded agreements under the Webcaster Settlement Act with the following entities: (i) Corporation for Public Broadcasting, on behalf of certain noncommercial webcasters; (ii) the National Association of Broadcasters; and (iii) a group of eighteen small commercial webcasters. The Corporation for Public Broadcasting Agreement covers the period January 1, 2005 through December 31, 2010. The National Association of Broadcasters and small commercial webcaster agreements cover the period January 1, 2006 through December 31, 2015. These agreements were published in the Federal Register on March 3, 2009 and became available to qualifying webcasters as alternative rates and terms on that date. See 74 Fed. Reg. 9293 (March 3, 2009).

On June 30, 2009, Congress passed the Webcaster Settlement Act of 2009 which similarly extended SoundExchange's authority to enter into agreements with webcasting services to July 30, 2009. Pursuant to the Webcaster Settlement Act of 2009, SoundExchange reached additional agreements with the following entities:

- Certain "Pureplay" webcasters – setting rates and terms for certain commercial webcasters for the period January 1, 2006 through December 31, 2015. *See* 74 Fed. Reg. 34796 (July 17, 2009);
- Sirius XM Radio Inc. – setting rates and terms for certain commercial webcasters for the period January 1, 2009 through December 31, 2015. *See* 74 Fed. Reg. 40614 (August 12, 2009);
- College Broadcasters, Inc. – setting rates and terms for certain educational noncommercial webcasters for the period January 1, 2009 through December 31, 2015. *See* 74 Fed. Reg. 40614 (August 12, 2009);
- Northwestern College – setting rates and terms for certain noncommercial webcasters for the period January 1, 2006 through December 31, 2015. *See* 74 Fed. Reg. 40614 (August 12, 2009); and
- Corporation for Public Broadcasting – setting rates and terms for certain public radio noncommercial webcasters for the period January 1, 2011 through December 31, 2015. *See* 74 Fed. Reg. 40614 (August 12, 2009).

SoundExchange collects royalties on a periodic basis. During 2009, services were required to pay royalties based upon either their revenues or their usage. "Revenues" and "Gross Revenues" are defined in the applicable regulations. See e.g., 37 C.F.R. §§ 382.2(e)(1), 382.11, & 383.2(g). In 2009, usage is generally expressed as the number of Performances streamed to recipients. "Performance" is a term defined in Copyright Royalty Board regulations. See 37 C.F.R. §§ 380.2(i). A service's liability is calculated on a Statement of Account, a form created by SoundExchange and made available on its web site. See www.soundexchange.com

Services paying royalties to SoundExchange are doing so under rates and terms established by the Copyright Royalty Judges or published in the Federal Register pursuant to the Webcaster Settlement Acts. In certain instances, SoundExchange has also negotiated separate rates and terms for certain groups of services on behalf of sound recording copyright owners who have granted SoundExchange the ability to do so on their behalf (i.e., SoundExchange "members"). Services availing themselves of the statutory license are able to do so by operation of law and are not "SoundExchange licensees" even though they are frequently referred to as such. Congress created a statutory regime under which any service complying with the statutory and regulatory conditions may obtain a license via federal statute. This license permits such services to reproduce and transmit sound recordings lawfully released to the public without having to negotiate directly with the copyright owner for the rights to those recordings.

In order for a service to avail itself of the statutory license, it must first file a Notice of Use of Sound Recordings (an "Initial Notice") with the U.S. Copyright Office. See http://www.copyright.gov/forms/form112-114nou.pdf. This Initial Notice must be filed before the service makes any ephemeral phonorecords or digital audio transmissions of sound recordings. Otherwise, the service may be subject to liability for copyright infringement. In addition, a service must also comply with the applicable conditions of the statutory license, pay royalties and provide reports of use as required in order to avoid liability for copyright infringement.

No Invoicing. SoundExchange does not invoice services for their monthly payments. Each service is separately responsible for calculating its own liability and remitting payment to SoundExchange along with a Statement of Account. Because services are obligated to self-report and pay royalties, there may be many more services making digital audio transmission or ephemeral phonorecords of sound recordings than there are services paying appropriate royalties to SoundExchange.

SoundExchange reviews Initial Notices filed with the Copyright Office and may demand payment from services that have failed to pay royalties. Importantly, however, a service is obligated to pay any royalties owed under the statutory license whether or not SoundExchange contacts the service. SoundExchange also reserves the right to demand late fees from services that have failed to pay royalties when required, as is permitted under federal regulations. Federal regulations set forth the requirements for reporting and payment, as well as some of the penalties for failure to meet these requirements.

Although SoundExchange collects royalties from individual services pursuant to Copyright Office regulations, SoundExchange does not make determinations as to whether each of the many services that rely on the statutory licenses under Sections 112 and 114 of the Copyright Act is eligible for statutory licensing. Similarly, SoundExchange does not continuously verify that such services are in full compliance with all applicable requirements. To minimize any confusion, SoundExchange has posted on its web site the following notification:

> **IMPORTANT NOTICE: NO WAIVER OF RIGHTS**
>
> Services that have filed with the Copyright Office a Notice of Use of Sound Recordings under Statutory License are obligated to comply with all requirements of the statutory licenses under Sections 112 and 114 of the Copyright Act. It is the responsibility of each such service to ensure that it is in full compliance with the requirements of the statutory licenses under 17 U.S.C. §§ 112 & 114. SoundExchange is not in a position to determine whether each of the many services that rely on the statutory licenses is eligible for statutory licensing and does not in fact make any such determination. Nor does SoundExchange verify that such services are in full compliance with all applicable requirements of the

two statutory licenses. Accordingly, SoundExchange's acceptance of a service's payment does not express or imply any acknowledgment that a service is eligible for or otherwise in compliance with the requirements of the statutory licenses. SoundExchange, its members and other copyright owners reserve all their rights to take enforcement action against a service that is not in compliance with those requirements, regardless of any royalty payments such service may have made to SoundExchange.

Royalty Allocation

When a service pays royalties to SoundExchange, those royalties are allocated on a *pro rata* basis among the sound recordings reported by that service on its reports of use. By this we mean that if the net royalties (after deducting costs) paid by Service A total \$100 for period X and Service A reported 10,000 discrete sound recordings during that period, each of which was performed only once, then each distinct performance would be valued at one cent (\$0.01) (\$100 ÷ 10,000).

While most of the larger services must currently provide "logs" to SoundExchange that include a comprehensive listing of all sound recordings performed (i.e. "census reporting"), certain licensees are not required under the statutory regulations to provide census reporting. Rather, they are only required to submit the sound recordings used for a two week period each calendar quarter. When a service only reports a sample, artists and copyright owners may not be compensated for sound recording transmitted in the weeks missed by the sample. SoundExchange has always advocated for full census reporting from most webcasters and, in 2009, the Copyright Royalty Judges adopted regulations that require all but some of the smallest webcasters to provide year-round census reporting.

Royalties may remain undistributed when there is an ongoing legal proceeding, including appeals, which may alter a previously established rate. Royalties may also remain undistributed if SoundExchange has not received reports of use information and the Copyright Office has not approved a proxy in lieu of actual report of use data.

The royalties paid by a service are allocated on a nondiscriminatory basis. Each sound recording is valued equally, regardless of whether the sound recording copyright owner of, or featured performer on, the sound recording has specifically authorized SoundExchange to collect and distribute royalties on their behalf. SoundExchange allocates all royalties received for domestic performances equally among **all** performers, regardless of whether or not they have executed appropriate membership documents with SoundExchange. Naturally, any potential payees must provide appropriate registration documents to SoundExchange prior to receiving any royalties owed to them. There is no fee for registering with SoundExchange

The royalties collected by SoundExchange are allocated according to the percentages set forth in Sections 114(g)(2)(A)-(D) of the Copyright Act. 17 U.S.C. §§ 114(g)(2)(A)-(D). The statute requires that:

(A) 50 percent of the receipts shall be paid to the copyright owner of the exclusive right under section 106(6) of [the Copyright Act] to publicly perform a sound recording by means of a digital audio transmission.

(B) 2½ percent of the receipts shall be deposited in an escrow account managed by an independent administrator jointly appointed by copyright owners of sound recordings and the American Federation of Musicians or any successor entity) to be distributed to nonfeatured musicians (whether or not members of the American Federation of Musicians) who have performed on sound recordings.

(C) 2½ percent of the receipts shall be deposited in an escrow account managed by an independent administrator jointly appointed by copyright owners of sound recordings and the American Federation of Television and Radio Artists (or any successor entity) to be distributed to nonfeatured vocalists (whether or not members of the American Federation of Television and Radio Artists) who have performed on sound recordings.

(D) 45 percent of the receipts shall be paid, on a per sound recording basis, to the recording artist or artists featured on such sound recordings (or the persons conveying rights in the artists' performance on sound recordings). 17 U.S.C. §§ 114(g)(2)(A)-(D).

Royalties among a "featured artist" are generally allocated on a pro rata basis unless all of the members of a featured artist instruct SoundExchange as to an alternative allocation. By this we mean, for example, that where the featured artist is a band with four members, each member shall be entitled to 25% of the featured artist's share absent their full agreement on different ratios. When the members of a featured artist disagree as to the appropriate allocation of royalties, the amount of royalties in dispute are held pending resolution of the dispute.

Royalty Distribution

Pursuant to the provisions of Section 114(g)(3) of the Copyright Act, SoundExchange deducts from its receipts, prior to their distribution, the reasonable costs incurred in:

(A) the administration of the collection, distribution, and calculation of the royalties;

(B) the settlement of disputes relating to the collection and calculation of the royalties; and

(C) the licensing and enforcement of rights with respect to the making of ephemeral recordings and performances subject to licensing under section 112 and [section 114], including those [costs] incurred in participating in negotiations or arbitration proceedings under section 112 and [section 114], except that all costs incurred relating to the section 112 ephemeral recordings right [are] only . . . deducted from the royalties received pursuant to section 112. 17 U.S.C. § 114(g)(3).

SoundExchange distributes royalties directly to copyright owners and featured artists when provided with the information necessary to effectuate payment. SoundExchange may also distribute royalties to featured artists and copyright owners pursuant to reciprocal payment agreements with foreign collecting societies when those artists have appropriately authorized SoundExchange to undertake this activity. For example, SoundExchange may pay the Dutch collecting organization all of the royalties due the featured artists who have designated the Dutch organization to collect U.S. statutory royalties on their behalf. SoundExchange may also consider paying a featured artist's royalties to a third party under a letter of direction received from a featured artist as an accommodation to such featured artist; provided the featured artist has executed SoundExchange's Designation and Authorization form and the third-party is: 1) considered creative personnel credited or recognized publicly for the commercially released sound recording on which the featured artist performs, or 2) is a usual and customary royalty participant in such sound recording.

When SoundExchange is unable to distribute allocated royalties to either a copyright owner or featured artist, those royalties are held for the copyright owner or featured artist pending further attempts to effectuate payment.

SoundExchange expends significant resources to reduce the amount of allocated but undistributed royalties. Under Copyright Office regulations, SoundExchange retains all such undistributed royalties for not less than three years from the date of payment, and thereafter may release those funds for the benefit of all other copyright owners, featured artists and nonfeatured performers entitled to royalties. During 2009, there were no such releases.

SoundExchange distributes royalties on a periodic basis. In 2009, SoundExchange distributed $155,495,012 in royalties.

Royalties Collected

Pursuant to Copyright Office regulations, SoundExchange is permitted to disclose its royalty receipts to copyright owners and performers pursuant to an appropriate confidentiality agreement. See 37 C.F.R. §§ 380.5(d)(3), 382.4(d)(3), 382.14(d)(3), and 383.4(a). SoundExchange is not permitted, however, to disclose such information for individual statutory licensees to the general public.

In 2009, SoundExchange collected statutory royalties from all statutory classes of services in the amount of $201,740,295. Non-statutory royalties collected amounted to $2,523,189. The statutory royalties collected in 2009 represent an increase of 21% percent over statutory royalties collected in 2008 (which totaled $167,170,099).

SoundExchange maintains royalties in money market funds, discounted notes, corporate bonds and government bonds. SoundExchange net earned interest on its cash accounts totaling approximately $1,082,641 during 2009.

Administrative Expenses

SoundExchange incurs expenses to operate as the sole entity designated by the Copyright Royalty Board to collect and distribute royalties. Its expenses are divided into the following broad categories: Personnel, Operations, External Affairs, Legal & Licensing, and Royalty Systems.

SoundExchange incurs current, capital, and amortized expenses. Current expenses include, by way of example and not limitation, salaries, benefits, payroll taxes, office administration, occupancy, accounting, travel, conferences, outreach, information systems and technology, and legal and licensing. Capital expenses include royalty systems' extensions and modifications, computers and equipment, furniture and fixtures, and organizational costs. Amortized expenses are expenses that are amortized over a period of years for which the expense applies. For example, if SoundExchange incurred $1 million in legal expenses to establish royalty rates for a five-year term, those legal expenses would be amortized over the five-year term of the license for which the expense was incurred.

In 2009, SoundExchange incurred the following expenses:

Personnel	$ 4,470,113
Operating Expenses	$ 4,741,434
Legal & Licensing	$ 5,444,298
Royalty Systems	$ 1,259,895
External Affairs	$ 607,510
Unrealized (gain) loss on investments	$ 169,355
Total Expenses	$ 16,692,605

Administrative Rate

The administrative expenses of SoundExchange are paid first with interest income earned and then through an administrative charge applied to royalties available for distribution in the form of an Administrative Rate. SoundExchange expresses its administrative rate as a fraction, the numerator of which is the total annual expenses less annual net interest income and the denominator of which is total annual royalties received.

SoundExchange expresses its administrative rate for 2009 as 7.6 percent (7.6%).

Summary

The following table summarizes SoundExchange's collections, allocations and distributions:

Period	Y/E 12/31/09 Pre-Audit	Y/E 12/31/08	Y/E 12/31/07	Y/E 12/31/06
Royalty Receipts[1]	$204,263,484	$169,435,819	$142,986,355	$63,080,179
Interest Earned	$1,082,641	$4,022,365	$4,484,731	$3,497,537
Total Income	**$205,346,125**	**$173,458,184**	**$147,471,086**	**$66,577,716**
Expenses				
Personnel	$4,470,113	$3,639,592	$2,848,813	$2,411,311
Operating Expenses	$4,741,434	$2,431,326	$1,530,266	$1,493,665
External Affairs	$607,510	$803,398	$1,027,719	$324,959
Legal and Licensing	$5,444,298	$4,966,007	$4,387,558	$2,168,520
Royalty Systems	$1,259,895	$803,297	$719,646	$913,047
Unrealized (gain) loss on investment	$169,355	$(231,515)	-	-
Total Expenses	**$16,692,605**	**$12,412,105**	**$10,514,002**	**$7,311,502**
Blended Administrative Rate	**7.6%**	**5.0%**	**4.2%**	**6.0%**

[1] Statutory royalties are typically paid 45 days following the end of the month for the month in which the liability accrued. "Royalty Receipts" means that royalties were collected and allocated according to the period for which the service reported the liability.

Live365 Trial Exhibit 25 Is Omitted from the Public Version of Live365's Admitted Trial Exhibits

WAIVER AGREEMENT

This Agreement, made and entered into as of the ___ day of December 2001, by and between ________________________________, with its principal place of business at ____, on behalf of itself, and all subsidiary and affiliate companies which it controls, or which it is otherwise authorized to bind under this Agreement, all such companies listed on Appendix A to this Agreement (the "Recording Company"), and the undersigned radio broadcaster participants ("the Broadcaster Participants") in the Matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2000-9 CARP DTRA 1 & 2.

WITNESSETH

WHEREAS, the Recording Industry Association of America, Inc., ("RIAA") on behalf of the Recording Company among other RIAA member companies, is entering into a statutory license agreement (the "Statutory License Agreement") with the Broadcaster Participants on an amicable, non-adjudicated and without prejudice basis to set the rates and terms for AM/FM Streaming (as defined in Article 1.1 below) by the Broadcaster Participants and certain other radio broadcasters;

WHEREAS, the effectiveness of the Statutory License Agreement is contingent upon the Broadcaster Participants entering into an agreement with the Recording Company covering the waiver of certain statutory license conditions as provided herein, with respect to AM/FM Streaming by Broadcasters (as defined in Article 1.2 below); and

WHEREAS, the National Association of Broadcasters ("NAB") and the other appellants in Bonneville v. Peters have agreed to withdraw the pending appeal of that case in the Third Circuit Court of Appeals;

NOW, THEREFORE, for and in consideration of the rates and terms set forth in the Statutory License Agreement, the parties hereto agree as follows:

1. **DEFINITIONS**

1.1 The term "AM/FM Streaming" shall be used in this Agreement to mean a Broadcaster's simultaneous eligible nonsubscription transmission over the Internet of over-the-air radio programming in accordance with 17 U.S.C. §114 as modified herein, which term shall also include the transmission of (a) any such programming previously broadcast over the air as archived programs in conformance with 17 U.S.C. §114(d)(2)(C)(iii); (b) any such programming that includes substitute advertisements; and (c) any previously broadcast programming substituted for programming for which requisite licenses or clearances to transmit over the Internet have not been obtained. AM/FM Streaming shall not include transmissions syndicated or aggregated through third-party (but not Affiliate) web sites or aggregated through Affiliate web sites together with over-the-air programming of non-Affiliate stations; provided that nothing in this limitation shall prohibit a Broadcaster from engaging a third-party vendor to perform or facilitate the Internet transmission process. AM/FM Streaming also shall not include the transmission of an archived program through a web site unless such web site (a) is the primary web site of a broadcast network and the previously broadcast over-the-air programming that constitutes the archived program was transmitted simultaneously through such web site or (b) is currently offering the simultaneous transmission of over-the-air programming from the Broadcaster that previously broadcast the archived program over-the-air.

1.2 The term "Broadcaster" shall be used in this Agreement to mean a non-public AM or FM broadcast station licensed by the Federal Communications Commission to make over-the-air broadcast transmissions, or an Affiliate of such station, which takes a statutory license under 17 U.S.C. §§114 or 112 and applicable regulations of the Librarian of Congress for AM/FM Streaming, and is in material compliance with the fee payment obligations of such statutory license and the other statutory conditions set forth in §§ 114(d)(2)(C) and 112(e) (compliance with such statutory provisions subject to the provisions of paragraph 2.1 hereof); provided that a substantial majority of the audience for the programming of such Broadcaster that is the subject of AM/FM Streaming is over-the-air listeners rather than Internet stream recipients. For the purposes of this Section, the term "non-public" means a station that is not a public broadcasting entity as defined in 37 C.F.R. §253.2, and the term "Affiliate" shall be used to mean a parent, subsidiary or entity under common ownership or control, or a broadcast network that supplies programming for over-the-air transmissions to FCC-licensed AM or FM broadcast stations affiliated with such network.

2. WAIVERS OF STATUTORY CONDITIONS

2.1 The Recording Company, for itself and its successors and assigns, agrees to waive enforcement of the statutory license conditions of §114(d)(2)(C)(i), (ii), and (ix), and the statutory six-month limitation on retention of ephemeral recordings of §112 (collectively, the "Specified Conditions") with respect to sound recordings of which the Recording Company is copyright owner or, through distribution, licensing agreements or otherwise, is authorized to waive enforcement of the Specified Conditions thereto (the "Sound Recordings"), in connection with AM/FM Streaming by Broadcasters during the term of this Agreement, provided that:

(i) with respect to the waiver of §114(d)(2)(C)(i), such waiver does not extend to the consecutive transmission of more than one-half (1/2) of the sound recordings on an entire album of sound recordings, including a compilation album (or, in the case of any set or compilation of phonorecords lawfully distributed together as a single unit for sale in the United States, more than one-half (1/2) of the sound recordings on any particular single record unit that constitutes a part of the set or compilation of phonorecords concerned), provided that the transmission of any given classical musical work may be rendered in its entirety, and provided further that such waiver does not extend to any programming practice that defeats the intent of this subsection;

(ii) with respect to the waiver of §114(d)(2)(C)(ii), such waiver does not extend to the publication of a written or visual advance program schedule, including for streamed archived programming, that specifies that a particular artist or artists or particular sound recordings will be featured at a specified future time, except that Broadcasters transmitting programming reasonably classified as classical may publish a schedule of classical music programming in accordance with standards and practices employed by non-public classical music formatted stations as of September 30, 1998;

(iii) with respect to the waiver of §114(d)(2)(C)(ix):

(a) for a Music Intensive Station (as defined in the Statutory License Agreement) that, as of January 1, 2003, is utilizing a digital music file system that can be adapted to display the information required by §114(d)(2)(C)(ix), such waiver shall cease as of that date, except as to third-party programming over which the Broadcaster does not have the right or ability to control or programming not performed using the digital music file system;

(b) for a Music-Intensive Station that, as of January 1, 2003, does not utilize such a digital music file system, such Station shall comply with §114(d)(2)(C)(ix) as soon as it is economically reasonable to do so, except that the cessation of the waiver of §114(d)(2)(C)(ix) shall not apply to third-party programming over which the Broadcaster does not have the right or ability to control or programming not performed using the digital music file system;

(iv) with respect to each of the waivers set forth in this Section 2.1, such waiver shall not apply to a particular programming practice (including, without limitation, oral preannouncements) that (a) departs materially from today's range of typical over-the-air radio programming practices (taking into account, among other things, interruptions to musical programming such as commercials, talk, news and other oral announcements such as public service announcements), and (b) such departure adversely affects the Recording Company interests protected by the Specified Conditions;

provided, however, that before the waiver ceases to apply the following procedure shall be employed:

(1) the Recording Company shall give written notice to the Broadcaster of the challenged programming practice, identifying the basis of such challenge, whereupon (x) the Broadcaster shall not, pending resolution of the dispute, permit access to challenged programming in archived form and (y) the parties shall promptly engage in good-faith discussions in an effort to resolve the matter, and

(2) failing such agreement within three business days from receipt of such notice by the Broadcaster concerned (delivered via U.S. mail, messenger, facsimile or federal express or other express mail service), and provided that the Recording Company has made itself reasonably available for good-faith discussions during that period, the Recording Company may give written notice to the Broadcaster to cease the challenged programming practice, and

(3) should the Broadcaster fail to cease engaging in the challenged programming practice following receipt of such notice, the Recording Company shall reserve all rights and remedies with respect to the continuation of the programming practice;

(v) the Recording Company's failure to invoke the notice procedure described in subsection (iv) above, shall not be construed as acceptance by the Recording Company of any particular programming practice;

(vi) with respect to each of the waivers set forth in this Section 2.1, such waiver shall apply to programming broadcast as part of an analog or principal digital over-the-air broadcast but not to programming broadcast solely on a secondary digital subchannel on the same frequency;

(vii) with respect to the waiver of the statutory six-month limitation on retention of ephemeral recordings of §112, the waiver shall expire upon the termination of this Agreement, and any ephemeral recordings created during the term shall be deemed to have been created on the first day after the end of the term; and

(viii) all waivers shall terminate as to any Broadcaster as of the date it commences an action asserting substantially the same claims as were asserted in Bonneville v. Peters, or otherwise seeks the essential relief sought by the Bonneville action, before the Copyright Office, a CARP, or any court.

2.2 The Recording Company, for itself and its predecessors, successors and assigns, hereby releases and forever discharges each of the Broadcasters, and their respective predecessors, successors and assigns, from any and all claims, causes of action, rights, liabilities or damages, known or unknown, arising out of any alleged failure to comply with the Specified Conditions with respect to the Sound Recordings for the period from October 28, 1998 through the Effective Date of this Agreement, in connection with AM/FM Streaming.

2.3 The parties hereto acknowledge that no payment of any sum is due to either party under this Agreement, except as set forth in the Statutory License Agreement.

3. STREAMING BROADCASTERS AS THIRD PARTY BENEFICIARIES

3.1 Broadcasters who are not Broadcaster Participants (i.e., who are not signatories to this Agreement) and who comply with all of the terms and conditions of this Agreement are intended to be third party beneficiaries under this Agreement entitling such parties to assert the waivers and releases of claims provided in Section 2 hereof with respect to their AM/FM Streaming in the same manner and to the same degree as the Broadcaster Participants, and the Recording Company shall have the same rights and remedies with respect to such Broadcasters as they have with respect to Broadcaster Participants.

4. TERM

4.1 The term of this Agreement is from the Effective Date through December 31, 2008. The term "Effective Date" shall be used in this Agreement to mean the date the Statutory License Agreement is adopted by the Librarian of Congress without material change.

5. MISCELLANEOUS

5.1 Interpretation and Applicable Law. This Agreement shall be construed and interpreted in accordance with the laws of the State of New York, without regard to that body of law relating to conflict of laws.

5.2 Entire Agreement; Modification. This Agreement represents the entire understanding between the parties hereto with respect to the subject matter hereof, and supersedes all previous representations, understandings or agreements, oral or written, between the parties with respect to the subject matter hereof. This Agreement may be amended or modified only in a writing signed by the parties.

5.3 Non-Precedential Agreement. This Agreement is without precedential effect, experimental, and without prejudice to the parties' respective positions concerning any matters covered hereby, and resolves multiple matters between the parties.

Before the
COPYRIGHT ROYALTY BOARD
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS	))))))	Docket No. 2009-1, CRB Webcasting III

CORRECTED TESTIMONY OF JOHNIE FLOATER, GENERAL MANAGER OF MEDIA AT LIVE365, INC.

INTRODUCTION AND BACKGROUND

1. I am the General Manager of Media at Live365, Inc. ("Live365"). I submit this statement in support of Live365's direct written case in this proceeding. As General Manager of Media, I oversee the operation and revenue generation of Live365's internet radio streaming offerings to advertisers and listeners. My current responsibilities include revenue optimization of Live365's listening hours and ad inventory, selection and management of ad networks and rep firms, responding to advertiser client proposals (RFPs), direct ad sales, enhancing the company's ad trafficking and targeting capabilities, and overseeing ad order delivery, affidavits, billing and collection. With regard to subscription management, I oversee the marketing, sales and operations of the company's VIP offering. This includes development and placement of creative audio and banner ads, supporting our online affiliate marketing partners, and customer relationship management (CRM), including ongoing communications through newsletters, emails and customer service operations.

EXHIBIT
tabbies
Live365 #29

2. My roles at Live365 with respect to advertising and subscription management require the tracking and analysis of audience, listening, ad inventory, customer and sales data from user surveys, the company's data warehouse, and third party resources such as comScore, Arbitron, Commission Junction, Zedo and others. My team includes a trafficking manager, a subscription manager, support person and five customer service reps, with additional support provided by Live365's data and financial staff. Prior to Live365, I held staff and management roles in various aspects of the radio business including commercial and public radio, and syndication of programming and broadcast tools, on a local and international level.

3. Upon graduating *summa cum laude* with an MBA from UCLA's Anderson School of Management, I was hired as Business Manager for National Public Radio's Los Angeles affiliate, KCRW. I was responsible for the station's funding including subscription drives, corporate sponsorships, underwriting, and grant proposals. During my employment from 1982 to 1986, the station underwent rapid growth, becoming one of the largest stations in the NPR network. The station competed with over 80 local Southern California radio stations but attracted sizable audiences by programming a wide range of content from jazz to ethnic music that was lacking at other stations. During my tenure, audience and membership grew tenfold, and the annual budget grew from $150k to $2.5M and the staff from 5 to 25.

4. I left KCRW in 1987 to join ABC Watermark, as part of the separate international syndication venture Radio Express. My initial role was Sales Manager where I was responsible for the foreign marketing, sales and localized co-productions of ABC's top rated radio programs including Casey Kasem's *American Top 40* and Bob Kingsley's *American Country Countdown*. I secured corporate sponsorships from Pepsi, McDonald's and others for the syndication of these programs in over 40 countries. In 1989, I was promoted to General Manager where I oversaw the

expansion of the company's product lines and international representation for other leading U.S. radio program producers and suppliers of trafficking and scheduling software, music and production libraries, and jingle packages from NBC, TM Century, and FirstCom. I served as a consultant for one of these companies, TunEdge Music, establishing their music licensing and contracting process for the creation of their first production music library. During my eight years at Radio Express, the company's revenues grew from under $1M to over $10M because of successful marketing and media distribution to over 65 countries.

5. In 1996, I joined Eagle River Interactive (ERIV) as VP International, establishing and managing its multinational capabilities through acquisitions and partnerships. During my two years at the company, it became one of the first web services companies to go public, and then was acquired by Omnicom as part of Agency.com. My division handled multiple language website localizations for multinational clients such as Disney, McDonalds, Sony and Arthur Anderson. When the company formed its European division, I was promoted to be its President Director General (PDG) to oversee the operations and staff for offices in Paris, London, Milan, Madrid and Stuttgart.

6. Upon returning to the U.S. in 1999, I secured a position as VP Incubation with another NASDAQ public company, the New York based venture division of Rare Medium Group (RRRR), overseeing $75 million in investments in various internet startups, including: CMJ, a music publication, artists support and concert company; ePrize, an online prize and fulfillment company; NoticeNow, integrated messaging software; and LiveUniverse, a provider of web tools. In 2003, I consulted for Forum Nokia, which is Nokia's third party developers' network, introducing content companies to new opportunities with mobile applications, before joining Live365 in October 2004. I have presented at numerous broadcast, music, and internet

conferences including the NAB, Consumer Electronics Show (CES), MIDEM, MILIA, Digital Hollywood, and the Digital Music Forum. I also currently serve as Live365's representative on the Board of the Digital Media Association (DiMA).

LIVE365'S INTERNET RADIO REVENUES

7. [redacted] Live365 generates revenues from two lines of businesses: (1) "Broadcast Services," which provides the technology platform, tools, services and know-how to allow Live365's 7,000+ webcasters to broadcast music to millions of users through the internet, and (2) "Internet Radio," which provides a wide diversity of streaming music (over 260 genres), talk and other audio entertainment through its network of aggregated webcasters.

8. Revenues from Live365's Broadcast Services reflect payments by its webcasters for the equipment, intellectual property, research and development, and other resources Live365 has invested into providing such broadcasting services. The provision of these software and technology components does not leverage the intellectual property of performers and copyright holders. On the other hand, Live365's Internet Radio line of business, where performers' copyrighted works are frequently used to attract listeners, allows the company to obtain revenues from advertisers and subscription listeners, as discussed below.

9. Advertising products at Live365 include 30-second in-stream audio advertisements inserted between songs, banner ads throughout Live365's website and within the player window, and video or audio gateway advertisements played prior to the launch of all non-subscriber streams. Audio spots are inserted five times per hour with each advertisement break capable of running two spots, depending on the amount of advertising inventory sold. As discussed below, advertising orders consistently do not fill all of Live365's advertising inventory; therefore,

increasing the number of ad spots per hour would not generate more revenues since Live365 already cannot fill all of its commercial availabilities.

10. Currently, advertising accounts for approximately 39% of Live365's internet radio revenues; however, monthly gross CPM values (i.e., the cost per thousand impressions) have been decreasing over the last three years. Since 2006, audio CPMs have declined 31% from $4.73 to $3.25 and banner CPMs have dropped 41% from $1.88 to $1.11, through June of FY2009. Although video gateways (which account for less than 2% of Live365's advertising revenue due to low advertiser demand) deliver the highest CPMs, their rates also have decreased 30% from the 2006 average CPM of $14.62 to currently $10.24. This fiscal year's inventory sell-out rates through June 2009 are 65% for audio, 71% for display and 4% for video.

11. In 2002, Live365 launched a subscription (VIP) membership offering an ad free experience to listeners willing to offset their royalty and streaming costs for their own listening. The average VIP paid $6.02 per month in calendar year 2008. VIP membership consists of less than 2% of Live365 site visitors despite significant attempts at marketing this offering, as discussed below.

12. VIP sales reached a high point in mid-2007 at 58,104 subscribers; it took over three million monthly unique visitors to yield this membership level. As of June 2009, subscriptions declined from 2007's high point by 24% to 44,097 in part because of increased subscription fees as well as a decrease in the number of station choices, visitors, and overall ATH.

13. Overall, as discussed below, despite Live365's best efforts to encourage listeners to become subscribers, and subscribers to retain their subscriptions, Live365's internet radio's subscription revenues are contracting due to decreasing listenership and accelerating subscription

churn rate.[1] A soft advertising market and decreasing CPM's are also reducing Live365's advertising revenues. These trends continue despite Live365's prudent business decisions and practices [redacted].

LIVE365'S INTERNET RADIO COSTS

14. There are significant expenses in operating Live365's internet radio aggregating service. Live365's top cost inputs, excluding payroll, are statutory performance royalty fees and advertising agency/ad network deductions. SoundExchange royalties accounted for over 32% of Live365's total internet radio revenues in fiscal 2009 through June. In other words, nearly one-third of Live365's internet radio revenues are devoted solely to a single statutory royalty fee.[2] In addition, as discussed below, advertising agency/network deductions accounted for 30% of Live365's gross advertising revenues, resulting in Live365 earning less than $1 million out of the gross ad revenue of $1.32 million, while Live365's accrued royalty fees due to SoundExchange was $1.1 million.

THE INTERNET RADIO AD MARKET CONTINUES TO UNDERPERFORM

15. In-stream audio ads, banner ads, and video gateway ads are the three main internet radio advertising products for Live365. Domestic advertising revenue through June of FY2009 currently represents about 39% of Live365's domestic internet radio revenue ($1.32 million out of $3.4 million), down from 47% in fiscal year 2006. In addition, excess inventory resulting in

---

[1] "Churn rate" refers to the loss of paying subscribers in a given period.

[2] Live365 pays royalties for the streaming performances by most of its webcasters under Live365's statutory performance license. Royalties paid by broadcasters that have their own direct license with SoundExchange or copyright holders are not considered in my statement.

inadequate sell-out rates continue to undermine CPM rates and undercut overall advertising revenues.[3]

16. Channel sponsorship (when one advertiser buys all of the available advertising spots on a channel) and site sponsorship (when one advertiser is prominently displayed on Live365's homepage and/or music player) are offered but such sponsorships typically result in only one to three sales per year. Advertising agencies have a low demand for these one-time ad buys because of the time requirements for one-of-a-kind customization and the amount of impressions per user exceed ad frequency caps requested by the clients. Therefore, despite Live365's attempts to secure these ad buys, channel and site sponsorships are not viable ad revenue streams due to their limited popularity.

17. Because excess supply of internet radio ads in the marketplace consistently outstrips demand, CPM rates continue to underperform. Even with over a one-third reduction in U.S. ad supported ATH between FY2006 and FY2008, and therefore a one-third reduction in audio ad inventory, sell-out rates still accounted for less than 65% of available inventory. As demonstrated below, despite Live365's efforts to bring in more advertisers and participation in various ad networks, such as TargetSpot and ValueClick, sell-out rates remain low. I understand that most webcasters face the same problem.

INTERNET RADIO'S DEPENDENCE ON ADVERTISING AGENCIES

18. Live365's advertising revenues are further squeezed by the use of third party ad networks and advertising agencies. Although Live365 responds to direct client advertising RFPs, these sales represent only 5% of ad revenue for reasons detailed below. Moreover, radio

[3] Sell out rates are the percentage of inventory sold for a given ad type. For example, a 60% audio ad sell out rate signifies that 40% of audio ad inventories were not sold, thus generating no revenue due to lack of demand.

advertising dollars have long been focused on local communities – i.e., audiences within reach of a limited AM/FM coverage area. This concentration of potential customers is in high demand by local retailers; hence, they typically provide the highest radio CPMs. However, internet radio attracts audiences by content interest only, without the geographic concentration required for local retailers. As internet radio use grows, there will likely be enough listeners within particular cities, which then will require sales staff for each locale. This investment in personnel and infrastructure for tens, even hundreds of cities, currently does not provide the requisite return on investment for the potential return. Therefore, since 2004, Live365 has been compelled to use third party ad representatives and participate in ad networks to increase advertising revenues and remain competitive. Advertising revenue is required to support over 75% of Live365's ATH since paid subscribers account for only 25% of its ATH despite significant efforts to attract subscribers.

19. Advertising agencies, such as MediaVest, Horizon, Initiative Media, and OMD, oversee the advertisers' strategy, creative and targeted media buys, and are therefore the source of the vast majority of advertising buys. These agencies typically take a 15% deduction from their Live365 ad orders for their services. These agencies also purchase advertising impressions in quantities that are multiple times larger than any terrestrial radio station or internet radio channel and more than the combined listening of the entire Live365 internet radio network. Because no single webcaster or radio station can satisfy the impression quantities required by these agencies for national ad buys, advertising networks combine multiple radio stations and other webcasting services for a single agency buy. In order to capture any of this revenue, Live365 must participate in these ad networks which also take a further 25% to 50% fee of the advertising spot's purchase price for their services. Live365 secures 95% of its advertising revenues from these ad networks

including TargetSpot (formerly RLR Network) for audio advertising and ValueClick, Tribal Fusion and Google for banner ads.

20. Live365's much-needed internet radio advertising revenue would not be possible without the services and contributions of these agencies and ad networks. However, for every ad dollar ordered through these networks, Live365 earns only $0.50 to $0.65 for delivering the audience and the sought out impressions. Therefore, this year's reported gross advertising CPM of audio spots at $3.25 yields Live365 CPM of $2.07, and a $1.11 CPM for banners yields Live365 CPM average of $0.55.

21. Further, nearly all audio advertising buys also include genre, ad placement, and timing restrictions. Consequently, 85% of our ad buys are restricted to 7 a.m. to 7 p.m. Monday through Friday and within popular genres (such as Top 40 and country). This results in little to no inventory for nighttime and weekend audiences as well as for unique genres (such as folk and Christian) that bear the same royalty and streaming costs as other programming. These ad placement, genre and timing restrictions are carried over from terrestrial radio buying habits despite the combined efforts of Live365, TargetSpot, Arbitron, and comScore to educate ad agency buyers regarding the unique benefits of internet radio's enhanced ad delivery, measurement and targeting capabilities.

22. Live365's audio ad trafficking system is designed to provide advertisers the required targeting capabilities while inserting up to ten audio spots in every streaming hour with an additional audio/video gateway for every launch. Live365's targeting capabilities allows for in-stream ad insertions based on "daypart" requests (i.e., morning, midday or evening), and selected channel's music genre, as each genre tends to attract certain demographics. In addition, Live365 is capable of inserting specific video and audio gateway and banner ads based on demographic

information about registered listeners and their location. Nevertheless, with ad inventory growing faster than advertising demand combined with advertising agencies' ad placement restrictions, Live365 and its ad networks sell less than 65% of all available advertising inventories.

LIVE365'S SUBSCRIPTION REVENUES ARE STEADILY DECLINING

23. Live365's internet radio service depends on paying subscribers, i.e. VIP members, to cover costs directly related to their listening. These VIP subscribers listen to Live365's internet radio without any audio and banner ad interruptions. The average VIP subscriber listens to approximately 40 hours of programming per month.

24. Live365 aggressively pursues internet radio VIP subscriber acquisitions, to the point that every site visitor and/or listener receives multiple signup offers. Live365's most effective sales campaign focuses on converting existing ad based listeners to paying VIPs. Live365 produces and places its own audio, banner and video ads in unsold advertising inventory to highlight VIP benefits. In addition, Live365 includes VIP promotional messages and discount price offers in its quarterly newsletter sent to over one million listeners. Any listener expressing interest in the VIP package receives up to six follow-up trigger emails. Moreover, Live365 purchases several keyword advertising opportunities on search engines, such as Google, to draw new users to the site to increase the potential pool for new subscribers.

25. Live365's internet radio leverages its webcasters and some 7,300 additional registered online marketing affiliates through its participation in the Commission Junction affiliate sales platform. Through this program, Live365 provides various types of VIP advertising spots and banners for these affiliates to place on their websites and stations. In exchange for promoting Live365's VIP membership offering, Live365 pays these affiliates a 25% commission of the initial VIP sale if a listener signs up through an ad placed on the affiliates' site or stream. In addition,

Live365 webcasters earn revenue by attracting VIP subscribers to their stations. Currently, listeners may become Live365 VIP members for $4.95 to $7.95 per month depending on the length of the subscription (one-month to two-year packages).

26. Despite Live365's extensive efforts to attract subscribers, subscriber churn rates have increased and new subscriber acquisition rates have decreased since 2007, resulting in a net loss of subscribers month after month. This trend is partly due to a reduction of content choices provided by fewer stations, but also because of more free alternatives (i.e., ad or venture supported internet radio sites) available to consumers. As of June 2009, subscription levels have fallen 24% from its highpoint of 58,104 in August 2007. Although these subscribers represent less than 2% of Live365's audience, they account for 23.5% of its streaming ATH and nearly two-thirds of its internet radio revenues.

THE BENEFITS OF AGGREGATION

27. Live365 has spent tens of millions of dollars developing and operating a streaming architecture that can aggregate tens of thousands of individual webcasters. These stations are setup and programmed by individual hobbyists, music fans, record labels, schools, faith-based organizations, and other distinct communities. Live365 provides each of them access to a [redacted] licensed webcast platform, while keeping the service affordable because of Live365's aggregated internet radio network. Since 2002, Live365 has enabled over 38,000 paying individual webcasters to broadcast according to their musical tastes and personal interests.

28. The diversity of these individual programmers is reflected in the variety of their programming. Specifically, the 7,000+ currently broadcasting Live365 internet radio stations are organized into over 260 music genres. *See* Floater Exhibit 1 (directory of Live365's genre

selections). In addition, performance reports from these Live365 stations show that over 300,000 different artists' works were played in a recent quarter.

29. The average Live365 webcaster streams under 2,000 ATH per month yet has 480 different tracks in their individual music libraries. The combination of these webcasts' individual libraries total over 4.5 million music tracks. These webcasters provide revenue to a wide range of artists and copyright owners by acquiring these tracks, generating royalties from their performances, and providing exposure to millions of interested listeners – an opportunity that Live365's aggregation facilitates.

30. Live365 stations generate direct revenues for the copyright owners in several other ways. For example, Live365 has a "click-to-buy" function in its player that allows listeners to purchase music (both digital downloads and physical CDs) from the two largest online music retailers, i.e., Apple's iTunes and Amazon.com. *See* Floater Exhibit 2 (screenshot of the "click-to-buy" feature on Live365's streaming players). Live365's "click-to-buy" feature, located within the player window next to the currently performing artist name and song title, has generated [redacted] $1.3 million[4] in retail sales for the music industry over the past several years. It is also worth noting that in a recent quarter, 90% of these sales represent purchases of different recordings.

31. Live365's internet radio service also provides additional promotional opportunities for copyright owners to reach the millions of listeners that tune into the thousands of aggregated webcasts. One such benefit is through Live365's shared Broadcaster Music Library, which is a library of music (currently containing 116,132 tracks) provided by artists and labels for the purpose of making their music available for Live365 broadcasters to include in their webcast. The shared Broadcaster Music Library uses a proprietary "sideload" feature which protects the work from

[4] This figure represents only sales of CDs and digital downloads; it does not include sales of other music-related merchandise.

unauthorized download while making musical works available for webcast, hence providing promotional exposure.

32. Artists and copyright holders actively seek out Live365's promotional benefit by submitting their CDs and digital files to be included in the Broadcaster Music Library and ***waiving*** the digital performance sound recording royalties. Live365 receives hundreds, if not thousands, of such submissions a year. In fact, through Live365's arrangement with GarageBand Records, artists pay $200 and expressly *waive* digital performance royalties to include their performances in the shared Broadcaster Music Library, and receive promotional advertising with webcasters and listeners. *See, e.g.*, Floater Exhibit 3 (Live365 License Agreement with GarageBand). Live365 has entered into other similar deals with independent labels and artists whereby the copyright holder has *waived* the digital performance royalties in exchange for promotion of the artists on Live365's network. *See, e.g.*, Floater Exhibit 4 (Live365/INgrooves License Agreement), Exhibit 5 (Live365/DMI License Agreement), and Exhibit 6 (Live365/Soleilmoon License Agreement).

33. Live365 has also entered into deals with distribution alliance entities such as Ioda and Iris. These entities provide thousands of artists' tracks, without the typical purchase and upload costs, in exchange for airplay statistics (i.e., performances, buy clicks, ratings), placement in the shared Broadcaster Music Library and promotion by Live365 in our network – i.e., audio ads, email newsletters and placement in the "Featured" section of the Music Library.

34. Live365 further promotes artists on its *Music Library* and *Recommendations* web pages by highlighting artists and genres each month and by providing artists information, audio samples, purchase links and performances in webcaster's playlists. These artist *Recommendations* are also included in Live365's newsletters to over one million listeners and 5,000 webcasters.

35. In addition, Live365's broadcast tools and services enable broadcasters to economically and efficiently stream their programming [redacted] Live365's broadcast aggregation creates an expansive network of internet radio stations with a myriad of music variety, drawing millions of listeners. [redacted] Through aggregation, Live365 monetizes small and large broadcasters in ways that are unrealistic without such a service. For example, most, if not all, of our broadcasters would be unable to generate sufficient revenues to pay royalties. Our small webcasters effectively are denied access to internet radio advertising networks because they do not have the requisite technological capabilities (i.e. trafficking integration), audience measurement, impression data collection, and monthly minimums of at least 1 million ATH, all of which are important to advertisers and agencies. However, any broadcaster, regardless of size, can access these vital advertising networks upon joining Live365 because of the scale and exposure afforded by Live365's aggregation.

36. Live365's aggregation helps broadcasters contain their costs, as they can access Live365's internet radio infrastructure, software, technological expertise, compliance monitoring, and performance measuring tools. For example, a Live365 webcaster can stream his or her internet radio station without buying a server or subscribing to a dedicated broadband line because Live365 offers the needed resources for as low as $10 per month. Ultimately, Live365 allows small webcasters to broadcast content [redacted] while generating increased performances, sales, royalties and promotional benefits for a wide range of artists and copyright holders.

I declare under the penalty of perjury that the foregoing is true and correct.

Johnnie Floater

LIVE365 Stations Genre Selections

- **Alternative**
  - Britpop
  - Classic Alternative
  - College
  - Dancepunk
  - Dream Pop
  - Emo
  - Goth
  - Grunge
  - Indie Pop
  - Indie Rock
  - Industrial
  - Lo-Fi
  - Modern Rock
  - New Wave
  - Noise Pop
  - Post-Punk
  - Power Pop
  - Punk

- **Blues**
  - Acoustic Blues
  - Chicago Blues
  - Contemporary Blues
  - Country Blues
  - Delta Blues
  - Electric Blues
  - Cajun/Zydeco

- **Classical**
  - Baroque
  - Chamber
  - Choral
  - Classical Period
  - Early Classical
  - Impressionist
  - Modern
  - Opera
  - Piano
  - Romantic
  - Symphony

- **Country**
  - Alt-Country
  - Americana
  - Bluegrass
  - Classic Country
  - Contemporary Bluegrass
  - Contemporary Country
  - Honky Tonk
  - Hot Country Hits
  - Western

- **Easy Listening**
  - Exotica
  - Lounge
  - Orchestral Pop
  - Polka

- **Electronic/Dance**
  - Acid House
  - Ambient
  - Big Beat
  - Breakbeat
  - Disco
  - Downtempo
  - Drum 'n' Bass
  - Electro
  - Garage
  - Hard House
  - House
  - IDM
  - Jungle
  - Progressive
  - Techno
  - Trance
  - Tribal
  - Trip Hop

- **Folk**
  - Alternative Folk
  - Contemporary Folk
  - Folk Rock
  - New Acoustic
  - Traditional Folk
  - World Folk

- **Freeform**
  - Chill
  - Experimental
  - Heartache
  - Love/Romance
  - Music To ... To
  - Party Mix
  - Patriotic
  - Rainy Day Mix
  - Reality
  - Shuffle/Random
  - Travel Mix
  - Trippy
  - Various
  - Women
  - Work Mix

- **Hip-Hop/Rap**
  - Alternative Rap
  - Dirty South
  - East Coast Rap
  - Freestyle
  - Gangsta Rap
  - Old School
  - Turntablism
  - Underground Hip-Hop
  - West Coast Rap

- **Inspirational**
  - Christian
  - Christian Metal
  - Christian Rap
  - Christian Rock
  - Classic Christian
  - Contemporary Gospel
  - Gospel
  - Praise/Worship
  - Sermons/Services
  - Southern Gospel
  - Traditional Gospel

- **International**
  - African
  - Arabic
  - Asian
  - Brazilian
  - Caribbean
  - Celtic
  - European
  - Filipino
  - Greek
  - Hawaiian/Pacific
  - Hindi
  - Indian
  - Japanese
  - Jewish
  - Mediterranean
  - Middle Eastern
  - North American
  - Soca
  - South American
  - Tamil
  - Worldbeat
  - Zouk

- **Jazz**
  - Acid Jazz
  - Avant Garde
  - Big Band
  - Bop
  - Classic Jazz
  - Cool Jazz
  - Fusion
  - Hard Bop
  - Latin Jazz
  - Smooth Jazz
  - Swing
  - Vocal Jazz
  - World Fusion

- **Latin**
  - Bachata
  - Banda
  - Bossa Nova
  - Cumbia

- **Latin *(continued)***
  - Latin Dance
  - Latin Pop
  - Latin Rap/Hip-Hop
  - Latin Rock
  - Mariachi
  - Merengue
  - Ranchera
  - Salsa
  - Tango
  - Tejano
  - Tropicalia

- **Metal**
  - Extreme Metal
  - Heavy Metal
  - Industrial Metal
  - Pop Metal/Hair
  - Rap Metal

- **New Age**
  - Environmental
  - Ethnic Fusion
  - Healing
  - Meditation
  - Spiritual

- **Oldies**
  - 30s
  - 40s
  - 50s
  - 60s
  - 70s
  - 80s
  - 90s

- **Pop**
  - Adult Contemporary
  - Barbershop
  - Bubblegum Pop
  - Dance Pop
  - JPOP
  - Soft Rock
  - Teen Pop
  - Top 40
  - World Pop

- **R&B/Urban**
  - Classic R&B
  - Contemporary R&B
  - Doo Wop
  - Funk
  - Motown
  - Neo-Soul
  - Quiet Storm
  - Soul
  - Urban Contemporary

- **Reggae**
  - Contemporary Reggae
  - Dancehall
  - Dub
  - Pop-Reggae
  - Ragga
  - Reggaeton
  - Rock Steady
  - Roots Reggae
  - Ska

- **Rock**
  - Adult Album Alternative
  - British Invasion
  - Classic Rock
  - Garage Rock
  - Glam
  - Hard Rock
  - Jam Bands
  - Prog/Art Rock
  - Psychedelic
  - Rock & Roll
  - Rockabilly
  - Singer/Songwriter
  - Surf

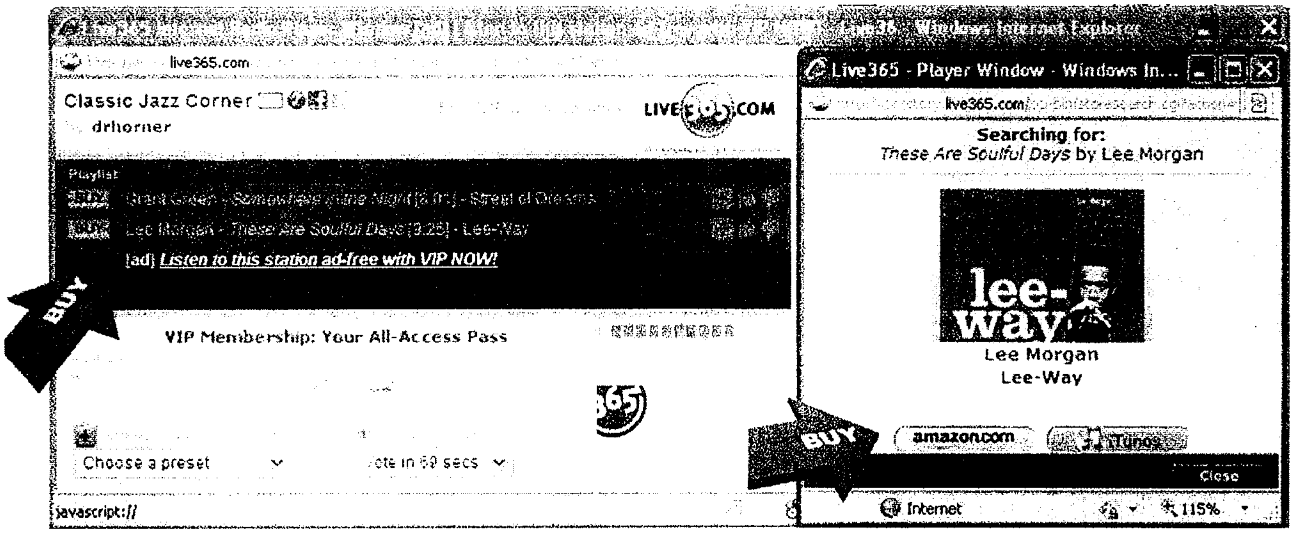
- **Seasonal/Holiday**
  - Anniversary
  - Birthday
  - Christmas
  - Halloween
  - Hanukkah
  - Honeymoon
  - Valentine
  - Wedding

- **Soundtracks**
  - Anime
  - Children's/Family
  - Original Score
  - Showtunes

- **Talk**
  - Comedy
  - Community
  - Educational
  - Government
  - News
  - Old Time Radio
  - Other Talk
  - Political
  - Scanner
  - Spoken Word
  - Sports

Live365 "*click to buy*" Feature

FREE PLAYER : Player 365 (*ad supported listening*)



VIP PLAYER : Radio365 (*subscription only*)

3

LIVE365, INC. LICENSE AND RELEASE AGREEMENT

This License and Release Agreement ("Agreement"), effective as of 1 April, 2004 (the "Effective Date"), is made by and between Live365, Inc. ("Live365') and Evolution Artists, Inc dba GarageBand Records ("GB"). GB intends to submit sound recordings contained within GB's entire catalog to Live365 for purposes of inclusion in webcasts generated through Live365. GB hereby makes the following representations and warranties, and grant the following rights to Live365 and each of its affiliates, successors, parents, subsidiaries, assigns, Licensors, and designees (individually and collectively, "**Live365**"):

Representations and Warranties

GB represents and warrants as follows with respect to each of the Sound Recordings contained within the GB catalog and submitted by GB to Live365 for posting on the Live365 website (the "**Site**"):

(a) GB owns or controls sufficient rights in and to the Sound Recordings contained in the GB catalog to waive the statutory royalties from the digital performance of the Sound Recordings through the Live365 Network and/or Live365's users in accordance with this Agreement.

(b) GB warrants that the Sound Recordings being submitted to Live365 do not infringe upon the copyright or any other statutory or common-law intellectual property rights (including without limitation trademark, service mark, and trade name rights), proprietary rights (including without limitation trade secrets), or rights of privacy or publicity of any third party.

(c) GB has not sold, assigned, transferred, or otherwise encumbered any part of its right, title, and interest in and to the Sound Recordings in a manner that would interfere or conflict with its right to grant the license to Live365 contained herein. No other person, firm, corporation, or other entity has or has had any claims or has claimed any right, title, or interest in or to the Sound Recordings that would interfere or conflict with GB's right to grant the license to Live365 contained herein. Without limiting the foregoing provisions of this paragraph 4, GB has the full right, power and authority to enter into, and grant all rights conferred upon Live365 pursuant to, this Agreement.

Grant of Rights

In consideration for inclusion of GB's catalog into the Live365 Music Library and/or the promotion of GB's catalog to Live365's users, GB hereby grants Live365 a non-exclusive, worldwide, fully paid-up license to:

(a) Reproduce, distribute, perform publicly, display publicly, and perform digitally the Sound Recordings in whole or in part, to the extent deemed necessary by Live365, in its sole discretion, solely in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365 as related to the license or use of GB's catalog;

ll

(b) Use any trademarks, service marks or trade names incorporated in the Sound Recordings or associated with any artists, producers or other individuals whose performances are embodied in the Sound Recordings, to the extent deemed necessary by Live365, in its sole discretion, in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365 as related to the license or use of GB's catalog; and

(c) Use the name and likeness of any artists, producers or other individuals whose performances are embodied in the Sound Recordings, to the extent deemed necessary by Live365, in its sole discretion, in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365 as related to the license or use of GB's catalog.

GB acknowledges and agrees that users of the Site creating their own programs for transmission via the Site shall be permitted to make the same uses of the Sound Recordings that Live365 is permitted to make pursuant to the terms of this Agreement.

This license shall apply, at any time during the term of this agreement, to all Sound Recordings that are in the GB catalog at that time, including Sound Recordings which may have been added to the GB catalog at some point subsequent to the effective date of this agreement.

GB shall provide Live365 with 30 days written notice of any Sound Recordings for which GB no longer has the right to waiver digital performance royalties, for example if such Sound Recordings are no part of the GB catalog.
Without limiting any other provision of this Agreement, Live365 shall not be obligated to obtain any other license, from any person, firm, corporation or other entity, in connection with the exploitation or use of any of the Sound recordings, trademarks, trade names, names and likenesses, and/or any other rights granted by you to Live365 in this Agreement, in any country or territory of the world, including, without limitation, any performance right organization, mechanical royalty collection organization or society (including the Harry Fox Agency and NMPA), music publisher, administrator, record label or other company. You further agree and acknowledge that Live365 is not a signatory to any collective bargaining agreement and is not obligated to make any payments under any such agreement.

Terms and Conditions

Following are the terms and conditions subject to this Agreement for which Live365 will have license to Sound Recordings contained in GB's entire catalog:

1. Upon the Effective Date of this Agreement, Live365 will have immediate access to the data records of all songs in GB's entire catalog.

2. Live365's Music Library will offer the data records of the top 1% of songs according to GB's rating system and songs that are under sales or promotion agreements with GB as submitted by GB. Live365 may add other Sound Recordings from GB's catalog to the Music Library based on other criteria as determined by Live365.

M

3. The display of GB's Sound Recordings will be consistent with the display of the other tracks in Live365's Music Library, but may also include additional and ancillary information such as rating and reviews from GB in the metadata of the track, and at Live365's sole discretion. Within the description field of each Music Library entry, GB will have the right to specify HTML objects with custom information and graphics, including display of GB's 5-star rating, subject to reasonable editorial guidelines provided by Live365..

4. For the duration of the license, Live365 will make commercially reasonable efforts to promote use of GB's content to its end users. Such promotions can possibly include, but are not limited to, audio ads (to be provided by GB), newsletter mentions, featured placements, and service credits for Live365 users. Live365 will also ensure that GB receives at least equal treatment as compared to other aggregators of unsigned or independent artists and bands, provided that these aggregators do not offer more favorable terms to Live365 than those being offered by GB. If another aggregator offers more favorable terms, GB will have the option to retain equal treatment, by matching those terms.

5. Live365 and GB will agree upon a protocol for the transfer of data and metadata prior to GB's submission of any songs.

6. GB will work with Live365 to create song previews for Live356 users before adding it to their Live365 broadcast stations (with a 30 second MP3 clip or streaming of an entire song), as well as allow Live365 broadcasters to download songs that are authorized for downloading by GB. This authorization for each song is to be provided in the metadata sent by GB.

7. Not withstanding the provisions contained in the Representations and Warranties, GB grants a royalty free license to Live365 for broadcast of samples and full songs of the entire GB catalog. This license is also granted to Live365 users creating their own programs for transmission via the Site.

8. GB is eligible to participate in Live365's Affiliate Program and will receive a bounty for each referred user. The per-user bounty paid to GB will be equal to or greater than the highest bounty offered by Live365 to any other Affiliate Program participant.

9. Live365 will submit to GB a weekly chart of the most popular tracks from the GB catalog as used on Live 365 for display as a "Live365 Chart" on GB.

10. Live365 and GB will participate in a joint and mutually approved press release concerning the relationship between the two Parties.

<u>Statement of Intent of deeper relationship</u>

Live365 and GB presently intend to expand the relationship towards a second phase. This second phase would include: (1) ability for Live365 broadcasters to sideload tracks to their Live365 playlists directly from GB, (2) commitment from GB to aggressively promote Live365 usage to all its users for a significant period of time, (3) commitment from Live365 to aggressively promote GB and its music to all Live365 users for a significant period of time, and

l

(4) such other commitments as both parties will mutually agree upon. While nothing in this paragraph is legally binding, Live365 and GB presently intend to sign a second agreement committing to this deeper relationship within 6 months from the signing of this License Agreement and begin conversations about it immediately upon signing this agreement

Term and Termination

The term of the Agreement shall be for three (3) years from the effective date, with automatic renewal on a year-to-year basis thereafter. Notwithstanding anything contained in this Agreement to the contrary, Live365 reserves the right to refuse to post and/or to remove any or all of the Sound Recordings from its servers for any or no reason, including, without limitation, if Live365 determines that such action is necessary to comply with applicable laws, including the "notice and takedown" provisions of the Digital Millennium Copyright Act or any comparable legislation or rule of law in any jurisdiction of the world, or if such Sound Recordings infringe or violate, or are claimed to infringe or violate, the rights of any third party; are offensive; are in bad taste; are morally inappropriate; or are otherwise objectionable in any way. If Live365 refuses to post or removes any Sound Recording, they may maintain the terms of this License and Release Agreement by substituting another Sound Recording from the GB catalog.

Miscellaneous

GB agrees and acknowledges that, although Live365 intends only to make the Sound Recordings available for inclusion in webcasts streamed via the Live365 system, Live365 shall not be liable for any uses of the Sound Recordings by end users or any other third parties that are beyond the scope of the uses explicitly authorized by Live365.

GB agrees to sign such other and further documentation as may be required to effectuate the grant of rights and release contemplated herein. GB further agrees, promptly upon the reasonable request of Live365, to produce any and all documents and other evidence related to its rights in and to the Sound Recordings, including without limitation assignment agreements, licenses, administration agreements, releases, recording agreements, producer agreements, mechanical licenses and copyright registration certificates.

GB understands and agrees that the consideration recited in this Agreement is the complete consideration for the rights granted by it in this Agreement, and it shall not look to Live365 for any compensation or further consideration of any kind in connection with such rights granted by it.

The interpretation and enforcement of this Agreement shall be governed by the laws of the State of California, without recourse to its conflicts of laws principles. GB and Live365 agree that any and all disputes arising out of or related to this Agreement shall be resolved solely through binding arbitration pursuant to the provisions of this paragraph and the then-current rules of the American Arbitration Association (to the extent not inconsistent with this paragraph 11). Any arbitration arising out of or related to this Agreement shall be held in San Mateo County, Foster City, California, before one independent arbitrator agreed upon by both parties. Any arbitration will be final and binding, and the arbitrator's order will be entered and enforceable in any court of competent jurisdiction. The arbitrator will be chosen within thirty (30) days of the submission of any issue to arbitration, the discovery (if any) will be completed within sixty (60) days thereafter, the

£6

hearing will occur within thirty (30) days thereafter and the arbitrator must render his or her decision, in writing, within thirty (30) days after the end of such hearing.

GB's sole remedy for any breach of this Agreement by Live365 shall be an action at law for money damages, if any. In no event shall GB be entitled to injunctive or other equitable relief based on any act or omission of Live365, or any breach of this Agreement by Live365.

Live365's sole remedy for any breach of this Agreement by GB shall be an action at law for money damages, if any. In no event shall Live365 be entitled to injunctive or other equitable relief based on any act or omission of GB, or any breach of this Agreement by GB.

This Agreement constitutes the entire understanding of the parties with respect to the subject matter hereof. There are no understandings, agreements, conditions or representations, oral or written, express or implied, with reference to the subject matter hereof that are not merged herein, expressly referenced herein, or superceded hereby. Notwithstanding the preceding provisions of this paragraph, this Agreement incorporates by reference the terms of the Live365 Terms of Use (which are posted on the Site) as the same may be amended from time to time; provided, however, in the event of any inconsistencies between the Terms of Use and this Agreement related to the submission of Sound Recordings for posting on the Site, the terms of this Agreement shall be controlling.

This Agreement may only be modified or amended in a writing signed by GB and Live365.

Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture or other form of joint enterprise between GB and Live365.

The provisions of this Agreement are independent of each other and the invalidity of any provision or a portion thereof shall not affect the validity or enforceability of any other provision. In the event that any particular provision is found to be invalid or unenforceable, such provision shall be deemed to have been replaced with a valid and enforceable provision that approximates as closely as possible the intent of the parties as reflected in the original provision.

Any delay or failure on the part of either party to enforce any rights hereunder to which it may be entitled shall not be construed as a waiver of the right and privilege to do so at any subsequent time.

GB indemnifies and holds harmless Live365, and the officers, directors and employees of Live365, from, against and in respect of any and all demands, claims, actions or causes of action, liabilities, losses, and expenses, including reasonable attorneys' fees, arising out of or relating to any breach by you of any covenant, representation or warranty made under the terms of this Agreement.

Live365 indemnifies and holds harmless GB, and the officers, directors and employees of GB, from,. against and in respect of any and all demands, claims, actions or causes of action, liabilities, losses, and expenses, including reasonable attorneys' fees, arising out of or relating to any breach by Live365 of any covenant, representation or warranty made under the terms of this Agreement.

ll

All provisions which must survive in order to give effect to their meaning, shall survive any expiration or termination of this Agreement, including without limitation all of GB's representations, warranties and indemnification obligations.

EXCEPT AS SPECIFIED IN THIS AGREEMENT, LIVE365 DOES NOT MAKE ANY WARRANTY IN CONNECTION WITH THE SUBJECT MATTER OF THIS AGREEMENT AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE REGARDING SUCH SUBJECT MATTER. IN NO EVENT WILL LIVE365 BE LIABLE TO YOU FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, WHETHER OR NOT LIVE365 HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This Agreement is entered into for good and valuable consideration, the receipt and sufficiency of which is acknowledged.

AGREED TO and IN WITNESS WHEREOF, the parties have entered into this Agreement as of the date set forth below,

LIVE365, INC.	GarageBand:
By: [signature]	By: [signature]
Name (print): Raghav Gupta RAGHAV GUPTA	Name (print) Ali Partovi
Title: COO	Title: CEO
Date: 1 April 2004	Date: 1 April 2004

LIVE365, INC. LICENSE AND RELEASE AGREEMENT

The following Terms and Conditions are sometimes referred to as the "**License Agreement**" and are between Live365, Inc. ("**Live365**") and the undersigned client ("**Licensee**"). This License Agreement is effective as of the 26 day of August, 2004 ("Effective Date"). By submitting your Sound Recordings to Live365 for purposes of inclusion in webcasts generated through the Live365 system, you hereby make the following representations and warranties, and grant the following rights to Live365 and each of its affiliates, successors, parents, subsidiaries, assigns, licensees, and designees (individually and collectively, "**Live365**"):

Representations and Warranties

Licensee represents and warrants as follows with respect to each of the Sound Recordings submitted by Licensee for posting on the Live365 website (the "**Site**"):

1. Licensee owns or controls all rights in and to the Sound Recordings delivered to Live365.

2. Licensee waives the statutory royalties from the digital performance of the Sound Recordings through the Live365 Network and/or Live365's users in accordance with this License Agreement.

3. Licensee warrants, to the best of its knowledge as of the Effective Date, that the Sound Recordings being submitted to Live365 do not infringe upon the copyright or any other statutory or common-law intellectual property rights (including without limitation trademark, service mark, and trade name rights), proprietary rights (including without limitation trade secrets), or rights of privacy or publicity of any third party.

4. As of the Effective Date, Licensee has not sold, assigned, transferred, or otherwise encumbered any part of its right, title, and interest in and to the Sound Recordings in a manner that would interfere or conflict with its right to grant the license to Live365 contained herein. No other person, firm, corporation, or other entity has or has had any claims or has claimed any right, title, or interest in or to the Sound Recordings that would interfere or conflict with Licensee's right to grant the license to Live365 contained herein. Without limiting the foregoing provisions of this paragraph 4, Licensee has the full right, power and authority to enter into, and grant all rights conferred upon Live365 pursuant to, this License Agreement.

Grant of Rights

5. In consideration for inclusion of Licensee's repertoire into the Live365 Music Library and/or the promotion of Licensee's repertoire to Live365's users, Licensee hereby grants Live365 a non-exclusive, worldwide, fully paid-up license to:

   (a) Perform publicly, display publicly, and perform digitally the Sound Recordings in whole or in part, to the extent deemed necessary by Live365, in its sole discretion, solely in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365;

(b) Use any approved trademarks, service marks or trade names incorporated in the Sound Recordings or associated with any artists, producers or other individuals whose performances are embodied in the Sound Recordings, to the extent deemed necessary by Live365, in its sole discretion, in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365; and

(c) Use the approved name and likeness of any artists, producers or other individuals whose performances are embodied in the Sound Recordings, to the extent deemed necessary by Live365, in its sole discretion, in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365.

Licensee acknowledges and agrees that users of the Site creating their own programs for transmission via the Site shall be permitted to make the same uses of the Sound Recordings that Live365 is permitted to make pursuant to the terms of this License Agreement.

Term and Termination

6. The initial term of the License Agreement shall be for one (1) year, from the effective date, with automatic renewal on a month-to-month basis thereafter. Licensee may terminate this License Agreement at any time after the initial term for a particular artist within the Licensee's repertoire, and without cause, by providing Live365 with 30 days' notice. Notwithstanding anything contained in this License Agreement to the contrary, Live365 reserves the right to refuse to post and/or the right to remove any or all of the Sound Recordings from its servers for any or no reason, including, without limitation, if Live365 determines that such action is necessary to comply with applicable laws, including the "notice and takedown" provisions of the Digital Millennium Copyright Act or any comparable legislation or rule of law in any jurisdiction of the world, or if such Sound Recordings infringe or violate, or are claimed to infringe or violate, the rights of any third party; are offensive; are in bad taste; are morally inappropriate; or are otherwise objectionable in any way.

Miscellaneous

7. All non-licensing aspects of the relationship between Live365 and Licensee are covered in the Base Agreement.

8. Licensee agrees and acknowledges that, although Live365 intends only to make the Sound Recordings available for inclusion in webcasts streamed via the Live365 system, Live365 shall not be liable for any uses of the Sound Recordings by end users or any other third parties that are beyond the scope of the uses explicitly authorized by Live365.

9. Licensee agrees to make best efforts to sign such other and further documentation as may be required to effectuate the grant of rights and release contemplated herein, as long as such other documentation does not conflict with any other business practices of Licensee. Licensee further agrees, promptly upon the reasonable request of Live365, to produce any and all documents and other evidence related to its rights in and to the Sound Recordings, including without limitation assignment agreements, licenses, administration

agreements, releases, recording agreements, producer agreements, mechanical licenses and copyright registration certificates.

10. Licensee understands and agrees that the consideration recited in this License Agreement is the complete consideration for the rights granted by it in this License Agreement, and it shall not look to Live365 for any compensation or further consideration of any kind in connection with such rights granted by it.

11. The interpretation and enforcement of this License Agreement shall be governed by the laws of the State of California, without recourse to its conflicts of laws principles. Licensee and Live365 agree that any and all disputes arising out of or related to this License Agreement shall be resolved solely through binding arbitration pursuant to the provisions of this paragraph 11 and the then-current rules of the American Arbitration Association (to the extent not inconsistent with this paragraph 11). Any arbitration arising out of or related to this License Agreement shall be held in San Mateo County, Foster City, California, before one independent arbitrator agreed upon by both parties. Any arbitration will be final and binding, and the arbitrator's order will be entered and enforceable in any court of competent jurisdiction. The arbitrator will be chosen within thirty (30) days of the submission of any issue to arbitration, the discovery (if any) will be completed within sixty (60) days thereafter, the hearing will occur within thirty (30) days thereafter and the arbitrator must render his or her decision, in writing, within thirty (30) days after the end of such hearing.

12. Licensee's sole remedy for any breach of this License Agreement by Live365 shall be an action at law for money damages, if any. In no event shall Licensee be entitled to injunctive or other equitable relief based on any act or omission of Live365, or any breach of this License Agreement by Live365.

13. This License Agreement constitutes the entire understanding of the parties with respect to the subject matter hereof. There are no understandings, License Agreements, conditions or representations, oral or written, express or implied, with reference to the subject matter hereof that are not merged herein, expressly referenced herein, or superseded hereby. Notwithstanding the preceding provisions of this paragraph 12, this License Agreement incorporates by reference the terms of the Live365 Terms of Use (which are posted on the Site) as the same may be amended from time to time; provided, however, in the event of any inconsistencies between the Terms of Use and this License Agreement related to the submission of Sound Recordings for posting on the Site, the terms of this License Agreement shall be controlling.

14 This License Agreement may only be modified or amended in a writing signed by Licensee and Live365.

15. Nothing contained in this License Agreement shall be construed as creating any agency, partnership, joint venture or other form of joint enterprise between Licensee and Live365.

16. The provisions of this License Agreement are independent of each other and the invalidity of any provision or a portion thereof shall not affect the validity or enforceability of any other provision. In the event that any particular provision is found to be invalid or unenforceable, such provision shall be deemed to have been replaced with a valid and enforceable provision that approximates as closely as possible the intent of the parties as reflected in the original provision.

17. Any delay or failure on the part of Live365 to enforce any rights hereunder to which it may be entitled shall not be construed as a waiver of the right and privilege to do so at any subsequent time.

18. Licensee indemnifies and holds harmless Live365, and the officers, directors and employees of Live365, from, against and in respect of any and all demands, claims, actions or causes of action, liabilities, losses, and expenses, including reasonable attorneys' fees, arising out of or relating to any breach by you of any covenant, representation or warranty made under the terms of this License Agreement.

19. Live365 indemnifies and holds harmless Licensee, and the officers, directors and employees of Licensee, from, against and in respect of any and all demands, claims, actions or causes of action, liabilities, losses, and expenses, including reasonable attorneys' fees, arising out of or relating to any breach by you of any covenant, representation or warranty made under the terms of this License Agreement.

20. All provisions which must survive in order to give effect to their meaning, shall survive any expiration or termination of this License Agreement, including without limitation all of Licensor's representations, warranties and indemnification obligations.

21. EXCEPT AS SPECIFIED IN THIS LICENSE AGREEMENT, LIVE365 DOES NOT MAKE ANY WARRANTY IN CONNECTION WITH THE SUBJECT MATTER OF THIS LICENSE AGREEMENT AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE REGARDING SUCH SUBJECT MATTER. IN NO EVENT WILL LIVE365 BE LIABLE TO YOU FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, WHETHER OR NOT LIVE365 HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

22. This License Agreement is entered into for good and valuable consideration, the receipt and sufficiency of which is acknowledged.

AGREED TO and IN WITNESS WHEREOF, the parties have entered into this License Agreement as of the date set forth below.

LIVE365, INC.	LICENSEE: TAGrooves
By:	By:
Name (print): DAVID PORTER	Name (print) Ross A. McDaniels
Title: DIRECTOR	Title: CEO

Date:	Date: 8-26-04

Privileged & Confidential

INgrooves/Live365 Agreement
July 8, 2004

Objective

INgrooves: Radio airplay and exposure for its stable of independent labels and artists to support CD and download sales.

Live365: Quality content for the Live365 music library under a digital sound recording performance (DSRP) royalty waiver.

Term

- Three years, with 90-day termination by either party without cause
- Renews automatically for successive 1 year terms

Obligations

Live365
- Hosts music files provided by INgrooves
- Presents name of artist and track (and album if applicable), along with cover art, link to 30-second clip and "buy" link, in the applicable "music library" webpages of live365.com and, eventually, the Studio365 broadcasting application
- Includes a link to INgrooves for each track entry (see example at http://www.live365.com/cgi-bin/library.cgi)
- Offers Live365 DJs the ability to add tracks in the music library to their station playlists (no downloads, except through INgrooves' preferred download fulfillment partner)
- Provides a streaming audio solution for two 128kbps MP3 stations, available *only* to Live365's premium radio subscribers (preferred members, or "PMs")
- Offers download purchase from a DJ's (or INgrooves') playlist in the Live365 player window, fulfilled by INgrooves' preferred download fulfillment partner during term of waiver
- Reports airplay statistics (spins, listens, buy clicks, wishlists, ratings) for all INgrooves tracks in the music library as well as for the INgrooves stations, on at least a monthly basis
- Provides 100,000 genre-targeted audio ad placements over the first 3 months, promoting tracks in Music Library and/or INgrooves' premium radio channels on Live365
- Provides 2 track placements in the "Featured" section of the music library for at least 2 weeks apiece during the first 3 months
- Provides promotion of 2 tracks in at least 2 email newsletters to Live365 broadcasters
- Provides promotion of the INgrooves stations in at least 2 email newsletters to Live365 listeners, including Live365's "electronica" newsletter

Privileged & Confidential

- Provides promotion of the INgrooves stations on the Live365 electronica/dance homepage for a one-month period
- Pays INgrooves a share of PM subscription revenues, based on its relative proportion of PM listenership x the subscription "pool"
- Pays INgrooves a bounty of $4 for all listeners who click to listen to one of the INgrooves premium stations and then proceed to convert to PM

INgrooves

- Delivers to Live365, at INgrooves' expense, approximately 1000 tracks at commencement, with 20 new tracks added each month, in 320kbps MP3 and including metadata, cover art and 30-second samples
- Provides blanket DSRP royalty waiver for all tracks included the Live365 music library for one (1) year from date of delivery, as agreed in the Live365 License Agreement (Appendix)
    - After such time, artists may opt-out of this waiver by contacting Live365 directly
    - Live365 has the option of choosing the download provider for non-waived royalties
- Develops creative for the genre-targeted audio ad placements
- Maintains two INgrooves channels (e.g. Chillin', Rollin') in 128kbps MP3 using the Live365 broadcasting application

Both

- Issue a joint press release announcing partnership

Agreed upon by:

Live365, Inc.

[signature]	DIRECTOR	8/27/04
By DAVID PORTER	Title	Effective Date

INgrooves

[signature]	CEO	8-26-04
By Robert A McDaniel	Title	Effective Date

5

LIVE365, INC. LICENSE AND RELEASE AGREEMENT

The following Terms and Conditions are sometimes referred to as the "**Agreement**" and are between Live365, Inc. ("**Live365**") and the undersigned client ("**Licensee**"). This Agreement is effective as of the 1 day of [illegible], 2004 ("Effective Date"). By submitting your Sound Recordings to Live365 for purposes of inclusion in webcasts generated through the Live365 system, you hereby make the following representations and warranties, and grant the following rights to Live365 and each of its affiliates, successors, parents, subsidiaries, assigns, licensees, and designees (individually and collectively, "**Live365**"):

Representations and Warranties

Licensee represents and warrants as follows with respect to each of the Sound Recordings submitted by Licensee for posting on the Live365 website (the "**Site**"):

1. Licensee owns or controls all rights in and to the Sound Recordings delivered to Live365.
2. Licensee waives the statutory royalties from the digital performance of the Sound Recordings through the Live365 Network and/or Live365's users in accordance with this Agreement.
3. Licensee warrants that the Sound Recordings being submitted to Live365 do not infringe upon the copyright or any other statutory or common-law intellectual property rights (including without limitation trademark, service mark, and trade name rights), proprietary rights (including without limitation trade secrets), or rights of privacy or publicity of any third party.
4. Licensee has not sold, assigned, transferred, or otherwise encumbered any part of its right, title, and interest in and to the Sound Recordings in a manner that would interfere or conflict with its right to grant the license to Live365 contained herein. No other person, firm, corporation, or other entity has or has had any claims or has claimed any right, title, or interest in or to the Sound Recordings that would interfere or conflict with Licensee's right to grant the license to Live365 contained herein. Without limiting the foregoing provisions of this paragraph 4, Licensee has the full right, power and authority to enter into, and grant all rights conferred upon Live365 pursuant to, this Agreement.

Grant of Rights

5. In consideration for inclusion of Licensee's repertoire into the Live365 Music Library and/or the promotion of Licensee's repertoire to Live365's users, Licensee hereby grants Live365 a non-exclusive, worldwide, fully paid-up license to:

   (a) Reproduce, distribute, perform publicly, display publicly, and perform digitally the Sound Recordings in whole or in part, to the extent deemed necessary by Live365, in its sole discretion, solely in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365;

(b) Use any trademarks, service marks or trade names incorporated in the Sound Recordings or associated with any artists, producers or other individuals whose performances are embodied in the Sound Recordings, to the extent deemed necessary by Live365, in its sole discretion, in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365; and

(c) Use the name and likeness of any artists, producers or other individuals whose performances are embodied in the Sound Recordings, to the extent deemed necessary by Live365, in its sole discretion, in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365.

Licensee acknowledges and agrees that users of the Site creating their own programs for transmission via the Site shall be permitted to make the same uses of the Sound Recordings that Live365 is permitted to make pursuant to the terms of this Agreement.

Term and Termination

5. The initial term of the Agreement shall be for one (1) year, from the effective date, with automatic renewal on a month-to-month basis thereafter. Licensee may terminate this Agreement at any time for a particular artist within the Licensee's repertoire, and without cause, by providing Live365 with 30 days' notice. Notwithstanding anything contained in this Agreement to the contrary, Live365 reserves the right to refuse to post and/or to remove any or all of the Sound Recordings on its servers for any or no reason, including, without limitation, if Live365 determines that such action is necessary to comply with applicable laws, including the "notice and takedown" provisions of the Digital Millennium Copyright Act or any comparable legislation or rule of law in any jurisdiction of the world, or if such Sound Recordings infringe or violate, or are claimed to infringe or violate, the rights of any third party; are offensive; are in bad taste; are morally inappropriate; or are otherwise objectionable in any way.

Miscellaneous

7. Licensee agrees and acknowledges that, although Live365 intends only to make the Sound Recordings available for inclusion in webcasts streamed via the Live365 system. Live365 shall not be liable for any uses of the Sound Recordings by end users or any other third parties that are beyond the scope of the uses explicitly authorized by Live365.

8. Licensee agrees to sign such other and further documentation as may be required to effectuate the grant of rights and release contemplated herein. Licensee further agrees, promptly upon the reasonable request of Live365, to produce any and all documents and other evidence related to its rights in and to the Sound Recordings, including without limitation assignment agreements, licenses, administration agreements, releases, recording agreements, producer agreements, mechanical licenses and copyright registration certificates.

9. Licensee understands and agrees that the consideration recited in this Agreement is the complete consideration for the rights granted by it in this Agreement, and it shall not look to Live365 for any compensation or further consideration of any kind in connection with such rights granted by it.

10. The interpretation and enforcement of this Agreement shall be governed by the laws of the State of California, without recourse to its conflicts of laws principles. Licensee and Live365 agree that any and all disputes arising out of or related to this Agreement shall be resolved solely through binding arbitration pursuant to the provisions of this paragraph 11 and the then-current rules of the American Arbitration Association (to the extent not inconsistent with this paragraph 11). Any arbitration arising out of or related to this Agreement shall be held in San Mateo County, Foster City, California, before one independent arbitrator agreed upon by both parties. Any arbitration will be final and binding, and the arbitrator's order will be entered and enforceable in any court of competent jurisdiction. The arbitrator will be chosen within thirty (30) days of the submission of any issue to arbitration, the discovery (if any) will be completed within sixty (60) days thereafter, the hearing will occur within thirty (30) days thereafter and the arbitrator must render his or her decision, in writing, within thirty (30) days after the end of such hearing.

11. Licensee's sole remedy for any breach of this Agreement by Live365 shall be an action at law for money damages, if any. In no event shall Licensee be entitled to injunctive or other equitable relief based on any act or omission of Live365, or any breach of this Agreement by Live365.

12. This Agreement constitutes the entire understanding of the parties with respect to the subject matter hereof. There are no understandings, agreements, conditions or representations, oral or written, express or implied, with reference to the subject matter hereof that are not merged herein, expressly referenced herein, or superseded hereby. Notwithstanding the preceding provisions of this paragraph 12, this Agreement incorporates by reference the terms of the Live365 Terms of Use (which are posted on the Site) as the same may be amended from time to time; provided, however, in the event of any inconsistencies between the Terms of Use and this Agreement related to the submission of Sound Recordings for posting on the Site, the terms of this Agreement shall be controlling.

13. This Agreement may only be modified or amended in a writing signed by Licensee and Live365.

14. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture or other form of joint enterprise between Licensee and Live365.

15. The provisions of this Agreement are independent of each other and the invalidity of any provision or a portion thereof shall not affect the validity or enforceability of any other provision. In the event that any particular provision is found to be invalid or unenforceable, such provision shall be deemed to have been replaced with a valid and enforceable provision that approximates as closely as possible the intent of the parties as reflected in the original provision.

16. Any delay or failure on the part of Live365 to enforce any rights hereunder to which it may be entitled shall not be construed as a waiver of the right and privilege to do so at any subsequent time.

17. All notices and request in connection with this Agreement will be deemed given as of the day they are (i) deposited in the mail, postage prepaid, certified or registered, return receipt requested; or (ii) sent by overnight courier, charges prepaid, with a confirming fax, and addressed as set forth below, or to such other address as the party to receive the notice or request so designates by written notice to the other party.

Live365, Inc. 1291 E. Hillsdale Blvd, Suite 200 Foster City, CA 94404 Attn: Steve Chang	DMI 5105 Florin Perkins Road Sacramento, CA 95826 Attn: Peter Koulouris

18. Licensee indemnifies and holds harmless Live365, and the officers, directors and employees of Live365, from, against and in respect of any and all demands, claims, actions or causes of action, liabilities, losses, and expenses, including reasonable attorneys' fees, arising out of or relating to any breach by you of any covenant, representation or warranty made under the terms of this Agreement.

19. All provisions which must survive in order to give effect to their meaning, shall survive any expiration or termination of this Agreement, including without limitation all of Licensor's representations, warranties and indemnification obligations.

20. EXCEPT AS SPECIFIED IN THIS AGREEMENT, LIVE365 DOES NOT MAKE ANY WARRANTY IN CONNECTION WITH THE SUBJECT MATTER OF THIS AGREEMENT AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE REGARDING SUCH SUBJECT MATTER. IN NO EVENT WILL LIVE365 BE LIABLE TO YOU FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, WHETHER OR NOT LIVE365 HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

21. This Agreement is entered into for good and valuable consideration, the receipt and sufficiency of which is acknowledged.

AGREED TO and IN WITNESS WHEREOF, the parties have entered into this Agreement as of the date set forth below.

LIVE365, INC.	LICENSEE: DMI
By:	By:
Name (print): DAVID PORTER	Name (print) Peter Koulouris

Title: DIRECTOR	Title: Executive Vice President
Date: OCTOBER 5, 2004	Date: October 1, 2004

6

LIVE365, INC. LICENSE AND RELEASE AGREEMENT

The following Terms and Conditions are sometimes referred to as the "**Agreement**" and are between Live365, Inc. ("**Live365**") and the undersigned client ("**Licensee**"). This Agreement is effective as of the 1st day of April, 2005 ("Effective Date"). By submitting your Sound Recordings to Live365 for purposes of inclusion in webcasts generated through the Live365 system, you hereby make the following representations and warranties, and grant the following rights to Live365 and each of its affiliates, successors, parents, subsidiaries, assigns, licensees, and designees (individually and collectively, "**Live365**"):

Representations and Warranties

Licensee represents and warrants as follows with respect to each of the Sound Recordings listed on Attachment A and submitted by Licensee for posting on the Live365 website (the "**Site**"):

1. Licensee owns or controls all rights in and to the Sound Recordings listed in Attachment A.

2. Licensee waives the statutory royalties from the digital performance of the Sound Recordings through the Live365 Network and/or Live365's users in accordance with this Agreement.

3. Licensee warrants that the Sound Recordings being submitted to Live365 do not infringe upon the copyright or any other statutory or common-law intellectual property rights (including without limitation trademark, service mark, and trade name rights), proprietary rights (including without limitation trade secrets), or rights of privacy or publicity of any third party.

4. Licensee has not sold, assigned, transferred, or otherwise encumbered any part of its right, title, and interest in and to the Sound Recordings in a manner that would interfere or conflict with its right to grant the license to Live365 contained herein. No other person, firm, corporation, or other entity has or has had any claims or has claimed any right, title, or interest in or to the Sound Recordings that would interfere or conflict with Licensee's right to grant the license to Live365 contained herein. Without limiting the foregoing provisions of this paragraph 4, Licensee has the full right, power and authority to enter into, and grant all rights conferred upon Live365 pursuant to, this Agreement.

Grant of Rights

5. In consideration for inclusion of Licensees repertoire into the Live365 Music Library and/or the promotion of Licensee's repertoire to Live365's users, Licensee hereby grants Live365 a non-exclusive, worldwide, fully paid-up license to:

   (a) Reproduce, distribute, perform publicly, display publicly, and perform digitally the Sound Recordings in whole or in part, to the extent deemed necessary by Live365, in its sole discretion, solely in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365;

   (b) Use any trademarks, service marks or trade names incorporated in the Sound Recordings or associated with any artists, producers or other individuals whose performances are embodied in the Sound Recordings: to the extent deemed necessary by Live365, in its sole discretion, in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365; and

(c) Use the name and likeness of any artists, producers or other individuals whose performances are embodied in the Sound Recordings, to the extent deemed necessary by Live365, in its sole discretion, in connection with the webcasting of the Sound Recordings via the Site and the advertising, promotion and marketing of the Site and the services provided by Live365.

Licensee acknowledges and agrees that users of the Site creating their own programs for transmission via the Site shall be permitted to make the same uses of the Sound Recordings that Live365 is permitted to make pursuant to the terms of this Agreement.

Term and Termination

6. The term of the Agreement shall be for three (3) months from the effective date, with automatic renewal on a month-to-month basis thereafter. Licensee may terminate this Agreement at any time, and without cause, by providing Live365 with 30 days' notice. Notwithstanding anything contained in this Agreement to the contrary, Live365 reserves the right to refuse to post and/or to remove any or all of the Sound Recordings from its servers for any or no reason, including, without limitation, if Live365 determines that such action is necessary to comply with applicable laws, including the "notice and takedown" provisions of the Digital Millennium Copyright Act or any comparable legislation or rule of law in any jurisdiction of the world, or if such Sound Recordings infringe or violate, or are claimed to infringe or violate, the rights of any third party; are offensive; are in bad taste; are morally inappropriate; or are otherwise objectionable in any way.

Miscellaneous

7. Licensee agrees and acknowledges that, although Live365 intends only to make the Sound Recordings available for inclusion in webcasts streamed via the Live365 system, Live365 shall not be liable for any uses of the Sound Recordings by end users or any other third parties that are beyond the scope of the uses explicitly authorized by Live365.

8. Licensee agrees to sign such other and further documentation as may be required to effectuate the grant of rights and release contemplated herein. Licensee further agrees, promptly upon the reasonable request of Live365, to produce any and all documents and other evidence related to its rights in and to the Sound Recordings, including without limitation assignment agreements, licenses, administration agreements, releases, recording agreements, producer agreements, mechanical licenses and copyright registration certificates.

9. Licensee understands and agrees that the consideration recited in this Agreement is the complete consideration for the rights granted by it in this Agreement, and it shall not look to Live365 for any compensation or further consideration of any kind in connection with such rights granted by it.

10. The interpretation and enforcement of this Agreement shall be governed by the laws of the State of California, without recourse to its conflicts of laws principles. Licensee and Live365 agree that any and all disputes arising out of or related to this Agreement shal be resolved solely through binding arbitration pursuant to the provisions of this paragraph 11 and the then-

current rules of the American Arbitration Association (to the extent not inconsistent with this paragraph 11). Any arbitration arising out of or related to this Agreement shall be held in San Mateo County, Foster City, California, before one independent arbitrator agreed upon by both parties. Any arbitration will be final and binding, and the arbitrator's order will be entered and enforceable in any court of competent jurisdiction. The arbitrator will be chosen within thirty (30) days of the submission of any issue to arbitration, the discovery (if any) will be completed within sixty (60) days thereafter, the hearing will occur within thirty (30) days thereafter and the arbitrator must render his or her decision, in writing, within thirty (30) days after the end of such hearing.

11. Licensee's sole remedy for any breach of this Agreement by Live365 shall be an action at law for money damages, if any. In no event shall Licensee be entitled to injunctive or other equitable relief based on any act or omission of Live365, or any breach of this Agreement by Live365.

12. This Agreement constitutes the entire understanding of the parties with respect to the subject matter hereof. There are no understandings, agreements, conditions or representations, oral or written, express or implied, with reference to the subject matter hereof that are not merged herein, expressly referenced herein, or superseded hereby. Notwithstanding the preceding provisions of this paragraph 12, this Agreement incorporates by reference the terms of the Live365 Terms of Use (which are posted on the Site) as the same may be amended from time to time; provided, however, in the event of any inconsistencies between the Terms of Use and this Agreement related to the submission of Sound Recordings for posting on the Site, the terms of this Agreement shall be controlling.

13. This Agreement may only be modified or amended in a writing signed by Licensee and Live365.

14. Nothing contained in this Agreement shall be construed as creating any agency, partnership, joint venture or other form of joint enterprise between Licensee and Live365.

15 The provisions of this Agreement are independent of each other and the invalidity of any provision or a portion thereof shall not affect the validity or enforceability of any other provision. In the event that any particular provision is found to be invalid or unenforceable, such provision shall be deemed to have been replaced with a valid and enforceable provision that approximates as closely as possible the intent of the parties as reflected in the original provision.

16. Any delay or failure on the part of Live365 to enforce any rights hereunder to which it may be entitled shall not be construed as a waiver of the right and privilege to do so at any subsequent time.

17. Licensee indemnifies and holds harmless Live365, and the officers, directors and employees of Live365, from, against and in respect of any and all demands, claims, actions or causes of action, liabilities, losses, and expenses, including reasonable attorneys' fees, arising out of or relating to any breach by you of any covenant, representation or warranty made under the terms of this Agreement.

18. All provisions which must survive in order to give effect to their meaning, shall survive any expiration or termination of this Agreement, including without limitation all of Licensor's representations, warranties and indemnification obligations.

19. EXCEPT AS SPECIFIED IN THIS AGREEMENT, LIVE365 DOES NOT MAKE ANY WARRANTY IN CONNECTION WITH THE SUBJECT MATTER OF THIS AGREEMENT AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE REGARDING SUCH SUBJECT MATTER. IN NO EVENT WILL LIVE365 BE LIABLE TO YOU FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, WHETHER OR NOT LIVE365 HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

20. This Agreement is entered into for good and valuable consideration, the receipt and sufficiency of which is acknowledged.

AGREED TO and IN WITNESS WHEREOF, the parties have entered into this Agreement as of the date set forth below.

LIVE365, INC.	**LICENSEE:** SOLEILMOON
By:	By:
Name (print):	Name (print) CHARLES POWNE
Title:	Title: OWNER
Date:	Date: 3/9/2005

ATTACHMENT A

Please complete the following information:

1. Today's Date: 3/9/05

2. Licensee Information	
Name: Soleilmoon Recordings	Telephone: 503 335-0706
Address: PO Box 11500 Portland OR 97211	Fax: 503-335-0805
City, State, Zip:	e-mail address: charlesp@soleilmoon.com

3. Live365 makes sound recordings available to its users via a database of sound recordings residing on Live365's servers. By default, users may only stream a sample 30 seconds of any track prior to adding it to their playlists. To allow our users to stream the entire sound recording(s) listed below, for promotional purposes, please initial here: CH

4. Many Live365 users normalize the tracks in their programming (e.g. all tracks have the same volume, standardized pause between tracks, etc.). In order to normalize tracks, Live365 users require a full copy of the tracks. To allow our users to download a full copy of the sound recording(s) listed below, for promotional purposes, please initial here: CH

5. Live365 also provides a Free Promotional Downloads Section for users to download complete Sound Recordings. To allow Live365 users to download a full and complete copy of the sound recording(s) from the Free Promotional Downloads section, please initial here: CH

6. Please list the Sound Recordings you will be submitting under this License Agreement including any information on Artist, album, track, ISRC (International Standard Recording Code), other bar codes, or any other copyright in Live365's standard metadata form.

Before the
COPYRIGHT ROYALTY BOARD
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of	)	
	)	Docket No. 2009-1
	)	CRB Webcasting III
DIGITAL PERFORMANCE RIGHT IN SOUND	)	
RECORDINGS AND EPHEMERAL	)	
RECORDINGS	)	
	)	

CORRECTED & AMENDED TESTIMONY OF MARK R. FRATRIK, Ph.D.

I. BACKGROUND AND OVERVIEW OF TESTIMONY

A. Background[1]

I am Vice President of BIA/Kelsey, a division of BIA Advisory Services, LLC. In that position, I supervise the research efforts of the company that includes the analyzing and reporting on local radio, television, newspaper, and other related industries. In that role at BIA/Kelsey, I am responsible for the advertising revenue survey and resulting advertising revenue estimates for the radio, television, and newspaper industries that are part of the products and services provided by BIA/Kelsey. I am also involved in the national and local advertising revenue estimation process of BIA/Kelsey that covers the twelve media that constitutes the local media advertising marketplace.[2]

1 My curriculum vitae is attached to this report as Exhibit 1.

2 The twelve media covered are local newspapers, radio stations, television stations, direct mail, out-of-home, cable systems, online, print yellow pages, internet yellow pages, local magazines, mobile, and email marketing.

BIA has been involved in analyzing the radio and television industries for over 26 years. It provides both consulting and research on the radio and television industries as well as many related industries. BIA's publications and software products are relied upon by many industry analysts, including the Federal Communications Commission (FCC) and the U.S. Department of Justice. In fact, the FCC cites BIA as a source of information in determining compliance with its local radio ownerships regulations.

One of my responsibilities at BIA is to supervise the annual survey and publication on advertising revenue estimates generated for radio and television stations. The revenue estimates are based on all commercial television and commercial radio stations within the 301 Arbitron Metro Areas. The results are included in the BIA Advisory Service's quarterly publications, *Investing in Radio* and *Investing in Television*, as well as BIA Advisory Service's database software Media Access Pro™ which provides detailed information on these two industries.

As the public spokesperson for BIA/Kelsey, I am often interviewed by trade and public press on the BIA/Kelsey advertising revenue estimates as well as other industry issues. I frequently am invited to speak at industry conferences to discuss these revenue estimates and other industry issues, such as *Radio Ink's* annual Radio Industry Forecasting Conference and the annual Broadcast/Cable Financial Management Association Conference.

In addition to supervising the research efforts at BIA/Kelsey, I am also involved with many clients on a consulting basis. These consulting arrangements range from valuations of their properties for financing and tax reporting purposes to analyzing the economic impact on media companies of regulatory and policy changes. In addition, I have testified in several litigations related to the broadcasting and competitive industries.

Prior to starting at BIA in early 2001, I was the Vice President of Research and Planning at the National Association of Broadcasters (NAB). I began my tenure at NAB in February 1985 as the Director of Financial and Economic Research, and was promoted in 1991 to the position of Vice President. In both positions, I conducted research on the radio and television industries as well as other competing industries, concentrating on the economic performance of stations and the impact of regulatory decision on broadcasters. I was also personally responsible for the annual financial surveys conducted by the NAB of the commercial radio and television industries, overseeing the collection of data related to revenues and costs as well as the reporting of those results. The results of those surveys were the foundations of several annual reports on both industries describing their financial conditions.

Before I began at NAB, I was a staff economist at the Bureau of Economics at the Federal Trade Commission. In that role, I was involved in a number of litigations evaluating the competitive impact of proposed mergers and other industry practices. I also was involved in several studies examining the competitive impact of industry practices.

Since the Fall of 2002, I have also been an Adjunct Professor at The Johns Hopkins University's Master of Arts in "Communications in a Contemporary Society" program. In that role, I have taught a class titled "The Political Economy of Mass Communications," which covers the many different industries that constitute the mass communications sector today.

I received my Bachelor of Arts degree in economics (honors) and mathematics from the State University of New York at Binghamton in 1976. I received a Master of Arts in economics from Texas A&M University in 1978 and my Ph.D. in economics from Texas A&M University in 1981.

B. Overview of Testimony

I have been asked by Live365's counsel to analyze the market for webcasting services and to provide recommended rates for the compulsory licenses to be set in this proceeding under the statutory licenses set forth in 17 U.S.C. §§ 114 & 112. I understand that the rates should "most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and a willing seller."[3] In doing so, I have been asked to examine the economic assumptions about the commercial webcasting industry made in the last proceeding and compare them with the current economic conditions facing this industry. I have also been asked to provide the recommended rate for (1) the commercial webcasting industry and (2) an Aggregation Service.

It is my understanding that Live365 is proposing the creation of a new rate category for those transmitting services that aggregate hundreds, if not thousands, of independently operated small webcasters under one network. [redacted] This new category of transmission service is to be called "Aggregation Services."

To derive the commercial webcasting industry performance royalty rate,[4] I first examine the revenue and cost structure of a mature webcaster – in this case, Live365.

---

3 *See* 17 U.S.C. §§ 114(f)(2)(B) & 112(e)(4); *see also infra* Section III.

4 I reserve the right to amend my assumptions based upon any information learned in discovery.

Those costs include all of the operating costs except for the royalty rates to be paid to the copyright owners. Using the operating costs from Live365 and publicly available industry data on webcasting revenues, I then construct a range of revenues and costs for commercial webcasters. To calculate the appropriate performance royalty in all of these cases, I take into account a fair operating margin (measured as a percentage of revenues) for the webcaster. Combining those revenue, cost, and margin estimates, I am able to determine the value of the copyrighted works being webcasted and thus determine the appropriate per-performance royalty rate.

Once I have established the appropriate rate for the copyright owners, I then look at the other factors specified in the statute – i.e., the competitive and programming factors – and assess whether those factors suggest an increase or a decrease of the suggested rate.

In summary, I have concluded that the industry per performance royalty rate for commercial webcasters should be set a rate of $.0009 per performance for the period 2011 through 2015. This will allow commercial webcasters to survive economically, and represents the rate that they would have been willing to pay in a negotiated settlement between a willing buyer and a willing seller.

I also have concluded that the rate of $.0009 should remain constant throughout the upcoming five-year period. Competition for advertising revenues among traditional and online media outlets continues to increase, holding advertising rates down. The ability to charge higher prices for subscriptions to make up the difference is limited. Hence, on a per performance basis, there is little hope that the overall economic picture will significantly improve for commercial webcasters; thus, the value of the copyrighted works streamed on these webcasts will also not likely improve.

I also have concluded that the rate for an Aggregation Service should be 20% lower than the rate for commercial webcasters as that value represents both the administrative cost savings and economic benefits that aggregation services provide to the owners of the copyrights.

II. FRAMEWORK FOR ANALYZING THE WILLING BUYER & WILLING SELLER STANDARD

A. Mandatory Statutory Guidelines

I understand that, in an appeal of the last CRB webcasting proceeding, the U.S. Court of Appeals for the D.C. Circuit discussed the proper statutory guidelines that the Copyright Royalty Judges ***must*** follow in setting the royalty rates and terms for webcasting.[5] My understanding is that, in setting the reasonable rates and terms, the Copyright Royalty Judges must do the following:

- "distinguish among the different types of eligible nonsubscription transmission services then in operation";
- "include a minimum fee for each such type of service";
- "establish rates and terms that most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and a willing seller";
- "base [their] decision on economic, competitive and programming information presented by the parties";

[5] *See Intercollegiate Broadcast Sys., Inc. v. Copyright Royalty Bd.,* 571 F.3d 69, 73 (D.C. Circ. 2009), ("Congress required the Judges to follow certain statutory guidelines.")

- consider "whether the service may substitute for or may promote the sales of phonorecord or otherwise affect the copyright owner's other streams of revenue"; and
- consider "the relative roles of the copyright owner and the transmitting entity with respect to relative creative contribution, technological contribution, capital investment, cost, and risk."[6]

In addition, I understand the Judges ***may*** – but are not required to – consider comparable, voluntary license agreements that establish rates and terms for comparable types of digital audio transmission services. [7]

My analysis applies the mandatory statutory guidelines that the Judges ***must*** consider in determining the appropriate rates and terms of the statutory license. I am not aware of comparable, voluntary license agreements that would serve as an appropriate benchmark for an industry-wide rate. Therefore, I reserve the right to amend this statement upon completion of discovery or as relevant facts become available to me.

B. Willing Buyer / Willing Seller Standard

In addition to the above statutory guidelines, I understand that the CRB and the prior royalty-setting tribunal (the Copyright Arbitration Royalty Panel ("CARP")) have provided guidance about the "willing buyer" and the "willing seller." As discussed on page 30 in the CRB's *Final Determination of Rates And Terms* (dated April 23, 2007) – which quoted from the CARP's decision:

---

6 *Id.* at 73 (quoting from 17 U.S.C.§ 114 (f)(2)(B)).

7 *See id.* ("the Judges may consider the rates and terms for comparable types of digital audio transmission services and comparable circumstances under voluntary license agreements described in subparagraph (A))." *See also id.* at 79 ("nothing in the statute *requires* the Judges to consider any comparable agreements, let alone particular agreements.") (emphasis in original).

- The **willing buyers** "are the services which may operate under the webcasting license";
- The **willing sellers** "are record companies"; and
- The underlying **product** "consists of a blanket license for each record company which allows use of that record company's complete repertoire of sound recordings."

I have taken into account these definitions in my analysis.

III. SETTING OF INDUSTRY RATE FOR COMMERCIAL WEBCASTERS

A. Overview

With respect to the economics of the webcasting industry, it is essential to describe the expectations of this industry's growth at the time of the previous CRB proceedings (Webcaster II), and to determine whether any of those expectations were realized. Assumptions made by several of the SoundExchange experts indicated that this industry was poised for rapid growth. For example, James Griffin, a SoundExchange witness, stated in his direct statement that when compared to the information presented in the CARP proceeding of 2005,

> *". . .we know much more about the webcasting business, that it is booming and only expected to get better."*[8]

Dr. Michael Pelcovits, another SoundExchange witness, displayed great confidence that ad-supported webcasting services would be able to not only support the royalty rate he

---

[8] *See* Testimony of James H. Griffin, in the Matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2005-1 CRB DTRA, (hereafter referred to as "Griffin Testimony"), p 5.

put forth based on interactive subscription services, but reach the levels of revenue for terrestrial radio:

> *"As Dr. Brynjolfsson discusses, ad-support services have a higher up-side than subscription services and, as webcasters begin earning revenues closer to those of terrestrial radio. . . .ad-supported webcasting, on a per listener hour basis, will be more lucrative than subscription webcasting."*[9]

These experts' predictions on the expected growth, while optimistic, were not unique at the time of the proceeding and were in fact in line with independent assessments of the future of this industry by various analysts.

However, that expected growth in listeners and the resulting advertising and subscription revenues to commercial webcasters have not materialized. First, the number of listeners to these operations has not grown as expected. Second, the advertising revenues that were expected to grow both in absolute terms and in relative shares of commercial webcasters' total revenues have not reached the projected levels. By comparing those projections to the actual industry levels, and the specific levels seen by Live365 in recent years, one can appreciate the changing economics of this industry. It then follows that a calculated rate representing these changed conditions would result in a rate that would be lower than the rate determined by the CRB in Webcasting II.

The results from the actual experiences of commercial webcasters in recent years have to be considered with the backdrop of the entire advertising marketplace in mind.

---

9 *See* Rebuttal Testimony of Michael Pelcovits, in the Matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2005-1 CRB DTRA, September 2006, p. 15.

Many existing industries within this larger industry, such as terrestrial radio broadcasters, have seen their total industry revenues actually decrease in the face of the strong competition. New entrants, such as commercial webcasters, will find it very challenging to succeed in the face of this competition.

After providing a comparison between the actual industry experience and predictions, I continue the economic discussion by constructing a model proposing what an appropriate royalty rate should be. In that model, I use actual costs from a mature commercial webcaster (Live365), including all of the operating and fixed costs, except for the royalties to be paid to the copyright owners. The model also includes a fair operating margin (measured as a percentage of revenues) for these companies. By combining those costs with estimates of revenues, recognizing the changing marketplace, I can determine the value generated by the use of the copyrighted works that are streamed on these commercial webcasters. From that value, I can then determine the rate that would be appropriate for commercial webcasters to pay the copyright owners.

I then examine the remaining factors provided for in the statute. First, the competitive factor is examined. In this factor I take into account the competitiveness of both the advertising market as well as the market power exerted by the copyright owners. Second, I consider the programming of the commercial webcasters. Under this factor, my testimony will show that copyright owners benefit from the promotion of their works on the diverse playlists of commercial webcasters. Finally, I examine the relative contribution, investment, cost, and risk that the copyright owner and transmitting entity have taken. My analysis of all of these factors together warrants a reduction from the royalty rates established for the period 2006-2010.

B. Recent History Of The Commercial Webcasting Industry

In assessing the previous royalty proceeding and the final royalty rate for these copyrighted works, I am struck by the lofty expectations of many of the analysts at that time. Webcasting had grown from the time of the earlier Copyright Arbitration Royalty Panel, and the expectation was that usage was going to continue to skyrocket. Along with the expected increase in usage of webcasting services, there were expectations of tremendous increases in both the subscription and advertising revenues that would be generated.

However, what was overlooked, especially in those advertising revenue growth estimates, was the tremendous increase in competition from all advertising sources. The advertising market has seen an explosion in the number of available options for national and local businesses to get their messages out. Existing media outlets have felt the impact of this increased advertising competition and they are straining to continue growing. For example, from 2005 through 2008, total local radio station advertising decreased from $18.1 billion to $16.5 billion, a negative 3.1% compound annual growth rate.[10]

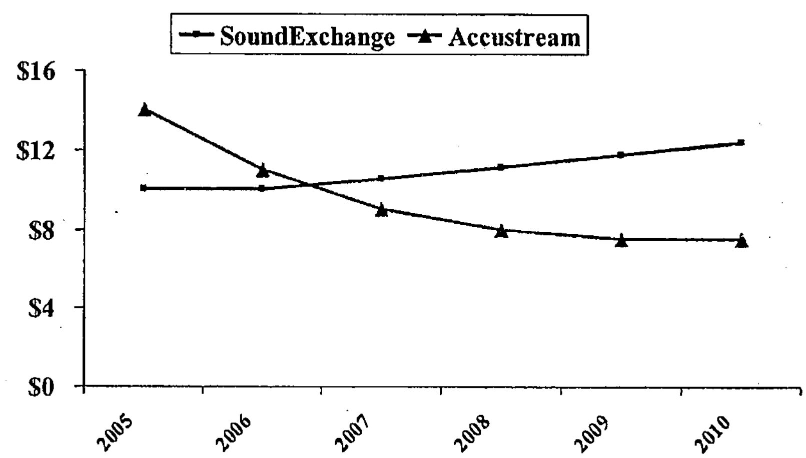
Excess inventory across the Internet radio advertising industry and the opportunities available for advertisers to get their messages out to the public has depressed, or at the very least, restricted the increases of CPM rates that webcasters can charge for their advertising inventory.

---

10 *See* Exhibit 2, *Investing in Radio: 2009*, 1st edition, BIA Advisory Services, 2009.

For example, SoundExchange's expert provided estimates of advertising rates (expressed in cost per thousands (CPMs)) for 2005 through 2010.[11] Figure 1 below shows the comparison of Audio CPMs between two different sources: (1) the projections of SoundExchange in 2005 for the period 2005-2010,[12] (2) and the estimates of AccuStream iMedia Research (a digital media industry research firm) in 2009 for the same period, including actual figures for 2005-2008.[13]

Figure 1
Analysis of Audio Advertising CPMs



SoundExchange's expert predicted an average 4.5% compound annual growth rate in CPMs for audio advertising during this time period, while AccuStream estimated a compound annual growth rate of negative 11.7%. As a point of comparison, Live 365

---

[11] Testimony of Erik Brynjolfsson, in the matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2005-1 CRB DTRA, October 2005, (hereafter referred to as Brynjolfsson Testimony) p.29.

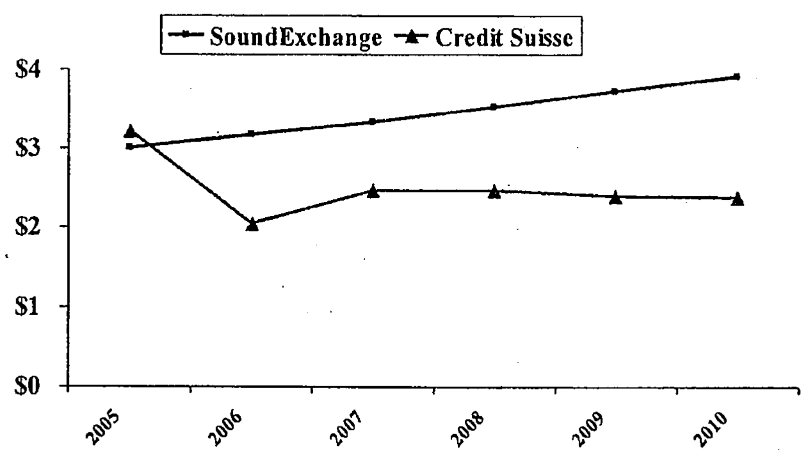
[12] The actual CPMs used in this comparison are the annual averages of the monthly values for each of the years.

[13] *See* Exhibit 3, *Online Music Spins and Media Spend: 2003-2012*, AccuStream iMedia Research, 2009, (hereinafter "AccuStream Report"), Section 3.

over the first three years of this time period has seen a 30% decrease, going from an average of $4.73 in 2006, to an average of $3.25 by 2009. *See* Floater Test. ¶10.

The value of other advertising inventories sold by webcasters was also predicted to grow at very high rates. Display advertisements sold by webcasters were expected to be a very strong growth area. Figure 2 below shows the comparison of display advertising CPMs between two different sources: (1) the projections of SoundExchange's expert in 2005 for the period 2005-2010,[14] (2) and the recent estimates of the investment banking firm Credit Suisse in early 2009 for the same period.[15]

Figure 2
Analysis of Display Advertising CPMs



[14] Brynjolfsson Test. (CRB II), p. 29.

[15] *See* Exhibit 4, *U.S. Advertising Outlook 2009*, Credit Suisse, January 9, 2009, (hereinafter "Credit Suisse Report"), p. 14.

Instead of an average 5.5% compound annual growth rate as SoundExchange's expert predicted, Credit Suisse estimated a compounded annual growth rate of negative 5.9% for the entire time period.[16]

Further, the expectation of listener growth has not come to fruition, especially for commercial webcasting. Where SoundExchange's expert estimated a 25% annual increase in the Aggregate Total Hours (ATH), Live365 and others have not seen such an increase.[17] Other experts also expected a tremendous increase in the number of listeners. For example, Bridge Ratings in early 2007 predicted that average monthly internet radio listeners would increase by 29.0% in 2008, followed by a 24.8% increase in 2009,[18] leading to a total listening level of 116.1 million listeners.[19] Yet, total listening levels did not increase to the levels predicted. According to Arbitron/Edison Research in its annual survey of audiences, total monthly listenership was only 69 million as of late 2008.[20]

The decreases in listenership was also documented in an analysis conducted by JP Morgan of the number of unique listeners going to pure-play Internet radio sites.[21] From

16 As a point of comparison, Live365 has also seen an average annual decrease of 20.1% from Calendar Year ("CY") 2005 to CY2008 in the CPMs that they receive for this form of advertising.

17 See Live365 and JP Morgan analysis discussions below for documentation of the slowdown in listening levels.

18 Bridge Ratings as cited in press release, February 19, 2007 and reprinted in *eMarketer Radio Trends: On Air and Online*, August 2007, p. 8. (*See* Exhibit 5, eMarketer Report August 2007). The Bridge Ratings monthly listener estimates for 2007 were 72.0 million, 2008: 93.0 million, and 2009: 116.1 million.

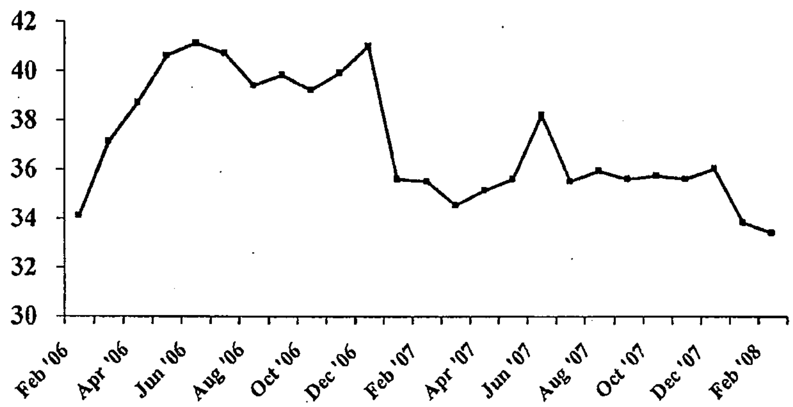
19 Note also that SoundExchange Witness James Griffin cites Bridge Ratings for the proposition that "Listenership – by all accounts – is projected to grow substantially. . . Industry analyst Bridge Ratings predicts that by 2010, 187 million people will listen to webcasting." Griffin Testimony, p. 56.

20 *See* Exhibit 6, *The Infinite Dial 2009*, Arbitron Inc./Edison Research, 2009, p.7.

21 *See* Exhibit 7, *Radio Broadcasting, Internet Radio Scorecard February '08: Terrestrial Radio's Share of Unique Visitors Hits 45%*, JP Morgan, North American Equity Research, 10 April 2008, p. 3. Note that in this same analysis, the number of Unique Listeners to terrestrial

a high of 41.1 million unique listeners going to pure-play sites in June 2006, that number decreased by 18.7% in only 20 months (33.4 million unique listeners as of February 2008).[22] Table 3 below replicates that analysis.

Figure 3
Unique Visitors to Pure Play Internet Radio Sites: February '06 – February '08



Source: JP Morgan, *"Radio Broadcasting, Internet Radio Scorecard February '08*, April 10, 2008

C. Economic Model Of The Appropriate Royalty Rate

Given this recent lackluster performance of the commercial webcasting industry, it is essential to reevaluate the actual costs incurred and revenues generated by commercial webcasters from the broadcasting of these copyrighted works over the recent royalty period (2006-2010). Once those costs and revenues are adjusted to represent the realities facing commercial webcasters, I can arrive at the value a willing buyer should

---

radio broadcasters' websites continued to increase from a value of 15.2 million unique listeners in February 2006 to 27.6 million unique listeners in February 2008, with much of that increase occurring in the later months of this analysis. Ibid.

22 JP Morgan stopped publishing monthly analysis of unique listeners following their April 2008 report.

have paid to stream those copyrighted works over the past few years. From that value, I can then determine the appropriate royalty rate on a per performance basis for the upcoming royalty period (2011-2015).

My analysis requires the following assumptions.[23] First, Live365 is a representative webcaster with respect to its operating costs. Live365 is a mature company, having operated its service for over ten years, and has reached a scale of operations to allow it to realize certain scale economies.[24] Live365 has been required in recent years to take many cost-cutting and cost-saving measures to remain a viable business yet is still a significant player in the industry in terms of listening hours and unique visitors. As a result, I assume that Live365's cost structure will serve as a good conservative proxy for the industry as it is a mature operator.[25]

Second, I assume that publicly available industry reports from AccuStream and ZenithOptimedia serve as the lower and upper bounds, respectively, on advertising revenue measurements for the past period.[26] *See* Exhibit 3 (AccuStream Report) and Exhibit 8 (ZenithOptimedia Report).

Third, I assume that revenue to a webcaster comes from two sources: subscription revenue and advertising. As a result, I calculate total revenue to a webcaster based on the

---

23 This report relies upon the most recent full year data (i.e. 2008) and does not rely upon any projections into the future.

24 According to AccuStream, Live365 is the eighth ranked webcasters in terms of their Aggregate Tuning Hours. *See* Exhibit 3, Section 2.

25 At this time, I am not aware of any public documents describing the costs incurred by other non-interactive commercial webcasters. Therefore, the use of Live365's costs is a conservative approach in estimating the costs of a typical webcaster and I reserve my right to amend my report in the event I obtain more information in discovery.

26 The webcasting industry has very few analysts currently covering the industry and to date I am only aware of these two reports. Should more information become available, I reserve my right to amend.

only data available to me at this time: Live365's subscription revenue and industry estimates of advertising revenues.

Finally, I assume that a commercial webcaster is entitled to a reasonable profit margin.

1. Revenues Generated by Live365 from Webcasting

Live365 receives revenue from two main sources of business, Broadcasting Services and Internet Radio.[redacted] *See* [redacted] Floater Test. ¶7. The Broadcasting Service business line relates to the services provided to commercial webcasters that allow them to operate as a webcaster (i.e. technology platform, software, tools, bandwidth and know-how). The Internet Radio business line relates to the business of providing streaming performances to listeners. At Live365, listeners consist of both non-subscribers (i.e. ad-supported listening) and subscribers (i.e. ad-free listening). Broadcasting revenue is not relevant to my analysis as it does not reflect a typical webcaster's revenue structure with regards to the streaming of audio content. Instead, Broadcasting revenue is synonymous with revenue that was obtained by a third party like Akamai, Liquid Compass or some other streaming service provider, which provides bandwidth and other technical services necessary for media content to be streamed over the internet. These companies are not subject to the sound recording performance royalty; rather, their revenue reflects payment for technical services. For Live365, this Broadcast Service revenue provides a reward for its intellectual property and innovation in developing a technology platform and software service to broadcasters.

[redacted]

As shown in Table 1 below, Live365's total U.S. royalty bearing Aggregate Tuning Hours ("ATH") equaled 74,663,541 during FY 2008 ended September 30, 2008.[28] [redacted] This number generated revenues of $2.962 million in domestic U.S. subscription revenues, $1.970 million in advertising revenues from ads targeted to U.S. listeners, and $.049 million in other revenues,[29] or a total of $4.981 million in revenues in FY2008. Dividing this total revenue by the number of Live365's total U.S. royalty bearing ATH, results in average revenue of $0.0667 per ATH for Live365 in FY2008.

2. Costs Incurred by Live365 and Value of Copyrighted Works Streamed by Live365

Because Live365 has two separate business lines, only one of which is relevant to my royalty analysis, I have to allocate Live365's costs to approximate the cost for webcasting the royalty-bearing ATH. Some of the costs incurred by Live365 fall exclusively within the operation of webcasting, while other costs are either shared with the provision of the Broadcast Services or relate to Live365's webcasting services that are not royalty bearing ATH. Table 1 shows the total allocated costs for FY 2008 as well as explanations on how these allocations were conducted. Note that these costs do not include any royalty payments for the sound recording performance rights of copyrighted works, as I am deriving that value in order to determine the appropriate royalty rate.

---

[28] This number represents the U.S. domestic share of Royalty Bearing ATH

[29] This includes CD and merchandise sales, library revenues, and other miscellaneous revenue sources.

Table 1[30] – Allocated Costs of Live365 for Webcasting to U.S. Listeners (FY2008)

	Amount	Note
U.S. Royalty-Bearing ATH	74,663,541	Represents 42.8% of Live365's worldwide ATH
Revenue		
Subscription Revenue	$2,962,006	
Advertising Revenue	$1,970,098	Represents 94.2% of Live365's worldwide advertising revenues
Other (CD & Merchandise, etc.)	$48,826	
Total Revenue	$4,980,930	Represents 84.5% of all revenue Live365 earns from Internet Radio Network and 49.5% of all of Live365's total revenue from all sources
Cost of Sales		
Royalties and licensing fees: ASCAP, BMI, SESAC, Thomson (MP3)	$285,097	84.5% of all of Live365's total royalties and licensing fees to ASCAP, BMI, SESAC, Thomson (MP3)
Bandwidth for Audio Streaming	$254,037	42.8% of Live365's total cost for bandwidth
Commissions to Advertising Rep Firms	$589,078	94.2% of Live365's total commissions to ad rep firms
IT Operations & Customer Service	$391,688	100% of IT & CS costs for all revenue sources
Others	$773,858	100% of other costs for all revenue sources
Total Costs of Sales	$2,293,759	
Operating Expenses[31]	$1,976,073	49.5% of operating expenses for all revenue sources
Total Costs & Expenses	$4,269,831	Cost of Sales + Operating Expenses
Costs & Expenses Per Live365 U.S. Royalty-Bearing ATH	$0.0572	

30 Table 1(a) in Appendix I details the same calculations using the allocated costs of Live365 for Fiscal Year 2009, which ended on September 30, 2009, after my initial report was submitted.

31 This category includes all of the other overhead expenses of Live365.

Live365 has made considerable investments in its infrastructure and staffing over its ten years of operation. [redacted] Like any business, it should be able to earn reasonable profits on that investment, which requires high enough operating margins to cover depreciation and taxes, among other things.

In order to estimate a reasonable operating profit margin, I have calculated that return on the basis of average ATH using varying margins as a percentage of revenues by multiplying these various percentages by the average revenue of $0.0667 per ATH earned by Live365 in FY2008 calculated earlier. Table 2 below shows the revenue per ATH and the total operating costs per ATH, along with a sensitivity analysis demonstrating a reasonable profit per domestic ATH for various margins without the royalty rate included for the copyrighted work. With those values, I can then determine the value of the copyrighted materials and the appropriate per performance rate.

Table 2[32] – Reasonable Operating Profit Margins, Resulting Operating Profit Per ATH, and Resulting Value Per Performance (Live365 Revenues & Costs)						
Revenue per ATH	$0.0667	$0.0667	$0.0667	**$0.0667**	$0.0667	$0.0667
Total Operating Costs & Expenses per ATH	$0.0572	$0.0572	$0.0572	**$0.0572**	$0.0572	$0.0572
Operating Margins as % of Revenues	5%	10%	15%	**20%**	25%	30%
Reasonable Profit Per Domestic ATH	$0.0033	$0.0067	$0.0100	**$0.0133**	$0.0167	$0.0200
Total Costs Per Domestic ATH	$0.0605	$0.0639	$0.0672	**$0.0705**	$0.0739	$0.0772
Value of Copyrighted Material Per ATH	$0.0062	$0.0029	($0.0005)	**($0.0038)**	($0.0072)	($0.0105)
Value Per Performance[33]	$0.0004	$0.0002	$0.0000	**($0.0003)**	($0.0005)	($0.0007)

To determine the value of the copyrighted works being streamed by Live365, and thus the appropriate royalty rate, I chose to use the 20% operating profit margin which is a conservative level. Other comparable industries earn substantially more than that. For example, companies in the terrestrial radio industry, even after suffering negative advertising growth in 2008 have operating margins in excess of this level.[34] Table 3

[32] Table 2(a) in Appendix I details the same calculations using Live365's FY2009 revenues and costs.

[33] This assumes 14 performances per hour.

[34] The revenues and EBITDA values are from finance.yahoo.com.

below shows the most recent financial results for eight different public radio companies.[35]

Table 3: Operating (EBITDA) Margins of Public Terrestrial Radio Companies			
Company	**Revenue (MM)**	**EBITDA (MM)**	**EBITDA Margin**
Beasley Broadcast Group	$107.2	$21.2	19.7%
Citadel Broadcasting	$775.1	$202.6	26.1%
Cumulus Media	$276.3	$74.9	27.1%
Emmis Communications	$310.9	$45.2	14.5%
Entercom Communications	$396.3	$108.8	27.4%
Radio One	$291.2	$78.4	26.9%
Salem Communications	$207.6	$52.0	25.1%
Saga Communications	$128.8	$28.6	22.2%
Median			**25.6%**
Average			**23.6%**

The average operating margin for these eight public companies owning terrestrial radio stations is 23.6% of their revenues, with the median at 25.6%. These margins are at these levels even after several years of poor industry advertising revenue growth, a negative 3.1% CAGR between the years 2005-2008.[36]

Given a 20% operating profit margin for Live365, the total costs on a per ATH basis would be $0.0705 (Total Operating Costs & Expenses per ATH of $0.0572 plus Reasonable Profit Per Domestic ATH of $0.0133). This is considerably higher than the revenue of $0.0667 per ATH for Live365 generated for domestic U.S. subscribers. This results in a negative value of $0.0038 per ATH of the copyrighted work (i.e. $0.0667

35 Note that Saga Communications also own a few television stations, and that RadioOne owns a share of TVOne a cable network, and that Emmis owns some local magazines and interests in international broadcasting operations.

36 *See* Exhibit 2, *Investing in Radio: 2009*, 1st edition, 2009, BIA Advisory Service.

minus $0.0705).[37] In other words, Live365's costs associated with streaming at a 20% profit margin are greater than its revenues **before** any royalties can even be paid to SoundExchange.

3. Economic Model for a Typical Commercial Webcaster

I used two publicly available estimates for total internet radio advertising revenues to determine what a typical webcaster generates in advertising revenues. Utilizing Live365's cost structure[38] and subscription revenue/hr, and taking into account the 20% operating profit margin discussed earlier, I am able to derive a resulting value for the copyrighted work.

a. Assessment of Industry Revenue (AccuStream Report)

The lower bound on industry revenue can be found in the publicly available estimate from AccuStream. In its industry study *Online Music Spins and Media Spend: 2003-2012* published in February 2009, this industry research firm provides estimates for advertising revenue in the webcasting industry.[39] AccuStream estimated total Monetizable Listening Hours for calendar year 2008 to be 2,950,635,987 [40] and

[37] Even at the lowest reasonable profit margin of 5%, the calculated value of the copyrighted work would only be $0.0062 per ATH, or $0.0004 per performance (assuming 14 performances per hour).

[38] At this time I have access only to the cost data of Live365. During discovery, I may gain access to other cost information. I reserve the right to amend these calculations after the discovery process.

[39] *See* Exhibit 3 (AccuStream Report), Section 3.

[40] That total listening hours excludes all of the hours for subscription listening which does not have any advertising.

$84,076,025 in total advertising revenues.[41] Dividing that total revenue estimate by the total listening hours results in an average advertising revenue per ATH of $[redacted]. 0.0285

Commercial webcasters also generate revenues from subscribers. However, AccuStream does not provide data on the revenue generated in the industry from subscribers. Therefore, to estimate these revenues on a per-listening-hour basis, I have to use the Live365 subscriber rates. Live365 earned on average $6.02 per subscriber in CY2008 per month,[42] and the average subscriber listened to approximately 40 hours per month.[43] *See* Floater Test. ¶¶11, 23. This results in an average subscriber revenue per ATH of $0.1505. I will be using this calculated number in the model going forward for all industry revenue projections. In order to calculate total industry revenues per ATH, I have to weigh the ad revenue per ATH based upon the AccuStream data with the subscription revenue per ATH derived from Live365 data. The values of the weights I applied to this calculation correspond to the hours consumed by both sets of customers. At Live365, subscribers account for 23.5% of the total ATH in CY2008.[44] *See* Floater

---

41 In Appendix II, I use the Accustream estimates for 2009 advertising revenues along with the Live365 cost estimates for their Fiscal Year 2009 that became available during the discovery period to provide a similar analysis.

42 During the course of discovery, SoundExchange, through its economic expert Dr. Pelcovits, provided a lower average monthly subscription price based on his investigation of multiple non-interactive services and their subscription offerings. Dr. Pelcovits calculated an average subscription price of $4.13. *See* SXW3_00003715 and Corrected Testimony of Michael D. Pelcovits, p. 25. I have applied this figure to my calculations in Appendices II (for AccuStream Amendments) and III (for ZenithOptimedia Amendments) resulting in a lower average subscription revenue per hour, and in turn, a lower value per performance.

43 SoundExchange's economic expert, Dr. Pelcovits, cited in his testimony the average number of plays for the webcaster Slacker of 563.36 plays per month per subscriber. *See* SXW3_Native_0009 (RESTRICTED).xls and Corrected Testimony of Michael D. Pelcovits, p. 32. Assuming 14 plays per hour, this results in an average number of hours of 40.24, confirming Live365's internal data.

44 During the course of discovery, SoundExchange has provided documentation that provides more data on the ratio between subscription and non-subscription reported performances. Specifically, SoundExchange's "Annual Webcasting – 2006-2009" Report states

Test. ¶26. Applying this 23.5% factor to subscriber revenue per ATH, and a 76.5% factor to the advertising revenue per ATH discussed above, results in a weighted value of total revenues per ATH of $0.0571.

To arrive at the value of the copyrighted works, I next apply the costs and total expenses per ATH from my Live365 analysis discussed earlier in Table 1. That $0.0572 per ATH value needs to be added to the appropriate profit per ATH, which I calculate as a percentage of revenues. Using the 20% reasonable profit margin as before, I arrive at a value of total costs of a typical webcaster at $0.0686 per ATH. Subtracting that from the total revenue per ATH of $0.0571 leads to a shortfall of $0.0115 per ATH.[45]

Table 4 below summarizes the above referenced steps.

---

that in 2008, the percentage of subscription performances was 22.70%, and dropped in 2009 to 10.13%. *See* SXW3_Native_0025 (RESTRICTED).xls. Appendices II and III utilize these data points in the calculation of the value per performance. Over the course of this proceeding, I may have access to other webcasters distribution of hours consumed by subscribers and non-subscribers and I reserve my right to amend these calculations accordingly.

45 Even with a 5% reasonable profit margin, the typical webcaster in this model loses $0.0029 per ATH.

Table 4[46] – Reasonable Operating Profit Margins, Resulting Operating Profit Per ATH, and Resulting Value Per Performance (AccuStream Revenue Estimates & Live365 Costs)						
Revenue per ATH	$0.0571	$0.0571	$0.0571	**$0.0571**	$0.0571	$0.0571
Total Costs & Expenses per ATH	$0.0572	$0.0572	$0.0572	**$0.0572**	$0.0572	$0.0572
Profit Margins as % of Revenues	5%	10%	15%	**20%**	25%	30%
Reasonable Profit Per Domestic ATH	$0.0029	$0.0057	$0.0086	**$0.0114**	$0.0143	$0.0171
Total Costs Per Domestic ATH	$0.0600	$0.0629	$0.0658	**$0.0686**	$0.0715	$0.0743
Value of Copyrighted Material Per ATH	($0.0029)	($0.0058)	($0.0086)	**($0.0115)**	($0.0143)	($0.0172)
Value Per Performance[47]	($0.0002)	($0.0004)	($0.0006)	**($0.0008)**	($0.0010)	($0.0012)

b. Assessment of Industry Revenue (ZenithOptimedia Report)

A second publicly available industry report estimates advertising revenues for internet radio in calendar year 2008 to be $200 million. This number is substantially higher than AccuStream's estimates and represents the upper bound for advertising revenue in my analysis.[48] However, ZenithOptimedia did not provide the associated ATH numbers for this revenue estimate. Nevertheless, I calculated the advertising revenues per ATH using this total industry advertising revenue estimate ($200 million

---

46 Tables 4 (a), (b) and (c) in Appendix II contain iterations of this model based on recently learned information from the discovery period.

47 This assumes 14 performances per hour.

48 *See* Exhibit 8, ZenithOptimedia's analysis of the United States of America market, *Advertising Expenditure Forecasts – July 2009*, (ZenithOptimedia Report).

divided by 2.95 billion ATHs estimate from AccuStream resulting in $0.0678 per ATH). I then combined that advertising revenue per ATH with the average subscriber revenue per ATH of $0.1505 discussed earlier to arrive at a total average revenue per ATH of $0.0872. Using the Live365 total operating cost and expenses estimate of $0.0572 per ATH used in Table 1 above, I then calculate the total value of the copyrighted works and the appropriate royalty payment.

The total costs per ATH, including the reasonable profit return at 20% of revenues, are $0.0746. That results in a value of the copyrighted works per ATH of $0.0126 (revenues of $0.0872 minus total costs of $0.0746). In order to arrive at the value per performance of these copyright works, I have assumed 14 performances per hour for the typical webcaster.[49] This calculation results in a value per performance of $0.0009. Table 5 below summarizes my findings using the ZenithOptimedia estimates for advertising revenue.

49 This is the average of the number of performances per ATH for Live365 webcasting.

Table 5[50] – Reasonable Operating Profit Margins, Resulting Operating Profit Per ATH, and Resulting Value Per Performance (Zenith Optimedia Revenue Estimates & Live365 Costs)						
Revenue per ATH	$0.0872	$0.0872	$0.0872	$0.0872	$0.0872	$0.0872
Total Costs & Expenses per ATH	$0.0572	$0.0572	$0.0572	$0.0572	$0.0572	$0.0572
Operating Profit Margins as % of Revenues	5%	10%	15%	20%	25%	30%
Reasonable Profit Per Domestic ATH	$0.0044	$0.0087	$0.0131	$0.0174	$0.0218	$0.0262
Total Costs Per Domestic ATH	$0.0615	$0.0659	$0.0703	$0.0746	$0.0790	$0.0834
Value of Copyrighted Material Per ATH	$0.0257	$0.0213	$0.0169	$0.0126	$0.0082	$0.0039
Value Per Performance[51]	$0.0018	$0.0015	$0.0012	$0.0009	$0.0006	$0.0003

In summary, using the best case 2008 revenue scenario from ZenithOptimedia, the mature operations of Live365, and a reasonable operating profit margin, only a royalty of $.0009 would have been appropriate for the industry in 2008. The rates prescribed by the CRB in 2008 were $.0014.

This difference in five ten-thousandths of a cent on a per performance basis has a significant impact when multiplied by the number of royalty bearing performances. For example, Live365's domestic U.S. Royalty Bearing ATH for 2008 was 74,663,541 ATH. At an average of 14 performances per hour, the approximate total number of

[50] Tables 5 (a), (b), and (c) in Appendix III contain iterations of this model based on recently learned information from the discovery period.

[51] This assumes 14 performances per hour.

performances subject to the royalty would have been 1,045,289,574. Using the calculated appropriate rate of $0.0009 results in a total royalty payment of $940,761. At the prescribed CRB rate of $0.0014, the same number of performances translates into a royalty payment of $1,463,405, a difference of $522,644.

Table 6 shows the results from these three analyses using the various revenue estimates, the reasonable profit rate of 20% and the Live365 costs.

Table 6 - Summary of Derived Per Performance Royalty Rate

	Live365	AccuStream Report	ZenithOptimedia Report
Advertising Revenue Per ATH	$0.0264	$0.0285	$0.0678
Total Revenue per ATH (ad + subscription rev)	$0.0667	$0.0571	$0.0872
Operating Costs per ATH (i.e. Live365 costs)	$0.0572	$0.0572	$0.0572
Reasonable Profit (20%) per ATH	$0.0133	$0.0114	$0.0174
Total Costs per ATH	$0.0705	$0.0686	$0.0746
Value of Copyrighted Works per ATH	($0.0038)	($0.0115)	$0.0126
Appropriate Royalty per Performance	**($0.0003)**	**($0.0008)**	**$0.0009**

c. Assessment of Industry Revenue Based on SoundExchange Produced Data

In discovery, SoundExchange produced documentation that can be used to provide another estimate on the size of the non-interactive webcasting industry. I have used this information to validate the boundaries established by the AccuStream and

ZenithOptimedia reports for the estimate of the advertising revenue generated by webcasters.

SoundExchange produced documents that identify the specific share of reported statutory performances for each webcaster who pays royalties on a yearly basis. Using this data, and Live365's share of those performances, I have extrapolated Live365's advertising revenue to provide another estimate on advertising revenue of the non-interactive market. Live365's total advertising revenues for Fiscal Year 2008 attributable to the U.S. royalty bearing listeners was $1,970,098 (see Table 1). According to SoundExchange, Live365's share of yearly performances during 2008 was 2.34%.[52] Assuming Live365 generates the same percentage of revenues as their share of yearly performances, that would result in a total advertising revenue value for the webcasting industry of approximately $84.2 million, remarkably close to AccuStream's total industry estimate.

52 *See* SXW3_00007900.

d. **Conclusion**

As industry projections for more robust growth in the Internet radio advertising market have clearly not materialized over the past few years, I conclude that the economic factor analysis warrants a reduction in royalty rates from the prescribed rates covering 2006-2010. The analyses described above clearly indicate that the value of the copyrighted works streamed by commercial webcasters is not nearly as valuable as suggested by the prescribed CRB rates that were established for 2006-2010.

My analysis leads me to conclude the following: whether using the lower bound of reported industry revenues by AccuStream or Live365's reported revenues as a proxy for the industry, the 20% operating margin expected by a commercial webcaster would be difficult to achieve in today's economy. Imposing a high royalty rate under these assumptions makes it impossible. Using the more optimistic upper bound projections of ZenithOptimedia, that 20% margin can only be achieved if the royalty rate is at or below $0.0009.

D. Competition Factors Affecting the Webcasting Industry

The competitive factor also necessitates a downward reduction from the current CRB rates. As shown in Figures 1 & 2, CPM rates have been steadily declining for all forms of commercial webcaster advertising. The supply of all different types of advertising inventory, including internet advertising, has continued to increase substantially, thereby affecting the demand for advertising on commercial webcasts. Terrestrial radio broadcasters have already felt the impact of this increased competition with their negative growth over the last three full years.[53] My observations on the impact on commercial webcasters have been confirmed. *See* Floater Test. ¶¶15-22. This increased level of supply limits the ability of commercial webcasters to generate revenues. Without sufficient revenues, companies like Live365 have been forced to take measures to reduce the number of performances on their system. [redacted] Ultimately this hurts the copyright owner, as the number of total listeners and resulting performances were lower than what they would have been.

Further support for the reduction of rates relates to the market power concentrated in the hands of the willing sellers. As Dr. Adam Jaffe, witness for the Digital Media Association, described in the last proceeding, the recording industry is one that has "a small number of ... sellers in a highly concentrated industry that has a history of interdependent actions."[54] Dr. Jaffe cited evidence that the four major record companies "collectively represented over 85% of the physical product (mainly CDs)."[55] Using that data, and making very conservative estimates as to the distribution of that collective share, Dr. Jaffe calculated a minimum level of the Herfindahl-Hirschmann Index (a commonly used measure of concentration and competition in industries) of 2,150.[56] That level exceeds the threshold of 1,800 that the U.S. Department of Justice and the Federal Trade Commission use to describe "highly concentrated" markets.[57] This high concentration indicates that the record industry has excess negotiating power and can

---

53 *See* Exhibit 2, *Investing in Radio: 2009*, 1st edition, 2009, BIA Advisory Services.

54 Rebuttal Testimony of Adam B. Jaffe, On Behalf of Internet Webcasters and Radio Broadcasters, in the matter of: Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2005-1 CRB DTRA, pp.7-8.

55 Ibid., p. 8.

56 Ibid., p. 9.

57 *See* U.S. Department of Justice Horizontal Merger Guidelines, April 8, 1997

extract rates that do not reflect what a willing buyer and willing seller would enter into in a hypothetical competitive market.

As a result of the increased competition facing webcasters, and the market power afforded by the record companies, I conclude that this factor would lead to a decreasing of any rate from the prescribed 2006-2010 rates for the streaming of these copyrighted works.

E. Programming of the Commercial Webcasting Industry

1. Number and Types of Programming Aired

Another area of the commercial webcasting industry that merits consideration of the appropriate rate for these copyrighted works is the type of programming being provided. In fact, this is a key component of the business of commercial webcasters as they provide a rich diversity of different genres of music and many different artists. As an example, according to Live365's playlist data there were over 300,000 different artists' works played in a recent quarter by Live365 stations. *See* Floater Test. ¶28.

This exposure to new artists is one of the hallmarks of commercial webcasting. According to Arbitron/Edison Research of online audiences published in April 2009, the largest response to the question, "Of the following reasons you might listen to Internet radio, what is the ONE main reason you listen?" was the response "To listen to audio you cannot get elsewhere."[58] Listeners expect, and commercial webcasters deliver, access to a wide variety of artists.

2. Promotional Value

---

[58] *See* Exhibit 6, *The Infinite Dial 2009*, Arbitron/Edison Research, 2009, p. 12.

Given the vast numbers of different artists not associated with the major record labels being streamed by these commercial webcasters, it is important to recognize the resulting promotional value that these webcasters provide. For example, Live365 and its broadcasters routinely receive letters and CDs from artists requesting as much exposure (i.e., playing of their songs) as possible on Live365 webcasts. I understand that the company also has agreements with several independent labels waiving the sound recording performance royalty in exchange for promotion of their artists.[59] This indicates that copyright owners see a financial benefit at least equal to the value of the royalty rate for the promotional value of these webcasters.

Another indicator of promotional value for copyright owners is the amount of click-through buying of recorded materials (either through physical CDs or legal downloads) arising from these webcasters. Live365 offers click through buying in its players with both Amazon.com and Apple's iTunes. I understand that between 2004 and the present, Amazon.com and iTunes have generated close to 1.3 $[redacted] million in sales from Music and MP3 Downloads by means of click-throughs of Live365's webcasting listeners. *See* Floater Test. ¶30.

Indeed, there is substantial evidence that webcasting services promote the sales of music and directly benefit the musicians and copyright holders. As the Second Circuit recently noted in its decision last month regarding the LAUNCHcast webcasting service:

> Recently webcasting services have been credited with "becom[ing] a massive driver in digital [music] sales" by

[59] *See* Floater Test. ¶32.

> exposing users to new music and providing an easy link to sites where users can purchase this music. [60]

Arista Records, LLC v. Launch Media, Inc., 2009 WL 2568733, *11 n.19 (2d Cir. Aug. 21, 2009).

Related to the promotional value of the streaming of these copyrighted works is the issue of whether streaming by webcasters is a substitute to the actual purchase of recorded materials. This seems highly unlikely as these commercial webcasters have to comply with rules limiting the number of times any particular artist can be played within a specified time period, as well as limiting the similarity of these broadcasts with the actual recorded materials of a particular artist.[61] Therefore, the substitutability issue should not play a role in the determination of the royalty rate for commercial webcasters.

---

60 *See also SoundExchange Open to Bill Targeting Small Webcasters,* COMMUNICATIONS DAILY, May 3, 2007 (noting that independent musician Mike Holden "enjoyed a 'huge increase' in iTunes downloads ... when Pandora [another webcasting service] added his music").

61 It is interesting to contrast these commercial webcasters offering non-interactive services with the interactive services offered by other webcasters. In the latter case, the user selects the artists they want to hear, suggesting that interactive services may be more like listening to recorded materials, and thus more substitutable with the purchases of recorded materials.

3. Impact on Royalty Rate

Given the types of music and artists that are played on these commercial webcasts and the resulting promotional value such streaming provides for copyright owners, a reduced commercial royalty rate is appropriate. Listeners are exposed to a more diverse range of artists, thereby generating greater revenues for many more copyright owners (i.e., click-through purchases of recorded materials).

F. Relative Creative Contribution, Technological Contribution, Capital Investment, Cost and Risk of Webcasting

In terms of the creative and technological contributions of the two parties – the buyers (webcasters) and the sellers (record companies) – there is no reason to believe that one is greater than the other and thus should not play a role in the determination of the appropriate royalty rate.

On the other hand, the costs incurred by commercial webcasters in providing the service have been substantial over time while the record companies have spent little if anything on developing this new service. As detailed in the economic model determining the value of the copyrighted works, commercial webcasters like Live365 spend considerable amounts in technological development, operations and bandwidth to provide their services, as well as marketing and sales expenditures to generate the revenues necessary to fund these operations.

In addition, commercial webcasters have had to pay high rates for the rights to stream these copyrighted materials. As was clearly shown in those models, the value of the copyrighted works (on a per performance basis) was significantly less than the levels adopted by the CRB. Commercial webcasters not only have to incur costs to run and develop this business, they have been forced to pay even more in royalty fees. This additional "forced overpayment" in costs, even while the industry was growing less than expected, suggests that the rates moving forward should be lower.

By paying this excessive royalty rate, commercial webcasters have incurred artificially high costs that limit their ability to grow. Without these costs, commercial webcasters could have invested more in promoting and growing their businesses. Additionally, with a lower royalty rate that better reflects the value of the copyrighted works, other firms may enter into this industry fostering the growth of the entire commercial webcasting industry and resulting in more performances, more royalties and more promotion for copyright owners.

As for the investment and risk aspect, in entering and continuing any business, there is always risk of whether that business will survive. This risk is present for both the record companies and the commercial webcasters. However, the risks associated with the level of investment for the commercial webcasters should not be underestimated. As shown earlier, this industry is facing challenging times, as the growth in their revenue sources have not reached the levels that were expected. Yet, during this subpar performance period, commercial webcasters that have remained in the industry have had to continually reinvest in their operations.

Record companies too have invested in their operations, and similarly, have incurred risks associated with those investments. Yet, they have already spent their money producing and marketing the digital tracks, and thus have no additional costs in connection with the webcast. So, while the commercial webcaster has everything to risk in connection with its webcast operations (especially if the royalty rates are too high), the record companies face no real risk from the webcasting of their works, or in having a royalty rate too low.

When all of the elements of this area for consideration are evaluated together, I conclude that the royalty rates being charged for streaming these copyrighted works should be decreased from the prescribed rates that were set for the period 2006-2010. The payments of these commercial webcasters from what is the value of those copyrighted works, along with the risk facing commercial webcasters, warrant the proposed decrease.

IV. SETTING OF RATE FOR AGGREGATION SERVICES

A. Description of Benefits

Before determining the appropriate rate for the Aggregation Service, it is important to first describe the benefits that aggregators provide to the owners of the copyrighted works. Those additional benefits flowing to the copyright owners (and SoundExchange) should be recognized and reflected in an Aggregation Service rate.

To start off, aggregators provide a considerable amount of administrative savings to the owners of the copyrighted works, as they collect and compile all of the necessary documentation of the actual copyrighted works that are streamed and the number of total listening levels for each of these copyrighted works.[62] In addition to the recording and documentation of this listening, aggregators make royalty payments to the appropriate parties. These administrative functions reduce the burden on the copyright owners and/or

[62] In fact, Live365 has spent a considerable amount of time and investment establishing its software systems to accurately measure and document listening for each copyrighted work that is streamed. [redacted]

any organization they form to administer the collection of these royalties. [redacted]

Another benefit that the aggregator provides to the copyright owner is the support of actual webcasters. *See, e.g.*, Floater Test. ¶¶ 27-36. By providing an efficient mechanism to advertisers to reach the audiences of these smaller commercial webcasters, they provide more revenues to the webcasters, and ultimately more royalty payments to the copyright owners. Many of these commercial webcasters operating at such a small scale could not generate enough advertising revenues to cover royalty payments, and as a result, would either leave the industry or refrain from paying royalties altogether.

B. Examples of Aggregator Benefits in Royalty Contracts

Evidence of these aggregator benefits to copyright owners are found in agreements with the Performance Rights Organizations (PROs) for musical works royalties. The three collective licensing organizations – ASCAP, BMI, and SESAC – have negotiated various discounts on their royalty rates for Live365 and its webcasters. [redacted] In order to determine the discount, I have compared the 2006 Live365 Minicaster Web Site Music Performance Agreement ("Live365 Minicaster Agreement") with the 2007 BMI Web Site Music Performance Agreement ("General BMI Agreement"). [redacted] Section 4 of the Live365 Minicaster Agreement provides for a monthly installment of $20.00 in 2006, increasing by the increase of the Consumer Price Index (as of October of each year). Section 5 of the General BMI Agreement provides for an Annual Minimum Fee in 2007 of $299. Therefore, I have applied a 3.5%[63] CPI percentage increase to the Live365 Minicaster

[63] *See* http://www.bls.gov/cpi/cpid0710.pdf for the October 2007 CPI.

Agreement monthly installment of $20.00 to arrive at the adjusted $20.70 monthly level (or $248.40 annually) for 2007.

Using a derived Annual Minimum Fee of $299 in 2007, I calculate the discount
1692
BMI provides to Live365's webcasters to be [redacted]%. I have examined the contracts with the other PROs (ASCAP and SESAC), and they provide for an even greater discount (22% and 56%) in recognition of the "centralized administration" that Live365 provides for the benefit of the PROs, including centralized collection, reporting, and compliance.

Given that Live365 provides the same services and benefits that the PROs recognize as valuable, a similar discount is warranted for the sound recording performance royalty. This market-revealed value willingly being paid by the PROs strongly suggests that these services and benefits are substantial. Further, given that two major music licensing organizations have arrived at around the same value provides strong evidence that the Aggregation Service should receive a similar discount for the sound recording performance royalty. Averaging the values of the two major PROs, ASCAP and BMI, results in an average savings of 19.5%, and given the much higher savings from SESAC, I recommend an appropriate discount for an Aggregation Service of 20% less than the commercial webcaster industry rate.

V. USE OF NAB SETTLEMENT AS APPROPRIATE BENCHMARK

I have been asked to comment on the webcasting royalty rate settlement announced in February 2009 between the National Association of Broadcasters (NAB) and SoundExchange (SX) for the rights to air copyrighted works on the webcasting streams of commercial terrestrial radio broadcasters as well as its relevance to the proceeding on the appropriate royalty rates for commercial webcasters. I think there are at least three economic reasons why these rates, without any substantial adjustment, are inappropriate for describing the outcome of a willing buyer/willing seller negotiations for commercial webcasters. First, there are vastly different economics associated with terrestrial commercial radio broadcasters affecting the amount that the willing buyer would be willing to pay. Second, the NAB settlement deal was entered into under threat of pending litigation in the CRB. Finally, the release of these commercial terrestrial radio broadcasters from the "sound recording performance complement" rules that was negotiated alongside the final deal also benefits these commercial broadcasters, making this deal irrelevant to the situation facing other commercial webcasters.

The major business of commercial terrestrial radio broadcasters is attracting listeners to their over-the-air transmissions and selling to advertisers access to those audiences. Many terrestrial radio broadcasters have also entered into the simultaneous webcasting of their over-the-air programming. As such, they incur very little cost when they are webcasting this same programming. They have no additional programming costs, as those costs have already been paid in connection with their over-the-air operations. Their listener acquisition costs are very low, as they can use their own broadcast stations to promote their website listening. Similarly, they have an existing sales force to sell commercials for their over-the-air stations who can also sell online advertising.

At the same time, they have a great advantage in selling advertisements on their webcasting programming to local advertisers.[64] Part of that advantage in selling

[64] In the question and answer section of Exhibit 3, Section 4 (the AccuStream Report) a representative of Clear Channel Online responded to the following question:

advertising is the greater amount of inventory that these simulcasted webcasts of terrestrial radio broadcasting have as compared to the commercial webcasters' programming, resulting in greater advertising revenues for those webcasts. This inventory can also be better sold because of the nature of the audiences of simulcasts of terrestrial radio stations versus those of pure webcasters. The audience for the webcasts of terrestrial radio stations tends to be concentrated in the same area as their terrestrial listening audience, so that these stations can sell advertising to local advertisers in that market.[65] In contrast, a webcaster with a similar sized audience (who would have a similar number of performances on which its royalty would be based) would have listeners scattered all over the country, and thus would not be able to have the concentrated local advertising market on which it could rely to induce local businesses to advertise on their streams. This is a significant advantage, as in most major markets, terrestrial radio stations make 70-80% of their advertising revenue from local advertisers, a source not readily available to the webcasters.

As a result of their lower costs and potentially higher revenues from these streams, terrestrial broadcasters are more willing to pay higher royalty fees for webcasting as they are able to generate greater profits from that industry.

> "ACCUSTREAM: Are independent operators online at a disadvantage [to terrestrial broadcasters webcasting] because they are typically going after national advertisers.
>
> CLEAR CHANNEL ONLINE: The reason that some of the Internet only networks are where they are is they are talking to larger national brands looking to buy tonnage that maybe they can't deliver as a discreet site or brand buy, where we are talking to local advertisers who are looking to buy quality that we can deliver. .... It comes down to the fact that advertisers know we can deliver in the DMAs they are looking to buy. They may not be assured of that when buying an Internet only brand that might spread those buys across the country, as opposed to a DiMA."

65 See the comments of the Clear Channel representative, footnote 57.

Broadcasters were also willing to enter into this agreement to avoid the significant costs that would be incurred in litigating in this CRB proceeding. In previous proceedings, it is my understanding that broadcasters spent millions of dollars to litigate these cases. Most of the costs were borne by a few companies, as most broadcasters do not see significant revenue from their streams and thus are unwilling to contribute to the litigation costs of a CRB proceeding. These costs are nonrecoverable by the companies spending them, as the litigation costs are paid on top of the royalties which the CRB ultimately sets (unlike the litigation costs of SoundExchange, which are funded out of the royalties that webcasters pay). Thus, broadcasters would be willing to agree to an above-market royalty to avoid these litigation costs.

Additionally, in conjunction with the NAB-SX settlement, certain aspects of the "sound recording performance complement" specified in 17 U.S.C. §114(j)(13) were waived by the record labels. The "sound recording performance complement" places limitations on how webcasters can use music. This waiver relieves the commercial terrestrial radio broadcasters from being restricted to playing (1) no more than three different songs from the same *album* within three hours or no more than two such songs from the same album transmitted consecutively, or (2) no more than four different songs by the same *artist* within three hours or no more than three such songs by the same artist transmitted consecutively. Terrestrial radio broadcasting does not have to abide by these provisions for its over-the-air broadcasts. If they still had to comply with these provisions, these broadcasters may have stopped simulcasting those broadcasts online. It would be costlier for terrestrial broadcasters to establish a whole new programming stream to webcast. Consequently, these terrestrial broadcasters, already with the programming established to webcast, should be willing to pay more than other webcasters in order to relieve themselves of these provisions.

VI. CONCLUSION

The commercial webcasting industry is undergoing tremendous change and increased competition. In the few years since the previous proceedings concerning the appropriate royalty rate, commercial webcasters have seen their expectations of strong listenership and advertising growth come crumbling down. As a result, there is great uncertainty on the economic viability of these webcasters. A rate that better reflects these uncertain conditions is necessary to ensure growth of the webcasting industry and continued royalty payment to the copyright owners. In order to determine that rate, I used a model to see what benefits emerge once the appropriate costs of webcasting were accounted for. Based on generous assumptions of the present webcasting marketplace, I arrive at a $.0009 per performance rate that would reflect both the revenues generated by the webcasting, the costs of the webcasting, and a reasonable profit margin for the webcaster for the upcoming statutory period.

I also examined the role of aggregators in this webcasting industry and with available information on related contracts with the PROs, I determined that a 20% discount from the commercial webcasting industry rate is appropriate for an Aggregation Service.

I declare under penalty of perjury that the foregoing testimony is true and correct to the best of my knowledge.

Mark R. Fratrik, Ph. D.

Date: 4/26/10

Appendix I

Amendments to Tables 1& 2

Table1(a) – Allocated Costs of Live365 for Webcasting to U.S. Listeners (FY2009)		
	Amount	Note
U.S. Royalty-Bearing ATH	61,698,669	Represents 40.5% of Live365's worldwide ATH
Revenue		
Subscription Revenue	$2,666,016	
Advertising Revenue	$1,746,392	Represents 95.3% of Live365's worldwide advertising revenues
Other (CD & Merchandise, etc.)	$25,717	
Total Revenue	$4,438,126	Represents 83.2% of all revenue Live365 earns from Internet Radio Network and 47.5% of all of Live365's total revenue from all sources
Cost of Sales		
Royalties and licensing fees: ASCAP, BMI, SESAC, Thomson (MP3)	$265,557	84.5% of all of Live365's total royalties and licensing fees to ASCAP, BMI, SESAC, Thomson (MP3)
Bandwidth for Audio Streaming	$150,461	40.5% of Live365's total cost for bandwidth
Commissions to Advertising Rep Firms	$519,870	95.8% of Live365's total commissions to ad rep firms
IT Operations & Customer Service	$407,426	100% of IT & CS costs for all revenue sources
Others	$716,966	100% of other costs for all revenue sources
Total Costs of Sales	$2,060,279	
Operating Expenses[66]	$1,806,090	47.5% of operating expenses for all revenue sources
Total Costs & Expenses	$3,866,369	Cost of Sales + Operating Expenses
Costs & Expenses Per Live365 U.S. Royalty-Bearing ATH	$0.0627	

Table 1(a) above reflects iterations to my Table 1 at page 19 based on Live365's recently provided FY2009 revenues and costs. Attached as Exhibits 9

66 This category includes all of the other overhead expenses of Live365.

& 10 to this Amended Testimony are updated Live365 financial documents for FY2009.

Table 2(a) below reflects iterations of my Table 2 at page 21 based on the same Live365 recently provided FY2009 revenues and costs. Revenue per ATH is derived from Table 1(a) by dividing total U.S. Royalty Bearing ATH (61,698,669) from Total Revenue ($4,438,126) resulting in a Revenue per ATH of $0.0719. Total operating costs & expenses per ATH are based on the numbers derived from Table 1(a) ($0.0627). The remainder of the table reflects values per performance at various operating margins.

Table 2(a)– Live365's FY2009 Analysis						
Revenue per ATH	$0.0719	$0.0719	$0.0719	$0.0719	$0.0719	$0.0719
Total Operating Costs & Expenses per ATH	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627
Operating Margins as % of Revenues	5%	10%	15%	20%	25%	30%
Reasonable Profit Per Domestic ATH	$0.0036	$0.0072	$0.0108	$0.0144	$0.0180	$0.0216
Total Costs Per Domestic ATH	$0.0663	$0.0699	$0.0735	$0.0771	$0.0806	$0.0842
Value of Copyrighted Material Per ATH	$0.0057	$0.0021	($0.0015)	($0.0051)	($0.0087)	($0.0123)
Value Per Performance[67]	$0.0004	$0.0001	($0.0001)	($0.0004)	($0.0006)	($0.0009)

67 This assumes 14 performances per hour.

Appendix II

Amendments to Table 4

This Appendix II reflects iterations of my Table 4 at page 26 based on recently discovered information over the discovery period. Table 4(a) below applies information produced by SoundExchange to my economic model analyzing the 2008 assessment of industry revenue provided by AccuStream. Specifically, I examine the effects on my derived "Value Per Performance" when the "Revenue per ATH" is adjusted to reflect SoundExchange's calculated average subscription price of $4.13 (as compared to my use of Live365's average subscription price of $6.02) and SoundExchange's 2008 reported percentages of performances provided to subscribers to total listeners to webcasts (subscribers plus non-subscribers) of 22.7% (as compared to my use of Live365's percentage of 23.5%).[68]

Table 4(b) below is an update to my Table 4 applying 2009 numbers to the inputs. Specifically, I examine AccuStream's 2009 advertising revenue numbers, Live365's 2009 Cost per ATH, Live365's 2009 average subscription price of $6.31, and Live365's corresponding 2009 percentages of hours consumed by both sets of customers (25.0% for subscribers, 75.0% for non-subscribers). There are no other inputs in Table 4(b) that differ from my calculations in the main body of my testimony.

---

68 *See* SXW3_Native_0025 (RESTRICTED).xls.

Table 4(c) below applies the same 2009 numbers used in Table 4(b). However, Table 4(c) also incorporates the SoundExchange data produced in discovery related to the average subscription price of $4.13 and SoundExchange's 2009 reported total number of performances for subscribers versus the total number of all performances (subscribers and non-subscribers), a percentage of 10.13%.[69]

Table 4(a) – 2008 AccuStream Analysis, Live365 FY2008 Costs, and SoundExchange Produced Data						
Revenue per ATH	$0.0452	$0.0452	$0.0452	$0.0452	$0.0452	$0.0452
Total Costs & Expenses per ATH	$0.0572	$0.0572	$0.0572	$0.0572	$0.0572	$0.0572
Profit Margins as % of Revenues	5%	10%	15%	20%	25%	30%
Reasonable Profit Per Domestic ATH	$0.0023	$0.0045	$0.0068	$0.0091	$0.0113	$0.0135
Total Costs Per Domestic ATH	$0.0594	$0.0617	$0.0640	$0.0662	$0.0685	$0.0707
Value of Copyrighted Material Per ATH	($0.0143)	($0.0165)	($0.0188)	($0.0211)	($0.0233)	($0.0256)
Value Per Performance[70]	($0.0010)	($0.0012)	($0.0013)	($0.0015)	($0.0017)	($0.0018)

69 Id.

70 This also assumes 14 performances per hour.

Table 4(b)[71] – 2009 AccuStream Analysis and Live365 FY2009 Costs (without SoundExchange Produced Data)						
Revenue per ATH[72]	$0.0619	$0.0619	$0.0619	$0.0619	$0.0619	$0.0619
Total Costs & Expenses per ATH	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627
Profit Margins as % of Revenues	5%	10%	15%	20%	25%	30%
Reasonable Profit Per Domestic ATH	$0.0031	$0.0062	$0.0093	$0.0124	$0.0155	$0.0186
Total Costs Per Domestic ATH	$0.0658	$0.0689	$0.0719	$0.0750	$0.0781	$0.0812
Value of Copyrighted Material Per ATH	($0.0039)	($0.0070)	($0.0101)	($0.0132)	($0.0162)	($0.0193)
Value Per Performance[73]	($0.0003)	($0.0005)	($0.0007)	($0.0009)	($0.0012)	($0.0014)

[71] *See* Exhibit 3 (AccuStream Report), Section 3.

[72] AccuStream estimated total Monetizable Listening Hours for calendar year 2009 to be 3,540,763,076 and $106,000,000 in total advertising revenues. Dividing that total revenue estimate by the total listening hours results in an average advertising revenue per ATH of $0.0299. Total Revenue per ATH was calculated by applying the weighted average to both the derived advertising revenue per ATH and the Live365 subscription revenue per ATH, resulting in Revenue per ATH of $0.0619.

[73] This assumes 14 performances per hour.

Table 4(c) – 2009 AccuStream Analysis; Live365 FY2009 Costs, and SoundExchange Produced Data						
Revenue per ATH	$0.0374	$0.0374	$0.0374	$0.0374	$0.0374	$0.0374
Total Costs & Expenses per ATH	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627
Profit Margins as % of Revenues	5%	10%	15%	20%	25%	30%
Reasonable Profit Per Domestic ATH	$0.0019	$0.0037	$0.0056	$0.0075	$0.0093	$0.0112
Total Costs Per Domestic ATH	$0.0645	$0.0664	$0.0683	$0.0701	$0.0720	$0.0739
Value of Copyrighted Material Per ATH	($0.0272)	($0.0290)	($0.0309)	($0.0328)	($0.0346)	($0.0365)
Value Per Performance[74]	($0.0019)	($0.0021)	($0.0022)	($0.0023)	($0.0025)	($0.0026)

74 This also assumes 14 performances per hour.

Appendix III
Amendments to Table 5

This Appendix III reflects iterations of my Table 5 at page 28 based on recently discovered information over the discovery period. Table 5(a) below applies information produced by SoundExchange to my economic model analyzing the 2008 assessment of industry revenue provided by ZenithOptimedia. Specifically, I examine the effects on my derived "Value Per Performance" when the "Revenue per ATH" is adjusted to reflect SoundExchange's calculated average subscription price of $4.13 (as compared to my use of Live365's average subscription price of $6.02) and SoundExchange's 2008 reported percentage of performances provided to subscribers to total listeners to webcasts (subscribers plus non-subscribers) of 22.7% (as compared to my use of Live365's percentage of 23.5%).[75]

Table 5(b) below is an update to my Table 5 applying 2009 numbers to the inputs. Specifically, I examine ZenithOptimedia's 2009 advertising revenue numbers, Live365's 2009 Cost per ATH, Live365's 2009 average subscription price of $6.31, and Live365's corresponding 2009 percentages of hours consumed by both sets of customers (25.0% for subscribers, 75.0% for non-subscribers). There are no other inputs in Table 5(b) that differ from my calculations in the main body of my testimony.

[75] *See* SXW3_Native_0025 (RESTRICTED).xls.

Table 5(c) below applies the same 2009 numbers used in Table 5(b). However, Table 5(c) also incorporates the SoundExchange data produced in discovery related to the average subscription price of $4.13 and SoundExchange's 2009 reported total number of performances for subscribers versus the total number of all performances (subscribers and non-subscribers), a percentage of 10.13%.[76]

Table 5(a) – 2008 Zenith Optimedia Analysis, Live365 FY2008 Costs and SoundExchange Produced Data						
Revenue per ATH	$0.0758	$0.0758	$0.0758	$0.0758	$0.0758	$0.0758
Total Costs & Expenses per ATH	$0.0572	$0.0572	$0.0572	$0.0572	$0.0572	$0.0572
Operating Profit Margins as % of Revenues	5%	10%	15%	20%	25%	30%
Reasonable Profit Per Domestic ATH	$0.0038	$0.0076	$0.0114	$0.0152	$0.0190	$0.0228
Total Costs Per Domestic ATH	$0.0610	$0.0648	$0.0686	$0.0724	$0.0761	$0.0799
Value of Copyrighted Material Per ATH	$0.0149	$0.0111	$0.0073	$0.0035	($0.0003)	($0.0041)
Value Per Performance[77]	$0.0011	$0.0008	$0.0005	$0.0002	$0.0000	($0.0003)

[76] Id.

[77] This assumes 14 performances per hour.

Table 5(b)[78] – 2009 ZenithOptimedia Analysis and Live365 FY2009 Costs (without SoundExchange Produced Data)						
Revenue per ATH[79]	$0.0882	$0.0882	$0.0882	$0.0882	$0.0882	$0.0882
Total Costs & Expenses per ATH	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627
Operating Profit Margins as % of Revenues	5%	10%	15%	20%	25%	30%
Reasonable Profit Per Domestic ATH	$0.0044	$0.0088	$0.0132	$0.0176	$0.0220	$0.0264
Total Costs Per Domestic ATH	$0.0671	$0.0715	$0.0759	$0.0803	$0.0847	$0.0891
Value of Copyrighted Material Per ATH	$0.0211	$0.0167	$0.0123	$0.0079	$0.0035	($0.0010)
Value Per Performance[80]	$0.0015	$0.0012	$0.0009	$0.0006	$0.0002	($0.0001)

78 *See* Exhibit 8, ZenithOptimedia

79 ZenithOptimedia estimated 2009 total industry advertising revenue to be $230,000,000. Dividing that total advertising revenue estimate by the total listening hours estimated from AccuStream (3.54 billion ATH) results in an average advertising revenue per ATH of $0.0650. Total Revenue per ATH was calculated by applying the weighted average to both the derived advertising revenue per ATH and the 2009 Live365 subscription revenue per ATH, resulting in a Revenue per ATH of $0.0882.

80 This assumes 14 performances per hour.

Table 5(c) – 2009 ZenithOptimedia Analysis, Live365 FY2009 Costs, and SoundExchange Produced Data						
Revenue per ATH[81]	$0.0688	$0.0688	$0.0688	$0.0688	$0.0688	$0.0688
Total Costs & Expenses per ATH	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627	$0.0627
Operating Profit Margins as % of Revenues	5%	10%	15%	20%	25%	30%
Reasonable Profit Per Domestic ATH	$0.0034	$0.0069	$0.0103	$0.0138	$0.0172	$0.0207
Total Costs Per Domestic ATH	$0.0661	$0.0695	$0.0730	$0.0764	$0.0799	$0.0833
Value of Copyrighted Material Per ATH	$0.0027	($0.0007)	($0.0042)	($0.0076)	($0.0110)	($0.0145)
Value Per Performance[82]	$0.0002	($0.0001)	($0.0003)	($0.0005)	($0.0008)	($0.0010)

[81] As noted earlier, ZenithOptimedia does not provide the associated ATH numbers for their advertising revenue estimate. I calculated the advertising revenues per ATH using their 2009 total industry advertising revenue estimate ($230 million) by dividing that number by 3.54 billion 2009 ATHs provided by AccuStream.

[82] This assumes 14 performances per hour.

Curriculum Vitae
Mark R. Fratrik

Vice President
BIA Financial Network
15120 Enterprise Court, Suite 100
Chantilly, VA 20151
703-818-2425
Mfratrik@bia.com

Education

Ph.D., 1981, Economics, Texas A&M University, College Station, TX
M.S., 1978, Economics, Texas A&M University, College Station, TX
B.A., 1976, Mathematics and Economics (honors), State University of New York at Binghamton

Professional experience

2001 – Present

BIA Financial Network

Vice President
- Consulting in litigation and tax-related cases
- Developing of new broadcasting and related industry research offerings
- Speaking at industry forums

Fall 2002 – Present

The Johns Hopkins University

Adjunct Professor, *The Political Economy of Mass Communications*

1985 – 2000

National Association of Broadcasters

Vice President/Economist 1991 – 2000
- Supervised the Research and Planning Department.
- Conducted primary research about the broadcasting and related industries, used for testimony before the Congress and in filings at the FCC and other governmental agencies.
- Conducted research and studies included in publications and reports distributed by NAB.
- Presented results of primary research and other analyses at industry forums.

Director of Financial and Economic Research 1985 -- 1991

- Supervised the collection and dissemination of the annual industries financial reports

1980 – 1985

Federal Trade Commission
Bureau of Economics
Staff Economist

- Conducted analysis of proposed mergers and other arrangements.
- Conducted analyses of industry practices to evaluate economic impact.
- Participated in litigation support in several antitrust cases.

Professional activities

Broadcast & Cable Financial Management Association – Board Member 2001-2004
American Economic Association – member
Southern Economic Association – member
Journal of Media Economics – reviewer
Journal of Broadcasting and Electronic Media - reviewer

Articles

"Loosen Up, Already," *Broadcasting & Cable*, April 18, 2005, p. 37.

"The Party's Not Over, The Band is Just Taking a Break: How Radio Will Fare," *The Financial Manager*, April-May 2001, pp. 29- 31.

"Broadcasting Industry Responses to New Technologies (with Rick Ducey), *Journal of Media Economics*, Fall 1989, Vol. 2, No. 2, pp. 67-86.

"Dual Distribution as a Vertical Control Device," (with Malcolm B. Coate), *Journal of Behavioral Economics,* Spring 1989, Vol. 18, No. 1, pp. 1-19.

"The Myth of the Roaring 70s and the Quiet 80s," NAB Info-Pak, November 1988.

Book Review of *Video Media Competition, Cato Journal*, Fall 1986.

"The Television Audience-Revenue Relationship Revisited," Presented at the Broadcast Education Association Conference, April 28, 1986.

"How Important is Local Advertising to Today's Television Station," *Broadcast Financial Journal*, April 1986, pp. 12 –15.

"Predatory Pricing Theory Applied: The Case of Supermarkets vs. Warehouse Stores," (with Richard Craswell), *Case Western Reserve Law Review*, Vol. 26, No. 1, 1985-86.

"Unanswered Questions About Franchising: Comments," (with Ron Lafferty), *Southern Economic Journal,* 1984, pp. 928-932.

Books and Reports

State of The Radio Industry:

Radio Transactions 2000, 2001, 2003 BIA Financial Network.
Radio Industry Revenues – 2000 & Beyond, 2001BIA Financial Network
Ownership and Consolidation 2001, 2001BIA Financial Network
What is Going on With Radio Formats, 2002 BIA Financial Network

Radio Transactions 2001: Where Did All the Deals Go?, 2002, BIA Financial Network
Radio Industry Revenue: Radio Revenues: Is the Bloom Back?, 2002, BIA Financial Network

State of The Television Industry:

Television Transactions 2000, 2001, BIA Financial Network.
Television Industry Revenues – 2000 & Beyond, 2001BIA Financial Network.
Ownership Report: What is Owned by Whom and Where, 2001 BIA Financial Network.
Once the National Caps Go, Who Will the Networks Acquire, 2002 BIA Financial Network
Television Transactions 2001: The Lull Before the Storm?, 2002 BIA Financial Network
Television Revenues 2003:Is There Hope?, 2002 BIA Financial Network

FM Subcarrier Market Report/Technology Guide (with David Layer), 1997, National Association of Broadcasters.

These Taxing Times: A Tax Guide for Broadcasters (editor), 1996, National Association of Broadcasters.

Strategic Planning Handbook for Broadcasters (with Richard Ducey), 1994, National Association of Broadcasters.

1994 FM Subcarrier Market Report, (with Kenneth Springer), 1994, National Association of Broadcasters.

The 1993 Tax Act: What it Means (editor), 1993, National Association of Broadcasters.

Fair Market Value of Radio Stations: A Buyer's Guide, 2nd edition (with Bruce Bishop Cheen), National Association of Broadcasters, 1990.

RadiOutlook: Forces Shaping the Radio Industry (with John Abel & Richard Ducey), April 1988, National Association of Broadcasters.

Targeting Radio's Future: Radio '87, (with John Abel & Richard Ducey), September 1987, National Association of Broadcasters.

The Small Market Television Manager's Guide (editor), 1987, National Association of Broadcasters.

Tax Reform: Effects on Broadcasters and Broadcasting (editor), 1987, National Association of Broadcasters.

"The New Audio Marketplace: Challenges and Opportunities for Broadcasters," (with Richard Ducey) NAB Special Report, September 1985.

"The New Audio Marketplace: Challenges and Opportunities for Broadcasters," NAB Special Report, September 1985.

<u>Policy Research</u>

"Media Outlets By Market," Attachment A, Comments of the National Association of Broadcasters, FCC Quadrennial Regulatory Review, MB Docket 06-121, October 23, 2006.

"A Second Look at Out-of Market Listening and Viewership: It Has Even More Significance," Attachment C Comments of the National Association of Broadcasters, FCC Quadrennial Regulatory Review, MB Docket 06-121, October 23, 2006.

"Over the Air Radio Service to Diverse Audiences," Attachment G Comments of the National Association of Broadcasters, FCC Quadrennial Regulatory Review, MB Docket 06-121, October 23, 2006.

"Economic Viability of Local Television Stations in Duopolies," Attachment H Comments of the National Association of Broadcasters, FCC Quadrennial Regulatory Review, MB Docket 06-121, October 23, 2006.

"Reaching the Audience: An Analysis of Digital Broadcast Power and Coverage," prepared for the Association of Maximum Television, Inc. October 23, 2003.

"Analysis of Radio Geographic Market Definitions for Stations in Unrated Areas, "Attachment, Comments of National Association of Broadcasters, Definition of Radio Markets for Areas Not Located in Arbitron Survey Areas, October 6, 2003.

"The NAB's Proposed 10/10 Rule for Evaluating Future Local Television Duopolies: Why 10 as a Threshold Makes Sense," Attachment A, Comments of National Association of Broadcasters, FCC Biennial Review, February 3, 2003

"Television Local Market Agreements and Local Duopolies: Do They Generate New Competition and Diversity?" Attachment A, Comments of LIN Television, Raycom Communications, and Waterman Broadcasting, FCC Biennial Regulatory Review, January 2003.

"Out of Market Listening and Viewing: It's Not To Be Overlooked," Attachment A, Comments of the National Association of Broadcasters, FCC Biennial Regulatory Review, January 2003.

"Television Web Site Activity," Attachment 1, NAB Comments in re FCC examination of Disclosure Requirements for Television Broadcast Licensee Public Interest Obligations, December 2000.

"Independent Radio Voices in Radio Markets," "Format Availability after Consolidation," & "Interference from Low Power FM Stations to Existing Stations" (with David Wilson), Attachments A, B, and Volume 3, respectively, NAB Comments in re FCC examination of the Creation of a Low Power Radio Service, August 1999.

"Media Outlets by Market – Update," "A Financial Analysis of the UHF Handicap," Appendices A and C, respectively, NAB Comments in re FCC 1998 Biennial Review of Commission Ownership Rules, July 1998.

"The Television Industry's Provision of Closed Captioning Services in 1996," Attachment 1 NAB Comments in re FCC examination of Closed Captioning and Video Description of Video Programming, March 1996.

"Radio Station Financial Picture," Attachment 13, NAB Comments in re FCC Establishment of Rules and Policies for the Digital Audio Radio Satellite Service, November 1995.

"The 1990 Children's Television Act: A Second Look at Its Impact" (with Richard V. Ducey), Attachment 1, NAB Reply Comments in re FCC examination of Children's Television Programming Rules, October 1995.

"The 1990 Children's Television Act: Its Impact on the Amount of Educational and Informational Programming," Attachment 1, NAB Comments in re FCC examination of Children's Television Programming Rules, June 1994.

"Minimum Number of Owners under NAB Proposed Ownership Rules," Appendix D, NAB Comments in re FCC examination of Revision of Radio Rules and Policies, May 1992.

"National Ownership Concentration of Television Stations," Appendix A, NAB Comments in re FCC Review of the Policy Implications of the Changing Video Marketplace, November 21, 1991.

"AB Switch Availability and Use," Attachment 1, NAB Comments in re FCC Examination of Carriage of Television Broadcast Signals by Cable Television Systems, September 23, 1991.

"FM Station Financial Picture," Appendix B, NAB Request for Temporary Suspension of New Commercial FM Stations Allotment and Application Processing, February 10, 1991.

"Financial Analysis of Program Duplication for Radio Stations," Appendix E, NAB Comments in re FCC Review of the Technical Assignment Criteria for the AM Broadcast Service, November 1990.

"Programming Aspects of the Territorial Exclusivity Rule," "Financial Condition of Small Market Network Affiliated Television Stations," Appendices A and E, respectively, NAB Comments in re FCC examination of Program Exclusivity Rules, January 1989.

"License Renewal/Transfer Study," (with Michael Fitzmaurice), Appendix A in re FCC examination of Formulation of Policies & Rules Relating to Broadcast Renewal Applications, October 14, 1988.

"An Updated Examination of Market Concentration in Radio Markets," Appendix E, NAB Comments in re FCC examination of Broadcast Multiple Ownership Rules, June 1987.

Testimony at the Environmental Protection Agency: In the Matter of Public Hearing on Federal Radiation on Protection Guidance: Proposed Alternatives for Controlling Public Exposure to Radio Frequency Protection, September 22, 1986.

"FM Facilities Reclassification Survey: Class B and Class C FM Stations," (with Rick Ducey) Appendix A, NAB Comments in re FCC examination of FM Station Reclassification, August 1986.

"Financial Information on Commercial Radio Stations for AM Band Expansion Report," Report V, submission of the Subgroup of Radio Spectrum Allocations on the Advisory Committee on Radio Broadcasting, May 1985.

Testimony

FCC *En Banc* Hearing On Barriers to Communication Financing, July 29, 2008, New York, NY.

Satellite Broadcasting & Communications Association of America, et al vs. Federal Communications Commission, et al, U.S. District Court, Eastern District of Virginia, deposed on May 10, 2001.

Costa De Oro Television, Inc. vs. Charter Communications, LLC, Superior Court of California, Los Angeles County, Central District, deposed on December 17, 2001.

CBS Broadcasting, Inc., et. al. vs. Echostar Communications Corporation, et. al., U.S. District court for the Southern District of Florida, deposed on April 1, 2003

Copyright Arbitration Royalty Panel, witness for National Association of Broadcasters, testified on May 7 –8, 2003.

Braunstein vs. KICU, et. al., Superior Court of the State of California, County of Santa Clara, deposed on February 17, 2004.

Infinity Radio, Inc. vs. Elena Whitby, et. al., Fifteenth Judicial Circuit, Florida, testified on April 4 and 6, 2005.

Qantum Communications Corporation v. Tiger Communications, Alabama, deposed on February 3, 2006.

Michael H. Vechery v. Bonneville International Corporation, et. al., (settled).

Salem Media of Virginia, Inc. v. WAVA Limited Partnerships et. al., (settled).

BIA Advisory Services, LLC
a subsidiary of BIA Financial Network, Inc.

Investing In Radio®

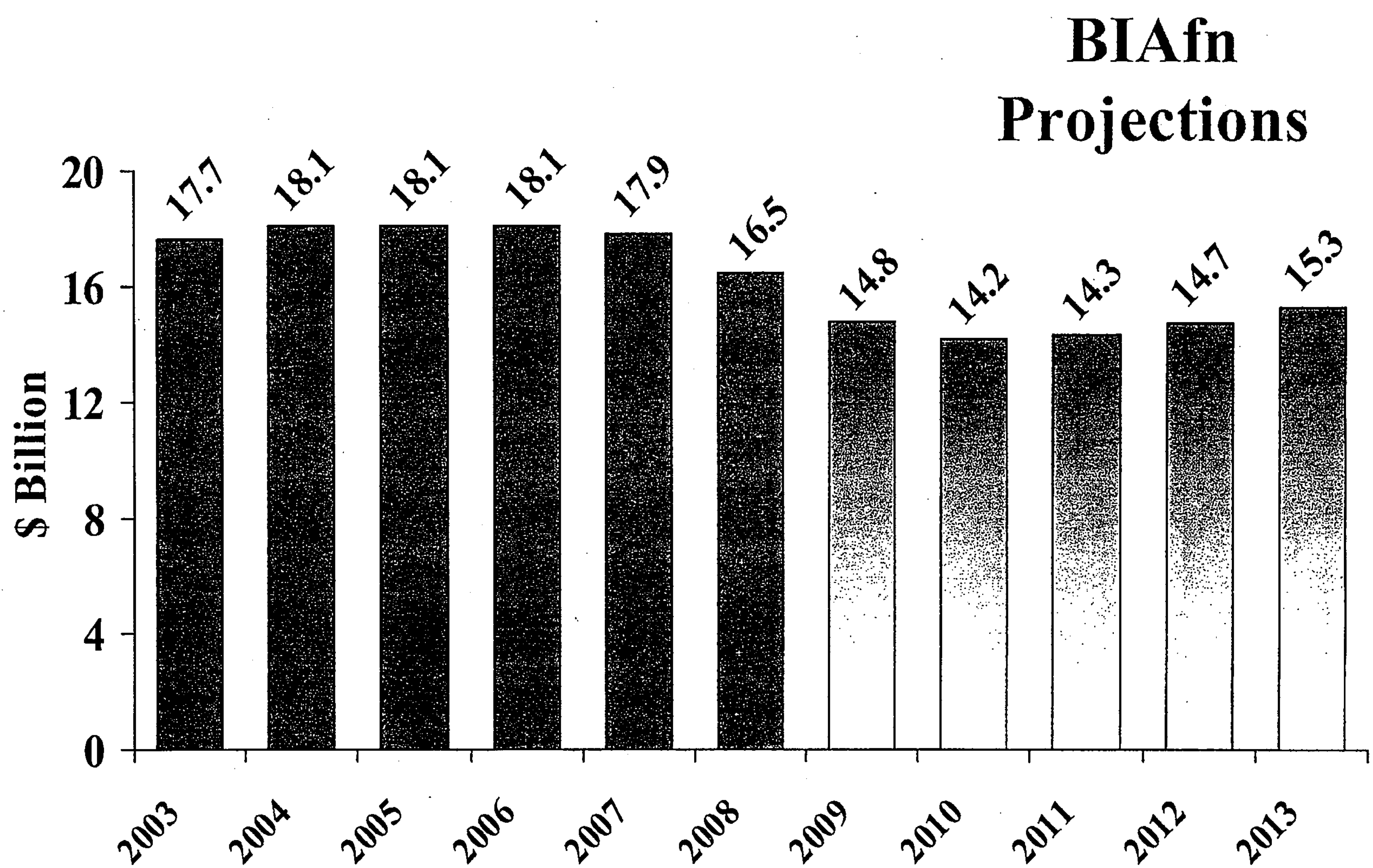
MARKET REPORT 2009

First Edition
Fall 2008 Shares

Also available on CD ROM and via the Internet through BIA's *MEDIA Access Pro*™

BIA Advisory Services, LLC. *• 15120 Enterprise Ct., Chantilly, VA 20151-1217 • Phone: 703-818-2425 • Fax: 703-803-3299 • E-mail: pubs@bia.com • Web: www.bia.com*

Radio Station Revenues 2003 – 2013



BIA Advisory Services, LLC
a subsidiary of BIA Financial Network, Inc.

3

SECTION ONE

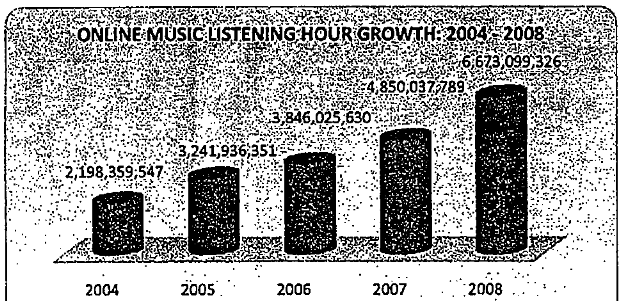
- Listening hours (including Shoutcast, individual streaming track plays and song spins delivered by subscription services) rose 37.6% in 2008 to 6.67 billion
- The monthly average for 2008 was 556.1 million hours of listening time
- Corresponding annual listening hours in 2007 charted 4.85 billion

ONLINE MUSIC LISTENING HOUR COMPARISON: 2004 - 2008

Year	*Hours*	*% Change*	*Average/Month*
2004	2,198,359,547	n/a	183,196,629
2005	3,241,936,351	47.5%	270,161,363
2006	3,846,025,630	18.6%	320,502,136
2007	4,850,037,789	26.1%	404,169,816
2008	6,673,099,326	37.6%	556,091,610

NOTE: Includes track play hours through subscription services such as Napster and Rhapsody.

Source: AccuStream iMedia Research.



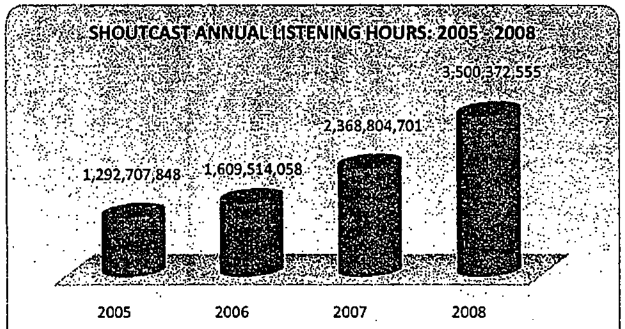
NOTE: Includes subscription services, individual track plays.
Source: AccuStream iMedia Research.

- Shoutcast listening hours grew by 47.8% in 2008
- Shoutcast listening hours also grew by 47% in 2007

SHOUTCAST LISTENING HOUR GROWTH: ANNUAL TOTALS 2005 - 2008

	2006	2007	2008
Shoutcast (in hours)	1,609,514,058	2,368,804,701	3,500,372,555
Percent change	24.5%	47.2%	47.8%

Source: AccuStream iMedia Research.



Source: AccuStream iMedia Research.

- Listening hour growth (excluding Shoutcast) was 27.9% in 2008
- Growth was 10.9% in 2007

ONLINE LISTENING HOUR GROWTH: 2005 – 2008
(Excluding Shoutcast)

	2006	2007	2008
Annual Listening Hours	2,236,511,572	2,481,233,087	3,172,726,771
Percent change	14.7%	10.9%	27.9%

Source: AccuStream iMedia Research.

- The market is forecast to grow by 28% in 2009 to 8.5 billion hours
- The market is forecast to grow another 25% in 2010
- Over the past three years, including 2007 a year when new royalty rates were adopted and introduced into the market which increased operating expenses and forced some webcasters to limit stream access, growth has nevertheless averaged between 19% - 37% over that period

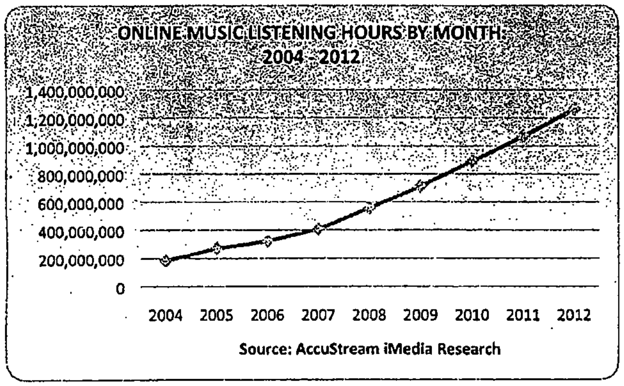
ONLINE MUSIC LISTENING HOUR GROWTH HISTORY AND FORECAST: 2004 - 2012

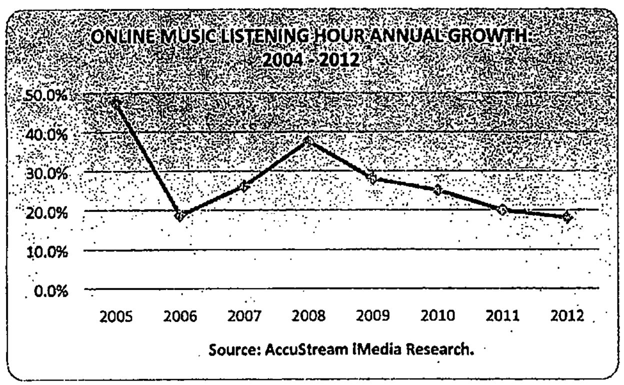
Year	*Hours*	*% Change*	*Average/Month*
2004	2,198,359,547	n/a	183,196,629
2005	3,241,936,351	47.5%	270,161,363
2006	3,846,025,630	18.6%	320,502,136
2007	4,850,037,789	26.1%	404,169,816
2008	6,673,099,326	37.6%	556,091,610
2009	8,541,567,137	28.0%	711,797,261

2010	10,676,958,921	25.0%	889,746,577
2011	12,812,350,706	20.0%	1,067,695,892
2012	15,118,573,833	18.0%	1,259,881,153

NOTE: Includes track play hours through subscription services such as Napster and Rhapsody.

Source: AccuStream iMedia Research.





INTERNET MUSIC LISTENING HOURS: STREAMING RADIO STATIONS AND TRACK PLAYS BY MONTH 2008

Brand/Station/Channel/Service	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)

NOTE: Track plays are converted to listening hours

January-08

Shoutcast (total time spent listening through Shoutcast platform--in hours)	January-08	273,072,957	n/a	n/a
Bonneville/Entercom/Sandusky Broadcasting and others delivered by Liquid Compass (aggregate hours)	January-08	45,000,000	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (675 total online stations)	January-08	42,172,650	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	January-08	31,000,000	17,887,000	18:40
AOL Radio Networks (total listening hours)	January-08	26,100,000	n/a	n/a
Pandora (per song playlist model)	January-08	23,732,526	n/a	n/a
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	January-08	17,500,000	6,000,000	n/a
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users)	January-08	16,516,800	n/a	n/a
Rhapsody Unlimited/To Go music service--does not include downloads (estimated subscribers) (in hours of audio content)	January-08	9,041,667	n/a	n/a
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings)	January-08	8,654,592	2,292,000	44:06
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	January-08	8,285,184	n/a	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	January-08	6,500,632	n/a	n/a
Right Now Radio (total number of listening hours)	January-08	5,040,000	n/a	n/a
Slacker.com (custom streaming radio)	January-08	4,533,333	n/a	n/a
Radioio Networks (total listening hours)	January-08	4,439,878	n/a	n/a
977Music.com (total listening hours, excluding Shoutcast)	January-08	3,976,000	n/a	n/a
AccuRadio com (Listening Hours)	January-08	3,500,000	n/a	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	January-08	3,376,125	18,006,000	27:08
202.fm Network (TSL)	January-08	2,376,000	12,000	n/a
SmoothJazz.com (includes 500k Octoshape player application)	January-08	2,000,000	n/a	n/a
Social.FM	January-08	1,660,000	n/a	n/a
SmoothLounge.com	January-08	1,500,000	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	January-08	1,497,600	8,320	n/a
GotRadio.com Network (TSL) (avg. listening hours/month)	January-08	800,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	January-08	800,000	n/a	n/a
Big R Radio Networks (total listening hours excluding Shoutcast)	January-08	700,000	n/a	n/a
Beethoven.com (total listening hours)	January-08	511,500	n/a	n/a
Emmis Communications (21 stations online)	January-08	350,000	n/a	n/a
BoomerRadio.com (total listening hours)	January-08	308,657	n/a	n/a
KING-FM (total listening hours)	January-08	250,000	n/a	n/a
HitzRadio.com (total listening hours)	January-08	195,700	n/a	n/a
Total:		545,391,801		

Source: AccuStream iMedia Research.

February-08	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	February-08	289,073,713	n/a	n/a
Bonneville/Entercom/Sandusky Broadcasting and others delivered by Liquid Compass (aggregate hours)	February-08	45,000,000	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (675 total online stations)	February-08	40,064,018	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	February-08	33,645,600	18,692,000	17:46
Pandora (per song playlist model)	February-08	24,539,432	n/a	n/a
AOL Radio Networks (total listening hours)	February-08	24,273,000	n/a	n/a
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	February-08	17,500,000	6,000,000	n/a
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users)	February-08	13,500,000	n/a	n/a
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings)	February-08	8,372,328	1,753,000	1:08:04
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	February-08	7,788,073	n/a	n/a
Rhapsody Unlimited/To Go music service--does not include downloads (estimated subscribers) (in hours of audio content)	February-08	7,000,000	2,000,000	n/a
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours)	February-08	7,000,000	4,678,000	22:03
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	February-08	5,590,544	n/a	n/a
977Music.com (total listening hours, excluding Shoutcast)	February-08	5,049,520	n/a	n/a
Right Now Radio (total number of listening hours)	February-08	5,040,000	n/a	n/a
Slacker.com (custom streaming radio)	February-08	4,533,333	n/a	n/a
Radioio Networks (total listening hours)	February-08	4,129,087	n/a	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	February-08	3,710,438	19,789,000	19:28

AccuRadio.com (Listening Hours)	February-08	3,255,000	n/a	n/a
202.fm Network (TSL)	February-08	2,376,000	12,000	n/a
SmoothJazz.com (includes 500k Octoshape player application)	February-08	2,000,000	n/a	n/a
Social.FM	February-08	1,992,000	n/a	n/a
SmoothLounge.com	February-08	1,500,000	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	February-08	1,497,600	8,320	n/a
GotRadio.com Network (TSL) (avg. listening hours/month)	February-08	900,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	February-08	800,000	n/a	n/a
Big R Radio Networks (total listening hours excluding Shoutcast)	February-08	724,500	n/a	n/a
Beethoven.com (total listening hours)	February-08	502,805	n/a	n/a
Emmis Communications (21 stations online)	February-08	350,000	n/a	n/a
BoomerRadio.com (total listening hours)	February-08	250,012	n/a	n/a
KING-FM (total listening hours)	February-08	250,000	n/a	n/a
HitzRadio.com (total listening hours)	February-08	194,917	n/a	n/a
Total:		562,401,918		

Source: AccuStream iMedia Research.

March-08

	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	March-08	290,267,432	n/a	n/a
Bonneville/Entercom/Sandusky Broadcasting and others delivered by Liquid Compass (aggregate hours)	March-08	45,000,000	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (675 total online stations)	March-08	44,471,059	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	March-08	32,877,000	18,265,000	16:05
AOL Radio Networks (total listening hours)	March-08	31,320,000	n/a	n/a
Pandora (per song playlist model)	March-08	27,500,000	n/a	n/a
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	March-08	17,500,000	6,000,000	n/a
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users)	March-08	15,000,000	809,000	20:57
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	March-08	8,332,800	n/a	n/a
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (760,000 subs worldwide as of March 31 2008)	March-08	7,947,264	1,664,000	49:45
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours)	March-08	5,833,333	4,813,000	25:22
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	March-08	5,300,000	n/a	n/a
Radioio Networks (total listening hours)	March-08	5,202,649	n/a	n/a
Right Now Radio (total number of listening hours)	March-08	5,040,000	n/a	n/a
977Music.com (total listening hours, excluding Shoutcast)	March-08	5,004,100	n/a	n/a
Slacker.com (custom streaming radio)	March-08	4,533,333	n/a	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	March-08	3,712,125	19,798,000	20:13
AccuRadio.com (Listening Hours)	March-08	2,600,000	n/a	n/a
202.fm Network (TSL)	March-08	2,376,000	12,000	n/a
Social.FM	March-08	1,772,880	n/a	n/a
SmoothLounge.com	March-08	1,500,000	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	March-08	1,497,600	8,320	n/a
GotRadio.com Network (TSL) (avg. listening hours/month)	March-08	1,300,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	March-08	800,000	n/a	n/a
Big R Radio Networks (total listening hours excluding Shoutcast)	March-08	520,800	20,000	n/a
Beethoven.com (total listening hours)	March-08	437,440	n/a	n/a
Emmis Communications (21 stations online)	March-08	350,000	n/a	n/a
KING-FM (total listening hours)	March-08	250,000	n/a	n/a
BoomerRadio.com (total listening hours)	March-08	210,000	n/a	n/a
HitzRadio.com (total listening hours)	March-08	188,000	n/a	n/a
Total:		568,643,816		

Source: AccuStream iMedia Research.

April-08	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	April-08	293,019,718	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (675 total online stations)	April-08	45,805,191	n/a	n/a
Bonneville/Entercom/Sandusky Broadcasting and others delivered by Liquid Compass (aggregate hours)	April-08	45,000,000	n/a	n/a
AOL Radio Networks (total listening hours)	April-08	33,512,400	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	April-08	27,650,000	17,500,000	15:52
Pandora (per song playlist model)	April-08	27,405,000	n/a	n/a
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	April-08	17,500,000	6,000,000	n/a
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users)	April-08	15,517,650	n/a	n/a
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	April-08	11,823,768	n/a	n/a
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (760,000 subs worldwide as of March 31 2008)	April-08	7,928,160	1,660,000	49:48
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours)	April-08	6,833,333	4,347,000	33:20
Right Now Radio (total number of listening hours)	April-08	5,040,000	n/a	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	April-08	5,000,000	n/a	n/a
977Music.com (total listening hours, excluding Shoutcast)	April-08	4,728,374	n/a	n/a
Slacker.com (custom streaming radio)	April-08	4,533,333	n/a	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	April-08	3,472,500	18,520,000	23:31
Radioio Networks (total listening hours)	April-08	3,405,465	n/a	n/a
AccuRadio.com (Listening Hours)	April-08	2,772,000	n/a	n/a
202.fm Network (TSL)	April-08	2,376,000	12,000	n/a
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours)	April-08	2,333,333	2,000,000	n/a
Social.FM	April-08	1,950,168	n/a	n/a
SmoothLounge.com	April-08	1,500,000	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	April-08	1,497,600	8,320	n/a
GotRadio.com Network (TSL) (avg. listening hours/month)	April-08	1,283,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	April-08	800,000	n/a	n/a
Big R Radio Networks (total listening hours excluding Shoutcast)	April-08	531,216	n/a	n/a
Beethoven.com (total listening hours)	April-08	406,819	n/a	n/a
Emmis Communications (21 stations online)	April-08	350,000	n/a	n/a
KING-FM (total listening hours)	April-08	250,000	n/a	n/a
BoomerRadio.com (total listening hours)	April-08	210,840	n/a	n/a
HitzRadio.com (total listening hours)	April-08	196,460	n/a	n/a
Total:		574,632,329		

Source: AccuStream iMedia Research.

May-08	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	May-08	280,496,441	n/a	n/a
Bonneville/Entercom/Sandusky Broadcasting and others delivered by Liquid Compass (aggregate hours)	May-08	45,000,000	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	May-08	43,951,698	n/a	n/a
AOL Radio Networks (TSL)	May-08	37,204,200	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	May-08	29,282,400	17,369,000	13:49
Pandora (per song playlist model)	May-08	27,500,000	n/a	n/a
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	May-08	17,500,000	6,000,000	n/a
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience)	May-08	12,500,000	n/a	n/a
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	May-08	12,209,940	n/a	n/a
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours)	May-08	8,580,000	5,297,000	24:35
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (760,000 subs worldwide as of March 31 2008)	May-08	8,333,333	1,668,000	42:50
977Music.com (total listening hours, excluding Shoutcast)	May-08	6,569,568	n/a	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	May-08	5,896,944	n/a	n/a
Right Now Radio (total number of listening hours)	May-08	5,040,000	n/a	n/a

Slacker.com (custom streaming radio)	May-08	4,533,333	n/a	n/a
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (adding CBS stations)	May-08	4,200,000	2,000,000	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	May-08	3,485,625	18,590,000	21:09
Radioio Networks (total listening hours)	May-08	2,833,488	n/a	n/a
202.fm Network (TSL)	May-08	2,376,000	12,000	n/a
AccuRadio.com (TSL)	May-08	2,178,000	n/a	n/a
SmoothJazz.com (includes 500k Octoshape player application)	May-08	2,000,000	n/a	n/a
Social.FM	May-08	1,900,000	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	May-08	1,497,600	8,320	n/a
SmoothLounge.com	May-08	1,200,000	n/a	n/a
GotRadio.com Network (TSL) (avg. listening hours/month)	May-08	1,100,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	May-08	800,000	n/a	n/a
Beethoven.com (total listening hours)	May-08	423,092	n/a	n/a
Big R Radio Networks (total listening hours excluding Shoutcast)	May-08	375,000	25,000	n/a
Emmis Communications (21 stations online)	May-08	350,000	n/a	n/a
KING-FM (total listening hours)	May-08	250,000	n/a	n/a
BoomerRadio.com (total listening hours)	May-08	219,274	n/a	n/a
Total:		569,785,936		

Source: AccuStream iMedia Research.

June-08	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	June-08	283,026,327	n/a	n/a
Bonneville/Entercom/Sandusky Broadcasting and others delivered by Liquid Compass (aggregate hours)	June-08	45,000,000	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	June-08	38,454,102	n/a	n/a
AOL Radio Networks (TSL)	June-08	34,569,000	n/a	n/a
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast)	June-08	29,750,000	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	June-08	28,226,268	n/a	n/a
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	June-08	17,500,000	6,000,000	n/a
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours) (total of 1,875,000 music subscribers; $37.1 mil. Revenue)	June-08	9,075,000	5,554,000	19:10
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	June-08	9,000,000	1,656,000	56:28
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	June-08	8,796,000	733,000	16:23
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	June-08	8,300,070	n/a	n/a
977Music.com (total listening hours, excluding Shoutcast)	June-08	6,523,632	n/a	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	June-08	5,648,148	n/a	n/a
Right Now Radio (total number of listening hours)	June-08	5,040,000	n/a	n/a
Right Now Radio (total number of listening hours)	June-08	5,040,000	n/a	n/a
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (adding CBS stations)	June-08	4,830,000	n/a	n/a
Slacker.com (custom streaming radio)	June-08	4,533,333	n/a	n/a
Cox Radio (TSL)	June-08	4,144,392	n/a	n/a
Streamguys (TSL)	June-08	4,033,800	n/a	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	June-08	3,720,563	19,843,000	17:54
Entercom Communications	June-08	3,665,088	n/a	n/a
Cumulus Media Online (operates 307 stations in 67 markets)	June-08	3,615,678	n/a	n/a
Radioio Networks (total listening hours)	June-08	3,419,280	n/a	n/a
202.fm Network (TSL)	June-08	2,376,000	12,000	n/a
SmoothJazz.com (includes 500k Octoshape player application)	June-08	2,000,000	n/a	n/a
Social.FM	June-08	1,710,000	n/a	n/a
AccuRadio.com (TSL)	June-08	1,665,972	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	June-08	1,497,600	8,320	n/a
Lincoln Financial Media (TSL)	June-08	1,137,276	n/a	n/a
SmoothLounge.com	June-08	1,000,000	n/a	n/a
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	June-08	900,000	250,000	n/a

	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Beasley Broadcasting Online (44 stations)	June-08	800,000	n/a	n/a
Beethoven.com (total listening hours)	June-08	376,129	n/a	n/a
Big R Radio Networks (total listening hours excluding Shoutcast)	June-08	356,250	n/a	n/a
Emmis Communications (21 stations online)	June-08	350,000	n/a	n/a
KING-FM (total listening hours)	June-08	250,000	n/a	n/a
BoomerRadio.com (total listening hours)	June-08	241,201	n/a	n/a
HitzRadio.com (total listening hours)	June-08	150,000	n/a	n/a
Total:		580,721,108		

Source: AccuStream iMedia Research.

July-08

	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	July-08	283,350,232	n/a	n/a
Bonneville/Entercom/Sandusky Broadcasting and others delivered by Liquid Compass (aggregate hours)	July-08	45,000,000	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	July-08	39,495,240	n/a	n/a
AOL Radio Networks (TSL)	July-08	32,180,000	n/a	n/a
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast)	July-08	29,000,000	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	July-08	26,250,429	17,315,000	13:21
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	July-08	17,500,000	6,000,000	n/a
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	July-08	9,411,720	700,000	n/a
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	July-08	9,300,600	1,775,000	1:02:03
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours) (total of 1,875,000 music subscribers; $37.1 mil. Revenue)	July-08	9,036,500	4,605,000	24:54
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	July-08	7,509,936	n/a	n/a
977Music.com (total listening hours, excluding Shoutcast)	July-08	6,549,246	n/a	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	July-08	5,316,907	n/a	n/a
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (adding CBS stations)	July-08	4,999,050	n/a	n/a
Slacker.com (custom streaming radio)	July-08	4,533,333	n/a	n/a
Right Now Radio (total number of listening hours) (AQH By Webcast Metrics: Monday - Sunday)	July-08	4,435,200	24,799	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	July-08	3,589,313	19,143,000	19:43
Entercom Communications	July-08	3,550,000	n/a	n/a
Radioio Networks (total listening hours)	July-08	3,500,000	n/a	n/a
Streamguys (TSL)	July-08	3,404,302	n/a	n/a
Cumulus Media Online (operates 307 stations in 67 markets)	July-08	3,217,953	n/a	n/a
Cox Radio (TSL)	July-08	3,169,440	n/a	n/a
202.fm Network (TSL)	July-08	2,376,000	12,000	n/a
SmoothJazz.com (includes 500k Octoshape player application)	July-08	2,000,000	n/a	n/a
AccuRadio.com (TSL)	July-08	1,517,537	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	July-08	1,497,600	8,320	n/a
SmoothLounge.com	July-08	1,000,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	July-08	800,000	n/a	n/a
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	July-08	782,000	250,000	n/a
Lincoln Financial Media (TSL)	July-08	757,206	n/a	n/a
Big R Radio Networks (total listening hours excluding Shoutcast)	July-08	359,813	n/a	n/a
Beethoven.com (total listening hours)	July-08	357,322	n/a	n/a
Emmis Communications (21 stations online)	July-08	350,000	n/a	n/a
KING-FM (total listening hours) (168,316 unique listeners; 98 minutes TSL average)	July-08	275,000	n/a	n/a
Total:		566,371,879		

Source: AccuStream iMedia Research.

August-08

	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)

Shoutcast (total time spent listening through Shoutcast platform--in hours)	August-08	278,608,347	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	August-08	43,444,764	95,645	n/a
AOL Radio Networks (TSL)	August-08	33,563,740	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	August-08	29,433,161	15,216,000	12:27
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast)	August-08	28,750,000	n/a	n/a
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	August-08	17,500,000	6,000,000	n/a
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	August-08	9,609,366	n/a	n/a
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	August-08	8,835,570	3,760,000	29:26
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours) (total of 1,875,000 music subscribers; $37.1 mil. Revenue)	August-08	8,695,500	4,205,000	24:06
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	August-08	8,636,426	n/a	n/a
977Music.com (total listening hours, excluding Shoutcast)	August-08	6,688,745	n/a	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	August-08	5,428,562	n/a	n/a
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	August-08	4,704,000	n/a	n/a
Slacker.com (custom streaming radio)	August-08	4,533,333	n/a	n/a
Right Now Radio (total number of listening hours) (AQH By Webcast Metrics: Monday - Sunday)	August-08	4,500,000	n/a	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	August-08	3,794,813	20,239,000	20:05
Radioio Networks (total listening hours)	August-08	3,573,500	n/a	n/a
Cumulus Media Online (operates 307 stations in 67 markets)	August-08	3,411,031	n/a	n/a
Cox Radio (TSL)	August-08	3,223,320	n/a	n/a
Entercom Communications (TSL)	August-08	2,709,462	n/a	n/a
202.fm Network (TSL)	August-08	2,376,000	12,000	n/a
SmoothJazz.com (includes 500k Octoshape player application)	August-08	2,000,000	n/a	n/a
AccuRadio.com (TSL)	August-08	1,547,045	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	August-08	1,497,600	8,320	n/a
SmoothLounge.com	August-08	1,000,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	August-08	900,000	n/a	n/a
Lincoln Financial Media (TSL)	August-08	758,720	n/a	n/a
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	August-08	750,720	n/a	n/a
Beethoven.com (total listening hours)	August-08	378,762	n/a	n/a
Big R Radio Networks (total listening hours excluding Shoutcast)	August-08	371,327	n/a	n/a
Emmis Communications (21 stations online)	August-08	350,000	n/a	n/a
KING-FM (total listening hours)	August-08	278,465	n/a	n/a
Total:		521,852,279		

Source: AccuStream iMedia Research.

September-08

September-08	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	September-08	282,555,286	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	September-08	49,334,220	n/a	n/a
AOL Radio Networks (TSL)	September-08	35,443,309	n/a	n/a
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast) (10% iPhone)	September-08	30,000,000	3,000,000	n/a
Yahoo Music/LaunchCast (total listening hours)	September-08	27,010,130	16,074,000	13:38
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	September-08	17,500,000	n/a	n/a
Rhapsody.com (est. 22% of MP3 track play share) (combined usage) (in listening hours) (total of 2,000,000 music subscribers; $41.1 mil. Revenue)	September-08	9,240,000	5,338,000	21:07
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	September-08	8,550,000	950,000	20:38
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	September-08	8,134,500	2,805,000	15:29
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	September-08	7,312,176	n/a	n/a
977Music.com (total listening hours, excluding Shoutcast)	September-08	6,556,968	n/a	n/a
Right Now Radio (total number of listening hours) (223 stations online, 165 FM 58 AM)	September-08	5,579,867	n/a	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	September-08	4,404,024	n/a	n/a
Slacker.com (custom streaming radio)	September-08	4,266,667	n/a	n/a
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	September-08	4,200,000	2,600,000	n/a
Radioio Networks (total listening hours)	September-08	3,644,970	n/a	n/a

AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	September-08	3,603,938	19,221,000	19:23
Cumulus Media Online (operates 307 stations in 67 markets)	September-08	3,479,251	n/a	n/a
Streamguys (TSL)	September-08	3,319,992	n/a	n/a
Entercom Communications (TSL) (23 stations online)	September-08	2,674,201	10,797	n/a
Cox Radio (TSL) (86 stations online)	September-08	2,656,080	n/a	n/a
202.fm Network (TSL)	September-08	2,376,000	12,000	n/a
SmoothJazz.com (includes 500k Octoshape player application)	September-08	2,000,000	n/a	n/a
AccuRadio.com (TSL)	September-08	1,708,740	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	September-08	1,497,600	8,320	n/a
SmoothLounge.com	September-08	1,000,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	September-08	900,000	n/a	n/a
Lincoln Financial Media (TSL) (15 stations online)	September-08	614,628	n/a	n/a
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	September-08	500,000	n/a	n/a
Emmis Communications (21 stations online) (Emmis interactive Platform hosts over 100 independent stations online)	September-08	500,000	n/a	n/a
Big R Radio Networks (total listening hours excluding Shoutcast)	September-08	375,000	n/a	n/a
Beethoven.com (total listening hours)	September-08	360,000	n/a	n/a
KING-FM (total listening hours)	September-08	286,819	n/a	n/a
Total:		531,584,366		

Source: AccuStream iMedia Research.

October-08

	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	October-08	303,000,719	n/a	n/a
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	October-08	46,374,167	n/a	n/a
AOL Radio Networks (TSL)	October-08	36,683,825	n/a	n/a
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast) (10% iPhone)	October-08	36,000,000	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	October-08	28,171,566	n/a	n/a
IMEEM.com (average monthly U.S. unique users: 6+ million) (total listening hours) (audio/video advertising)	October-08	13,066,667	8,000,000	n/a
Rhapsody.com (est. 22% of MP3 track play share) (combined usage) (in listening hours) (total of 2,000,000 music subscribers; $41.1 mil. Revenue)	October-08	9,837,333	4,979,000	21:55
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	October-08	7,951,500	n/a	n/a
Digitally Imported Radio Network (total listening hours) (includes Sky.fm) (approx. 15 million hours delivered through Shoutcast)	October-08	7,546,166	n/a	n/a
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	October-08	7,009,700	1,910,000	25:56
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	October-08	6,533,333	2,800,000	n/a
977Music.com (total listening hours, excluding approximately 7 million hours through Shoutcast)	October-08	6,124,208	n/a	n/a
Right Now Radio (total number of listening hours) (223 stations online, 165 FM 58 AM)	October-08	5,832,568	n/a	n/a
Slacker.com (custom streaming radio)	October-08	5,795,833	500,000	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (approx. 6 million hours/month through Shoutcast)	October-08	4,624,225	n/a	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	October-08	3,562,875	19,002,000	20:38
Streamguys (TSL)	October-08	3,389,712	n/a	n/a
Radioio Networks (total listening hours)	October-08	3,316,923	n/a	n/a
Cumulus Media Online (operates 307 stations in 67 markets)	October-08	3,154,545	n/a	n/a
Cox Radio (TSL) (86 stations online)	October-08	2,674,673	n/a	n/a
Entercom Communications (TSL) (23 stations online)	October-08	2,460,265	n/a	n/a
202.fm Network (TSL)	October-08	2,376,000	12,000	n/a
SmoothJazz.com (includes 500k Octoshape player application)	October-08	2,000,000	n/a	n/a
AccuRadio.com (TSL)	October-08	1,725,827	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	October-08	1,497,600	8,320	n/a
SmoothLounge.com	October-08	1,000,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	October-08	900,000	n/a	n/a
Lincoln Financial Media (TSL) (15 stations online)	October-08	633,067	n/a	n/a
Emmis Communications (21 stations online) (Emmis Interactive Platform hosts over 100 independent stations online)	October-08	500,000	n/a	n/a
Big R Radio Networks (total listening hours excluding approx. 1 million hours served through Shoutcast)	October-08	395,625	n/a	n/a
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	October-08	377,000	n/a	n/a
Beethoven.com (total listening hours)	October-08	367,560	n/a	n/a

KING-FM (total listening hours)	October-08	290,834	n/a	n/a
BoomerRadio.com (total listening hours)	October-08	220,000	n/a	n/a
Total:		555,394,316		

Source: AccuStream iMedia Research.

November-08	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	November-08	321,124,765	n/a	n/a
Clear Channel Online (TSL)	November-08	42,245,820	n/a	n/a
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast) (10% iPhone)	November-08	33,000,000	3,300,000	n/a
AOL Radio Networks (TSL)	November-08	24,102,000	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	November-08	20,193,498	17,673,000	n/a
IMEEM.com (average monthly U.S. unique users: 6+ million) (total listening hours) (audio/video advertising)	November-08	12,133,333	8,000,000	n/a
Rhapsody.com (est. 22% of MP3 track play share) (combined usage) (in listening hours) (total of 2,850,000 music subscribers)	November-08	10,500,000	5,520,000	22:54
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	November-08	7,672,644	n/a	n/a
977Music.com (total listening hours, excluding approximately 7 million hours through Shoutcast)	November-08	7,162,056	n/a	n/a
Digitally Imported Radio Network (total listening hours) (includes Sky.fm) (approx. 15 million hours delivered through Shoutcast)	November-08	7,099,776	n/a	n/a
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	November-08	6,276,360	1,626,000	48:56
Right Now Radio (total number of listening hours) (223 stations online, 165 FM 58 AM)	November-08	5,450,069	n/a	n/a
Slacker.com (custom streaming radio)	November-08	5,416,667	500,000	n/a
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	November-08	5,366,667	2,300,000	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (approx. 6 million hours/month through Shoutcast)	November-08	4,543,344	n/a	n/a
Cumulus Media Online (operates 307 stations in 67 markets)	November-08	3,684,000	n/a	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	November-08	3,297,840	16,912,000	26:36
Radioio Networks (total listening hours)	November-08	3,283,753	n/a	n/a
Streamguys (TSL)	November-08	2,766,258	n/a	n/a
Cox Radio (TSL)	November-08	2,652,552	n/a	n/a
202.fm Network (TSL)	November-08	2,376,000	12,000	n/a
Entercom Communications (TSL) (23 stations online)	November-08	2,372,994	n/a	n/a
SmoothJazz.com (includes 500k Octoshape player application)	November-08	2,000,000	n/a	n/a
AccuRadio.com (TSL)	November-08	1,944,360	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	November-08	1,497,600	8,320	n/a
SmoothLounge.com	November-08	1,000,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	November-08	900,000	n/a	n/a
Lincoln Financial Media (TSL) (15 stations online)	November-08	658,390	n/a	n/a
Emmis Communications (21 stations online) (Emmis Interactive Platform hosts over 100 independent stations online)	November-08	500,000	n/a	n/a
Emmis Communications (21 stations online) (Emmis Interactive Platform hosts over 100 independent stations online) (AQH)	November-08	450,000	2,600	n/a
Big R Radio Networks (total listening hours excluding approx. 1 million hours served through Shoutcast)	November-08	380,235	n/a	n/a
Beethoven.com (total listening hours)	November-08	341,831	n/a	n/a
KING-FM (total listening hours)	November-08	295,488	n/a	n/a
BoomerRadio.com (total listening hours)	November-08	250,000	n/a	n/a
Total:		542,938,299		

Source: AccuStream iMedia Research.

December-08	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
Shoutcast (total time spent listening through Shoutcast platform--in hours)	December-08	322,776,618	n/a	n/a
Clear Channel Online (TSL)	December-08	46,766,123	n/a	n/a
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast) (10% iPhone)	December-08	31,000,000	n/a	n/a
AOL Radio Networks (TSL)	December-08	25,548,120	n/a	n/a
Yahoo Music/LaunchCast (total listening hours)	December-08	23,424,458	17,737,000	n/a

IMEEM.com (average monthly U.S. unique users: 6+ million) (total listening hours) (audio/video advertising)	December-08	11,200,000	8,000,000	n/a
Rhapsody.com (est. 22% of MP3 track play share) (combined usage) (in listening hours) (total of 2,850,000 music subscribers)	December-08	10,850,000	5,887,000	31:08
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	December-08	10,602,667	2,198,000	49:23
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	December-08	7,749,370	n/a	n/a
Digitally Imported Radio Network (total listening hours) (includes Sky.fm) (approx. 15 million hours delivered through Shoutcast)	December-08	6,744,787	80,000	n/a
977Music.com (total listening hours, excluding approximately 7 million hours through Shoutcast)	December-08	6,732,333	50,000	n/a
Right Now Radio (total number of listening hours) (223 stations online, 165 FM 58 AM)	December-08	5,177,565	n/a	n/a
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	December-08	4,900,000	2,100,000	n/a
1.FM Network/EnergyRadio (5 million user tune ins per month) (approx. 6 million hours/month through Shoutcast)	December-08	4,725,078	75,000	n/a
Slacker.com (custom streaming radio)	December-08	4,333,333	400,000	n/a
Radioio Networks (total listening hours)	December-08	3,612,129	n/a	n/a
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	December-08	3,595,928	16,533,000	29:50
Cumulus Media Online (operates 307 stations in 67 markets)	December-08	3,411,384	n/a	n/a
Cox Radio (TSL)	December-08	2,466,873	n/a	n/a
Streamguys (TSL)	December-08	2,461,970	n/a	n/a
202.fm Network (TSL)	December-08	2,376,000	12,000	n/a
Entercom Communications (TSL) (23 stations online)	December-08	2,320,788	n/a	n/a
AccuRadio.com (TSL)	December-08	2,250,600	n/a	n/a
SmoothJazz.com (includes 500k Octoshape player application)	December-08	2,000,000	n/a	n/a
SomaFM.com (AQH, TSL) (donation supported, ad free)	December-08	1,497,600	n/a	n/a
SmoothLounge.com	December-08	1,000,000	n/a	n/a
Beasley Broadcasting Online (44 stations)	December-08	900,000	n/a	n/a
Lincoln Financial Media (TSL) (15 stations online)	December-08	638,638	n/a	n/a
Emmis Communications (21 stations online) (Emmis Interactive Platform hosts over 100 independent stations online) (AQH)	December-08	500,000		
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	December-08	450,000	n/a	n/a
Big R Radio Networks (total listening hours excluding approx. 1 million hours served through Shoutcast)	December-08	422,061	n/a	n/a
Beethoven.com (total listening hours)	December-08	353,863	n/a	n/a
KING-FM (total listening hours)	December-08	327,991	n/a	n/a
BoomerRadio.com (total listening hours)	December-08	265,000	n/a	n/a
Total:		553,381,277		
2008 Time Spent Listening:		6,673,099,326		
Average Per Month (In Hours)		556,091,610		

Source: AccuStream iMedia Research.

SECTION TWO

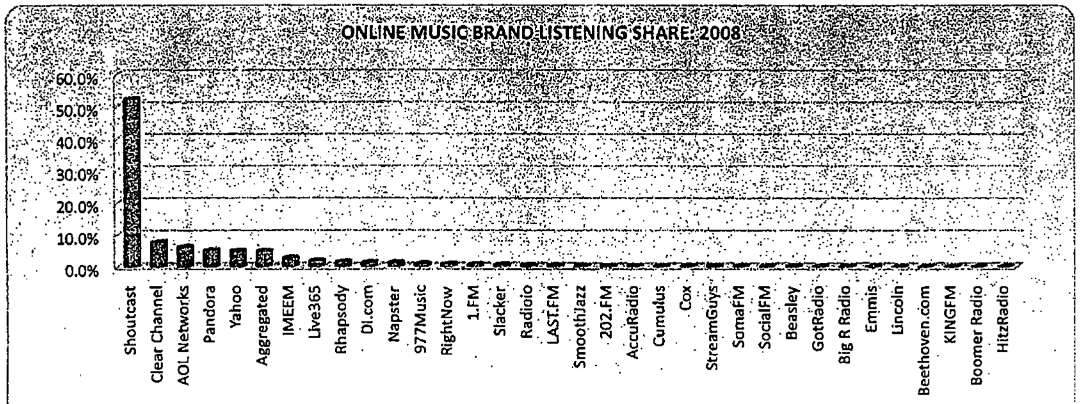
- Shoutcast was the dominant music radio destination, service and platform in 2008 (and previous years) with 52.5% share of total hours
- Clear Channel holds the second spot, with 7.8% share
- AOL Networks had 6.3% share
- Pandora at 5.2% share
- Yahoo Music at 5.1%

TIME SPENT LISTENING SHARE: 2008

Shoutcast	52.5%
Clear Channel	7.8%
AOL Networks	6.3%
Pandora	5.2%
Yahoo	5.1%
Aggregated*	5.0%
IMEEM	2.9%
Live365	2.0%
Rhapsody	1.7%
DI.com	1.5%
Napster	1.5%
977Music	1.1%
RightNow	1.0%
1.FM	0.9%
Slacker	0.8%
Radiolo	0.7%
LAST.FM	0.6%
SmoothJazz	0.5%
202.FM	0.4%
AccuRadio	0.4%
Cumulus	0.4%
Cox	0.3%
StreamGuys	0.3%
SomaFM	0.3%
SocialFM	0.2%
Beasley	0.2%
GotRadio	0.1%
Big R Radio	0.1%
Emmis	0.1%
Lincoln	0.1%
Beethoven.com	0.1%
KINGFM	0.0%
Boomer Radio	0.0%
HitzRadio	0.0%

* = Includes Bonneville, Sandusky, Entercom and others delivered by Liquid Compass (712 station total)

Source: AccuStream iMedia Research.



NOTE: Includes aggregated track play estimates, streaming hours.
Source: AccuStream IMedia Research.

- Clear Channel holds the top spot when excluding Shoutcast, with a 16.5% share
- AOL Networks has a corresponding 13.2% share
- Pandora an 11% share
- Yahoo at 10.6% share
- The two major subscription streaming music services (Rhapsody and Napster—owned by Best Buy) had a combined 6.7% share

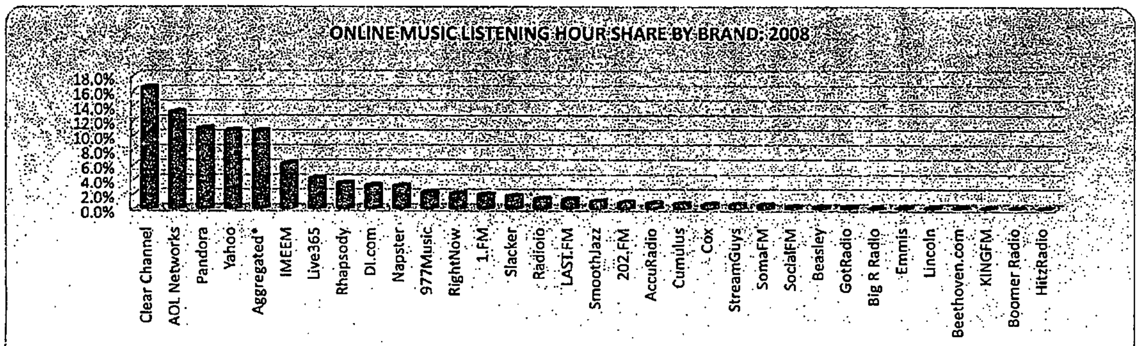
TIME SPENT LISTENING SHARE: 2008
Excluding Shoutcast

Clear Channel	16.5%
AOL Networks	13.2%
Pandora	11.0%
Yahoo	10.6%
Aggregated*	10.6%
IMEEM	6.1%
Live365	4.2%
Rhapsody	3.5%
DI.com	3.2%
Napster	3.2%
977Music	2.3%
RightNow	2.1%
1.FM	2.0%
Slacker	1.8%
Radioio	1.4%
LAST.FM	1.3%
SmoothJazz	1.1%
202.FM	0.9%
AccuRadio	0.8%

Cumulus	0.8%
Cox	0.7%
StreamGuys	0.6%
SomaFM	0.6%
SocialFM	0.3%
Beasley	0.3%
GotRadio	0.3%
Big R Radio	0.2%
Emmis	0.2%
Lincoln	0.2%
Beethoven.com	0.2%
KINGFM	0.1%
Boomer Radio	0.1%
HitzRadio	0.0%

* = Includes Bonneville, Sandusky, Entercom and others delivered by Liquid Compass (712 station total)

Source: AccuStream iMedia Research.



NOTE: Excluding Shoutcast. Includes track plays, in hours.
Source: AccuStream iMedia Research.

INTERNET MUSIC LISTENING HOURS: STREAMING RADIO STATIONS AND TRACK PLAYS

Brand/Station/Channel/Service NOTE: Track plays are converted to listening hours	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)	Total Hours	Share
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	January-08	6,500,632	n/a	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	May-08	5,896,944	n/a	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	June-08	5,648,148	n/a	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	February-08	5,590,544	n/a	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	August-08	5,428,562	n/a	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	July-08	5,316,907	n/a	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	March-08	5,300,000	n/a	n/a		

1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	April-08	5,000,000	n/a	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (also available through Shoutcast)	September-08	4,404,024	n/a	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (approx. 6 million hours/month through Shoutcast)	December-08	4,725,078	75,000	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (approx. 6 million hours/month through Shoutcast)	October-08	4,624,225	n/a	n/a		
1.FM Network/EnergyRadio (5 million user tune ins per month) (approx. 6 million hours/month through Shoutcast)	November-08	4,543,344	n/a	n/a		
					62,978,408	0.9%
202.fm Network (TSL)	January - December 2008	28,512,000	12,000	n/a		
					28,512,000	0.4%
977Music.com (total listening hours, excluding approximately 7 million hours through Shoutcast)	November-08	7,162,056	n/a	n/a		
977Music.com (total listening hours, excluding approximately 7 million hours through Shoutcast)	December-08	6,732,333	50,000	n/a		
977Music.com (total listening hours, excluding approximately 7 million hours through Shoutcast)	October-08	6,124,208	n/a	n/a		
977Music.com (total listening hours, excluding Shoutcast)	August-08	6,688,745	n/a	n/a		
977Music.com (total listening hours, excluding Shoutcast)	May-08	6,569,568	n/a	n/a		
977Music.com (total listening hours, excluding Shoutcast)	September-08	6,556,968	n/a	n/a		
977Music.com (total listening hours, excluding Shoutcast)	July-08	6,549,246	n/a	n/a		
977Music.com (total listening hours, excluding Shoutcast)	June-08	6,523,632	n/a	n/a		
977Music.com (total listening hours, excluding Shoutcast)	February-08	5,049,520	n/a	n/a		
977Music.com (total listening hours, excluding Shoutcast)	March-08	5,004,100	n/a	n/a		
977Music.com (total listening hours, excluding Shoutcast)	April-08	4,728,374	n/a	n/a		
977Music.com (total listening hours, excluding Shoutcast)	January-08	3,976,000	n/a	n/a		
					71,664,750	1.1%
AccuRadio.com (Listening Hours)	January-08	3,500,000	n/a	n/a		
AccuRadio.com (Listening Hours)	February-08	3,255,000	n/a	n/a		
AccuRadio.com (Listening Hours)	April-08	2,772,000	n/a	n/a		
AccuRadio.com (Listening Hours)	March-08	2,600,000	n/a	n/a		
AccuRadio.com (TSL)	December-08	2,250,600	n/a	n/a		
AccuRadio.com (TSL)	May-08	2,178,000	n/a	n/a		
AccuRadio.com (TSL)	November-08	1,944,360	n/a	n/a		
AccuRadio.com (TSL)	October-08	1,725,827	n/a	n/a		
AccuRadio.com (TSL)	September-08	1,708,740	n/a	n/a		
AccuRadio.com (TSL)	June-08	1,665,972	n/a	n/a		
AccuRadio.com (TSL)	August-08	1,547,045	n/a	n/a		
AccuRadio.com (TSL)	July-08	1,517,537	n/a	n/a		
					26,665,082	0.4%
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	August-08	3,794,813	20,239,000	20:05		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	June-08	3,720,563	19,843,000	17:54		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	March-08	3,712,125	19,798,000	20:13		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	February-08	3,710,438	19,789,000	19:28		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	September-08	3,603,938	19,221,000	19:23		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	December-08	3,595,928	16,533,000	29:50		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	July-08	3,589,313	19,143,000	19:43		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	October-08	3,562,875	19,002,000	20:38		

AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	May-08	3,485,625	18,590,000	21:09		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	April-08	3,472,500	18,520,000	23:31		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	January-08	3,376,125	18,006,000	27:08		
AOL Music Channel (excluding usage on Radio@AOL.com) total listening hours from song plays	November-08	3,297,840	16,912,000	26:36		
AOL Radio Networks (total listening hours)	April-08	33,512,400	n/a	n/a		
AOL Radio Networks (total listening hours)	March-08	31,320,000	n/a	n/a		
AOL Radio Networks (total listening hours)	January-08	26,100,000	n/a	n/a		
AOL Radio Networks (total listening hours)	February-08	24,273,000	n/a	n/a		
AOL Radio Networks (TSL)	May-08	37,204,200	n/a	n/a		
AOL Radio Networks (TSL)	October-08	36,683,825	n/a	n/a		
AOL Radio Networks (TSL)	September-08	35,443,309	n/a	n/a		
AOL Radio Networks (TSL)	June-08	34,569,000	n/a	n/a		
AOL Radio Networks (TSL)	August-08	33,563,740	n/a	n/a		
AOL Radio Networks (TSL)	July-08	32,180,000	n/a	n/a		
AOL Radio Networks (TSL)	December-08	25,548,120	n/a	n/a		
AOL Radio Networks (TSL)	November-08	24,102,000	n/a	n/a		
					417,421,675	6.3%
Beasley Broadcasting Online (44 stations)	January - July 2008	5,600,000	n/a	n/a		
Beasley Broadcasting Online (44 stations)	August - November 2008	3,600,000	n/a	n/a		
Beasley Broadcasting Online (44 stations)	December-08	900,000	n/a	n/a		
					10,100,000	0.2%
Beethoven.com (total listening hours)	January-08	511,500	n/a	n/a		
Beethoven.com (total listening hours)	February-08	502,805	n/a	n/a		
Beethoven.com (total listening hours)	March-08	437,440	n/a	n/a		
Beethoven.com (total listening hours)	May-08	423,092	n/a	n/a		
Beethoven.com (total listening hours)	April-08	406,819	n/a	n/a		
Beethoven.com (total listening hours)	August-08	378,762	n/a	n/a		
Beethoven.com (total listening hours)	June-08	376,129	n/a	n/a		
Beethoven.com (total listening hours)	October-08	367,560	n/a	n/a		
Beethoven.com (total listening hours)	September-08	360,000	n/a	n/a		
Beethoven.com (total listening hours)	July-08	357,322	n/a	n/a		
Beethoven.com (total listening hours)	December-08	353,863	n/a	n/a		
Beethoven.com (total listening hours)	November-08	341,831	n/a	n/a		
					4,817,122	0.1%
Big R Radio Networks (total listening hours excluding approx. 1 million hours served through Shoutcast)	December-08	422,061	n/a	n/a		
Big R Radio Networks (total listening hours excluding approx. 1 million hours served through Shoutcast)	October-08	395,625	n/a	n/a		
Big R Radio Networks (total listening hours excluding approx. 1 million hours served through Shoutcast)	November-08	380,235	n/a	n/a		
Big R Radio Networks (total listening hours excluding Shoutcast)	February-08	724,500	n/a	n/a		
Big R Radio Networks (total listening hours excluding Shoutcast)	January-08	700,000	n/a	n/a		
Big R Radio Networks (total listening hours excluding Shoutcast)	April-08	531,216	n/a	n/a		
Big R Radio Networks (total listening hours excluding Shoutcast)	March-08	520,800	20,000	n/a		
Big R Radio Networks (total listening hours excluding Shoutcast)	May-08	375,000	25,000	n/a		
Big R Radio Networks (total listening hours excluding Shoutcast)	September-08	375,000	n/a	n/a		
Big R Radio Networks (total listening hours excluding Shoutcast)	August-08	371,327	n/a	n/a		
Big R Radio Networks (total listening hours excluding Shoutcast)	July-08	359,813	n/a	n/a		
Big R Radio Networks (total listening hours excluding Shoutcast)	June-08	356,250	n/a	n/a		
					5,511,826	0.1%

Bonneville/Entercom/Sandusky Broadcasting and others delivered by Liquid Compass (aggregate hours)	January - June 2008	270,000,000	n/a	n/a		
Bonneville/Entercom/Sandusky Broadcasting and others delivered by Liquid Compass (aggregate hours)	July-08	45,000,000	n/a	n/a		
Entercom Communications	June-08	3,665,088	n/a	n/a		
Entercom Communications	July-08	3,550,000	n/a	n/a		
Entercom Communications (TSL)	August-08	2,709,462	n/a	n/a		
Entercom Communications (TSL) (23 stations online)	September-08	2,674,201	10,797	n/a		
Entercom Communications (TSL) (23 stations online)	October-08	2,460,265	n/a	n/a		
Entercom Communications (TSL) (23 stations online)	November-08	2,372,994	n/a	n/a		
Entercom Communications (TSL) (23 stations online)	December-08	2,320,788	n/a	n/a		
(NOTE: Liquid Compass delivers 712 online stations in total)					334,752,798	5.0%
BoomerRadio.com (total listening hours)	January-08	308,657	n/a	n/a		
BoomerRadio.com (total listening hours)	December-08	265,000	n/a	n/a		
BoomerRadio.com (total listening hours)	February-08	250,012	n/a	n/a		
BoomerRadio.com (total listening hours)	November-08	250,000	n/a	n/a		
BoomerRadio.com (total listening hours)	June-08	241,201	n/a	n/a		
BoomerRadio.com (total listening hours)	October-08	220,000	n/a	n/a		
BoomerRadio.com (total listening hours)	May-08	219,274	n/a	n/a		
BoomerRadio.com (total listening hours)	April-08	210,840	n/a	n/a		
BoomerRadio.com (total listening hours)	March-08	210,000	n/a	n/a		
					2,174,983	0.0%
Clear Channel Online (TSL)	December-08	46,766,123	n/a	n/a		
Clear Channel Online (TSL)	November-08	42,245,820	n/a	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (675 total online stations)	April-08	45,805,191	n/a	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (675 total online stations)	March-08	44,471,059	n/a	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (675 total online stations)	January-08	42,172,650	n/a	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (675 total online stations)	February-08	40,064,018	n/a	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	September-08	49,334,220	n/a	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	October-08	46,374,167	n/a	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	May-08	43,951,698	n/a	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	August-08	43,444,764	95,645	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	July-08	39,495,240	n/a	n/a		
Clear Channel Online (TSL) (448 stations are expected to be sold, 374 completed transactions as of June 2007) (750 total online stations)	June-08	38,454,102	n/a	n/a		
					522,579,052	7.8%
Cox Radio (TSL)	June-08	4,144,392	n/a	n/a		
Cox Radio (TSL)	August-08	3,223,320	n/a	n/a		
Cox Radio (TSL)	July-08	3,169,440	n/a	n/a		
Cox Radio (TSL)	November-08	2,652,552	n/a	n/a		
Cox Radio (TSL)	December-08	2,466,873	n/a	n/a		
Cox Radio (TSL) (86 stations online)	October-08	2,674,673	n/a	n/a		
Cox Radio (TSL) (86 stations online)	September-08	2,656,080	n/a	n/a		
					20,987,330	0.3%
Cumulus Media Online (operates 307 stations in 67 markets)	November-08	3,684,000	n/a	n/a		
Cumulus Media Online (operates 307 stations in 67 markets)	June-08	3,615,678	n/a	n/a		
Cumulus Media Online (operates 307 stations in 67 markets)	September-08	3,479,251	n/a	n/a		

Cumulus Media Online (operates 307 stations in 67 markets)	December-08	3,411,384	n/a	n/a		
Cumulus Media Online (operates 307 stations in 67 markets)	August-08	3,411,031	n/a	n/a		
Cumulus Media Online (operates 307 stations in 67 markets)	July-08	3,217,953	n/a	n/a		
Cumulus Media Online (operates 307 stations in 67 markets)	October-08	3,154,545	n/a	n/a		
					23,973,842	0.4%
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	May-08	12,209,940	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	April-08	11,823,768	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	August-08	8,636,426	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	March-08	8,332,800	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	June-08	8,300,070	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	January-08	8,285,184	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	February-08	7,788,073	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	July-08	7,509,936	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm)	September-08	7,312,176	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm) (approx. 15 million hours delivered through Shoutcast)	October-08	7,546,166	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm) (approx. 15 million hours delivered through Shoutcast)	November-08	7,099,776	n/a	n/a		
Digitally Imported Radio Network (total listening hours) (includes Sky.fm) (approx. 15 million hours delivered through Shoutcast)	December-08	6,744,787	80,000	n/a		
					101,589,102	1.5%
Emmis Communications (21 stations online)	January - August 2008	2,800,000	n/a	n/a		
Emmis Communications (21 stations online) (Emmis Interactive Platform hosts over 100 independent stations online)	September - November 2008	1,500,000	n/a	n/a		
Emmis Communications (21 stations online) (Emmis Interactive Platform hosts over 100 independent stations online) (AQH)	December-08	500,000				
Emmis Communications (21 stations online) (Emmis Interactive Platform hosts over 100 independent stations online) (AQH)	November-08	450,000	2,600	n/a		
					5,250,000	0.1%
GotRadio.com Network (TSL) (avg. listening hours/month)	March-08	1,300,000	n/a	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month)	April-08	1,283,000	n/a	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month)	May-08	1,100,000	n/a	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month)	February-08	900,000	n/a	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month)	January-08	800,000	n/a	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	June-08	900,000	250,000	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	July-08	782,000	250,000	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	August-08	750,720	n/a	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	September-08	500,000	n/a	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	December-08	450,000	n/a	n/a		
GotRadio.com Network (TSL) (avg. listening hours/month) (average monthly listeners)	October-08	377,000	n/a	n/a		
					9,142,720	0.1%
HitzRadio.com (total listening hours)	April-08	196,460	n/a	n/a		
HitzRadio.com (total listening hours)	January-08	195,700	n/a	n/a		
HitzRadio.com (total listening hours)	February-08	194,917	n/a	n/a		
HitzRadio.com (total listening hours)	March-08	188,000	n/a	n/a		
HitzRadio.com (total listening hours)	June-08	150,000	n/a	n/a		
					925,077	0.0%

IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	January - August 2008	140,000,000	6,000,000	n/a		
IMEEM.com (average monthly U.S. unique users: 6 million) (total listening hours) (audio/video advertising)	September-08	17,500,000	n/a	n/a		
IMEEM.com (average monthly U.S. unique users: 6+ million) (total listening hours) (audio/video advertising)	October-08	13,066,667	8,000,000	n/a		
IMEEM.com (average monthly U.S. unique users: 6+ million) (total listening hours) (audio/video advertising)	November-08	12,133,333	8,000,000	n/a		
IMEEM.com (average monthly U.S. unique users: 6+ million) (total listening hours) (audio/video advertising)	December-08	11,200,000	8,000,000	n/a		
					193,900,000	2.9%
KING-FM (total listening hours)	January - June 2008	1,500,000	n/a	n/a		
KING-FM (total listening hours)	December-08	327,991	n/a	n/a		
KING-FM (total listening hours)	November-08	295,488	n/a	n/a		
KING-FM (total listening hours)	October-08	290,834	n/a	n/a		
KING-FM (total listening hours)	September-08	286,819	n/a	n/a		
KING-FM (total listening hours)	August-08	278,465	n/a	n/a		
KING-FM (total listening hours) (168,316 unique listeners; 98 minutes TSL average)	July-08	275,000	n/a	n/a		
					3,254,598	0.0%
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (adding CBS stations)	July-08	4,999,050	n/a	n/a		
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (adding CBS stations)	June-08	4,830,000	n/a	n/a		
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (adding CBS stations)	May-08	4,200,000	2,000,000	n/a		
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	October-08	6,533,333	2,800,000	n/a		
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	November-08	5,366,667	2,300,000	n/a		
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	December-08	4,900,000	2,100,000	n/a		
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	August-08	4,704,000	n/a	n/a		
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours based on domestic track plays) (BETA testing free radio service)	September-08	4,200,000	2,600,000	n/a		
Last.FM (U.S. based usage only; song play delivery/choice model) (listening hours)	April-08	2,333,333	2,000,000	n/a		
					42,066,383	0.6%
Lincoln Financial Media (TSL)	June-08	1,137,276	n/a	n/a		
Lincoln Financial Media (TSL)	August-08	758,720	n/a	n/a		
Lincoln Financial Media (TSL)	July-08	757,206	n/a	n/a		
Lincoln Financial Media (TSL) (15 stations online)	November-08	658,390	n/a	n/a		
Lincoln Financial Media (TSL) (15 stations online)	December-08	638,638	n/a	n/a		
Lincoln Financial Media (TSL) (15 stations online)	October-08	633,067	n/a	n/a		
Lincoln Financial Media (TSL) (15 stations online)	September-08	614,628	n/a	n/a		
					5,197,925	0.1%
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users)	January-08	16,516,800	n/a	n/a		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users)	April-08	15,517,650	n/a	n/a		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users)	March-08	15,000,000	809,000	20:57		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users)	February-08	13,500,000	n/a	n/a		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience)	May-08	12,500,000	n/a	n/a		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	August-08	9,609,366	n/a	n/a		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	July-08	9,411,720	700,000	n/a		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	June-08	8,796,000	733,000	16:23		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	September-08	8,550,000	950,000	20:38		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	October-08	7,951,500	n/a	n/a		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	December-08	7,749,370	n/a	n/a		
Live365.com (TSL) (unique users by Nielsen Online) (hours are average for all unique users) (92% broadband audience; 75% US audience)	November-08	7,672,644	n/a	n/a		

					132,775,051	2.0%
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings)	January-08	8,654,592	2,292,000	44:06		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings)	February-08	8,372,328	1,753,000	1:08:04		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	December-08	10,602,667	2,198,000	49:23		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	July-08	9,300,600	1,775,000	1:02:03		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	June-08	9,000,000	1,656,000	56:28		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	August-08	8,835,570	3,760,000	29:26		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	September-08	8,134,500	2,805,000	15:29		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	October-08	7,009,700	1,910,000	25:56		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (708,000 subs worldwide as of June 30 2008)	November-08	6,276,360	1,626,000	48:56		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (760,000 subs worldwide as of March 31 2008)	May-08	8,333,333	1,668,000	42:50		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (760,000 subs worldwide as of March 31 2008)	March-08	7,947,264	1,664,000	49:45		
Napster (music track plays--in hours) (unique users by Nielsen/NetRatings) (760,000 subs worldwide as of March 31 2008)	April-08	7,928,160	1,660,000	49:48		
					100,395,074	1.5%
Pandora (per song playlist model)	March-08	27,500,000	n/a	n/a		
Pandora (per song playlist model)	May-08	27,500,000	n/a	n/a		
Pandora (per song playlist model)	April-08	27,405,000	n/a	n/a		
Pandora (per song playlist model)	February-08	24,539,432	n/a	n/a		
Pandora (per song playlist model)	January-08	23,732,526	n/a	n/a		
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast)	June-08	29,750,000	n/a	n/a		
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast)	July-08	29,000,000	n/a	n/a		
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast)	August-08	28,750,000	n/a	n/a		
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast) (10% iPhone)	October-08	36,000,000	n/a	n/a		
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast) (10% iPhone)	November-08	33,000,000	3,300,000	n/a		
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast) (10% iPhone)	December-08	31,000,000	n/a	n/a		
Pandora (per song playlist model) (average 1 million listeners/day, 1 hour listening per day; $25 million calendar year revenue forecast) (10% iPhone)	September-08	30,000,000	3,000,000	n/a		
					348,176,958	5.2%
Radiolo Networks (total listening hours)	March-08	5,202,649	n/a	n/a		
Radiolo Networks (total listening hours)	January-08	4,439,878	n/a	n/a		
Radiolo Networks (total listening hours)	February-08	4,129,087	n/a	n/a		
Radiolo Networks (total listening hours)	September-08	3,644,970	n/a	n/a		
Radiolo Networks (total listening hours)	December-08	3,612,129	n/a	n/a		
Radiolo Networks (total listening hours)	August-08	3,573,500	n/a	n/a		
Radiolo Networks (total listening hours)	July-08	3,500,000	n/a	n/a		
Radiolo Networks (total listening hours)	June-08	3,419,280	n/a	n/a		
Radiolo Networks (total listening hours)	April-08	3,405,465	n/a	n/a		
Radiolo Networks (total listening hours)	October-08	3,316,923	n/a	n/a		
Radiolo Networks (total listening hours)	November-08	3,283,753	n/a	n/a		
Radiolo Networks (total listening hours)	May-08	2,833,488	n/a	n/a		
					44,361,123	0.7%
Rhapsody Unlimited/To Go music service--does not include downloads (estimated subscribers) (in hours of audio content)	January-08	9,041,667	n/a	n/a		
Rhapsody Unlimited/To Go music service--does not include downloads (estimated subscribers) (in hours of audio content)	February-08	7,000,000	2,000,000	n/a		

Rhapsody.com (est. 22% of MP3 track play share) (combined usage) (in listening hours) (total of 2,000,000 music subscribers; $41.1 mil. Revenue)	October-08	9,837,333	4,979,000	21:55		
Rhapsody.com (est. 22% of MP3 track play share) (combined usage) (in listening hours) (total of 2,000,000 music subscribers; $41.1 mil. Revenue)	September-08	9,240,000	5,338,000	21:07		
Rhapsody.com (est. 22% of MP3 track play share) (combined usage) (in listening hours) (total of 2,850,000 music subscribers)	December-08	10,850,000	5,887,000	31:08		
Rhapsody.com (est. 22% of MP3 track play share) (combined usage) (in listening hours) (total of 2,850,000 music subscribers)	November-08	10,500,000	5,520,000	22:54		
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours)	May-08	8,580,000	5,297,000	24:35		
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours)	February-08	7,000,000	4,678,000	22:03		
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours)	April-08	6,833,333	4,347,000	33:20		
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours)	March-08	5,833,333	4,813,000	25:22		
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours) (total of 1,875,000 music subscribers; $37.1 mil. Revenue)	June-08	9,075,000	5,554,000	19:10		
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours) (total of 1,875,000 music subscribers; $37.1 mil. Revenue)	July-08	9,036,500	4,605,000	24:54		
Rhapsody.com (unique users by Nielsen Online) (combined usage) (in listening hours) (total of 1,875,000 music subscribers; $37.1 mil. Revenue)	August-08	8,695,500	4,205,000	24:06		
					111,522,667	1.7%
Right Now Radio (total number of listening hours)	April - June 2008	15,120,000	n/a	n/a		
Right Now Radio (total number of listening hours)	January - March 2008	15,120,000	n/a	n/a		
Right Now Radio (total number of listening hours)	June-08	5,040,000	n/a	n/a		
Right Now Radio (total number of listening hours) (223 stations online, 165 FM 58 AM)	October-08	5,832,568	n/a	n/a		
Right Now Radio (total number of listening hours) (223 stations online, 165 FM 58 AM)	September-08	5,579,867	n/a	n/a		
Right Now Radio (total number of listening hours) (223 stations online, 165 FM 58 AM)	November-08	5,450,069	n/a	n/a		
Right Now Radio (total number of listening hours) (223 stations online, 165 FM 58 AM)	December-08	5,177,565	n/a	n/a		
Right Now Radio (total number of listening hours) (AQH By Webcast Metrics: Monday - Sunday)	August-08	4,500,000	n/a	n/a		
Right Now Radio (total number of listening hours) (AQH By Webcast Metrics: Monday - Sunday)	July-08	4,435,200	24,799	n/a		
					66,255,269	1.0%
Shoutcast (total time spent listening through Shoutcast platform--in hours)	December-08	322,776,618	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	November-08	321,124,765	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	October-08	303,000,719	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	April-08	293,019,718	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	March-08	290,267,432	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	February-08	289,073,713	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	July-08	283,350,232	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	June-08	283,026,327	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	September-08	282,555,286	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	May-08	280,496,441	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	August-08	278,608,347	n/a	n/a		
Shoutcast (total time spent listening through Shoutcast platform--in hours)	January-08	273,072,957	n/a	n/a		
					3,500,372,555	52.5%
Slacker.com (custom streaming radio)	January - August 2008	36,266,667	n/a	n/a		
Slacker.com (custom streaming radio)	October-08	5,795,833	500,000	n/a		
Slacker.com (custom streaming radio)	November-08	5,416,667	500,000	n/a		
Slacker.com (custom streaming radio)	December-08	4,333,333	400,000	n/a		
Slacker.com (custom streaming radio)	September-08	4,266,667	n/a	n/a		
					56,079,167	0.8%
SmoothJazz.com (includes 500k Octoshape player application)	January-08	2,000,000	n/a	n/a		

SmoothJazz.com (includes 500k Octoshape player application)	February-08	2,000,000	n/a	n/a		
SmoothJazz.com (includes 500k Octoshape player application)	June-08	2,000,000	n/a	n/a		
SmoothJazz.com (includes 500k Octoshape player application)	July-08	2,000,000	n/a	n/a		
SmoothJazz.com (includes 500k Octoshape player application)	May-08	2,000,000	n/a	n/a		
SmoothJazz.com (includes 500k Octoshape player application)	September-08	2,000,000	n/a	n/a		
SmoothJazz.com (includes 500k Octoshape player application)	October-08	2,000,000	n/a	n/a		
SmoothJazz.com (includes 500k Octoshape player application)	November-08	2,000,000	n/a	n/a		
SmoothJazz.com (includes 500k Octoshape player application)	August-08	2,000,000	n/a	n/a		
SmoothJazz.com (includes 500k Octoshape player application)	December-08	2,000,000	n/a	n/a		
SmoothLounge.com	January-08	1,500,000	n/a	n/a		
SmoothLounge.com	February-08	1,500,000	n/a	n/a		
SmoothLounge.com	March-08	1,500,000	n/a	n/a		
SmoothLounge.com	April-08	1,500,000	n/a	n/a		
SmoothLounge.com	May-08	1,200,000	n/a	n/a		
SmoothLounge.com	June-08	1,000,000	n/a	n/a		
SmoothLounge.com	July-08	1,000,000	n/a	n/a		
SmoothLounge.com	August-08	1,000,000	n/a	n/a		
SmoothLounge.com	September-08	1,000,000	n/a	n/a		
SmoothLounge.com	October-08	1,000,000	n/a	n/a		
SmoothLounge.com	November-08	1,000,000	n/a	n/a		
SmoothLounge.com	December-08	1,000,000	n/a	n/a		
					34,200,000	0.5%
Social.FM	February-08	1,992,000	n/a	n/a		
Social.FM	April-08	1,950,168	n/a	n/a		
Social.FM	May-08	1,900,000	n/a	n/a		
Social.FM	March-08	1,772,880	n/a	n/a		
Social.FM	June-08	1,710,000	n/a	n/a		
Social.FM	January-08	1,660,000	n/a	n/a		
					10,985,048	0.2%
SomaFM.com (AQH, TSL) (donation supported, ad free)	January - November 2008	16,473,600	8,320	n/a		
SomaFM.com (AQH, TSL) (donation supported, ad free)	December-08	1,497,600	n/a	n/a		
					17,971,200	0.3%
Streamguys (TSL)	June-08	4,033,800	n/a	n/a		
Streamguys (TSL)	July-08	3,404,302	n/a	n/a		
Streamguys (TSL)	October-08	3,389,712	n/a	n/a		
Streamguys (TSL)	September-08	3,319,992	n/a	n/a		
Streamguys (TSL)	November-08	2,766,258	n/a	n/a		
Streamguys (TSL)	December-08	2,461,970	n/a	n/a		
					19,376,034	0.3%
Yahoo Music/LaunchCast (total listening hours)	February-08	33,645,600	18,692,000	17:46		
Yahoo Music/LaunchCast (total listening hours)	March-08	32,877,000	18,265,000	16:05		
Yahoo Music/LaunchCast (total listening hours)	January-08	31,000,000	17,887,000	18:40		
Yahoo Music/LaunchCast (total listening hours)	August-08	29,433,161	15,216,000	12:27		
Yahoo Music/LaunchCast (total listening hours)	May-08	29,282,400	17,369,000	13:49		
Yahoo Music/LaunchCast (total listening hours)	June-08	28,226,268	n/a	n/a		

Yahoo Music/LaunchCast (total listening hours)	October-08	28,171,566	n/a	n/a		
Yahoo Music/LaunchCast (total listening hours)	April-08	27,650,000	17,500,000	15:52		
Yahoo Music/LaunchCast (total listening hours)	September-08	27,010,130	16,074,000	13:38		
Yahoo Music/LaunchCast (total listening hours)	July-08	26,250,429	17,315,000	13:21		
Yahoo Music/LaunchCast (total listening hours)	December-08	23,424,458	17,737,000	n/a		
Yahoo Music/LaunchCast (total listening hours)	November-08	20,193,498	17,673,000	n/a		
					337,164,510	5.1%
					6,673,099,326	100.0%

Source: AccuStream iMedia Research.

SECTION THREE

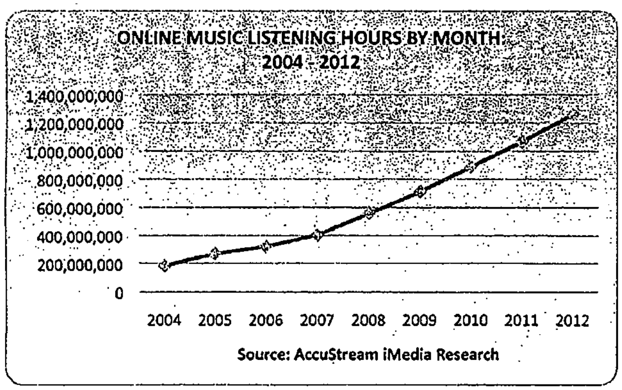
- Total listening hours rose by 37.6% in 2008 to 6.67 billion
- That's an average of 556.1 million per month

ONLINE MUSIC LISTENING HOUR GROWTH HISTORY AND FORECAST: 2004 - 2012

Year	*Hours*	*% Change*	*Average/Month*
2004	2,198,359,547	n/a	183,196,629
2005	3,241,936,351	47.5%	270,161,363
2006	3,846,025,630	18.6%	320,502,136
2007	4,850,037,789	26.1%	404,169,816
2008	6,673,099,326	37.6%	556,091,610
2009	8,541,567,137	28.0%	711,797,261
2010	10,676,958,921	25.0%	889,746,577
2011	12,812,350,706	20.0%	1,067,695,892
2012	15,118,573,833	18.0%	1,259,881,153

NOTE: Includes track play hours through subscription services such as Napster and Rhapsody.

Source: AccuStream iMedia Research.



- Listening hours either supported by or available for in-stream advertising grew by 27.9% in 2008, to 2.9 billion
- The corresponding growth figure was 10.9% in 2007
- Growth in ad supported streams was 14.7% in 2006

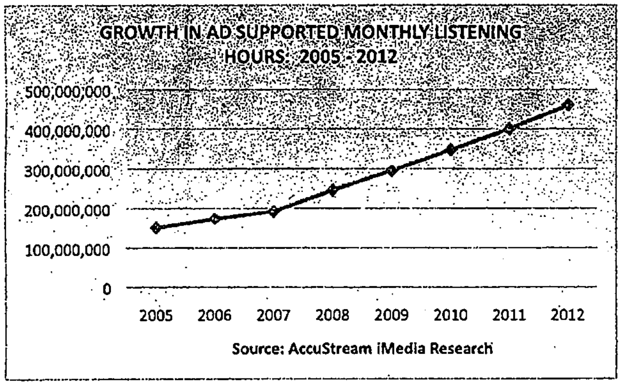
MONETIZABLE LISTENING HOURS: 2005 - 2010

	Annual Hours	% Change	Monthly Hours

2005	1,812,782,508	n/a	151,065,209
2006	2,079,955,762	14.7%	173,329,647
2007	2,307,546,771	10.9%	192,295,564
2008	2,950,635,897	27.9%	245,886,325
2009	3,540,763,076	20.0%	295,063,590
2010	4,178,100,430	18.0%	348,175,036
2011	4,804,815,495	15.0%	400,401,291
2012	5,525,537,819	15.0%	460,461,485

NOTE: Subscription hours excluded. Shoutcast excluded.

Source: AccuStream iMedia Research.

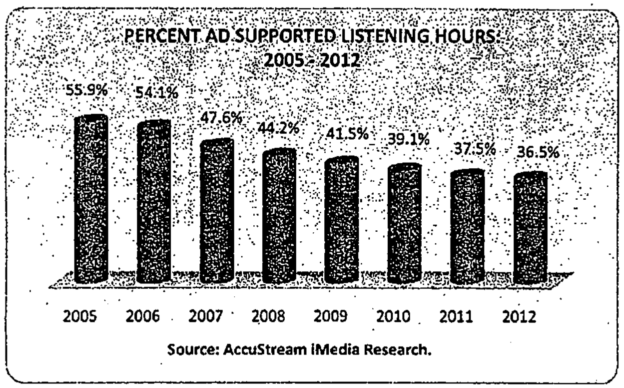


- The percent of ad supported music streams has been declining every year since 2005, registering 44.2% in 2008
- The corresponding figure was 47.6% in 2007
- The forecast percent of ad supported music streams is 41.5% in 2009 and 39.1% in 2010 (assuming Shoutcast does not open up its platform more aggressively to outside advertisers)

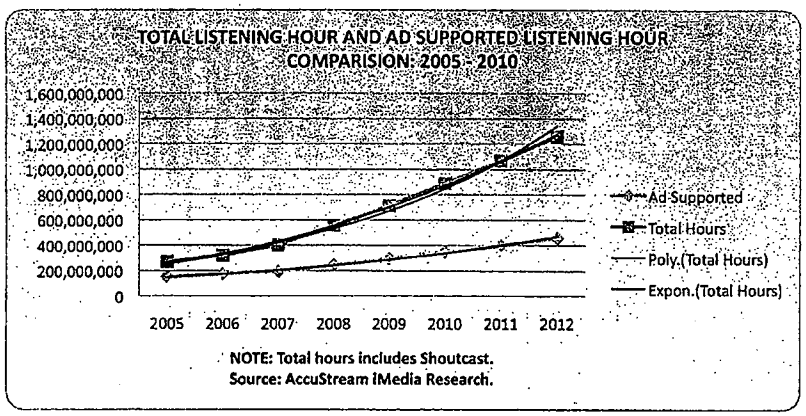
MONTHLY AD SUPPORTED LISTENING HOUR COMPARISON: 2005 - 2012

Year	*Ad Supported*	*Total*	*% Ad Supported*
2005	151,065,209	270,161,363	55.9%
2006	173,329,647	320,502,136	54.1%
2007	192,295,564	404,169,816	47.6%
2008	245,886,325	556,091,610	44.2%
2009	295,063,590	711,797,261	41.5%
2010	348,175,036	889,746,577	39.1%
2011	400,401,291	1,067,695,892	37.5%
2012	460,461,485	1,259,881,153	36.5%

Source: AccuStream iMedia Research.



- There is a widening gap between total listening hours and monetizable listening hours, a trajectory expected to continue through 2012



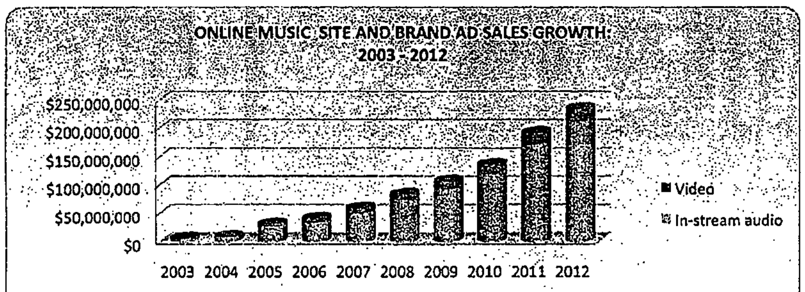
- Gross media spend associated with streaming music sites and online music track plays totaled an estimated $84 million in 2008
- Of that figure, $74.3 million was associated with in-stream audio placements, and $9.7 million in video ad spend
- The market is forecast to reach $106 million 2009, with $92 million generated from in-stream audio media spend

Online Music Site Inventory Sales

Audio	*Video*	*Total*

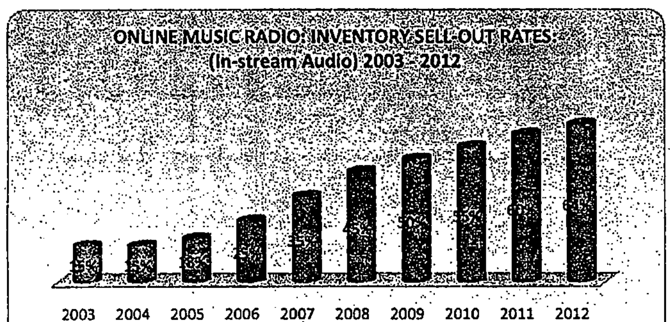
2003	$6,030,000	$0	$6,030,000
2004	$8,640,000	$0	$8,640,000
2005	$27,409,272	$4,050,000	$31,459,272
2006	$34,319,270	$7,560,000	$41,879,270
2007	$50,881,406	$8,640,000	$59,521,406
2008	$74,356,025	$9,720,000	$84,076,025
2009	$92,945,031	$13,608,000	$106,553,031
2010	$120,642,650	$16,524,000	$137,166,650
2011	$172,973,358	$19,440,000	$192,413,358
2012	$212,180,652	$23,328,000	$235,508,652

Source: AccuStream iMedia Research.



Source: AccuStream iMedia Research.

- Sell-out rates vary across networks, sites, platforms and rep firms, with an average of approximately 45% of total inventory sold in 2008, up from 35% in 2007



Source: AccuStream iMedia Research.

GROSS MEDIA SPEND: ONLINE MUSIC RADIO 2003 - 2012

AUDIO INVENTORY SALES ANALYSIS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Avg. Aggregate listening hours/month*	67,000,000	80,000,000	151,065,209	173,329,647	192,295,564	245,886,325	295,063,590	348,175,036	400,401,291	460,461,485
Average number of audio avails/tuning hour:	5	5	6	6	7	7	7	7	8	8
Total market inventory/month:	335,000,000	400,000,000	906,391,254	1,039,977,881	1,346,068,950	1,721,204,273	2,065,445,128	2,437,225,251	3,203,210,330	3,683,691,879
Average CPM	$10	$12	$14	$11	$9	$8	$7.50	$7.50	$7.50	$7.50
Value/Impression	$0.010	$0.012	$0.014	$0.011	$0.009	$0.008	$0.008	$0.008	$0.008	$0.008
Inventory sell out average/month:	15%	15%	18%	25%	35%	45%	50%	55%	60%	64%
Total market value/month:	$502,500	$720,000	$2,284,106	$2,859,939	$4,240,117	$6,196,335	$7,745,419	$10,053,554	$14,414,446	$17,681,721
Annual market size:	$6,030,000	$8,640,000	$27,409,272	$34,319,270	$50,881,406	$74,356,025	$92,945,031	$120,642,650	$172,973,358	$212,180,652
Percent change	n/a	43.3%	217.2%	25.2%	48.3%	46.1%	25.0%	29.8%	43.4%	22.7%

** = Listening hours supported by or available for advertising. Excluding Shoutcast and subscription hours.*

VIDEO INVENTORY SALES ANALYSIS	2005	2006	2007	2008	2009	2010	2011	2012
Video Pre roll inventory/month#	25,000,000	35,000,000	40,000,000	50,000,000	70,000,000	85,000,000	100,000,000	120,000,000
Average CPM	$15	$20	$20	$18	$18	$18	$18	$18
Value/Impression	$0.015	$0.020	$0.020	$0.018	$0.018	$0.018	$0.018	$0.018
Inventory sell out average/month:	90%	90%	90%	90%	90%	90%	90%	90%
Total market value/month:	$337,500	$630,000	$720,000	$810,000	$1,134,000	$1,377,000	$1,620,000	$1,944,000
Annual market size:	$4,050,000	$7,560,000	$8,640,000	$9,720,000	$13,608,000	$16,524,000	$19,440,000	$23,328,000
Percent change	n/a	86.7%	14.3%	12.5%	40.0%	21.4%	17.6%	20.0%

 # = Video inventory on music listening sites and networks.

TOTAL AUDIO/VIDEO PAID MEDIA PLACEMENT: ONLINE MUSIC RADIO 2005 - 2012

	2005	2006	2007	2008	2009	2010	2011	2012
Total Online Music Radio Ad Market Size (audio/video):	$31,459,272	$41,879,270	$59,521,406	$84,076,025	$106,553,031	$137,166,650	$192,413,358	$235,508,652
Percent Total Media Spend Growth:	n/a	33.1%	42.1%	41.3%	26.7%	28.7%	40.3%	22.4%
Percent Audio Media Spend:	87.1%	81.9%	85.5%	88.4%	87.2%	88.0%	89.9%	90.1%

Source: AccuStream iMedia Research.

- Using a comparative analysis based on the current state or market maturity of online music radio, as calculated against media spend in a mature offline (terrestrial) market, and further examining national ad spending only, the online music market has a mature (100% sell out) value implied of $406 million in 2008
- Further, applying a total media spend figure of $84 million against a fully sold market indicates market maturity rate of approximately 20.7%
- Turning to a fully sold market that includes both local and national ad spend on the terrestrial side, and applying the same methodology results in an online market worth $2.4 billion, with a corresponding maturation of approximately 3.47% based on 2008 performance

- NOTE: Terrestrial broadcasters with online assets such as Clear Channel, Emmis and others are in fact selling a substantial percent of paid media to local and regional buyers (see Q & A section Four)

MARKET MATURITY COMPARATIVE ANALYSIS: GRP PRO FORMA

Analysis based on a five-year online market maturity analysis against national only radio media spend

	2004	*2005*	2006	2007	2008
Total U.S. Population	289,000,000	293,400,000	299,300,000	301,000,000	303,800,000
Percent reached by national radio: (weekly)	75%	75%	76%	77%	78%
Total listeners to national radio:	216,750,000	220,050,000	227,468,000	230,265,000	236,964,000
Revenue per year in National Radio Advertising:	$3,400,000,000	$3,400,000,000	$3,600,000,000	$3,350,000,000	$3,249,500,000
Revenue per each percentage point audience:	$45,333,333	$45,333,333	$47,368,421	$43,506,494	$41,660,256
Online Radio Reach of U.S. Population^:	8%	11%	11%	12%	13%
Online Music Radio Reach (weekly)	23,120,000	30,807,000	32,923,000	36,120,000	37,975,000
Implied value Internet Radio (mature market)*	$272,000,000	$357,000,000	$396,000,000	$402,000,000	$406,187,500
Estimated level of market maturity:	3.2%	8.8%	10.6%	14.8%	20.7%
Estimated Online Music radio market value:	$8,640,000	$31,459,272	$41,879,270	$59,521,406	$84,076,025
Revenue per each percentage point online audience:	$2,700,000	$3,574,917	$3,950,875	$4,543,619	$4,974,913

* Assumes the market is fully sold out.

^ = Based on Arbitron online radio measurement study, 2008.

Source: AccuStream iMedia Research.

MARKET MATURITY COMPARATIVE ANALYSIS: GRP PRO FORMA

Analysis based on a five-year online market maturity analysis against total radio-related media spend

	2004	*2005*	2006	2007	2008
Total U.S. Population	289,000,000	293,400,000	299,300,000	301,000,000	303,800,000
Percent reached by national radio: (weekly)	75%	75%	76%	77%	78%
Total listeners to national radio:	216,750,000	220,050,000	227,468,000	230,265,000	236,964,000
Revenue per year in National Radio Advertising:	$21,411,000,000	$21,455,000,000	$21,669,000,000	$21,310,000,000	$19,392,100,000
Revenue per each percentage point audience:	$285,480,000	$286,066,667	$285,118,421	$276,753,247	$248,616,667
Online Radio Reach of U.S. Population^:	8%	11%	11%	12%	13%
Online Music Radio Reach (weekly)	23;120,000	30,807,000	32,923,000	36,120,000	37,975,000
Implied value Internet Radio (mature market)*	$1,712,880,000	$2,252,775,000	$2,383,590,000	$2,557,200,000	$2,424,012,500
Estimated level of market maturity:	0.50%	1.40%	1.76%	2.33%	3.47%
Estimated Online Music radio market value:	$8,640,000	$31,459,272	$41,879,270	$59,521,406	$84,076,025
Revenue per each percentage point online audience:	$16,615,385	$22,470,908	$22,276,207	$25,878,872	$24,021,721

* Assumes the market is fully sold out.
^ = Based on Arbitron online radio measurement study, 2008.

Source: AccuStream iMedia Research.

- An analysis of market size approached from the perspective of AQH (Average Quarterly Hour) reach indicates a non-duplicated listenership of approximately 341,500 persons

Hybrid Terrestrial/Online Music Radio Advertising Market Value: 2008 Comparative Analysis

Broadcast buying metrics analysis

Quarter Hour Reach/Internet Radio (non-duplicated est.) 2008	341,500
Number of Avails Hour (includes a gateway ad)	7
Average number of avails/quarter hour:	1.75
Total Inventory/Quarter Hour:	597,625
Total Inventory/hour:	2,390,500
Total inventory/day	57,372,000
Total inventory/month	1,721,160,000
Total inventory/year	20,653,920,000
Average CPM:	$8.00
Cost per delivered impression:	$0.008
Estimated Inventory sellout percent:	45.0%
Annual revenue: 2008	$74,354,112

Source: AccuStream iMedia Research.

- Based on the royalty structure adopted in 2007, and assuming all webcasters were in fact assessed performance fees associated with 2.95 billion hours of listening time, about $40.5 million would be paid in 2008 rights licensing, amounting to 48.3% of gross media spend associated with ad supported streams, networks, channels and services

ONLINE MUSIC RADIO ROYALTY PAYMENT ANALYSIS: 2008

(Estimates)

Total hours 2008 (Ad supported only)	2,950,635,897
Estimated song plays/hour	12.5
Hours per day	24
Number of Hours per month	720
Number of Hours per year	8,640
Implied song spins per day	300
Implied song spins per month	9,000
Implied song spins per year	108,000
Implied average annual listeners/spin (AQH equivalent)	341,509
Royalty rate/spin/listener	$0.0011
Implied equivalent number of annual performances*	36,882,948,711
Implied royalty payments owed per year	$40,571,244
Estimated percent royalties against total revenue	***48.3%***

**** = Total spins (annually) times the average number of listeners.***

NOTE: Analytics are based on 720 hours in a 30-day month resulting in the equivalent of 9,000 "song spins."

If your station streams 100,000 hours of listening during the month, then each hour equals 139 listeners (100,000/720).

Thus, an average of 139 listeners tuned in at any time during an average hour. Therefore each "spin" generates an average of 139 performances.

Royalty for the month (2007 Rates) would be: 9,000 (spins) X 139 (performances) X $0.0011 ('07 Royalty Rate) = $1,376.10)/month.

Source: AccuStream iMedia Research.

SECTION FOUR

Q & A

CLEAR CHANNEL ONLINE

Internet music channel programmer

ACCUSTREAM: How has the macro economy had an impact on demand for streaming advertising?

CLEAR CHANNEL ONLINE: The economy always an impact on our business. Advertising is one variable expense, and it is discretionary. Individual and small business owners look at those costs, and can control them, so naturally there would be an impact.

ACCUSTREAM: Was 2008 a positive growth year in terms of ad spending?

CLEAR CHANNEL ONLINE: It's been up, but not as much as we wanted it to be, but we're up roughly 25% over 2007.

ACCUSTREAM: Last year, we estimate Clear Channel Online generated streaming revenue of $30 million of that. How would you characterize 2008?

CLEAR CHANNEL ONLINE: Streaming has continued to be our core focus online. We're a radio company, but we are becoming a media company, and it's what our sales force knows. They know audio advertising and they know streaming audio advertising. It's where we focus and we have seen consistent growth in 2008.

ACCUSTREAM: Are any particular verticals buying?

CLEAR CHANNEL ONLINE: We saw a drop off in automotive in 2008. It's still one of the top verticals, but it is not leading the pack as much as it used to. Verticals such as recruitment, education and retail have picked up this year and made up the gap. In a down economy, you would expect to see an uptick in education and recruitment.

ACCUSTREAM: How about CE, telecom and mobile?

CLEAR CHANNEL ONLINE: Those have been steady. We get a nice share of entertainment (movie studios) spending too.

ACCUSTREAM: How many stations are online?

CLEAR CHANNEL ONLINE: We have about 750 stations that are streaming.

ACCUSTREAM: What is the insertion frequency?

CLEAR CHANNEL ONLINE: It varies by format. News formats are a little heavier on commercial breaks than music. But, we typically run about 3 -4 minutes of advertising per hour. The ads are predominately 30-second spots (80%), and some shorter, some longer.

ACCUSTREAM: Are audio units the primary unit, or do you also have video and overlays?

CLEAR CHANNEL ONLINE: The audio spot is our bread and butter. There are display opportunities as well. When streams are launched, there is a 15-second pre roll video, and there are banner opportunities inside and around the player.

For video impressions, we have pre rolls (that includes on demand content, such as music videos) and mid rolls (on the video channel, 1 – 3 insertion ratio).

ACCUSTREAM: Of the three minutes made available, what percent sellout in 2008?

CLEAR CHANNEL ONLINE: We're selling out a very healthy percent of prime streaming inventory. Our prime inventory is Monday – Friday, 6AM to 7PM. It's grown from last year (2007) when it was in the low to mid 30% range.

ACCUSTREAM: What was the average media buy in 2008?

CLEAR CHANNEL ONLINE: We have stations in LA and New York, stations in Naples, Fla. There is a wide divide there.

ACCUSTREAM: Has the size or number of campaigns grown over the past two years?

CLEAR CHANNEL ONLINE: The reason we continue to see growth is we continually expand our advertiser base. Our growth isn't due to increasing the buy of current advertisers. We're doing business with more people every year.

ACCUSTREAM: Are they local vs. national?

CLEAR CHANNEL ONLINE: It's 90% local and 10% national. Now, some of the local sales are agency related (about 30%), so about 70% of local sales are local direct.

ACCUSTREM: After the copyright/playback royalty structure of 2007, has that changed your programming and therefore revenue optimization model?

CLEAR CHANNEL ONLINE: We blocked outside of U.S. listening. We've done that because of the royalties and rights issues, and for our local advertisers as well. If a local real estate firm is advertising, they don't want to pay to reach listeners in Europe. Historically, international listening has been a small percentage of overall listening.

ACCUSTREAM: Are independent operators online at a disadvantage because they are typically going after national advertisers?

CLEAR CHANNEL ONLINE: The reason that some of the Internet only networks are where they are is they are talking to larger national brands looking to buy tonnage that maybe they can't deliver as a discreet site or brand buy, whereas we are talking to local advertisers who are looking to buy quality that we can deliver.

ACCUSTREAM: Is there a perception gap in terms of programming (quality) from an established cross platform brand, versus the Internet only brands?

CLEAR CHANNEL ONLINE: The difference is really a matter of perception. It comes down to the fact that advertisers know we can deliver in the DMAs they are looking to buy. They may not be assured of that when buying an Internet only brand that might spread those buys across the country, as opposed to a DMA.

ACCUSTREAM: Does perception about where the economy is headed on a local level make your job harder in 2009?

CLEAR CHANNEL ONLINE: We would all prefer the stock market to go up and not down. But there are enough local businesses out there that we are not doing business with today that if we continue to execute and bring in new business we are going to be fine.

ACCUSTREAM: What CPM ranges are you seeing?

CLEAR CHANNEL ONLINE: Pre roll is the highest (average of $25), audio ads (we are selling spots, not impressions) comes out to about $10 - $15. Display ads are $10.

ACCUSTREAM: Do people buy spots against AQH or turning hours?

CLEAR CHANNEL ONLINE: We have so many different markets, that it's hard to generalize. On streaming insertion ads, people are still buying spots.

That's different when it comes to display ads, there they are buying on Internet models, and on impressions. We can sell share of voice weight campaigns, or impression campaigns. But we have very few markets selling by impressions (classic CPM model), but we can tell you how many impressions that will equal, but most of markets are still selling share of voice, or percent of spot load.

ACCUSTREAM: Do they look at a listening metric?

CLEAR CHANNEL ONLINE: It does matter, and they look at AQH and when their spot ran. They do want to know how many people they are reaching, and they typically want to know about that in terms of radio, and that means AQH.

ACCUSTREAM: Why did you switch to Katz Media Sales?

CLEAR CHANNEL ONLINE: It gives us the opportunity to expand to larger advertisers looking to buy tonnage if we can deliver network wide numbers.

EMMIS BROADCASTING

Terrestrial and Internet radio broadcaster

ACCUSTREAM: Has the macro economy had an impact of demand for ads going into streams online?

EMMIS: We're creating demand, and there is some demand. The main thing right now is a lot of advertisers aren't asking for it, but we are letting them know it's available, affordable and it's hard not to buy it. And, that has stimulated demand. Plus, there are clients and marketers who simply want the extra exposure. Most of our advertisers are local level.

ACCUSTREAM: Is there any more or less demand from regional or national buyers?

EMMIS: The interesting thing is national advertisers do want to buy streaming advertising, and the category of advertiser that we target in terms of outreach are local in nature. That's the way the traditional model sets up anyway: To create demand on the local level, we have to inform, encourage and pitch local advertisers.

ACCUSTREAM: Since local advertisers are on air anyway, have integrated ad buys typically been part of the pitch?

EMMIS: It has been education play. We have to make advertisers aware that there is a viable audience out there tuned in and listening. That there are substantial numbers of people listening at different times, and there is value to it.

Also, media buying at the local level is habitual, and if it's not part of their budget allocation, it's harder to crack into those marketing dollars. It just hasn't been on their radar. And, if the local advertisers aren't tuning into Internet radio in some fashion themselves, they are even less likely to be aware of the opportunities.

But, we are seeing more people getting into the habit of it; there is a shift taking place, not dramatically, but those who have bought it before are asking about it again.

ACCUSTREAM: Has there been a local reaction to the macro economy, in terms of demand?

EMMIS: We haven't looked at it in that way, on that level, given that it's a very small percentage of our revenue. We've seen quite a bit of growth through 2008, albeit from a small revenue base, but we have focused on selling the medium.

ACCUSTREAM: In terms of Internet revenue, how much were you up over 2007 in 2008?

EMMIS: We're up about 100% and that is being conservative. That is for streaming advertising only. Everybody is trying to hit their revenue goal in the big picture, which is all types of advertising. So, it's a market-by-market sales function.

We can grow the streaming side of the business by 100% and not have to grow it that much; it's starting from a low base. Now, if we were doing $10 million in 2007 and $20 million in 2008 that would be quite a feat. But, when are you talking about hundreds of thousands of dollars per DMA, it's easier to double.

ACCUSTREAM: How do you train in house sales teams?

EMMIS: The first thing we do is make sure staff knows how to present the avail opportunity and most importantly, answer questions. They are able to speak about streaming confidently. Sales staff start by putting the proposal on all RFPs, whether the client is asking for it or not, and that alone drives up adoption and revenue numbers. That's fundamental, but it works.

When you have strong interactive products, such as broadcast station websites, sales people are more accustomed to stepping into that territory because they are already selling other interactive products and ad unit, and have for some time.

ACCUSTREAM: What ad verticals have been buying?

EMMIS: It depends on the market. But, auto has been fairly strong in 2008. We work with advertising agency that specialize in auto, particularly in the Austin group of stations, and that agency is a big believer in streaming.

It's not unexpected, but ad buys from the auto vertical are coming through the particular agency that believes in streaming. We're sure there is a direct correlation between the two, because regional groups of auto dealers not represented by agencies that believe in the streaming ad buy have not stepped up.

We also saw a good bit of TV stations and broadcasters adding streaming audio to their incremental buys. Other verticals are local retailers and insurance.

ACCUSTREAM: What is the insertion frequency?

EMMIS: Emmis websites have a similar format and template. We strip out the on air ads, and replace those with online spots.

It depends on how many ads are sold on the terrestrial signal. Most stations are maxing out at 12 ad units. If there was an hour where we didn't sell anything, there wouldn't be any ads units for the Internet signal.

We generally host 30-second ads, but we also has 60-second ads. We fill any ad space that covers the terrestrial commercial load, and that can include PSAs and station promos etc.

ACCUSTREAM: What is the sell out?

EMMIS: It depends on the DMA, but on average paid placements have been sold in the 25% range. There are a total of 21 stations online.

ACCUSTREAM: What are the CPM ranges?

EMMIS: We've found that CPMs confuse people, and those ranges are broad.

We also use local rep firms for terrestrial use Katz Media for Internet sales.

ACCUSTREAM: What a campaign package look like?

EMMIS: There could be anywhere from about 100 impressions and up, running for a month, 6AM to midnight, and those would be priced at anywhere from $250 to $500. The campaigns are usually booked on a monthly basis.

ACCUSTREAM: That's a very aggressive pricing model. How do you plan to manage pricing as the market matures?

EMMIS: When we set the rate card there were so few people buying streaming advertising that it was very hard to cover all commercial inventory online.

So, we wound up running the same material over and over, and that is fatiguing for listeners. So, our approach was to price this inventory very affordably, and get advertisers on board with a value buy, get them comfortable and habituated to the media buy.

As we sell more, scarcity will drive the rate up; we'll let the market and demand dictate the CPM going forward.

ACCUSTREAM: Is there an audience drop off with advertising?

EMMIS: There are two ways to answer it: First, we haven't seen an effect on our audience.

Second, people going online are doing so because they can't pick it up the terrestrial signal in a building, or they aren't allowed to have radios in the workplace, or live outside of the coverage age. So, they are listening to it like a terrestrial signal and don't come to the experience expecting anything different.

KATZ MEDIA GROUP/SALES

Streaming audio advertising sales and representation

ACCUSTREAM: How has the economic and business climate had an effect on media buying demand?

KATZ: Within the digital audio space, every customer we deal with is watching their media spend very closely, they are being careful who they work with and what they spend. So, in general, the answer is yes, there has been an impact on demand due to the economic environment.

ACCUSTREAM: What other forces are at play do you see that demand spending discretion?

KATZ: What's happening concurrent with a rough economy, is media consumption patterns and behaviors are changing, and in some cases rapidly.

In the case of audio, a few years ago there wasn't a large audience base through a computer or mobile device. Today, there is scale, and people are streaming audio from a variety of platforms.

So, what's happening at the agencies, even through this tough economic time is that while they are being careful how and where they spend client marketing dollars, they are committed to giving the digital audio offering a close look. Just throwing spots on the radio is not good enough, particularly in these challenging times.

ACCUSTREAM: Has the new licensing models and rates that went into effect in 2007 and the response to that on the part of the broadcast brands had an impact on inventory availability?

KATZ: In our network, we have most of the terrestrial broadcast streams and we have pure-play webcasters too, and the latter is probably where the impact has been. There is also streaming to mobile devices. So, we have network diversity in terms of publishers.

Pure-play webcasters are feeling effects from that new model. Some of these online only brands have been arguing that if rates aren't fixed, moderated or adjusted in some way, they will be forced out of the business.

One major radio broadcaster, for example, is estimated to have done about $25 million in 2008 in top line advertising. But the site is paying out $20 million in royalties, and on top of that are general operating expenses. The same holds true for other smaller webcasters.

They are asking Katz for more top line ad supported streaming revenue to help offset these royalty costs. If the situation isn't remedied in a year to 18 months, we believe some of these webcasters will be in trouble.

ACCUSTREAM: Have some webcasters been limiting access to international IP addresses to keep costs in check?

KATZ: Yes, we have seen that. Every new listener added is an expense. Unlike terrestrial radio where you can add new listeners against a fixed cost structure, in digital audio there are incremental costs the greater the audience size. So, adding international streamers that at this point aren't being monetized doesn't make any sense and it doesn't generate dollars.

It's a short term outlook, in terms of business growth, but dictated by demand for ad units by primarily domestic advertisers such as Verizon Wireless, Geico, Home Depot and others. They don't have an interest in non U.S. streamers.

ACCUSTREAM: What about demand for international audiences by international brands?

KATZ: The space will be able to accommodate that, as it matures. There are transnational brands, such as Coca Cola, that we are working to make them comfortable with digital audio: We show them how we target, how we measure, how we insert, how we manage and optimize campaigns. In reality, they are just now getting comfortable with the offering domestically.

Over time, we think those international audiences will be targeted by these brands, but right now, it's too early.

ACCUSTREAM: What is the optimum length for an audio spot?

KATZ: Generally speaking, what we recommend is the shorter the better. The tolerance level by the digital audio consumer with regard to spot length, is less than it would be on the terrestrial radio side.

We have gone so long on the terrestrial radio side with 30s and 60s that clients naturally come into the digital audio space with that orientation, and typically want to transfer those terrestrial ads online, but we recommend that they don't.

A 10 second to 15 second ad, whether that is a pre roll or in-stream, works much better than a 30 or 60 second ad unit.

ACCUSTREAM: What about insertion frequency, what do you suggest?

KATZ: It depends on the site and brand. Two or three spots, with an average three breaks per hour is pretty standard for webcasters (a total of 6 – 9 avails).

With broadcast streams extended online, they are running three, four and five spots inside three commercial breaks per hour. So, that's up to 15 spots per hour.

If the webcasters are running 6 – 9 per hour, the terrestrial side is running 8 – 12 or more.

ACCUSTREAM: If terrestrial brands do it, why don't webcasters?

KATZ: When you are simulcasting a terrestrial signal the breaks are already there, and they need to be filled. So, they have a built-in structure based on their terrestrial monetization scheduling, and those breaks and gaps need to be filled.

Also, we're running video in the middle of breaks now. We're been experimenting with the movie studios and running two-minute movie trailers within a break. So, while the shorter the better, if you give a compelling piece of content that might be two minutes long, there is greater acceptance for that on the part of the audience.

ACCUSTREAM: What about video on audio sites, pre roll or otherwise?

KATZ: Like to like media is always a good match. But, when you have an offering like ours, where we can run pre roll/gateway and in-stream audio, and video ads, and run synchronized banners which represents display inventory, we're finding ourselves competing against display companies because we have scale (including video).

Moving forward, there is likely to be more blending compared to the monetization approaches of the past, which paired mostly like media to like media.

ACCUSTREAM: What percent growth do you see in the industry in 2008?

KATZ: Generally speaking, digital audio (local and national), assuming a market of anywhere between $50 - $60 million dollars, is growing going into next year.

We don't see a doubling, but growth of 25% - 40% growth in this space, due primarily to advertiser adoption is likely.

ACCUSTREAM: What is contributing to growth?

KATZ: Katz, and other digital audio sales firms out there evangelizing and educating the market, so that is driving up the adoption rate. We would say a growth rate of 30% into next year, on a conservative track.

ACCUSTREAM: What percent sell out is the industry achieving?

KATZ: It differs between webcasters, broadcasters and mobile streams, but rolling up all ad supported inventory, and PSAs, about 55% of inventory is being sold.

ACCUSTREAM: What about the CPM range?

KATZ: For run of schedule, mid single digits ($4 - $5 CPMs). If an advertiser wants to be in the top 20 markets, for example, or there is a level of demographic customization, that would push the CPMs more toward $10 range. Video ads are going for $20+.

Where we see an opportunity to grow CPMs is through IP based targeting. This is an area where you can drill down into zip codes for the retail sector. That's in beta right now.

ACCUSTREAM: What ad verticals have been buying?

KATZ: Retail is number one (Home Depot, big box retailers and mass merchants), financial services (including insurance, e-surance, the Progressive brand).

Entertainment is strong, (TV networks such as Fox, and the movie studios), along with Web-based businesses, such as WebEx (conferencing).

ACCUSTREAM: What matches up with an online listener and financial services?

KATZ: The digital audio streamer has higher qualitative characteristics compared to terrestrial radio, as well as the consumer comparison. High-end advertisers like that. They are reaching consumers who, on average, have higher disposable incomes and higher levels of education than terrestrial counterparts.

They like the ability to take a listener online, and convert them to a subscriber. So the e-commerce connection works well in the financial services segment.

ACCUSTREAM: What about Shoutcast and exploiting what has been very under-exploited inventory?

KATZ: Currently we just calculate and credit the impressions generated through their home page interface. That may be changing. We'd like to be able to bring those to the marketplace and monetize them, but it's not happening yet.

ACCUSTREAM: What was the average impression buy, or campaign size in 2008?

KATZ: A 1 million impression campaign would be average for our shop. We do campaigns in the 10 million impression range, and also in the 100,000 range. And, the total buy depends on the inventory being sold, but use a CPM of between $6 and $10.

ACCUSTREAM: What about analytics and data elements most requested, valuable or baked in?

KATZ: One thing the market is getting accustomed to is real time server-based metrics for audio. Broadcasters have been used to panels, surveys and diaries and estimates in the past.

So, the exact number of impressions on the exact channels is being responded to very favorably, and media planners are now asking for more data. How many impressions were delivered, how many hours did a listener on average listen to a particular channel, cost per click models, cost to acquisition models. What they are all trying to do is marry a media program with an actual cash register sale at retail or e-commerce.

Audio has never seen these before, and as agencies get more comfortable with it, there is going to be more creativity built into new marketing programs, and expectations will correspondingly grow as a result.

ACCUSTREAM: How would you characterize the value of campaigns with respect to brand lift strategies, compared to those moving the commerce dial up?

KATZ: The majority of business right now is branding based. Advertisers are experimenting with the offering, how it works, the analytics on the backend, the kind of customer support comes with the media program.

The space is still immature, but as the adoption rates grow, we are certain this offering will be used for much more than just branding.

PANDORA

Internet/device-powered music destination and service

ACCUSTREAM: Do you have audio or video ad inventory on Pandora?

PANDORA: Yes, we do.

ACCUSTREAM: Looking at the economy, has there been an impact in terms of demand for audio and video avails?

PANDORA: We're still very new at this, so everything is up for us. But, the economy is challenging. We are up in terms of revenue, and we have more advertisers coming on board, but our double digit growth has a lot more to do with the fact that we're still a new company than on these particular types of placements.

ACCUSTREAM: How would you characterize demand?

PANDORA: There are some advertisers clearly moving ahead, and we have a lot in the pipeline for 2009, but we have seen other marketers freeze or cut budgets. We have also responded to RFPs and there aren't answers coming back; there is a holding a pattern in some cases.

ACCUSTREAM: Was 2008 a growth year and what are expectations for 2009?

PANDORA: Yes, 2008 was a growth year, and 2009 will be as well, primarily because marketers are getting smarter about how they spend their budgets. They are moving money online. It may not be doubled digit growth, but we expect to see growth in 2009.

ACCUSTREAM: How does the execution take place?

PANDORA: Pandora is streaming radio. So we have a combination of approaches. And, we're cross platform; people access Pandora on the PC and on their phone. We have visual ads that surround the music experience.

ACCUSTREAM: How are audio and video executions taking place?

PANDORA: If you want to watch video, it is user initiated. We have some 24 different placements. We have some audio streams that inserted or run, and some are user initiated. Some take place during a transition, or station change (those can be audio, Flash and video avails), we have very limited audio advertising on the site.

ACCUSTREAM: If a user listens to their station for an hour, how many audio impressions might they be exposed to?

PANDORA: There is one per listener per hour. Pandora users started listening on their PC, and therefore they are very interactive. They are thumbing up and down, and so we decided to have a very visual experience based on interaction. So that's where we started.

Now, however, we're on more devices in the home, and users aren't always in front of the screen, so we have allocated a limited number of audio impressions.

ACCUSTREAM: What is the most often used device, besides the PC?

PANDORA: The iPhone, and that device has been game changing. We are one of the most popular applications downloaded on the iPhone, and consequently we're getting a lot of users finding us through the iPhone.

We launched on iPhone in July, and almost 2 million people have downloaded the application by year-end 2008. About 10% of listening that takes place on Pandora daily is on the iPhone. Users even dock the iPhone and listen to Pandora at work.

ACCUSTREAM: Is the Pandora experience a good one via a mobile phone?

PANDORA: We're all about music, and the iPhone and iPods are music players, and they do a good job of playing. Our app works really well on the iPhone. We are also on AT&T and Sprint. We are launching in a number of smart phones in near future.

ACCUSTREAM: Given that Pandora began with PC users, and a more visual experience, how have you customized the experience for a mobile device?

PANDORA: First of all, it's a universal account, so the same stations you have on your PC are on the iPhone, or all devices in the home for that matter, but the visuals might be a little different, depending on the device. We're on home DVD players as well (including Samsung Blu-Ray players).

ACCUSTREAM: How would you characterize the overall listening growth of Pandora in 2008?

PANDORA: It was dramatic.

ACCUSTREAM: What ad verticals have been showing interest in audio and video?

PANDORA: In terms of digital (display, or video) the music labels and auto marketers, consumer electronics, and anything related to technology, financial companies (CitiBank, Visa and others), CPG (we've done a lot with P&G).

There has been a variety of advertiser because we are a lifestyle site and we have a targeted demographic that marketers are interested in.

With audio, we're still very early in that cycle, and advertisers there are Puma, Nike. These are sponsorship types of messages (10 seconds or less).

Audio and video is a growing part of our revenue, but those avails are not the main part of revenue, which is the interactive digital execution.

ACCUSTREAM: What types of CPM ranges?

PANDORA: It can run from $4 to $40, depending on where marketers want to be on the site and what users are doing. $4 ads are run of site, and not on the home page. A $40 ad is for video that is auto play, and precisely targeted. It could also be on the mobile phone, with a call to action.

ACCUSTREAM: What is the demographic split on Pandora?

PANDORA: Our initial study for iPhone skewed male and higher income. Overall, the site is a 50/50 split male and female. The average age of our users is 32, and we believe that marketers can target effectively; there is only one impression on the home page at any time. Again, most of what we are doing is digital display advertising.

ACCUSTREAM: When a campaign is booked, is it by screen?

PANDORA: The same ads do not run across platforms. There are different advertisers on each platform. There are a few that do both. It depends largely on who we are targeting.

There are ads (video) in a box positioned next the Pandora media player. If you want to watch a Jaguar ad, you are prompted to do so. Once clicked, it takes the user to a landing page with a whole series of videos, and they include pre roll ads. Jaguar is sponsoring it. Some of the video content is actually created by Pandora.

ACCUSTREAM: What is the usage profile of a Pandora user?

PANDORA: We have 16 million registered users, but the main group is at work, at home, and music discovery spending 3 – 5 hours per day with Pandora.

There is a spike during workday hours. This is a similar profile in terms of usage profile with streaming radio stations.

ACCUSTREAM: Pandora also has a subscription service, how does that work?

PANDORA: The subscription package is billed at $36/annually, or, about $3 per month.

RADIOIO

Internet music broadcaster

ACCUSTREAM: How would you characterize demand in 2008 compared to 2007?

RADIOIO: There was more demand during the first six months of 2008 than in all of 2007. There was a dramatic shift in our view.

ACCUSTREAM: What verticals are buying?

RADIOIO: There aren't clear patterns emerging. But it's the usual group of verticals, including financial services (AMEX, Visa), automotive (in particular, Toyota with their Scion product), insurance has been very active. These verticals were active in 2007 too.

But, there has been a lot of randomness to the market as well, in terms of products and companies. Katz Media has been very good at bringing on new advertisers and marketers, such as Logitech, which has been a pleasant surprise.

ACCUSTREAM: What surprised you?

RADIOIO: What was unique about Logitech is that the company specifically requested ad buys on the Radioio network. Their preference was that our on-air hosts be willing to offer product endorsements. Their interest in Radioio had a lot to do with the fact that our programming is curated. There is a person behind every one of our channels.

We don't program sequences of MP3 files, songs or channels grouped into genre categories put on party mode. That to us isn't radio. What people loved about radio was that it was a vehicle to learn about new music and artists, and discover things you didn't know. That was how people discovered new music.

For the past decade, that's what Radioio has tried to recapture with all of our 60 different genre formats. We provide the listener with a very heavily curated product. People come to our network for entertainment and to be exposed to new music. That was clearly recognized by a client like Logitech.

ACCUSTREAM: Do the 60 formats have a voice associated with it?

RADIOIO: Yes, absolutely.

ACCUSTREAM: What avail executions do you offer?

RADIOIO: We're still working through those issues. But, what Logitech asked for was old-time radio shout outs. That is fascinating to us, and what they like about our service.

The value to the listener is that the channel is curated, and guides them through the experience, and there is a trusted relationship between the audience and hosts. Our stream hosts are the guides, and introduce the product.

ACCUSTREAM: Do you make video inventory available?

RADIOIO: Nobody is doing a lot with video gateways. There are a few here and there. For us, it's predominately audio, and in-stream, either 30 or 60-second ads.

It's intriguing because advertisers are very savvy about buying video. Look at Hulu. The ads running there are inserted at prescribed breaks, but they are 10-second, even five second ads. They are shorter ads.

Under that scenario, I never tune away and stick with it. We're not sure why advertisers don't see the value of doing that with Internet radio. They would get more out of it. Because if an advertiser insists on 60 second ads, we clearly notice there is a direct correlation between the length of spot and channel changing. An ad that continues for one minute causes people to switch channels.

ACCUSTREAM: What is the optimum length?

RADIOIO: We believe 15-second ads on the outside. That gives an advertiser an adequate length of time to deliver a message and it's not overly intrusive.

Advertisers need to consider that people don't listen to Internet radio instead of FM. They don't listen to FM much at all. They listen to Internet radio as an alternative to transporting their CD collection to work. They are looking for an experience that is not interrupted in an intrusive way.

People could choose to pay for the content and become a subscriber and eliminate ads altogether on our site, but people don't really mind them so long as it's not a 12 minute per hour spot load, and three 60-second ads run in a pod.

ACCUSTREAM: What is your insertion frequency?

RADIOIO: Our current clock is constructed with three ad stops per hour, with three avails per stop. That's a total of nine avails. We can adjust that clock time of 9 x 60 seconds, down to 9 x 15 seconds.

ACCUSTREAM: What about CPM ranges?

RADIOIO: Anywhere from $5 to $15.

ACCUSTREAM: What about sell out percentages in 2008?

RADIOIO: There is nobody selling out. We suspect there is about 25% of inventory sold on a given month.

Advertisers will always follow audiences. We don't need to do anything more than give listeners a quality product. It's a matter of staying around long enough to build a large enough audience to stimulate interest from advertisers. That's how the business is being built.

ACCUTREAM: Turning to royalty structures as they are now, are you able to operate your business on a right side up model?

RADIOIO: Nobody is, because costs are still higher than revenue.

Licensing organizations have successfully used the argument that whether or not a broadcaster can afford to pay royalties as a predetermined rate is irrelevant. Since 2002, we have argued that arguing as an industry we can't afford to pay royalties, and that is a poor argument. What is relevant is creating a fair market environment.

There is no standard or fair market operating environment. What has happened is there is a direct correlation between the royalty rates being paid, and the success of the various parties at the table in terms of negotiating. Webcasters have been poor at negotiation. On the other extreme, terrestrial radio has very effective, which is a function of market leverage and reach.

The NAB is a powerful lobbying organization, for example.

In digital online, there is a ragtag group of Webcasters, and we don't have a lot of money or strong representation and we wind up with a hefty royalty rate. Rates play a role in the financial viability but it's more than that. It's also a matter of audiences reaching a critical mass listening to it that advertisers pay sustained attention to it. Advertisers will always follow audiences.

ACCUSTREAM: Have you had to restrict what you deliver, which has an impact on what you can afford to pay, balanced against revenue potential?

RADIOIO: That's probably true of the majority of webcasters, considering that the majority of webcasters (in terms of aggregate numbers of sites) are small businesses or have limited resources. The way the royalty structure works is that you pay a percentage of revenue or expenses, whichever is greater; it's independent of performances.

More precisely, there are several different deals. There is a rate established by the CRB (Copyright Royalty Board), and it's based on performance.

Then, there are a couple of deals that a broadcaster can opt into, instead of the compulsory rate established by the CRB which falls under the small webcasters settlement act which has been extended through 2010. It's a function of percent of revenue or expenses.

So, naturally there have decisions to exclude audience, in the form on non domestic listening, which is a cost without a clear path to monetization. Advertisers are interested in domestic audiences, and the issue is that up a third of listening is going outside the U.S. There is a liability associated with up a third of the audience.

Everybody in this business, due to the royalty situation, that hasn't artificially limited audience in ways they would not do, if royalties weren't an issue. The trick with international audiences, the issue is aggregating enough audiences. The big spenders in the ad market are by and large multinational companies, from Sony to Coca Cola.

ACCUSTREAM: Do you get a better ROI working with a rep firm, or setting up an internal shop and getting that expertise in house?

RADIOIO: The biggest challenge in front of this medium is education advertisers about it. And, that's more about the agencies. That is something that takes time, resources, reach, audiences, money, skilled sales organizations. That is the value of TargetSpot and Katz Media Sales. They are educating the advertising community about this medium.

We've made a decision to continue to work with them in this area because the medium is still very early and new, and their expertise is needed to help develop it.

ACCUSTREAM: What is the average media buy for an Internet station or broadcaster?

RADIOIO: That's hard to determine because, as in our case, these are aggregate media buys being made by the advertisers through rep firms. These are aggregate network buys.

ACCUSTREAM: What is most important for advertisers, in terms of analytics?

RADIOIO: There is no doubt that the people at these rep and technology firms provide discreet measurements, such as Ando Media and early on it was Measurecast and now comScore.

This is a medium that can be understood quantitatively, but also qualitatively. That is a huge advancement. This is not extrapolation typical of terrestrial broadcasting, but we can tell advertisers exact what they are buying and who is listening, where and when.

ACCUSTREAM: Are marketers buying AQH, TSL or impressions?

RADIOIO: They are buying impressions. They can be counted, and there are third parties doing the counting. About 90% of the campaigns that we have seen anyway, are impression based media buys.

ACCUSTREAM: Why is demand up in 2008?

RADIOIO: Most advertisers are oblivious to the royalty issue; it doesn't factor into them making a buy. They are interested in audience. The reason we have seen more demand, is that advertisers are paying attention to audiences, and where they go. And, the rep firms have done a really good job getting the word out.

ACCUSTREAM: How would you compare 4th in 2008 with 2007?

RADIOIO: It's up. And, we have no reason to believe that trend won't continue. As things get tighter in the economy, we believe Internet radio will do even better. When you think about how far $100,000 can go in Internet radio, in terms of the number of people you can touch, then the value proposition is compelling: marketers get more for their money.

SLACKER

Internet music service, platform and device

ACCUSTREAM: What is your song play model?

SLACKER: It's a radio experience. It's similar to the Pandora model.

You can't choose what song you're going to hear next; it's not an on demand service such as Rhapsody. There is a button for "creating" a station. In that area, users can type a band, or bands or artists they like of different genres to create a station of your preference. These are actually audio streams from a server.

ACCUSTREAM: Do you have a premium service?

SLACKER: Yes. When you choose a song, or express a preference for a song, the subscriber does have on demand access to that song. There is no advertising in the premium service, and there unlimited skips (NOTE: skips, in this context means skipping over to the next song).

The ad supported service allows six skips per hour per station. The stream that is heard, is for the individual user. It's not broadcast stream; it's stream to each unique IP.

ACCUSTREAM: What are the revenue models you have?

SLACKER: There are multiple ways that Slacker generates revenue: Banner advertising, sales of the Slacker G2 portable player, the premium service (priced $7.49/month), and in-stream advertising. There are also different partner relationships, such as those with Blackberry, Logitech, and Audiovox.

ACCUSTREAM: Similar to Pandora, do you believe mobile will be a large play for Slacker?

SLACKER: Yes. We don't rely on a stream, which can break and drains the handset battery. Slacker knows your preferences and when you plug your phone in at night, it goes out, connects and loads up hundreds or thousands of songs based on preferences.

The Slacker G2 device is $199. It's available from the Slacker website and Best Buy.

ACCUSTREAM: What is your average monthly number of song plays?

SLACKER: Billions of songs have been played through the service.

ACCUSTREAM: Has the macro economy had an impact on advertising demand?

SLACKER: We are just now rolling out advertising. We are still in a testing mode. We are a looking at up to three minutes per hour in avails.

ACCUSTREAM: How long has Slacker been delivering music?

SLACKER: We launched the Beta website almost three years ago.

ACCUSTREAM: How do you promote Slacker?

SLACKER: PR, and there is a national advertising campaign, including print advertising.

ACCUSTREAM: Are you venture-backed?

SLACKER: Yes.

ACCUSTREAM: What's the demographic profile of a Slacker user?

SLACKER: It's male, 18 – 45. This is a more mature listening audience. It's the for the music lover who understands portable music devices.

What we have found is that a lot of people who buy MP3 players use them for six months or so, and then don't do anything more with it. Slacker is the for music lover who wants to regularly update, enhance, discover and enjoy music.

One of the ways we encourage that, is if people buy the Slacker G2, they can access music on the site without charge or further payment.

ACCUSTREAM: Do you have subscribers?

SLACKER: Yes, we have quite a few subscribers.

SMOOTHJAZZ.COM

Internet music broadcaster

ACCUSTREAM: Has the macro business environment had an impact on demand for ad units?

SMOOTHJAZZ.COM: Yes, it has had an effect. Our numbers are not down, but they aren't as up as we had hoped. We're having a good year, and in fact we even had an exceptionally strong summer 2008. But, we are starting to see that people are becoming more concerned about their assets and therefore media spending.

ACCUSTREAM: Was there any fiscal impact with regard to new guild/royalty payment structures set in place in 2007?

SMOOTHJAZZ.COM: No, there was no impact. But, we only play artists on SmoothJazz.com who waive their SoundExchange copyrights.

Even so, major labels still advertise with us, as do artists who are independent. We play based on song-to-song criteria. This is just the way we choose to navigate these waters. We don't play a format that prohibits us from taking this approach. We are new music based.

ACCUSTREAM: What can you say about the verticals advertising?

SMOOTHJAZZ.COM: We have more advertisers this year. The recording labels and artists are our primarily verticals.

We have developed a global marketing platform that promotes artists and labels directly to the audience, and we take out all the hurdles and barriers of old, that just got in the way of getting music to people. That's our role.

We are also signed with Katz Media. We get buys when the client fits our demographic. Some of those advertisers are Sears, jewelry stores, music festivals. That segment is up from last year.

ACCUSTREAM: Is the music promotional platform a paid placement or revenue share?

SMOOTHJAZZ.COM: The business model is actually confidential. We don't fit the traditional template of an Internet radio station. We have a slightly different model, and in light of the genre (smooth jazz) drifting from terrestrial to the Internet there is more competition now. There are many unemployed radio people who have taken to the Internet.

And, unfortunately in our medium, there aren't a lot of metrics that people know how to access to differentiate between hobbyist and professional programmers like SmoothJazz.

Our competition has heated up this year in that regard, and that confuses parts of the market. For example, some of these competitive sites might book advertising campaigns for less than what we may choose to do, despite the fact that the quality of our inventory and audience might be much better.

We have a very good media kit on the Website, and we encourage advertisers to look at that.

ACCUSTREAM: How do you execute advertising?

SMOOTHJAZZ.COM: We're very big on branding. Our platform is designed for marketing. We use our inventory for banners, a Top Five YouTube area, and in our streams we insert custom produced, artful audio spots. We play a lot of commercials, and our listeners don't even know we have commercials.

ACCUSTREAM: How do you manage that?

SMOOTHJAZZ.COM: They are custom produced in house to showcase a new artist, recording, and a release by a label, a festival event and they are all music intensive. And, even ad sales booked by Katz are reviewed by us to make sure they don't puncture our environment.

That's why our average listening time is so high per session, approaching two hours. We get glowing feedback all the time, and industry insiders familiar with us say they are amazed we are making money because they don't hear commercials, but they are hearing them they just don't know they are.

ACCUSTREAM: Internet broadcasters are very sensitive about advertising. Why is that?

SMOOTHJAZZ.COM: It's what drove a lot of us to the Internet. Radio (FM) has created essentially a very disloyal listening audience. People aren't listening anymore, and if they do, they don't have the affinity for stations as in years prior. People were very tuned into their favorite stations to hear new music; that's where they learned about new music.

A lot of us went to the Internet from terrestrial radio to try and rekindle the art of radio, and that's what this is about. And we believe it's possible to make money and be artful; you don't have to do cookie cutter station creation.

Radio created issues such as iTunes, where you can go and see what the top selling songs are and buy them without listening to the radio. The labels followed suit by their copycat bands approach. We aren't completely purists. We like making money, we just want to find the balance between great content and revenue.

ACCUSTREAM: What is the balance you have achieved at SmoothJazz?

SMOOTHJAZZ.COM: Listeners are exposed to a lot of music. And, we have custom jingles that have been created for us by a company out of Milan, Italy (Jingle Factory). Our concept has always been the world is listening, so we have the jingles cut in multiple languages. That's a nod to our global audience.

And, we have nicely produced, listenable ads. We have about 8 units running per hour, during a busy time such as over the summer.

So, an advertiser can come in and buy a package from us, and the package would include some radio exposure during a commercial, a song feature during the hour (called a Hot Pick). We also a custom Jazz blast that we send out to our 35,000 VIP subscribers that are opted in. We take advantage of all levels that we can. And, we are expanding touch points, in social networking, mobile listening as well.

ACCUSTREAM: What's the listening hour total?

SMOOTHJAZZ.COM: We are on Shoutcast, and we have streams from our OctoShape platform (192K streams).

The Shoutcast stream and our destination sites add up to 3 million, and then with OctoShape it's a little more. But, we tell our advertisers that we have, on average, over 2 million listening hours per month, and that includes our SmoothLounge platform.

ACCUSTREAM: Can you monetize Shoutcast streams?

SMOOTHJAZZ.COM: No, we are not able to right now. Therefore, we purchase our own bandwidth for SmoothLounge so we can monetize that, and we own most of our own bandwidth right now anyway, so it can be monetized. Shoutcast is a safety valve for us, in case we lose our bandwidth or there is a network issue. We are with a CDN out of Canada.

It's nice to have Shoutcast as a backup, but we have enough bandwidth to cover our daily listeners now, and that's good for us.

ACCUSTREAM: How do you balance the needs of actively growing your business, considering the genre you are in, and accepting advertising?

SMOOTHJAZZ.COM: We don't feel like we have hit our potential yet. We are seeing an awakening for this format around the world, especially Europe.

The U.S. might not be a high growth market, but other markets are. Terrestrial Jazz stations are going off the air all the time. So, while is wanes here, it grows in other parts of the world, and that has to do with SmoothJazz and others.

So, what's happening is we are growing in markets like New York, Phoenix, Houston, Philadelphia and others where terrestrial stations have gone dark.

It's about building an audience globally. So, we see a whole new world in front of us now, and the Euro is much stronger now than the dollar, and we are actually getting to see some interest from those territories in terms of advertising.

We're not naïve enough to think that just one station is going to be enough for us, but we would like to provide a small number of deep, boutique radio stations like we have done with SmoothJazz and SmoothLounge, that express brand identity integral to the experience.

We want to keep the integrity of the brand very solid, so when we find a channel that is going to be robust and integral to our identity we'll launch it. In fact, artists are actually creating music to fit our format. We'll launch channels that match up with what our small staff can handle in terms of management.

Right now we see progress every year, and everyone is getting paid. So, each year we'll move forward and build another one. We're not increasing overhead that much, because we have a very systems based approach. The key to our success is being organized, and systems driven.

You have to be prepared for success, but rather than running up bills to launch additional stations, we're trying to build platforms that can accommodate growth without doubling our staff. So, that's our business practice. But, it all starts with the music, and goes out from there.

ACCUSTREAM: You are unique in that you can monetize internationally. That seems to place you in an advantageous position?

SMOOTHJAZZ.COM: First of all, we have the rights to all the music we play, so international access and audiences aren't an issue, in terms of royalties and payments. We have always considered our mission to be a global radio programmer.

ACCUSTREAM: What percent are international listening hours?

SMOOTHJAZZ.COM: We're at about 60% international.

ACCUSTREAM: Are the ads you run play across all territories or is there a localization aspect to media buying?

SMOOTHJAZZ.COM: The main emphasis of our marketing is music. If you're sitting in France, you can go buy the download of a particular song you like in France. You can buy in California, or Russia, or anywhere.

This is an international sound we are playing and in fact it's primarily instrumental.

We air spots in multiple languages. So, we are the world's smooth Jazz station. We don't have the most listeners, we have a large Jazz audience and community.

4

U.S. Advertising Outlook 2009

Research Analysts

Spencer Wang
212 325 9624
spencer.wang@credit-suisse.com

Peter Stabler
415 249 7923
peter.stabler@credit-suisse.com

Shub Mukherjee
212 325 0845
shub.mukherjee@credit-suisse.com

Kenneth Sena
212 325 3687
ken.sena@credit-suisse.com

FORECAST REDUCTION

Bracing for a Tough Year

- In this report, we provide an update on the U.S. advertising market heading into 2009, using both a top down and bottoms up methodology, as well as channel checks with industry contacts.
- Based on our work, we are reducing our 2009 US ad forecast to -8% vs. -4% previously and well under industry and Wall Street consensus of -5%. Our revision reflects slower economic growth and ad spending's historical 750 bp underperformance vs. nominal GDP during past recessions since 1960.
- We also update our growth (or lack thereof) forecasts for individual mediums (i.e., TV, print, outdoor, online, etc.) and analyze the outlook for key ad categories such as retail, auto, and financials, which collectively make up one third of U.S. ad spend.
- Our analysis of specific ad mediums takes into account 3 main factors: secular usage trends, accountability & efficiency, and exposure to autos, retail, and financial categories.
- On this basis, we expect online search and cable TV to outperform, while print and radio are expected to fare below average given declining audiences, antiquated measurement, and, in the case of print, higher than average CPMs.
- In light of our reduced expectations for the U.S. ad market, we are decreasing our FY09 EPS estimates for News Corp., Time Warner, Viacom, Yahoo! (all rated Neutral) and for Outperform-rated Walt Disney by 11% on average. We note that our 2009 EPS estimates are furthest below consensus for Viacom. We remain comfortable with our estimates for Google (rated Outperform), which we lowered on December 11, 2008.
- Assuming a fiscal stimulus package and recent monetary initiatives take hold and spur an economic recovery in 2010, ad spending should bottom in 2009. However, we remind investors that ad spending is late cycle and tends to underperform nominal GDP for several years following a recession as advertisers wait for convincing signs of a recovery before aggressively reinvesting in ad spending.

U.S. Ad Outlook 2009

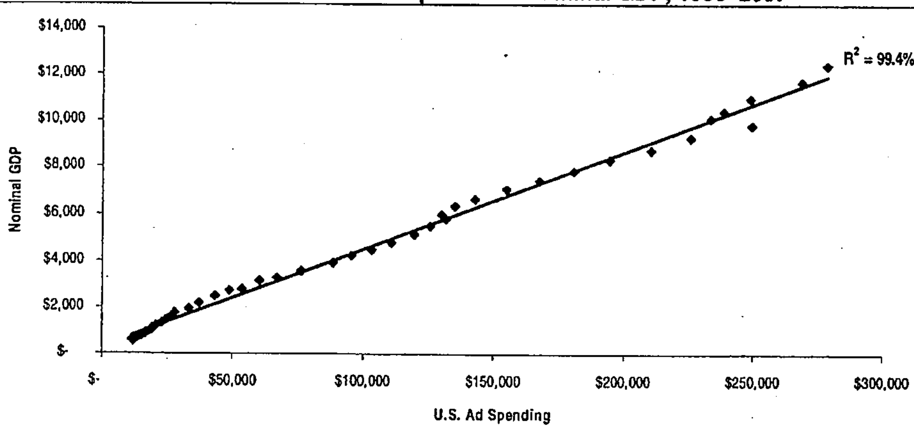
Bracing for a Tough Year: Overview

In this report, we provide an update on the state of the U.S. advertising market heading into 2009. More specifically, we are lowering our domestic ad outlook for 2009 based on our top down and bottoms up methodology. We also discuss the growth profile for individual mediums (i.e., TV, print, outdoor, online, etc.) and provide commentary on category specific spending (i.e., retail, auto, etc.). In light of our reduced advertising projections, we are also lowering 2009 estimates for the vast majority of the media companies in our coverage universe.

Top Down Analysis

We begin our analysis with a top down view as advertising is highly correlated with the economy and is dependent on the health of corporate profits (99% correlation between nominal GDP and advertising). Not surprisingly, in light of the current economic conditions and weak holiday 2008 sales, we think growth in advertising spending will remain under pressure.

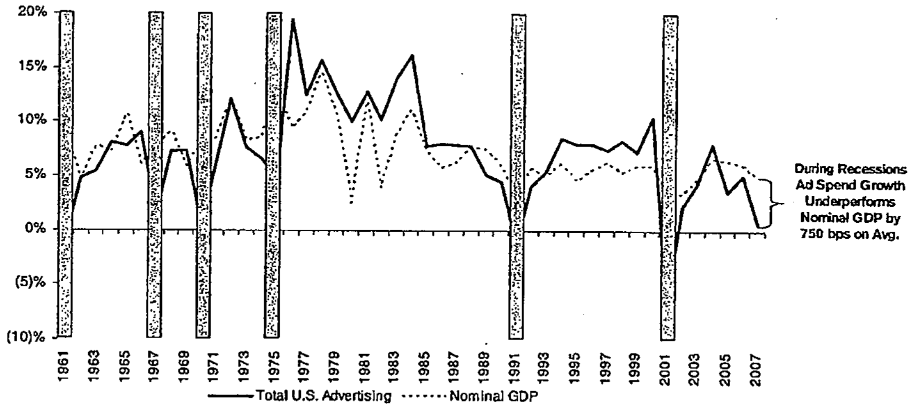
Exhibit 1: **Correlation Between U.S. Ad Spend and Nominal GDP, 1980–2007**



Source: Universal McCann, Jack Myers Reports, RAB, IAB, NAA, OAAA, Kagan World Media, and Credit Suisse estimates.

Underscoring the weak economic conditions, Credit Suisse economists recently revised their 2009 nominal GDP forecasts lower from +2.0% to -0.9% vs. 3.3% expected nominal GDP growth in 2008. Combined with continued poor economic data and our channel checks, we believe it is prudent to cut our advertising forecasts as well. From a top down perspective, since 1960, in the past six recessions, U.S. advertising growth has historically underperformed nominal GDP by 750 basis points on average.

Exhibit 2: U.S. Ad Growth versus Nominal GDP Growth, 1960-2007



Source: : Universal McCann, Jack Myers Reports, RAB, IAB, NAA, OAAA, Kagan World Media, US Census, Credit Suisse estimates.

Applying this framework to Credit Suisse's current nominal GDP growth estimate of -0.9%, we now expect U.S. ad spend to fall 8% year over year in 2009, below our prior forecast of -4%. This would also mark a further deterioration relative to 2008, where we project that total domestic advertising will experience a 3% decline (vs. a 2% decline previously).

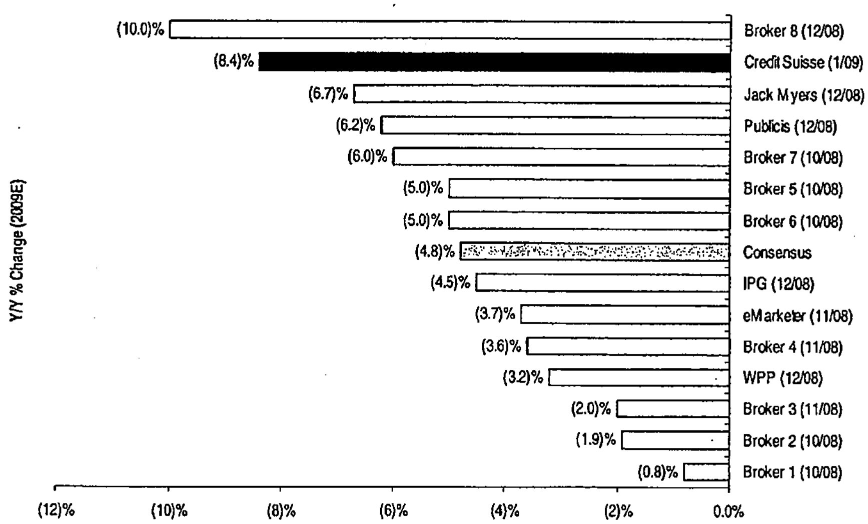
Exhibit 3: Top Down US Ad Forecast, 2009E

	2009E
Nom GDP Growth	-0.9%
+ Avg. Gap in Recess	-7.5%
= US Ad Growth	**-8.4%**

Source: Company data, Credit Suisse estimates

Our new estimate for an 8% decline in the US ad market is well below both industry and Wall Street consensus projections for a 5% drop in 2009. We note that we have historically been more bearish, as our original expectation for a 4% decline in 2009 was one of the lowest on the Street when originally issued in October of 2008.

Exhibit 4: CS Ad Forecast vs. Consensus, 2009E

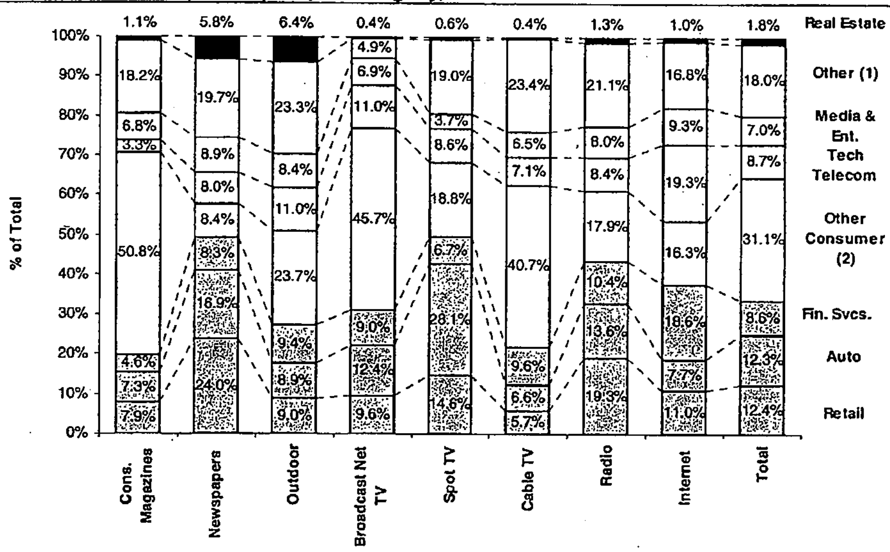


Source: Company data, Credit Suisse estimates

Key Advertiser Category Analysis

Now that we have laid out the macro-economic backdrop, we next drill a layer deeper to analyze the key advertiser categories. While the U.S. economy is experiencing broad-based weakness, in our view, the sectors seeing the greatest disruption currently include the auto, financial services, and retail industries. As highlighted in the exhibit below, this is worrisome from an advertising perspective given that these three categories accounted for an estimated one third of aggregate U.S. ad spend in 2007, according to TNS. As such, we focus our category commentary on these three sub-sectors.

Exhibit 5: U.S. Ad Spend by Major Category, 2007



(1) Includes office equipment, government spending, education and other categories. (2) Includes travel, restaurants, apparel, beverage, and other categories. Source: TNS, Credit Suisse estimates.

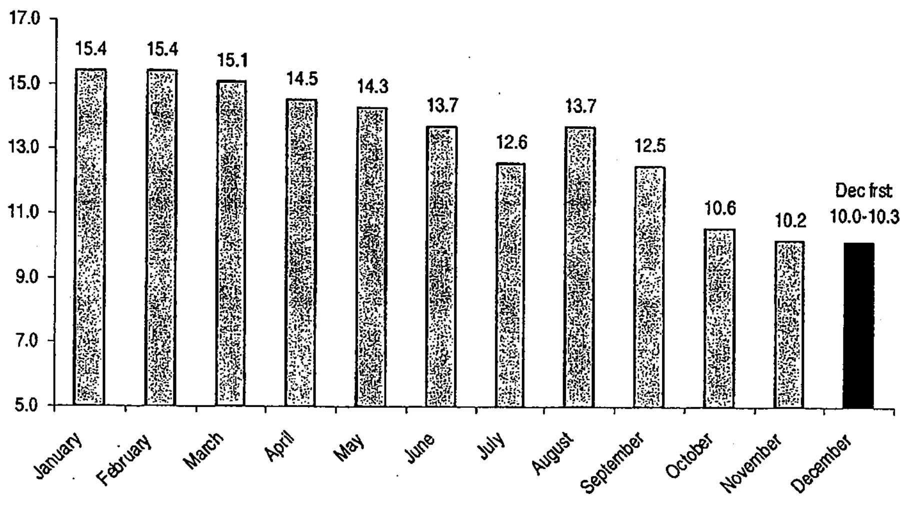
Autos

While car and light truck sales are projected to bottom in the 11-12MM monthly unit sales range, and significant automotive media budget contraction has already been witnessed broadly across the local and national media sectors, we don't believe auto spending is likely to rebound until vehicle sales markedly improve. According to Credit Suisse automotive analyst, Chris Ceraso, even in the event of significant government assistance, car makers will likely face pressure to spend as efficiently as possible.

Notably, GM has already taken many steps in this direction through the jettisoning of high-profile marketing events (Super Bowl, Oscars) and expensive exclusive sponsorships. Furthermore, Ceraso notes that so long as consumer spending remains tight and auto financing restrictive, automakers are unlikely to attempt to stimulate sales through massive advertising campaigns.

As it appears likely that domestic manufacturers will undergo substantial restructuring, we believe the total number of car dealers in the U.S. has the potential to decline significantly. We believe that irrespective of total sales volume, that any meaningful reduction in the number of sellers will adversely impact per vehicle marketing spend, particularly across local media. According to Advertising Age, local dealers and dealer associations account for 52% of total automotive spending.

Exhibit 6: **2008 Annualized Auto Sales by Month (millions of units)**



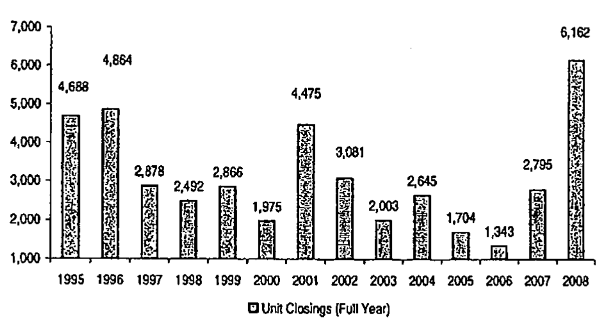
Source: Company data, Credit Suisse estimates (Chris Ceraso)

Retail

In 2007, measured advertising spend by retailers took the leading category position surpassing the combined spend of the automotive category. Retailers accounted for over 12% of total spending by the nation's 100 largest advertisers. While retail spending held up reasonably well during the first half of 2008, the impact of the de-leveraging of the American consumer hit hard in Q3 and Q4, and concurrent reductions in ad spend by retailers have played a leading role in the accelerating second half declines across local media.

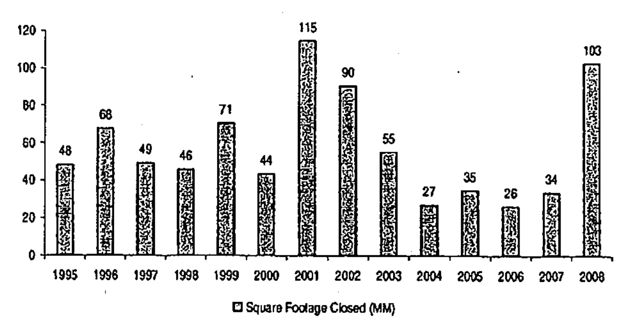
With soft consumer spending trends likely to last throughout 2009 and bankruptcy filings of key retailers such as Circuit City, we believe this leading ad spend category will continue to be highly pressured. As illustrated below, retail store closing have accelerated as retailers have sought to close underperforming units. In unwelcome news for the media sector, Credit Suisse's broadlines retail analyst, Michael Exstein, estimates that 2009 closings will likely resemble 2008 levels.

Exhibit 7: **Retail Store Closings – Units**



Source: Company data, Credit Suisse estimates (Michael Exstein)

Exhibit 8: **Retail Store Closings – Square Footage**

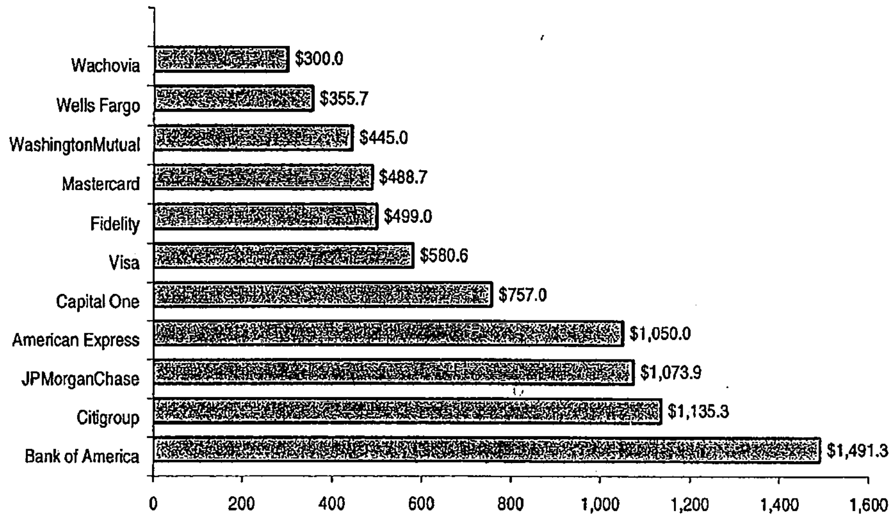


Source: Company data, Credit Suisse estimates (Michael Exstein)

Financial Services

The financial services category ranks fifth in terms of measured U.S. advertising spend, fueled by retail banking giants Bank of America, Citibank, and JPMorganChase, as well as credit card issuers American Express, Visa, and Mastercard. While it's broadly accepted that spending behind credit card marketing will be weak through 2009 as a result of tightened credit standards, the recent consolidation of the retail banking industry poses another substantial risk to category expenditures. The acquisitions of Wachovia and Washington Mutual by Wells Fargo and Bank of America, respectively, stand to significantly reduce pro forma spending by the largest retail banks.

Exhibit 9: **Financial Services - Top 10 Measured Ad Spenders (2007)**
US$ in millions, unless otherwise stated



Source: Advertising Age, TNS

Bottoms Up Analysis By Medium

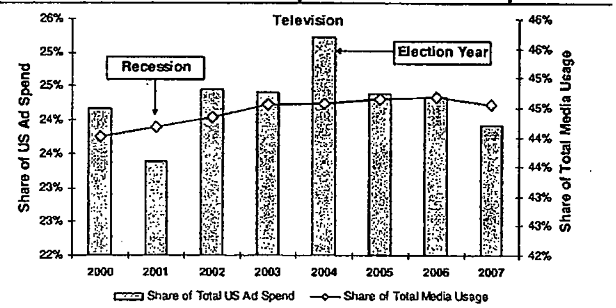
We now turn our attention to the advertising outlook for the key mediums, in order to corroborate our top down estimate with the bottoms up outlook. Our bottoms up work is based on conversations with our network of industry contacts (ad agencies, media buyers/planners, advertising sales people, etc.) as well as analysis of specific drivers such as dynamics between upfront and scatter markets for television.

Overall, our channel checks confirm the notion that advertising trends appear to be weakening in tandem with the economic slowdown. In particular, local media continues to underperform some national mediums such as TV, although this likely reflects more lenient cancellation options for the former and the existence of the upfront market for national broadcast and cable. Nonetheless, heading into 2009, with the economy mired in a recession, we believe no medium (even ones with strong secular outlooks such as online and outdoor advertising) will be spared.

In crafting our growth (or lack thereof) forecasts for each medium, we take into account several factors including:

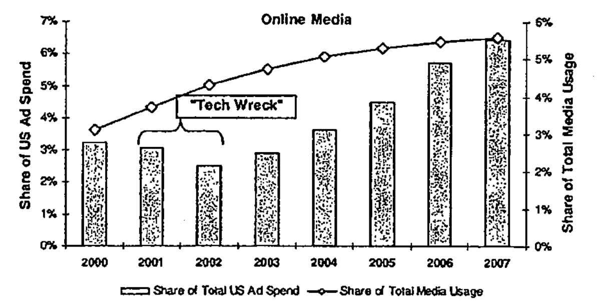
- **Secular/Usage Trends:** In our opinion, mediums with growing usage stand a better chance of growing their share of overall ad budgets. In this context, cable TV and online appear well-positioned as the former continues to take viewership share from their broadcast brethren. On the other hand, mediums with declining consumer usage (e.g., print and radio) will likely see decreased advertising share. As we illustrate in the exhibit below, mediums that grow usage share tend to see growing share of total U.S. advertising dollars while the converse holds true as well. This makes intuitive sense, since we believe that advertisers ultimately follow eyeballs. In other words, as marketers look to reach their target consumer, there is a natural tendency to allocate ad budgets to where audiences are found.

Exhibit 10: **TV Share of Ad Spend versus Time Spent**



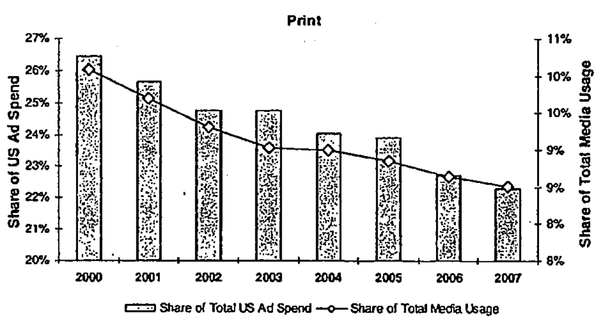
Source: Universal McCann, Veronis Suhler, Credit Suisse estimates.

Exhibit 11: **Online Share of Ad Spend versus Time Spent**



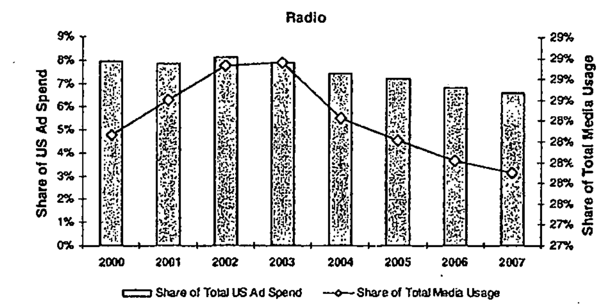
Source: Universal McCann, Veronis Suhler, Credit Suisse estimates.

Exhibit 12: **Print Share of Ad Spend versus Time Spent**



Source: Universal McCann, Veronis Suhler, Credit Suisse estimates.

Exhibit 13: **Radio Share of Ad Spend versus Time Spent**



Source: Universal McCann, Veronis Suhler, Credit Suisse estimates.

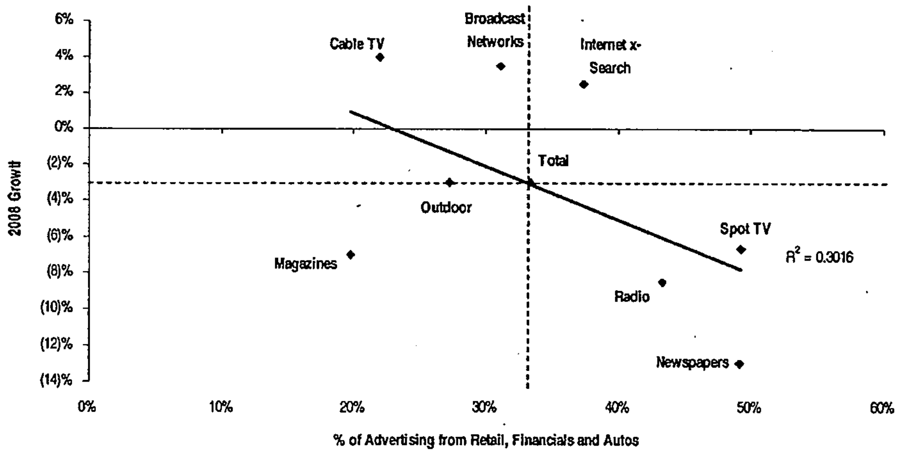
- **Accountability/Measurability/Efficiency:** Additional factors that may play a role in the relative performance of a medium are traits such as accountability, measurability and efficiency. The drive for better measurement and advertising spend accountability is accelerating as the need for greater efficiency of spend is being felt by all marketers. In response, agencies have been investing aggressively in improved measurement techniques that hope to bring a greater level of accountability to traditional media similar to that witnessed in the digital realm. That said, however, media planning is still far from being a purely quantitative exercise.

  Nonetheless, we assume that a prolonged recession will yield a relative "flight to efficiency," as marketers attempt to secure comparable levels of exposure for their brands while spending less. For example, we expect some advertisers to shift spending from broadcast TV to cable networks, given the latter's lower CPM's and somewhat better targetability.

  We believe the print sector will face the greatest risk under this scenario. Burdened by poor reader measurement techniques, declining audience reach potential, and very high comparable CPMs, both magazines and newspapers face structural media planning issues that will be difficult to overcome in a recessionary environment.

- **Exposure to the Auto, Financial, and Retail Categories:** As we alluded to earlier, we would anticipate that mediums with higher exposure to the more troubled sectors of the economy (i.e., autos, financials, and retail) will face greater challenges in 2009. For example, combining the data from Exhibit 4 with our 2008 advertising forecasts finds that exposure to these 3 categories accounts for roughly 30% of a given ad medium's performance.

Exhibit 14: Exposure to Autos, Financials, and Retail vs. 2008 Estimated Ad Growth



Source: TNS, Universal McCann, Credit Suisse estimates

Based on these factors and our channel checks, we summarize our 2009 bottoms up advertising estimates by medium. In general, we expect cable TV, search, and, to a lesser extent, online display to outperform our overall expectation for an 8% decline in the aggregate ad market. In contrast, we expect print and radio to underperform the average, while broadcast TV, outdoor are expected to perform in line with the total domestic ad market.

Exhibit 15: 2009 Ad Forecast Revisions

	2009E			
	Revised	Original	Change (bps)	2008E
Broadcast TV	-8.6%	-6.2%	-237	-2.5%
Cable TV	-0.3%	1.8%	-206	3.7%
Radio	-9.2%	-5.6%	-357	-8.5%
Print	-14.2%	-7.8%	-635	-11.1%
Outdoor	-7.7%	-2.0%	-570	-3.0%
Search	8.1%	11.0%	-290	21.7%
Display	-5.9%	0.1%	-603	8.0%
Other*	-7.8%	-5.0%	-281	-1.9%
Total	-7.9%	**-3.7%**	**-416**	**-3.0%**

Source: Universal McCann, Jack Myer Reports, RAB, IAB, NAA, PIB, OAAA, Kagan World Media, Company data, Credit Suisse estimates:

**Note: "Other" includes Direct mail and Online Classifieds*

We note that in addition to forecasting a larger growth decline in 2009, we also expect this decrease to be off of a lower than anticipated base year given that we have fine tuned our 2008 ad forecast lower to a 3% year over year decline vs. our previous estimated decrease of 2%.

Exhibit 16: 2008 Ad Forecast Revisions

	Revised	Original	Change (bps)
Broadcast TV	-2.5%	-2.7%	17
Cable TV	3.7%	4.5%	-78
Radio	-8.5%	-4.3%	-423
Print	-11.1%	-9.8%	-127
Outdoor	-3.0%	3.3%	-633
Search	21.7%	21.7%	0
Display	8.0%	8.0%	0
Other*	-1.9%	-0.8%	-111
Total	**-3.0%**	**-2.1%**	**-85**

Source: Universal McCann, Jack Myer Reports, RAB, IAB, NAA, PIB, OAAA, Kagan World Media, Company data, Credit Suisse estimates:

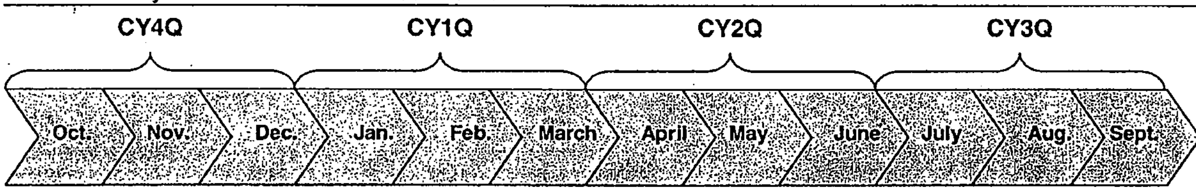
**Note: "Other" includes Direct mail and Online Classifieds*

Broadcast TV

Through much of 2008, broadcast network advertising held up relatively well despite ongoing audience erosion and the macro-backdrop. However, we believe that network advertising performance was aided by a strong 2008/2009 upfront market. By way of background, the broadcast upfront tends to begin in May (although the upfront market for children's programming begins as early as March) and concludes (or "breaks" in industry jargon) as quickly as within several weeks, or it may stretch into late June/early July (as it did in 2001). Traditionally, broadcast networks sell approximately 65-85% of next season's advertising inventory in the upfront market, leaving the remainder for the "scatter market."

In our view, in 2008, broadcast network benefited from a strong upfront selling season, where we estimate CPM increases averaged 7%-8% for the major broadcast networks. Additionally, we estimate that most networks sold on average about 5% more inventory vs. the previous year. We further note that 4Q08 network advertising benefited from the fact that most 4Q upfront commitments are non-cancelable.

Exhibit 17: Key Events in Annual TV Ad Market



CY1Q cancellation options due. Up to 25% can be canceled.	CY2Q cancellation options due. Up to 50% can be canceled.	CY3Q cancellation options due. Up to 50% can be canceled.	Upfront discus-sions begin.	Upfront discus-sions conclude.	CY4Q upfront commit-ments finalized.	New TV season begins.

Source: Company data, Credit Suisse estimates

Unfortunately for the broadcast networks, we do not expect these trends to hold in the face of the recession. First, up to 25% of CY1Q upfront commitments can be canceled with this figure rising to 50% for both CY2Q and CY3Q. Our contacts suggest that 1Q cancellation activity was up year over year though not at a particularly alarming rate. As consumer spending weakens, however, we expect more significant cancellation activity for CY2Q and CY3Q.

We believe weaker trends are beginning to emerge in the current scatter market, which has been described to us as "cautious" for 1Q, in terms of advertiser spending. Although several media executives have indicated that scatter pricing is running flattish with upfront pricing, we believe that scatter pricing is likely down year over year as scatter pricing was very strong last year (e.g., up double digits). Therefore, we would not be surprised if scatter pricing is down year over year (i.e., scatter vs. scatter). In addition, our industry contacts suggest that overall scatter activity, i.e., volume is low. Given these issues, we now project that advertising for broadcast networks will decline 8.6% year over year in calendar 2009.

National Cable TV

Dynamics for the cable networks have been similar to the broadcast networks, with one notable difference: viewership gains, as cable networks continue to siphon audiences from the broadcast networks. Combined with overall growth in multi channel households (about 2% annually), cable networks benefit from increased eyeballs, unlike broadcast network ad revenues, which are negatively impacted by annual erosion in audiences. Furthermore, we see advertisers allocating a greater portion of their ad budget to cable and away from broadcast given greater targetability and generally lower CPM's.

Still, with overall demand in advertising declining, we do not expect cable networks to be immune. For example, sports advertising on ESPN, long a pillar of strength, has weakened declining ~8% in the September quarter given reduced spending from U.S. auto-makers, financials, retail, and, to a lesser extent, financial services. Consequently, we are lowering our 2009 cable advertising forecast to essentially flat from +2% previously.

Outdoor

Despite having what we believe to be strong long-term fundamentals, outdoor advertising has witnessed rapid revenue deceleration after having outperformed most sectors of ad-supported media for the first half of 2008. Based on recent performance data, outdoor company management guidance, and channel checks with major media agency contacts, we are significantly reducing both are 2008 year end and 2009 revenue forecasts. We are forecasting the outdoor medium to exhibit -3% growth for 2008, decelerating to -7.7% revenue loss in 2009, a 70 bps outperformance versus our total advertising estimate of -8.4%.

During recessionary periods dating back to 1960, outdoor has underperformed Nominal GDP by -3.8% on average. Based on Credit Suisse's newly revised U.S. Nominal GDP forecasts, normalized growth rates would call for -0.5% growth in 2008, and -4.7% growth in 2009. However, we estimate the outdoor sector will significantly underperform normalized growth rates by approximately 300 basis points in 2009, despite positives such as new technology and growing commute times.

We believe the chief culprits behind this underperformance will continue to be weak demand from the auto, real estate, and retail categories, which together comprise approximately 25% of total outdoor revenue. Outdoor company managements point to the medium's comparably low impression CPMs when defending outdoor's share of spending, particularly at a time when advertisers are looking for maximum efficiencies.

While it is true that Outdoor is a highly efficient medium that fares well in any sort of strict CPM comparison with either national or local media types, CPM analysis in isolation of consideration of messaging capabilities rarely ever dictates levels of media spend. Moreover, Outdoor carries onerous production costs for advertisers who choose to make sizeable media budget commitments. The migration to digital boards, which we believe to be a long-term positive for the medium, is not enough of a factor given the small size of installed base and severity of cyclical headwinds impacting overall media spend.

Finally, unlike other media types, where advertisers may elect to produce fewer creative executions in favor of running existing commercials more frequently, the majority of Outdoor production expense is consumed in the fabrication of the physical poster assets. While production expense is not necessarily a direct catalyst for reductions in Outdoor advertising spend, it nonetheless compromises a bit of the CPM advantage so frequently assigned to the medium.

Magazines

According to our analysis of past recessions and the concurrent trends in advertising expenditures, we believe Magazines are particularly vulnerable to prolonged macro-economic weakness across the U.S. economy. Based on what we believe to be rapidly deteriorating fundamentals and pronounced weakness displayed in Q4, 2008, we are lowering our end of year estimates for Magazine advertising revenue from -5% to -7%, an underperformance of over 400 basis points versus what we would typically witness for magazine advertising during recessionary periods. For 2009, we believe magazine advertising fundamentals will continue to weaken substantially, with the medium posting -12.9% advertising revenue declines, or 500 basis points worse than would be predicted by our Credit Suisse 2009 Nominal GDP forecast of -0.9%.

Beyond cyclical drivers, we believe we are witnessing the beginning of a sustained secular decline in magazine advertising revenue generation. After decades of artificially inflating the circulation rate bases of hundreds of magazine titles in an effort to justify annual page rate increases, many publishers have begun to scale back unprofitable distribution. We believe this contraction can extend for multiple years due a significant and unjustifiable over-supply of titles being published. In the process, many publishers will attempt to maintain revenue by passing through concurrent CPM increases. In most cases, we believe the result will be to only further increase the use of substantial discounting in an effort to maintain competitive share of spend, further eroding revenues.

For media planners, magazines are increasingly faced with serious competition from the internet, where the capabilities of targeting of niche audiences (always the strongest card in the magazine hand) far exceeds that of the consumer magazines. Magazines are further disadvantaged by high relative impression costs for advertisers, antiquated audience measurement, and long planning lead times–a particularly difficult dynamic at a time when advertisers are demanding maximum budget flexibility.

Newspapers

After a dismal 2007, where Newspapers witnessed the greatest percentage revenue decline among major measured media types, cyclical stress has combined with continued secular pressure to plunge the Newspaper industry into what some are considering to be terminal decline. As widely reported in recent results for industry bellweathers The New York Times Company, McClatchy, and Media General, weak fundamentals exhibited throughout 2008 declined substantially further in the beginning of Q4, with posted advertising revenue declines of >15%. Already weak classified advertising revenue continued to be punished further by declines in real estate and employment advertising, and continued weakness among automotive, retail, and financial services advertising combined to further torture display ad revenues. Consequently, we are lowering our forecasts for year-ending 2008 ad revenue to -13% from -11.9%, and our estimated 2009 revenue projections from -8.7% to -15%.

The substantial decline in our 2009 forecast is attributable to our view that a critical inflection point has been passed in the evaluation by advertisers and agencies of Local Newspapers as an advertising medium. While the Classified revenue story is well known, we believe the accelerating decline in display advertising is beginning to reflect fundamental changes occurring across the consumer landscape. As circulations continue to decline, and Newspapers no longer hold a vice-like grip on local daily reach, newspaper display advertising faces substantial and systemic risk.

For decades, the local daily has played a critical role in the information supply chain and purchase cycle for critical consumer categories such as auto, retail, real estate, financial services, travel and entertainment, not just as a provider of local news, but as the end point where consumers sought pricing and availability on goods and services. Car pricing (new and used), CD rates, airfares, movie and television listings, retail sales and grocery store discounts: all are elements of this supply chain that are either severely compromised already, or will be over the coming years. As consumer behavior continues to shift away from the daily printed paper as the source of record for consumer goods and services, so too does an element of advertising imperative on the part of key advertising categories.

Radio

Over the past 40 years, Radio has been less volatile to downside during recessions. During recessionary periods Radio revenues have averaged a -3.3% underperformance vs the Nominal GDP growth rate. However, for 2008, we have revised our estimate for growth to -8.5%, down from -4.3%. As has recently been felt in the Outdoor segment, substantial declines in local Automotive and Retail spending have combined to put serious pressure on Radio ad sales. Together these two categories account for roughly 23% of Radio revenues. We also note that, in an advertising contraction, local media roughly 80% of radio is local typically suffers cutbacks ahead of national advertising reductions.

Primarily, this is due to local media types (ex outdoor) providing greater leniency in terms of cancellation of shifting of flighted activity. We also remain concerned about the numerous secular issues facing radio including declining listenership (which is decreasing low single digits annually), poor measurement systems (still heavily reliant upon handwritten diaries), too much clutter (i.e., commercials), and new technology competition from satellite radio, iPods, and cell phone usage in cars. Consequently, we forecast -9% growth for radio in 2009, down from our earlier -5.6% projection.

Paid Search

There is widespread investor concern that weaker ecommerce trends will lead to lower advertiser search ROI and consequently place downward pressure on keyword pricing for search engines. The rationale is that weaker ecommerce trends result in fewer online users searching for consumer items, lower sales conversion among those who do search, and lower average sales prices on items ultimately sold.

Our SEM contacts verify the weaker ecommerce trends in terms of seeing smaller average order sizes as consumers are buying smaller quantities and/or buying lower priced goods. However, these same SEM contacts indicate that they are not seeing a drop off in conversion among those users that are searching for items. More importantly, they are finding that RPCs, while not showing the typical lift this time of year, remain relatively steady, as the drop in advertiser search demand is offset by reductions in the amount of paid clicks available for sale.

To the extent that this is a cyclical issue (which we believe is the case for search), the reality is that ROI is declining for all advertising. In contrast to most other media, search advertising wins out in terms of measurability and accountability. Search advertising is among the most measurable media available to advertisers, which we view as important during a downturn. Secondly, search advertising is what potential consumers tend to see in the final moments before purchase, making search marketing less discretionary than other forms of advertising. As a result of such characteristics, we believe search to be relatively well positioned compared to its media peers during a downturn.

Nevertheless, we have downwardly revised our 2009 U.S. search advertising forecast in light of overall deteriorating economic and advertising trends. We note that our expectation for lower search advertising growth has already been factored into our Google estimate revisions, which we published on December 11th. We now forecast 2009 U.S. search advertising growth at 8% in 2009 (vs. 11% previously) and at a 13% CAGR for the next five years. Our forecast assumes that paid click growth will moderate to 6% from 8% in 2009 and that pricing growth will slow to 2% vs. 3% previously.

Exhibit 18: **U.S. Search Forecast, 2005-2013E**

	2005	2006	2007	2008E	2009E	2010E	2011E	2012E	2013E	CAGR '08-'13
U.S.										
Internet Users	204	208	212	220	227	235	242	249	256	3.1%
x Time Spent (Hours Online)/ Internet User	263	287	295	310	325	342	359	377	395	5.0%
= Total Internet User Hours	**53,669**	**59,786**	**62,568**	**68,007**	**73,921**	**80,112**	**86,650**	**93,677**	**101,172**	8.3%
x Searches per Internet User Hour	1.07	1.16	1.43	1.57	1.70	1.79	1.85	1.90	1.94	4.4%
= U.S. O&O Web Searches	**57,252**	**69,347**	**89,291**	**106,757**	**125,905**	**143,272**	**160,389**	**178,163**	**196,747**	13.0%
x % of Searches with Paid Ads ("Coverage")	76.9%	80.0%	77.4%	75.0%	66.8%	64.8%	62.8%	61.0%	59.1%	-4.7%
= Searches with Paid Ads	**44,023**	**55,475**	**69,075**	**80,109**	**84,085**	**92,813**	**100,784**	**108,595**	**116,324**	7.7%
x CTR	25.6%	25.9%	26.1%	26.6%	26.9%	27.4%	27.9%	28.4%	28.9%	1.6%
= Paid Clicks	**11,270**	**14,340**	**18,029**	**21,309**	**22,577**	**25,384**	**28,068**	**30,787**	**33,560**	9.5%
x Revenue per Click	$0.46	$0.47	$0.49	$0.50	$0.51	$0.53	$0.54	$0.56	$0.58	2.8%
= Revenue	**$5,188.0**	**$6,799.4**	**$8,804.6**	**$10,719.0**	**$11,583.8**	**$13,415.0**	**$15,278.5**	**$17,260.9**	**$19,380.0**	12.6%
U.S. Y/Y % Change										
Internet Users	1.1%	2.0%	2.0%	3.5%	3.5%	3.2%	3.0%	3.0%	2.9%	
Time Spent (Hours Online)/ Internet User	5.9%	9.2%	2.6%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Total Internet User Hours	**7.1%**	**11.4%**	**4.7%**	**8.7%**	**8.7%**	**8.4%**	**8.2%**	**8.1%**	**8.0%**	
Searches per Internet User Hour	17.4%	8.7%	23.0%	10.0%	8.5%	5.0%	3.5%	2.8%	2.3%	
Web Searches	**25.7%**	**21.1%**	**28.8%**	**19.6%**	**17.9%**	**13.8%**	**11.9%**	**11.1%**	**10.4%**	
% of Searches with Paid Ads ("Coverage")	3.1%	4.0%	-3.3%	-3.0%	-11.0%	-3.0%	-3.0%	-3.0%	-3.0%	
Searches with Paid Ads	**29.5%**	**26.0%**	**24.5%**	**16.0%**	**5.0%**	**10.4%**	**8.6%**	**7.7%**	**7.1%**	
Clicks	1.0%	1.0%	1.0%	1.9%	0.9%	1.9%	1.8%	1.8%	1.8%	
Paid Clicks	**30.8%**	**27.2%**	**25.7%**	**18.2%**	**5.9%**	**12.4%**	**10.6%**	**9.7%**	**9.0%**	
Revenue per Click	3.0%	3.0%	3.0%	3.0%	2.0%	3.0%	3.0%	3.0%	3.0%	
Revenue	**34.7%**	**31.1%**	**29.5%**	**21.7%**	**8.1%**	**15.8%**	**13.9%**	**13.0%**	**12.3%**	

Source: Company data, Credit Suisse estimates

Online Display

Similarly to search, we have also adjusted our 2009 U.S. display advertising forecast downward. Unlike search's estimate revision, which we view as largely a temporary phenomenon, we believe that display advertising may be entering into a period of structural challenge as well.

We now forecast 2009 U.S. display advertising to be down 6% in 2009 vs. the prior year and vs. our previous estimate of flat year over year growth. Our expectation for slower revenue growth reflects our belief that both efficiency and pricing will come under greater pressure heading into 2009. As a result, our lower revenue estimate reflects a 3% decrease in both impressions sold and CPM pricing.

Beyond 2009, we have also taken a more conservative view of display advertising as we expect pricing and efficiency pressure to continue and largely offset pageview growth. We now estimate online display advertising to grow mid single digit between the years 2010-2013, down from our previous estimate of low double digit.

Exhibit 19: **U.S. Display Forecast, 2005-2013E**

	2005	2006	2007	2008E	2009E	2010E	2011E	2012E	2013E	CAGR '08-'13
Avg. Online HH's (mm's)	75.6	78.8	83.3	88.2	93.0	98.2	103.4	108.9	114.6	5.4%
x Page Views per Online HH	70,371	70,753	67,222	68,566	69,937	71,336	72,763	74,218	75,703	2.0%
= U.S. Page views (mm's)	**5,320,042**	**5,575,354**	**5,599,545**	**6,048,983**	**6,505,567**	**7,004,693**	**7,527,019**	**8,082,354**	**8,676,429**	**7.5%**
x % Sold	24%	47%	52%	52%	47%	46%	46%	45%	45%	-2.8%
= Page Views Sold	**1,285,524**	**2,631,652**	**2,891,787**	**3,123,976**	**3,029,782**	**3,229,614**	**3,435,735**	**3,652,328**	**3,881,576**	**4.4%**
x Ad Revenue per '000 Page Views	$3.22	$2.04	$2.46	$2.46	$2.39	$2.37	$2.34	$2.32	$2.30	-1.4%
/ 1000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	0.0%
= U.S. Online Display Advertising	**$4,138.9**	**$5,370.0**	**$7,124.3**	**$7,696.3**	**$7,240.3**	**$7,640.7**	**$8,047.0**	**$8,468.8**	**$8,910.3**	**3.0%**
Avg. Online HH's (mm's)	3.5%	4.2%	5.7%	5.9%	5.4%	5.6%	5.3%	5.3%	5.2%	
Page Views per Online HH	9.6%	0.5%	-5.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
U.S. Page views (mm's)	**13.4%**	**4.8%**	**0.4%**	**8.0%**	**7.5%**	**7.7%**	**7.5%**	**7.4%**	**7.4%**	
% Sold	13.8%	95.3%	9.4%	0.0%	-9.8%	-1.0%	-1.0%	-1.0%	-1.0%	
Page Views Sold	**29.0%**	**104.7%**	**9.9%**	**8.0%**	**-3.0%**	**6.6%**	**6.4%**	**6.3%**	**6.3%**	
Ad Revenue per '000 Page Views	-7.9%	-36.6%	20.7%	0.0%	-3.0%	-1.0%	-1.0%	-1.0%	-1.0%	
U.S. Online Display Advertising	**18.8%**	**29.7%**	**32.7%**	**8.0%**	**-5.9%**	**5.5%**	**5.3%**	**5.2%**	**5.2%**	

Source: Company data, Credit Suisse estimates

Aside from the cyclical slowdown that is affecting display advertising, we believe other challenges exist, particularly for larger, more premium publishers, given the advent of advertising networks. Prior to the emergence of ad networks, the amount of "saleable" online ad inventory was largely consolidated in the hands of the major portals such as Yahoo!, MSN, and AOL, while the "Long Tail" of the Internet (smaller websites, blogs, etc.) was difficult to monetize.

Ad networks now allow for smaller internet sites to be monetized by advertisers at very reasonable rates (about $1-2 CPM versus $10+ for premium display CPMs). While the greater supply of inventory should lead to lower pricing, we also expect the additional inventory supply to cause further marketplace fragmentation and share loss among the established leaders in display. For this reason, market leaders may face even greater challenges than what our current industry-wide forecast suggests.

Company Estimate Revisions

In light of our reduced advertising estimates, we are lowering our 2009 estimate for the majority of the ad-sensitive companies in our entertainment and Internet universe. More specifically, we are lowering 2009 estimates for Viacom, Time Warner, News Corp., Walt Disney, and Yahoo!. We note that our reduced search forecasts have already been incorporated in our Google estimates (please refer to our note, *"Google: Searching for Perspectives,"* dated December 11, 2008 for details). The table below summarizes our 2009 EPS estimate revisions.

Exhibit 20: **Revised Company Estimates vs. Consensus, FY2009E**

	2009 EPS Estimate			Street	CS vs.
Company	**Old**	**New**	**% Change**	**Avg.**	**Consensus**
News Corp.	$1.07	$1.00	-6.5%	$0.96	4.2%
Time Warner	$1.11	$1.05	-5.4%	$1.03	1.9%
Viacom	$2.32	$2.20	-5.2%	$2.42	-9.1%
Walt Disney	$2.18	$1.95	-10.6%	$2.11	-7.6%
Yahoo!	$0.67	$0.46	-31.3%	$0.46	0.0%

Source: Company data, Credit Suisse estimates

News Corp.

We have lowered our News Corp. FY09 EPS estimate from $1.07 to $1.00 and our EBIT estimate from $4.6 billion to $4.3 billion. Our new operating income estimate represents a 15% year over year decline vs. FY08 adjusted EBIT of $5.13 billion, which is at the low end of the company's guidance for a low to mid teens decline. Our new estimates reflect reduced advertising estimates at cable networks and the Fox Broadcast network, given our new outlook for industrywide TV ad growth. We have also cut our newspaper advertising assumptions to reflect cyclical as well as secular issues.

Exhibit 21: News Corp. Estimate Changes, FY2009E

	FY09E					
	Old	Growth	New	Y/Y % Growth	Variance ($)	Variance (%)
Revenues						
Filmed Entertainment	$6,559.4	(2.1)%	$6,559.4	(2.1)%	-	0.0%
Television	$5,050.8	(13.0)%	4,954.8	(14.7)%	(96.0)	(1.9)%
Cable Network Programming	$5,494.6	10.0%	5,366.3	7.5%	(128.4)	(2.3)%
Direct Broadcast Satellite TV	$4,081.6	8.9%	4,081.6	8.9%	-	0.0%
Magazine & Inserts	$1,090.3	(3.0)%	1,090.3	(3.0)%	-	0.0%
Newspapers	$6,594.3	5.5%	6,323.3	1.2%	(271.0)	(4.1)%
Book Publishing	$1,388.0	0.0%	1,388.0	0.0%	-	0.0%
Other	3,197.3	7.0%	3,197.3	7.0%	-	0.0%
Total Revenue	$33,456.4	1.4%	$32,961.0	(0.1)%	(495.4)	(1.5)%
EBIT						
Filmed Entertainment	$948.9	(23.8)%	$948.9	(23.8)%	-	0.0%
Television	536.3	(52.4)%	475.7	(57.8)%	(60.6)	(11.3)%
Cable Network Programming	1,517.0	19.5%	1,427.4	12.5%	(89.6)	(5.9)%
Direct Broadcast Satellite TV	585.4	39.7%	585.4	39.7%	-	0.0%
Magazine & Inserts	329.4	(6.4)%	329.4	(6.4)%	-	0.0%
Newspapers	664.8	(13.3)%	526.4	(31.4)%	(138.4)	(20.8)%
Book Publishing	131.3	(17.9)%	131.3	(17.9)%	-	0.0%
Other	(86.7)	NM	(86.7)	NM	-	0.0%
Total EBIT	$4,626.4	(14.0)%	$4,337.8	(19.4)%	(288.6)	(6.2)%
Margins						
EBIT						
Filmed Entertainment	14.5%		14.5%			
Television	10.6%		9.6%			
Cable Network Programming	27.6%		26.6%			
Direct Broadcast Satellite TV	14.3%		14.3%			
Magazine & Inserts	30.2%		30.2%			
Newspapers	10.1%		8.3%			
Book Publishing	9.5%		9.5%			
Other	-2.7%		-2.7%			
Total EBIT	13.8%		13.2%			
Revenue	33,456.4	1.4%	32,961.0	(0.1)%	(495.4)	(1.5)%
Operating Expenses	27,613.4	4.6%	27,406.6	3.8%	(206.8)	(0.7)%
EBITDA	$5,843.0	(11.3)%	$5,554.4	(15.7)%	(288.6)	(4.9)%
Depreciation & Amortization	1,216.5	0.8%	1,216.5	0.8%	-	0.0%
Operating Income	$4,626.4	(14.0)%	$4,337.8	(19.4)%	(288.6)	(6.2)%
Interest Expense, net	(666.4)	(2.0)%	(666.6)	(2.0)%	(0.2)	0.0%
Equity Earnings (Losses) of Affiliates	469.9		469.9		-	0.0%
Gain on Issuance of Subsidiary/Affil. Shares	-		-			
Other, net	74.0		74.0		-	0.0%
Income before Taxes	$4,503.9	(16.9)%	$4,215.1	(22.2)%	(288.8)	(6.4)%
Income Tax Expense	(1,623.0)	(16.9)%	(1,516.1)	(22.4)%	106.9	(6.6)%
Minority Interest in Sub., net of tax	(96.0)		(96.0)	(26.7)%	-	0.0%
Income before Stock Comp & One-time Items	2,785.0	(16.5)%	2,603.0	(21.9)%	(182.0)	(6.5)%
Stock Compensation Expense	0.0		0.0			
Income before Cum. Effect of Accting Change	$2,785.0	(16.5)%	$2,603.0	(21.9)%	(182.0)	(6.5)%
Cum. Effect of Accting Change/One Time Items	(91.5)		(91.5)			
Net Income (Loss)	$2,693.4	(50.0)%	$2,511.5	(53.4)%	(182.0)	(6.8)%
Diluted Shares Outstanding	2,600	(12.5)%	2,600	(12.5)%	-	0.0%
Diluted EPS (aft. Stock Comp and x 1x-items)	$1.07	(16.2)%	$1.00	(21.7)%	($0.07)	(6.5)%

Source: Company data, Credit Suisse estimates

Time Warner

Our 2009 EPS estimate for TWX is now $1.05, down from $1.11 (including cable). Given limited ad exposure, our adjusted EBITDA estimate has been trimmed only by 2.5% to $13.8 billion vs. $14.1 billion previously. Our new forecast implies 5.7% y/y growth, although this assumes no merger and restructuring charges (which TWX includes in its calculation of adjusted EBITDA). Excluding charges in 2008, our projection would represent organic EBITDA growth of ~1%. Our new estimates reflect lower advertising assumptions for AOL, where we now expect a 10% decline in O&O display advertising (vs. 0% before and under our -6% estimate for the industry). We also slightly trimmed our cable ad growth estimate for Turner to +2% from +4%. This forecast still assumes Turner can outperform the overall flat cable ad market in 2009, given ratings strength. We also cut our publishing ad growth estimate to -13%, in line with the industry (since Time, Inc. is the largest player with ~20% market share) from our original -3% forecast.

Exhibit 22: Time Warner Estimate Changes, 2009E

	2009E					
	Old	Y/Y % Change	New	Y/Y % Change	Variance ($)	Variance (%)
Revenue						
AOL	$3,885	-7.2%	$3,621	-13.5%	($264)	-6.8%
Cable	$18,361	6.8%	$18,361	6.8%	$0	0.0%
Filmed Entertainment	$12,633	3.2%	$12,633	3.2%	$0	0.0%
Networks	$11,806	6.4%	$11,727	5.7%	($80)	-0.7%
Publishing	$4,573	-0.4%	$4,332	-5.6%	($241)	-5.3%
Intersegment Elimination	($1,688)	4.0%	($1,688)	4.0%	$0	0.0%
Total Revenue	$49,571	3.9%	$48,986	2.7%	($585)	-1.2%
Adjusted OIBDA						
AOL	$1,367	-12.7%	$1,291	-17.5%	($76)	-5.6%
Cable	$6,618	6.8%	$6,618	6.8%	$0	0.0%
Filmed Entertainment	$1,409	13.1%	$1,409	13.1%	$0	0.0%
Networks	$4,199	17.2%	$4,170	16.4%	($29)	-0.7%
Publishing	$869	15.0%	$627	-16.9%	($241)	-27.8%
Corporate	($335)	7.3%	($335)	7.3%	$0	0.0%
Intersegment Elimination	($3)	5.0%	($3)	5.0%	$0	0.0%
Total Adjusted OIBDA	$14,122	8.4%	$13,776	5.7%	($346)	-2.5%
Adjusted OIBDA Margin						
AOL	35.2%		35.6%		0.5%	
Cable	36.0%		36.0%		0.0%	
Filmed Entertainment	11.2%		11.2%		0.0%	
Networks	35.6%		35.6%		(0.0)%	
Publishing	19.0%		14.5%		(4.5)%	
Total Adjusted OIBDA	28.5%		28.1%		(0.4)%	
Total Revenue	$49,571	3.9%	$48,986	2.7%	($585)	-1.2%
Operating Costs	$35,449	1.9%	$35,210	1.2%	($239)	-0.7%
Reported OIBDA	$14,122	9.4%	$13,776	6.7%	($346)	-2.5%
Depreciation	($4,075)	4.6%	($4,075)	4.6%	$0	0.0%
Amortization	($867)	9.3%	($867)	9.3%	$0	0.0%
EBIT	$9,181	11.7%	$8,834	7.5%	($346)	-3.8%
Interest Expense, Net	($2,067)	-5.2%	($2,072)	-5.0%	($4)	0.2%
Other Income (Expense)	$0		$0			
Minority Interest Expense	($404)	10.0%	($404)	10.0%	$0	0.0%
Pretax Income	$6,709	18.7%	$6,359	12.5%	($350)	-5.2%
Income Tax Benefit (Provision)	($2,617)	20.1%	($2,480)	13.8%	$137	-5.2%
Net Income b/f Discont'd Ops.	$4,093	17.8%	$3,879	11.7%	($214)	-5.2%
Discont'd Ops, Net	$0		$0			
Cum. Effect of Accounting	$0		$0			
Net Income	$4,093	17.9%	$3,879	11.7%	($214)	-5.2%
Average Diluted Shares	3,678.8	2.0%	3,678.8	2.0%	-	0.0%
Net Income b/f Discont'd Ops.	$4,093	17.8%	$3,879	11.7%	($214)	-5.2%
/ Diluted Shares (Avg.)	3,678.8	2.0%	3,678.8	2.0%	-	0.0%
= Diluted EPS b/f Discont. Ops	$1.11	15.5%	$1.05	9.5%	($0.06)	-5.2%

Source: Company data, Credit Suisse estimates

Viacom

We are lowering our Viacom 2009 EPS estimate from $2.32 to $2.20 to reflect decreased ad growth assumptions at its cable networks. We now forecast advertising for Viacom's channels will fall 5% year over year, worse than our original -2.5% decrease. We note that we expect Viacom's domestic channels to underperform its peers given ratings weakness (ratings were down 11% year over year in 3Q08 on a total day basis, in target demographics). Coupled with our view of Viacom's programming cost growth, we expect pressure on EBITDA margins, which we now project to be about 36.2% in 2009 vs. 36.8% previously and an estimated 39.0% in 2008.

Exhibit 23: **Viacom Estimate Revisions, 2009E**

	2009E					
	Old	Y/Y% Change	New	Y/Y% Change	Variance ($)	Variance (%)
Revenue						
Advertising	$4,609.3	-2.5%	$4,474.2	-5.3%	($135)	(2.9)%
+ Affiliate Fees	$2,823.9	8.2%	$2,823.9	8.2%	$0	0.0%
+ Other Cable Net (Ancillary Revenue)	$1,604.2	7.2%	$1,571.9	5.0%	($32)	(2.0)%
= Cable Networks	**$9,037.5**	**2.3%**	**$8,870.0**	**0.5%**	**(167.5)**	**(1.9)%**
+ Entertainment	$5,433.4	-5.3%	$5,433.4	-5.3%	-	0.0%
+ Eliminations	(166.5)	4.0%	(166.5)	4.0%	-	0.0%
= Total Revenues	**$14,304.4**	**-0.7%**	**$14,137.0**	**-1.9%**	**(167.5)**	**(1.2)%**
EBITDA						
Cable Networks	3,325.6	-3.4%	$3,213.2	-6.6%	(112.4)	(3.4)%
+ Entertainment	171.3	-29.5%	$171.3	-29.5%	-	0.0%
+ Corp. Expense	(226.7)	3.0%	(226.7)	3.0%	-	0.0%
+ Eliminations	4.2	5.0%	4.2	5.0%	-	0.0%
= Total EBITDA	**$3,274.4**	**-5.6%**	**$3,162.0**	**-8.8%**	**(112.4)**	**(3.4)%**
EBIT						
Cable Networks	$3,065.5	-4.0%	$2,953.0	-7.5%	(112.4)	(3.7)%
Entertainment	$57.8	-57.4%	$57.8	-57.4%	-	0.0%
Corp. Expense	($246.9)	3.0%	($246.9)	3.0%	-	0.0%
Eliminations	$4.2	5.0%	$4.2	5.0%	-	0.0%
Total Pro forma EBIT	**$2,880.6**	**-6.9%**	**$2,768.1**	**-10.5%**	**(112.4)**	**(3.9)%**
EBITDA Margin						
Cable Networks	36.8%		36.2%		(0.6)%	
Entertainment	3.2%		3.2%		0.0%	
Total EBITDA	**22.9%**		**22.4%**		**(0.5)%**	
EBIT Margin						
Cable Networks	33.9%		33.3%		(0.6)%	
Entertainment	1.1%		1.1%		0.0%	
Total EBIT	**20.1%**		**19.6%**		**(0.6)%**	
Revenues	$14,304.4	-0.7%	$14,137.0	-1.9%	($167.5)	-1.2%
Operating Costs	$11,030.1	0.8%	$10,975.0	0.3%	($55.1)	-0.5%
EBITDA	**$3,274.4**	**-5.6%**	**$3,162.0**	**-8.8%**	**($112.4)**	**-3.4%**
D&A	$393.8	5.2%	$393.8	5.2%	$0.0	0.0%
EBIT	**$2,880.6**	**-6.9%**	**$2,768.1**	**-10.5%**	**($112.4)**	**-3.9%**
Net Interest (Expense)	($510.0)	2.7%	($510.5)	2.8%	($0.5)	0.1%
Other, net	($23.5)		($23.5)		$0.0	0.0%
Pretax Income	**$2,347.1**	**-7.4%**	**$2,234.2**	**-11.8%**	**($112.9)**	**-4.8%**
Income Tax (Expense)	($880.2)	-1.2%	($837.8)	-5.9%	$42.3	-4.8%
Equity (Losses)	($120.0)		($120.0)		$0.0	0.0%
Minority Interest, Net of Tax	($16.5)		($16.5)		$0.0	0.0%
Net Income from Cont. Ops.	**$1,330.5**	**-14.0%**	**$1,259.9**	**-18.5%**	**($70.6)**	**-5.3%**
Extraordinary Items	-		$0.0			
Net Income (Loss) after Extr. Items	**$1,330.5**	**-0.3%**	**$1,259.9**	**-5.5%**	**($70.6)**	**-5.3%**
Net Loss from Discontinued Items	$0.0		$0.0			
Net Income (Loss) after Disc Items	**$1,330.5**	**-2.3%**	**$1,259.9**	**-7.5%**	**($70.6)**	**-5.3%**
PF Diluted EPS x-1x Items	**$2.32**	**-6.2%**	**$2.20**	**-11.2%**	**($0.12)**	**-5.3%**
Wtd. Avg. Diluted Shares	572.8	-8.3%	572.8	-8.3%		

Source: Company data, Credit Suisse estimates

Walt Disney

We have reduced our Disney FY09 EPS estimate from $2.18 to $1.95. We now forecast EBIT of $7.15 billion, down 15.5% year over year, vs. our prior $7.8 billion projection (an 8% year over year drop). The largest chunk of our EBIT revision is driven by reduced broadcast network advertising assumptions, which we now project to decline 11% in FY09 given the ad market as well as ABC ratings weakness. We note that broadcast networks carry very high operating leverage given largely fixed programming cost spending. In addition, our revisions reflect lower cable advertising, consistent with our lowered outlook for overall advertising. More specifically, we estimate that U.S. cable network advertising for Disney will fall 5% year over year, underperforming our flat growth expectation for the industry given sports (and hence ESPN's) exposure to autos and financials. We also cut our forecast for the Consumer Products division to reflect economic weakness on retail sales and hence Disney's licensing and retail store operations.

Exhibit 24: **Walt Disney Estimate Changes, FY2009E**

	2009E					
September Fiscal Year	Old	Y/Y % Change	New	Y/Y % Change	Variance ($)	Variance (%)
Revenue						
Cable Networks	$10,704.5	6.6%	$10,383.6	3.4%	($321.0)	-3.0%
+ Broadcasting	$5,745.1	-5.4%	$5,497.5	-9.5%	($247.5)	-4.3%
= Media Networks	**$16,449.6**	**2.1%**	**$15,881.1**	**-1.5%**	**($568.5)**	**-3.5%**
+ Parks & Resorts	$10,706.8	-6.9%	$10,706.8	-6.9%	$0.0	0.0%
+ Studio Entertainment	$7,505.6	2.1%	$7,505.6	2.1%	$0.0	0.0%
+ Consumer Products	$3,026.8	5.3%	$2,772.6	-3.6%	($254.2)	-8.4%
= Total Revenue	**$37,688.8**	**-0.4%**	**$36,866.1**	**-2.6%**	**($822.7)**	**-2.2%**
EBITA						
Cable Networks	$4,454.4	8.6%	$4,211.1	2.7%	($243.3)	-5.5%
+ Broadcasting	$375.6	-42.6%	$75.2	-88.5%	($300.4)	-80.0%
= Media Networks	**$4,830.0**	**1.6%**	**$4,286.3**	**-9.9%**	**($543.7)**	**-11.3%**
+ Parks & Resorts	$1,272.3	-32.9%	$1,272.3	-32.9%	$0.0	0.0%
+ Studio Entertainment	$954.9	-12.1%	$954.9	-12.1%	$0.0	0.0%
+ Consumer Products	$747.6	4.1%	$631.8	-12.0%	($115.8)	-15.5%
= Total EBITA	**$7,804.9**	**-7.7%**	**$7,145.4**	**-15.5%**	**($659.5)**	**-8.4%**
Operating Margins						
EBITA Margin						
Cable Networks	41.6%		40.6%		-1.1%	
Broadcasting	6.5%		1.4%		-5.2%	
Media Networks	**29.4%**		**27.0%**		**-2.4%**	
Theme Parks & Resorts	11.9%		11.9%		0.0%	
Studio Entertainment	12.7%		12.7%		0.0%	
Consumer Products	24.7%		22.8%		-1.9%	
Total EBITA Margin	**20.7%**		**19.4%**		**-1.3%**	
Revenues	$37,688.8	-0.4%	$36,866.1	-2.6%	($822.7)	-2.2%
EBITA	**$7,804.9**	**-7.7%**	**$7,145.4**	**-15.5%**	**($659.5)**	**-8.4%**
Amortization Expense	$0.0		$0.0		$0.0	
Total Operating Income	**$7,804.9**	**-7.7%**	**$7,145.4**	**-15.5%**	**($659.5)**	**-8.4%**
Corporate (Expense)	($436.5)	-7.3%	($436.5)	-7.3%	$0.0	0.0%
Equity Income of Investees	$0.0		$0.0		$0.0	
Net Interest (Expense)	($530.2)	1.2%	($535.6)	2.2%	($5.4)	1.0%
Income b/f Taxes & Minority Interest	**$6,838.2**	**-8.3%**	**$6,173.4**	**-17.3%**	**($664.8)**	**-9.7%**
Income Tax (Expense)/Benefit	($2,530.1)	-9.4%	($2,284.1)	-18.2%	$246.0	-9.7%
Minority Interest	($305.0)	1.0%	($305.0)	1.0%	$0.0	0.0%
Net Income (Loss) b/f Extraordinary Items	**$4,003.0**	**-8.3%**	**$3,584.2**	**-17.9%**	**($418.9)**	**-10.5%**
Restructuring Charges/Extr. Items/Disc Ops (After Tax)	$0.0		$0.0		$0.0	
Cumulative Effect of Accounting Changes	$0.0		$0.0		$0.0	
Net Income (Loss) a/f Extraordinary Items	**$4,003.0**	**-8.8%**	**$3,584.2**	**-18.3%**	**($418.9)**	**-10.5%**
Diluted Shares Outstanding	1,839.7	-4.3%	1,839.7	-4.3%	-	0.0%
Diluted EPS b/f Extr. Items	**$2.18**	**-4.2%**	**$1.95**	**-14.3%**	**($0.23)**	**-10.5%**
Diluted EPS a/f Extr. Items	$2.18	-4.7%	$1.95	-14.7%		0.0%
Tax rate	37.0%		37.0%		0.0%	

Source: Company data, Credit Suisse estimates

Yahoo!

We have reduced our Yahoo FY09 EPS estimate from $0.67 to $0.46. We forecast adjusted EBIT (excluding stock comp, etc.) at $1.2 billion, up 13% year over year, vs. our prior $1.58 billion projection (which includes $400 million of cost savings). The majority of the revision is due to our expectation for weaker ad growth as we have reduced our estimates for Yahoo!'s display (-11% vs. -1%), search (+6% vs. +11%), classifieds (-8% vs. +8%) and affiliate (-6% vs. +7%). Our advertising estimates assume Yahoo! slightly underperforms the broader online ad market given our view that larger portals are most at risk from pricing pressure from ad networks. Also, we note that given the high margin nature of advertising revenues, there is about a 70% flow through in our reduced new revenue estimates to the adjusted EBIT line.

Exhibit 25: **Yahoo! Estimate Changes, FY2009E**

	2009E					
	Old	Y/Y % Change	New	Y/Y % Change	Variance ($)	Variance (%)
Display	$1,818.9	-0.8%	$1,590.7	-10.8%	($228.2)	-14.3%
+ Search	1,883.8	10.7%	1,764.6	5.5%	(119.2)	-6.8%
+ Listings	569.7	7.7%	475.2	-7.5%	(94.5)	-19.9%
= O&O Marketing Services	$4,272.4	5.1%	$3,830.6	-3.5%	($441.9)	-11.5%
+ Affiliate Sites (Marketing Services)	2,495.6	7.0%	2,115.1	-6.3%	(380.4)	-18.0%
= Gross Advertising Revenue	$6,768.0	5.8%	$5,945.7	-4.5%	($822.3)	-13.8%
+ Fees & Other	841.7	-5.8%	841.7	-5.8%	0.0	0.0%
= Gross Revenue	$7,609.7	4.4%	$6,787.4	-4.7%	($822.3)	-12.1%
- TAC	1,984.0	7.0%	1,681.5	-6.3%	(302.4)	-18.0%
= Net Revenues	$5,625.7	3.5%	$5,105.8	-4.1%	($519.9)	-10.2%
- Other Cost of Revenues (x-TAC)	1,125.1	-4.0%	1,072.2	-6.8%	(52.9)	-4.9%
- Sales & Marketing	1,327.9	-3.7%	1,291.3	-8.1%	(36.6)	-2.8%
- Product Development	952.6	-9.0%	959.3	-9.3%	6.7	0.7%
- General & Administrative	637.2	-2.0%	578.3	-10.8%	(58.9)	-10.2%
= Op. Income Adjusted (x-Stock Comp)	$1,582.9	42.1%	$1,204.8	13.2%	($378.2)	-31.4%
- Stock-based Compensation	536.4	8.2%	522.2	7.7%	(14.3)	-2.7%
- Amortization of Intangibles (Not in Cost of Rev)	69.2	-29.2%	69.2	-29.2%	0.0	
- Strategic Realignment Costs (x-Stock Comp)	0.0		0.0		0.0	
= Operating Income (Reported)	$977.3	93.9%	$613.4	32.0%	($363.9)	-59.3%
+ Other Income, Net	186.9	85.5%	154.7	45.8%	(32.2)	-20.8%
= Pretax Income	$1,164.2	92.5%	$768.1	34.6%	($396.1)	-51.6%
- Income Taxes	435.8	44.2%	287.5	0.0%	(148.3)	-51.6%
+ Stock-based Compensation	0.0		0.0		0.0	
+ Earnings in Equity Interests	214.1	-64.1%	178.8	-69.2%	(35.3)	-19.8%
- Extraordinary Items, Net of Tax	0.0	-100.0%	0.0	-100.0%	0.0	
+ Minority Interests in Operations of Affiliates	(7.4)	5.0%	(14.1)	100.0%	(6.7)	47.5%
= Net Income fom Cont. Ops, Non GAAP	$935.2	53.4%	$645.3	12.3%	($289.9)	-44.9%
+ Extraordinary Items, Net of Tax	0.0		0.0		0.0	
- Stock-based Compensation	0.0		0.0		0.0	
+ Provisions for Tax Adjustments	0.0		0.0		0.0	
= Net Income, Reported	$935.2	1.2%	$645.3	-27.4%	($289.9)	-44.9%
/ Diluted Shares Outstanding	1401.8	0.3%	1401.8	0.3%	0.0	0.0%
= Diluted EPS Reported	$0.67	4.0%	$0.46	-25.3%	($0.21)	-44.9%
Proforma EPS x-Extraordinary Items	$0.67	52.9%	$0.46	11.9%	($0.21)	-44.9%
Adjusted EBITDA						
Operating Income	$1,582.9	42.1%	$1,204.8	13.2%	($378.2)	-31.4%
+ Depreciation	$795.9	59.0%	$774.3	55.7%	($21.7)	-2.8%
+ Amort of Intangibles (in Cost of Revs)	$154.0	-27.0%	$154.0	-27.0%	$0.0	0.0%
- Strategic Realignment Costs	$0.0	-100.0%	$0.0	-100.0%	$0.0	
= Adj. EBITDA	$2,532.9	41.0%	$2,133.1	22.4%	($399.8)	-18.7%
Adjusted EBITDA Margin						
% of Revenue/Margins						
TAC	26.1%		24.8%			
Other Cost of Revs (x-TAC)	14.8%		15.8%			
Sales & Marketing	17.5%		19.0%			
Product Development	12.5%		14.1%			
General & Administrative	8.4%		8.5%			
Operating Expenses	53.1%		57.5%			
Op. Income Adjusted (x-Stock Comp)	20.8%		17.8%			
Stock-based Compensation	7.0%		7.7%			
Amortization of Intangibles (Not in Cost of Rev)	0.9%		1.0%			
Strategic Realignment Costs (x-Stock Comp)	0.0%		0.0%			
Operating Income (Reported)	12.8%		9.0%			
Adjusted EBITDA	33.3%		31.4%			

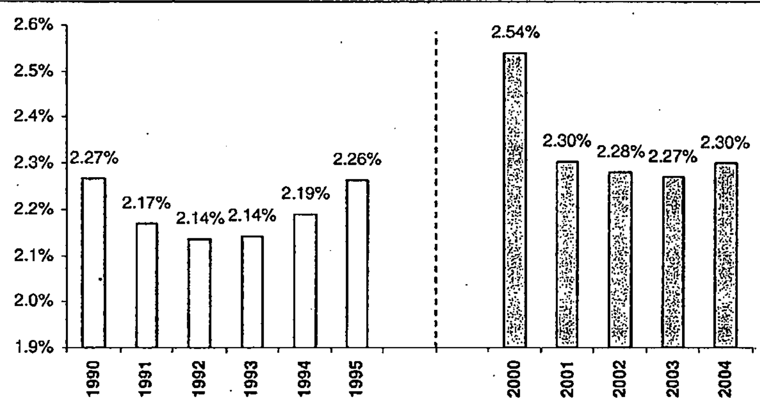
Source: Company data, Credit Suisse estimates

Any Light at the End of the Tunnel?

Expect a U-Shaped Recovery

One natural question is when can investors expect a recovery in ad spending? Assuming that a fiscal stimulus package and recent monetary initiatives take hold and spur an economic recovery in 2010, ad spending should bottom in 2009. However, we remind investors that ad spending is late cycle and tends to underperform nominal GDP growth for several years following a recession as advertisers wait for convincing signs of a recovery before aggressively reinvesting in ad spending. Looking back at the last two recession cycles, 1990-95 and 2001-06, ad growth underperformed nominal GDP growth for several years after each recession. As such, we expect a U-shaped, rather than a V-shaped, recovery.

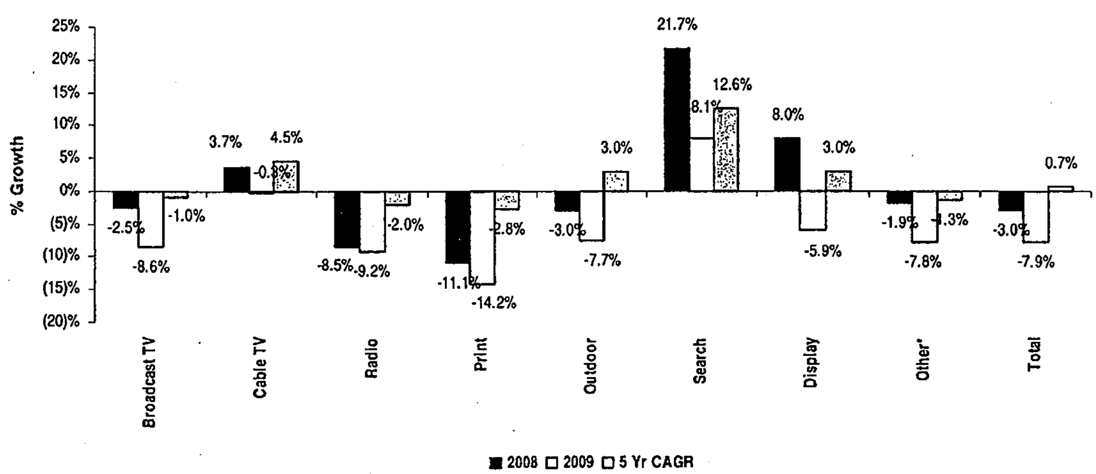
Exhibit 26: **Current Ad Cycle versus 1991 Ad Cycle**



Source: Universal McCann, Jack Myers Reports, RAB, IAB, NAA, OAAA, Kagan World Media, and Credit Suisse.

In the exhibit below, we lay out our revised growth rates are by media category for 2009, 2008 and on a five year compound annual growth basis. As the exhibit demonstrates, while we expect conditions to worsen in 2009, we forecast a rebound and general improvement in trends over the next five years as conditions stabilize.

Exhibit 27: **Five Year CAGR U.S. Forecast by Category**



Source: Universal McCann, Jack Myer Reports, RAB, IAB, NAA, PIB, OAAA, Kagan World Media, Credit Suisse estimates.
**Note: "Other" includes Direct mail, Online Classifieds and Online Lead Generation*

Valuation and Investment Conclusion

Ad Agencies

We rate the U.S. advertising agency sector Market Weight. While we believe the agency's possess strong long-term fundamentals, with growing exposure to digital media and high growth emerging markets, we believe substantial cyclical headwinds will lead to deteriorating fundamental performance over the next nine months. Agencies are late-cycle participants in the advertising ecosystem and have been able to maintain positive growth throughout 2008. However, as clients re-set fee structures for 2009, we believe agencies will come under increasing pressure as clients scale back marketing efforts, which for most Fortune 1000 companies represent significant semi-variable costs.

While the agencies are trading at historically low valuations, we believe that a lack of positive catalysts and further downward earnings revisions, coupled with significantly negative forex dynamics, will keep long investors on the sidelines in the near to medium term. To become more constructive on the names, we will look to a bottoming of key spending advertising verticals such as automotive, retail, and financial services.

Entertainment

We are maintaining our Market Weight position on the U.S. Entertainment sector. In our view, our universe of large-cap entertainment stocks is trading at material discounts to intrinsic value and historically low valuation multiples. Therefore, we see substantial upside potential in the group on a multiyear basis, as the macroeconomic backdrop improves. However, we do not view valuation, in and of itself, as a catalyst, as many equities are trading at depressed levels. Our rating also reflects intermediate-term earnings risk heading into 2009, driven by a weak advertising climate, as well as our ongoing secular concerns related to digital technology (our Long-Tail thesis).

Cable TV/DBS

In light of the volatility in the market and the economic turmoil, we recommend investors in the near term adopt a defensive posture. As a result, we have an Overweight position on the cable/DBS sector, which is less cyclical in nature as pay video and high speed Internet service have proven to be resilient in past economic recessions. The subscription nature of these business models also lends more predictability to the revenue stream for cable and satellite operators. For instance, subscription revenues accounted for 90%-plus of total revenues for our coverage universe of cable and satellite TV stocks.

We prefer cable over DBS. In our view, cable's ability to bundle should provide a competitive advantage over the intermediate term. We are cognizant that competition is increasing and that growth has slowed for cable MSOs. However, we believe our current growth forecasts are reasonable. In addition, we expect capex growth to moderate, which should lead to accelerating free cash flow growth. Conversely, our survey suggests that DBS may be disadvantaged because of its inability to bundle other services with its core video product and the lack of major interest in the synthetic bundle. Although DBS has the lowest-priced video offering currently available, price pressure could erode returns over the long term. We remain relatively cautious on the DBS group.

Consumer Internet

We rate the U.S. Internet sector Market Weight. While we are constructive on the secular growth prospects for the Internet space, our industry rating reflects the risk of further negative earnings revisions given cyclical exposure. In addition, we remain selective in our company recommendations, as we view the online auction market as maturing and display advertising as facing secular concerns related to pricing pressure. In our view, investors should position their portfolios to leverage what we see as more sustainable growth in search and fixed-price e-commerce.

Companies Mentioned *(Price as of 08 Jan 09)*
Google, Inc. (GOOG, $321.32, OUTPERFORM, TP $400.00)
News Corporation (NWSA, $9.09, NEUTRAL, TP $11.00)
Time Warner, Inc (TWX, $10.63, NEUTRAL, TP $10.50)
Viacom (VIAB, $19.73, NEUTRAL [V], TP $21.00)
Walt Disney Company (DIS, $23.92, OUTPERFORM, TP $25.00)
Yahoo Inc. (YHOO, $12.85, NEUTRAL [V], TP $14.00)

Disclosure Appendix

Important Global Disclosures

I, Spencer Wang, certify that (1) the views expressed in this report accurately reflect my personal views about all of the subject companies and securities and (2) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's investment banking activities.

Analysts' stock ratings are defined as follows***:

Outperform (O): The stock's total return is expected to exceed the industry average* by at least 10-15% (or more, depending on perceived risk) over the next 12 months.

Neutral (N): The stock's total return is expected to be in line with the industry average* (range of ±10%) over the next 12 months.

Underperform (U):** The stock's total return is expected to underperform the industry average* by 10-15% or more over the next 12 months.

**The industry average refers to the average total return of the relevant country or regional index (except with respect to Europe, where stock ratings are relative to the analyst's industry coverage universe).*

***In an effort to achieve a more balanced distribution of stock ratings, the Firm has requested that analysts maintain at least 15% of their rated coverage universe as Underperform. This guideline is subject to change depending on several factors, including general market conditions.*

****For Australian and New Zealand stocks a 7.5% threshold replaces the 10% level in all three rating definitions, with a required equity return overlay applied.*

Restricted (R): In certain circumstances, Credit Suisse policy and/or applicable law and regulations preclude certain types of communications, including an investment recommendation, during the course of Credit Suisse's engagement in an investment banking transaction and in certain other circumstances.

Volatility Indicator [V]: A stock is defined as volatile if the stock price has moved up or down by 20% or more in a month in at least 8 of the past 24 months or the analyst expects significant volatility going forward.

Analysts' coverage universe weightings are distinct from analysts' stock ratings and are based on the expected performance of an analyst's coverage universe* versus the relevant broad market benchmark**:

Overweight: Industry expected to outperform the relevant broad market benchmark over the next 12 months.

Market Weight: Industry expected to perform in-line with the relevant broad market benchmark over the next 12 months.

Underweight: Industry expected to underperform the relevant broad market benchmark over the next 12 months.

**An analyst's coverage universe consists of all companies covered by the analyst within the relevant sector.*

***The broad market benchmark is based on the expected return of the local market index (e.g., the S&P 500 in the U.S.) over the next 12 months.*

Credit Suisse's distribution of stock ratings (and banking clients) is:

	Global Ratings Distribution	
Outperform/Buy*	38%	(60% banking clients)
Neutral/Hold*	44%	(56% banking clients)
Underperform/Sell*	16%	(50% banking clients)
Restricted	2%	

**For purposes of the NYSE and NASD ratings distribution disclosure requirements, our stock ratings of Outperform, Neutral, and Underperform most closely correspond to Buy, Hold, and Sell, respectively; however, the meanings are not the same, as our stock ratings are determined on a relative basis. (Please refer to definitions above.) An investor's decision to buy or sell a security should be based on investment objectives, current holdings, and other individual factors.*

Credit Suisse's policy is to update research reports as it deems appropriate, based on developments with the subject company, the sector or the market that may have a material impact on the research views or opinions stated herein.

Credit Suisse's policy is only to publish investment research that is impartial, independent, clear, fair and not misleading. For more detail please refer to Credit Suisse's Policies for Managing Conflicts of Interest in connection with Investment Research: http://www.csfb.com/research-and-analytics/disclaimer/managing_conflicts_disclaimer.html

Credit Suisse does not provide any tax advice. Any statement herein regarding any US federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purposes of avoiding any penalties.

Important Regional Disclosures

Restrictions on certain Canadian securities are indicated by the following abbreviations: NVS--Non-Voting shares; RVS--Restricted Voting Shares; SVS--Subordinate Voting Shares.

Individuals receiving this report from a Canadian investment dealer that is not affiliated with Credit Suisse should be advised that this report may not contain regulatory disclosures the non-affiliated Canadian investment dealer would be required to make if this were its own report.

For Credit Suisse Securities (Canada), Inc.'s policies and procedures regarding the dissemination of equity research, please visit http://www.csfb.com/legal_terms/canada_research_policy.shtml.

As of the date of this report, Credit Suisse acts as a market maker or liquidity provider in the equities securities that are the subject of this report.

Principal is not guaranteed in the case of equities because equity prices are variable.

Commission is the commission rate or the amount agreed with a customer when setting up an account or at anytime after that.

CS may have issued a Trade Alert regarding this security. Trade Alerts are short term trading opportunities identified by an analyst on the basis of market events and catalysts, while stock ratings reflect an analyst's investment recommendations based on expected total return over a 12-month period relative to the relevant coverage universe. Because Trade Alerts and stock ratings reflect different assumptions and analytical methods, Trade Alerts may differ directionally from the analyst's stock rating.

The author(s) of this report maintains a CS Model Portfolio that he/she regularly adjusts. The security or securities discussed in this report may be a component of the CS Model Portfolio and subject to such adjustments (which, given the composition of the CS Model Portfolio as a whole, may differ from the recommendation in this report, as well as opportunities or strategies identified in Trading Alerts concerning the same security). The CS Model Portfolio and important disclosures about it are available at www.credit-suisse.com/ti.

To the extent this is a report authored in whole or in part by a non-U.S. analyst and is made available in the U.S., the following are important disclosures regarding any non-U.S. analyst contributors:

The non-U.S. research analysts listed below (if any) are not registered/qualified as research analysts with FINRA. The non-U.S. research analysts listed below may not be associated persons of CSSU and therefore may not be subject to the NASD Rule 2711 and NYSE Rule 472 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

For Credit Suisse disclosure information on other companies mentioned in this report, please visit the website at www.credit-suisse.com/researchdisclosures or call +1 (877) 291-2683.

Disclaimers continue on next page.

CREDIT SUISSE

CREDIT SUISSE SECURITIES (USA) LLC
United States of America: +1 (212) 325-2000

August 2007

eMarketer

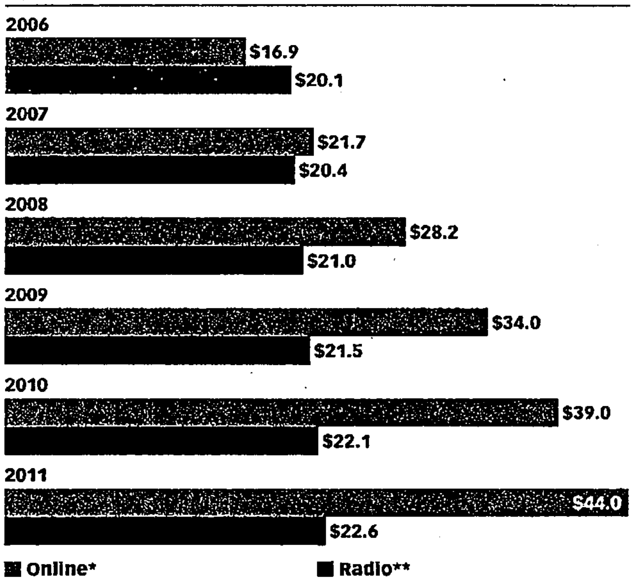
Radio Trends:

On Air and Online

Ben Macklin,
Senior Analyst
bmacklin@emarketer.com

Executive Summary: A record is about to be set. By the end of 2007, online advertising spending in the United States will outpace radio advertising spending for the first time. But that does not signal the death of radio. Rather, it is an indication that traditional radio is being subsumed into a broader sector called "audio." Within that sector, digital and interactive technologies are changing both the distribution and access of audio content and this, in turn, is changing traditional business models.

US Online Advertising Spending vs. Radio Advertising Spending, 2006-2011 (billions)



*Note: *eMarketer benchmarks its US online advertising spending projections against the Interactive Advertising Bureau (IAB)/PricewaterhouseCoopers (PwC) data, for which the last full year measured was 2006; online ad data includes categories as defined by IAB/PwC benchmark—display ads (such as banners), paid search ads (including contextual text links), rich media (including video), classified ads, sponsorships, referrals (lead generation) and e-mail (embedded ads only); online ad data does not include mobile ad spending; **includes local, national and spot advertising on terrestrial, satellite and Internet radio*
Source: eMarketer, August 2007

086406 www.eMarketer.com

Internet radio, satellite radio, podcasting, high-definition (HD) radio and mobile audio services are revolutionizing a radio industry that until recently remained largely unchanged for a century. Among the traditional media sectors, radio has lagged behind both television and newspapers in adapting to the emerging digital, interactive and on-demand media world. But this is beginning to change. There are many synergies between radio and the Internet and, for the most part, they complement rather than compete with each other. Advertisers should not abandon radio in favor of the Web but combine the two media to take advantage of the unique attributes of each.

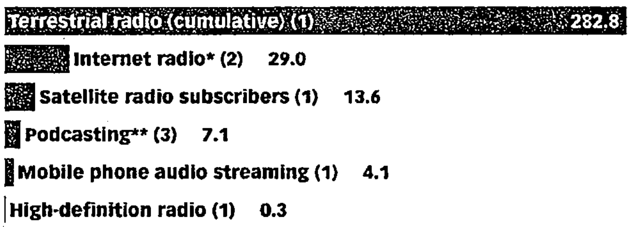
Issues & Questions

- How can the radio industry take advantage of the new digital, interactive and on-demand media world?
- What are the growth prospects for Internet, satellite and high-definition radio?
- Can Internet radio sustain itself with the imposition of the new royalty charges?
- How many podcast listeners are there, and what are their demographic characteristics?

The eMarketer View

A snapshot of some of the key radio segments shows that terrestrial radio still commands a weekly cumulative audience of nearly 283 million Americans, according to Bridge Ratings. The audience for Internet radio each week is at least twice as large as satellite radio, but this has yet to translate into any significant revenues for that sector to date.

US Weekly Radio Audience, by Technology, 2007 (millions)



*Note: *ages 12+; **data was estimated based on the 10 markets included in the study-Los Angeles, San Francisco, Seattle, St. Louis, Chicago, Boston, Washington, DC, Miami, Dallas and Atlanta*
Source: (1) Bridge Ratings as cited in press release, February 19, 2007; (2) Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007; (3) Bridge Ratings as cited in press release, June 13, 2007

086407 www.eMarketer.com

Traditional radio is losing its significance in people's lives. Data provided to eMarketer show that US adults are spending more time each day on the Internet and watching TV than listening to radio.

Time Spent Using Select Media per Day by US Adult Internet Users, by Age, January 2007 (mean hours)

	Echo Boomers (18-31)	Generation X (32-41)	Baby Boomers (42-62)	Total*
Internet	3.28	3.00	2.69	2.91
TV	2.73	2.63	2.83	2.78
Radio	1.79	1.88	1.93	1.87

*Note: n=1,200; *includes War and Depression (63-64)*
Source: Lumin Collaborative, "National Survey of Adults 18 to 64 with Net Access" conducted by Fabrizio, MacLaughlin & Associates, provided to eMarketer, April 26, 2007

084060 www.eMarketer.com

In a study comparing media usage in 2002 with 2007, data from Arbitron and Edison Media Research also show that Americans regard radio as less important to their lives than TV or the Internet. It is for this very reason that the radio industry must quickly and comprehensively come to terms with how to adapt to this changing environment.

Media that US Consumers Consider Most and Least Essential to Their Lives, 2002 & 2007 (% of respondents)

	2002		2007	
	Most	Least	Most	Least
Television	39%	20%	36%	18%
Internet	20%	33%	33%	24%
Radio	26%	14%	17%	18%
Newspapers	11%	31%	10%	35%

Note: ages 12+; numbers may not add up to 100% due to rounding and/or lack of response; respondents were asked to choose only among these four
Source: Arbitron and Edison Media Research, "Internet and Multimedia 2007" as cited in press release, June 26, 2007

085276 www.eMarketer.com

Summary of Key Trends in Radio

Terrestrial radio: While traditional radio continues to reach over 90% of the American public weekly, revenues for the industry have been flat over the past six years. This has led to a shifting landscape, perhaps best illustrated by Clear Channel, the largest radio company in the US, selling over 448 of its smaller radio stations. Clear Channel is also in the process of going from being a public company to a private one. CBS and ABC have also sold dozens of their smaller radio stations as the leading companies in the sector search for growth opportunities.

Internet Radio: Internet radio includes both the simulcast of terrestrial broadcasts online as well as Internet-only audio streaming. According to a recent report from Arbitron and Edison Media Research, about 29 million Americans access Internet radio regularly each week, and another 50 million access Internet radio occasionally each month. Some of the largest online radio networks, such as AOL and Yahoo!, are receiving between one million and two million listeners a week.

To date, online radio has been largely complementary to traditional radio, rather than in competition with it. Yet few advertisers have been attracted to the medium.

Royalty Fees: The Internet radio industry was alarmed in early 2007 when the Copyright Royalty Board (CRB) set performance royalty rates for webcasters that many in the industry think are so prohibitive they will put many smaller Internet radio operators out of business.

One area of contention is the $500 minimum per-channel fee that webcasters would have to pay. Sound Exchange, the body responsible for collecting royalty fees for the record labels and artists, backtracked slightly from its original position and offered to cap the minimum fee at $2,500 per service. But it is now demanding that webcasters introduce digital rights management (DRM) technology to their services to prevent "stream-ripping."

Banking firm Wachovia estimates that the new royalty fee regime could cost the radio industry more than $2 billion. JPMorgan analyst John Blackledge reported that if the current royalty regime is installed, the rising royalty costs are likely to outpace Internet radio advertising growth. This issue is creating considerable uncertainty in the radio sector.

Satellite Radio: After several years of explosive growth, the two satellite radio stations, XM and Sirius, have begun to show signs of financial difficulty and are looking to merge. As of the second quarter of 2007, XM reported 8.25 million subscribers to Sirius's 7.1 million. The cost of acquiring subscribers by luring expensive talk personalities such as Howard Stern and Oprah Winfrey has made profitability more difficult to achieve than these two companies anticipated. Meanwhile, the FCC is assessing the proposed merger.

Podcasting: On-demand and time-shifted media have emerged across all media industries. In the radio sector, podcasting is the technological innovation that has given radio listeners greater freedom of how, when and where to access audio content. Recent podcast estimates from Bridge Ratings peg the active US podcast audience (those who download a podcast at least once a week) at about 7.1 million in 2007, less than 4% of US Internet users. This is likely to rise significantly when traditional broadcasters invest greater resources in their digital services.

High-Definition Radio: The transition from analog TV to digital TV is nearly complete in the US, and radio is beginning to go through a similar transition. According to M Street Corp., there are about 11,000 commercial radio stations in the US and, as of July 2007, more than 1,300 radio stations were broadcasting in HD.

As is the case with digital TV, digital radio provides existing radio broadcasters with greater signal capacity that offers higher quality sound and interactive functionality for the user. Like digital and HDTV, however, consumers need to buy new equipment to access the digital signals. High-cost digital equipment was one of the initial barriers to the adoption of HDTV in the past, and HD radio is likely to undergo a similar experience. HD radio will grow as equipment becomes affordable and more HD content becomes available.

Mobile Radio: One of the great benefits of radio has always been its portability, and there is no better illustration of this than the fact that an AM/FM radio is a standard feature in all cars.

But the ubiquitous use of mobile phones, the emergence of wireless/mobile broadband networks and the widespread adoption of portable music devices and satellite radio are expanding the idea of portable audio.

Many new mobile handsets have integrated FM radios or satellite radio capabilities. As wireless broadband networks develop, Internet audio streaming has the chance to move from the PC to the mobile device.

According to Telephia, about 10.5% of mobile phone subscribers in the US (23.5 million people) had mobile phones with integrated music players in the third quarter of 2006. Apple's iPhone will expand the possibilities of mobile audio.

For Marketers–Combine Radio and the Internet

The radio-Internet combination is a powerful one for marketers for the following reasons.

1. Internet users often listen to the radio while surfing the Web, so radio advertising can drive listeners to a Web site.

There is a great deal of data indicating that Internet users simultaneously surf the Web and consume other media. BIGresearch data indicates this is the case across all age groups, particularly among teens.

Select Media Activities of US Adults While Simultaneously Using Other Media, November-December 2006 (% of respondents)

Note: ages 18+
Source: BIGresearch, "Simultaneous Media Usage Study (SIMM) IX," January 2007

080191 www.eMarketer.com

Frequency with which US Teen Consumers Engage in Select Simultaneous Activities While Online, July 2006 (% of respondents)

	Regularly	Occasionally	Never
Watching TV	46.1%	31.6%	22.3%
Listening to the radio	39.2%	33.8%	27.0%
Reading the mail	22.7%	28.3%	49.1%
Reading magazines	12.6%	35.7%	51.7%
Reading the newspaper	8.4%	22.9%	68.7%
Other activities	49.3%	33.9%	16.8%

Note: n=3,154 ages 14-17
Source: BIGresearch, "SIMM8," December 2006

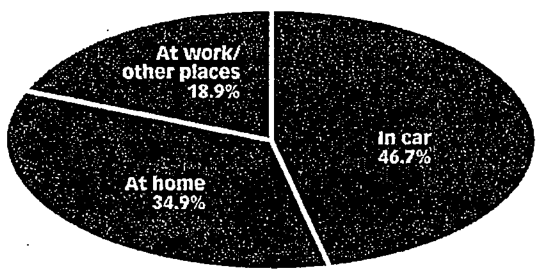
079793 www.eMarketer.com

Advertising on Internet radio is a particularly powerful way to drive listeners to a site. Also, measuring a response to an offer or "call to action" is far easier online than measuring the response to a terrestrial broadcast. Further, audio ads enhanced online with visual ads can increase the engagement factor.

2. Radio grabs a listener's attention in the car and continues that relationship online. With online radio, listeners are not restricted by time or place.

Terrestrial radio is popular throughout the day, especially in the car when people are commuting to work. According to Arbitron, American consumers spend an average of 15 hours per week in the car, either as a driver or passenger. Men, age 18 to 34, spend 20 hours a week in their cars. Data from the Radio Advertising Bureau indicate that nearly 47% of all weekly radio listening occurs in the car.

US Weekly Radio Audience, by Location, 2007 (% of total)



Note: Monday-Sunday, 24 hours
Source: Arbitron, "RADAR," 2007 as cited by Radio Advertising Bureau (RAB) "Radio Marketing Guide & Fact Book," July 31, 2007
086408 www.eMarketer.com

If a terrestrial broadcaster simulcasts online or on mobile devices, it need not lose listeners once they leave their cars. The Internet can extend the relationship between the listener and content provider throughout the day.

Data from Mediamark Research show that radio is the most popular medium consumed between 5 and 9 a.m. Capturing people's attention in the car in the morning, for example, and continuing that relationship throughout the day is ideal for the radio-Internet combination. Further, Internet radio is often listened to at work, which provides a valuable way to target an at-work audience.

Select Media Used Daily by US Adults, by Daypart, 2007 (% of respondents)

	TV	Radio	Newspapers	Internet	Magazines
5 am-9 am	31.5%	38.4%	25.4%	18.8%	5.7%
9 am-5 pm	40.4%	44.1%	25.5%	29.8%	18.0%
5 pm-12 am	72.0%	28.6%	15.3%	29.6%	16.0%
12 am-5 am	12.1%	4.8%	1.2%	3.6%	1.2%
Total	**83.6%**	**68.2%**	**55.6%**	**52.6%**	**37.6%**

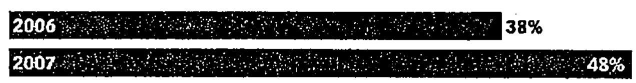
Note: n=8,000 ages 18+
Source: Mediamark Research Inc. (MRI), "MediaDay" as cited in press release, June 25, 2007
085808 www.eMarketer.com

3. Radio is a social network.

Radio is perhaps one of the first social networks in that listeners have a common bond or interest in the format of music or content they listen to. Someone who listens to country music, classical music, Howard Stern or National Public Radio is likely to be passionate about the content. By providing "sticky" content on a radio's site, content providers and marketers can engage more deeply with the audience. Talk radio continues to be popular, and the Internet now allows the conversation to continue after the broadcast has finished.

Survey data from JupiterResearch show that using user-generated content and other social network marketing tactics are of growing importance to brand marketers. Radio broadcasters can also tap into the social networking phenomenon.

US Brand Marketers Who Plan to Use Social Network* Marketing Tactics in the Next Year, 2006 & 2007 (% of respondents)



*Note: *Web sites designed for members to create and post content, usually in the form of profile pages, primarily in order to communicate with each other*
Source: JupiterResearch, "Social Networking Sites: Defining Advertising Opportunities in a Competitive Landscape" as cited in press release, March 2007
081779 www.eMarketer.com

4. US consumers want to consume their media on demand.

The adoption of the digital video recorder (DVR) and video on demand (VOD) in the TV sector—and the growing use of the Web as an entertainment platform—is an indication that traditional media is changing from "push" to "pull."

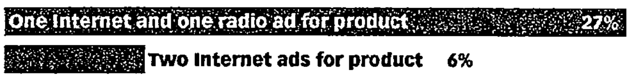
In the radio sector this means that broadcasters need to provide their listeners with as much flexibility as possible in how, when and where they can access their content.

Podcasting is the DVR of the radio world, providing on-demand and time-shifted functionality to audio content, with the added bonus of portability. Podcasting, like DVR technology, may not generate revenues directly for service providers, but it does have the potential to extend reach and increase content consumption.

5. Advertising recall is dramatically enhanced when a radio ad is combined with an online ad.

Data from the Radio Advertising Effectiveness Lab (RAEL) show that with a mix of one Internet and one radio exposure, respondents were four and a half times more likely to recall an advertisement when compared with two Internet ads alone.

Unaided Recall of Advertised Brand When Exposed to Two Internet Ads vs. One Internet and One Radio Ad among US Internet Users, 2007 (% of respondents)



Note: n=799 ages 18-54; read chart as follows - 27% of those exposed to one Internet and one radio ad could recall the advertised brand after exposure
Source: Radio Ad Effectiveness Lab (RAEL), "Radio and the Internet: Powerful Complements for Advertisers," conducted by Harris Interactive, February 2007

086410 www.eMarketer.com

A radio ad can have a far higher emotional response than an Internet banner ad alone. But the RAEL study shows that, when one combines the best of both media, the result is greater than the sum of its individual parts.

Radio Advertising Revenues & Spending

Data from the radio advertising bureau (RAB) show that in the late 1990s the US radio industry grew rapidly, reaching revenues of $19.8 billion in 2000, up from $13.8 billion in 1997. Since 2002, however, revenues have been flat.

US Radio Advertising Revenues, 1997-2006 (billions)

Note: includes local, national and network revenues; local and national revenues are based on a pool of more than 150 markets and extrapolated to the entire network; network revenues include the top five radio network companies
Source: Radio Advertising Bureau (RAB), "Radio Marketing Guide & Fact Book," conducted by Miller, Kaplan, Arase & Co., July 31, 2007

086292 www.eMarketer.com

Local advertising contributes over three-quarters of all advertising revenue to the radio industry. This form of advertising includes the mom-and-pop store that wants to connect with local customers, unlike national or multinational brands whose marketing messages are less focused on customer location. Since Internet radio is not bound by geography, it targets a portion of the $4.7 billion in spending allocated to network and national advertising.

US Radio Advertising Revenues, by Segment, 1997-2006 (billions)

	Local	National	Network*
1997	$10.74	$2.41	$0.65
1998	$11.92	$2.77	$0.74
1999	$13.59	$3.21	$0.88
2000	$15.22	$3.60	$1.00
2001	$14.55	$2.90	$0.92
2002	$15.13	$3.28	$1.00
2003	$15.10	$3.47	$1.03
2004	$15.48	$3.45	$1.08
2005	$15.63	$3.38	$1.05
2006	$15.48	$3.55	$1.11

*Note: Local and national revenues are based on a pool of more than 150 markets and extrapolated to the entire network; *includes the top five radio network companies*
Source: Radio Advertising Bureau (RAB), "Radio Marketing Guide & Fact Book," conducted by Miller, Kaplan, Arase & Co., July 31, 2007

086291 www.eMarketer.com

While national and network radio advertising spending makes up less than 25% of overall radio advertising spending, the leading radio advertisers within this segment include communications, retail, automobile, insurance and entertainment companies. Verizon Wireless Service was the No. 1 most-advertised brand on US radio in 2006, with $77.2 million spent advertising the service.

US Radio's Top 20 National Network and Spot Advertisers, Ranked by Spending, 2006 (millions)

1. Verizon Wireless	$77.2
2. Home Depot	$75.7
3. GEICO Auto Insurance	$69.3
4. AT&T Long Distance Residential	$40.9
5. ABC-TV Network Entertainment Division	$38.8
6. Fox-TV Network Entertainment Division	$37.6
7. Dodge Dealer Association	$36.2
8. Safeway	$32.7
9. Chevrolet Dealer Association	$26.3
10. Macy's	$22.2
11. Guitar Center	$21.8
12. Burger King	$21.3
13. AutoZone	$20.9
14. OnStar	$20.7
15. NBC-TV Network Entertainment Division	$20.6
16. AT&T Long Distance	$20.3
17. RadioShack	$19.8
18. AT&T Yellow Pages	$19.7
19. Hyundai Dealer Association	$19.7
20. Tweeter	$17.4

Note: includes spending on network and national spot advertising
Source: TNS Media Intelligence, 2007 as cited by Radio Advertising Bureau (RAB) "Radio Marketing Guide & Fact Book," July 2007

086491 www.eMarketer.com

Advertising revenue data for the first quarter of 2007 show little change from previous years.

US Radio Advertising Revenues, by Segment, Q1 2007 (millions and % increase/decrease vs. prior year)

	Revenues	% change
Local	$3,224	1%
National	$945	-1%
Network	$257	9%
Non-spot	$302	10%
Grand total	**$4,728**	**1%**

Note: local and national revenues based on a pool of more than 150 markets and extrapolated to the entire network; includes the top five radio network companies
Source: Radio Advertising Bureau (RAB) conducted by Miller, Kaplan, Arase & Co. as cited in press release, June 4, 2007

084688 www.eMarketer.com

eMarketer expects US radio advertising spending to grow 1.9% during 2007 to $20.5 billion. As 2008 is an election year, radio advertising is likely to benefit. Beyond 2008, eMarketer forecasts steady growth.

While eMarketer does not forecast spectacular growth in the sector between 2006 and 2011, during that time an additional $2.7 billion in advertising dollars will be spent on radio. Radio station sites and in-stream Internet audio advertising will be the principal drivers for radio advertising growth.

A word of caution: With the royalty-fee issue casting a large shadow over the Internet radio sector, these estimates assume an outcome to the royalty-fee dispute that allows for a viable Internet radio sector. This is an assumption that, as of August 2007, is not a certainty.

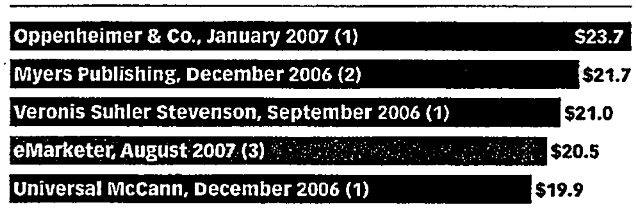
US Radio Advertising Spending, 2006-2011 (billions and % increase vs. prior year)

Note: includes local, national and spot advertising on terrestrial, satellite and Internet radio
Source: eMarketer, August 2007

086412 www.eMarketer.com

Analysts and investment firms estimate that US radio advertising spending in 2007 will be about $21 billion.

Comparative Estimates: US Radio Advertising Spending, 2007 (billions)

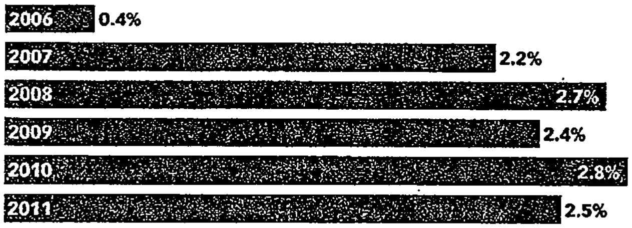


Note: (1) includes broadcast radio; (2) includes broadcast and satellite radio; (3) includes local, national and spot advertising on terrestrial, satellite and Internet radio
Source: Oppenheimer & Co. Inc., "The Digital Consumer: Examining Trends in Digital Media," January 2007; Myers Publishing, December 2006; Veronis Suhler Stevenson, "Communication Industry Forecast," September 2006; Universal McCann, "Insider's Report," December 2006; eMarketer, August 2007

086413 www.eMarketer.com

Like eMarketer, the BIA Financial Network forecasts modest growth in the US radio sector over the next five years.

US Radio Station Revenue Growth*, 2006-2011 (% increase vs. prior year)



*Note: *in Aribitron markets*
Source: BIA Financial Network, "Investing in Radio Market Report" as cited in press release, April 3, 2007
086414 www.eMarketer.com

Internet Radio Advertising Spending

While measurement of the Internet radio audience by firms such as Arbitron is now well recognized in the sector, the measurement of Internet radio advertising spending continues to be problematic.

Internet radio advertising can be broadly defined as in-stream audio advertisements, as well as online ads, graphics, buttons, banners and sponsorships on radio station sites and media players.

The major Internet radio networks—Yahoo!, AOL and Clear Channel—do not break out their Internet radio advertising revenues from other advertising revenues. Thus it is difficult to get a clear sense of the size of this sector.

Deriving an estimate for Internet radio has been important in the royalty fee debate because Sound Exchange, the body that represents artists and labels, has seized upon estimates to argue that its fees are reasonable and affordable. The figure most often quoted is an estimate, published by investment bank JPMorgan, of $500 million in revenue.

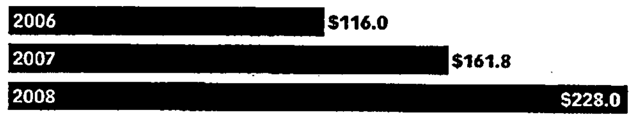
The JPMorgan report is not publicly available, but the author of the report, John Blackledge, has said publicly that the bank's Internet radio ad estimate is between $400 million to $500 million. This figure is inclusive of music video-related ad revenue, sponsorship, banners and buttons as well as news/talk/sports-related revenue and other non-music-related revenue, which would not be subject to the performance royalties.

> **"We believe audio streaming and some graphic ad revenue in 2006 was about $100 [million] to $150 million in all industrywide and, as a result, is a useful starting point when discussing the new royalty rates."**
> —*John Blackledge of JPMorgan, February 2007*

In an interview that eMarketer conducted with Andy Lipset and Eric Ronning, owners of Ronning Lipset Radio, a company whose affiliates include some of the largest online radio networks in operation, they estimated in-stream audio advertising spending to be between $50 million and $100 million, with a preference for the smaller number.

JPMorgan estimates show in-stream audio and graphic ad revenue in 2006 at $116 million, growing to $228 million by 2008.

US In-Stream Audio Advertising Revenues, 2006-2008 (millions)



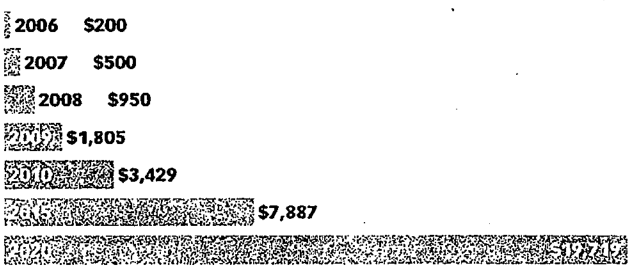
Note: includes in-stream audio and graphic ad spending within Internet radio
Source: J.P. Morgan, "Internet Radio Scorecard Feb 2007: Examining the Impact of CRB's New Royalty Structure, If Implemented" as cited by Radio And Internet Newsletter (RAIN), April 12, 2007
086415 www.eMarketer.com

One component of Internet radio advertising spending is advertising on local radio sites. Borrell Associates and Veronis Suhler Stevenson both recently published figures measuring this segment, but their estimates differ significantly. Borrell Associates put total spending on local internet radio advertising in 2007 at $189 million and Veronis Suhler Stevenson put the figure at $56 million. With more than 11,000 radio stations in the country, each with its own site, the differences are understandable.

Using JPMorgan's 2007 estimate of Internet radio advertising revenue of $500 million as its benchmark, research firm Bridge Ratings has projected that total Internet radio advertising revenues will reach $950 million in 2008 and $3.4 billion by 2010. By 2020, Bridge Ratings' estimates the Internet radio sector will be worth as much as the entire radio sector is worth now—nearly $20 billion.

Considering the lack of transparency in gauging precise figures on Internet radio advertising, along with uncertainty in the sector over performance royalty fees, Bridge Ratings' forward estimates are bold, to say the least.

US Internet Radio Advertising Revenues, 2006-2020 (millions)



Note: includes streaming ads, audio ads, music video ads, buttons, banners and sponsorships
Source: Bridge Ratings as cited in press release, August 8, 2007

086376 www.eMarketer.com

Radio Distribution and Usage

Today, radio is distributed over the air (terrestrial), online and via satellite. Bridge Ratings estimates a relatively stable terrestrial radio audience of about 280 million over the next five years, and the audience for Internet radio will expand rapidly.

US Radio Listeners, by Technology, 2006-2010 & 2015 (millions)

	2006	2007	2008	2009	2010	2015
Terrestrial radio (cumulative)*	279.7	282.8	280.0	283.5	284.2	274.1
Internet radio**	56.7	72.0	93.0	116.1	147.5	187.3
Satellite radio subscribers	9.1	13.6	17.1	20.3	23.4	30.0
Mobile phone audio streaming	1.5	4.1	8.7	19.1	40.2	70.3
Podcasting*	1.5	2.9	3.7	5.1	6.3	8.4
High-definition radio (terrestrial)	0.3	0.3	0.5	1.1	2.8	5.0

*Note: *weekly usage; **monthly usage*
Source: Bridge Ratings as cited in press release, February 19, 2007

086298 www.eMarketer.com

According to Arbitron's June 2007 estimates, 93% of all Americans age 12 and older tune in to the radio in the course of a week. Historical data from Arbitron show that Americans are listening to less radio today than they did 10 years ago—over three and one-quarter hours less.

Hours Spent Listening to Radio per Week in the US, 1996-2006 (hrs:mins)

Fall 1996	22:15
Fall 1997	21:45
Fall 1998	21:30
Fall 1999	20:40
Fall 2000	20:30
Fall 2001	20:00
Fall 2002	20:00
Fall 2003	19:30
Fall 2004	19:30
Fall 2005	19:15
Fall 2006	19:00

Note: ages 12+; 94 continuous measurement markets; Monday-Sunday 6am-midnight
Source: Arbitron, 1996-2006 as cited by Radio Advertising Bureau (RAB) report, "Radio Marketing Guide and Fact Book," July 31, 2007

086417 www.eMarketer.com

There are more than 10,000 commercial radio stations in the US in 2007 and an additional 3,815 streaming radio stations. An increasing number of terrestrial stations are broadcasting in high definition. The radio format or genre with the highest number of stations is country music (followed by news and talk stations), with more than 2,000 dedicated radio stations across the country.

US Radio Stations, by Leading Format, February 2007

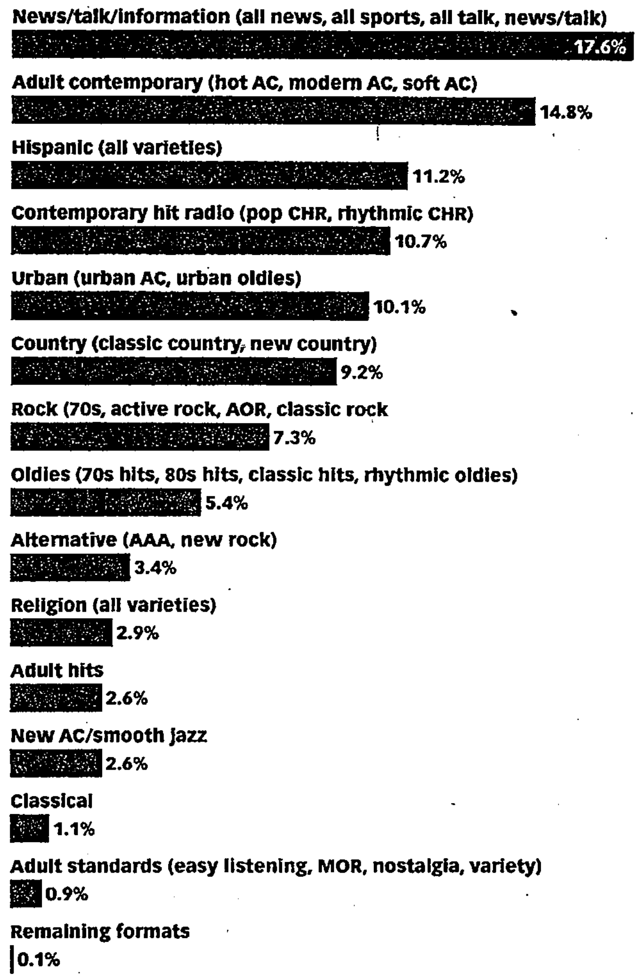
Radio format	Number of stations in operation
Country	2,037
News/talk	1,359
Latin/Hispanic	721
Oldies	720
Adult contemporary	631
Sports	553
Contemporary hit radio (top 40)	474
Classic rock	459
Adult standards	372
Hot adult contemporary	369
Total commercial radio stations	**10,569**
Stations broadcasting in high definition	**995**
Streaming radio stations	**3,815**

Note: An additional 379 stations are licensed under construction permits for future operations; 130 stations are currently dark/off the air
Source: M Street Corp., 2007 as cited by Radio Advertising Bureau (RAB), "Radio Marketing Guide & Fact Book," July 31, 2007

086294 www.eMarketer.com

While country music may have the greatest number of dedicated radio stations in radio audience share, the news/talk/information stations garner the greatest share of the radio listening audience, according to Arbitron.

US Radio Listening Share, by Format, Fall 2006 (% of all radio listeners)



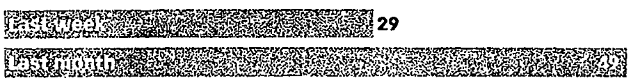
Note: ages 12+; 94 continuous measurement markets; Monday-Sunday 6am-midnight; average quarter share for demographic; numbers may not add up to 100% due to rounding
Source: Arbitron, "Fall Trends Report," Fall 2006 as cited by Radio Advertising Bureau (RAB), "Radio Marketing Guide & Fact Book," July 31, 2007

086293 www.eMarketer.com

Internet Radio

At the start of 2007, Arbitron estimated the weekly US Internet radio audience at 29 million (regular users), with a monthly audience of 49 million (occasional users). This is not significantly out of line with an alternative estimate from Bridge Ratings, which pegged the monthly Internet radio audience at the end of 2006 at 56.7 million.

Weekly and Monthly US Internet Radio Listeners, January 2007 (millions)

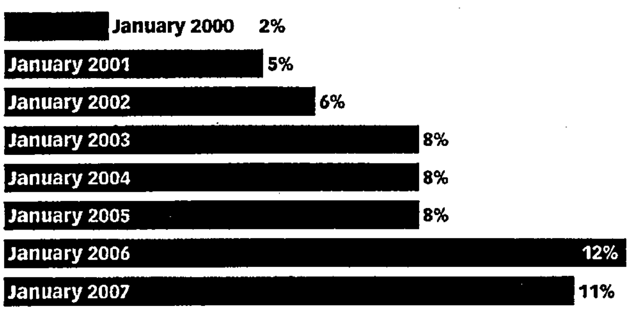


Note: ages 12+
Source: Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007

084080 www.eMarketer.com

Interestingly, the growth of Internet radio has been quite sporadic over the past seven years. Between 2003 and 2005, growth was relatively flat with 8% of Internet users tuning in to Internet radio each week. By January 2006, however, it reached 12% of Internet users and, at last count, was at 11%.

Weekly US Internet Radio Listeners, January 2000-January 2007 (% of respondents)

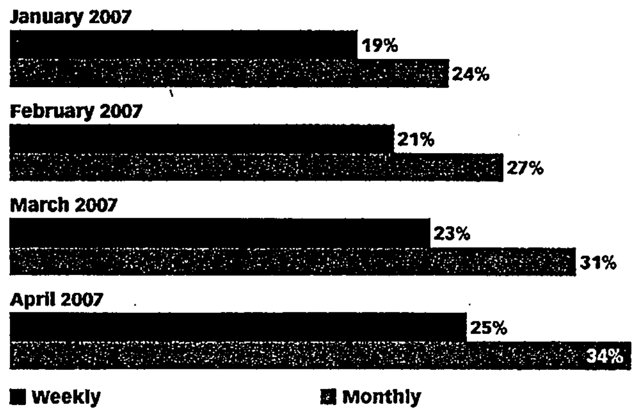


Note: January 2007 n=1,855 ages 12+
Source: Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007

083302 www.eMarketer.com

Measuring the growth during the first four months of 2007, Bridge Ratings data show a significant increase in both weekly and monthly Internet radio listeners. One-quarter of respondents cited listening to Internet radio weekly in April 2007.

US Weekly and Monthly Internet Radio Listeners, January-April 2007 (% of respondents)



Note: April 2007 n=3,000 ages 12+
Source: Bridge Ratings as cited in press release, April 18, 2007

084293 www.eMarketer.com

Interestingly, online radio was the top-gaining category of sites in terms of change of unique visitors during June 2007, according to comScore Media Metrix.

Radio sites surged 34% percent to 48.9 million visitors in June 2007. According to comScore, Yahoo! Music led the category with more than 25 million visitors (up 11%), and AOL Radio (up 11% to 3.2 million visitors) and Disney Music (up 16% to nearly 1.5 million visitors) both saw significant gains for the month.

Top 10 Web Site Categories among US Internet Users, Ranked by Growth in Unique Visitors, May vs. June 2007 (thousands and % change)

	May 2007	June 2007	% change
Radio	36,487	48,928	34%
Gay/lesbian	2,422	2,985	23%
Online gambling	11,058	12,470	13%
Gaming information	39,236	42,827	9%
Coupons	18,991	20,720	9%
Hotels/resorts	31,940	34,583	8%
Online gaming	59,148	63,998	8%
Entertainment-news	39,139	42,057	7%
Women	60,001	64,261	7%
Personals	23,029	24,653	7%
Total Internet:total audience	**177,487**	**178,839**	**1%**

Note: from home, work and university locations
Source: comScore Media Metrix as cited in press release, July 16, 2007

086419 www.eMarketer.com

AOL, Yahoo! and Clear Channel rank among the largest Internet radio networks in the country. JPMorgan estimates that AOL, Yahoo!, MSN, Clear Channel and CBS account for over half of all Internet radio advertising revenue in the sector. Monthly data from Arbitron show that AOL, Yahoo! and Clear Channel have a weekly listening audience across their Internet radio networks of between one million and two million listeners. This certainly compares favorably to small and midsize terrestrial radio networks.

Average Weekly US Online Radio Audience for Select Radio Providers, May 2007

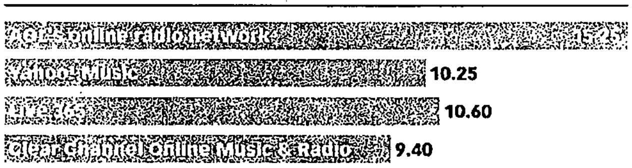
	Mon-Fri 6am-7pm		Mon-Sun 6am-midnight	
	Cume persons	**Average quarter-hour persons**	**Cume persons**	**Average quarter-hour**
America Online's AOL Radio Network	1,129,300	323,400	1,582,100	185,000
Clear Channel Online Music and Radio	1,298,600	207,300	1,467,600	110,800
Live365	521,400	105,900	696,200	58,200
RL Select	440,100	24,400	672,900	14,700
Yahoo! Music/LAUNCHcast	1,563,100	300,700	1,999,800	162,200
Total RL Radio Network*	**3,654,000**	**754,400**	**4,950,900**	**419,900**
Total for five measured networks	**4,952,541**	**961,605**	**6,418,568**	**530,726**

*Note: ages 12+; cume is defined as the number of different people who listen during a given daypart; cume audience estimates for individual networks should not be added, because people who listen to more than one network will be counted twice; the reported audience for the total of the four networks is an unduplicated estimate of the number of different people who listened to one or more of the networks for a minimum of five minutes during the week; *the Ronning Lipset Radio (RLR) Network is comprised of Yahoo! Music, America Online's AOL Radio Network, Live365 and RL Select*
Source: comScore Arbitron, "Online Radio Ratings"," May 2007

086295 www.eMarketer.com

AOL may not top too many Internet lists these days, but it maintains a dominant position in Internet radio. Bridge Ratings reported that AOL Internet radio consumers listen to five hours more Internet radio per week than nearest rival Yahoo! Music.

Leading Internet Radio Networks among US Internet Radio Listeners, by Time Spent per Week, January 2007 (hours)

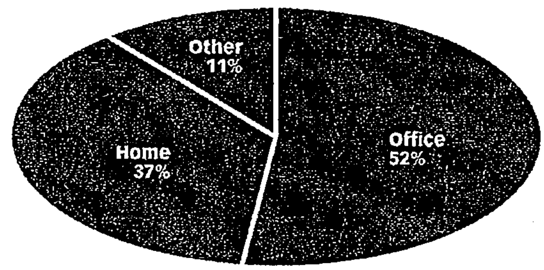


Note: ages 12+
Source: Bridge Ratings, February 2007

081411 www.eMarketer.com

Internet radio listeners can mostly likely be found where they work. For this reason, marketers wishing to target the at-work audience may find Internet radio an attractive proposition.

US Internet Radio Listeners, by Location, April 2007 (% of respondents)



Note: ages 12+
Source: Bridge Ratings as cited in press release, April 18, 2007

084294 www.eMarketer.com

Internet radio listeners make up an attractive demographic segment for marketers. This segment comprises consumers age 25 to 34, followed by an almost identical percentage in the 35 to 44 group. The ratio of men to women Internet radio listeners is 55-to-45.

Weekly US Internet Radio Listeners, by Age and Gender, January-February 2007 (% of respondents)

Gender	
Male	55%
Female	45%
Age	
12-17	13%
18-24	12%
25-34	24%
35-44	23%
45-54	15%
55-64	9%
65+	4%

Note: listened to Internet radio in the past week
Source: Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007

083304 www.eMarketer.com

Most Internet radio listeners over 35 stick with one or two radio stations a week. By contrast, those under 24 are far more likely to sample three or more stations a week, which may provide evidence that Internet radio can be a useful way for younger Internet users to sample new music.

Number of Internet Radio Stations Listened to Weekly by US Internet Radio Listeners, by Age, March-May 2007 (% of respondents)

	1-2	3-4	5+
13-17	26%	39%	35%
18-24	23%	39%	38%
25-34	42%	33%	25%
35-49	53%	29%	18%
50-64	70%	20%	10%
65+	81%	15%	4%

Source: Bridge Ratings as cited in press release, June 6, 2007

084900 www.eMarketer.com

Satellite Radio

One of the first major rivals to terrestrial radio was satellite radio. Based on a subscription model (as opposed to free radio supported by advertising), two companies, XM Satellite Radio and Sirius Satellite Radio, grew rapidly during the early part of the decade. But profitability for both companies remains elusive. As noted earlier, both companies are looking to merge, the outcome of which is likely to be decided by the end of 2007.

In publicity surrounding the merger, both XM and Sirius have suggested the merged company will offer cheaper services as well as packages a la carte. Opponents to the merger argue just the opposite. They claim price hikes will likely happen and programming choices will be reduced.

A key task for the Federal Communications Commission is to define the market in which XM and Sirius compete. Will this be a narrow definition of just satellite radio or a broader definition including all radio or all audio?

In the second quarter of 2007, XM reported 8.25 million subscribers to Sirius's 7.1 million. In the most recent quarter, Sirius reported gross subscriber additions of one million, with net subscriber additions of 562,000. Compare this to XM radio with 942,000 gross subscriber additions and 338,000 net subscriber additions.

These numbers indicate enormous subscriber attrition for both companies. The most recent data also show that Sirius is growing its subscriber base faster than XM.

Satellite Radio Gross Subscriber Additions in the US, by Provider, 2005-2007 (thousands)

	2005	2006	Q1 & Q2 2007
XM	4,130	3,867	1,810
Siruis	2,519	3,758	1,990

Note: Bridge ratings data for 2005, 2006 and Q1 2007; Q2 2007 data from company reports
Source: company reports, 2007; Bridge Ratings as cited in press release, July 11, 2007

086427 www.eMarketer.com

Both companies are tracking to generate revenues of between $900 million and $1 billion in 2007. It is worth noting that while satellite radio generates most of its revenue from subscriptions, both companies are likely to generate $40 million to $50 million in advertising revenue during 2007. It is also likely that advertising, in some form, will be an important revenue source in the years ahead.

Bridge Ratings forecasts steady rather than spectacular growth for satellite radio over the next eight years. By 2010, there will be 23.4 million satellite radio subscribers, up from 9.1 million in 2006. Bridge Ratings does not see a proposed merger as negatively affecting subscriber additions in the long term.

US Satellite Radio Subscribers, by Company, 2006-2010 & 2015 (millions)

	2006	2007	2008	2009	2010	2015
XM	6.0	7.6	9.0	10.2	11.6	15.6
Sirius	3.1	6.0	8.1	10.0	11.8	14.4
Total	**9.1**	**13.6**	**17.1**	**20.3**	**23.4**	**30.0**

Note: numbers may not add up to total due to rounding
Source: Bridge Ratings as cited in press release, February 19, 2007
086428 www.eMarketer.com

Measuring shipments of satellite and HD radio units rather than subscribers, iSuppli forecasts strong growth in unit sales. It is worth noting that satellite radio units are now standard features in many models of cars. However, this does not mean that the car owner will necessarily subscribe to the satellite radio service, so there is a significant difference between satellite radio units and subscribers.

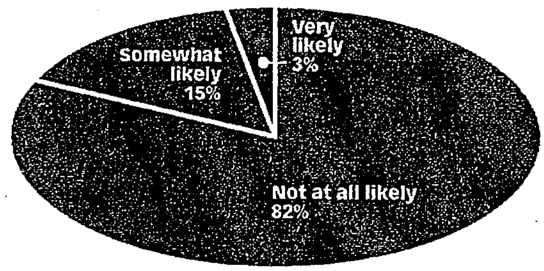
US Digital Radio Shipments, by Type, 2004-2012 (thousands of units)

	2004	2005	2006	2007	2008
HD radio	23	68	281	919	2,551
XM	1,863	2,686	3,821	4,519	5,154
Sirius	877	2,174	3,338	4,218	4,867
	2009	**2010**	**2011**	**2012**	
HD radio	5,220	8,888	12,885	16,875	
XM	5,701	6,111	6,466	6,756	
Sirius	5,412	5,804	6,139	6,437	

Source: iSuppli Corporation as cited in press release, March 20, 2007
082639 www.eMarketer.com

According to Arbitron, 18% of survey respondents who do not subscribe to satellite radio (XM or Sirius) say they are likely to subscribe in the next 12 months. This figure is unchanged in the last year. Only 3% of non-subscribers to satellite radio say they are "very likely" to subscribe in the next 12 months.

Likelihood of Subscribing to Satellite Radio in the Next 12 Months among US Consumers*, January-February 2007 (% of respondents)



*Note: ages 12+; *among those who currently do not subscribe*
Source: Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007
086430 www.eMarketer.com

According to Arbitron and Edison Media, satellite radio subscribers are equally likely to be male or female, age 25 to 44.

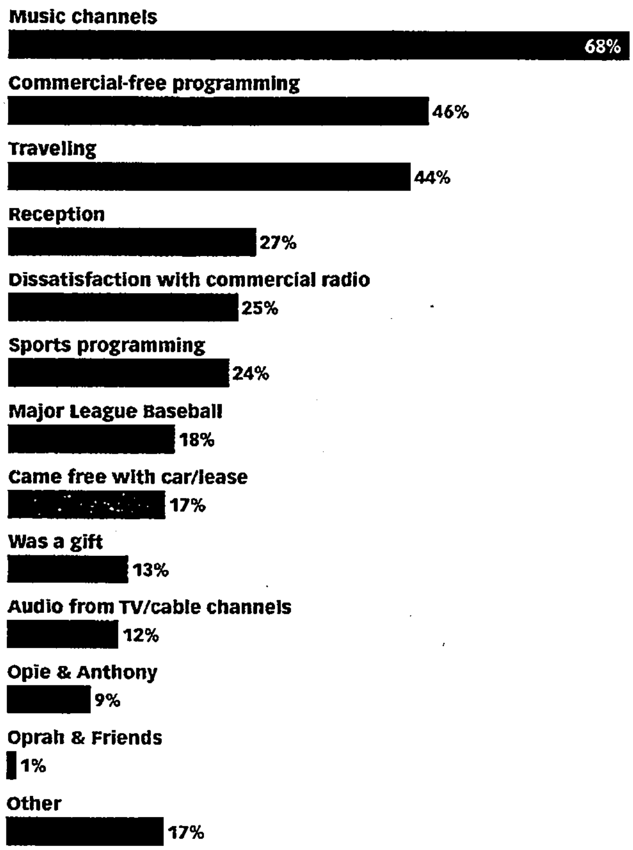
US Satellite Radio Subscribers, by Age and Gender, January-February 2007 (% of respondents)

Gender	
Male	50%
Female	50%
Age	
12-17	15%
18-24	11%
25-34	21%
35-44	24%
45-54	15%
55-64	9%
65+	5%

Source: Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007
083307 www.eMarketer.com

The primary reason for subscribing to either XM or Sirius satellite radio is for the music channels, according to survey data from Jacobs Media. The only significant difference between the two companies is the Howard Stern factor for Sirius. Survey data shows that one-third of respondents cited Howard Stern as their reason for subscribing to Sirius.

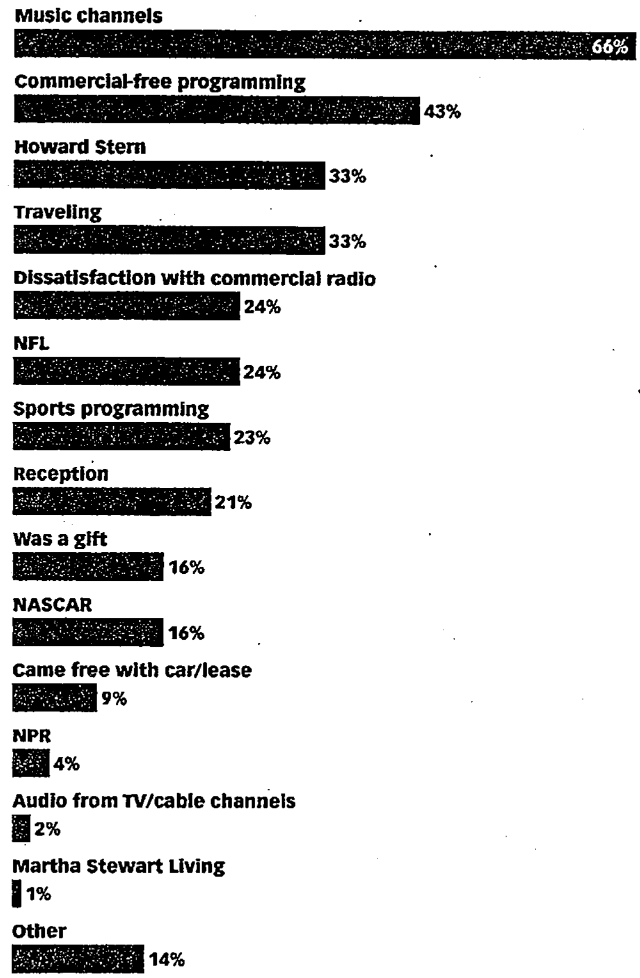
Reasons for Subscribing to XM Satellite Radio according to US XM Subscribers, February-March 2007 (% of respondents)



Source: Jacobs Media, "Tech Survey III: Satellite Radio," March 20, 2007

082179 www.eMarketer.com

Reasons for Subscribing to Sirius Satellite Radio according to US Sirius Subscribers, February-March 2007 (% of respondents)



Source: Jacobs Media, "Tech Survey III: Satellite Radio," March 20, 2007

082181 www.eMarketer.com

As with cable or satellite TV, subscribers to satellite radio pay for a package of content. And as with cable or satellite TV, satellite radio subscribers pay for a whole lot of channels they are not interested in. This is the complaint most often cited by a survey conducted by Jacobs Media.

A close second to this complaint is that satellite subscribers are hearing too many commercials. Considering the service is advertised as commercial-free, this is unlikely to improve customer satisfaction.

Complaints about Satellite Radio among US XM or Sirius Satellite Radio Subscribers, February-March 2007 (% of respondents)

	XM	Sirius	Total
Too many channels I have no interest in	29%	22%	25%
Commercials on some channels	32%	19%	24%
Audio/sound drops out too often	11%	19%	15%
Difficult to navigate so many channels	13%	13%	13%
Too expensive	12%	9%	12%
Don't listen to it as much as I expected	14%	9%	12%
Sound quality not as good as I expected	10%	10%	10%
Channels are not much better than local	7%	5%	7%
Not happy about merger of XM and Sirius	8%	5%	6%
Other	8%	8%	8%
Nothing	30%	39%	34%

Source: Jacobs Media, "Tech Survey III: Satellite Radio," March 20, 2007

082187 www.eMarketer.com

In fact, the level of satisfaction with satellite radio has fallen since 2005, according to Jacobs Media.

Level of Satisfaction with Satellite Radio among US Satellite Radio Subscribers, 2005-2007 (% of respondents)

	2005	2006	2007
5 - very satisfied	44%	44%	38%
4	34%	31%	33%
3	17%	18%	22%
2	4%	5%	5%
1 - not satisfied	2%	3%	3%

Note: numbers may not add up to 100% due to rounding
Source: Jacobs Media, "Tech Survey III: Satellite Radio," March 20, 2007

082178 www.eMarketer.com

High customer attrition, falling customer satisfaction, steep customer-acquisition costs and elusive profits have forced XM and Sirius to consider a merger. Satellite radio has much potential, however. One need only look at its satellite TV counterpart. But the honeymoon period is over for satellite radio, and the stock market is demanding financial results.

Podcasting

Podcast means portable, on-demand broadcast. A radio podcast is a digital audio file of a radio show that a user can download and play on a PC or portable audio device. For radio broadcasters, it allows a user to listen to a show at a time other than when it was aired live, which is analogous to the DVR in the TV sector. But podcasting is not confined to the radio sector. On the contrary, podcasting has become popular for both professional and amateurs alike across a broad cross section of industries and interests.

eMarketer examined the podcasting market earlier in 2007.

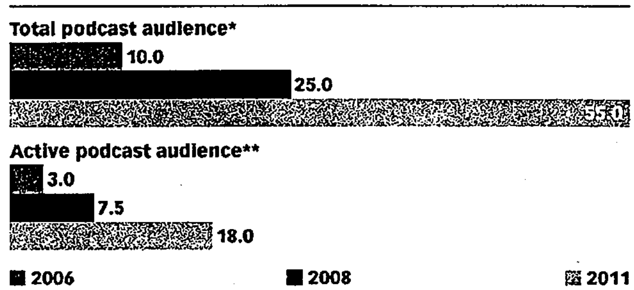
See eMarketer's Podcast Advertising Report
http://www.emarketer.com/Reports/All/Em_ad_podcast_feb07

eMarketer's view has not changed since the publication of its podcasting report in February 2007. In that report, eMarketer predicted the US podcast audience to continue to grow at an impressive rate into the next decade.

While podcasting is unlikely to ever attract a mass market of regular users, the very fact that it is attractive to specific niche audiences makes it a potentially interesting target for advertisers. That said, like DVR users, podcast listeners skip or fast-forward through commercials.

eMarketer estimates that by 2011 the US podcast audience will grow to 18 million, up from three million in 2006.

US Podcast Audience, 2006, 2008 & 2011 (millions)

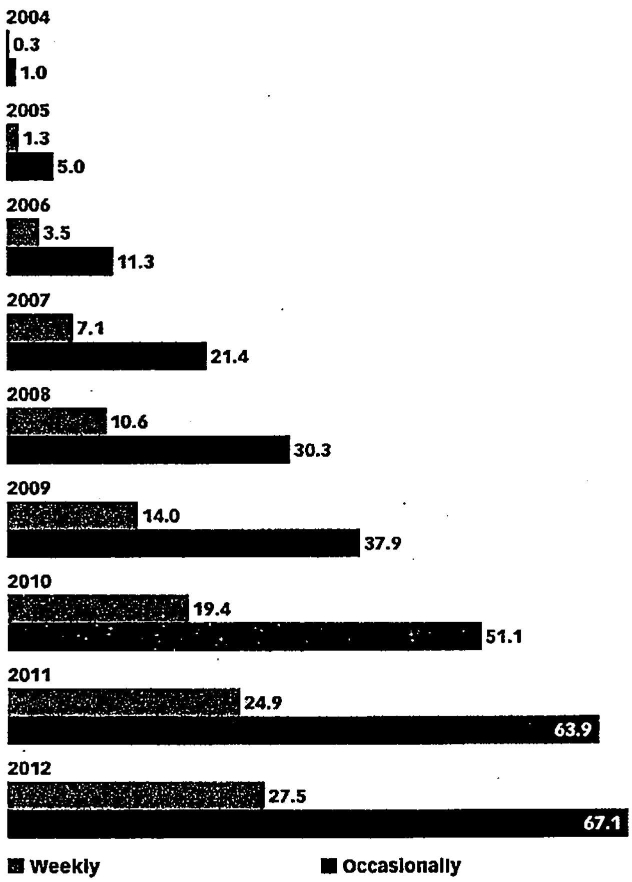


*Note: *individuals who have ever downloaded a podcast; **individuals who download an average of one or more podcast(s) per week*
Source: eMarketer, February 2007

081142 www.eMarketer.com

New forecasts from Bridge Ratings are more bullish than eMarketer. The research firm predicts 24.9 million regular podcast users in 2011, up from 3.5 million in 2006.

US Weekly and Occasional Podcast Listeners, 2004-2012 (millions)

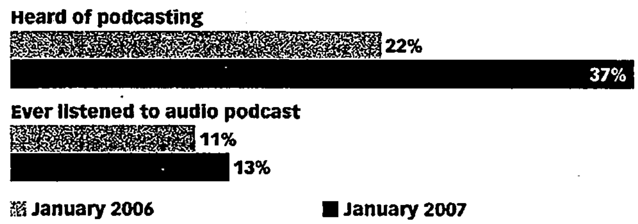


Note: Data was estimated based on the 10 markets included in the study-Los Angeles, San Francisco, Seattle, St. Louis, Chicago, Boston, Washington, DC, Miami, Dallas and Atlanta
Source: Bridge Ratings as cited in press release, June 13, 2007

084888 www.eMarketer.com

While significantly more people have heard of podcasting in 2007 compared with a year earlier, this has not translated into a similar growth in podcast usage, according to Arbitron.

US Podcast Awareness and Listeners, January 2006 & January 2007 (% of respondents)



Note: January 2007 n=1,855 ages 12+
Source: Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007

083309 www.eMarketer.com

Who listens to podcasts? Demographic data from comScore show that iTunes podcast listeners skew male and are more likely to be highly educated and wealthy. Additional data from Arbitron show that technology news and commentary is the most popular podcast content.

Demographic Profile of US iTunes Podcast Downloaders vs. Total Adult Internet Users, October 2006 (% of total)

	iTunes podcast downloaders	Total adult Internet users
Gender		
Male	63%	51%
Female	37%	49%
Age		
18-24	29%	14%
25-34	14%	20%
35-44	27%	24%
45-54	23%	22%
55-64	5%	13%
65+	2%	6%
Household income		
<$25,000	7%	9%
$25,000-$50,000	16%	21%
$50,000-$75,000	27%	29%
$75,000-$100,000	19%	17%
$100,000	31%	24%
Education		
High school	25%	28%
Some college or associates degree	28%	34%
College/graduate degree	47%	37%

Note: numbers may not add up to 100% due to rounding
Source: comScore Networks, Inc. as cited in press release, May 16, 2007

084009 www.eMarketer.com

Demographic data from Arbitron paints a slightly different picture, however. According to these data, podcast listeners resemble other Internet users.

US Podcast Listeners, by Age and Gender, January-February 2007 (% of respondents)

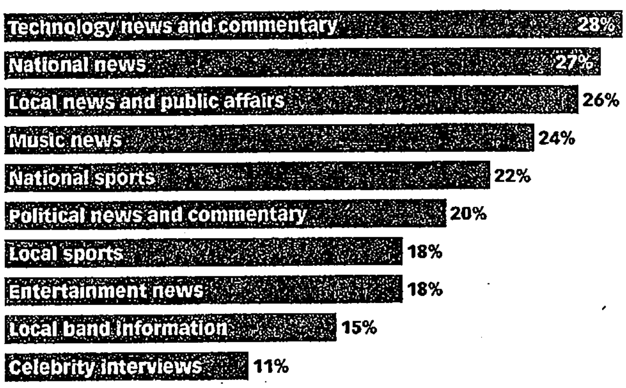
Gender	
Male	51%
Female	49%
Age	
12-17	16%
18-24	12%
25-34	24%
35-44	19%
45-54	16%
55-64	9%
65+	4%

Note: who have ever listened to audio podcast
Source: Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007

083310 www.eMarketer.com

As has been noted, technology news and commentary is the most popular genre of content for US podcast listeners, followed by news and current affairs.

Types of Programming Content that US Podcast Listeners Are Very Interested in Downloading, January-February 2007 (% of respondents)



Note: ages 12+ who have ever listened to audio podcast
Source: Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007

083312 www.eMarketer.com

Podcasting is important to radio broadcasters, particularly in the talk/news category, in providing listeners with greater flexibility in how and when they access the content they want.

Public broadcasters such as National Public Radio in the United States and the British Broadcasting Corporation in the United Kingdom are leaders in offering podcasts as a standard practice. This has expanded their audiences and deepened their engagement with their listeners.

Podcasting today may be a more interesting technology story than business story. But that should not prevent traditional radio stations from experimenting with the medium.

High-Definition Radio

HD radio is still in its infancy in the US and, according to recent estimates, is likely to continue to be so for some time. While an HD TV makes sense to many people, forking out money for new equipment to listen to the same radio content with a modicum of improved audio clarity has yet to catch on. The value proposition for both broadcasters and consumers is not yet clear.

While a good percentage of Americans have heard of digital radio, far fewer are interested in actually having it.

HD Radio Familiarity and Interest among US Consumers, by Age, January & July 2007 (% of respondents in each group)

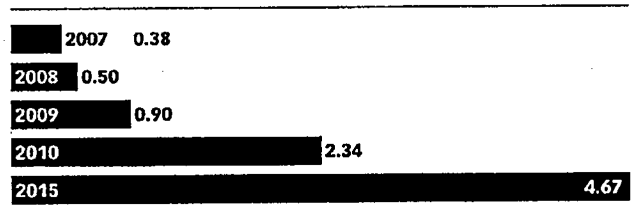
	12-24	25-54	55+	Total
Have heard of				
January 2007	69%	75%	71%	72%
July 2007	70%	77%	68%	75%
Can explain				
January 2007	24%	13%	7%	15%
July 2007	22%	12%	5%	13%
Are interested* in				
January 2007	28%	14%	3%	8%
July 2007	23%	13%	2%	7%

*Note: July 2007 n=3,179; *very or somewhat*
Source: Bridge Ratings as cited in press release, August 8, 2007

086374 www.eMarketer.com

Bridge Ratings estimates that there will be only 2.34 million HD radio listeners in the US in 2010, up from 380,000 in 2007. Clearly, HD radio has some way to go to capture the attention of the American public.

US HD Radio Listeners, 2007-2015 (millions)



Source: Bridge Ratings as cited in press release, August 8, 2007

086375 www.eMarketer.com

Mobile Radio

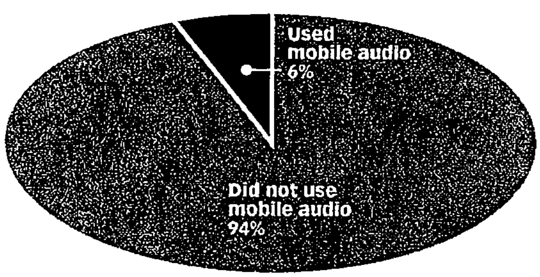
Listening to radio content on mobile audio devices is a far more attractive proposition for consumers than HD radio. Many new mobile handsets now have integrated FM radios, and satellite radio providers have teamed up with mobile operators to have their services available on mobile phones.

The proliferation of portable audio devices—in combination with the development of wireless broadband networks—gives radio broadcasters an opportunity to make portable radio synonymous with mobile phones.

See eMarketer's Mobile Music report for additional data on trends in mobile music
http://www.emarketer.com/Reports/All/Emarketer_2000416

According to Telephia, about 10.5% of mobile phone subscribers in the US (23.5 million people) had mobile phones with integrated music players, as of the third quarter in 2006. Their data also show that only 6% of mobile phone users had used the mobile audio function on their phone at the end of 2006.

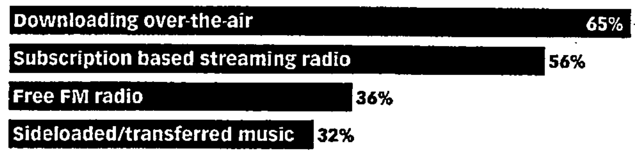
US Mobile Phone Users Who Have Listened to Mobile Audio, Q4 2006 (% of respondents)



Note: n=62,188; listened in the past 30 days; includes over-the-air (OTA) downloaded content, content sideloaded from PC or other source, subscription-based streamed content or radio and free FM radio
Source: Arbitron and Telephia, "The Mobile Audio Media Study," April 2007
082752 www.eMarketer.com

Familiarity with mobile audio features will grow as these features become standard on mobile phones in the years ahead. Today, US mobile phone users are more familiar with downloading music tracks (e.g., ringtones) over the air but are less familiar with satellite radio or free FM radio services.

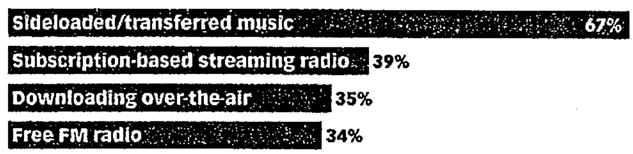
US Mobile Phone Users Who Are Aware of Select Mobile Audio Features, February 2007 (% of respondents)



Note: n=2,035
Source: Arbitron and Telephia, "The Mobile Audio Media Study," April 2007
082754 www.eMarketer.com

The most popular way mobile audio users are using their mobile audio phone is in transferring music from their PC or music player to their mobile phone. Direct streaming of subscription (satellite) radio or free FM radio is used by about one-third of mobile audio users.

Usage of Select Mobile Audio Features among US Mobile Audio Listeners, February 2007 (% of respondents)



Note: n=1,162
Source: Arbitron and Telephia, "The Mobile Audio Media Study," April 2007
082758 www.eMarketer.com

Mobile audio listeners are listening to between two and four hours of audio content per week on their mobile phones. For radio broadcasters, this provides an indication of the possibility of extending their audiences beyond the usual locations of car, work or home.

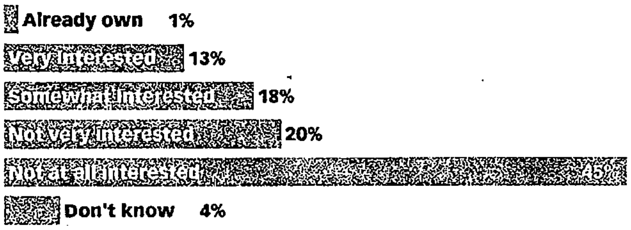
Time per Week that US Mobile Audio Listeners Spend Listening to Select Mobile Audio Features, February 2007 (hrs:mins)

Sideloaded/transferred music	4:30
Subscription based streaming radio	3:15
Downloading over-the-air	3:00
Free FM radio	2:15

Note: n=1,162
Source: Arbitron and Telephia, "The Mobile Audio Media Study," April 2007
082764 www.eMarketer.com

Only 1% of Arbitron's survey respondents indicated they already had a phone with a radio tuner. There is, however, a reasonable amount of interest in having such a feature.

US Consumer Interest in Local Radio Tuner-Enabled Mobile Phone, January-February 2007 (% of respondents)



Note: n=1,855 ages 12+; numbers may not add up to 100% due to rounding
Source: Arbitron and Edison Media Research, "The Infinite Dial 2007: Radio's Digital Platforms," April 19, 2007

083318 www.eMarketer.com

Conclusion

While the traditional radio sector may seem like yesterday's news to some, the fact is that the same rules of content creation and distribution apply to radio as they do for all media sectors.

Content that is compelling and easily accessible to consumers will be attractive. Technologies such as the Internet, satellite radio, HD radio, podcasting and mobile devices are potential enhancers to traditional radio content rather than a means of detraction.

While advertising spending is growing rapidly online, it is not necessarily at the expense of radio. If the radio industry adapts well to the new environment, there seems no reason why this market cannot find a new lease on life and benefit from the growth in the online sector.

The radio-Internet combination is a compelling prospect for both broadcasters and marketers alike.

Related Information and Links

Related eMarketer Reports

US TV Trends: The Impact of DVRs, VOD and the Web
http://www.emarketer.com/Reports/All/Emarketer_2000440

Podcast Advertising
http://www.emarketer.com/Reports/All/Em_ad_podcast_feb07

Video Advertising Online: Spending & Audience
http://www.emarketer.com/Reports/All/Emarketer_2000440

Mobile Music: Mixing it Up
http://www.emarketer.com/Reports/All/Emarketer_2000416

Social Network Marketing: Where to Next?
http://www.emarketer.com/Reports/All/Emarketer_2000433

Related Links

Radio Advertising Bureau
http://www.rab.com

Arbitron
http://www.arbitron.com/home/content.stm

Radio Lab
http://www.radioadlab.org/RADIOANDTHEINTERNETFULLREPORT.pdf

Radio & Internet Newsletter
http://www.kurthanson.com/index.shtml

Internet Radio—The Basics of Music Royalty Obligations
http://www.dwt.com/practc/broadcast/bulletins/08-06_InternetRadio.htm

Sound Exchange
http://www.soundexchange.com

Bridge Ratings
http://www.bridgeratings.com

Ronning Lipset Radio
http://www.rlradio.com

Clear Channel Radio
http://www.clearchannel.com/Radio

The State of the News Media – The Annual Report on American Journalism
http://www.stateofthenewsmedia.org/2007/index.asp

Contact

eMarketer, Inc.	Toll-Free: 800-405-0844
75 Broad Street	Outside the US: 212-763-6010
32nd floor	Fax: 212-763-6020
New York, NY 10004	sales@emarketer.com

Report Contributors

Mickey Alam Khan	Editor in Chief
Mike Chapman	Editorial Director
Daniel McMahon	Copy Editor
Dana Hill	Production Artist
Chris Keating	Senior Researcher
James Ku	Data Entry Associate and Production Artist
Yael Marmon	Director of Research
Allison Smith	Senior Editor

About eMarketer

eMarketer is "The First Place to Look" for market research and trend analysis on Internet, e-business, online marketing, media and emerging technologies. **eMarketer** aggregates and analyzes information from over 2,800 sources, and brings it together in analyst reports, daily research articles and the most comprehensive database of e-business and online marketing statistics in the world.

A Trusted Resource

eMarketer serves as a trusted, third-party resource, cutting through the clutter and hype–helping businesses make sense of the e-business numbers and trends. **eMarketer's** products and services help companies make better, more informed business decisions by:

- Streamlining e-business research sources and reducing costs
- Eliminating critical data gaps
- Providing an objective, bird's eye view of the entire e-business landscape
- Better deploying and sharing information across the company
- Building solid business cases backed up by hard data
- Reducing business risk
- Saving valuable time

*To learn more about subscriptions to **eMarketer**, call 800-405-0844 (outside the U.S. and Canada, call 001-212-763-6010), or e-mail to sales@emarketer.com.*

6

The Infinite Dial 2009

Radio's Digital Platforms
AM/FM, Online, Satellite, HD Radio™ and Podcasting

ARBITRON

Sponsored by TargetSpot™

edison research

Overview

- In January 2009, Arbitron and Edison Research conducted a national survey of 1,858 people aged 12+, exploring digital radio platforms:
  - Online Radio
  - Satellite Radio
  - HD Radio
  - Podcasting
- The 17th study in a series dating back to 1998

Internet Access Trends

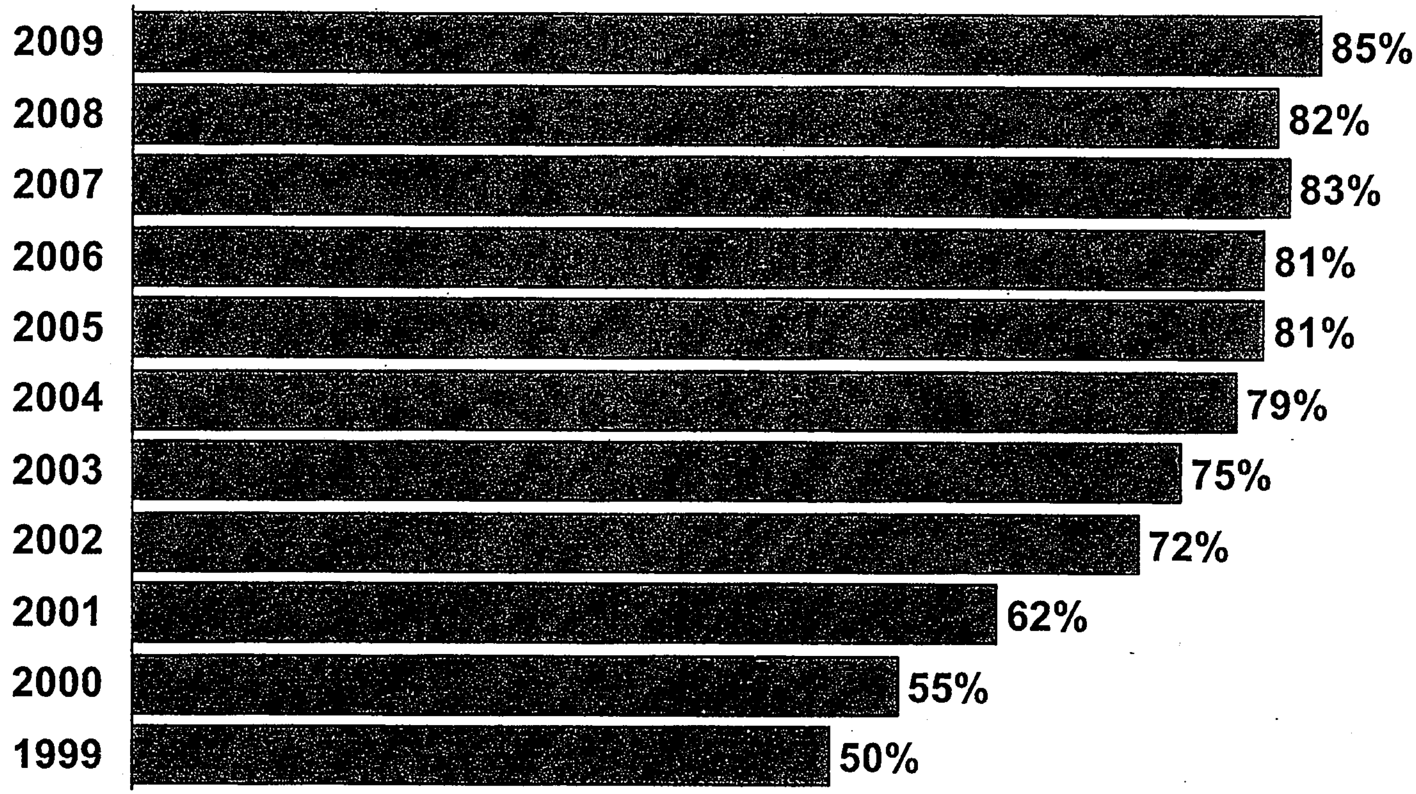
ARBITRON

Sponsored by TargetSpot™

edison research

Internet Access From any Location Approaching Nine in 10 Americans

% with Internet Access From any Location



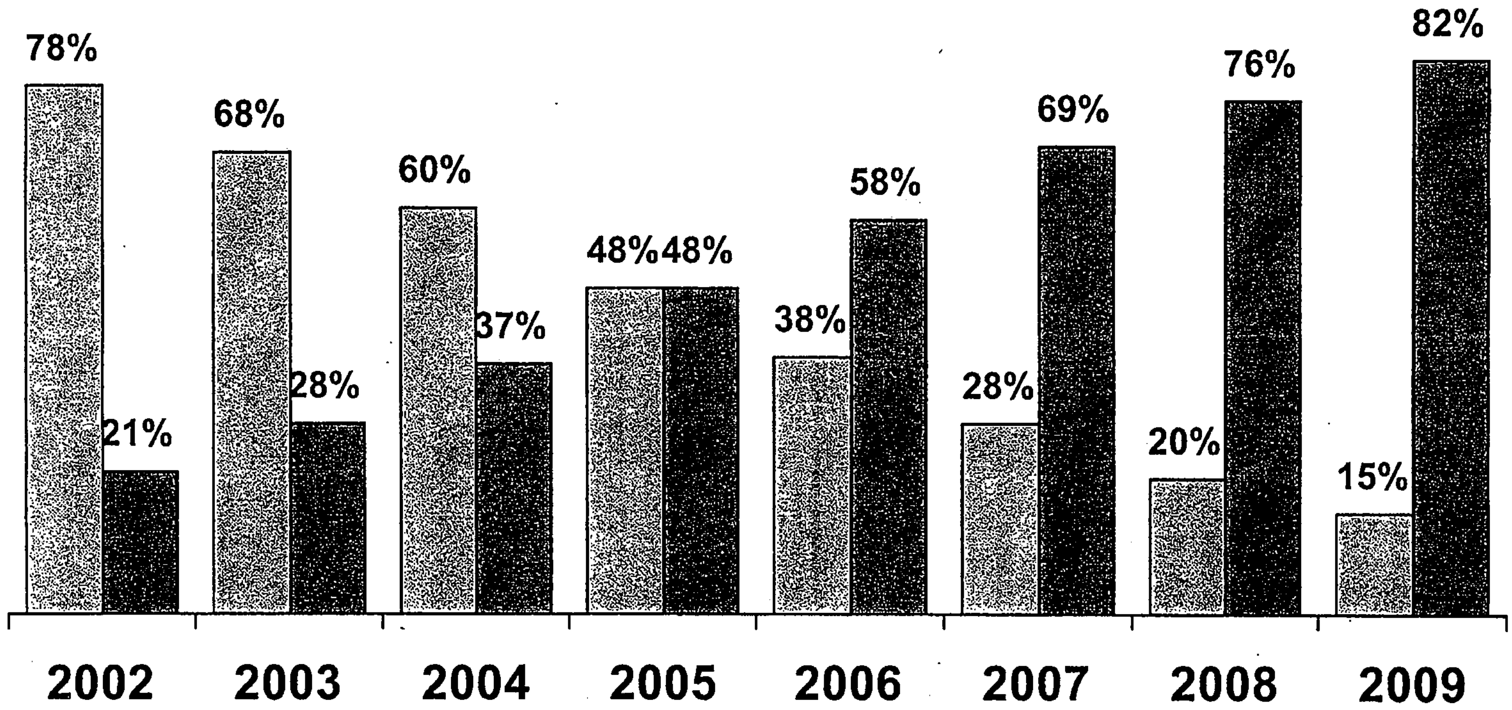
ARBITRON

Base: Total Population 12+

edison research

Residential Dial-Up Down to Less Than One in Six Homes With Internet Access

% Who Have Broadband/Dial-up Internet Access at Home



ARBITRON

Base: Access the Internet From Home

edison research

Online Radio

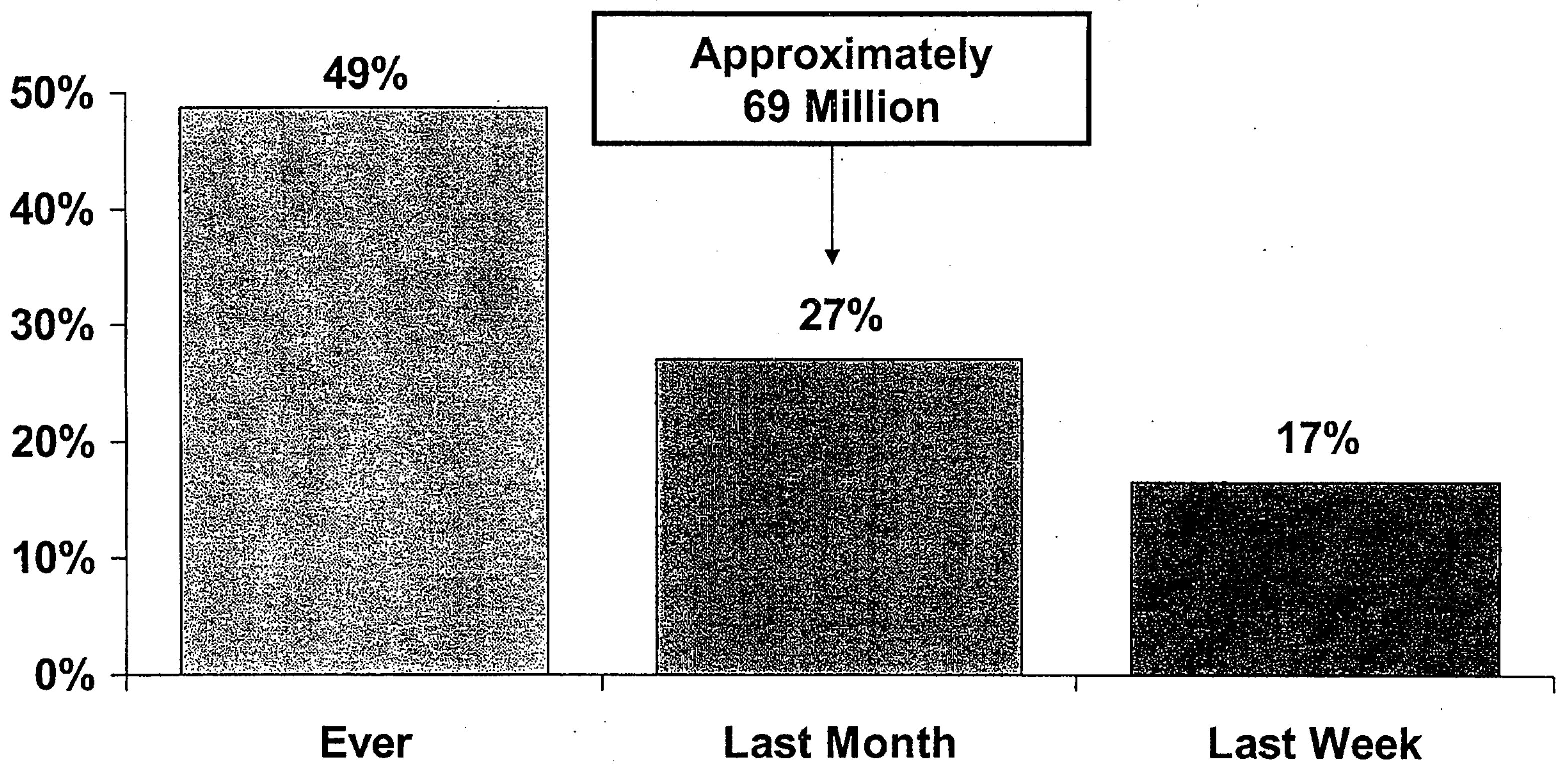
ARBITRON

Sponsored by TargetSpot™

edison research

An Estimated 69 Million Americans Listened to Online Radio in the Last Month

% Who Have Listened to Online Radio...



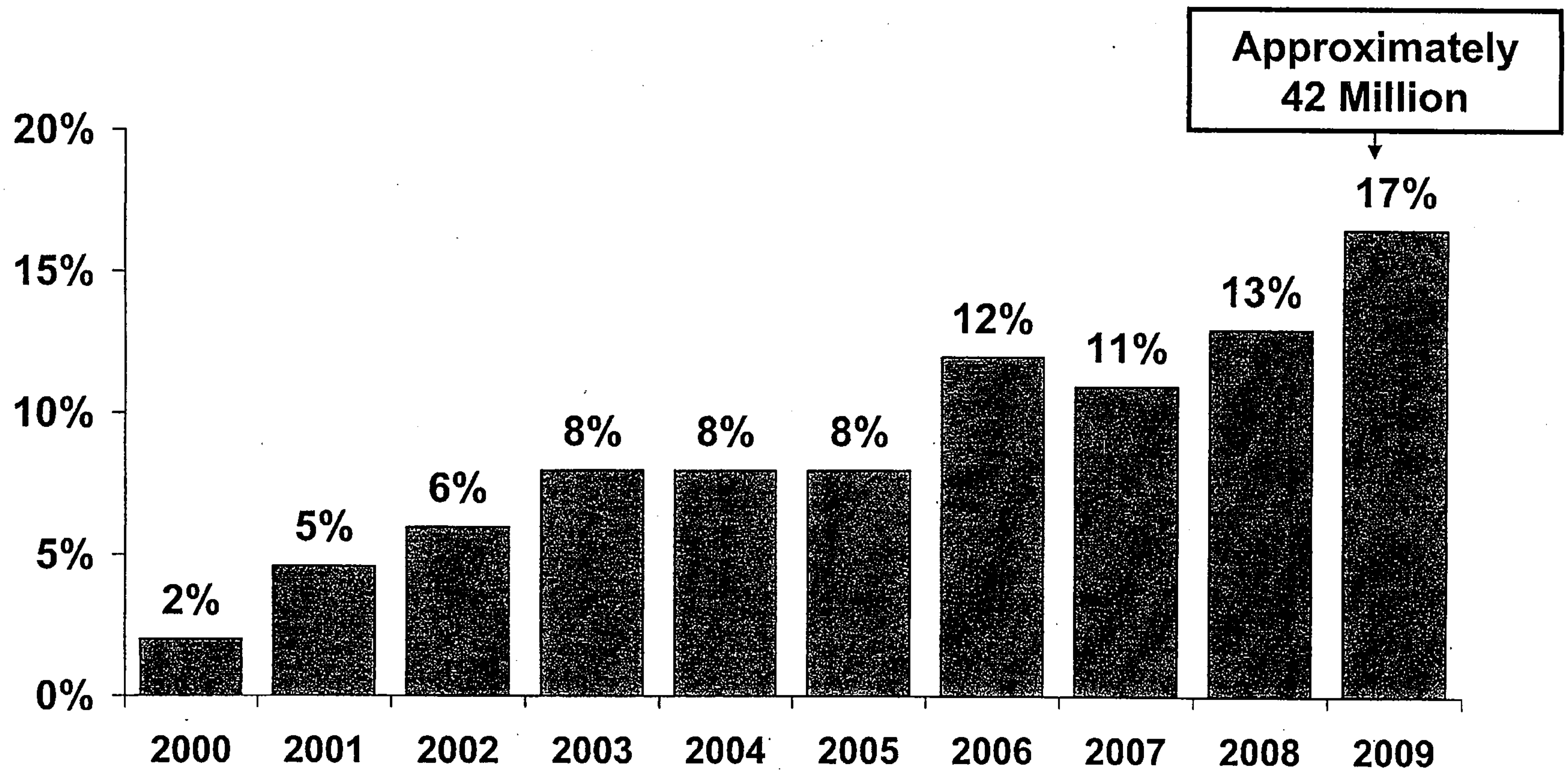
ARBITRON

Base: Total Population 12+

edison research

Weekly Online Radio Audience Up by Nearly One-Third in Last Year

% Who Have Listened to Online Radio in Last Week



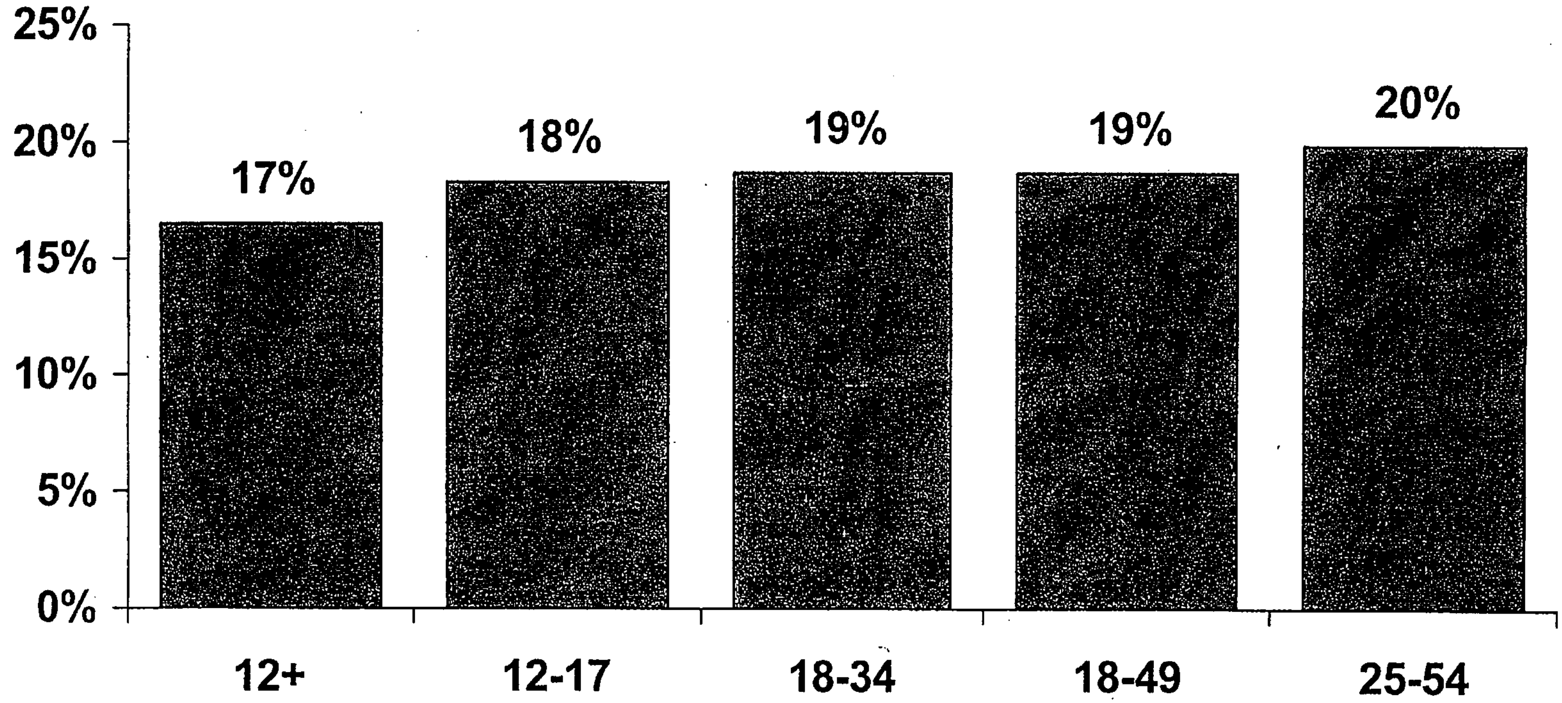
Base: Total Population 12+

ARBITRON

edison research

Online Radio Reaches One in Five 25- to 54-Year-Olds per Week

% by Age Group Who Have Listened to Online Radio in Last Week

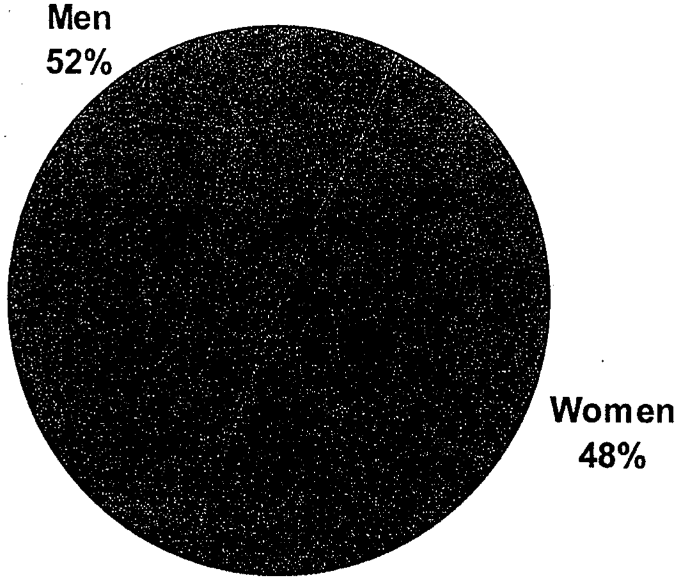


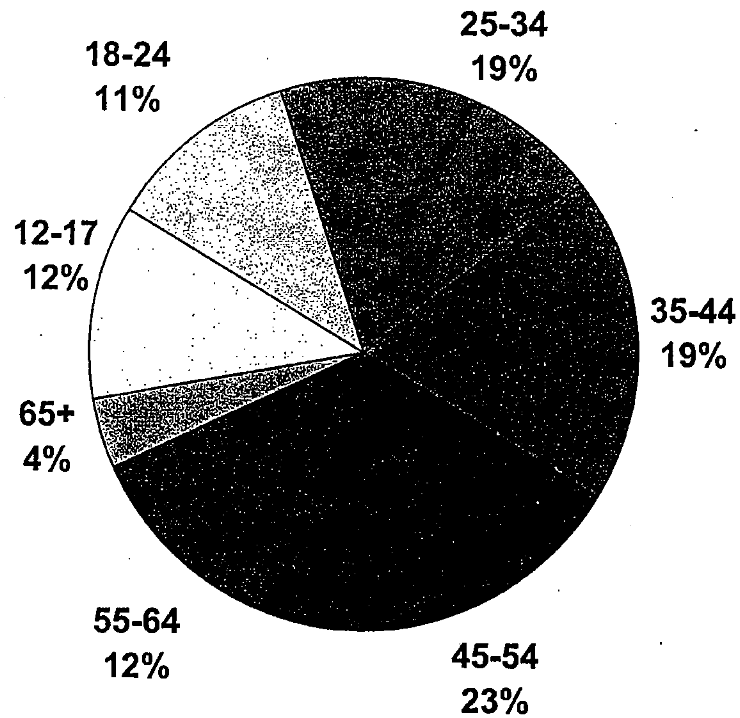
ARBITRON

edison research

Weekly Online Radio Listening Skews Male, Attracts Wide Range of Ages

Weekly Online Radio Audience Composition



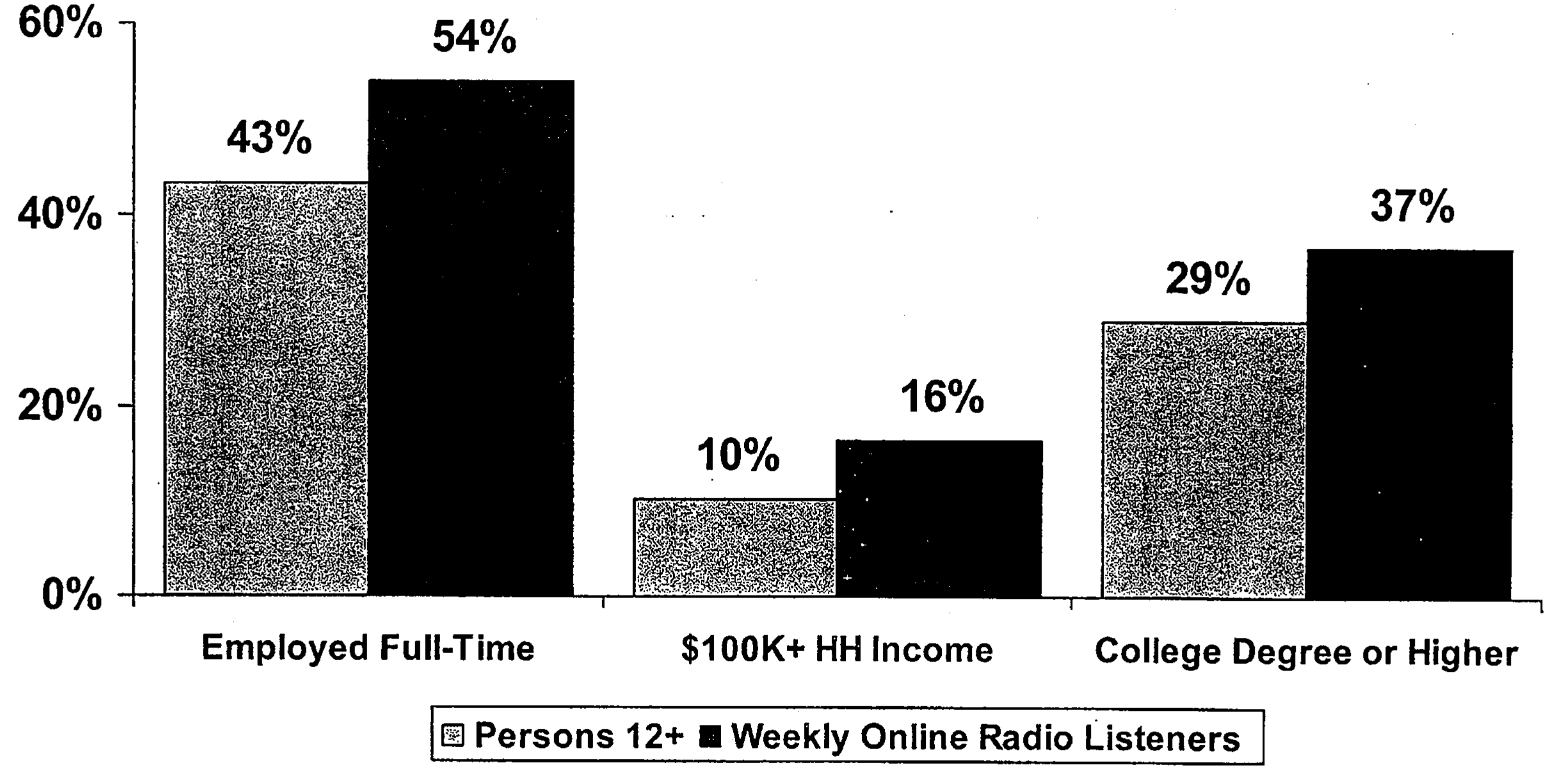


ARBITRON

edison research

Online Radio Attracts an Upscale, Well-Educated and Employed Audience

Composition of Weekly Online Radio Listeners vs. Total Population 12+

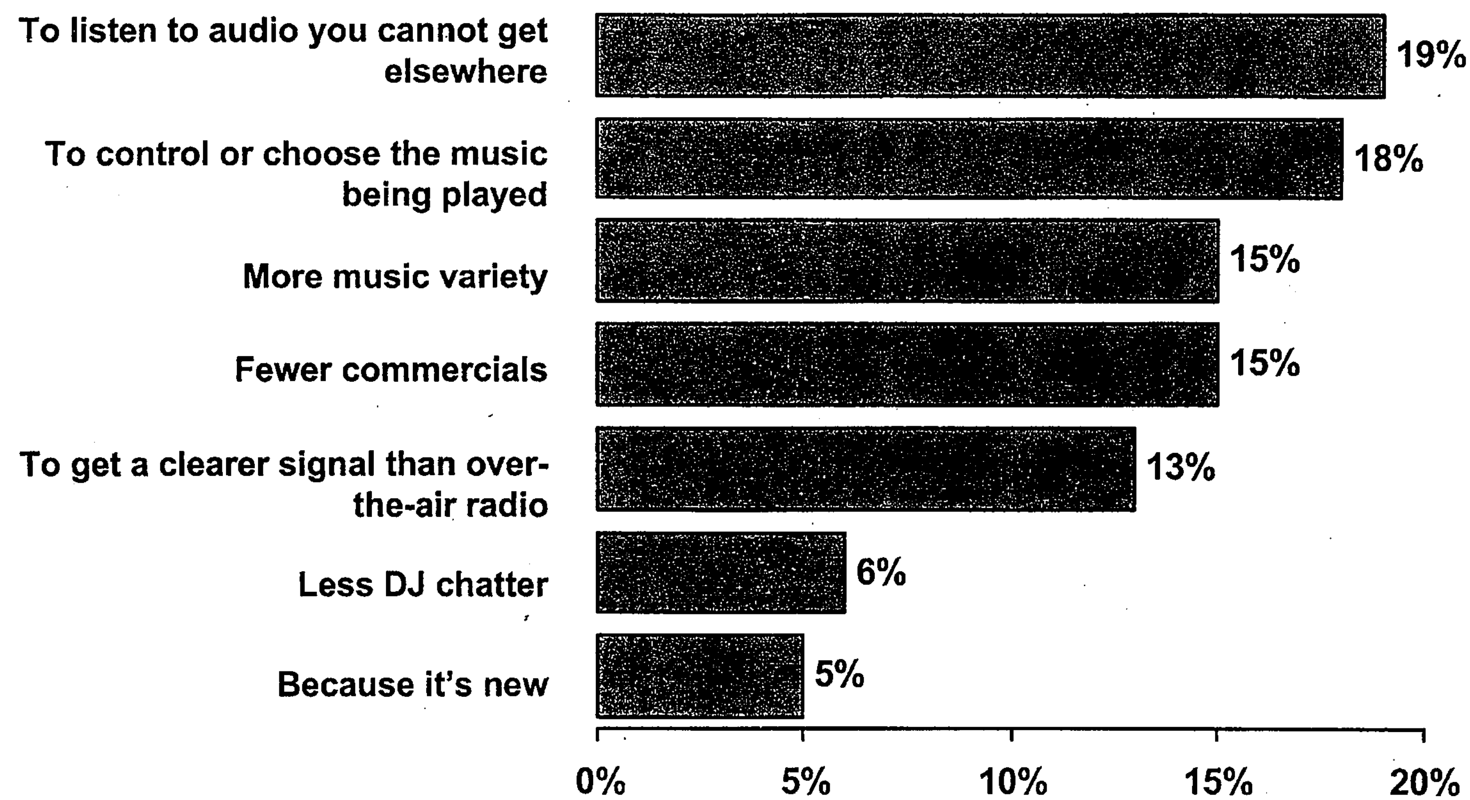


ARBITRON

edison research

"Variety" and "Control" Are Top Reasons for Listening to Online Radio

"Of the following reasons you might listen to Internet radio, what is the ONE main reason you listen?"



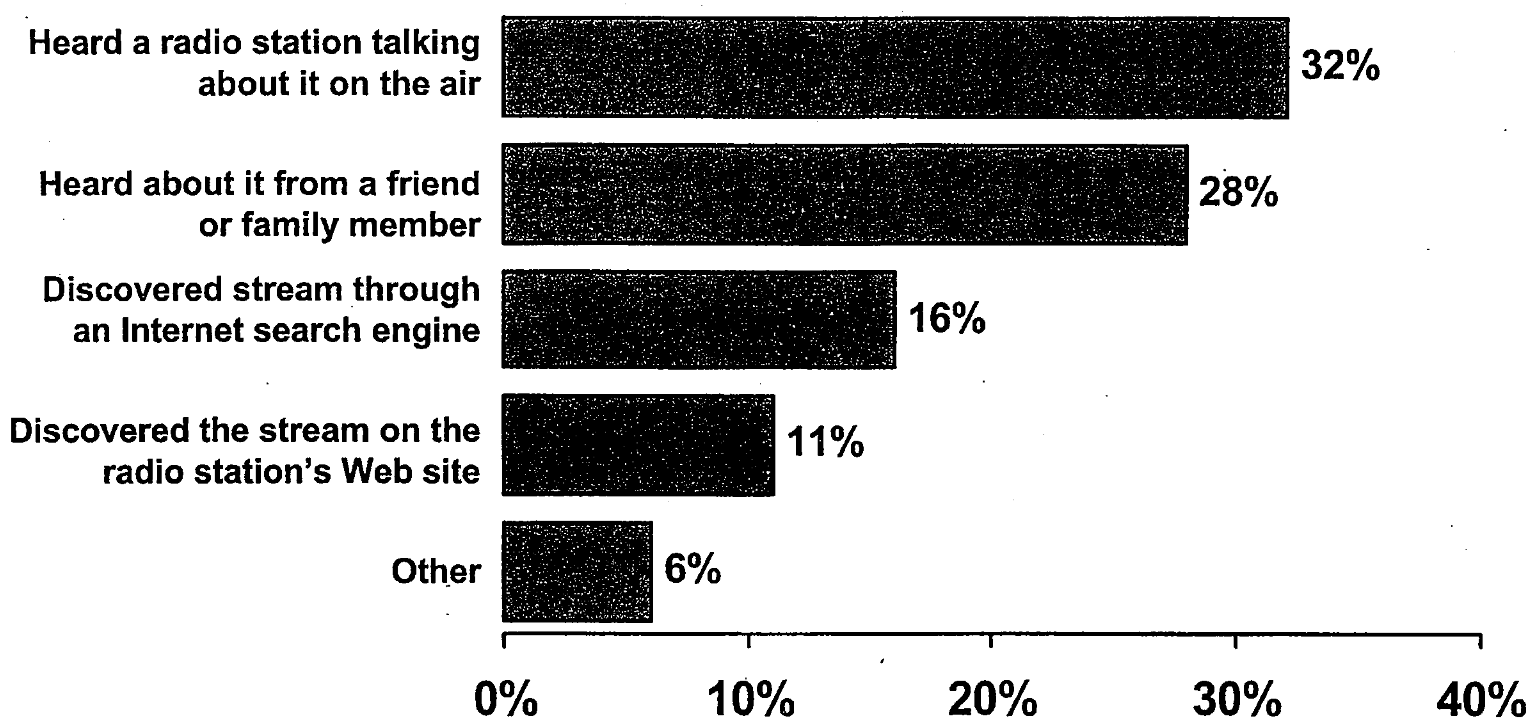
Base: Monthly Online Radio Listeners

ARBITRON

edison research

Most Learn About P1 Online Station From AM/FM Radio and Friends

"Now think about the one Internet radio station you listen to most. How did you first learn about that station?"



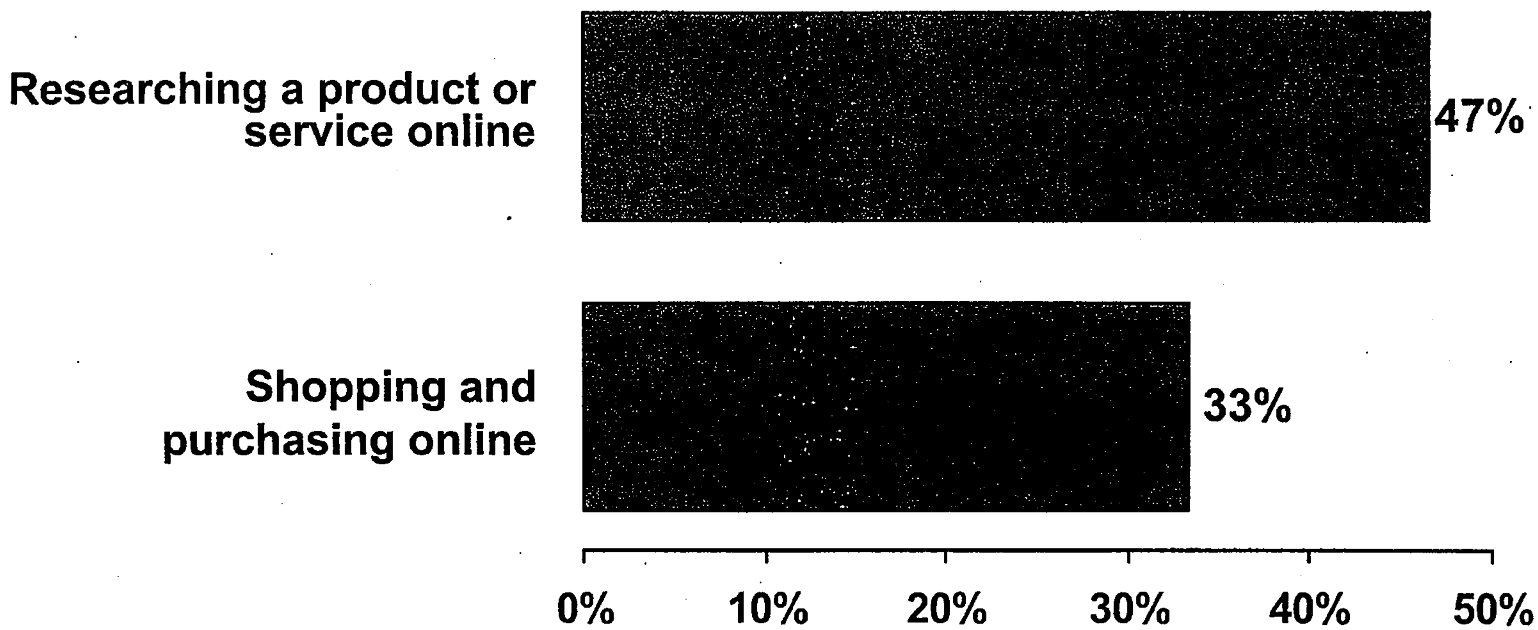
ARBITRON

Base: Monthly Online Radio Listeners

edison research

Online Radio Is the Soundtrack for Research and Shopping on the Internet

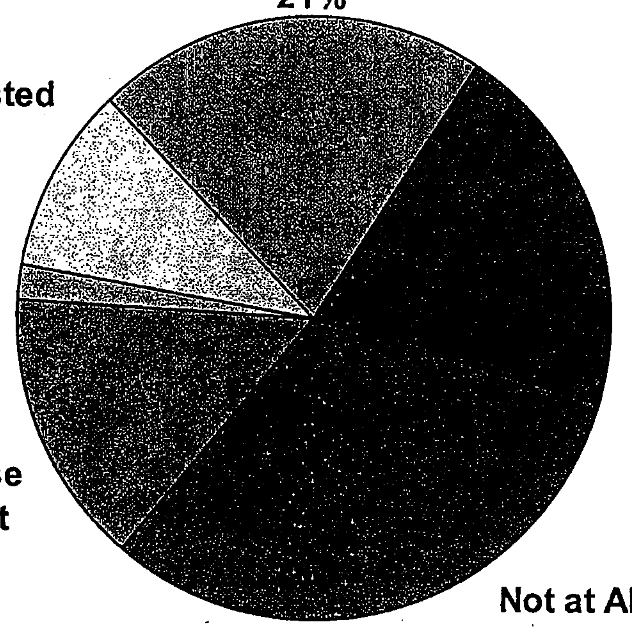
"Think about all of the time you spend listening to Internet radio. Do you ever listen to Internet radio while...?"



Base: Monthly Online Radio Listeners

Nearly One in Three Interested in Listening to Online Radio In-Car

"How interested would you be in listening to Internet Radio Programming in the car?"



Base: Total Population 12+

ARBITRON

edison research

PPM™ and Internet Streaming AM/FM Radio Stations

- Streams of AM/FM stations and HD are eligible to be encoded
  - Tuning reflects audience for encoded stations only
  - Not included (impact not quantifiable)
    - Internet-only radio and Podcasts
      - *Ex: Yahoo!® Music, Pandora® or Podcast of Car Talk*
    - Non-encoded stream of out-of-market radio stations
- Minimum reporting standard
  - .495 Weekly Cume Rating

ARBITRON

Thirteen AM/FM Streams Reported in February 2009 PPM

Weekly Cume Rating and AQH share, Persons 6+, total week

	Cume Rating	AQH Share		Cume Rating	AQH Share
Atlanta			**Middlesex**		
WVEE-IF	0.5%	0.1%	WHTZ-IF	0.7%	0.1%
Dallas			WPLJ-IF	0.9%	0.8%
KDGE-IF	0.5%	0.5%	**Nassau-Suffolk**		
KHKS-IF	0.5%	0.1%	WKJY-IF	0.7%	0.3%
Detroit			**New York**		
WBBM-IF	0.5%	0.1%	WHTZ-IF	0.6%	0.1%
Houston			WLTW-IF	0.5%	0.1%
KRBE-IF	0.7%	0.1%	WWFS-IF	0.6%	0.5%
Los Angeles			**San Jose**		
KOST-IF	0.7%	0.8%	KSFO-IA	0.6%	0.9%

How to Read: In New York, the web stream of WHTZ-FM (WHTZ-IF) had a .6 weekly Cume Rating and .1 AQH Share

ARBITRON

Online Video

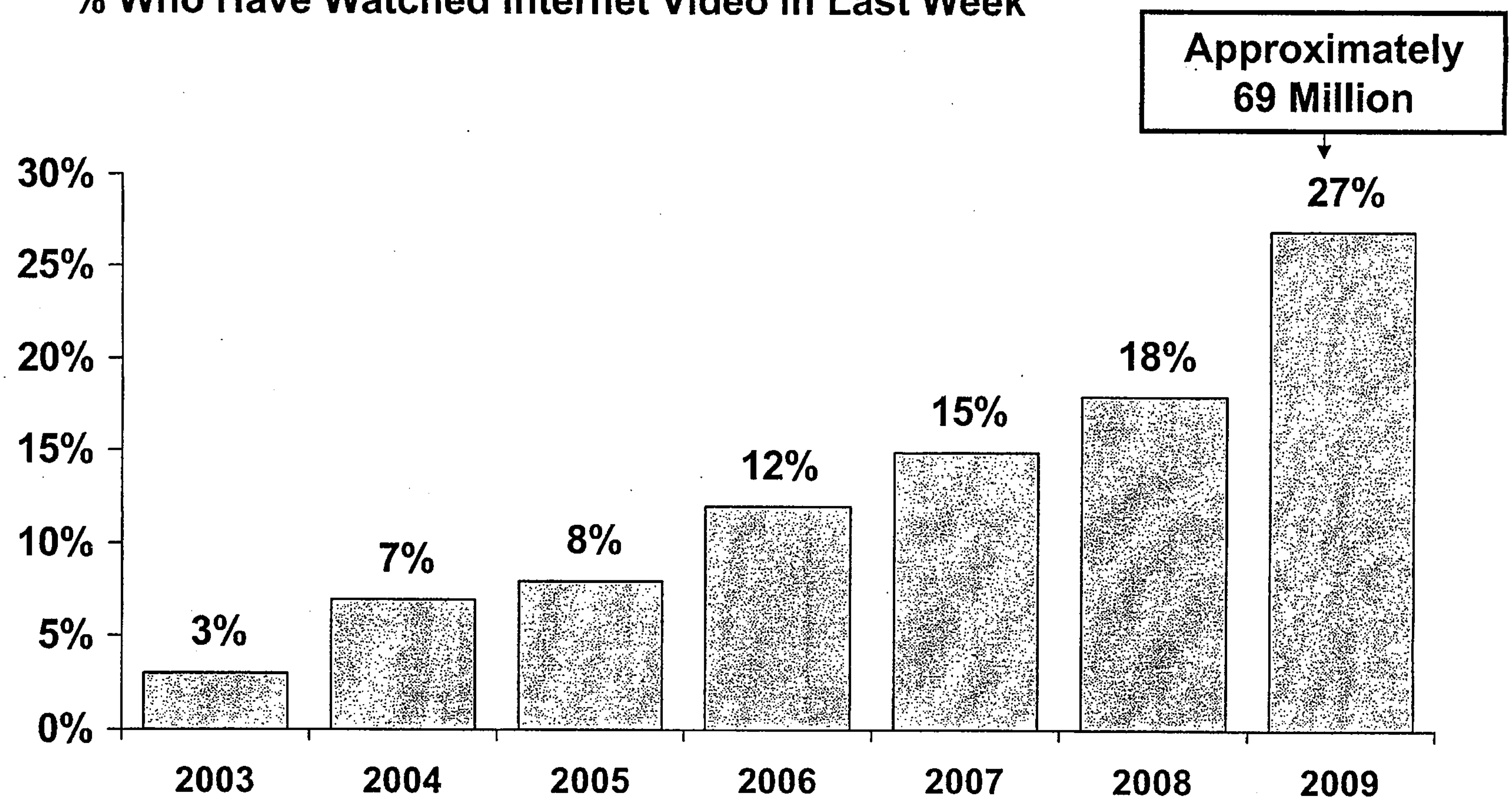
ARBITRON

Sponsored by TargetSpot™

edison research

Weekly Internet Video Audience Explodes in Last Year

% Who Have Watched Internet Video in Last Week



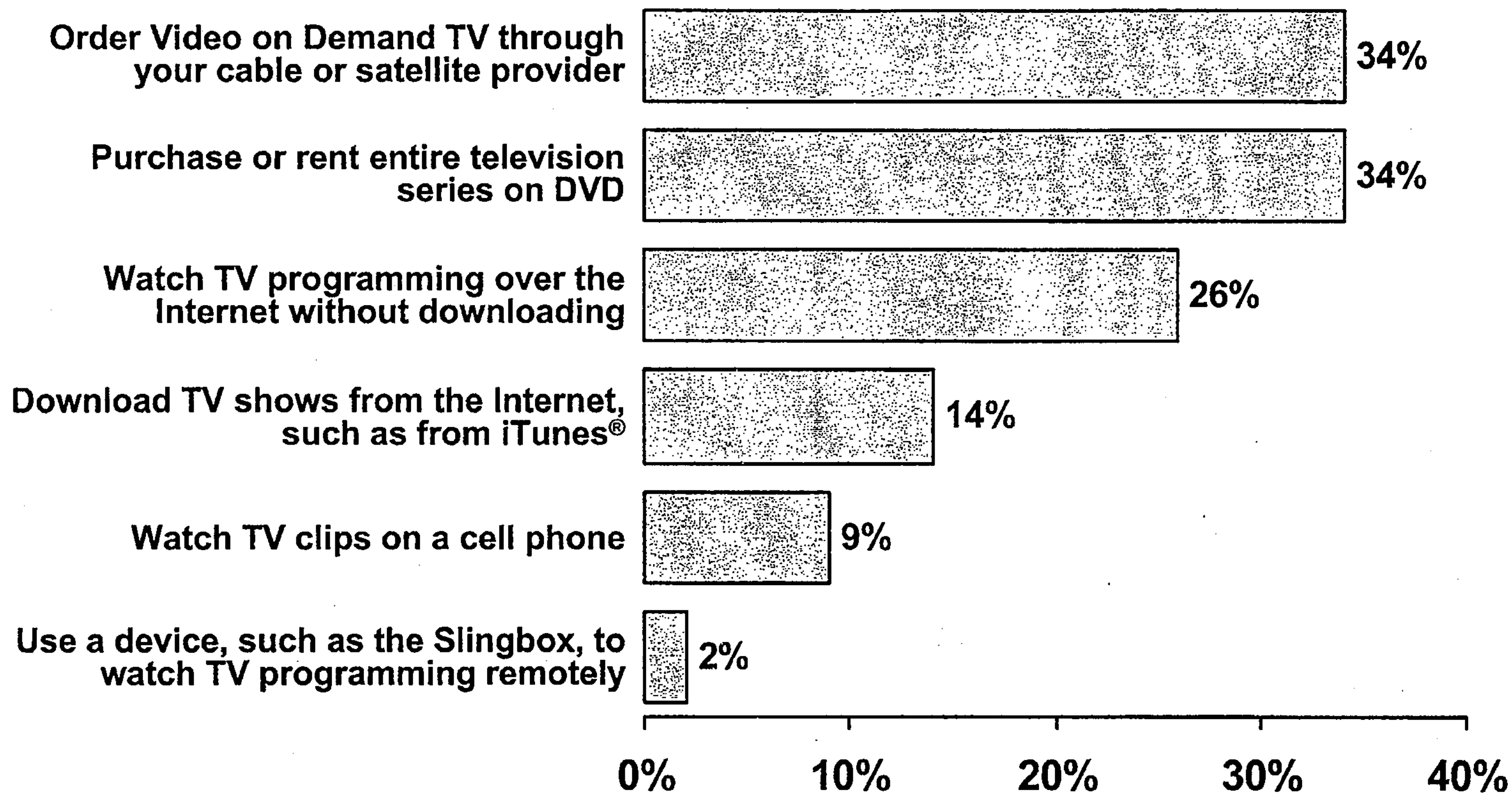
ARBITRON

Base: Total Population 12+

edison research

Americans Looking "Outside the Box" for TV Programming

"Have you ever watched TV programming in this manner?"



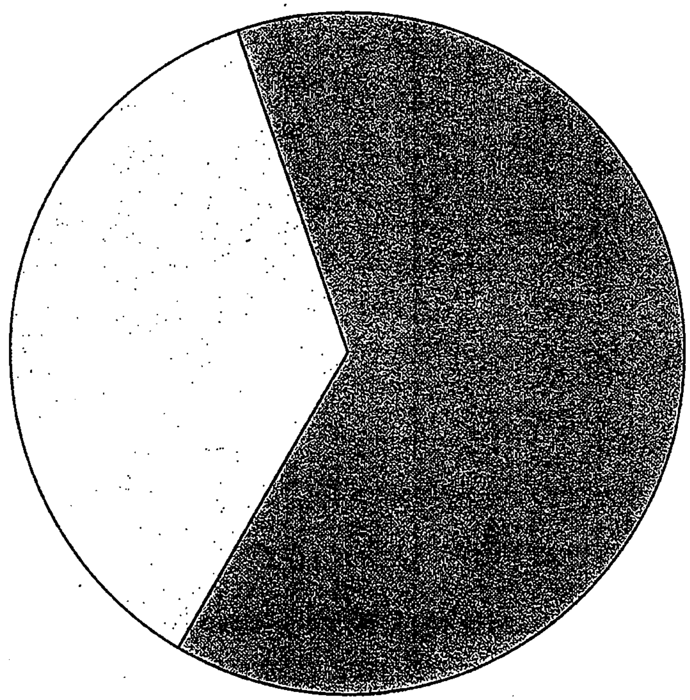
ARBITRON

Base: Total Population 12+

edison research

Nearly Two-Thirds of Monthly Online Radio Listeners Watched Online Video In Past Month

% of Monthly Online Radio Listeners Who Have Watched Online Video in Past Month



ARBITRON

Base: Monthly Online Radio Listeners

edison research

Digital Audio Players

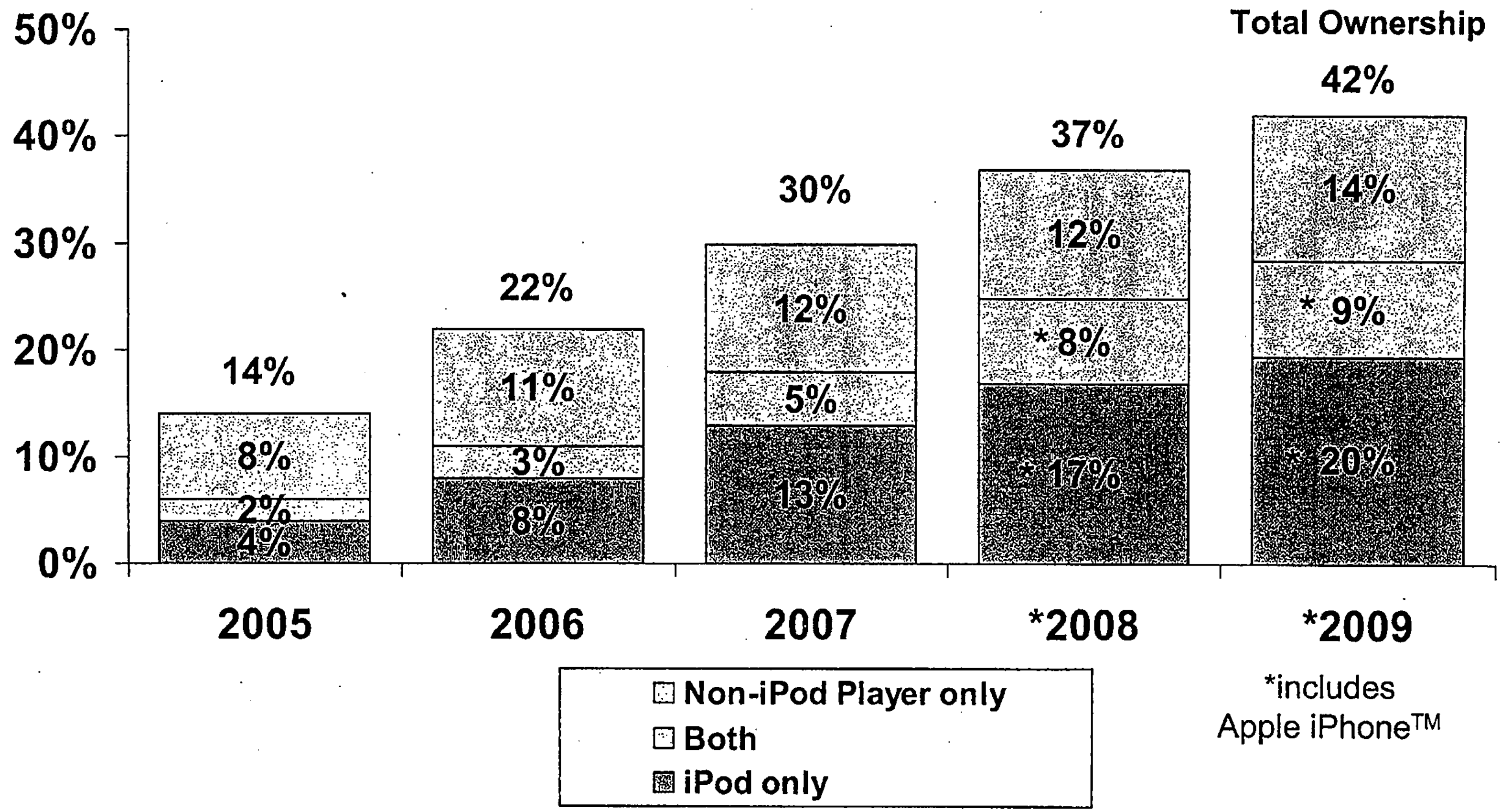
ARBITRON

Sponsored by TargetSpot™

edison research

More Than Four in 10 Now Own an iPod®/Portable MP3 Player

% Who Own...



*includes Apple iPhone™

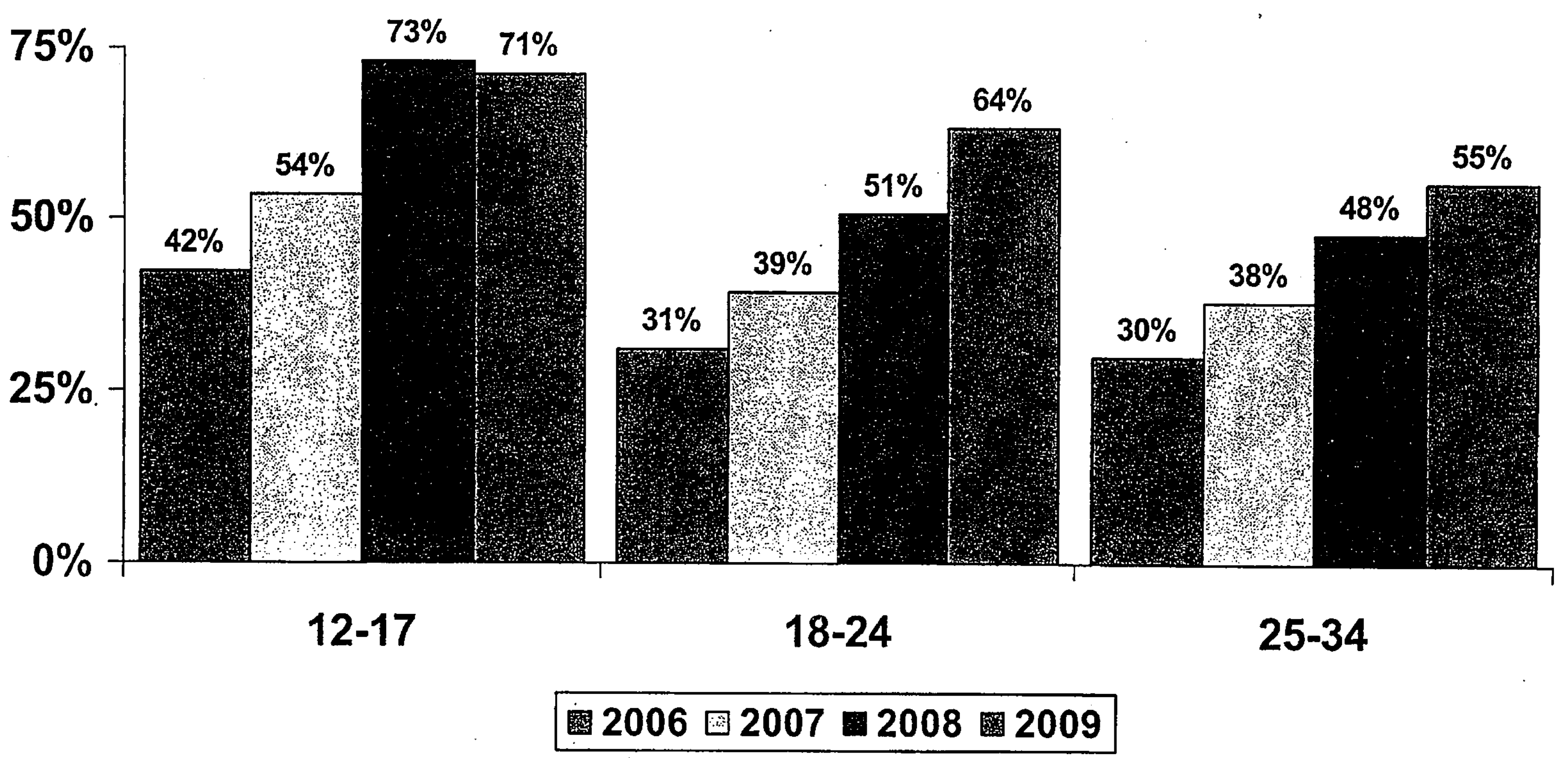
ARBITRON

Base: *Total Population 12+*

edison research

Most 12-34s Now Own an iPod/Portable MP3 Player

% by Age Group Who Own an iPod or Other Portable MP3 Player

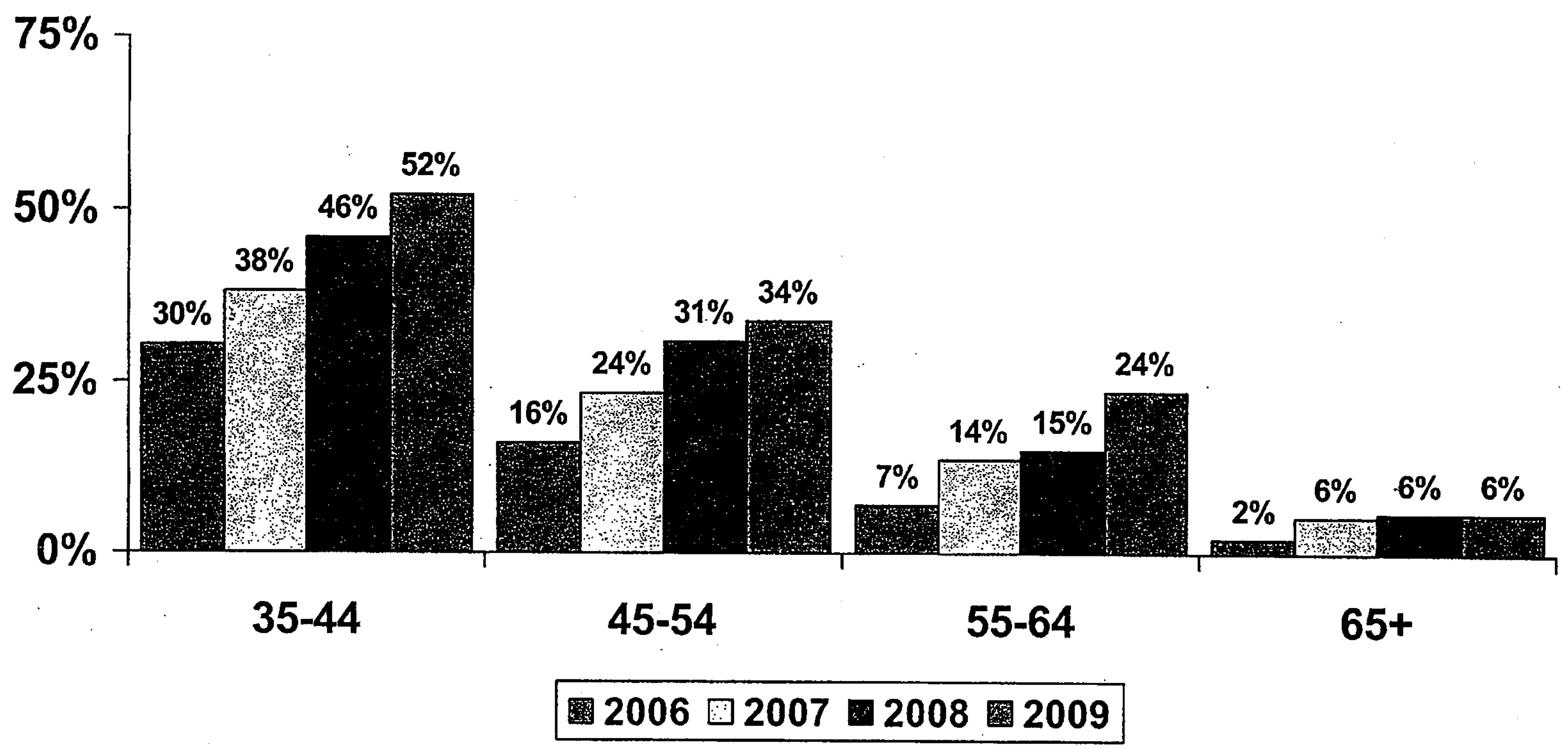


ARBITRON

edison research

Growth of iPod/Portable MP3 Ownership Continues Among 35-64s

% by Age Group Who Own an iPod or Other Portable MP3 Player

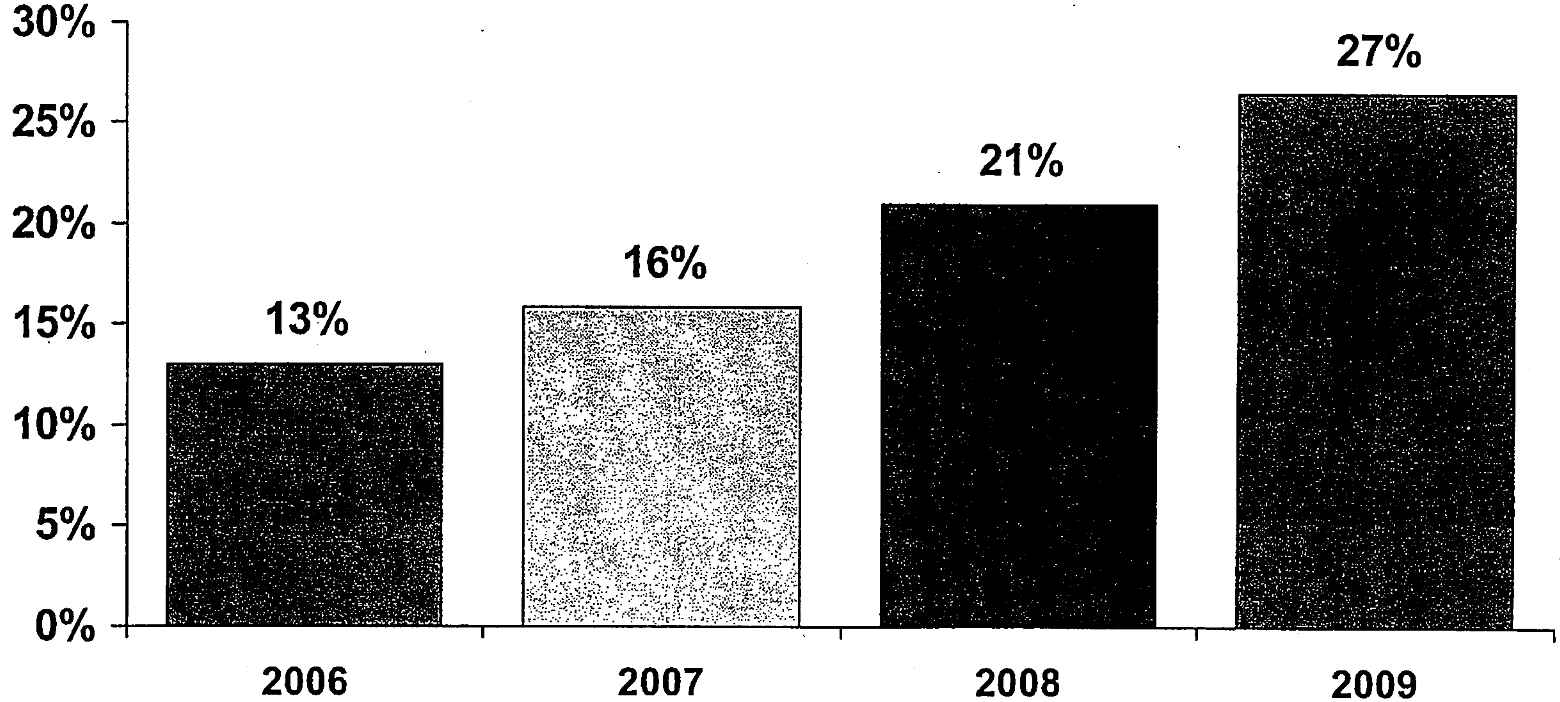


ARBITRON

edison research

More Than One in Four Have Purchased Digital Audio Online

% Having Purchased MP3s or
Other Digital Audio From an Online Download Service



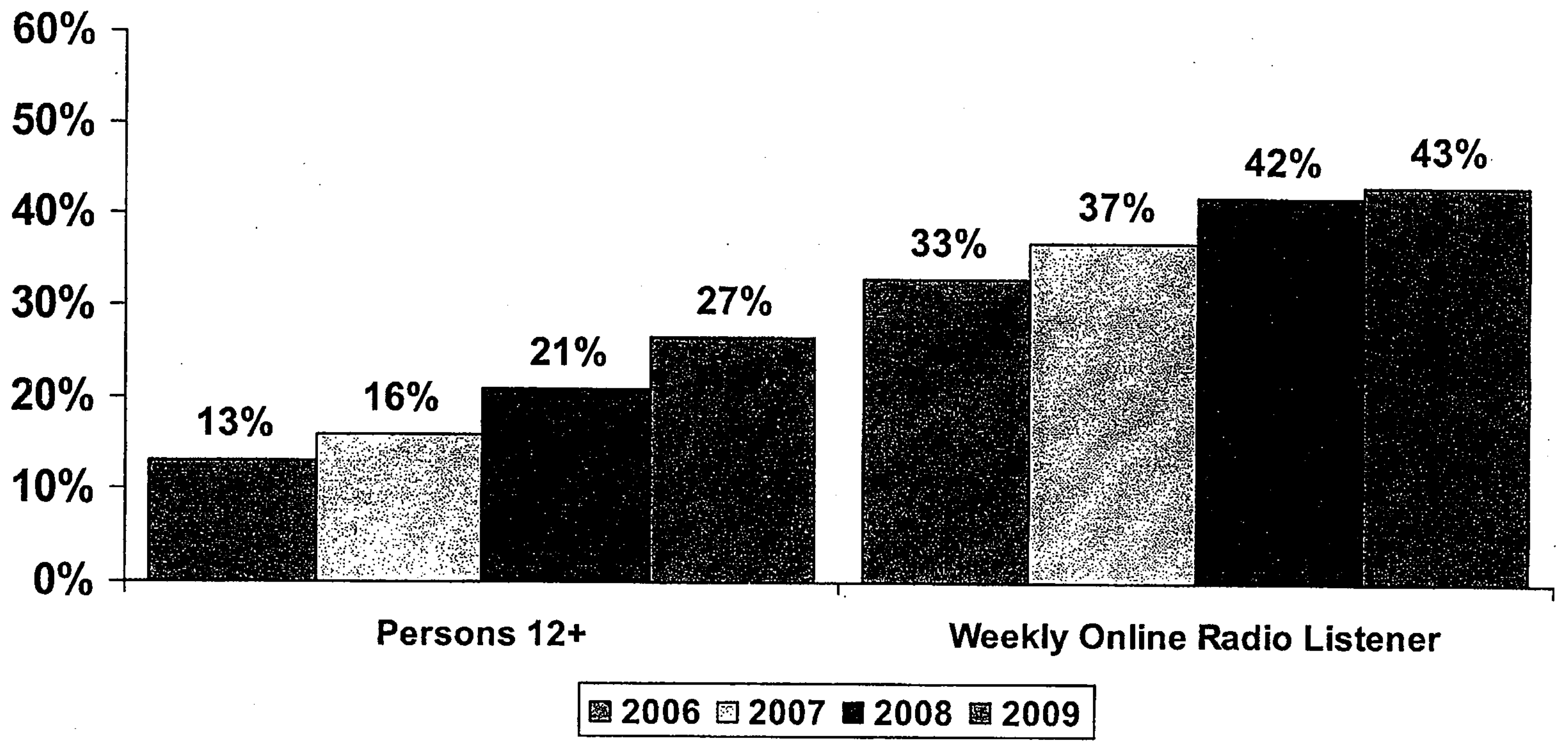
ARBITRON

Base: Total Population 12+

edison research

Online Radio Listeners More Likely to Have Purchased Digital Audio Online

% Having Purchased MP3s or
Other Digital Audio From an Online Download Service

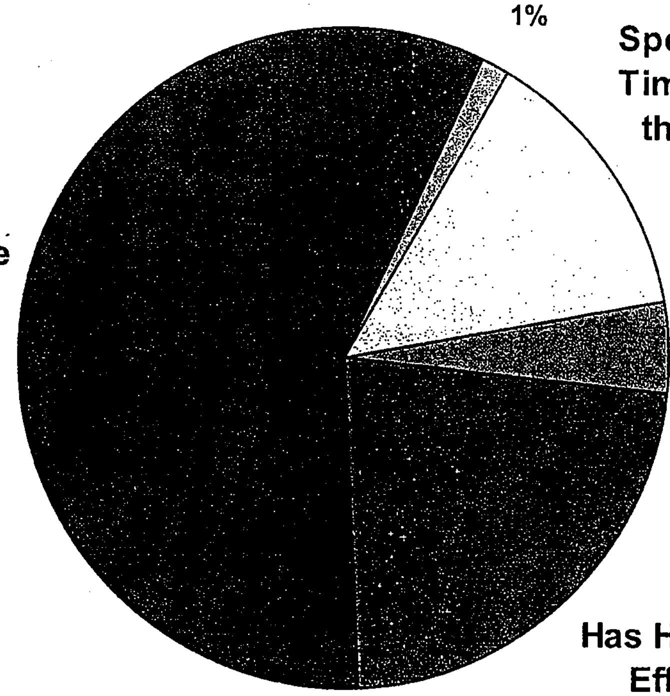


ARBITRON

edison research

One in Seven Report Less Radio Listening Due to Time Spent With iPod/MP3 Player

"How has the time you spend with your iPod or other MP3 player specifically impacted the time you spend listening to over-the-air radio?"



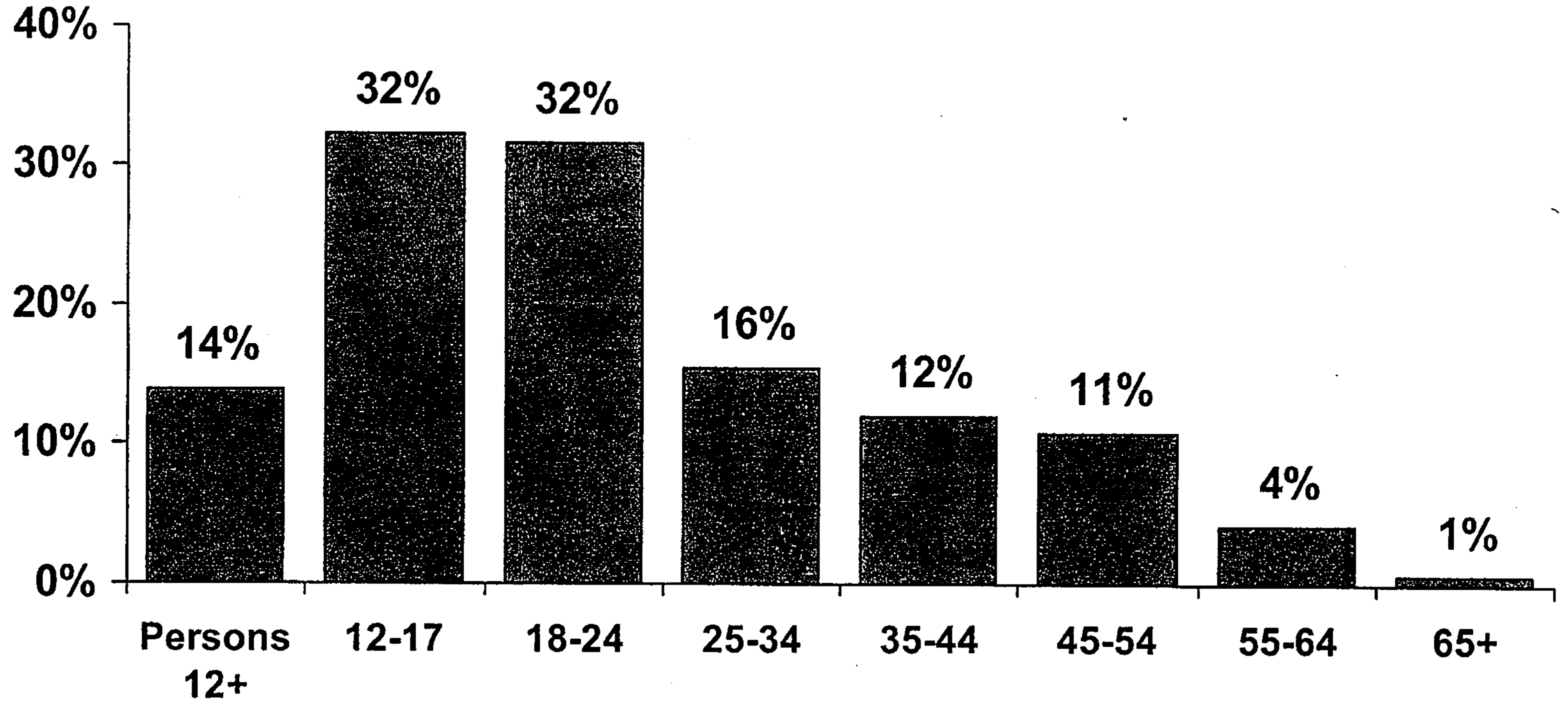
ARBITRON

Base: Total Population 12+

edison research

iPod/MP3 Player Has Greater Impact On Radio Among 12- to 24-Year-Olds

% by Age Group Who Are Spending Less Time With Over-the-Air Radio Specifically Due to Time Spent with iPod/Other Portable MP3 Player



ARBITRON

edison research

Podcasting

ARBITRON

Sponsored by TargetSpot™

edison research

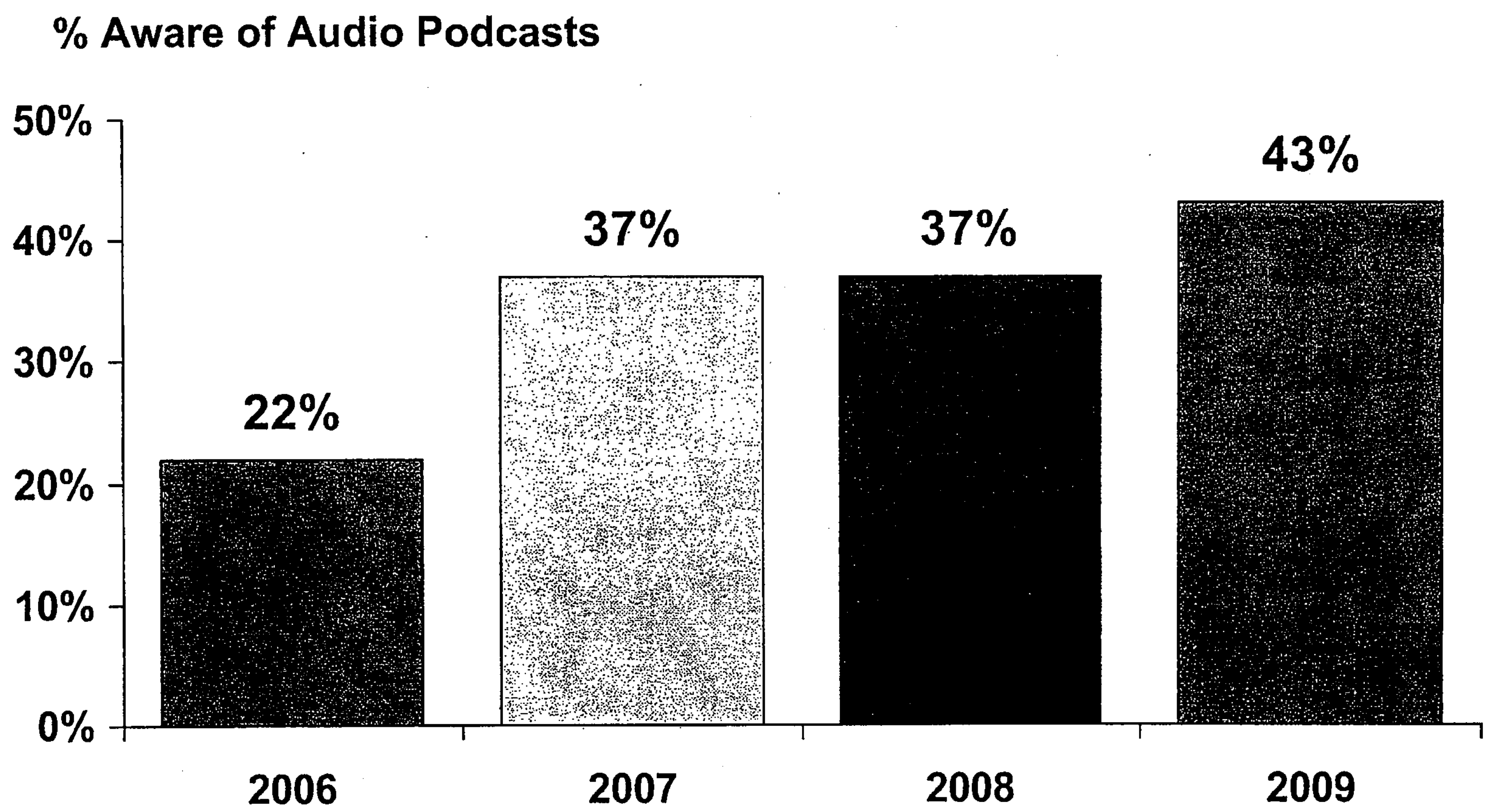
Understanding Podcasting

"Audio podcasting is the concept of downloading various types of longer-form online audio programs, in the form of digital files you can listen to at any time you choose.

Audio podcasting does NOT refer to the downloading of individual MP3s or songs.

Audio podcasting does refer to the download of program-oriented online audio (such as a talk show or a hosted music program), usually as an automatic download that can be listened to at the user's convenience."

More Americans Are Aware of Audio Podcasts

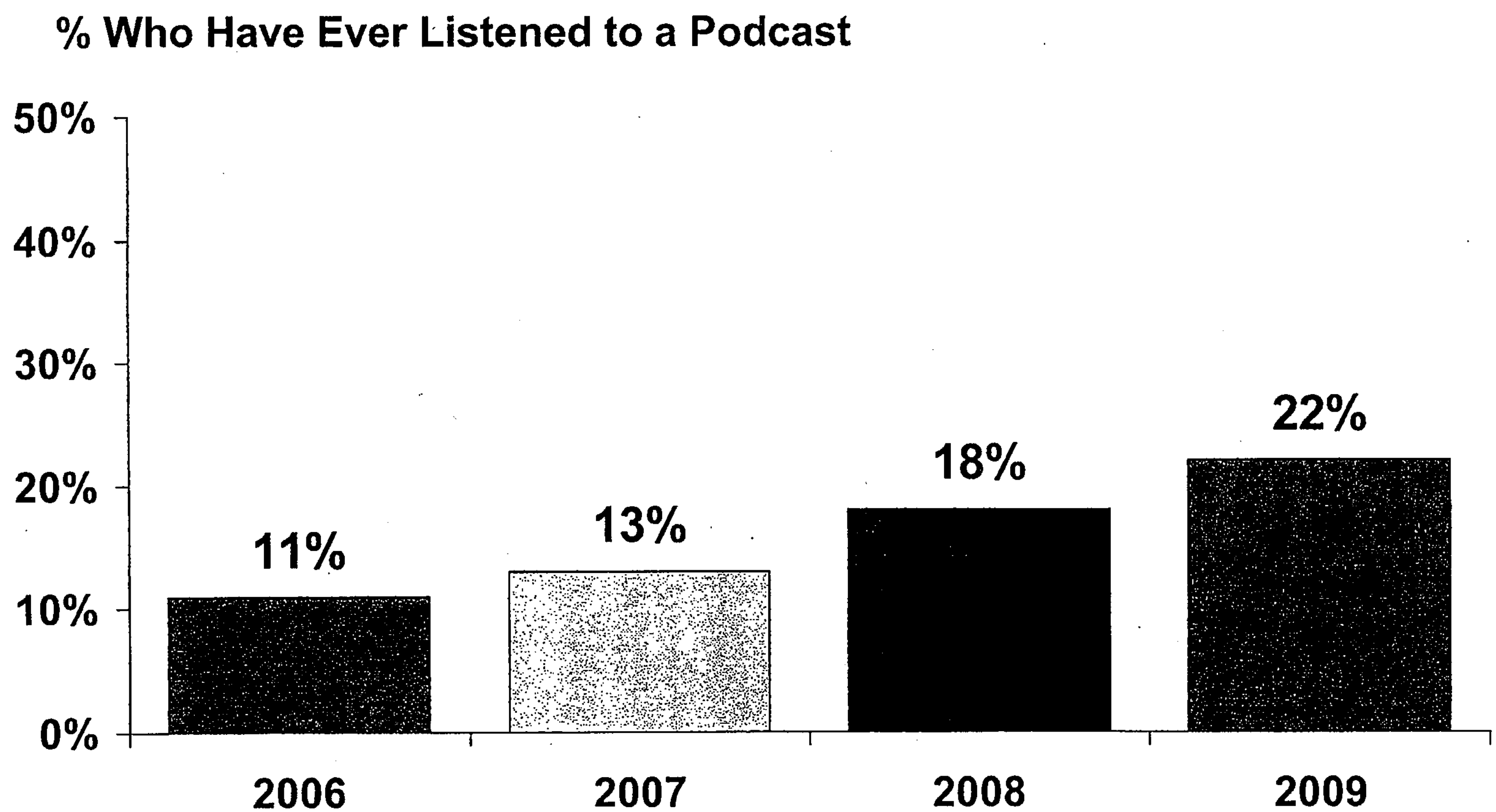


ARBITRON

Base: Total Population 12+

edison research

One in Five Americans Have Ever Listened to an Audio Podcast



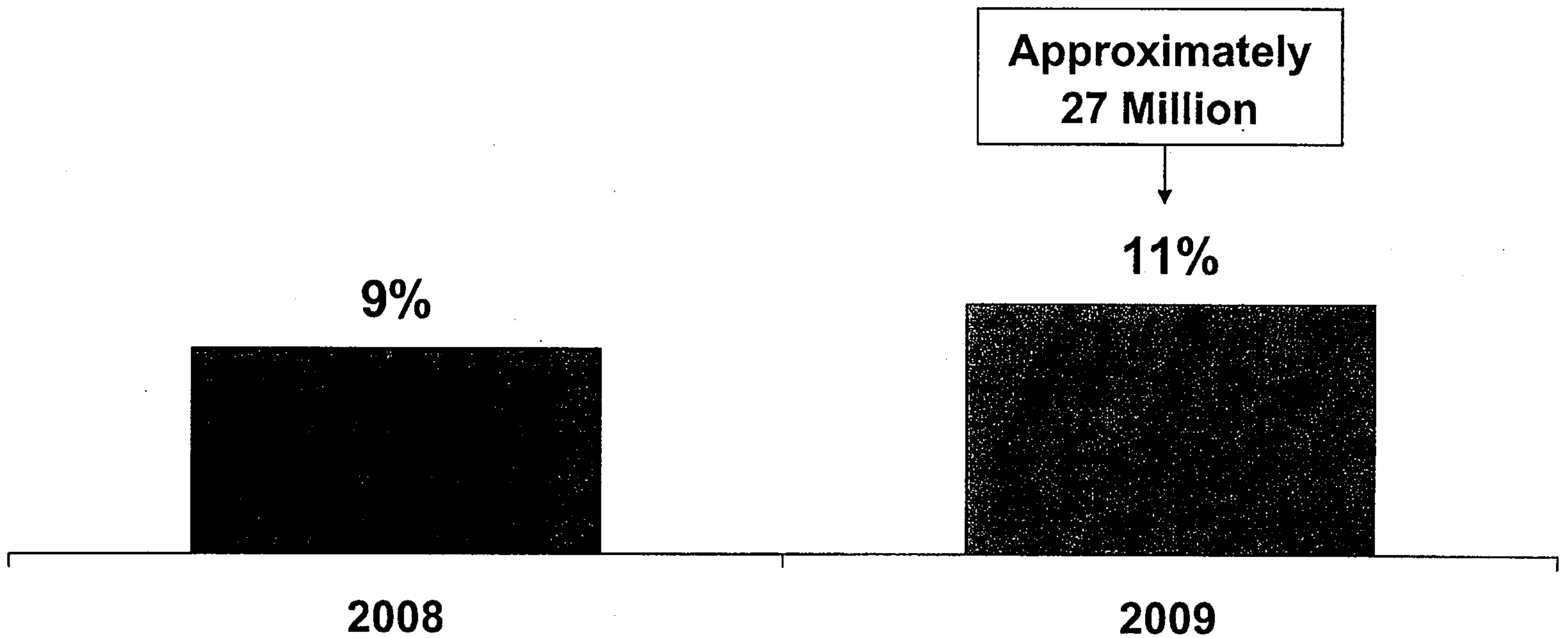
ARBITRON

Base: Total Population 12+

edison research

An Estimated 27 Million Americans Have Listened to a Podcast in the Last Month

% Who Have Listened to a Podcast in the Last Month



ARBITRON

Base: Total Population 12+

edison research

Social Networking

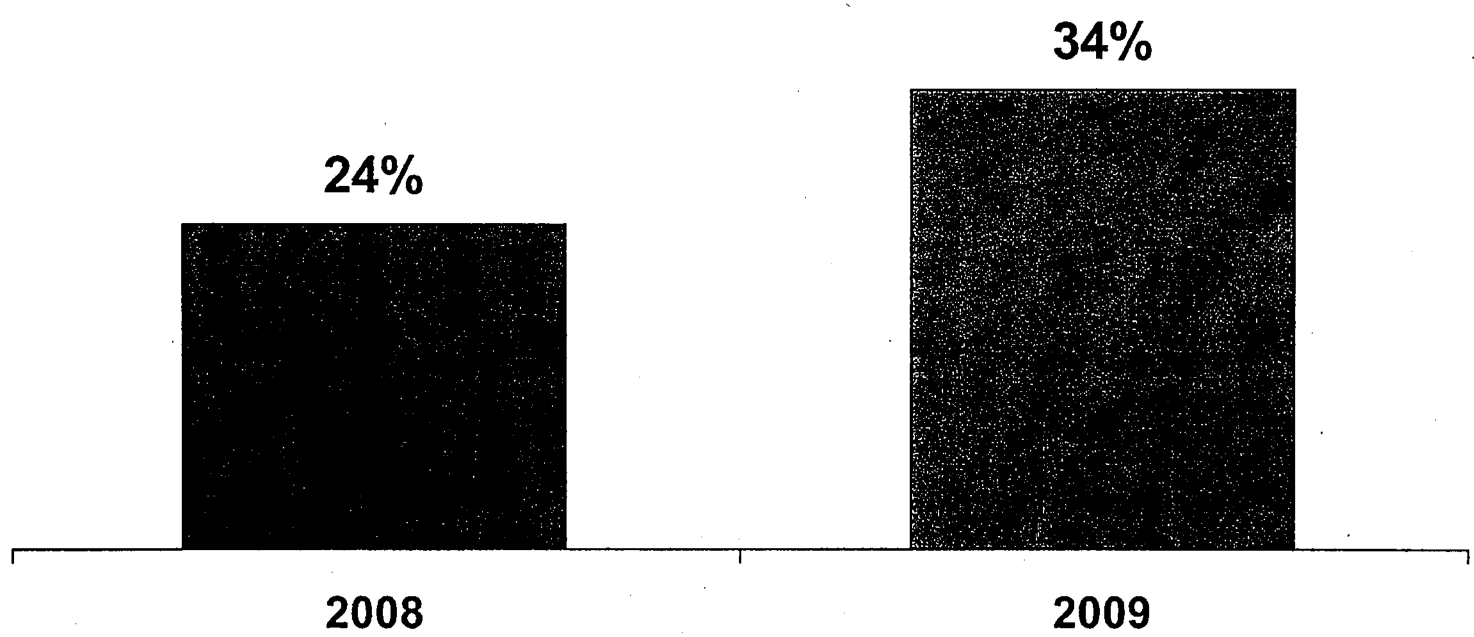
ARBITRON

Sponsored by TargetSpot™

edison research

One in Three Americans Have a Profile on a Social Networking Site

% Who Currently Have a Personal Profile Page on Facebook, MySpace, LinkedIn or Any Other Social Networking Web Site



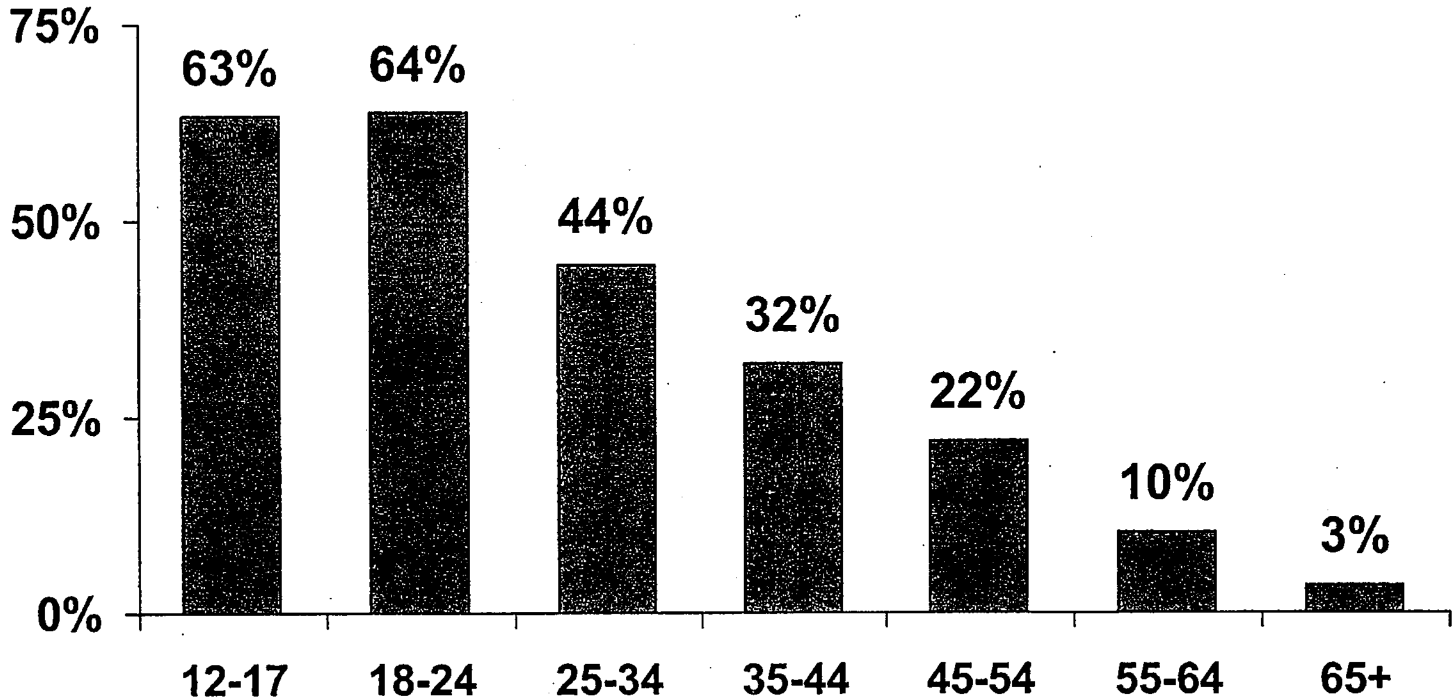
ARBITRON

Base: Total Population 12+

edison research

Nearly Two-Thirds of Teens and 18-24s Have a Social Networking Profile

% by Age Group Who Currently Have a Personal Profile Page on Facebook, MySpace, LinkedIn or Any Other Social Networking Web Site

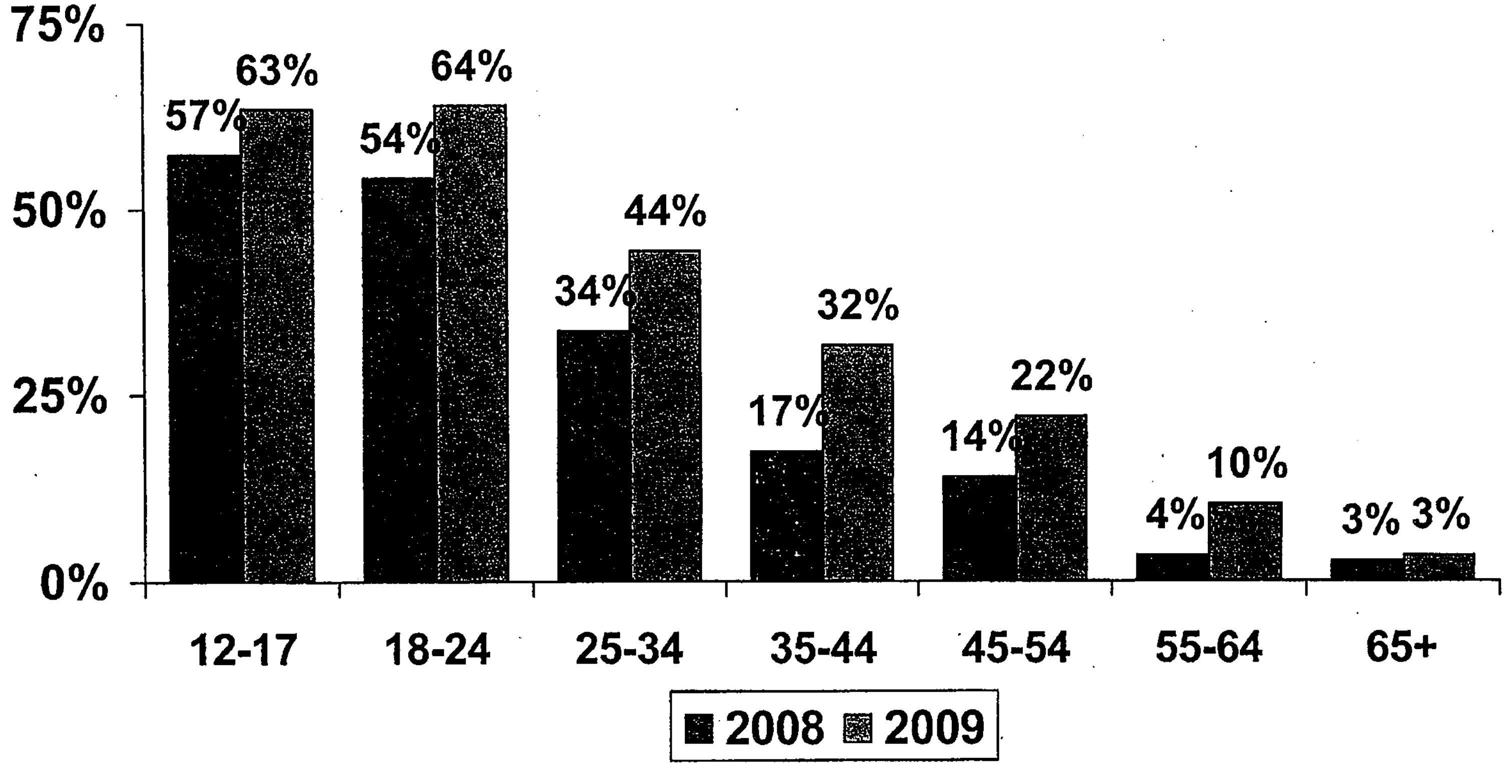


ARBITRON

edison research

Nearly Two-Thirds of Teens and 18-24s Have a Social Networking Profile

% by Age Group Who Currently Have a Personal Profile Page on Facebook, MySpace, LinkedIn or Any Other Social Networking Web Site

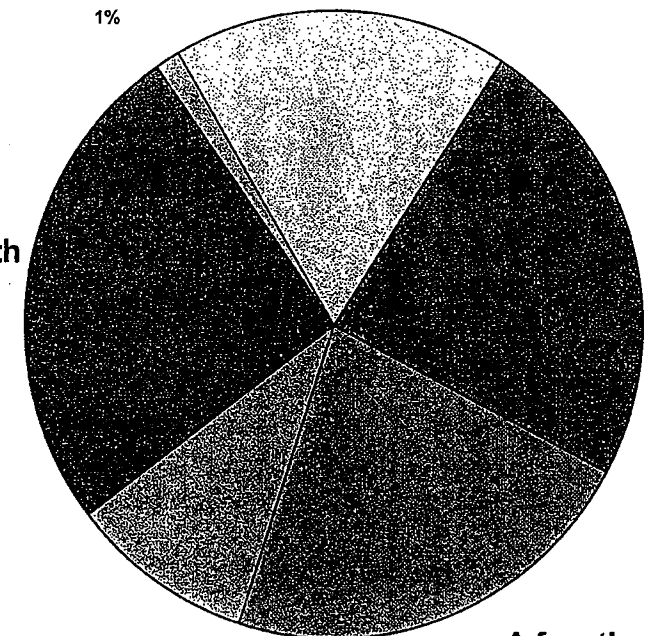


ARBITRON

edison research

More Than Four in 10 With a Social Network Profile Visit Those Sites Nearly Every Day or More

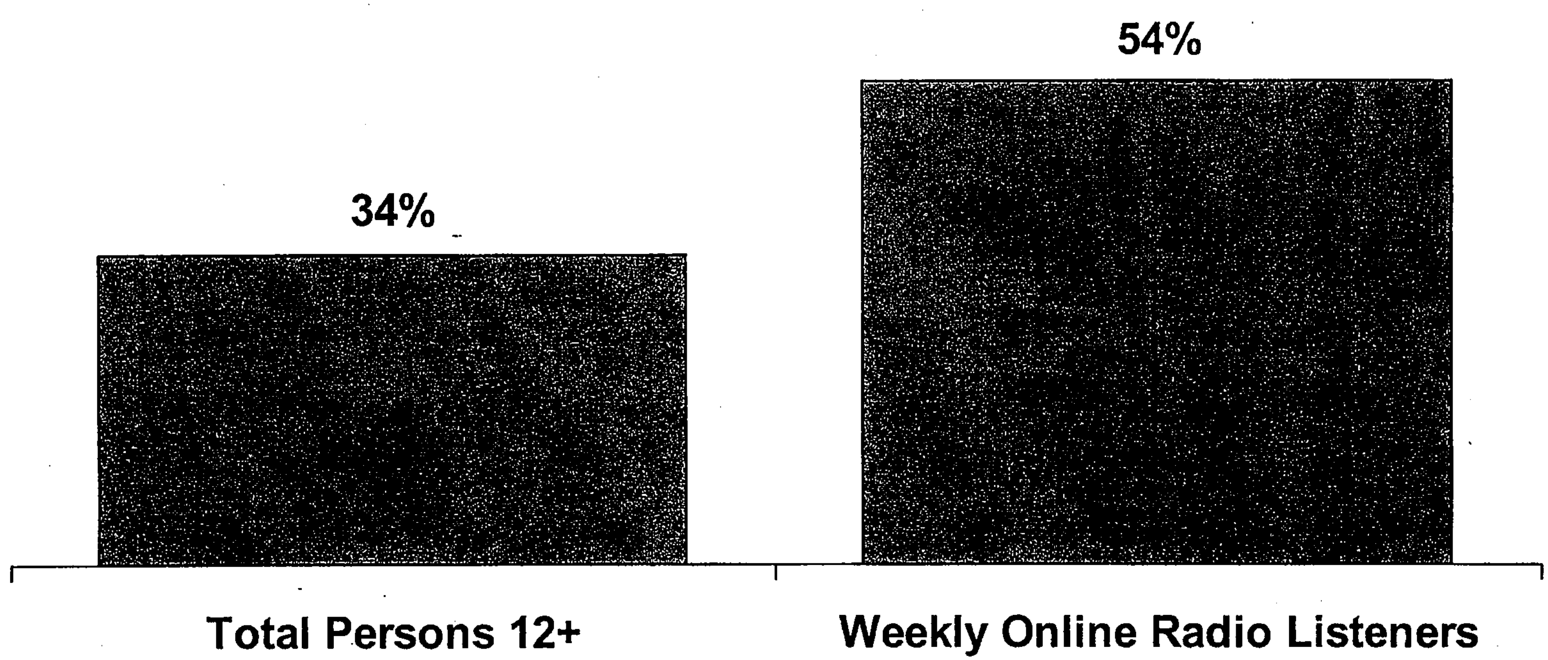
"How often do you use social networking Web sites?"



Base: Have a Personal Profile Page on Social Networking Web Site

Weekly Online Radio Listeners Much More Likely to Have a Profile Page on Social Networking Sites

% Who Currently Have a Personal Profile Page on Facebook, MySpace, LinkedIn or Any Other Social Networking Web Site

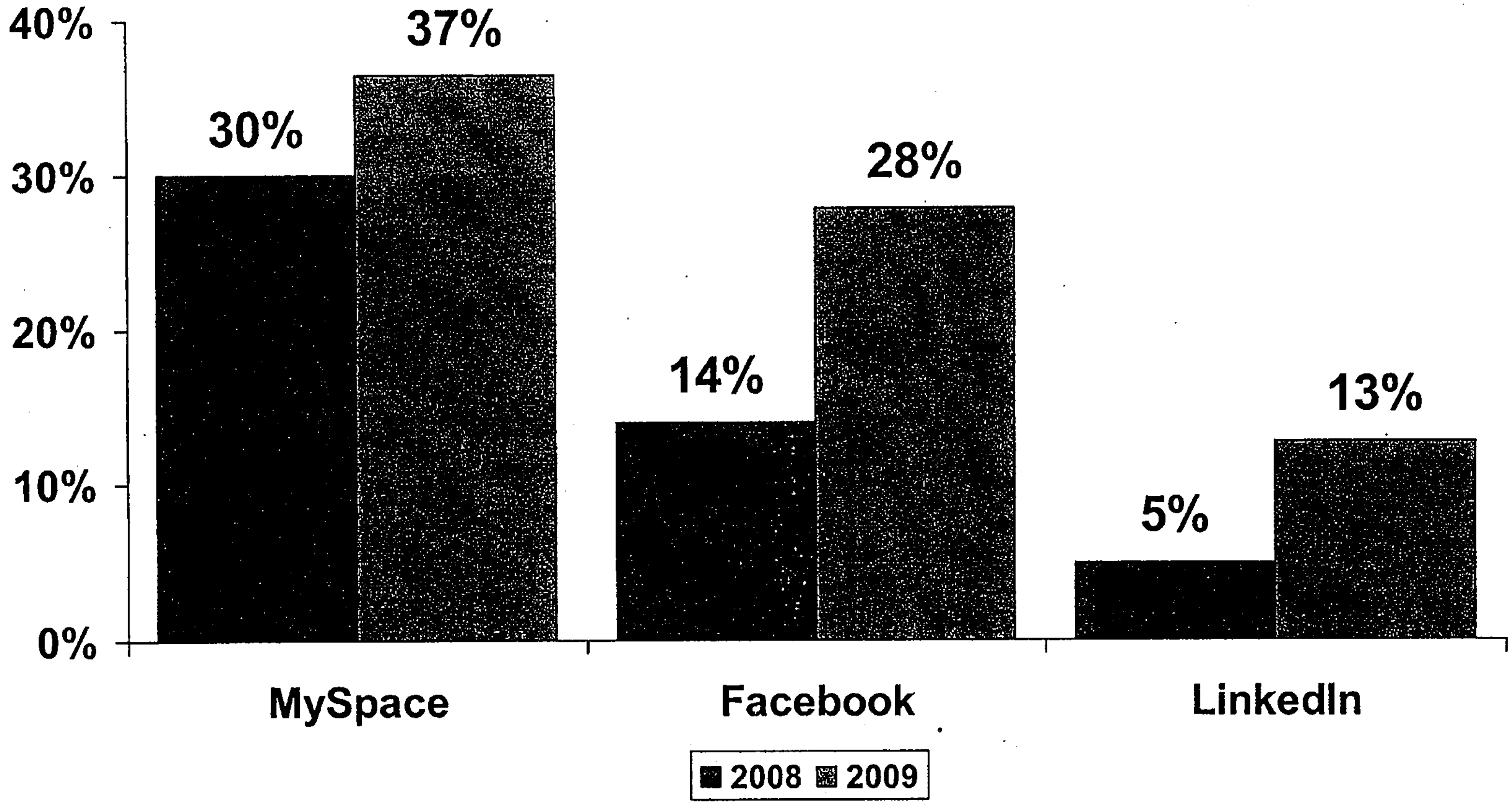


ARBITRON

edison research

Major Social Networking Web Sites All Show Huge Gains for Usage Among Weekly Online Radio Users

% of Online Radio Users Who Currently Have a Personal Profile Page On...



Base: *Weekly Online Radio Listeners*

Satellite Radio

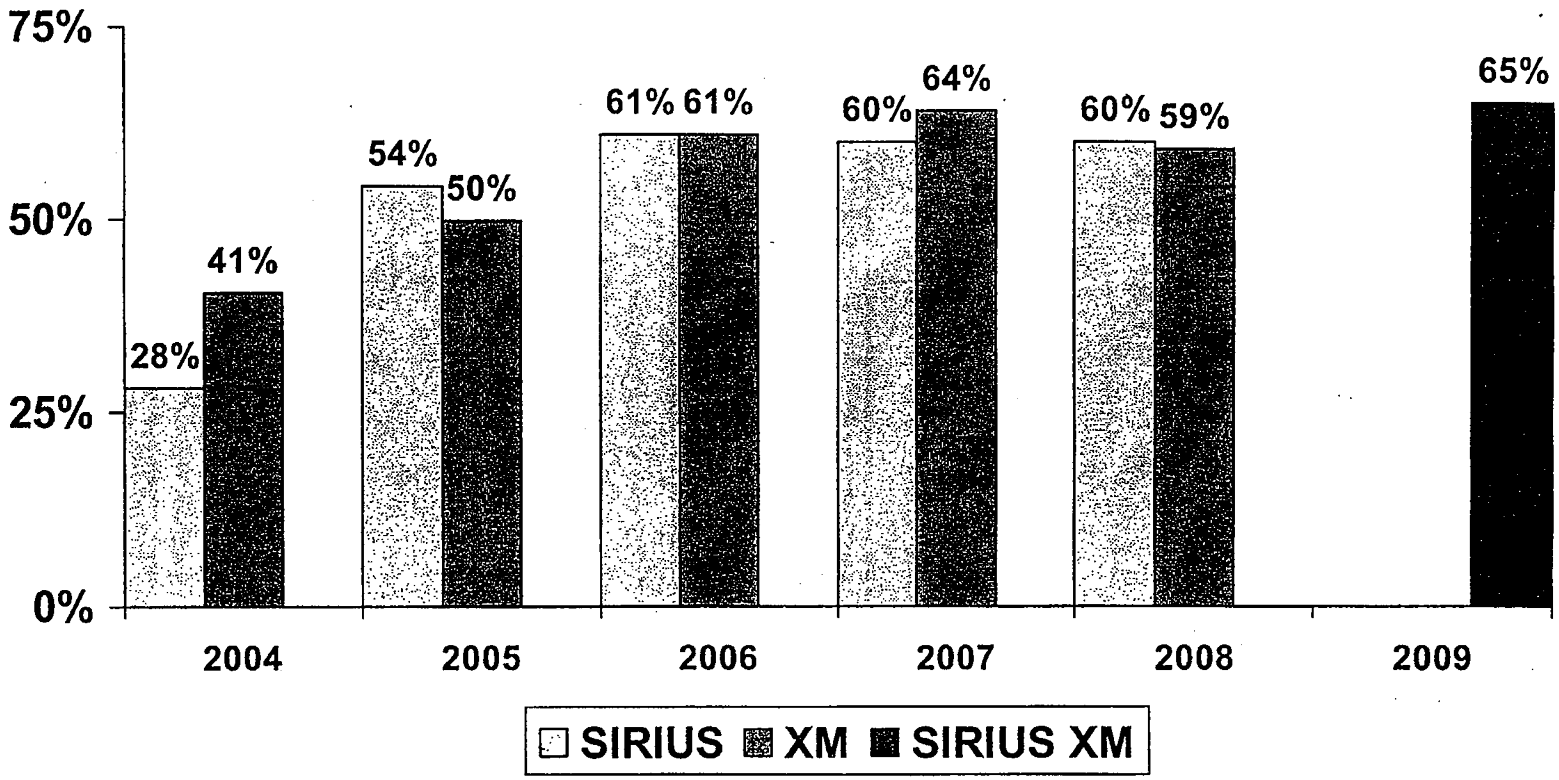
ARBITRON

Sponsored by TargetSpot™

edison research

Nearly Two-Thirds Aware of the Merged SIRIUS XM

"Have you ever heard of a satellite radio service called...?"



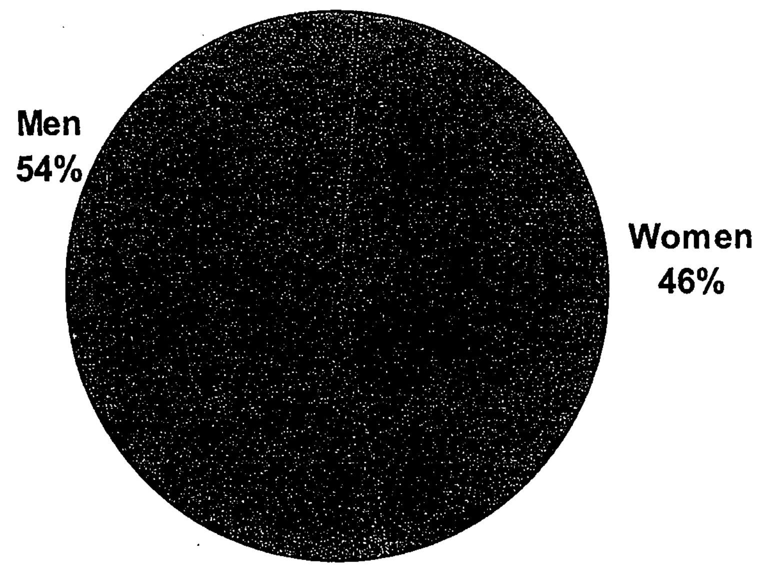
ARBITRON

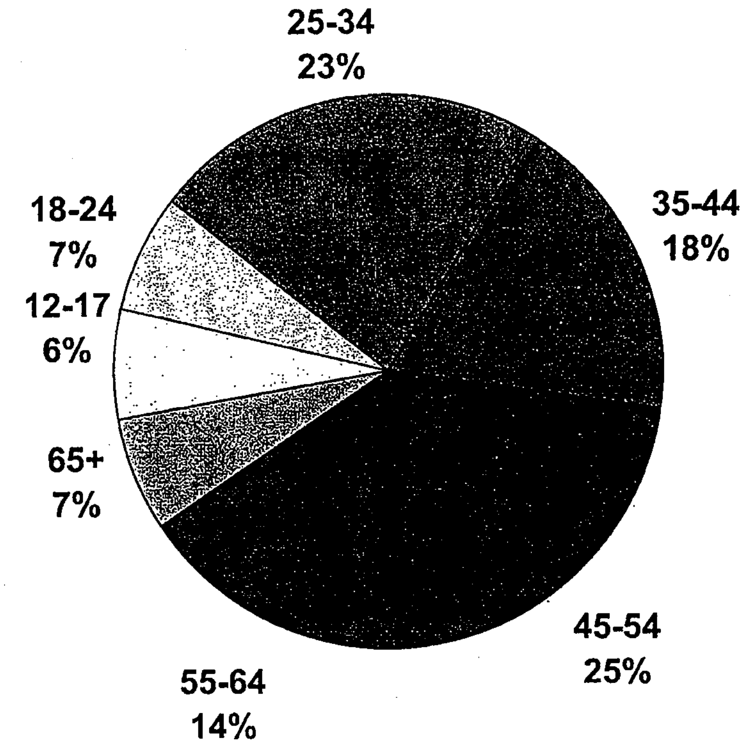
Base: Total Population 12+

edison research

Satellite Radio Attracts a Broad Audience Profile

Satellite Radio Subscriber Audience Composition





ARBITRON

edison research

HD Radio

ARBITRON

edison research

Understanding HD Radio

"HD Digital Radio is a new technology that enables AM and FM radio stations to broadcast their signals digitally, providing listeners with vastly improved audio quality.

In addition, HD Radio features new radio formats that may not be currently available on regular AM/FM radio in your area.

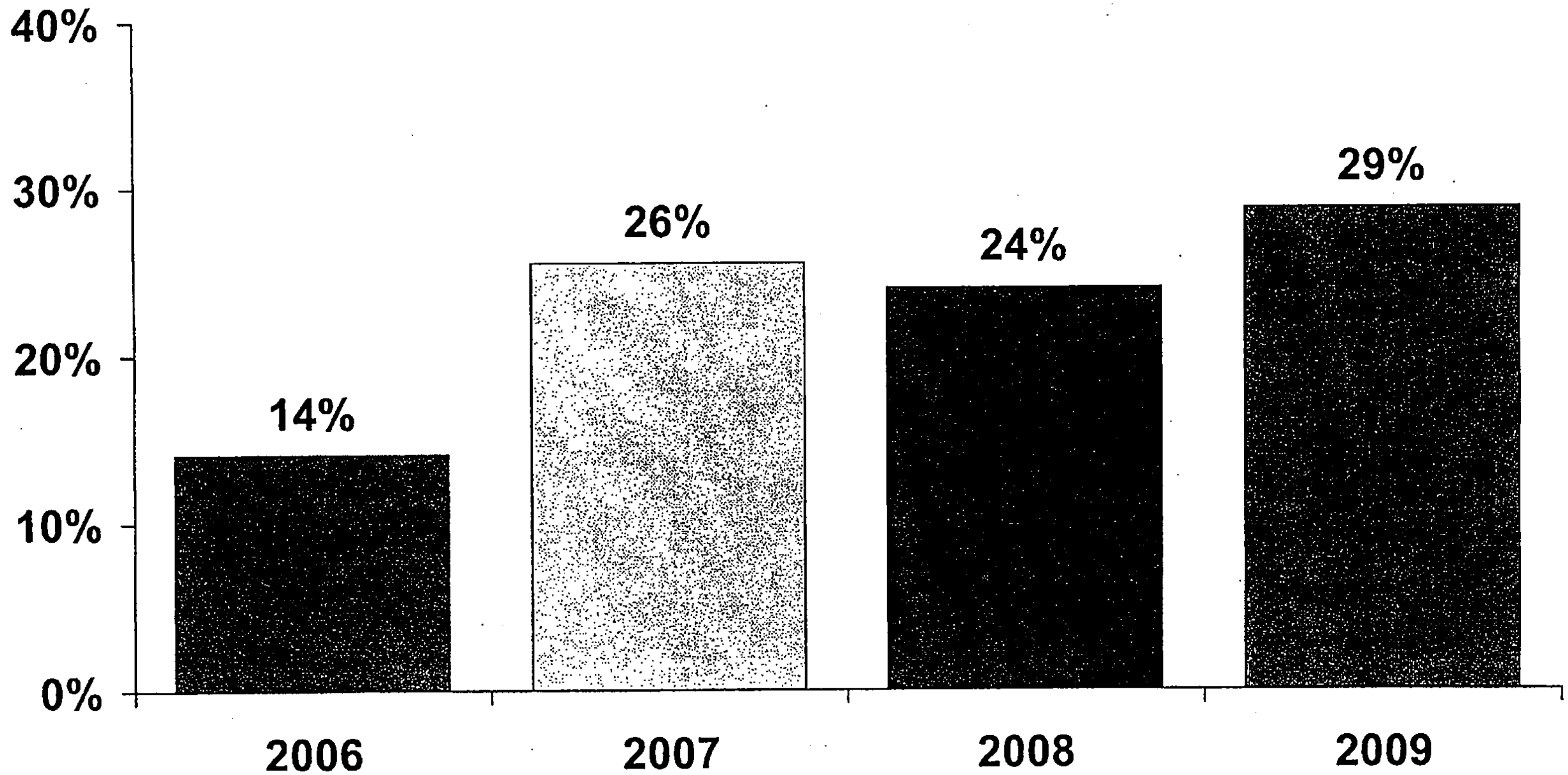
HD Radio also allows for a digital display with song information, weather reports and traffic alerts."

ARBITRON

edison research

Awareness of HD Radio Experiences Modest Growth Despite Heavy Promotion

% Who Have Heard/Read Anything Recently About HD Radio



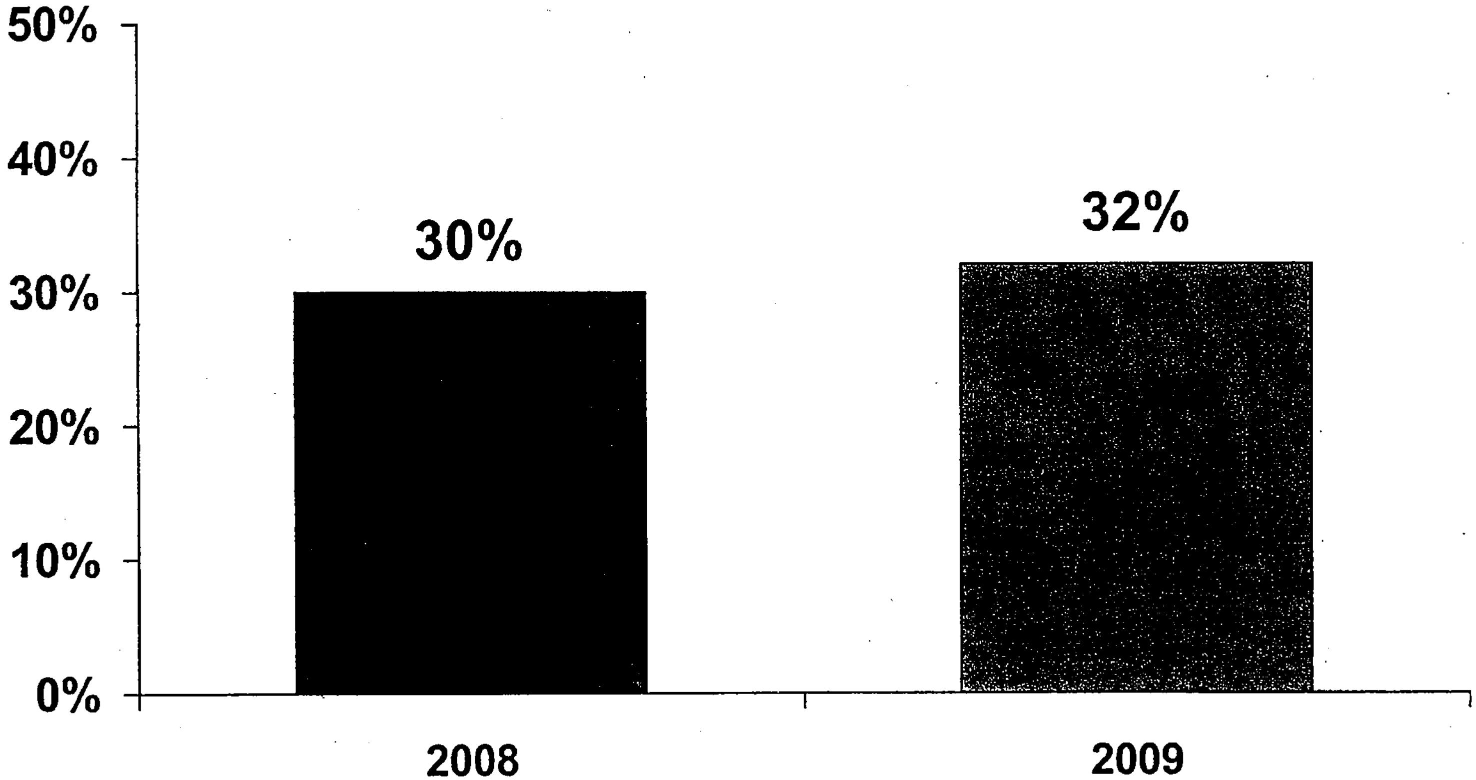
ARBITRON

Base: *Total Population 12+*

edison research

Nearly One-Third of Consumers Are Interested in HD Radio

% "Very" or "Somewhat" Interested in HD Radio Based on Description



Base: *Total Population 12+*

ARBITRON

edison research

AM/FM Radio

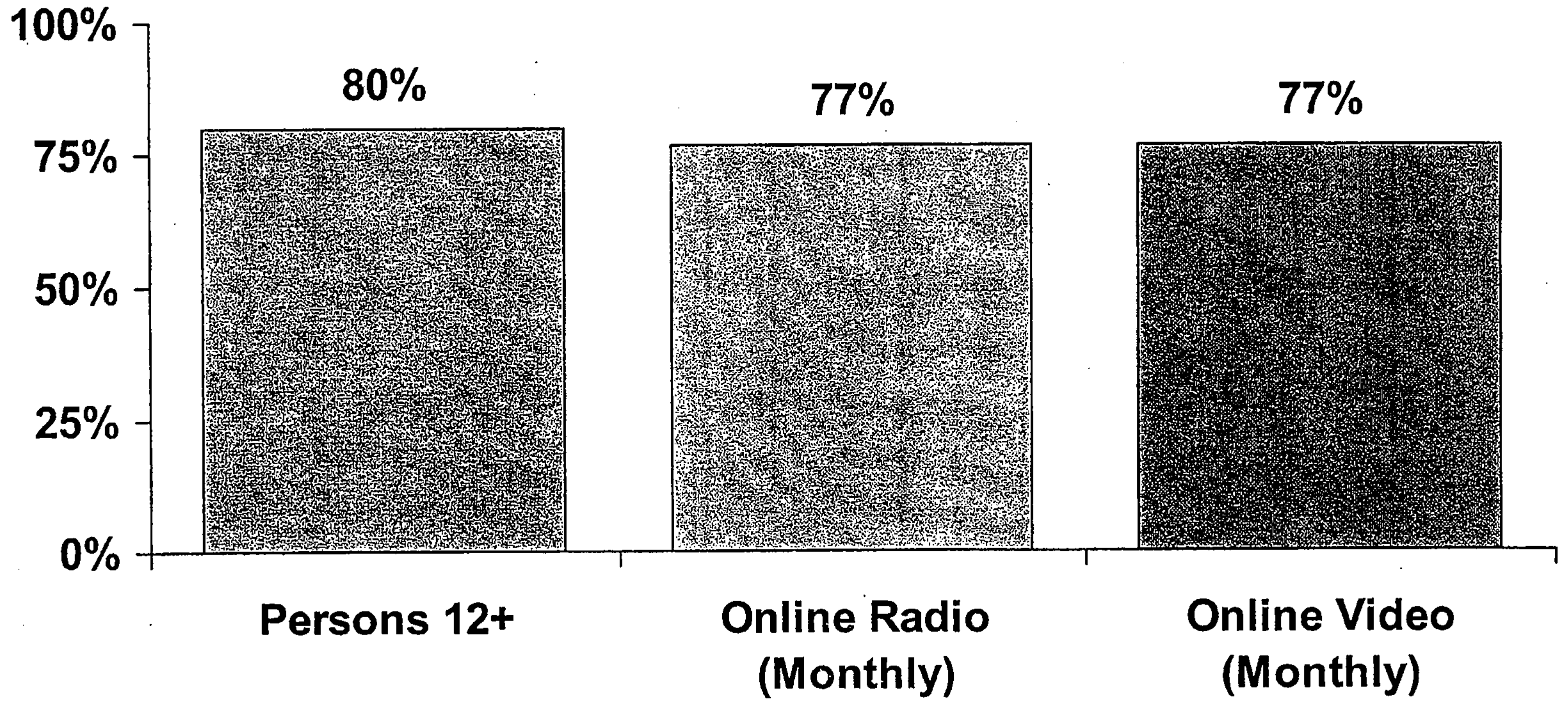
ARBITRON

Sponsored by TargetSpot™

edison research

Majority of "Digital Radio" Audience Expect to Listen Same Amount to AM/FM Radio in Future

% Agreeing: *"In the future, you will continue to listen to AM/FM radio as much as you do now, despite increasing advancements in technology?"*

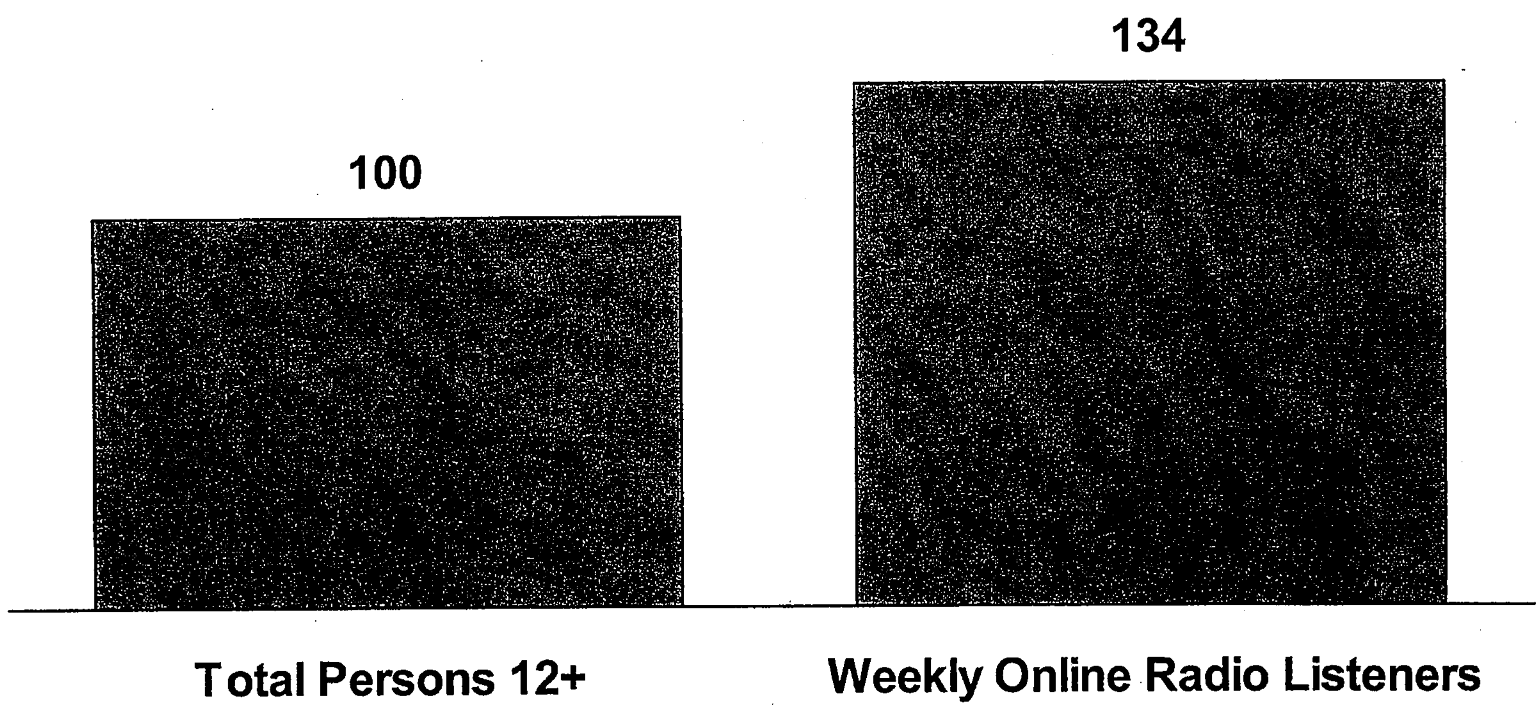


ARBITRON

edison research

Online Radio Users Do Not Report Spending Less Time With Radio

Index of Time Spent Listening to Radio per Day



ARBITRON

edison research

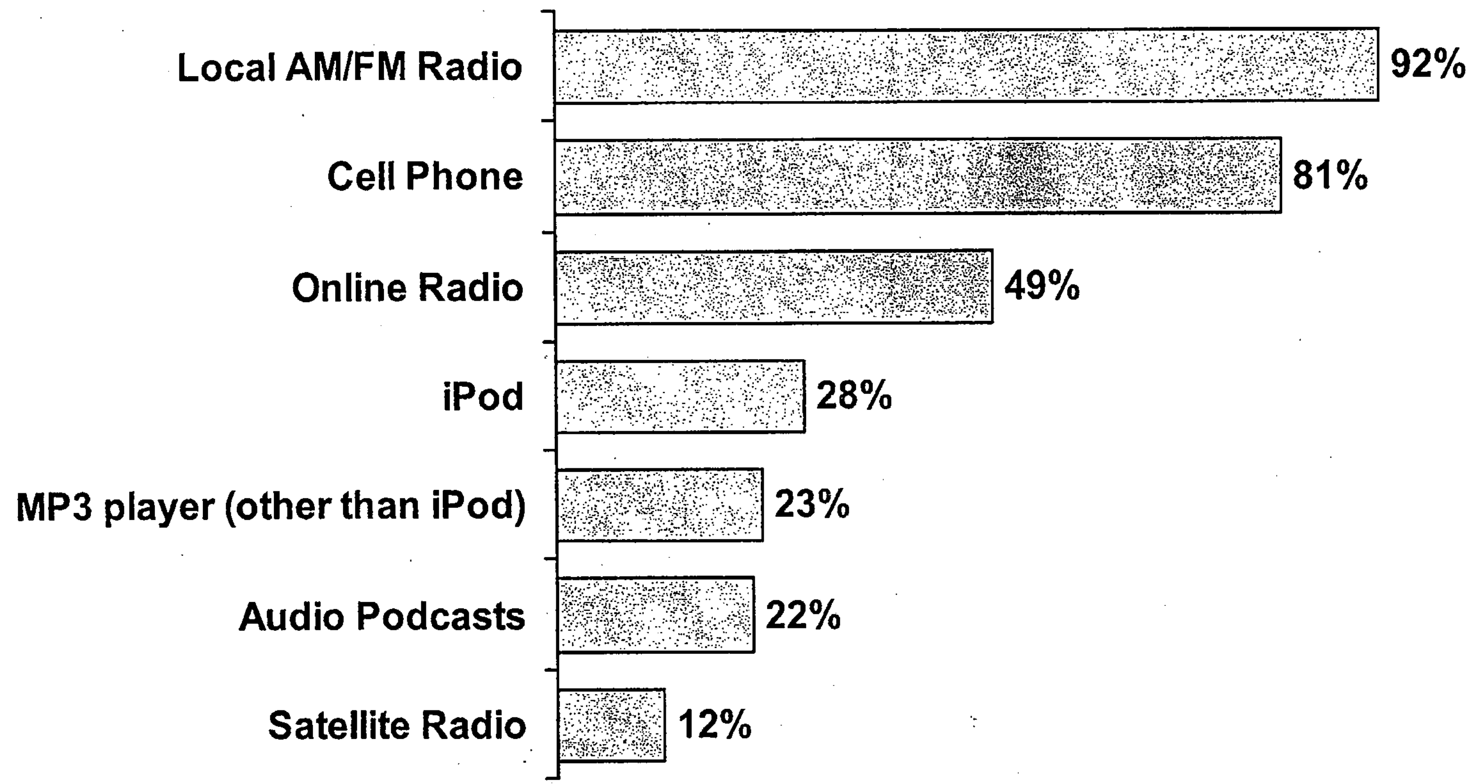
Audio Device/Platform

ARBITRON

edison research

Cell Phones and AM/FM Radio Have Most Far-Reaching Usage

% of Americans Aged 12 and Older Who Use/Own Platform/Device

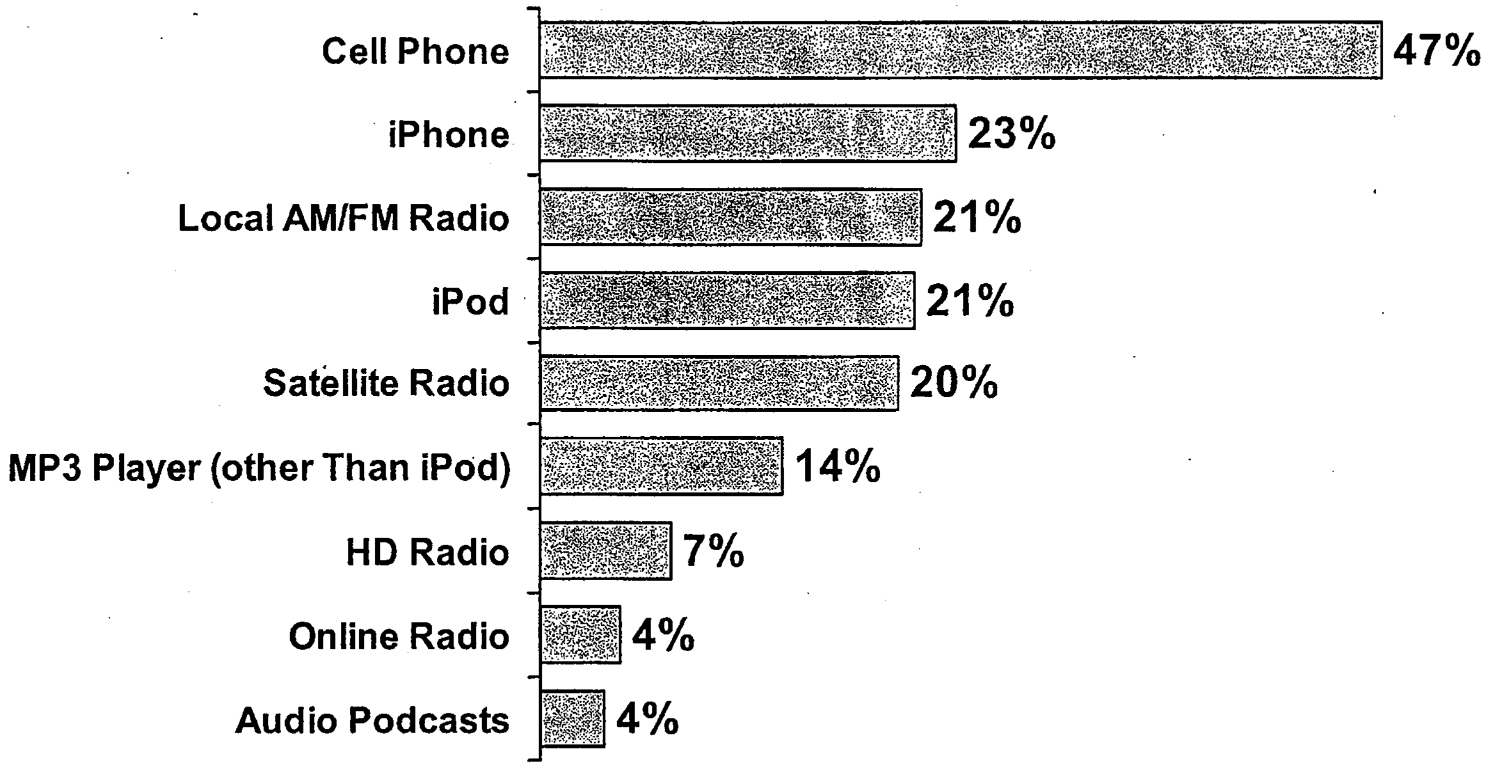


ARBITRON

edison research

Users of AM/FM Radio and iPod/iPhone Users Have Similar Enthusiasm for Respective Media/Devices

% of Owners/Users Who Say Platform/Device Has a "Big Impact" on Their Lives



ARBITRON

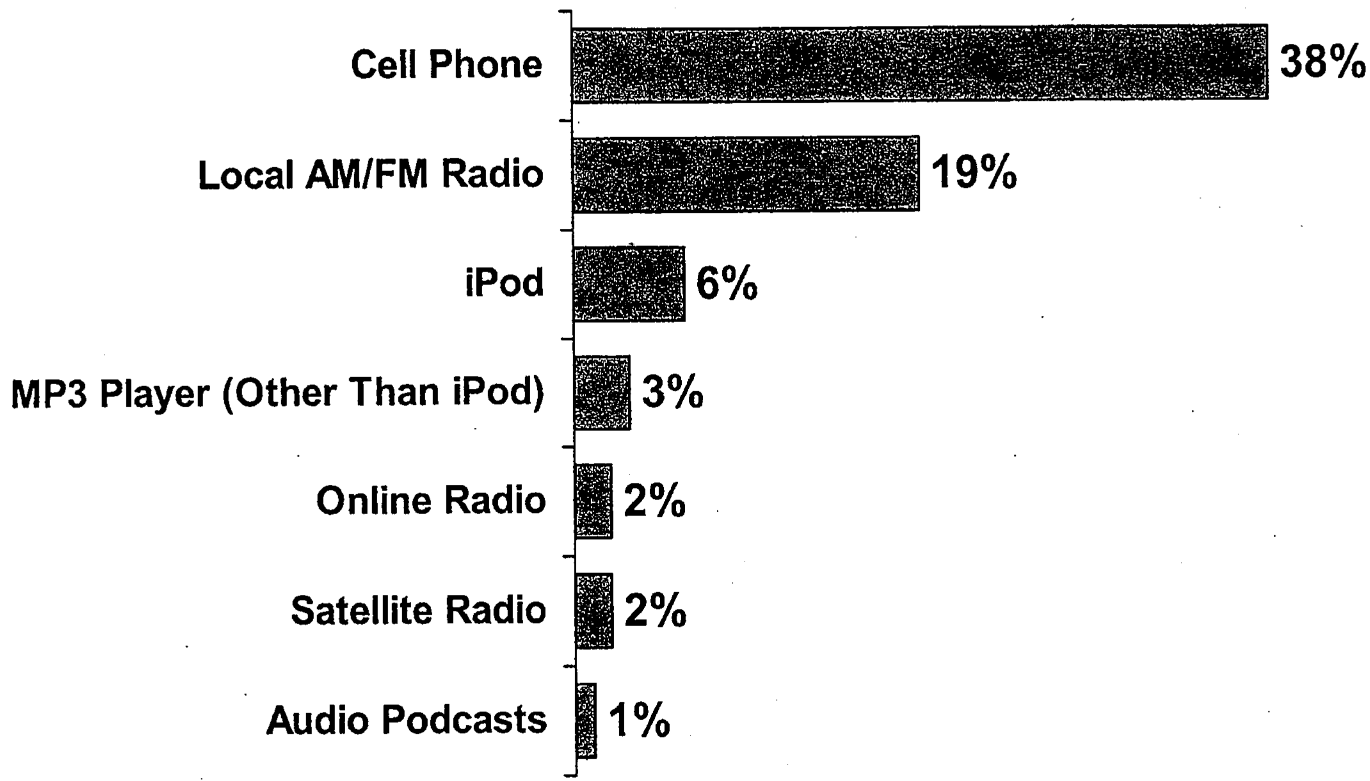
"How much of an impact on your life has (platform/device) had?"

("5" = "Big Impact"; "1" = "No Impact at All")

edison research

Cell Phones and AM/FM Radio Have Greatest Total Impact

Total Impact = % Big Impact on Life x % Who Use/Own



ARBITRON

"How much of an impact on your life has (platform/device) had?

("5" = "Big Impact"; "1" = "No Impact at All")

edison research

Implications

ARBITRON

edison research

AM/FM Radio Has Broad Impact in the New Digital World

- 92% of Americans aged 12+ use AM/FM Radio each week
- One in five say AM/FM Radio has a big impact on their lives
- Radio's "Total Impact" is second only to cell phones among audio devices/media
- Eight in 10 Americans say they will continue to listen to AM/FM radio as much as they do now despite increasing advancements in technology
- Online radio users spend more time with radio overall, not less

ARBITRON

edison research

Recent Growth in Online Radio Usage Is Promising

- An estimated 42 million tune to online radio on a weekly basis, which is more than twice the number from 2005
- The key radio demographic of 35- to 54-year-olds are becoming more frequent online radio listeners

ARBITRON

edison research

Radio's Digital Platforms Provide Advertisers With New Touch Points to Reach Desirable Targets

- Radio's digital platform users are a highly attractive segment
- Online radio users are well-educated, upper income, full-time employed and digitally savvy consumers
- Broadcasters are providing an increasingly wide variety of digital options for advertisers and new methods to connect ROI with media spend

ARBITRON

edison research

Americans Are Exercising More Control Over Their Use of Media

- Americans are increasingly enhancing their use of traditional media with new ways to control how, when and where they consume information and entertainment
  - Use of online radio, online video, podcasting, and iPod/MP3 players are on the rise
  - Consumers say flexibility, control and variety drive their use of online and portable media options

ARBITRON

edison research

Consumers Expect to Find Their Content Online

- Broadband access is now the norm, and weekly online audio and online video usage have reached critical mass
- Media not meeting consumer expectations will suffer as their brand-loyal users will find other options far more easily
- Pulling digital audio streams will accelerate adoption of alternative choices

ARBITRON

edison research

Consumers Want Expanded Media Options While in Their Cars

- One-third of Americans say they are interested in online radio in their cars
- Satellite radio continues adding subscribers
- iPod/MP3 player ownership and podcast usage continues to grow while more car radios have auxiliary jacks

ARBITRON

edison research

Audio Content Providers Should Not Ignore the Explosion of Online Video

- Radio station Web sites must embrace online video, and not just online audio
- Use of online video exceeds online radio
- Two-thirds of monthly online radio users also watched online video in the past month

ARBITRON

edison research

Media Should Accelerate Efforts to Get Their Content On Mobile Phones

- Broad usage and impact of mobile phones suggests that they are the next frontier for media opportunities
- Content providers who have not done so already should consider finding ways to extend their content to mobile phones

ARBITRON

edison research

Little Evidence to Date of Significant Interest or Uptake for HD Radio

- Awareness of HD Radio marketing or "buzz" has not changed substantially in the past three years and interest remains flat
- HD Radio's value proposition still may not be clear to consumers

ARBITRON

edison research

Social Networking Is Now Mainstream

- One in three Americans aged 12+ and two-thirds of teens and 18-24s now have a profile on a social networking site
- Social networking is a vital communication channel for consumers; content providers should find ways to tap the power of this new digital platform

ARBITRON

edison research

Free Copies of All Arbitron/ Edison Research Studies

www.edisonresearch.com

www.arbitron.com

ARBITRON

edison research

The Infinite Dial 2009

Radio's Digital Platforms
AM/FM, Online, Satellite, HD Radio and Podcasting

ARBITRON

Sponsored by TargetSpot™

edison research

7

Radio Broadcasting

Internet Radio Scorecard February '08: Terrestrial Radio's Share of Unique Visitors Hits 45%

Radio, TV, & Outdoor

John Blackledge[AC]
(1-212) 622-6580
john.blackledge@jpmorgan.com

Aaron Chew
(1-212) 622-6673
aaron.chew@jpmorgan.com

Samyak Misra
(212) 622-6386
samyak.x.misra@jpmchase.com

Unique visitors to internet radio grew 1% to 61 million, 5% below peak levels last October but within the 60-62m range of the last 21 months. While we believe this represents a seasonal winter dip similar to what occurred between Jan and Mar 2007, February traffic stands roughly 7% above the average levels experienced during that stretch.

- **Internet radio traffic was up 7% versus last year** as 27% y/y growth for the terrestrial operators overcame a 6% y/y decline for the pure plays. We believe this divergent growth path represents a share shift as total traffic has been mostly flat since mid-2006, while terrestrial's share grew from 35% to 45% as the pure plays' fell.
- **Traffic at the terrestrial operators' sites grew 3.8% vs. last month** for the first increase in four months. At 27.6 million, traffic stands firmly above the 25-26 million range it had been stuck in most of last year. We continue to expect unique visitors to the terrestrial radio group's sites to continue to post sequential and y/y growth in 2008.
- **Last.fm experienced a 39% jump in traffic to 1.9m unique visitors (in the U.S.),** the highest in its history. Growth of 7% at CBS radio's sites and 15% at Citadel's also helped drive the gains, while unique visitors for NPR's sites were off 9% after record traffic last month. CCU reported a 1% dip to 10.8m, still an 18% share of all of internet radio.
- **Traffic was down at all but six of the internet radio operators,** with declines at Live 365 (down 14%) and windowsmedia.com (6%) more than offsetting a 2% rise at Pandora to 3.7m, roughly 6% below record levels achieved last December.

Table 1: JPMorgan Radio Universe
$ in millions, except per share data

Radio Broadcasters	Ticker	JPM Rating	Stk. Price 4/10/08	Equity Mkt. Cap	EV/EBITDA 2008E	EV/EBITDA 2009E	P/FCF 2008E	P/FCF 2009E	P/E 2008E	P/E 2009E
CBS Corp	CBS	OW	$22.07	$14,629.4	6.4x	6.1x	10.0x	9.6x	11.0x	10.9x
Clear Channel	CCU	N	28.90	14,345.6	8.6x	8.0x	11.8x	10.9x	20.0x	19.3x
Citadel	CDL	N	1.75	458.0	8.9x	8.5x	4.0x	4.1x	7.6x	7.3x
Cox Radio	CXR	UW	12.03	1,058.8	9.3x	9.1x	12.6x	12.3x	16.3x	16.3x
Cumulus	CMLS	N	5.84	249.3	8.3x	8.3x	4.9x	5.0x	17.5x	20.4x
Entercom	ETM	N	9.56	356.2	7.6x	7.7x	3.3x	3.4x	7.2x	7.2x
Radio One	ROIAK	OW	1.50	136.7	5.6x	5.8x	4.6x	4.7x	14.2x	15.3x
Spanish Broadcasting(1)	SBSA	OW	1.89	137.1	10.6x	10.4x	52.4x	13.1x	NM	61.6x
Westwood One	WON	UW	1.97	185.2	6.5x	6.2x	4.2x	5.4x	10.4x	8.5x
Radio Avg. (ex-CBS & CCU)				$31,556.3	8.1x	8.0x	12.3x	6.9x	12.2x	19.5x

Source: Company reports and JPMorgan estimates. (1) SBSA's multiple is a pure radio multiple that excludes the TV station losses. Stock prices based on the close of 4/10/08.

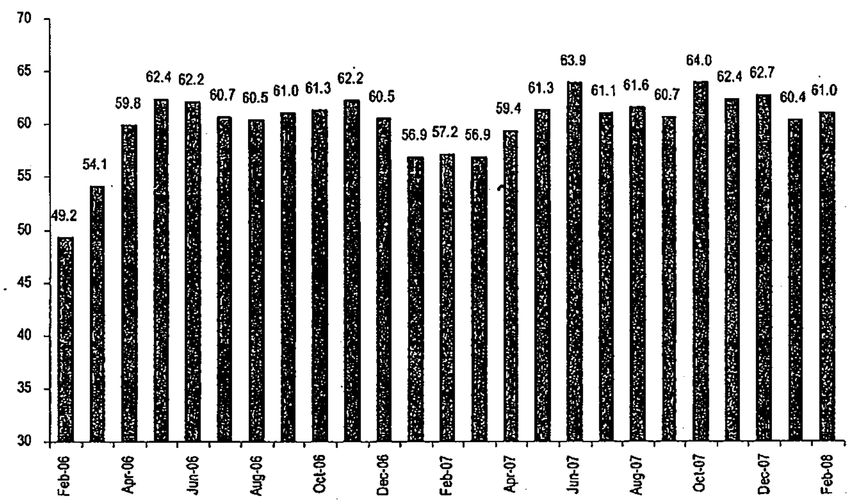
See page 6 for analyst certification and important disclosures, including investment banking relationships.

February 2008 Internet Radio Metrics

Unique Visitors to Internet Radio Up 1% in February

After dipping 4% in January, total unique visitors to internet radio retraced some of the losses in growing 1.1% sequentially to 61 million in February. Though this is close to 5% below the peak traffic levels achieved last October, it is still within the 60-62 million range within which they have stagnated over the last 21 months. Though we believe internet radio usage is amidst another seasonal winter dip similar to the January and March 2007 period, we note that February's unique visitors stand 7% higher than the average levels experienced during last winter.

Figure 1: Total Unique Visitors to Internet Radio Websites, Feb 2006 - Feb 2008
in millions

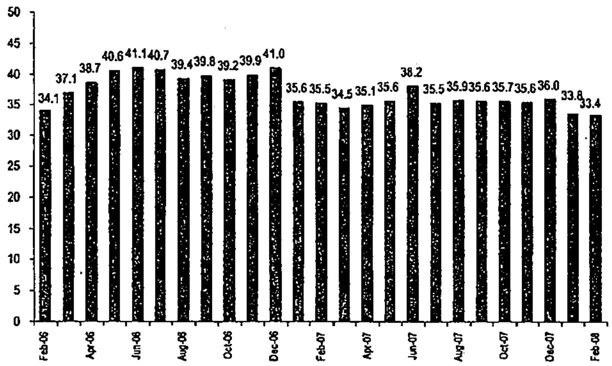


Source: CommScore Media Metrix and JPMorgan calculations.

Note: Terrestrial radio operators online include Beasley Broadcasting, CCU, CBS Radio & Last.fm, CDL, CXR, Educational Media Foundation, ETM, EMMS, Greater Media, Maranatha Broadcasting, Midwest Communications, NPR , Radio Disney, Radio One, Regent Communications, and Spanish Broadcasting, as well as the individual website metrics for wbal (HTV), wgn (TRB), and wtmx (Bonneville). Internet radio providers include, AOL Radio, Yahoo! Music, MSN Radio, Pandora.com, windowsmedia.com music, LIVE365.com, Accuradio, accutunes, 181.fm, Lucksysevenradio.com, orsradio.com, Sky.fm, 1club.fm, di.fm, rock.com, 1.fm, gotradio.com, and broadcasturban.net. Also, BigRRadio, getnetradio.com, myclubradio.com, social.com, and 202online.com were included in all months until July 2007, June 2007, June 2007, Dec 2007, and May 2007 respectively, when comScore stopped reporting their metrics.

The terrestrial operators experienced their first increase in four months with growth of 3.8% to 27.6 million, while the pure play internet operators' were down for the second month in a row with a decline of 1% to 33.4 million, the lowest levels since January 2006.

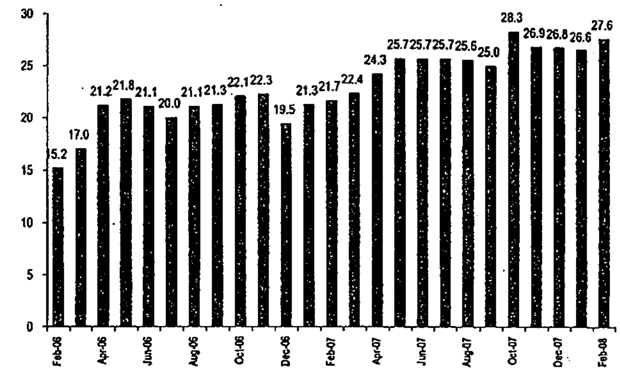
Figure 2: Unique Visitor to Pure Play Internet Radio Sites, 2/06-2/08
in millions



Source: CommScore Media Metrix and JPMorgan calculations.

Note: Internet radio providers include, AOL Radio, Yahoo! Music, MSN Radio, Pandora.com, windowsmedia.com music, LIVE365.com, Accuradio, accutunes, 181.fm, Lucksysevenradio.com, orsradio.com, Sky.fm, 1club.fm, di.fm, rock.com, 1.fm, gotradio.com, and broadcasturban.net. Also, BigRRadio, getnetradio.com, myclubradio.com, social.com, and 202online.com were included in all months until July 2007, June 2007, June 2007, Dec 2007, and May 2007 respectively, when comScore stopped reporting their metrics.

Figure 3: Unique Visitor to Terrestrial Radio Operators' Sites, 2/06-2/08
in millions



Source: CommScore Media Metrix and JPMorgan calculations.

Note: : Terrestrial radio operators online include Beasley Broadcasting, CCU, CBS Radio & Last.fm, CDL, CXR, Educational Media Foundation, ETM, EMMS, Greater Media, Maranatha Broadcasting, Midwest Communications, NPR , Radio Disney, Radio One, Regent Communications, and Spanish Broadcasting, as well as the individual website metrics for wbal (HTV), wgn (TRB), and wtmx (Bonneville).

Total Unique Visitors to Internet Radio up 7% Year over Year

With February's increase over the prior month's levels, total unique visitors to internet radio grew 7% versus last year. However, drilling deeper reveals a divergent growth picture. Traffic was up 27% at the terrestrial operators' sites but was off about 6% for the internet radio pure plays. This is consistent with the trend of the last year in which the terrestrial operators' sites continue to log year over year growth that is offset by declines for the internet radio pure plays.

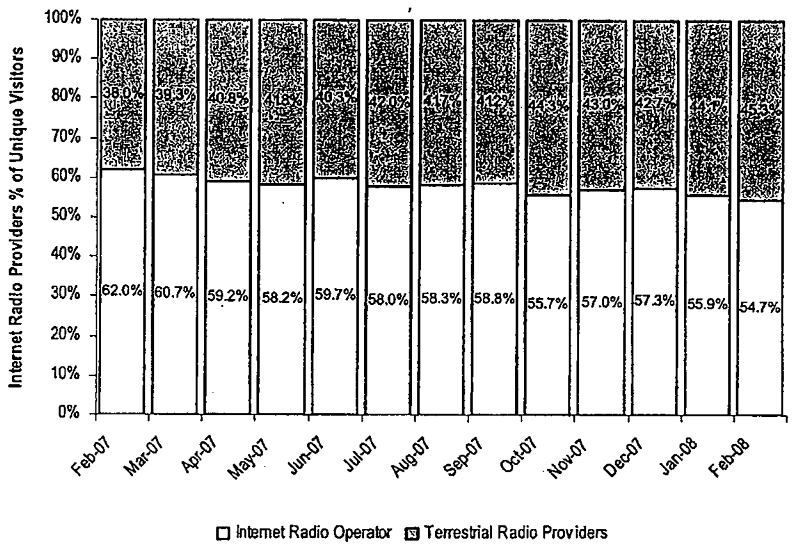
We believe this trend has mostly been a reflection of a share shift, as total traffic to all of internet radio has barely budged over that time span on a year over year basis. While total unique visitors to the pure play and terrestrial internet radio sites that we track had grown at a compounded rate of 9.3% a month from 15 million in January 2005 to over 62 million in May 2006, traffic has essentially stagnated at around 60-62 million since then. For the pure play internet radio sites, traffic seemed to hit a wall after reaching a recent peak of 41 million in June 2006 and then proceeded to endure difficult comps within a year. Interestingly, this coincided with acceleration in traffic for the terrestrial operators' sites. During that stretch, the pure play's share of internet radio traffic drifted down from about 65% to 55%, while the terrestrial's share grew from 35% to 45% despite total unique visitors staying flat.

While we had expressed concern that the terrestrial operators' sites were on the verge of facing increasingly difficult comparisons as we head deeper into 2008, we are encouraged by the growth in traffic since September (despite what we believe amounts to a seasonal dip over the last two months). We believe unique visitors to the terrestrial operators' sites could continue to demonstrate sequential and year over year growth in 2008.

Terrestrial Radio's Share of Unique Visitors Up to 45%

With growth in traffic for the terrestrial radio operators' sites overcoming declines at the pure play internet radio sites, the terrestrial group's share of internet traffic grew 120 basis points to 45%, the highest share yet achieved. Meanwhile, the pure play sites dipped to 55%.

Figure 4: Share of Unique Visitors, Internet Radio vs. Terrestrial Radio Feb. '07–Feb. '08



Source: CommScore Media Metrix and JPMorgan calculations.

Note: Terrestrial radio operators online include Beasley Broadcasting, CCU, CBS Radio & Last.fm, CDL, CXR, Educational Media Foundation, ETM, EMMS, Greater Media, Maranatha Broadcasting, Midwest Communications, NPR , Radio Disney, Radio One, Regent Communications, and Spanish Broadcasting, as well as the individual website metrics for wbal (HTV), wgn (TRB), and wtmx (Bonneville). Internet radio providers include, AOL Radio, Yahoo! Music, MSN Radio, Pandora.com, windowsmedia.com music, LIVE365.com, Accuradio, accutunes, 181.fm, Lucksysevenradio.com, orsradio.com, Sky.fm, 1club.fm, di.fm, rock.com, 1.fm, gotradio.com, and broadcasturban.net. Also, BigRRadio, getnetradio.com, myclubradio.com, social.com, and 202online.com were included in all months until July 2007, June 2007, June 2007, Dec 2007, and May 2007 respectively, when comScore stopped reporting their metrics.

We expect the terrestrial operators to continue to build-out their presence in Internet radio over the next several years. This could help supplement declining traditional radio audiences, especially at home and at work, where AQH 25-54 ratings have declined 2.0% and 2.6% annually since 1999.

Breakdown of the Individual Internet Radio Sites: Feb 2008

CBS, Last.fm, and CDL Drive 4% Growth for the Terrestrial Operators

Driven largely, we believe, by CBS' recent decision to open up Last.fm to free streaming supported by advertising, Last.fm spearheaded the gains with almost 40% growth to 1.9m unique visitors, the highest in its history. In tandem, CBS Radio's sites themselves contributed to the gains with over 7% growth, while Citadel, which has recently secured a consistent Top 10 spot in terms of share of total unique visitors to internet radio, was up about 15%. Offsetting these gains, in part, were a 9% drop in traffic to NPR's sites following record traffic last month and almost a 1% dip for CCU, which still maintains the No. 2 spot with close to 18% share of traffic.

Table 2: Unique Visitors to Terrestrial Radio Operators' Websites, Feb. 2008 vs. Jan. 2008

Unique visitors in thousands

	Jan 08	Feb 08	Sequential Growth
Clear Channel Online	10,865	10,782	(0.8%)
CBS Radio	3,509	3,759	7.1%
NPR and Member Stations	3,888	3,552	(8.7%)
Last.fm	1,350	1,878	39.1%
Citadel Broadcasting Corporation	1,607	1,846	14.9%
Radio One	957	972	1.6%
Entercom Communications Corporation	859	737	(14.1%)
Cox Broadcast	700	840	20.0%
Emmis Communications Corp.	772	900	16.5%
Radio Disney	575	569	(1.0%)
Greater Media Sites	285	334	17.2%
Spanish Broadcasting	200	222	11.3%
Beasley Broadcasting	200	206	3.0%
air1.com (Educational Media Found.)	188	133	(29.1%)
Maranatha Broadcasting Company	182	293	60.9%
Regent Communications	131	206	57.3%
Midwest Communications, Inc.	115	132	15.0%
wgnradio.com (Tribune)	56	146	159.6%
wtmx.com (Bonneville)	88	28	(67.9%)
wbal.com (HTV)	92	92	(0.2%)
Subtotal	**26,618**	**27,628**	**3.8%**

Source: CommScore Media Metrix and JPMorgan calculations.

Declines at Live 365 and windowsmedia.com Offset Pandora's Gains

Driven by declines for both Live 365 and Windowsmedia.com, which were down roughly 14% and 6%, respectively, all but six of the pure play internet radio sites we follow posted declines this month. Leading the gains, however, was Pandora, which grew its unique visitors 2% to 3.7 million unique visitors, roughly 6% below the record traffic levels achieved last December.

Table 3: Unique Visitors to Pure Play Internet Radio's Websites, Feb. 2008 vs. Jan. 2008

Unique visitors in thousands

	Jan 08	Feb 08	Sequential Growth
Yahoo! Music	19,931	19,953	0.1%
Windowsmedia.com Music	4,171	3,900	(6.5%)
Pandora.com	3,662	3,722	1.6%
AOL Radio	3,145	3,129	(0.5%)
LIVE365.COM	772	662	(14.3%)
Luckysevenradio.com	414	354	(14.4%)
181.fm	299	257	(14.0%)
1.fm	192	232	20.7%
1club.fm	285	306	7.5%
Accuradio	117	102	(12.9%)
gotradio.com	164	281	71.5%
broadcasturban.net	116	144	24.1%
rock.com	117	103	(12.3%)
accutunes.com	107	76	(28.8%)
Sky.fm	128	75	(41.0%)
di.fm	99	61	(38.2%)
orsradio.com	42	62	47.5%
Subtotal	**33,760**	**33,420**	**(1.0%)**

Source: CommScore Media Metrix and JPMorgan calculations.

Analyst Certification:
The research analyst(s) denoted by an "AC" on the cover of this report certifies (or, where multiple research analysts are primarily responsible for this report, the research analyst denoted by an "AC" on the cover or within the document individually certifies, with respect to each security or issuer that the research analyst covers in this research) that: (1) all of the views expressed in this report accurately reflect his or her personal views about any and all of the subject securities or issuers; and (2) no part of any of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst(s) in this report.

Important Disclosures

Important Disclosures for Equity Research Compendium Reports: Important disclosures, including price charts for all companies under coverage for at least one year, are available through the search function on JP Morgan's website https://mm.jpmorgan.com/disclosures/company or by calling this U.S. toll-free number (1-800-477-0406)

Explanation of Equity Research Ratings and Analyst(s) Coverage Universe:
JPMorgan uses the following rating system: **Overweight** [Over the next six to twelve months, we expect this stock will outperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] **Neutral** [Over the next six to twelve months, we expect this stock will perform in line with the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] **Underweight** [Over the next six to twelve months, we expect this stock will underperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] The analyst or analyst's team's coverage universe is the sector and/or country shown on the cover of each publication. See below for the specific stocks in the certifying analyst(s) coverage universe.

Coverage Universe: **John Blackledge:** CBS Corp. (CBS), Citadel Broadcasting Company (CDL), Clear Channel Communications (CCU), Clear Channel Outdoor (CCO), Cox Radio Inc. (CXR), Cumulus Media Inc (CMLS), Daktronics (DAKT), Entercom Communications (ETM), Hearst-Argyle Television Inc (HTV), LIN TV Corporation (TVL), Lamar Advertising Co. (LAMR), Live Nation (LYV), Radio One Inc (ROIA), Sinclair Broadcast Group (SBGI), Spanish Broadcasting System (SBSA), Westwood One, Inc. (WON)

JPMorgan Equity Research Ratings Distribution, as of March 31, 2008

	Overweight (buy)	Neutral (hold)	Underweight (sell)
JPM Global Equity Research Coverage	46%	41%	13%
IB clients*	50%	51%	39%
JPMSI Equity Research Coverage	41%	47%	11%
IB clients*	70%	66%	54%

*Percentage of investment banking clients in each rating category.
For purposes only of NASD/NYSE ratings distribution rules, our Overweight rating falls into a buy rating category; our Neutral rating falls into a hold rating category; and our Underweight rating falls into a sell rating category.

Valuation and Risks: Please see the most recent company-specific research report for an analysis of valuation methodology and risks on any securities recommended herein. Research is available at http://www.morganmarkets.com , or you can contact the analyst named on the front of this note or your JPMorgan representative.

Analysts' Compensation: The equity research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues, which include revenues from, among other business units, Institutional Equities and Investment Banking.

Other Disclosures

Options related research: If the information contained herein regards options related research, such information is available only to persons who have received the proper option risk disclosure documents. For a copy of the Option Clearing Corporation's Characteristics and Risks of Standardized Options, please contact your JPMorgan Representative or visit the OCC's website at http://www.optionsclearing.com/publications/risks/riskstoc.pdf.

Legal Entities Disclosures
U.S.: JPMSI is a member of NYSE, FINRA and SIPC. J.P. Morgan Futures Inc. is a member of the NFA. JPMorgan Chase Bank, N.A. is a

member of FDIC and is authorized and regulated in the UK by the Financial Services Authority. **U.K.:** J.P. Morgan Securities Ltd. (JPMSL) is a member of the London Stock Exchange and is authorised and regulated by the Financial Services Authority. Registered in England & Wales No. 2711006. Registered Office 125 London Wall, London EC2Y 5AJ. **South Africa:** J.P. Morgan Equities Limited is a member of the Johannesburg Securities Exchange and is regulated by the FSB. **Hong Kong:** J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong. **Korea:** J.P. Morgan Securities (Far East) Ltd, Seoul branch, is regulated by the Korea Financial Supervisory Service. **Australia:** J.P. Morgan Australia Limited (ABN 52 002 888 011/AFS Licence No: 238188) is regulated by ASIC and J.P. Morgan Securities Australia Limited (ABN 61 003 245 234/AFS Licence No: 238066) is a Market Participant with the ASX and regulated by ASIC. **Taiwan:** J.P.Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. **India:** J.P. Morgan India Private Limited is a member of the National Stock Exchange of India Limited and The Stock Exchange, Mumbai and is regulated by the Securities and Exchange Board of India. **Thailand:** JPMorgan Securities (Thailand) Limited is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission. **Indonesia:** PT J.P. Morgan Securities Indonesia is a member of the Jakarta Stock Exchange and Surabaya Stock Exchange and is regulated by the BAPEPAM. **Philippines:** J.P. Morgan Securities Philippines Inc. is a member of the Philippine Stock Exchange and is regulated by the Securities and Exchange Commission. **Brazil:** Banco J.P. Morgan S.A. is regulated by the Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. **Mexico:** J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero is a member of the Mexican Stock Exchange and authorized to act as a broker dealer by the National Banking and Securities Exchange Commission. **Singapore:** This material is issued and distributed in Singapore by J.P. Morgan Securities Singapore Private Limited (JPMSS) [mica (p) 207/01/2008 and Co. Reg. No.: 199405335R] which is a member of the Singapore Exchange Securities Trading Limited and is regulated by the Monetary Authority of Singapore (MAS) and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore) which is regulated by the MAS. **Malaysia:** This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-x) which is a Participating Organization of Bursa Malaysia Securities Bhd and is licensed as a dealer by the Securities Commission in Malaysia. **Pakistan:** J. P. Morgan Pakistan Broking (Pvt.) Ltd is a member of the Karachi Stock Exchange and regulated by the Securities and Exchange Commission of Pakistan.

Country and Region Specific Disclosures
U.K. and European Economic Area (EEA): Issued and approved for distribution in the U.K. and the EEA by JPMSL. Investment research issued by JPMSL has been prepared in accordance with JPMSL's Policies for Managing Conflicts of Interest in Connection with Investment Research which outline the effective organisational and administrative arrangements set up within JPMSL for the prevention and avoidance of conflicts of interest with respect to research recommendations, including information barriers, and can be found at http://www.jpmorgan.com/pdfdoc/research/ConflictManagementPolicy.pdf. This report has been issued in the U.K. only to persons of a kind described in Article 19 (5), 38, 47 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (all such persons being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is only available to relevant persons and will be engaged in only with relevant persons. In other EEA countries, the report has been issued to persons regarded as professional investors (or equivalent) in their home jurisdiction **Germany:** This material is distributed in Germany by J.P. Morgan Securities Ltd. Frankfurt Branch and JPMorgan Chase Bank, N.A., Frankfurt Branch who are regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht. **Australia:** This material is issued and distributed by JPMSAL in Australia to "wholesale clients" only. JPMSAL does not issue or distribute this material to "retail clients." The recipient of this material must not distribute it to any third party or outside Australia without the prior written consent of JPMSAL. For the purposes of this paragraph the terms "wholesale client" and "retail client" have the meanings given to them in section 761G of the Corporations Act 2001. **Hong Kong:** The 1% ownership disclosure as of the previous month end satisfies the requirements under Paragraph 16.5(a) of the Hong Kong Code of Conduct for persons licensed by or registered with the Securities and Futures Commission. (For research published within the first ten days of the month, the disclosure may be based on the month end data from two months' prior.) J.P. Morgan Broking (Hong Kong) Limited is the liquidity provider for derivative warrants issued by J.P. Morgan International Derivatives Ltd and listed on The Stock Exchange of Hong Kong Limited. An updated list can be found on HKEx website: http://www.hkex.com.hk/prod/dw/Lp.htm. **Japan:** There is a risk that a loss may occur due to a change in the price of the shares in the case of share trading, and that a loss may occur due to the exchange rate in the case of foreign share trading. In the case of share trading, JPMorgan Securities Japan Co., Ltd., will be receiving a brokerage fee and consumption tax (shouhizei) calculated by multiplying the executed price by the commission rate which was individually agreed between JPMorgan Securities Japan Co., Ltd., and the customer in advance. Financial Instruments Firms: JPMorgan Securities Japan Co., Ltd., Kanto Local Finance Bureau (kinsho) No. [82] Participating Association / Japan Securities Dealers Association, The Financial Futures Association of Japan. **Korea:** This report may have been edited or contributed to from time to time by affiliates of J.P. Morgan Securities (Far East) Ltd, Seoul branch. **Singapore:** JPMSI and/or its affiliates may have a holding in any of the securities discussed in this report; for securities where the holding is 1% or greater, the specific holding is disclosed in the Legal Disclosures section above. **India:** For private circulation only not for sale. **Pakistan:** For private circulation only not for sale. **New Zealand:** This material is issued and distributed by JPMSAL in New Zealand only to persons whose principal business is the investment of money or who, in the course of and for the purposes of their business, habitually invest money. JPMSAL does not issue or distribute this material to members of "the public" as determined in accordance with section 3 of the Securities Act 1978. The recipient of this material must not distribute it to any third party or outside New Zealand without the prior written consent of JPMSAL.

General: Additional information is available upon request. Information has been obtained from sources believed to be reliable but JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively JPMorgan) do not warrant its completeness or accuracy except with respect to any disclosures relative to JPMSI and/or its affiliates and the analyst's involvement with the issuer that is the subject of the research. All pricing is as of the close of market for the securities discussed, unless otherwise stated. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. Past performance is not indicative of future results. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. The recipient of this report must make its own independent decisions regarding any securities or financial instruments mentioned herein. JPMSI distributes in the U.S. research published by non-U.S. affiliates and accepts responsibility for its contents. Periodic updates may be provided on companies/industries based on company specific developments or announcements, market conditions or any other publicly available information. Clients should contact analysts and execute transactions through a JPMorgan subsidiary or affiliate in their home jurisdiction unless governing law permits otherwise.

"Other Disclosures" last revised February 6, 2008.

John Blackledge
(1-212) 622-6580
john.blackledge@jpmorgan.com

8

ADVERTISING EXPENDITURE FORECASTS
JULY 2009

Written by:
Anne Austin, Jonathan Barnard, Nicky Hutcheon, Laureen Malvault

Produced by:
David Parry

ISSN 0968-2163

ZENITHOPTIMEDIA

ZenithOptimedia is one of the world's leading global media services agencies with 218 offices in 72 countries.

Key clients include AlcatelLucent, Beam Global Spirits & Wine, British Airways, Darden Restaurants, Electrolux, General Mills, Giorgio Armani Parfums, Kingfisher, Mars, Nestlé, L'Oréal, Puma, Polo Ralph Lauren, Qantas, Richemont Group, Sanofi-Aventis, Siemens, Thomson Multimedia, Toyota/Lexus, Verizon, Whirlpool and Wyeth.

ZenithOptimedia is committed to delivering to clients the best possible return on their advertising investment.

This approach is supported by a unique system for strategy development and implementation, The ROI Blueprint. At each stage, proprietary ZOOM (ZenithOptimedia Optimisation of Media) tools have been designed to add value and insight.

The ZenithOptimedia Village enables the widest range of communications opportunities and skills to be brought together to ensure the most powerful connections are made with consumers.

For further information on ZenithOptimedia, please contact:

Steve King
Chief Executive Officer
Tel: +44 20 7961 1046
Fax: +44 20 7961 1042
E-mail: steve.king@zenithoptimedia.com

John Taylor
Director of Client Service - Worldwide
Tel: +44 20 7961 1133
Fax: +44 20 7961 1002
E-mail: john.taylor@zenithoptimedia.com

Tim Jones
Chief Executive Officer – Americas
Tel: +1 212 859 5100
Fax: +1 212 727 9495
E-mail: tim.jones@zenithoptimedia-na.com

Philip Talbot
Chief Executive Officer – Asia Pacific
Tel: +852 2236 9080
Fax: +852 2250 9388
E-mail: philip.talbot@zenithoptimediagroup.com.hk

All our publications are now available online at www.zenithoptimedia.com

CONTENTS

INTRODUCTION

Welcome to the July 2009 edition of ZenithOptimedia's *Advertising Expenditure Forecasts.*

We have revised downwards our forecast for ad expenditure growth in 2009 to -8.5%, from our April prediction of -6.9%, after Q1 came in below our predictions. Faced with extreme uncertainty, advertisers in most sectors planned for the worst and cut their costs in anticipation of steep drops in revenue. In uncertain times advertising is often treated as a discretionary expense and cut early, despite much research that shows companies maintaining their ad expenditure in a recession come out of it stronger than those that do not.

The early predictions of steep revenue decline have been realised in some sectors (notably finance, automotive and business travel), but in not in others (such as retail and fast-moving consumer goods, and value products in general). For all sectors the shape of the rest of the year is becoming clearer. Q2 was not quite as tough as Q1, and we have held our expectations for the rest of the year steady, as signs emerge that the downturn is approaching its nadir. The downturn started in Q3 2008, so from now on year-on-year comparisons will start to get a lot easier.

Not every market is in decline this year. Of the 79 markets we cover, 25 are still growing. Many of these are small, young markets, but they also include heavyweights like China and India. We forecast China to grow 5.4% this year, overtaking the UK to become the world's fourth-largest ad market, while India grows 7.7% and overtakes Norway, Mexico and the Netherlands to become the 14th largest.

Internet advertising has held up even better than we predicted three months ago. Its familiar virtues of transparency, accountability and flexibility have proved even more attractive in a recession than ever. We forecast internet ad expenditure to grow 10.1% globally in 2009, ahead of our 8.6% prediction in April. By 2011 we expect it to account for 15.1% of all ad expenditure, up from 10.5% in 2008. Most of this growth will come from paid search, which is an ideal method of reaching consumers looking for bargains. In the US we predict search advertising to grow 20.0% in 2009, while traditional display grows 3.0% and classified grows just 1.8%. Microsoft's launch of its new search engine - Bing - provides welcome competition to Google and should spur further innovation in search.

The internet is the only medium we expect to grow in 2009. Among the other media, we forecast television, cinema and outdoor to decline by less than the market as a whole, shrinking by 7.1%, 4.8% and 7.0% respectively. Some advertisers, particularly in the fast-moving consumer goods sector, are taking advantage of cheap television and increasing their volumes, targeting higher market share. Cinema often does relatively well in a recession, providing consumers with escapist entertainment. Digital billboards and other non-traditional forms of outdoor are attracting budgets from other media by offering new types of eye-catching display.

Newspaper advertising peaked at US$131 billion in 2007 and has fallen ever since. We predict newspaper ad expenditure to shrink 14.7% in 2009 and to continue shrinking for the rest of our forecast period. In 2011 we forecast newspaper ad expenditure will total US$101 billion, 22.7% below its 2007 peak. Magazines face an even tougher time this year as luxury advertisers cut back severely: we forecast a 16.7% decline in magazine advertising in 2009. But their long-term prospects are brighter than those of newspapers, since the experience of reading a magazine is less easy to replicate on the internet. We predict that magazine advertising will return to 1.5% growth in 2011, reaching US$46 billion, 22.4% below its own 2007 peak.

The return to growth in 2010 and 2011 will bring no end to the pain of many big media owners. New technologies are reducing entry costs, providing a lot of new competition for the established players. Television networks are losing

INTRODUCTION

viewers to digital channels and video websites; newspaper websites are losing readers to bloggers; radio stations are losing listeners to podcasts; and so on. Competition for consumers' attention, and the ad revenue that comes with it, will only get more intense as the world economy recovers.

Share of total adspend by medium 2007-2011 (%)

	2007	2008	2009	2010	2011
Newspapers	26.9	25.1	23.4	22.2	21.2
Magazines	12.2	11.6	10.5	9.9	9.7
Television	37.3	38.0	38.6	39.3	39.2
Radio	8.0	7.7	7.6	7.4	7.2
Cinema	0.5	0.5	0.5	0.5	0.6
Outdoor	6.5	6.7	6.8	6.9	7.0
Internet	8.7	10.5	12.6	13.8	15.1

METHODOLOGY

Methodology and some notes on the figures

ZenithOptimedia is principally a media agency; we have offices that plan and buy media campaigns in every country we forecast. They provide us with historical ad expenditure figures from the source or sources in their country they judge to be the most reliable. We encourage them to supply us with figures that are as net as possible - that is, they take the discounts negotiated between agency and media owner into account, and exclude agency commission and production costs - but sometimes we have to use gross figures, which do not take discounts into account.

The net figures are generally compiled by an independent body that conducts a survey of advertisers, advertising agencies or media owners. This body will almost certainly respect the confidentiality of each respondent and only publish aggregate figures for each medium. Net figures are not available in some markets, generally the small ones. Gross figures are generally estimated by agencies that monitor the volume of advertising in sample members of each medium, and match each ad with the public 'ratecard' price of the space or time it occupies. These figures are less accurate than the net figures, but are useful because they can be broken down by advertiser, category and media owner.

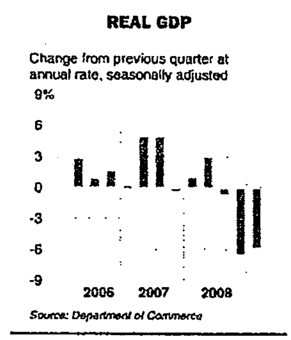
Our offices then provide us with their forecasts for the next three years of growth. These are not top-down, modelled forecasts; instead, experts in each medium provide forecasts based on their knowledge of local market conditions, the spending plans of their clients, and the campaigns run by their competitors.

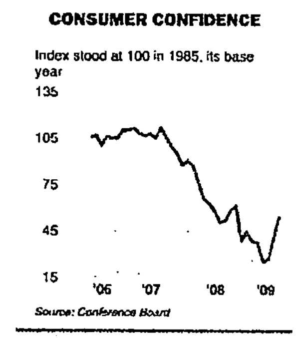
Note that when we provide figures for top advertisers or categories in a market, these figures will always be gross. If discounts are high, then the gross expenditure from the top ten categories - and sometimes even top ten advertisers - can exceed total net ad expenditure in that market.

Figures that we quote in current prices are unadjusted, nominal figures. Figures that are in constant prices are adjusted for consumer price inflation; this allows us to compare growth rates in countries with different rates of inflation.

We normally convert local-currency figures into US dollars at the average exchange rate for 2008. However, some countries have currencies that have changed very rapidly in value against the dollar, and applying a single exchange rate to their advertising expenditure figures can produce absurd results. In these cases we convert figures for each year at that year's average annual exchange rate. For our forecasts, we assume that currencies depreciate against the dollar at the rate of inflation. We do not normally apply different exchange rates to different years since currency fluctuations can obscure the underlying trends in ad expenditure.

UNITED STATES OF AMERICA





In the first quarter of 2009, US GDP deteriorated for the third consecutive quarter, decreasing at an annual rate of 5.5%. This was largely on account of businesses slashing their capital investments and inventories to cut costs, after supplies had built up following a rapid decrease in personal consumption. The DJIA increased 4.1% in May, but was still 32.7% below the level seen during the same time period a year ago. While the acute banking-crisis-related downturn following Lehman Brothers' bankruptcy is likely over, the economy remains weak, especially in the automotive and financial sectors. Chrysler filed for bankruptcy in April, becoming the first major automaker to do so since Studebaker in 1933. The United Automobile Workers took control of the company with the United States government and the Italian automaker Fiat as junior partners. Chrysler has already begun to improve, and hopes are that General Motors, which filed for bankruptcy protection on June 1, will follow in its footsteps, coming out as a smaller and better-run company with a more fuel-efficient fleet. GM and Citigroup have been replaced in the DJIA by Cisco Systems and Travelers Co. respectively. If Citi's restructuring is successful, it may once again have a place in the DJIA, but currently the government still owns over a third of the financial giant. The banking sector as a whole, especially smaller banks, remains under pressure from the credit crisis, as real estate loans go bad and banks are faced with mounting losses. The larger banks, however, especially the 19 that underwent stress tests, seem to be recovering, with most being profitable in the first quarter.

Consumer confidence, which had dropped to all-time lows in the fourth quarter, rose significantly in April and May, standing at 40.8 and 54.9 respectively, from the February low of 25.0. It now stands at its highest level in eight months. The new Presidential administration seems to have helped lift spirits, and although consumers are still pessimistic by historical standards, they now expect the job market, business conditions and their incomes to improve in the upcoming months. Housing starts of 532,000 in May rose 17.2% from April, but were a staggering 45.2% below May 2008's estimate. The month-on-month increase was higher than expected, but the home construction industry still remains in the doldrums. Builders are starting few new projects, since the supply of existing housing is now so far above demand that it is overwhelming the market. The unexpected rise in May could add to the already existing inventory of unsold homes. Tighter lending standards, rising mortgage rates and a dismal employment market will continue to slow the recovery.

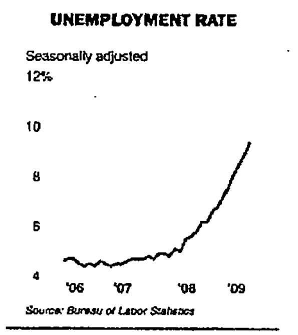
In May the Federal Reserve kept its benchmark rate at a target range of zero to 0.25%. The central bank maintained its existing policies of buying up debt in the public and private sector. Normally, this would be highly inflationary, as banks would increase loans and drive up demand, ergo, driving up prices. However, wary of the economic

UNITED STATES OF AMERICA

downturn and the ongoing credit crisis, banks are reluctant to lend out their reserves. Core inflation, which excludes volatile food and energy prices, increased 0.3% in April, the largest increase since June 2008, and is up 1.9% over April 2008. Fed officials expect inflation to remain subdued and acknowledge that it could remain at rates that are not beneficial to economic growth and price stability in the long term. However, deflation has not yet taken hold of the US economy as it did in Japan in the late 1990s after the country had gone through a banking crisis meltdown.

Consumer spending experienced an unexpected increase in the first quarter of 2009, climbing 1.5%. In April, however, it fell 0.1%. Consumer spending makes up around 70% of economic activity and plays a major role in shaping the overall economy. Retail sales experienced a slight increase in May at 0.5% from April, but are 9.6% below May 2008. While only US$50 billion of the government's US$787 billion stimulus package has made its way into the system, it may be a contributing factor in consumer income rising at a seasonally-adjusted rate of 0.5% in April compared to March. However, consumers are not investing that money back into the economy. The savings rate has reached 5.7%, the highest since 1995, and the level of savings (US$620 billion) is the highest in 50 years. While this is good for the economy in the long term, in the short term it is harmful because these dollars are not being spent, which has restrained prices and has amplified worries of deflation.

The unemployment rate rose to 9.4% in May, as 345,000 jobs were lost. While unemployment is worsening, it is at a slower rate than before, indicating a slowing recession. The severity and breadth of job losses has affected all industries, with the exception of education and healthcare. The steepest job losses remain in manufacturing, while losses in construction and professional services moderated. About 14.5 million Americans were unemployed for the month, with 7 million people becoming jobless since the start of the recession.



As the Fed continued throughout the first quarter to inject large amounts of capital and liquidity into the public and private sectors, money supply increased sharply. In April 2009, M1 increased an additional 1.9% over March and stood 15.9% higher than it was at the same time last year.

We continue to monitor all these changes in the economy and their effect on our advertising forecasts.

Advertising expenditure declined in the first quarter of 2009 by 14.2% compared to the same time last year, as reported by TNS Media Intelligence. The current economic conditions are

AD SPEND BY MEDIA JAN-MAR 2008-2009

MEDIA	JAN-MAR 2008 ($000)	JAN-MAR 2009 ($000)	% CHANGE 2009 VS. 2008
NETWORK TV	$6,107,598	$5,852,434	-4.2%
SPOT TV	$3,973,021	$2,875,815	-27.6%
SLN TV	$740,281	$668,376	-9.7%
CABLE TV	$4,297,854	$4,177,468	-2.8%
SYNDICATION	$1,097,455	$1,099,524	0.2%
TV TOTAL	$16,216,211	$14,673,618	-9.5%
MAGAZINES	$5,246,530	$4,184,880	-20.2%
SUNDAY MAGS	$488,720	$372,765	-23.7%
LOCAL MAG	$108,626	$75,085	-30.9%
HISPANIC MAGS	$21,525	$12,732	-40.8%
B-TO-B	$1,030,913	$763,096	-26.0%
MAGAZINE TOTAL	$6,896,313	$5,408,558	-21.6%
NATL NEWSP	$759,616	$543,217	-28.5%
NEWSPAPER	$5,140,452	$3,848,159	-25.1%
HISPANIC NEWSP	$77,270	$58,675	-24.1%
NEWSPAPER TOTAL	$5,977,339	$4,450,051	-25.6%
NETWORK RADIO	$235,735	$209,328	-11.2%
NAT SPOT RADIO	$471,521	$314,140	-33.4%
RADIO TOTAL	$707,256	$523,468	-26.0%
INTERNET TOTAL	$2,479,863	$2,681,228	8.1%
OUTDOOR TOTAL	$875,798	$723,486	-17.4%
GRAND TOTAL	$33,152,780	$28,460,409	-14.2%

Source: TNS Media Intelligence 01.08-03.08, 01.09-03.09
Note: Spending does not include PSAs

UNITED STATES OF AMERICA

clearly playing a role as declines were felt across all media with the exception of internet (+8.1%) and syndication (+0.2%). There were significant decreases in spot TV (-27.6%), radio (-26.0%), newspapers (-25.6%), magazines (-21.6%) and outdoor (-17.4%).

Advertising expenditures for the top ten ad-spending industries decreased (-13.4%), slightly less than the market as a whole (-14.2%). Much of this decrease was caused by the top two industries, retail (-20.4%) and automotive (-26.0%), having to drastically cut advertising spend in the wake of the consumer pullback. Automakers in particular are reporting steep declines in the midst of the economic turmoil and the recent bankruptcies of Chrysler and General Motors. Many other top ten ad-spending industries showed declines, with the insurance (-20.5%) and financial (-18.1%) industries being hit especially hard. Two industries - communications (4.1%) and restaurants (3.7%) - showed some positive first quarter growth. The communications industry remains strong through the economic downturn as competition has increased among carriers for unlimited, fixed-rate calling plans, in addition to high-profile campaigns for competing smartphones. The restaurant industry has seen a boost in ad dollars as well, as many eateries are promoting value and introducing new products to attract consumers. Altogether, ad expenditure among the top ten industries in the first quarter of 2009 made up 62.3% of total US advertising spend.

TOP TEN SPENDERS BY INDUSTRY, JAN-MAR 2009 VS JAN-MAR 2008
Ranked By 2009 Spending

2008 RANK	2009 RANK	INDUSTRY	JAN-MAR 2008 ($000)	JAN-MAR 2009 ($000)	% CHANGE
3	1	MEDIA & ADVERTISING	$2,435,829	$2,213,429	-9.1%
2	2	RETAIL	$2,610,657	$2,078,556	-20.4%
7	3	COMMUNICATIONS	$1,893,973	$1,972,206	4.1%
1	4	AUTOMOTIVE, AUTOMOTIVE ACCESS & EQUIP	$2,646,746	$1,959,806	-26.0%
5	5	MEDICINES & PROPRIETARY REMEDIES	$2,058,460	$1,953,356	-5.1%
4	6	FINANCIAL	$2,303,887	$1,885,856	-18.1%
6	7	DIRECT RESPONSE COMPANIES	$1,970,369	$1,624,493	-17.6%
8	8	MISC SERVICES & AMUSEMENTS	$1,890,036	$1,620,316	-14.3%
10	9	RESTAURANTS	$1,261,407	$1,307,895	3.7%
9	10	INSURANCE & REAL ESTATE	$1,416,104	$1,126,315	-20.5%
		TOP TEN TOTAL	$20,487,469	$17,742,227	-13.4%
		GRAND TOTAL	$33,152,780	$28,460,219	-14.2%

Source: TNS Media Intelligence 01.08-03.08, 01.09-03.09
Note: Spending does not include PSAs

Given the continued period of economic turmoil and uncertainty, and our knowledge of advertiser plans for the upcoming season, we are projecting an overall decline for major media advertising in 2009 of 10.6%, downgraded from our April forecast of an 8.7% decline. The absence of the Olympics and elections in 2009, coupled with an ailing economy, will contribute to the decline in advertising expenditures. Our biggest 2009 decreases remain in the local arena and there will be double-digit declines in radio (-14.4%), newspapers (-20.0%) and spot TV (-14.0%). The magazine industry is also experiencing large losses in revenue for 2009 with a projected decrease of 18.2%. These media are all hard hit by automotive, retail and financial cutbacks. However, some marketers are using this period of economic downturn to boost their share of market as their competitors cut their budgets. We are seeing this in the CPG category, particularly in network TV. However, their CPPs are less than the automotives', meaning the networks are still taking a hit. Marketing services remain unchanged from our last forecast: a 2.3% decrease. Our 2010 advertising projections have also been revised, now showing a decline of 2.7% in overall advertising expenditures, compared to the 1.7% decline from our April forecast. We are forecasting 2011 overall advertising expenditures to grow 1.4%.

Network TV

As the economy remains in turmoil, advertisers are looking for more cost-efficient alternatives to network TV. Zenith estimates that network TV advertising spend in 2009 will decrease 8.0%, will remain flat in 2010 and will decrease 4.0% in 2011. Already, year-on-year unit pricing has been challenged as ratings continue to pace down year-on-year and Zenith is expecting CPM rollbacks as well. Spending will be down in the summer months with the lack of

UNITED STATES OF AMERICA

Olympics, while the fall is not expected to fare much better, as these months mark the end of many clients' fiscal years, in which there is intense pressure on spending. As advertisers look for more cost-efficient alternatives that get them more for their buck, spending will move towards alternatives to network, especially alternatives to network prime, including cable and unwired networks comprised of local affiliates, which are guaranteed on the same metric as network TV. There will continue to be pressure to advertise in events with sustaining packages. The sports industry in particular is under a great deal of pressure to replace automobiles in these packages, as networks like Disney's ESPN have financially felt the impact of the economic downturn. With the abundance of sports GRPs in the fourth quarter, packaging is especially likely, and CPMs will be discounted if long-term deals are a consideration.

Network late night will continue to be challenged by cable, and with George Lopez entering the late-night contest with an 11pm show on TBS, the competition for the younger, multicultural audience will become even more intense. Network news will suffer further as it is no longer a destination daypart with the availability of news 24-hours a day on news networks like CNN and the internet. The signature weekday morning shows will retain their place on account of the lack of competition, but as the lifestyle of women evolves, viewing by this core target will continue to decline. Daytime programming will be challenged further, as evidenced by the fact that P&G is no longer producing *One Life to Live*. As viewers of this daypart continue to get older, there will be pressure on advertisers to look for efficient alternatives.

Networks have realized that they are in a difficult business environment and are thus cutting back on production costs. The end result will be less compelling content, more repeats, less original programming and stripping programmes in prime, such as *Jay Leno*.

Cable TV

Zenith expects cable spend to remain flat in 2009, with a 5.0% rise in 2010 and flat spending in 2011. Clients continue to shift their dollars from network to cable, with cable offering original primetime programming, niche targets and secure lower pricing. The cable networks are now amassing large audiences, in some instances delivering ratings comparable to the broadcast networks during the summer, when cable counter-programmes originals against network repeats and reality fare. While cable networks are still producing fewer originals than their broadcast counterparts, they have two sources of revenue: from subscribers and ad sales. They also programme a good many off-network-acquired shows before these go into syndication. For the most part, ratings for these programmes are still lower than original airings, and tend to run outside of prime and have multiple airings the same day. For this reason, just as marketers are looking for a replacement to network, they are also beginning to look for a replacement to cable. Unwired networks could provide an efficient option, such as the prime extension offered by ITN. For some networks, the increased supply will put pressure on pricing. Advertisers do not want to pay more for less, and with the greater supply cable offers, unit rates can come down.

DRTV has also increased significantly in the first half of 2009, with the number of businesses using DRTV having risen 10% over last year. This medium is well-suited for hard times. The cost of television time has fallen from years past and unemployed consumers are now spending more time at home watching television.

As multicultural markets, specifically African-Americans and Hispanics, become increasingly important commodities for advertisers, cable networks that reach these audiences better than network prime will tout this. *Tyler Perry* on TBS, for instance, has a rating of 6.6 for African-American households, compared to 1.3 for all US

UNITED STATES OF AMERICA

households. Turner will even guarantee *Tyler Perry* on African-American ratings. Also, since music is universal in appeal, music networks like MTV will be good vehicles for reaching multicultural audiences.

Spot TV

We expect spot TV advertising spend to decrease 14.0% in 2009, unchanged from our previous estimate. Spend is predicted to decline another 6.0% in 2010 and remain flat in 2011. The slowdown in the economy has seen local automotive spend drop 50.0% versus a year ago, while the retail, dining and entertainment categories are also experiencing dramatic losses. These changes are causing local TV to be extremely negotiable. The banking and finance category remains off as well, and many stations are finding it difficult to secure local sponsors for sports properties. These categories were the top five spenders in the local marketplace, and with their fall-off, stations are finding themselves with more unsold units than ever before.

Syndication TV

Zenith is predicting a decrease of 2.0% in advertising expenditures in 2009, flat spending in 2010 and a 1.0% decrease in 2011. Signature programs like *Oprah* and *Ellen* will continue to do well in syndication. With spot pricing remaining favorable, advertisers will likely look for opportunities such as buying in off-network sitcoms on cable (e.g. *How I Met Your Mother* on Lifetime) and not pay a premium price by buying from syndicators. Station clearances for syndicated programmes will be tough to obtain as stations do not have the cash. Going forward, if more syndication sales are all-barter, time periods will evolve throughout the year, such as *Tyra Banks* now airing on WB affiliates. Advertisers must be nimble enough to take advantage of all options, with the strategy of moving money from venue to venue as opportunities arise. With the 09/10 market yet to unfold, we know that many categories are still challenged and they will in all likelihood not be replaced by new categories. Even the CPG category will be challenged by store brands as cash-strapped consumers look to cut costs. While many clients are taking a conservative approach to the marketplace, thinking opportunities will always exist, it is perhaps best for them to seize opportunities and negotiate better CPMs, flexibility, demand more added value and customized research metrics from the partner vendor.

Radio

As a whole, radio is down, and this downward trend is expected to continue, with radio falling 14.4% in 2009, 5.6% in 2010 and remaining flat in 2011. Of the two radio media, network radio is definitely the healthier, but it is still in a precarious position compared to a year ago. Categories that were once strong, such as retail and automotive, have cut spending in network radio, although the marketplace has been helped tremendously by increased spend from "big-box" stores such as Home Depot. This is largely because network radio vendors can provide better copy-splitting capabilities, which is key for this category. More advertisers are noticing this and are shifting their dollars away from local.

Radio has shown agility in this economic climate by adjusting the format of its programming, particularly when it comes to all-news, and this could translate into an opportunity to attract advertisers with positive ROI. News-only stations, for instance, had a 9.2% increase in listenership compared to first quarter last year.

Local radio has suffered more than network, and while internet radio (included in our online forecasts) is up, new venues such as satellite radio and HD radio have suffered setbacks from the recession. Although Liberty Media's recent loan to Sirius/XM helped save the newly merged satellite radio company from filing Chapter 11, we still expect the company to stagnate as the buzz has slowed and the fractured audience (150+ channels among 18 million subscribers) remains difficult to measure.

UNITED STATES OF AMERICA

Consumer magazines

Consumer magazine advertising spend is being revised primarily due to the current economic conditions. Final 2008 numbers showed revenue down 8.0% in 2008, and we are forecasting a continued decline of 18.0% in 2009. In 2010 we are forecasting an additional 10.0% decrease, and we expect spend in 2011 to remain flat. Through year-end 2008, magazine reported revenue declined by roughly 7.8%, while ad pages slipped 11.7% over 2007. Although 335 new magazines were launched in 2008, primarily within the health (31 new titles), regional (24 new titles), and food categories (17 new titles), more than 500 publications have folded in the past year, with regional magazines suffering from the most losses at 33 titles. The travel category saw 18 publications fold, with the home and automotive categories both closing 17 each. Since the last report, notable publications that have folded include *Blender*, *Condé Nast Portfolio*, and *Nickelodeon Magazine*. Another 13 titles now live exclusively online, including *PC Magazine* and *Information Security*.

Q1 2009 spending has been significantly down across the board, with automotive dollars down 26%. Retail and insurance have also slipped in the first quarter, both down 20% in spending. The double-digit cost increases of paper and postage incurred this year, along with dollars continuing to move online, have placed greater financial pressures on the publishing industry. These, along with limited space for magazine sales and wholesalers' reluctance to distribute new publications, are some reasons there has been a lack of support for new publications. Publishers are making proactive decisions to reduce frequency and rate-base as a way of cutting costs and ensuring circulation guarantees are being met. Another noticeable trend is that publications are making a conscious effort to enhance and improve their digital extensions, rightfully so in this economic climate. In addition to advertisers' constantly challenging publications for integrated, multi-platform programmes, these efforts are also due to the rising overhead expenses associated with the print version. Publishers recognise the brand equity, and are capitalising on it to create alternative revenue sources. In positive news, magazine readership is up - the total print audience is growing at a healthy 3.2%, with the business category increasing 8.0%, shelter 4.0% and fashion 3.5%. With ad paging down, advertisers are receiving more eyeballs in a less cluttered environment. With Q2 2009 paging down an estimated 23%, this will be a difficult year for magazines.

Business-to-business magazines

Business-to-business publications continue to be affected by the shift of dollars to online, as well as the postage and paper cost increases they face. We are projecting a reduction in advertising spend, with a 19% decrease in 2009 as well as an additional 11% decrease in 2010. Advertising spend for 2011 is expected to remain flat. From the user standpoint, digital publications are seen as a more convenient, environmentally-friendly way to find information, specifically with text-based search options. Speciality print publications are continuing to fold and some are moving forward as a digital brand only, which has also greatly reduced costs and overhead.

Newspapers

Newspaper advertising has been greatly affected by the recession, which has intensified advertisers' move towards free and lower-cost-alternatives, such as the internet. Newspaper advertising spend is expected to fall a drastic 20.0% in 2009, a revision of our April forecast of a decrease of 15.0%. It is then expected to fall 11.0% and 7.0% in 2010 and 2011 respectively. Huge declines in ad revenue and their outdated business models have made many major newspapers file for Chapter 11 bankruptcy protection, with the most recent being the Sun-Times Media Group in March 2009. This group publishes the *Chicago Sun-Times* in addition to more than 50 community newspapers. Shifts are occurring in the newspaper industry to reduce costs, which will result in drastic permanent changes. Newspapers are reducing their frequency, no longer publishing "daily" copies. *The Detroit Free*

UNITED STATES OF AMERICA

Press cut home delivery during days with low circulations (Mondays, Tuesdays, Wednesdays and Saturdays). Eventually more newspapers will likely cut home delivery to the high readership days of Thursdays, Fridays and Sundays. The number of newspapers in the market is being reduced as multi-paper cities are at risk of losing one or more of their publications. Already, *The Rocky Mountain News* and *The Tuscon Citizen* have closed their doors, leaving Denver and Tuscon with one major paper each. The trend towards digital is being embraced by many major newspapers, such as *The Seattle Post Intelligencer*, which has ceased its print operations. Digital has allowed subscribers to print pages, search for content, change print size and utilise other features. These digital editions are an exact copy of the previously printed newspaper, with some newspapers including ads. Because of this trend towards digital, new distribution technologies will emerge, including electronic readers such as the Kindle DX, Plastic Logic and the Sony Reader. Several large newspapers, including *The New York Times*, the *Wall Street Journal* and the *Washington Post*, are offering the US$489 Kindle DX to subscribers at a reduced price for a long-time commitment. These devices offer the same "reader experience" of hard copy paper while showing streaming video and other digital features. They are also a more-conducive format for display advertising. One last trend for newspaper companies is that they have restructured themselves into media companies (Tribune 365, NBC Local), consolidating their local print precuts with online, radio, TV, OOH and digital.

Internet

As marketers continue to rebalance their overall advertising budgets, we see a greater share going towards online, as people are spending more and more time there. In May 2009, the average internet user spent seven minutes more online per day than in May 2008, according to comScore. Overall, we are projecting internet advertising to increase 12.6% in 2009, 13.0% in 2010 and 18.2% in 2011. This is a more rapid increase than expected in our April forecasts. In addition to people spending more time online, the market has seen a huge decrease in traditional media, led by print, which has resulted in a shift of ad dollars into interactive channels. Also, because most marketers find internet ads more measurable than ads in other media, the more-measurable tactics are more likely to survive when budgets are tight. Additionally, internet ads are more targetable, and that makes for more efficient spending.

The internet offers the flexibility to respond to changing advertiser needs and spend, while also delivering low cost media and aggressive behavioral, demographic, and regional targeting. Driving this need is the continued consumer selectiveness on where and when they make their online purchases. ComScore recently reported that 62% of US consumers who were decreasing their shopping expenses were using coupons more often to do so. In fact, couponing sites showed the largest month-on-month change in growth with a 32% increase between October and November 2008. Marketers are responding to price and selection sensitivity with evolved online marketing programmes designed to stand out from online competition. Personalised messaging, hyper-local targeting, time-relevant offers and coupons, search marketing adoptions, and the evolution of loyalty programmes are driving online expenditures. Search will continue to grow, but not at the rampant pace it has in the past. Cost-per-click metrics translate to pay for what you get, but search ceilings may flatten as the market reaches maturity.

Traditional out of home

Advertising spend is expected to decrease 10.5% in 2009, unchanged from our previous forecast, as advertisers in the automotive, banking and real estate sectors cancel long-term contracts. In combination with the weak economy, the market has become soft, with advertisers reluctant to experiment in the OOH venue. OOH will not suffer as much as other media, since people will still need to get from place to place, however with the weak economy, consumers are not driving as much, meaning the audience will not grow as it

UNITED STATES OF AMERICA

did in the past. Digital OOH shows potential, although it faces large obstacles right now, such as government approvals and software costs. With digital capabilities, plans are in the works to sell inventory based on dayparts, with drive-time costing more. As advertisers reevaluate media decisions amidst a troubled economy, those that have not traditionally been big billboard spenders are becoming more interested in the medium. In 2010, spend is forecast to decrease 5.7% and fall another 1.3% in 2011.

Non-traditional out of home

Zenith forecasts that advertising expenditures for non-traditional OOH will decrease 1.1% in 2009, but grow 3.7% and 10.0% across 2010 and 2011 respectively. OOH companies are drawing significant funding and have been continuously signing up networks for their platforms. Place-based and digital OOH is gaining scale and traction but will remain highly negotiable in 2009. Vendors will continue to offer deals to entice advertisers to try their media. Measurement and scale will continue to hinder the sector as a whole, while more vendors will package in custom research to prove themselves. As digital OOH networks consolidate, it will make this medium easier to buy for advertisers. In January, CBS Outernet announced that it would be partnering with Ripple and SeeSaw Networks, while NBC rolled out NBC Everywhere with plans to run networks through IdeaCast and the University Network. ABC, meanwhile, has an out-of-home presence at the pump, maintaining partnerships with Gas Station TV and Pump Top TV. With the OVAB (Out of Home Video Advertising Bureau) having introduced standard measurement guidelines in October, advertisers who prefer media with a better ROI measurement will be more likely to use location-based video advertising and other forms of non-traditional OOH.

Cinema

Zenith expects cinema advertising expenditures to grow 15.0% year-on-year from 2009 to 2011. According to the Cinema Advertising Council (CAC), total advertising revenue for CAC theatres - which accounts for 82% of US movie screens - grew 5.8% in 2008 to over US$571 million. This included on-screen cinema advertising, which accounts for over 90% of cinema advertising revenue, as well as revenues that come from audio programming, sampling, special events, concession promotions and lobby advertising. Marketers are turning to cinema to increase engagement, impact and ROI, as cinema has become a regular part of national and local buys. The box office and ticket sales were also up in 2008, 16.0% and 17.5%, respectively. 3-D cinema is taking off, with studios enjoying that they can charge as much as US$3 more a ticket and with parents enjoying the cheaper alternative to an amusement park. *Monsters vs. Aliens* has already grossed US$195 million, making it the second-highest grossing movie of 2009 so far (following *Star Trek*). A major problem now is that there are not enough giant screens for all the 3-D movies that are coming to theatres. For instance, earlier this year, *The Jonas Brothers* knocked *Coraline* out of 3-D theatres after just three weeks. Imax is working with AMC and Regal Entertainment Group to provide more giant screens, with Imax providing the projectors and screens, and the chains providing the real estate and renovations. Regal Entertainment Group recently announced that it is planning to add 1,500 new 3D-capable screens in addition to the 2,000 existing ones. In such a fragmented media environment, cinema continues to be a way to reach a higher proportion of multi-tasking and ad-avoiding consumers. Cinema advertisements have also been shown to have a recall power two to five times higher than that of TV. Another key driver in the growth of cinema advertising has been the adoption of digital networks for serving ads to movie screens, which allows marketers to strategically target specific movies and markets. Cinema agency National CineMedia (NCM) estimates that around 90% of their screens are now on the digital network. Its main competitor, Screenvision, has screens covering 92% of the country and representing 48% of the advertising market. This has increased appeal with new categories such as retail and CPG.

UNITED STATES OF AMERICA

Direct mail

Zenith is projecting a decrease in direct mail of 4.6% in 2009; an increase of 2.5% in 2010 and an increase of 3.1% in 2011. Traditional direct mail will continue to benefit from follow-up on leads and inquiries generated online. The majority of this increase will come from addressed direct mail, as the increased use of advertising on the internet will generate a larger volume of addressed mail to respond to inquiries. For the unaddressed sector of direct mail, Zenith is projecting a deep fall-off in use for the remainder of 2009-2011. We anticipate this segment of the direct mail business (unidentified solicitation) to be affected by the continued downturn of the economy and the increase in costs due to postage hikes.

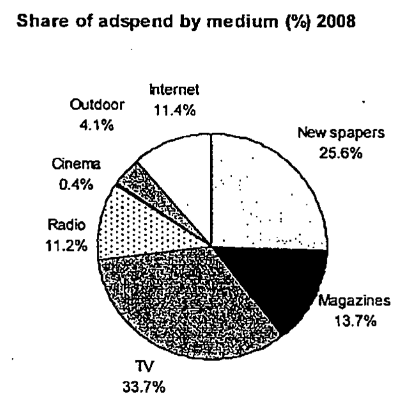
Telemarketing

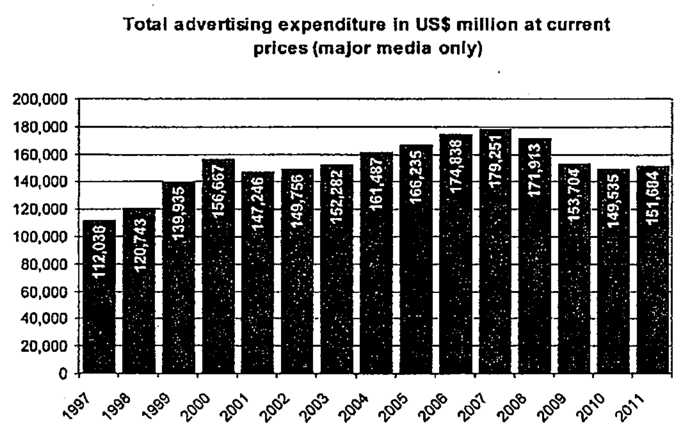
Our forecast remains the same for this media category. Telemarketing has been relatively flat for 2000-2008 and only modest increases are expected for the remainder of the decade, due to the "do not call" lists that were mandated by the government and the monetary penalties associated with violations. As a result, Zenith continues to forecast modest growth through 2010 with a 2.0% annual growth rate during 2009, 1.9% in 2010 and only a 1.0% growth rate in 2011.

Summary

As the recession deepens, no medium has remained unaffected. Industries that topped the advertising spend markets a year ago, such as automotive and retail, are slashing their budgets. Auto sales continue to fall as the industry is reeling from the GM and Chrysler bankruptcies. It is unclear the long-term effects this will have on advertising budgets, but consumers are changing their purchasing habits, as we see by the anaemic consumer spending during the last few months of 2008. 2008 advertising expenditure increased largely on account of the Olympics and the Presidential election, but without these two events in 2009, spending is expected to drop 10.6% overall, with another slight decline of 2.7% in 2010, despite the fact that there will be Winter Olympics in Vancouver. Traditional media are struggling to reach new consumers and as a result are losing revenue. Print, in particular, is suffering, with readership decreasing in the double-digits as consumers move to cheaper, more convenient news online. Consumers' media habits are changing as traditional media are converging into easily-accessible, on-demand forms. Zenith predicts that the internet and other emerging media spending will continue to grow at the expense of traditional media.

UNITED STATES OF AMERICA





UNITED STATES OF AMERICA

Year-on-Year % Change

	2006 v 2005		2007 v 2006		2008 v 2007		2009 v 2008		2010 v 2009		2011 v 2010	
	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices
Television												
Network	3.5	0.2	-1.0	-3.7	0.0	-3.7	-8.0	-7.2	0.0	0.1	-4.0	-4.7
National Cable	5.5	2.2	6.0	3.1	6.0	2.1	0.0	0.9	5.0	5.1	0.0	-0.7
Spot	7.0	3.6	-1.0	-3.7	-8.0	-11.4	-14.0	-13.2	-6.0	-5.9	0.0	-0.7
Syndication	3.0	-0.3	-1.0	-3.7	6.0	2.1	-2.0	-1.1	0.0	0.1	-1.0	-1.7
Total TV	**5.4**	**2.0**	**0.6**	**-2.1**	**-1.5**	**-5.1**	**-7.9**	**-7.0**	**-0.7**	**-0.6**	**-1.3**	**-2.0**
Radio												
Network radio	1.0	-2.2	2.0	-0.8	1.5	-2.2	-12.0	-11.2	0.0	0.1	0.0	-0.7
Local radio	1.5	-1.7	1.5	-1.3	-10.0	-13.3	-14.5	-13.7	-6.0	-5.9	0.0	-0.7
Total radio	**1.5**	**-1.7**	**1.5**	**-1.3**	**-9.4**	**-12.7**	**-14.4**	**-13.6**	**-5.6**	**-5.5**	**0.0**	**-0.7**
Magazines												
Consumer magazines	4.0	0.7	4.6	1.7	-8.0	-11.4	-18.0	-17.3	-10.0	-9.9	0.0	-0.7
Business-to-business magazines	3.0	-0.3	0.0	-2.7	-8.0	-11.4	-19.0	-18.3	-11.0	-10.9	0.0	-0.7
Total magazines	**3.8**	**0.5**	**3.6**	**0.7**	**-8.0**	**-11.4**	**-18.2**	**-17.5**	**-10.2**	**-10.1**	**0.0**	**-0.7**
Newspapers	**2.5**	**-0.7**	**-3.0**	**-5.7**	**-12.0**	**-15.2**	**-20.0**	**-19.3**	**-11.0**	**-10.9**	**-7.0**	**-7.6**
Outdoor												
Billboards	6.0	2.7	6.0	3.1	-1.0	-4.6	-10.5	-9.7	-5.7	-5.6	-1.3	-1.9
Other out-of-home	15.0	11.4	15.0	11.8	3.0	-0.8	-1.1	-0.2	3.7	3.8	10.0	9.2
Total outdoor	**10.8**	**7.3**	**11.0**	**7.9**	**1.3**	**-2.4**	**-5.0**	**-4.2**	**0.0**	**0.1**	**5.8**	**5.1**
Internet												
Display	-	-	30.6	27.0	15.0	10.8	3.0	3.9	5.3	5.4	10.0	9.2
Internet video/rich media	-	-	7.8	4.8	40.5	35.3	19.0	20.1	19.5	19.6	20.0	19.2
Classified	-	-	36.1	32.3	15.0	10.8	1.8	2.7	5.6	5.7	8.0	7.2
Paid search	-	-	33.1	29.5	22.0	17.5	20.0	21.1	15.6	15.8	18.0	17.2
Internet radio	-	-	-	-	-	-	15.0	16.0	9.7	9.8	15.0	14.2
Podcast	-	-	-	-	15.0	10.8	11.9	12.9	10.6	10.7	15.0	14.2
Other	-	-	20.2	16.9	15.0	10.8	13.6	14.6	19.6	19.7	40.0	39.0
Total Internet	**25.0**	**21.1**	**29.0**	**25.5**	**21.1**	**16.7**	**12.6**	**13.6**	**13.0**	**13.1**	**18.2**	**17.4**
Cinema	**15.0**	**11.4**	**15.1**	**11.9**	**14.9**	**10.7**	**15.0**	**16.0**	**15.0**	**15.1**	**15.0**	**14.2**
TOTAL MAJOR MEDIA	**5.2**	**1.9**	**2.5**	**-0.3**	**-4.1**	**-7.6**	**-10.6**	**-9.8**	**-2.7**	**-2.6**	**1.4**	**0.7**
Direct mail												
Addressed	5.7	2.4	6.0	3.1	4.5	0.7	-4.4	-3.5	3.0	3.1	3.5	2.8
Unaddressed	-8.3	-11.2	-9.4	-11.9	-3.9	-7.4	-6.0	-5.1	-1.0	-0.9	0.0	-0.7
Total direct mail	**3.2**	**-0.1**	**3.5**	**0.7**	**3.3**	**-0.5**	**-4.6**	**-3.7**	**2.5**	**2.6**	**3.1**	**2.3**
Telemarketing	**0.0**	**-3.2**	**1.8**	**-1.0**	**2.0**	**-1.8**	**2.0**	**2.9**	**1.9**	**2.0**	**1.0**	**0.3**
Sales promotion												
Sales promotion (consumer)	3.8	0.5	3.9	1.0	1.5	-2.2	0.4	1.3	-4.0	-3.9	3.4	2.7
Sales promotion (business)	4.0	0.7	3.7	0.9	-0.9	-4.5	-6.3	-5.4	-3.4	-3.3	4.5	3.8
Total sales promotion	**3.9**	**0.6**	**3.8**	**0.9**	**0.3**	**-3.4**	**-2.9**	**-2.0**	**-3.7**	**-3.6**	**3.9**	**3.2**
Public relations	**13.9**	**10.3**	**11.8**	**8.7**	**7.3**	**3.4**	**3.0**	**3.9**	**1.7**	**1.8**	**8.8**	**8.0**
Event sponsorship	**10.5**	**7.0**	**11.6**	**8.5**	**22.9**	**18.4**	**-1.1**	**-0.2**	**-2.4**	**-2.3**	**10.7**	**9.9**
Directories												
TOTAL MARKETING SERVICES	**3.2**	**0.0**	**3.6**	**0.8**	**2.5**	**-1.3**	**-2.3**	**-1.4**	**-1.0**	**-0.9**	**3.3**	**2.6**
GRAND TOTAL	**4.1**	**0.8**	**3.1**	**0.3**	**-0.5**	**-4.1**	**-5.9**	**-5.0**	**-1.7**	**-1.6**	**2.5**	**1.8**

UNITED STATES OF AMERICA

Advertising Expenditure in US$ million at Current Prices

	1997	1998	1999	2000	2001	2002	2003	2004
Television								
Network	13,709	14,353	15,028	16,380	15,643	15,799	16,273	17,412
National Cable	5,418	6,231	7,700	9,548	9,834	10,129	10,940	11,815
Spot	20,004	21,076	22,371	23,976	22,000	23,430	22,024	23,786
Syndication	1,578	1,811	2,200	2,354	2,236	2,281	2,372	2,491
Total TV	**40,709**	**43,471**	**47,299**	**52,258**	**49,714**	**51,640**	**51,610**	**55,504**
Radio								
Network radio	646	720	900	1,000	1,000	1,000	1,011	1,051
Local radio	13,148	14,691	17,681	19,819	17,800	18,423	18,570	19,313
Total radio	**13,794**	**15,411**	**18,581**	**20,819**	**18,800**	**19,423**	**19,581**	**20,364**
Magazines								
Consumer magazines	13,748	14,573	15,593	17,700	15,930	15,611	16,548	17,541
Business-to-business magazines	-	-	5,600	6,278	5,610	5,292	5,164	5,216
Total magazines	**13,748**	**14,573**	**21,193**	**23,978**	**21,540**	**20,903**	**21,712**	**22,757**
Newspapers	**39,079**	**41,341**	**43,697**	**48,700**	**45,778**	**45,320**	**46,227**	**48,538**
Outdoor								
Billboards	1,890	1,952	2,195	2,320	2,274	2,392	2,476	2,575
Other out-of-home	1,912	2,075	2,370	2,592	2,540	2,553	2,617	2,722
Total outdoor	**3,802**	**4,027**	**4,565**	**4,912**	**4,814**	**4,945**	**5,093**	**5,297**
Internet								
Display	-	-	-	-	-	-	-	-
Internet video/rich media	-	-	-	-	-	-	-	-
Classified	-	-	-	-	-	-	-	-
Paid search	-	-	-	-	-	-	-	-
Internet radio	-	-	-	-	-	-	-	-
Podcast	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Total internet	**906**	**1,920**	**4,600**	**6,000**	**6,600**	**7,250**	**7,758**	**8,688**
Cinema						**275**	**303**	**339**
TOTAL MAJOR MEDIA	**112,038**	**120,743**	**139,935**	**156,667**	**147,246**	**149,756**	**152,282**	**161,487**
Direct mail								
Addressed	-	-	-	32,705	34,340	33,877	34,894	35,582
Unaddressed	-	-	-	5,324	5,590	6,453	6,646	7,288
Total direct mail	**32,913**	**34,559**	**36,287**	**38,029**	**39,930**	**40,330**	**41,540**	**42,869**
Telemarketing	-	-	-	**45,300**	**45,300**	**45,300**	**45,300**	**45,300**
Sales promotion								
Sales promotion (consumer)	-	-	-	39,674	37,961	39,097	39,922	41,391
Sales promotion (business)	-	-	-	40,129	38,161	38,535	40,165	41,658
Total sales promotion	-	-	-	**79,803**	**76,122**	**77,632**	**80,087**	**83,049**
Public relations	-	-	-	**2,817**	**2,557**	**2,575**	**2,663**	**2,977**
Event sponsorship	-	-	-	**8,700**	**9,301**	**9,650**	**10,251**	**11,117**
Directories	-	-	-	**13,200**	**13,600**	**13,800**	**14,324**	**14,238**
TOTAL MARKETING SERVICES	**32,913**	**34,559**	**36,287**	**187,849**	**186,810**	**189,287**	**194,165**	**199,551**
GRAND TOTAL	**144,951**	**155,302**	**176,222**	**344,516**	**334,056**	**339,043**	**346,448**	**361,038**

UNITED STATES OF AMERICA

	2005	2006	2007	2008	2009	2010	2011
Television							
Network	17,587	18,202	18,020	18,020	16,578	16,578	15,915
National Cable	12,878	13,587	14,402	15,266	15,266	16,029	16,029
Spot	22,359	23,924	23,685	21,790	18,739	17,615	17,615
Syndication	2,566	2,643	2,616	2,773	2,718	2,718	2,690
Total TV	55,390	58,355	58,723	57,849	53,302	52,941	52,250
Radio							
Network radio	1,083	1,094	1,116	1,132	997	997	997
Local radio	19,506	19,799	20,095	18,086	15,463	14,536	14,536
Total radio	20,589	20,892	21,211	19,218	16,460	15,532	15,532
Magazines							
Consumer magazines	18,488	19,228	20,112	18,503	15,173	13,655	13,655
Business-to-business magazines	5,414	5,576	5,576	5,130	4,155	3,698	3,698
Total magazines	23,902	24,804	25,688	23,633	19,328	17,354	17,354
Newspapers	50,237	51,493	49,948	43,954	35,163	31,295	29,105
Outdoor							
Billboards	2,678	2,839	3,009	2,979	2,666	2,514	2,483
Other out-of-home	3,048	3,506	4,031	4,152	4,107	4,259	4,684
Total outdoor	5,726	6,344	7,040	7,131	6,773	6,773	7,167
Internet							
Display	-	2,723	3,556	4,089	4,212	4,436	4,880
Internet video/rich media	-	1,224	1,319	1,854	2,206	2,636	3,163
Classified	-	1,998	2,719	3,127	3,183	3,363	3,632
Paid search	-	4,871	6,484	7,910	9,492	10,978	12,954
Internet radio	-	-	-	200	230	253	291
Podcast	-	-	22	25	28	31	36
Other	-	1,674	2,011	2,313	2,627	3,141	4,398
Total internet	9,992	12,490	16,111	19,519	21,980	24,837	29,352
Cinema	400	460	529	608	699	804	925
TOTAL MAJOR MEDIA	166,235	174,838	179,251	171,913	153,704	149,535	151,684
Direct mail							
Addressed	36,489	38,575	40,875	42,715	40,835	42,060	43,533
Unaddressed	8,010	7,348	6,654	6,395	6,011	5,951	5,951
Total direct mail	44,498	45,922	47,530	49,109	46,846	48,011	49,483
Telemarketing	45,300	45,300	46,100	47,022	47,962	48,874	49,362
Sales promotion							
Sales promotion (consumer)	42,635	44,251	45,965	46,676	46,863	44,989	46,518
Sales promotion (business)	43,040	44,763	46,419	46,005	43,107	41,641	43,515
Total sales promotion	85,676	89,014	92,384	92,681	89,970	86,630	90,033
Public relations	3,349	3,813	4,263	4,575	4,713	4,793	5,214
Event sponsorship	12,106	13,377	14,929	18,349	18,147	17,712	19,607
Directories	14,284	14,380	14,295	13,171	12,130	11,451	10,947
TOTAL MARKETING SERVICES	205,212	211,806	219,500	224,908	219,768	217,470	224,647
GRAND TOTAL	371,447	386,644	398,751	396,821	373,473	367,005	376,331

Advertising data: ZenithOptimedia
Notes:
1) Excludes agency commission
2) Excludes production costs
3) Classified advertising is incuded in internet and newspapers
4) After discounts
5) Includes national and local media
6) Internet includes display, video (rich media), classified, search (paid), internet radio, podcast and other (online video, mobile and widgets/gadgets)

9

Live365: Historical U.S. Internet Radio Network Revenue

	Oct 05-Sep 06 FY2006	Oct 06-Sep 07 FY2007	Oct 07-Sep 08 FY2008	Oct 08-Sep 09 FY2009
U.S. ATH (Royalty Bearing)	116,815,971	108,598,176	74,663,541	61,698,669
% of Total ATH	*51.7%*	*45.2%*	*42.8%*	*40.5%*
U.S. Revenue (Internet Radio Network Only)				
Internet Radio Network				
Subscription Revenue (U.S. only)	$2,230,456	$2,448,089	$2,962,006	$2,666,016
% of Total Subscription Revenue	*79.5%*	*80.9%*	*78.8%*	*76.8%*
Advertising Revenue (U.S. only)	$2,058,358	$2,210,215	$1,970,098	$1,746,392
% of Total Subscription Revenue	*99.2%*	*98.6%*	*94.2%*	*95.3%*
Other (CD & Merchandise, Library, Live365)	$47,737	$49,162	$48,826	$25,717
Total U.S. Revenue (Internet Radio Network only)	$4,336,551	$4,707,466	$4,980,930	$4,438,126
% of Total Revenue (Internet Radio Network only)	*88.0%*	*88.5%*	*84.5%*	*83.2%*
% of Total Revenue (Broadcast Service and Internet Radio Network)	*49.7%*	*49.2%*	*49.5%*	*47.6%*

10

Live365: Historical Operating Income Statement

	Oct'05-Sep'06 FY2006	Oct'06-Sep'07 FY2007	Oct'07-Sep'08 FY2008	Oct'08-Sep'09 FY2009
Revenue				
Broadcast Services				
Professional Services	$1,989,891	$2,646,190	$2,738,253	$2,790,995
Consumer Broadcast	$1,602,876	$1,521,203	$1,390,527	$1,187,678
Other (Syndication, Label Services)	$211,055	$90,723	$27,234	$36,611
Total Revenue (Broadcast Services)	**$3,803,822**	**$4,258,116**	**$4,156,014**	**$4,015,284**
Internet Radio Network				
Subscription	$2,804,052	$3,026,012	$3,757,326	$3,471,838
Advertising	$2,074,727	$2,242,621	$2,090,330	$1,833,125
Other (CD & Merchandise, Library, Live365)	$47,737	$49,162	$48,826	$26,332
Total Revenue (Internet Radio Network)	**$4,926,516**	**$5,317,795**	**$5,896,482**	**$5,331,295**
Total Revenue (Broadcast Services and Internet Radio Network)	**$8,730,338**	**$9,575,912**	**$10,052,495**	**$9,346,579**
Direct Cost of Sales				
DSRP	$1,675,968	$2,011,080	$1,899,082	$2,114,104
ASCAP, BMI, SESAC, Thomson MP3	$305,444	$360,925	$337,501	$319,000
Bandwidth	$594,675	$552,199	$593,140	$371,673
Ad Rep Firms	$729,364	$870,020	$625,029	$545,688
IT and CS (payroll)	$407,894	$408,198	$391,688	$407,426
Others (cc exp, colo facilities, Ad servers, etc)	$689,812	$774,916	$773,858	$716,966
Total Cost of Sales	**$4,403,157**	**$4,977,338**	**$4,620,298**	**$4,474,868**
Operating Expenses (excl. Depreciation, Interest and Tax)				
Net Payroll (including R&D)	$1,963,791	$2,130,766	$2,269,160	$2,119,306
EE Benefits (PTO, payroll tax, health ins, etc)	$471,771	$558,741	$501,159	$535,529
Other SG&A (travel, office, telecomm, outside, etc)	$1,450,374	$1,288,220	$1,217,784	$1,148,744
Total Operating Expenses	**$3,885,936**	**$3,977,728**	**$3,988,103**	**$3,803,679**
Total Costs and Operating Expenses	**$8,289,093**	**$8,955,066**	**$8,608,401**	**$8,278,436**
Operating Profit (EBITDA)	**$441,245**	**$620,846**	**$1,444,094**	**$1,068,143**

Before the
COPYRIGHT ROYALTY BOARD
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of	)	
	)	Docket No. 2009-1, CRB Webcasting III
DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS	)	

<u>TESTIMONY OF DIANNE LOCKHART</u>
<u>(LIVE365, INC. WEBCASTER)</u>

BACKGROUND

1. I am an entrepreneur, the owner and operator of Solace Radio ("Solace"), which launched on November 6, 2006. Solace provides a mixture of an ultra-niche genre of Hebrew Roots Biblical teaching and multi-language music and has had listeners tune in for a total of more than 245,600 hours reaching more than fifty countries worldwide. I was previously the owner and operator of Meander Comedy Radio ("Meander"). Solace and Meander are/were Internet radio stations that webcast on the Live365, Inc. ("Live365") network.

2. Prior to becoming an Internet broadcaster, I had been in the terrestrial broadcasting industry for approximately twenty-five years – beginning in 1977 in terrestrial radio as on-air talent, sales, news director, producer, and news-anchor. I served for approximately three years as salesperson, sales manager, and commercial production manager. I was also a news correspondent for both ABC and CBS affiliate television stations serving the south-central area of New Mexico. I then served another year and a half in terrestrial radio sales. Subsequently, I was a broadcast media buyer, a contract website designer, and a marketing consultant for a family operated chain.

EXHIBIT
tabbies
Live365 #33

3. I also have direct experience in the music industry as a performer. Specifically, I am a songwriter, performer, musical copyright owner, former member of the Nashville Songwriter's Association, and a former charter member of the New Mexico Country Music Association. In addition, I was nominated for New Female Vocalist of the year in New Mexico in 1987. Two of my songs were semi-finalists in the Dallas Songwriter's Association in 2005. Finally, two of my songs were included on Robin James' *People Say* album.

MEANDER COMEDY RADIO WEBCAST

4. On November 21, 2005, I launched Meander Comedy Radio ("Meander"), a freeform music webcast on Live365 that quickly attained some success. The station was an offshoot of my website MeanderMagazine.com. In February 2006, I changed the station's genre to stand-up comedy as a means to quickly expand the listening audience while offering unique entertainment – "clean comedy." I intended to make this station commercially viable and marketable, so as to attain syndication on terrestrial and satellite radio.

5. I marketed Meander nationwide with newsletters, press releases, word of mouth campaigns, and other public relation tools. These efforts expanded the webcast's popularity, as evidenced by the many expressions of gratitude I received from numerous emerging comedians. These performers were appreciative of the exposure Meander provided them.

6. Within 11 months of Meander's launch, its listenership exceeded more than 28,000 ATH per month, with most listeners from the United States. The station's mainstream clean comedy format made it one of the top stations on Live365's network. Meander quickly became a much-needed outlet for established and emerging comedians to gain national and international exposure.

7. Many listeners expressed their gratitude for Meander's clean comedy format. In addition, comedian's managers began to regularly contact me for comedian referrals for booking performances. In turn, I recommended emerging artists in order to help further their careers.

8. Meander was a one person operation – I selected and edited the programming, marketed the program, and conducted listener surveys. Running the webcast would have been much more difficult, if not impossible, if it were not for the tools, expertise, and resources provided by Live365's aggregation service. Moreover, Live365's channel directory allowed listeners that were not familiar with Meander to quickly find and enjoy the station. Ultimately, Live365 made a lifelong dream of operating my own successful station come true.

9. To my surprise Entercom Broadcasting Corporation ("Entercom") contacted me to syndicate Meander on nine of their stations across America. Entercom's Vice President of Programming, Bill Pasha, told me that Meander's format and content was what the company needed. Subsequently, we discussed the details of the syndication several times.

10. Meander and Entercom were at the final stage of negotiation in 2007 when the royalty rates were announced by the Copyright Royalty Board ("CRB"). Immediately, the royalties became more than what I could afford and made the webcast too costly for Entercom. In an effort to avoid excessive royalties, I contacted the label for the majority of Meander's comedians, Uproar Records ("Uproar"), to negotiate a direct license deal. Uproar rejected my inquiry. Consequently, Meander did not get syndicated, and I had to shut it down.

11. Meander's demise could have been prevented had it not been for the adverse impact Webcasting II's rates have had on Internet radio stations such as mine. As my experience demonstrates, the excessive rates had a dire impact on webcasters' economic opportunities.

WHY I CHOSE LIVE365

12. After years of terrestrial broadcasting experience, I wanted to operate my own radio station. However, due to the high costs and my financial situation, I would have never been able to do so. My dream became reality when I found Live365. Their aggregation service provides invaluable cutting-edge broadcasting and marketing tools that I could *never* afford otherwise. The extensive technical assistance and customer service Live365 provides would alone cost thousands of dollars a year.

13. I am not only proud to be a small webcaster in the largest Internet radio network and aggregation service, but am also privileged. Without all the things Live365 provides me as a webcaster, I would not be able to do what I do. There are other companies that provide similar services, but Live365 makes it possible with ongoing development of software and customer support that is unequaled and invaluable to a one-person operation such as mine. Live365 provides everything I need to compete and succeed in my industry, despite the onerous royalty constraints levied on Internet radio.

14. For example, I can analyze how my entire station playlist is ranking or drill down to see how an individual track is doing with the listeners. I can see listeners' favorite tracks and least favorite, making it easy to program material my audience likes, and thereby increasing station's popularity and ranking. Live365 includes purchase buttons, Facebook and Twitter links, donation buttons, "favorites" buttons, and many other features, taking much of the work out of it for me since I do not have time for that kind of work. These features help market the station and get exposure to new listeners.

15. Despite the ultra-niche genre, Solace Radio is averaging around 10,500 listening hours per month, due to all the product features for broadcasters that Live365 makes available to

me. I am able to market more effectively, in the hope that someday Solace Radio will be as marketable as Meander Comedy Radio was.

16. More significantly, the artists' exposure generated by Internet radio is invaluable. I have pursued my songwriting dreams for many years (under the name Dianne James). As a singer/songwriter, who holds copyrights to several of my works, I would much rather have airplay and exposure than the small amount of revenue I see in performance royalties. This promotional exposure is *much* more valuable to me, as it opens doors that a small amount of performance royalty fees could never do. As it stands now, excessive royalties discourage webcasts from playing emerging artists' work, hence decreasing exposure. There are more opportunities for a songwriter, such as me, to gain exposure on Internet radio than on terrestrial radio. Since their financial models are different, I feel that there needs to be fewer constraints on Internet radio. It is one of my greatest hopes that Internet, terrestrial, and satellite radio will enjoy a level playing field.

17. The impact of Live365 and aggregators like it are far-reaching and not fully appreciated. Live365 and other aggregators like it are a catalyst for change in an entire industry and way of life for thousands of people and their families. They have made it possible for experienced professionals, minorities, and people with disabilities to compete in the field that they love, because they can affordably do this from their home. Live365 has removed the barriers and provided me and thousands of others with a way to reach a worldwide audience with music, talk, religious ministries, sports, and hundreds of other genres.

18. Through Live365 and services like it, a webcaster reaches out to the world with a message of positivity, hope, and new perspectives. I am thankful to be a part of such a monumental outreach and global awareness building. What a shame and an injustice it would be

if this invaluable opportunity was lost due to the constraints imposed on Live365's ability to compete and remain a viable company because of excessive royalties. The much higher royalty rates on Internet radio impedes the success and ultimate survival of this company and many others like it.

19. The CRB judges have the unique opportunity of setting the rates that will allow profound advances in this relatively new industry which has only *begun* to shine. Companies such as Live365 depend on the CRB judges to set appropriate rates that govern Internet aggregators.

I declare under the penalty of perjury that the foregoing is true and correct.

Dianne Lockhart

Before the
COPYRIGHT ROYALTY BOARD
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of	)	
	)	Docket No. 2009-1, CRB Webcasting III
DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS	)	

<u>WRITTEN REBUTTAL TESTIMONY OF</u>

<u>DR. MICHAEL A. SALINGER</u>

June 7, 2010

I. QUALIFICATIONS

1. My name is Michael A. Salinger. I am Professor of Economics at the Boston University School of Management and Managing Director of LECG, a company that provides economic analysis for legal and regulatory proceedings.

2. From July 2005 through June 2007, I took a leave of absence from Boston University to serve as Director of the Bureau of Economics at the United States Federal Trade Commission (FTC).

3. I joined the Boston University faculty in 1990. Most of the courses I have taught have been in managerial economics or statistics. I have taught economics at the undergraduate, masters, doctoral, and executive level. I have taught statistics at the undergraduate and masters level. I have also taught business history, health care economics, and health care finance. I have been faculty director of the undergraduate business program, faculty director of the undergraduate honors program in the School of Management, and chairman of the Department of Finance and Economics. After returning to Boston University from the FTC, I was named an Everett W. Lord Distinguished Faculty Scholar. Prior to joining the Boston University faculty, I was an associate professor at the Graduate School of Business at Columbia University.

4. My area of specialization within economics is "industrial economics" (or "industrial organization"). I have published on a wide variety of economic topics and have served on the editorial boards of both *The Journal of Industrial Economics* and *The Review of Industrial Organization*, two journals that specialize in publishing academic articles on industrial economics. I am currently a co-editor of *Competition Policy*

International, a policy-oriented academic journal that focuses on competition policy and regulation.

5. My prior experience as an expert witness includes two appearances before a Copyright Arbitration Royalty Panel and one before the Copyright Royalty Board, all on behalf of Devotional Broadcasters in proceedings to determine the allocation of copyright royalty fees paid by cable operators for the retransmission of distant broadcast signals. Two of those appearances (and the reports associated with them) concerned my evaluation of econometric studies put forward by other parties as possible bases for allocating the copyright fees. My prior consulting experience also includes a report and deposition testimony for Turner Broadcasting (which at the time was owned by Time-Warner) about the fees cable networks should pay ASCAP for the performance rights to music in the programming on its cable networks.

6. My affiliation with LECG started on August 1, 2007. Prior to working at the FTC, I was a special consultant to NERA and, before that, an academic adviser to the Princeton Economics Group. Over my career, I have worked on a variety of consulting assignments associated with legal and regulatory proceedings.

7. I received my BA, *magna cum laude* and with honors in economics, from Yale University in 1978. I received a Ph.D. in economics from the Massachusetts Institute of Technology in 1982.

8. For further details on my qualifications, see my curriculum vitae, which is attached as Exhibit 1 to my statement.

II. ASSIGNMENT

9. I have been asked by counsel to Live365 to review and comment on the report by Dr. Michael D. Pelcovits submitted by SoundExchange in support of its proposal for rates to be paid by non-interactive webcasting services for the use of sound recordings under the statutory licenses set forth in 17 U.S.C. §§ 112 and 114.

III. SUMMARY OF DR. PELCOVITS' MAIN POINTS

10. SoundExchange asked Dr. Pelcovits to determine a range of royalty rates that would be reasonable for non-interactive services to pay the copyright owners of the sound recordings they transmit. He claims to have tried to determine rates that should "most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and willing seller."[1]

11. In broadest terms, the methodology Dr. Pelcovits uses to assess the reasonableness of the proposed rates is a "benchmark analysis." Generally speaking, a benchmark analysis of a reasonable rate requires: (1) a "benchmark rate" (i.e., some rate that we can observe which is different than the one which we are trying to determine); and (2) an "adjustment factor" to get the "target rate" (i.e., the rate to be determined).

12. Dr. Pelcovits computes two benchmarks based on existing contracts for copyright royalties. In one, which I will call the "WSA Agreement Approach," the "benchmark rates" are per-play rates agreed to between SoundExchange and two sets of webcasters for rights governed by the compulsory license that forms the basis of this proceeding. One set of webcasters who agreed to the rates used in this analysis is radio

[1] SoundExchange Trial Ex. 2 (Amended & Corrected Written Direct Testimony of Dr. Michael Pelcovits, Feb. 16, 2010 ("Pelcovits ACWDT")) at 2.

stations represented by the National Association of Broadcasters ("NAB"). The other set of rates used in this analysis comes from an agreement with Sirius XM Radio to cover Internet streaming of programming that it produces. In determining this benchmark, Dr. Pelcovits merely averages the rates to which these two groups agreed. With this average, Dr. Pelcovits makes no adjustment. Under the "WSA Agreement Approach," the "benchmark rates" and the "target rates" range from $0.00175 per play in 2011 to $0.00245 in 2015.[2]

13. In the second benchmark approach, which I will refer to as the "Interactive Services Approach," the "benchmark rate" is the average of royalties agreed to between the four major record companies and a handful of interactive music services (which do not qualify for a compulsory license). To reach his royalty for the non-interactive services, Dr. Pelcovits uses an adjustment factor. The basis of this adjustment factor is Dr. Pelcovits' determination that the royalties should comprise approximately the same percentage of the revenues for both the interactive and the non-interactive services.[3] In Pelcovits' calculations, this ratio requires the royalties in both the non-interactive and interactive markets to be approximately 47.4% of the revenue generated by subscription services.[4] Under the "Interactive Services Approach," Dr. Pelcovits computes a target royalty rate for non-interactive services to be $0.0036 per play.[5] This means that, using

[2] SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 4.

[3] SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 23 ("I believe it is reasonable to predict that the ratio of per-subscriber royalty fees to consumer subscription prices will be essentially the same in both the benchmark and target markets.")

[4] This number is calculated from examining the ratio in the interactive market as follows: $0.02194 / ($13.30/287.37) = .474 or 47.4%. *See* SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 25, 30, and 31.

[5] SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 4.

his assumptions about the ratio of royalties to revenues, Dr. Pelcovits would expect revenue per play to be approximately $0.0073 for non-interactive services.[6]

14. Dr. Pelcovits opines that any rate that SoundExchange proposes within the range spanned by his two benchmark approaches would be reasonable.

IV. SUMMARY OF MAJOR FLAWS OF DR. PELCOVITS' ANALYSIS

15. **Dr. Pelcovits does not examine the impact of his rates on a willing buyer.** A conclusion that a royalty rate of $0.0036 would be reasonable makes no economic sense. This is because a royalty at that rate would not only exceed the percentage of revenue of a service that Dr. Pelcovits posits as appropriate, but it would significantly exceed the ***total*** revenue per play that the Internet radio industry has been able to earn. An Internet radio service would only agree to a royalty per play that is sufficiently below its revenue per play to allow it to cover its other economic costs. Dr. Pelcovits has provided no analysis to suggest that a willing buyer could realistically afford the rate his methodology suggests.

16. **Dr. Pelcovits' benchmark approach is a conceptual shortcut that is inherently prone to error.** It should come as no surprise that Dr. Pelcovits' analysis could lead to a false conclusion. The stated logic behind the $0.0036 estimate is that it would cause royalties to be the same percentage of revenue for non-interactive services as it is for interactive services. Even if Dr. Pelcovits had implemented his approach

[6] Dr. Pelcovits reports that the average non-interactive subscription rate is $4.13, and the average number of plays per subscriber is 563.36. *See* SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 25, 32. The ratio of $0.0036 to $0.0073 is slightly greater than 47.4% because of an additional detail of the calculation that is inappropriate and that inflates the estimate somewhat. See the discussion of Dr. Pelcovits' regression analysis in Section VII.

sensibly (which he did not), the approach is at best a shortcut. A more thorough approach to determine what willing buyers in the marketplace would pay is to examine their business models. Doing so would require understanding how they generate revenue and what costs they must incur in order to generate that revenue. Dr. Pelcovits did not perform such an analysis (even in his subsection entitled "Evolution of Webcasters' Business Models"). This less-than-rigorous shortcut benchmark approach is at best an approximation that is prone to error even when implemented correctly.

17. Dr. Pelcovits' estimate of revenues per play for non-interactive services is based entirely on subscription fees even though non-interactive services are primarily advertising-supported. Dr. Pelcovits' estimate that willing buyers would pay $0.0036 per play is based on his estimate that non-interactive services generate revenue of $0.0073 per play, which is likely far greater than they in fact are able to generate. The most important source of upward bias in Dr. Pelcovits' estimate of revenues per play of non-interactive services is that he estimates revenue per play with subscription rates even though the vast majority of listening on non-interactive services is non-subscription (i.e., ad-supported). This flaw alone is sufficient reason to dismiss the "Interactive Services Approach" as having no value for predicting what the typical non-interactive service would be willing to pay.

18. **Dr. Pelcovits makes further selection biases which ignore industry realties and inflate his recommended royalty rate.** Among the additional details of Dr. Pelcovits' calculations that reveal inherent selection bias are: (1) in determining rates paid by interactive services, he relied only on contracts with the four major record companies, thus assuming without foundation that independent record labels (which

account for a substantial portion of the music streamed on non-interactive sites) would be able to command the same fees; and (2) in the calculation of Effective Per Play Rate paid by interactive services, Dr. Pelcovits ignores the downward trend in these rates causing the average rate that he relies on to be biased upward.

19. **Use of hedonic price regression is inappropriate.** Dr. Pelcovits uses hedonic regression analysis to estimate what portion of the difference in average subscription rates between interactive and non-interactive services is attributable to interactivity (as opposed to other ways in which non-interactive and interactive services are different from each other). Even if it were appropriate to use subscription rates to measure revenue per subscriber, there would be no reason to distinguish between the effect of interactivity and other features on subscription rates.

20. **Reliance on the [redacted] WSA deals leads to an unjustified upward bias.** The lower bound of the range determined by Dr. Pelcovits through his WSA Agreement Approach is also tainted by upward bias. The foundation for this set of rates comes from the average of rates under two WSA agreements. The rates in these agreements have at least three upward biases regarding rates to which willing buyers and willing sellers would agree. First, the seller in these agreements, SoundExchange, is a monopoly seller that can naturally extract higher rates than those that would be expected if individual sellers competed against each other. [redacted]. Third, the rates SoundExchange cites for 2011-2015 were parts of agreements in which SoundExchange accepted lower rates for 2009-2010 than it was legally entitled to. This

suggests that SoundExchange used the discount for the earlier period to induce the buyers to accept higher rates than they would have in an agreement that just covered 2011-2015. Because of these upward biases, the CRB should disregard Dr. Pelcovits' WSA Agreement Approach.

21. **The NAB and Sirius XM had an incentive to enter into the precedential WSA Agreements to raise their rivals' costs.** Dr. Pelcovits ignored another reason for questioning whether the rates reflected by these agreements are an appropriate benchmark. Under the economic theory of "Raising Rivals' Costs," a firm can benefit from an increase in the market price of an input that is a more important cost component for its competitors than it is to the firm. Even though the firm's costs go up, its competitors' costs go up even more. Since Internet radio companies are strategic threats to both the terrestrial broadcasters represented by NAB and to Sirius XM, and since the rates determined in this proceeding will have a bigger effect on the costs of Internet radio companies than on terrestrial or satellite radio companies (who derive the vast majority of their revenue from their traditional businesses, not from Internet radio), the NAB and Sirius XM likely would have found it beneficial to accept higher rates for 2011-2015 in order to impose these higher costs on its rivals.

22. For these reasons, as set out in more detail below, the Copyright Royalty Judges should not rely on either of Dr. Pelcovits' benchmark analyses in setting the rates in this proceeding.

V. DR. PELCOVITS' INTERACTIVE BENCHMARK RATE MAKES NO ECONOMIC SENSE TO A WILLING BUYER

23. Using his "Interactive Services Approach," Dr. Pelcovits concludes that Internet radio services would willingly accept a rate of $0.0036 per play. In conducting any benchmark analysis, as it is a substitute to be used only when the data for a more rigorous approach are not available, one must use care to ensure that the rate derived through the benchmark approach makes economic sense. Dr. Pelcovits simply did not observe this fundamental requirement.

24. It makes no economic sense to suggest that willing buyers would pay $0.0036 per play because there is no compelling evidence that Internet radio services can earn ***total revenues*** per play of $0.0036, much less a rate that would allow them to pay such a royalty ***and*** cover all of their other costs of operation. A willing buyer would not buy at a rate that would not allow it to cover its costs and earn a reasonable rate of return.[7]

25. The service which, according to Dr. Pelcovits, is the fastest growing and largest webcasting service would not be a willing buyer at the proposed $0.0036 rate. Based on public reports of Pandora's revenues (which were available to Dr. Pelcovits before the filing of his report) and SoundExchange performance data from this proceeding on Pandora's plays, I estimate that Pandora's total revenues per play were [redacted] in 2008 and [redacted] in 2009.[8] Given that Pandora's yearly total revenue per

---

[7] In fact, Dr. Pelcovits concedes that a willing buyer, "over time, [ ] would need to cover cost[s] and operate a profitable business. . . ." Direct Hearing Tr. (April 19, 2010) at 214:21-215:3.

[8] Pandora's 2008 revenues per play of [redacted] is based on Pandora revenues of $19 million (*see* "Music Labels Reach Online Royalty Deal," The New York Times, 7/8/2009), divided by [redacted] million plays (*see* SXW3_Native_0015). Pandora's 2009 revenues per play of [redacted] is based on Pandora revenues of $50 million (*see* "How Pandora Slipped Past the

play is well below the royalty rate derived by Dr. Pelcovits, it defies logic that Pandora would be a willing buyer at the $0.0036 rate proposed by Dr. Pelcovits. If the largest and best known webcaster earns revenue at a rate approximately half that of the proposed royalty, one must conclude that there is a significant flaw with the proposed royalty and the method used to derive it.

26. Ultimately, whether a non-interactive service would agree to a royalty of $0.0036 turns on the revenues per play it can generate (as well as the other costs it incurs in generating those revenues). Given the mix of subscribing and non-subscribing listeners, the revenue per play that a non-interactive service can generate reflects a weighted average of what revenues it obtains from subscribers and from non-subscribers, with weights determined by the actual mix of plays to subscribers and non-subscribers. Based on Accustream data, I have estimated that total webcasting ad revenues per play were $0.0023 in 2008.[9] Solely for purposes of these calculations, I have accepted Dr. Pelcovits' estimate of a non-interactive service being able to earn $0.0073 per play for its subscription service.[10] The remaining input required for the calculation of a non-interactive services revenue per play is the fraction of plays that relate to subscribers and non-subscribers. One possible foundation for this fraction comes from SoundExchange's

---

Junkyard", The New York Times, 3/7/2010), divided by [redacted] million plays (see SXW3_Native_0026). The [redacted] million plays is an estimate based on apparently 10 months of data. Specifically, I estimate the figure by determining the average [redacted] the first 10 months then [redacted] for the final two months. The formula is [redacted](10/12)). I also compared th[redacted] million performances in SX[redacted]026 to performance data reported for Pandora in SXW3_Native_0015 which totale[redacted]million performances for what appears to be approximately a 10 month period.

[9] In 2008, Accustream reports ad revenue of $84 million and 36,883 million performances. *See* Live365 Trial Ex. 30, Exhibit 3.

[10] Dr. Pelcovits reports that the average non-interactive subscription rate is $4.13, and the average number of plays per subscriber is 563.36. *See* SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 25, 32.

budget reports. For webcasters who have entered into the Pureplay deal, the budget reports both non-subscription and subscription plays. For 2009, the annualized budget for non-subscription plays is [redacted] million and the comparable subscription number is [redacted] million. Thus, based on the most recent data, [redacted] of plays are to non-subscribers and only [redacted] are to subscribers.[11] Combined with the above estimates of the revenue per play achievable from each type of listener implies that the overall achievable revenue per play is [redacted] which is substantially below Dr. Pelcovits' estimated royalty rate of $0.0036. Thus, where the *total* revenue per play for a non-interactive webcaster is [redacted] *less* than the per play royalty that Dr. Pelcovits assumes is appropriate for the sound recording royalty alone, his calculations must be flawed.

27. The evidence presented above concerns the market as it currently exists. This proceeding is to set rates for 2011-2015. While the market might develop to allow non-interactive services to generate additional revenues per play, Dr. Pelcovits has presented no evidence of this. Dr. Pelcovits' section on evolving business models discusses market developments that purportedly enhance the value of the service provided by Internet radio, and suggests that these developments may increase the revenue per subscriber that they will be able to earn. That discussion is entirely qualitative, however. Dr. Pelcovits has no foundation for how much revenue *per play* non-interactive services might generate in the future. Moreover, and more importantly, these future developments have nothing to do with Dr. Pelcovits' calculations that went into deriving his estimate that willing buyers would agree to royalties of $0.0036 per play. Dr. Pelcovits bases that estimate entirely on historic data for rates charged in the

[11] SoundExchange Budget, SXW3_00016582 (attached as Exhibit 2); *see also* Direct Hearing Tr., (April 21, 2010), at 506:16-508:2.

interactive marketplace and for the number of historical plays in both the interactive and non-interactive markets. It reflects the market as it is, not as it may be at some point in the future. He cannot justify his unreasonable conclusion about the market as it currently exists on the grounds that future developments might somehow make it true.

VI. DR. PELCOVITS' ANALYSIS CONTAINS NUMEROUS METHODOLOGICAL FLAWS AND SUFFERS FROM SELECTION BIAS

28. Given the evidence that casts doubt on Dr. Pelcovits' ultimate conclusions, it is worth considering how his methodology for arriving at those conclusions went astray. There are many sources of error.

A. Benchmark Analysis Is A Shortcut

29. Dr. Pelcovits did not directly address the question of what a willing buyer would pay. To do so, he would have had to analyze the business models of Internet radio services. This would have entailed assessing their sources of revenue, their costs (including a return to cover the opportunity cost of invested funds),[12] and how a proposed royalty would affect their decisions (such as pricing). Dr. Pelcovits has not done this. Instead, he has used a "benchmark" approach. This entails taking an observed

[12] Any textbook on managerial economics recognizes the opportunity cost of invested funds as a legitimate cost. Put another way, companies are in business to make a profit; and those that cannot make a rate of profit available in other activities will not stay in business. Dr. Pelcovits appears to agree with this principle. *See* Live365 Trial Ex. 5 (Testimony of Michael Pelcovits dated October 2005), at 34-5 ("... [T]he demand by music services for copyrighted music is essentially the same as the consumer's demand for music services using that work, less the music services' costs of production (other than the copyright fee itself) and a reasonable profit."); *see also* Exhibit 3 to this report RIAA Exhibit No. 108 DP, "Estimation of Economic Value of Webcaster Statutory Licenses," submitted in 2000-9 CARP DTRA 1 & 2, at 15 ("If a webcaster had to pay statutory license fees equivalent to the total economic value, the business would just break even and the there would be no profit remaining for the owner of the business. Therefore, the fee for the statutory licenses should be based on some portion of the value of the statutory licenses, which allows investors/owners to make a reasonable return on their investment.")

"benchmark rate" and then applying an "adjustment mechanism" to arrive at a "target rate." The principle underlying Dr. Pelcovits' "adjustment factor" is that the ratio of royalties to revenues should be equal for interactive and non-interactive services. At best, however, this is an approximation to be used because it is convenient, not because it is correct. As with any convenient approximation, it is prone to errors.

30. Even if Dr. Pelcovits was justified in starting with agreements with interactive services and in assuming that the ratio of royalties to revenues should be the same for interactive and non-interactive services, his implementation was systematically biased to inflate the "target rate."

B. Implicit And Incorrect Assumption That All Users Are Paying Subscribers

31. Dr. Pelcovits' entire analysis relies upon data from subscription services only. This applies to his effective per play rate, adjustment factor for differences in plays, and his interactivity adjustment. However, even as Dr. Pelcovits has acknowledged, the vast majority of listening hours, listeners, and webcasting services are ***not*** subscription based.[13] For example, as previously discussed, subscription listening accounts for [redacted] of the reported performances by webcasters that have entered into the Pureplay agreement.

32. Further, subscription revenue per play is significantly greater than what a service can generate from advertising. Subscription revenue per play earns roughly three times more than advertising revenue per play.[14] Dr. Pelcovits' use of subscription rates to

[13] Dr. Pelcovits admitted at trial that both the majority of listening hours and listenership comes from advertising services. Direct Hearing Tr. (April 20, 2010) at 312:7-313:5.

[14] Based on 2008 Accustream data, webcasting ad revenues per play were $0.0023. Dr. Pelcovits calculates subscription revenue per play to be $0.0073.

measure revenue per play is akin to estimating revenue per seat for an airline by assuming that all passengers pay full, first class fares. Unless it is feasible to run an airline with only first class service and no discounts on seats, such a calculation would grossly overstate the revenue an airline could practically earn. Dr. Pelcovits has not shown that a purely subscription-based non-interactive service can be operated profitably (or that one even exists).

33. Given that data on total revenues and total plays (in other words, both subscription and advertising-based plays) was available to Dr. Pelcovits, he could have estimated the appropriate royalty rate using a more realistic assessment of the industry. For illustrative purposes, Exhibit 4 describes the total revenue per play for both Pandora and Live365. Exhibit 5 then shows how using Dr. Pelcovits' ratio and total plays for these services would result in a royalty rate of [redacted] per play with 2008 data and [redacted] per play with 2009 data. These rates are far below the $0.0036 per play that Dr. Pelcovits calculates, far below the rates proposed by SoundExchange, and even below the rates suggested by Live365. As Pandora's and Live365's combined share of the industry is large enough,[15] I am confident that Dr. Pelcovits' indirect estimate of revenue per play based on subscription rates substantially overstates the revenue per play for the industry as a whole.

34. Of the many problems with Dr. Pelcovits' analysis, the use of the subscription rates as the foundation for estimating revenue per play is the biggest source of error and the most important reason why the "Internet Services Approach" leads to a conclusion that makes no economic sense. In my opinion, the Copyright Royalty Judges

[15] *See* "Top 25 Webcasters by Usage: 2009" (SXW3_Native_0015) (RESTRICTED).

should disregard this approach and Dr. Pelcovits' conclusion that $0.0036 per play represents a rate that one might expect to observe between willing buyers and sellers.

C. Failure To Analyze Independent Label Contracts And Performances

35. Dr. Pelcovits computes his benchmark rate of $0.02194 by dividing total royalty payments by total plays for six interactive music services with the four major record companies in the 2007 to 2009 time period.[16] He did not include, or review, a single contract with independent record companies (despite reviewing 214 agreements and amendments with the major labels).[17] Content from independent labels represents a substantial percentage of music streamed on non-interactive services. For example A2IM (American Association of Independent Music), a SoundExchange Board member, has reported that approximately 40% of all music streamed on non-interactive services like Yahoo! and SomaFM comes from independent labels.[18] Moreover, over 50% of the music streamed on Pandora comes from non-major labels.[19] The omission of such a large

[16] SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 30; SXW3_Native_0016 (RESTRICTED).

[17] Post Hearing Responses to Judges' Questions by Michael D. Pelcovits, May 18, 2010, at 2.

[18] "What is Net Neutrality," March 5, 2009 Newsletter at http://a2im.org/tag/net-neutrality/ ("The value of this access to Independent labels is demonstrated by the almost 40% of market share Independent labels have at digital streaming sites like Pandora, Yahoo!, SomaFM, etc., as reported by SoundExchange. . . ."); *see also* "Indie Music Memo To FCC: We Need A Level Playing Field Too," Rich Bengloff (President of A2IM), January 15, 2009 at http://www.huffingtonpost.com/rich-bengloff/indie-music-memo-to-fcc-w_b_158173.html (". . . according to the non-profit performance royalty collection society SoundExchange. . . almost 40% of audience impressions for non-terrestrial broadcasts are from independent music. . . .")

[19] "Indie labels are on the rise, and the proof is in the numbers," The Music Industry Report, May 21, 2009 at http://musicindustryreport.org/?p=8473 ("On top internet broadcasting platforms, where consumer choice reigns, indies thrive. Overall, independent music makes up approximately 40% of all music played at non-traditional web radio and at industry leading webcaster Pandora, over half of the music users play is independent."); *see also* Interview with Pandora founder Tim Westergren, http://www.volume11.us/2010/02/17/are-you-on-pandora/ ("Q: What percentage of music played on Pandora is by independent artists? A: It's around 50% on a spin-weighted basis").

percentage of the performances (and the corresponding royalty deals under which these performances are covered) highlights another serious flaw in his analysis. If royalty rates charged by independent labels are less than the rates charged by the four major labels that Dr. Pelcovits includes in his sample, Dr. Pelcovits' estimated non-interactive rate is biased upward.

36. Dr. Pelcovits does not explain why he excluded an entire category of copyright owners that he acknowledges represents a significant share of sound recording performances. Many independent labels are SoundExchange members, and in fact the SoundExchange Board has independent label representatives. Although SoundExchange has not provide any contracts or witness representatives of independent labels, these entities may have less bargaining power than the major labels and may be more interested in promotion to increase their market share. If so, the sound recording royalty rate charged by independent labels could quite plausibly be lower than the rates for the major labels. In fact, evidence provided by Live365 during the Direct Phase showed that some independent labels are willing to waive the royalty. *See* Live365 Trial Ex. 29 (Floater Corrected Written Direct Testimony), at 13.

37. In sum, Dr. Pelcovits has only examined the type of service that would generate the highest return for the content owner (a subscription service that plays only content from the major record labels). A more representative sample might have produced a significantly lower estimate of a reasonable rate.

D. Downward Trend In The Effective Per Play Rate

38. Dr. Pelcovits derives an effective per play rate by examining royalty payments from six interactive services to the major labels and dividing by reported

performances.[20] His analysis averaged these payments over an 18 month time period between 2007-2009. *See* Trial Tr. (April 20, 2010) 309:16-310:21.

39. The effective per play rate for the interactive services calculated by Dr. Pelcovits declines from $0.02610 in 2007 to $0.01917 in 2009.[21] Dr. Pelcovits fails to take into consideration this downward trend in the data and instead relies on the average royalty per play of $0.02194 over the time period. As a result, the benchmark rate overstates the *current* value that willing buyers and sellers place on a license in the interactive market, which causes the estimated non-interactive rate to be higher than it would be based on the actual rates currently paid in the interactive market.

VII. THE IRRELEVANCE OF, AND PROBLEMS WITH, DR. PELCOVITS' REGRESSION ANALYSIS

A. Dr. Pelcovits' Regression Is Irrelevant

40. As noted above, there are two components in Dr. Pelcovits' benchmark analysis: (1) a benchmark rate, and (2) an adjustment factor. Dr. Pelcovits performs these calculations three different ways and then averages them. The third calculation relies on a hedonic regression analysis.[22]

---

[20] With respect to the effective per play rate calculation of $0.02194, Dr. Pelcovits relies upon data from just six interactive services (Altnet, Classical Archives, Imesh, Microsoft/ZunePass, Napster and Rhapsody). Further, with respect to Dr. Pelcovits' per play adjustment, Dr. Pelcovits relies on just five interactive services and one custom service used as a proxy for "non-interactive." The concern generally created by this selective use of data is that the observations were cherry-picked to obtain a desired solution. Dr. Pelcovits has done nothing to dismiss this concern. *See* SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 30 & Appendix IV.

[21] *See* SXW3_Native_0016 (RESTRICTED)

[22] With respect to the calculation of the adjustment factor Dr. Pelcovits relies upon a total of 18 subscription services (7 non-interactive and 11 interactive) for each of his methods of calculating the interactivity adjustment. SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 25, 27. This

41. The purpose of Dr. Pelcovits' hedonic regression analysis is to understand the features that affect subscription rates.[23] Because his regression analysis is a study of subscription rates, any estimate of a reasonable royalty based on it suffers from the fundamental flaw that non-interactive Internet radio is primarily an advertising-supported business, not a subscription business.

42. Hedonic regression is a statistical analysis of prices that seeks to explain prices as a function of product features. For example, a hedonic regression of car prices might use as explanatory variables horse power, weight, wheel base, and indicator variables for the presence of luxury items like leather seats. In his hedonic regression analysis, Dr. Pelcovits sought to quantify the effect of different product features on Internet radio subscription prices. In particular, he sought to measure the value consumers place on interactivity.

43. Dr. Pelcovits never explains why this is relevant; and, in fact, it is not. The key assumption underlying Dr. Pelcovits' analysis is that royalties should be the same percentage of revenue for interactive and non-interactive services. Dr. Pelcovits estimates that for interactive services, royalties are 47.4% of revenues. If a non-interactive Internet radio company were a subscription service, then Dr. Pelcovits' logic would imply that royalties per subscriber should be the same 47.4% of the subscription price. Since Dr. Pelcovits estimates an average subscription fee of $4.13, his logic

number of observations is small, particularly in light of the relatively large number of explanatory variables.

[23] Dr. Pelcovits' regression model cannot analyze the value of interactivity for advertising based Internet radio services because doing so "would be just wrong.... it would say that there is no willingness to pay and no value to the music in an advertiser-supported service." Direct Hearing Tr., April 20, 2010, at 282:10-22. Dr. Pelcovits again ignores the realities of the non-interactive market by relying on a model that is incapable of accounting for the predominant source of revenue.

dictates royalties *per subscriber* of 0.474 x \$4.13 = \$1.96. (To get the royalty *per play*, one would divide the royalty per subscriber by an estimate of the number of plays per subscriber.)[24]

44. But this is not what Dr. Pelcovits does in his estimate that uses regression analysis. Rather than taking 47.4% of \$4.13, he takes 47.4% of \$4.78. Obviously, taking 47.4% of this higher number generates a higher royalty per subscriber and, in turn, a higher royalty per play.[25]

45. The question one needs to ask is what the \$4.78 represents. Dr. Pelcovits computes it as \$13.30 - \$8.52. The \$13.30 is the average price (adjusted for downloads) of interactive services. The \$8.52 is the regression coefficient on the interactivity variable in Dr. Pelcovits hedonic regression. That is, it is his estimate of the value consumers place on interactivity. The \$4.78 is, therefore, Dr. Pelcovits' estimate of what the average price would be of the interactive services in his sample if those services were not interactive. It is different from \$4.13, the average price of non-interactive services in his sample, because the interactive services have features besides interactivity that, according to Dr. Pelcovits' regression estimates, consumers value.[26]

46. The whole purpose of Dr. Pelcovits' hedonic regression is to compute the \$4.78 – i.e., the average price of what the average subscription price for interactive

---

[24] Dr. Pelcovits' calculations presume 563.36 plays per subscriber to non-interactive services. Thus, the calculation of a royalty rate per play that would result in royalties per subscriber of \$1.96 (which in turn is 47.4% of the average subscription price) is \$1.96/563.36 = \$.0035.

[25] The royalty per subscriber becomes 0.474 x \$4.78 = \$2.26, which in turn produces a royalty per subscriber of \$2.26/563.36 = \$0.0040.

[26] Of course, Dr. Pelcovits' regression equation that does not include his suspicious use of fixed effects discussed below suggests that the value consumers place on interactivity is greater than the difference in the average subscription prices for interactive and non-interactive services.

services would be if they were not interactive. I cannot see any possible relevance to this proceeding for this calculation. Even if non-interactive Internet radio was entirely a subscription business and subscription rates determined revenue per subscriber, the appropriate input into a benchmark analysis like Dr. Pelcovits' would be the subscription rates that non-interactive services actually charge. What the interactive services would charge if they were not interactive simply does not matter.

47. Even if it were appropriate to use subscription prices to measure revenues per user for a non-interactive service, the Copyright Royalty Judges should disregard Dr. Pelcovits' irrelevant regression analysis.

B. Fixed Effects Eliminate Observations

48. Even if a regression analysis like Dr. Pelcovits' were relevant to this proceeding, the details of how Dr. Pelcovits did the analysis are highly suspicious. Specifically, the regression Dr. Pelcovits uses includes a set of what he claims are "fixed effects" variables. In Pelcovits' regression analysis these are indicator variables for the following services: Kazaa, Digitally Imported, Classical Archives, Pasito Tunes, and IMesh.[27]

49. When Dr. Pelcovits runs the regression without these five "fixed effect" variables, the resulting estimated royalty rate drops substantially. In this scenario, the estimated value of interactivity increases from $8.52 to $10.55, causing the estimated royalty rate to decline almost 36% from $0.0036 to $0.0023.[28]

[27] SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 27.

[28] The estimated value of the interactivity coefficient (10.55) is reported at SXW3_00003734. The royalty rate of $0.0023 is calculated as follows: ((13.30 – 10.55)/13.30) *0.5101 * $0.02194.

50. While "fixed effects" is a widely-used econometric technique, it is generally used for large panel data sets. (A panel is a data set with cross-sectional observations at different points in time). Moreover, fixed effects are indicator variables that capture unobserved characteristics whose values do not change over time. Dr. Pelcovits' data set, however, is a single cross-section, not a panel with cross-section and time series data.[29] Some of his "fixed effects," which are simply indicator variables for single observations, are econometrically equivalent to discarding these observations.[30]

51. Discarding observations for anything other than completely compelling reasons is a highly suspicious practice because it creates the opportunity for an econometrician to "put his thumb on the scales." The effect of discarding these observations has the effect of substantially increasing Dr. Pelcovits' estimate of a reasonable rate. Even if regression analysis of the determinants of subscription prices could be useful in this proceeding, the Copyright Royalty Judges should disregard his fixed effects estimates because the methodology in this context is inherently subject to manipulation to obtain a desired result – which is what appears to have happened here.[31]

---

[29] Time-series data are data for a single entity at different times. With cross-sectional data, there is a single observation on multiple entities. A panel (or time series cross section data) has multiple observations (at different times) on multiple entities. The number of games each major league baseball team won in 2009 is a cross-section. The number of games won by a single team over all the years of its existence is a time series. A data set containing the number of wins each year for each team is a panel.

[30] This point is a basic property of the "least squares" principle underlying regression analysis. With a dummy variable for a single observation, the value of the dummy can be selected to fit the observation perfectly. The remaining coefficients can then be selected to minimize the sum of the squared residuals for those observations, which results in the same coefficients as one would estimate by running the regression just with those observations.

[31] I would further add that Dr. Pelcovits has not provided any confidence region around his result. Had he done so with conventional methods, he would have found that the 95% confidence interval creates a range of royalty rates from $0.008 to $0.00004. *See* Exhibit 6. This would encompass rates that are almost triple what SoundExchange proposes, to rates that are a fraction

VIII. THE WSA AGREEMENT BENCHMARKS ARE TAINTED BY THEIR POSSIBLE EFFECT ON THIS PROCEEDING

52. Like the "Interactive Services Approach," Dr. Pelcovits "WSA Agreement Approach" suffers from numerous flaws as set forth below.

[redacted]

53. Under the alternative "WSA Agreement Approach," the "benchmark rates" are rates that were set out in agreements between SoundExchange and webcasters covered by the compulsory license. Because these agreements relate to the compulsory license at issue here, Dr. Pelcovits argues that they are so directly comparable that no adjustment to them is necessary. As Dr. Pelcovits acknowledges, these rates are imperfect benchmarks because their possible effect on this proceeding can distort them. As I understand it, rate agreements between the parties under the WSA are by default non-precedential but can, by joint agreement of the parties, be deemed precedential. It is apparent that SoundExchange allowed the WSA Agreements with NAB and Sirius XM to be precedential, since Dr. Pelcovits could not use them otherwise.

[redacted]

---

of those proposed by Live365. Moreover, the small numbers of degrees of freedom (due to the combination of a small number of observations and a large number of variables) means that the conventional method for computing confidence regions might understate the range.

[redacted]

B. The Precedential WSA Agreements Enable The NAB And Sirius XM To Raise Their Rival's Costs

55. A notable feature of the WSA agreements for 2009-2015 is that SoundExchange accepted rates lower than the statutory rates to which it was entitled for 2009-2010. As a matter of economics, one needs to consider what it got in return for this concession. Dr. Pelcovits acknowledges this point, but then dismisses the need to adjust the 2011-2015 rates.[32] He argues that SoundExchange accepted lower rates than it otherwise would have to induce early settlement. In addition to being entirely speculative, the argument fails to address why the inducement took the form of lower rates in 2009-2010 rather than later on.[33] SoundExchange had available to it a variety of contractual terms to induce early settlement. Since SoundExchange could have insisted on the statutory rates for 2009 and 2010 and presumably would have preferred them all else equal, it must have insisted on something in return for the concession. The obvious hypothesis to consider is that SoundExchange got higher rates for 2011-2015 than it otherwise could have. Dr. Pelcovits does not provide any alternative hypothesis for what SoundExchange got for its concession.

[32] *See* SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 20-2.

[33] I note that the 2011 rates for both the NAB Deal ($0.0017) and the Sirius XM deal ($0.0018) are lower than the statutory rate for 2010 ($0.0019). *See* SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 20.

56. As a matter of economics, one needs to consider why it was mutually beneficial for SoundExchange, NAB and Sirius XM to structure their deals with relatively low rates for the first years and higher rates thereafter. A natural possibility to consider is that they recognized that the rates they set might then become a benchmark that the Copyright Royalty Judges would set for companies that compete with the terrestrial broadcasters represented by NAB and with the satellite radio service provided by Sirius XM. The fact that the parties consented to letting the rates be precedential is consistent with this explanation.

57. As a matter of economics, an increase in the price of an input generally lowers a company's profitability and is therefore harmful to its interest. There is, however, an exception to this principle. A company can benefit from an increase in the price of an input if its rivals use the input more intensively than it does. The broad theory underlying this principle is called "Raising Rivals' Costs."[34]

58. I have examined the 10-K reports submitted by Sirius XM, Clear Channel and a number of major radio broadcasters. All cite Internet radio as a competitive threat to their business.[35] Given terrestrial radio stations do not pay royalties for over-the-air broadcasts and Sirius XM royalties in 2010 are 7% of revenue increasing to 8% of revenue in 2012,[36] royalties account for a far larger share of the total costs of companies

[34] Salop and Scheffman, "Raising Rivals Costs", AEA Papers and Proceedings, May 1983, pp. 267-271; Krattenmaker and Salop, "Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price," The Yale Law Journal, vol. 96, Number 2, December 1986.

[35] Clear Channel 2009 10-K, p.3; Sirius-XM radio 2009 10-K, p.9; Salem Communications 2009 10-K, p.10; Citadel Broadcasting Corporation 2009 10-K, p.11; Cumulus Media 2009 10-K, p.8; Entercom Communications Corporation 2009 10-K, p.1.

[36] *See* 37 C.F.R. § 382.12.

which rely on revenues from non-interactive services for the bulk of their revenues.[37] The substantial cost that royalties represent for non-interactive services raises the inherent possibility that terrestrial broadcasters and Sirius XM have engaged in raising rivals' cost strategy to disadvantage their Internet radio competitors.[38]

59. Pandora can be used as an example to demonstrate that raising rival costs could be a viable strategy. Pandora's revenue per play in 2009, [redacted], is approximately equal to the 2011 WSA rate, [redacted][39]; on which Pelcovits relies. At the WSA royalty rate, Pandora would only have [redacted] per play, or [redacted] of its total revenue, to cover all of its remaining costs and earn a reasonable profit. As it would be highly unlikely to be able to do so, it may well be eliminated as a competitor to the companies that agreed to these WSA rates.

60. The above example makes clear the ability of NAB and Sirius XM to potentially raise rivals' costs through negotiations of royalty rates. In addition, it demonstrates that even the lower WSA benchmark relied upon by Pelcovits would be rejected by Pandora and other non-interactive services because of their likely unprofitability at these rates. This indicates that the use of this benchmark is flawed.

---

[37] Pandora has reported royalties accounting for between 56% and 70% of revenues ("Pandora: Last gasp for Internet radio can't be further prolonged", betanews.com, 8/19/2008; "Pandora rises out of the streaming music rubble," CNNMoney.com, 2/18/10; "The Contents of Pandora's Box = $$$$," themusicvoid.com).

[38] This is not just a theoretical argument; there have been allegations that competitors in this industry have entered into agreements to raise the cost to its competitors for this exact royalty. *See, e.g.,* "Cuban Says Yahoo!'s RIAA Deal was Designed to Stifle Competition," RAIN Newsletter, June 24, 2002, available at http://www.kurthanson.com/archive/news/062402/.

[39] SoundExchange Trial Ex. 2 (Pelcovits ACWDT) at 4.

C. As A Representative Of Competitors, SoundExchange's Incentive Is To Demand Higher Royalties Than The Members Could Negotiate Individually

61. As a former antitrust official, another aspect of the WSA agreement rates that I consider important is that a single entity (SoundExchange) negotiated the rate on behalf of competing sellers. Absent an explicit antitrust exemption, I would expect, based on my enforcement experience, that such joint negotiations would be *per se* criminal violations of the antitrust laws. The rationale for the *per se* ban is the strong presumption that such coordination poses a risk of increased prices. This expectation is widely accepted as a very general principle of economics, but it is not merely an economic principle. The antitrust laws embody the principle, and wide acceptance of the principle is why cartel enforcement has been a top priority of the Antitrust Division of the Department of Justice in both Republican and Democratic administrations. It is also the reason that ASCAP and BMI are subject to rate courts.

62. Apparently aware of this issue, Dr. Pelcovits seeks to dismiss it by pointing out that the royalty rates for custom radio services, which the record companies negotiated individually, are above those in the WSA agreements. The argument is not persuasive because it is not an "apples-for-apples" comparison. To the extent that customization either adds value or alters the extent to which the service substitutes for or promotes the purchase of music, both individual record companies and a collective body of record companies would charge higher rates to custom radio services than to non-custom services. To determine the effect of joint negotiation on royalty rates, one would need to compare the rates negotiated by a collective to the individually-negotiated rates with the same customer. We do not have the data to make that comparison.

63. If there was not a compelling reason to believe that a collective of competing record companies would seek a higher rate than would the individual companies, there would be no reason for a proceeding such as this. The entire premise behind giving buyers recourse to a rate court is that the collective will seek to charge more than its members could individually.

IX. CONCLUSIONS

64. Dr. Pelcovits' estimate that non-interactive Internet radio companies could reasonably pay a royalty of $0.0036 per play is based on his estimate that they can earn revenues per play of $0.0073, an estimate that he obtains by assuming that non-interactive radio is a subscription business. However, non-interactive streaming is primarily an advertising-supported business, and the revenues per play from non-subscribers are likely far less than $0.0073 per play. Indeed, the revenue per play (averaged over plays to subscribers and non-subscribers) for the non-interactive radio industry is likely less than $0.0036, to say nothing of the $0.0073 underlying Dr. Pelcovits' "Interactive Services" benchmark. Dr. Pelcovits provides no empirical foundation for how much (if any) additional revenue per play Internet radio services will be able to generate. The Copyright Royalty Judges should disregard the "Interactive Services" benchmark as an estimate of what willing buyers would accept because: (1) it is implausible on its face, and (2) its derivation ignores the key economic fact that subscribers are not the sole (or even the primary) revenue source for Internet radio, among other things discussed above.

65. The "WSA Agreement" rates, which are below those proposed by SoundExchange, are themselves inflated measures of an appropriate royalty rate because: (1) they are rates set with a collective seller; [redacted] and (3) the buyers, who in any event had an incentive to raise their rivals' costs, appear to have been induced to accept higher rates for 2011-2015 with rates below those to which SoundExchange was legally entitled for 2009-2010.

66. For these and the other reasons articulated above, Dr. Pelcovits fails to provide support for the proposition that the rates SoundExchange proposes are reasonable under the statutory standard. Thus, his analysis should be disregarded.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Michael A. Salinger

Exhibit 1

LECG

Michael A Salinger, Managing Director, LECG

Two Canal Park, Suite 5100
Cambridge, MA 02141
USA

Phone: 617.252.9994
Fax: 617.621.8018
Email: msalinger@lecg.com

Summary

Michael A Salinger is a managing director in LECG's Cambridge office and a professor of economics at the Boston University School of Management, where he has served as chairman of the department of finance and economics. Prior to joining LECG, Dr. Salinger served two years as director of the Bureau of Economics with the FTC, overseeing approximately 70 PhD economists and additional professional staff. Prior to his tenure at Boston University, he was an associate professor at Columbia University Business School and a staff economist in the Bureau of Economics, as well as serving on the editorial boards of the *Review of Industrial Organization* and the *Journal of Industrial Economics*. Dr. Salinger has consulted for private organizations and a variety of worldwide government agencies including the EPA, the Federal Trade Commission, the board of governors of the Federal Reserve, and the Australian Competition and Consumer Commission. He has published articles on such issues as the structural determinants of market power, the statistical properties of firm growth, and the competitive effects of tying and vertical mergers. Dr. Salinger holds a PhD in economics from the Massachusetts Institute of Technology and an undergraduate degree from Yale University.

Current Positions

LECG (2007) Managing Director

Boston University School of Management (1990) Professor of Economics (Associate Professor 1990-2001), W. Everett Lord Distinguished Faculty Scholar (2007-), Chairman of Finance and Economics Department (2000-2004), Faculty Director of Undergraduate Program (1999-2000)

Previous Positions

United States Federal Trade Commission, Director, Bureau of Economics, (while on leave from Boston University), 2005–2007

Sloan School of Management, MIT, Visiting Associate Professor of Applied Economics, (while on leave from Boston University) 1997-1998

Columbia University Graduate School of Business, Associate Professor of Economics and Finance (Assistant Professor 1982-1987)

United States Federal Trade Commission, Economist, Bureau of Economics, Antitrust Division (while on leave from Columbia), 1985-1986

Academic Publications

Keith A. Anderson, Erik Durbin, and Michael A. Salinger, "Identity Theft," *Journal of Economic Perspectives*, Volume 22, 2008, pp. 171-192.

David S. Evans and Michael A. Salinger, "The Role of Cost in Determining When Firms Offer Bundles and Ties," *Journal of Industrial Economics*, Volume 56, 2008, pp. 143-168.

"The Legacy of Matsushita," *Loyola University Chicago Law Journal*, Volume 38, 2007, pp. 475-490.

Michael A. Salinger, Pauline M. Ippolito, and Joel L. Schrag, "Economics at the FTC: Pharmaceutical Patent Dispute Settlements and Behavioral Economics," *Review of Industrial Organization*, Volume 31, 2007, pp. 85-105.

David S. Evans and Michael Salinger, "Curing Sinus Headaches and Tying Law: An Empirical Analysis of Bundling Decongestants and Pain Relievers," in Jay Pil Choi, ed., *Recent Developments in Antitrust: Theory and Evidence* (Cambridge: MIT Press), 2007, pp. 91-124.

Keith A. Anderson, Christopher J. Garmon, Michael A. Salinger, David R. Schmidt, and John M. Yun, "Economics at the FTC: Data Intensive Mergers and Policy R&D," *Review of Industrial Organization*, Volume 29, 2006, pp. 327-348.

Dongfeng Fu, Sergey V. Buldyrev, Michael A. Salinger, and H. Eugene Stanley, "Percolation Model for Growth Rates of Aggregates and Its Application for Business Firm Growth," *Physical Review E*, Volume 74, 036118, September 2006.

Alden Abbott, and Michael A. Salinger, "Learning from the Past: The Lessons of Vietnam, IBM, and Tying," *Competition Policy International*, Volume 2, 2006, pp. 3-19.

D. S. Evans, A. J. Padilla, & M. Salinger, "A Pragmatic Approach to Identifying and Analyzing Legitimate Tying Cases," *European Competition Law Annual 2003: What is an Abuse of a Dominant Position?* (Oxford: Hart Publishing).

David S. Evans and Michael Salinger, "Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law," *Yale Journal on Regulation*, Volume 22, 2005, pp. 37-89.

"Shareholder Class Actions After the Crash: Statistical and Case Evidence on the Effect of the Private Securities Litigation Reform Act," *The Financier*, Volume 10, 2003, pp. 8-24.

D. S. Evans and M. Salinger, "Competition Thinking at the European Commission: Lessons from the Aborted GE-Honeywell Merger," *George Mason Law Review*, Volume 10, 2002, pp. 489-527.

K. N. Hylton and M. Salinger, "Reply to Grimes: Illusory Distinctions and Schisms in Tying Law," *Antitrust Law Journal*, Volume 70, 2002, pp. 231-246.

K. N. Hylton and M. Salinger, "Tying Law and Policy: a Decision Theoretic Approach," *Antitrust Law Journal*, Volume 69, 2001, pp. 469-526.

"Lowering Prices with Tougher Regulation: Forward-Looking Costs, Depreciation, and the Telecommunications Act of 1996," in Michael Crew (ed.), *Regulation Under Increasing Competition* (Boston: Kluwer Academic Publishers) 1998, pp. 45-61

"Regulating Prices to Equal Forward-Looking Costs: Cost-Based Prices or Price-Based Costs?" *Journal of Regulatory Economics*, September 1998, Volume 14, pp. 149-63.

L. A. N. Amaral, S. V. Buldyrev, S. Havlin, M. A. Salinger, and H. E. Stanley, "Power Law Scaling for a System of Interacting Units with Complex Internal Structure," *Physical Review Letters*, Volume 80, 1998, pp. 1385-1388.

L. A. N. Amaral, S. V. Buldyrev, S. Havlin, H. Leschhorn, P. Maass , M. A. Salinger, H. E. Stanley, and M. H. R. Stanley, "Scaling Behavior in Economics: I. Empirical Results for Company Growth," *Journal Physique I France*, April 1997, Volume 7, pp. 621-633.

S. V. Buldyrev, L. A. N. Amaral, S. Havlin, H. Leschhorn, P. Maass, M. A. Salinger, H. E. Stanley, and M. H. R. Stanley, "Scaling Behavior in Economics: II. Modeling of Company Growth," *Journal Physique I France*, April 1997, Volume 7, pp. 635-650.

"Buying and Banking on Prospective Returns in Telecommunications," in E. M. Noam and A. J. Wolfson, eds., *Globalism and Localism in Telecommunications* (Amsterdam: Elsevier Science) 1997, pp. 289-296.

M. H. R. Stanley, L. A. N. Amaral, S. V. Buldyrev, S. Havlin, H. Leschhorn, P. Maass, M. A. Salinger, and H. E. Stanley, "Scaling Behaviour in the Growth of Companies," *Nature*, Volume 379, February 29, 1996, pp. 804-806.

M. Klass and M. A. Salinger, "Do New Theories of Vertical Foreclosure Provide Sound Guidance for Consent Agreements in Vertical Merger Cases," *Antitrust Bulletin*, Volume 40, Fall 1995, pp. 667-698.

M. H. R. Stanley, S. V. Buldyrev, S. Havlin, R. Mantegna, M. A. Salinger, and H. E. Stanley, "Zipf Plots and the Size Distribution of Firms," *Economics Letters*, September 1995, pp. 453-457.

"A Graphical Analysis of Bundling," *The Journal of Business*, Volume 68, January 1995, pp. 85-98.

"Value Event Studies," *Review of Economics and Statistics*, Volume 74, November 1992, pp. 671-677.

"Standard Errors in Event Studies," *Journal of Financial and Quantitative Analysis*, Volume 27, March 1992, pp. 39-53.

"Vertical Mergers in Multi-Product Industries and Edgeworth's Paradox of Taxation," *Journal of Industrial Economics*, Volume 40, September 1991, pp. 545-556; Reprinted in Louis Philips (ed.), *Applied Industrial Economics* (Cambridge: Cambridge University Press) 1998.

"The Concentration-Margins Relationship Reconsidered," *Micro-Brookings Papers on Economic Activity*, 1990, pp. 287-321.

"Stock Market Margin Requirements and Volatility: Implications for Regulation of Stock Index Futures," *Journal of Financial Services Research*, Volume 3, December 1989, pp. 121-138.

"The Meaning of 'Upstream' and 'Downstream' and the Implications for Modeling Vertical Mergers," *Journal of Industrial Economics*, Volume 37, June 1989, pp. 373-387.

"Vertical Mergers and Market Foreclosure," *Quarterly Journal of Economics*, Volume 103, May 1988, pp. 345-356.

"Tobin's q, Unionization, and the Concentration-Profits Relationship," *Rand Journal of Economics*, Volume 15, Summer 1984, pp. 159-170.

M. A. Salinger and L. H. Summers, "Tax Reform and Corporate Investment: A Microeconometric Stimulation Study," in M. Feldstein, ed., *Behavioral Stimulation Methods in Tax Policy Analysis*, University of Chicago Press, 1984, pp. 247-281.

Other Publications/Interviews/Published Transcripts

"Introduction to Chapters VII and IX of Augustin Cournot, *Researches into the Mathematical Principles of the Theory of Wealth*," *Competition Policy International*, vol. 4, 2008, pp. 275-82.

"Economic Analysis of Competition Practices in the EU and US: A View from Chief Economists," *Competition Policy International*, vol. 3, 2007, pp. 81-98.

"Four Essential Points About Antitrust Enforcement," *The Wall Street Journal* (letter), October 6, 2007.

"Interview with FTC Director of the Bureau of Economics Michael Salinger," *The Antitrust Source*, December 2006, available at http://www.abanet.org/antitrust/at-source/06/12/Dec06-Salinger12=19f.pdf .

"The Current State of Economics Underlying Section 2: Comments of Michael Katz and Michael Salinger," *The Antitrust Source*, December 2006, available at http://www.abanet.org/antitrust/at-source/06/12/Dec06-BrownBag.pdf .

"Give Your Cabdriver a Big Fat Tip," *The Wall Street Journal*, June 24/25, 2006, pg. A10.

Michael Salinger and Paul Pautler, "The Bureau of Economics at the US Federal Trade Commission," *Global Competition Review*, April 2006, pp. 3-5.

"Interview: Michael Salinger," *Global Competition Review*, 9 November 2005.

"Commentary," *The Review of Futures Markets*, Volume 10, 1991, pp. 398-402.

"Comment," in J. Coffee, L. Lowenstein, and S. Rose-Ackerman, eds., *Knights, Raiders, and Targets: The Impact of Hostile Takeovers*, Oxford University Press, 1988, pp. 71-73.

Speeches as Director of the Bureau of Economics

"Economics Supporting the Twin Missions of the FTC," American Bar Association 55th Antitrust Spring Meeting, Breakfast with the Bureau Directors, JW Marriott Hotel, Washington, DC, April 20, 2007.

"Concluding Remarks for Energy Markets in the 21st Century: Competition Policy in Perspective," Washington, DC, April 12, 2007.

"Prepared Remarks on the Relationship between Antitrust and Regulation and on the Effects-Based Analysis," Presented before the Jevons Society, University College of London, United Kingdom, February 21, 2007.

"The Legacy of Matsushita: Has this Thing Called Economics Gotten Way Out of Hand?" Presented at Matsushita at 20, Loyola University School of Law, Institute for Consumer Antitrust Studies, Chicago, September 29, 2006.

"Looking for the Keys Under the Lampost: Insights from Economics into Standards for Unilateral," Conduct ABA Section of Antitrust Law, Economics and Section 2 Committees Brown Bag, Washington, DC, FTC Conference Center, July 24, 2006.

"Consumer Protection Economics at the FTC," Prepared remarks for the Chief Economist Roundtable at the International Industrial Organization Conference, Boston, MA, April 8, 2006.

"Assessing Whether What We Know Is So," Presentation before the American Bar Association, 54th Antitrust Law Spring Meeting, Breakfast with the Bureau Directors, JW Marriott Hotel, Washington, DC, March 31, 2006.

"Moneyball and Price Gouging," Boston Bar Association Antitrust Committee, Boston, MA, February 27, 2006.

"Can Economics Bridge the Atlantic? Monopolization Under Section 2, Dominance Under Article 82, and Fouls in Football," George Mason University Fall 2005 Antitrust Symposium, Washington, DC, September 20, 2005.

"Four Questions About Horizontal Merger Enforcement," American Bar Association Antitrust Section Economics Committee Brown Bag Presentation, Washington, DC., September 14, 2005.

"Is It Live Or Is It Memorex? Models of Vertical Mergers and Antitrust Enforcement Association of Competition Economics (ACE) Seminar on Non-Horizontal Mergers," Competition Commission, London, UK, September 7, 2005, and Fondation Universitaire, Brussels, Belgium September 8, 2005.

"Challenges in Identifying Anticompetitive Dominant Firm Behavior," National Economic Research Associates (NERA) 2005 Antitrust and Trade Regulation Seminar, Santa Fe, New Mexico, July 7, 2005.

Congressional and Commission Testimony

"Petroleum Industry Consolidation," Joint Economic Committee of Congress, May 23, 2007.

"Sports Programming and Cable Distribution: The Comcast/Time Warner/Adelphia Transaction," US Senate, Judiciary Committee, December 7, 2006.

"Prepared Remarks of Dr. Michael A. Salinger" (on efficiencies in the treatment of horizontal mergers), Antitrust Modernization Commission, November 17, 2005.

"Testimony of Michael A. Salinger before the Senate Commerce, Science, and Transportation Committee, Subcommittee on Communications," Media Ownership: Diversity and Concentration, US Senate Hearings 101-357, 1989, pp. 97-107.

Litigation and Regulatory Testimony, Affidavits, and Reports

Testimony on behalf of Gillette in Schick Manufacturing, Inc., et al. v. The Gillette Company regarding statistical analysis of shaving studies, Civil Action No. 3-05-cv-174 (JCH) (United States District Court, District of Connecticut) (2005).

Affidavit on behalf of Gillette regarding statistical analysis of shaving study in Gillette Australia Pty. Ltd. v. Energizer Australia Pty. Ltd. (Federal Court of Australia, New South Wales District) (2004).

Affidavit on behalf of Gillette regarding statistical analysis of shaving study in Wilkinson Sword GmbH v. Gillette Deutschland GmbH & Co. (Hamburg District Court) (2004).

Peer Review for United States Environmental Protection Agency of BEN model of economic benefit from avoidance of environmental regulations (2003).

Report and deposition testimony on behalf of Turner Broadcasting in US v. ASCAP in the Matter of the Application of Turner Broadcasting Systems, Inc., et al. for the Determination of Reasonable License Fees (2000).

Report and deposition testimony on damages on behalf of defendants in Heineken Technical Services v. Charles Darby, Decotec International, Ltd. and Wolfgang Fiwek (United States District Court, District of Massachusetts, Civil Action No. 98-CV-11952 JLT) (1999).

Reports on damages on behalf of Governor Pedro Rosselló and other officials of the Commonwealth of Puerto Rico in El Dia, Inc., et al. v. Pedro Rosselló (United States District Court for the District of Puerto Rico, Civil Action No. 97-2841 JAF) (1999).

Report entitled "Pricing Flexibility in Exchange Access Reform" submitted by GTE, reply comments. Federal Communications Commission (CC Docket No. 96-262 et al.) (1997).

Direct and Rebuttal Testimony on behalf of Devotional Broadcasters in proceeding before Copyright Arbitration Royalty Panel to determine the allocation of the royalties paid by cable operators for the retransmission of distant broadcast signals from 1990 to 1992. Direct testimony concerned conceptual approaches to allocate the funds. Rebuttal testimony critiqued an econometric study submitted by the Motion Picture Association of America (1996).

Reports for Turner Broadcasting on the treatment of affiliate transactions in cable television price regulations (1994).

Written testimony on behalf of Devotional Broadcasters before the Copyright Royalty Tribunal. Testimony concerned appropriate procedures for allocating royalties paid by cable operators among different classes of programs on retransmitted broadcast signals (1993).

Deposition testimony for Long Lake Energy Corp. in monopolization suit against Niagara Mohawk Corporation. Testimony concerned appropriate market definition (1991).

Affidavit concerning class certification in a class action suit against bottlers of Coke and Pepsi. Affidavit argued that a conspiracy to raise the price of colas sold on promotion to grocery stores affected soft drink prices in general (1989).

Testified as to damages on behalf of Record Club of America in a breach of contract suit against United Artists. Testimony concerned distinction between marginal and average cost and econometric projection of sales (1988).

Other Professional Activities/Distinctions

Participant, Academic Consultants Meeting on Non-Traditional Financial Services, Federal Reserve Board, April 16, 2008.

Presenter, Fundamentals of Antitrust Economics, American Bar Association Antitrust Section Spring Meeting, 2007, 2008.

Editorial Board, *Journal of Industrial Economics*, 2002-2006, (Associate Editor, 1996-2002).

Editorial Board, *Review of Industrial Organization*, 2002-2005.

Special Consultant, National Economic Research Associates, 1994-2005.

Member, Science Advisory Board/Illegal Competitive Advantage, United States Environmental Protection Agency, 2004.

Broderick Prize for Service to Undergraduate Community, Boston University, 2004.

Who's Who in America (first listing in 2003).

Principal Investigator: "A Statistical Mechanics Approach to Coase's Theory of the Firm," National Science Foundation Grant SES-0113103, 8/1/01-7/31/02.

Courses Taught

Boston University
Undergraduate: Modeling Business Decisions and Market Outcomes (course designer and director), Probability and Statistics, Business History
Masters: Quantitative Methods, Managerial Economics, Health Care Economics, Health Care Finance, Economics of Strategic Planning
Executive: Microeconomics (Korean Executive MBA), Macroeconomics
Doctoral: Cross-disciplinary Theory and Research

MIT
MBA: Microeconomics, Economics of Strategic Planning

Columbia:
MBA: Business Economics, Economics of Strategic Planning, Econometrics, Industrial Organization
Doctoral: Microeconomics, Industrial Organization

Exhibit 2

	2008 ACTUALS (final)	2009 ACTUALS (to date)	2009 Projected	2010	2011	2012	2013	2014	2015	TOTAL
WEBCASTING (all license types)	49,728,367	29,706,008	56,741,296	68,844,954	79,746,717	97,812,927	116,702,455	135,973,456	161,334,167	####

PROJECTION ASSUMPTIONS:

(1) Projections based on performances reported for all TOP 50 commercial webcasters multiplied by the applicable rate (excluding small broadcasters, microcasters and non-commercial microcasters - as they only paid minimums in 2009).
(2) Assumes 15% growth in consumption in 2008 - 2010 and 10% growth in later years of term.

2008 Total	26,068,065,693
2009 Total (through 9/30)	25,228,808,510
2009 Annualized	33,638,411,347
% change	29.0%

NOTE: To calculate total consumption change, we used performance data from the SOA tab in Access in TOTAL for all webcasting license types for both 2008 and 2009. As the 29% growth in performances does not seem reasonable to use for consumption; we defaulted to last years growth percentages at 15% in 2010 and 10% forward to 2015.

[redacted] $59,865,177

	2009	2010	2011	2012	2013	2014	2015	2009 Performances annualized @ 2010 Rate
CW (Commercial Webcaster) @ CRB rates								
ACTUAL Performances (per Access)	1,062,529,836	1,221,909,311	1,344,100,243	1,478,510,267	1,626,361,293	1,788,997,423	1,967,897,165	
Annualized Performances	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2,099,696,347
Rate (per perf)	0.0018	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019
CW Royalty Collections	$3,779,453	$4,587,837	$5,046,620	$5,551,282	$6,106,410	$6,717,051	$7,388,757	$3,989,423
NCW (Non-Commercial Webcaster) @ CRB rates								
ACTUAL Performances (per Access)	44,852,358	51,580,212	56,738,233	62,412,056	68,653,262	75,518,588	83,070,447	
Annualized Performances	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	59,194,260
Rate (per perf)	0.0018	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019
NCW Royalty Collections	$106,550	$129,339	$142,273	$156,501	$172,151	$189,366	$208,302	$112,469
BRD (Broadcaster) @ WSA rates								
ACTUAL Performances (per Access)	6,704,557,342	7,710,240,943	8,481,265,038	9,329,391,541	10,262,330,696	11,288,563,765	12,417,420,142	
Annualized Performances	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13,715,348,647
Rate (per perf)	0.0015	0.0016	0.0017	0.0020	0.0022	0.0023	0.0025	0.0016
BRD Royalty Collections	$20,573,023	$25,236,242	$29,494,857	$38,169,815	$46,185,476	$53,113,298	$63,505,030	$21,944,558
CW - WSA (Commercial Webcaster) @ WSA rates								
ACTUAL Performances (per Access)	1,502,424,194	1,727,787,823	1,900,566,605	2,090,623,266	2,299,685,593	2,529,654,152	2,782,619,567	
Annualized Performances	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4,008,455,526
Rate (per perf)	0.0016	0.0017	0.0018	0.0020	0.0021	0.0022	0.0024	0.0017
CW - WSA Royalty Collections	$6,413,529	$7,836,531	$9,122,253	$11,155,532	$12,884,639	$14,848,013	$17,817,613	$6,814,374
PPL (PUREPLAY Webcaster)								
ACTUAL Non-Subscription Performances (PPL - NonSub)	15,592,077,446	17,930,889,063	19,723,977,969	21,696,375,766	23,866,013,343	26,252,614,677	28,877,876,145	
Annualized Performances	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26,771,424,738
Rate (per perf)	[redacted]							
ACTUAL Subscription Performances (PPL - Sub)	377,734,177	434,394,304	477,833,734	525,617,107	578,178,818	635,996,700	699,596,370	
Annualized Performances	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	647,544,303
Rate (per perf)	[redacted]							
PPL Royalty Collections	[redacted]							

[redacted]

NOTE: [redacted]

[redacted]

2009 DETAIL:

See tab named "2009 WC by License Type SUMMARY" for details.

2008 DETAIL:

See tab named "2008 WC by License Type SUMMARY" for details.

Exhibit 3

RIAA Exhibit No. 108 DP

STRATEGIC PRICING GROUP INC.

880 Winter Street, Suite 120
Waltham, MA 02451
T 781.890.4550
F 781.890.4747
www.StrategicPricingGroup.com

ESTIMATION OF ECONOMIC VALUE OF WEBCASTER STATUTORY LICENSES

APRIL 2001

TABLE OF CONTENTS

1. Introduction

It is our understanding that in the Digital Millennium Copyright Act of 1998 (DMCA) Congress afforded webcasters compulsory (or statutory) licenses 1) to transmit copyrighted sound recordings over the Internet in a radio-like format and 2) to make multiple "ephemeral" copies of the copyrighted sound recordings for use in connection with these transmissions. To be eligible for these compulsory licenses, webcasters must comply with various statutory conditions, including the payment of a reasonable royalty.

A webcaster retains the option to negotiate a royalty with individual copyright owners of sound recordings or with the Recording Industry Association of America (RIAA), which represents most of these copyright owners. For those entities that do not negotiate a royalty, the DMCA directs a panel of arbitrators (the Copyright Arbitration Royalty Panel or CARP) to determine the royalty rates that should be paid for the webcaster compulsory licenses. The CARP must set rates and terms that "most clearly represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and a willing seller."

RIAA has negotiated agreements with more than 20 webcasters setting forth rates and terms for the DMCA statutory licenses. Based on those agreements, RIAA intends to request the CARP to adopt the following rates for the period 10/98 through 12/02:

- Webcasters may choose 15% of revenues attributable to music or $.004 per performance, with a long play surcharge of $.0008 per minute for performances over five minutes.
- These rates would cover any non-syndication business model permitted by the DMCA.
- Syndicators (those webcasters that provide music programming to third party websites) would pay $.005 per performance, with a long play surcharge of $.001 per minute for performances over five minutes.

RIAA has sought SPG's opinion as to whether the proposed rates are consistent with the rates that SPG would recommend, based on principles that SPG routinely employs in advising other suppliers on pricing issues. The criteria SPG used to determine if the rates are reasonable are: 1) the price should reflect the economic value of the product; and 2) the price is set lower than the economic value in order to provide an incentive for the buyer to purchase the product.

2. Economic Value Estimation® Methodology

2.1. Economic Value Estimation®

Buyers judge prices in terms of the economic value represented by the product (or service) being considered. In transactions between two businesses, the value of a product is the incremental gross margin (incremental revenues minus incremental costs) that accrues to the purchaser. The price of a product should reflect the value that product delivers to a particular customer segment.

The technique that Strategic Pricing Group, Inc. (SPG) employs to quantify the economic value of our clients' products is called Economic Value Estimation® (EVE®). The process provides an identification of relevant competitive alternatives, a basis for framing the value of the offering to a customer, and a basis for setting a price that would be considered fair in a willing buyer/willing seller environment. We have employed Economic Value Estimation® at Strategic Pricing Group since the firm began executing consulting engagements in 1994. Since that time, we have used the technique with virtually all of the approximately 250 training and consulting clients with whom we have worked.

2.2. Brief History of Value Analysis Techniques

Economic Value Estimation® (EVE®) is SPG's name for a widely accepted analytic technique to determine the economic value of a product to a customer when compared to that customer's next best alternative for the same or similar product. These techniques began with value analysis and value engineering, developed in the late 1940s within the General Electric Corporation. At GE, product development teams generally used these techniques to lower costs while maintaining prescribed levels of product performance. The leader in this effort was Lawrence D. Miles, whose book *Techniques of Value Analysis and Engineering* was published in 1961 (Miles, 1961).

Value analysis and value engineering flourished as an engineering discipline in the 1950s, with the rise of several certification programs, professional associations, and consulting firms devoted to the practice (Falcon, 1964). During this period, similar techniques also were adopted by purchasing departments as a tool for setting product specifications and working with suppliers to extract greater value from their offerings. From there, the techniques made their way into sales and marketing organizations, where providers of higher value offerings often used them to set and justify the premium prices they charged (Hanan, 1973).

Corporations like the DuPont Company and Caterpillar were among the first to adapt these techniques to use in developing marketing and pricing strategies (Kotler, 1980). The evolution in this area is detailed in marketing literature.[1] A survey of 80 of the country's largest business-to-business industrial firms conducted in the early 1990s showed that roughly 40% had employed economic value analysis techniques within the previous year (Anderson et al).

2.3. Price Should Reflect the Economic Value Delivered

The value that is key to developing effective pricing strategy in competitive markets is what economists call "exchange value" and what marketers call "economic value-to-the-customer." We commonly refer to this as simply "economic value" and, as mentioned above, the process of analyzing it as "Economic Value Estimation®." The technique considers the economic impact of

---

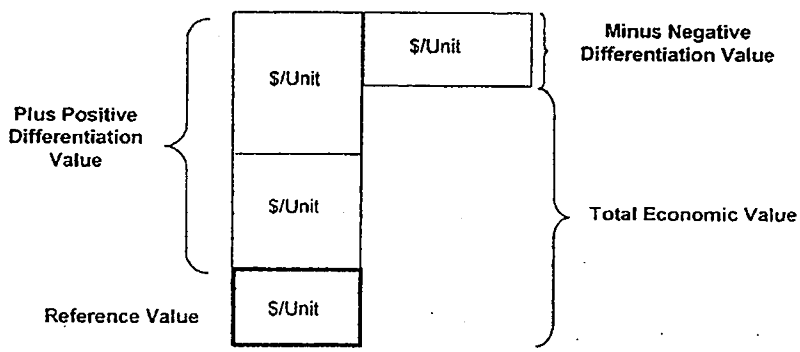
[1] Benson Shapiro and Barbara B. Jackson of Harvard Business School in "Industrial Pricing to Meet Customer Needs," *Harvard Business Review* 56, no. 6 (November - December 1978), John Forbis and Nitin Mehta of McKinsey and Company in "Value-Based Strategies for Industrial Products," *Business Horizons* 24, no. 3 (May-June 1981).

one product in comparison to the next best competitive alternative. A pictorial description is a useful reference to understand the basic components of an EVE® (Figure 1).

Figure 1: Economic Value Estimation®

Total Economic Value is determined using the equation:

Reference Value + Positive Differentiation Value – Negative Differential Value

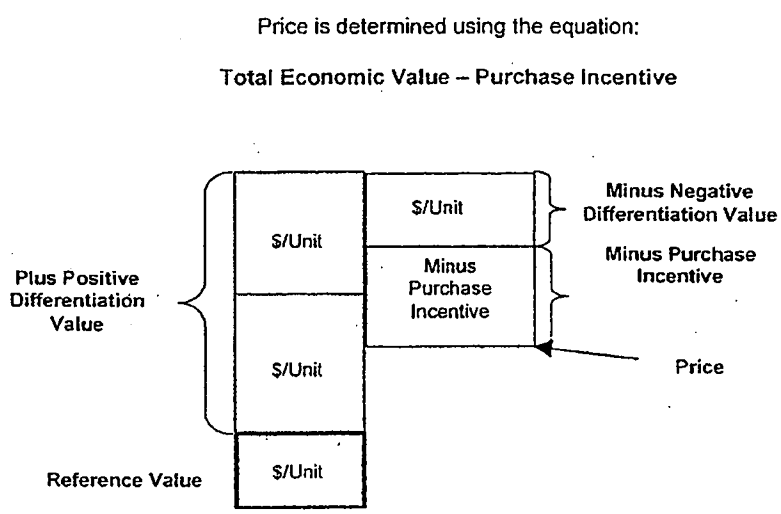


As Figure 1 depicts, the economic value of a product is the price of the buyer's best alternative (called the *reference value*) plus the value of whatever differentiates the product from the alternative (called *the differentiation value).* Differentiation value may have both positive and negative elements. Differentiation value is quantified in terms of incremental revenue and/or cost changes (either positive or negative) for the customer due to the product compared to the alternative. Put another way, *reference value* is the cost of the competing product that the buyer views as the best alternative for this one. *Differentiation value* is the economic impact to the buyer of any differences between the seller's offering and the reference offering. It is important to note that the buyer is the entity buying directly from the seller, as opposed to the ultimate end-user. In this case, the buyer is the webcaster.

Total economic value is the maximum price that a willing buyer would be willing to pay for particular goods or services, assuming that they were fully informed about the market and seeking the best value. Few buyers are willing to pay all that a product is worth (its total economic value) especially if there are multiple competitors offering a good alternative for a lower price. Sophisticated business buyers often demand an economic value analysis that quantifies the benefits of high-priced brands or that shows how low-priced brands can save more than the value of the benefits given up. Charging the full value does not provide a buyer with an incentive to buy one product instead of its alternative. Prices should be set far enough below the total economic value to provide the customer with an incentive to buy the higher priced product that delivers higher value over the lower priced alternative. The difference between the total economic value and the price is called the purchase incentive.

Conversely, only a small percentage of business buyers want to pay the absolute lowest price in the market, especially if paying more will provide them with positive economic benefit above the lowest priced alternatives. By setting the price between the reference value and the total economic value, the buyer pays more for the added value delivered yet still has the incentive to buy the higher-priced/higher-value offering. Figure 2 shows how prices should be set relative to the economic value while providing a purchase incentive to the buyer.

Figure 2: Set Price Relative to Economic Value While Still Providing a Purchase Incentive



2.4. Summary of Steps in Constructing an Economic Value Estimation®

The implementation of EVE® methodology can be outlined as a series of steps which, generally applied, will provide the foundation for estimating economic value for a product.

Step 1: Identify the customer's next best competitive alternative and the cost of that alternative (i.e., the reference value).

Step 2: Identify all factors that differentiate the product from the competitive alternative and determine the value to the customer of these differentiating factors.

Step 3: Sum the reference value and the positive and negative differentiation value to determine the total economic value.

Step 4: Determine the selling price, recognizing that the product must usually be priced below economic value as an incentive to purchase.

3. Analytic Framework

Our analysis is built upon a series of economic foundations that are relevant to the webcasting statutory licenses and the webcasting industry.

3.1. Nature of Licenses Being Priced

At issue is the price that each webcaster would pay for the DMCA statutory licenses in a free market. The payments would be made to RIAA on behalf of all sound recording copyright owners. The licenses in question have the following characteristics:

- The nonexclusive licenses cover streaming over the Internet any and all copyrighted sound recordings (the several hundred thousand created since 1972 and those created in the future), in accordance with DMCA statutory conditions (i.e., non-interactive, radio-like format).
- Licenses cover only the sound recording copyright and not the underlying musical work, which is licensed by ASCAP, BMI or SESAC.
- Because RIAA will be responsible for collecting royalties from webcasters and distributing them to individual copyright owners, the licenses allow webcasters to avoid incurring the transaction costs of negotiating with the copyright owners and locating and paying copyright owners and artists individually.
- The licenses cover a perpetual term – i.e., rates could change every two years but licenses remain in effect absent Congressional action and copyright owners have no right to revoke.

3.2. Webcasters are Investing Now for Future Economic Benefit

The webcasting industry is in its early stages of development, as evidenced by the highly fragmented market, variations in the costs of inputs and revenue sources, and substantial investment webcasters are making today to grow their audience and their brand. As of December 2000, publicly held webcasters such as NetRadio ‹NETR›, Artist Direct ‹ARTD›, Launch Media ‹LAUN› are experiencing operating losses from (–169%) to (–795%) of revenues (from Multex Market Guide, year 2000 income statements). Given the current state of profitability in webcasting, which is negative, it is apparent that webcasters are not entering this business because they find the immediate returns attractive. They are investing now in order to build a customer base and business model that they believe will be financially rewarding in the future.

3.3. Economic Value Must be Estimated for a Future Point of Viability

In estimating economic value, we must consider the economic impact on the buyer of the product over the lifetime of that product to that buyer. For the reasons stated above, we can see that the economic benefits of the licenses to the webcaster will be realized in the long-term. The value of the statutory licenses to the webcaster must be estimated at a future point in time when a) the webcasting industry is economically viable and b) a typical webcaster is operating at a sustainable scale. Determining the economic value at some future point of viability is consistent with our EVE® methodology and generally accepted pricing principles.

3.4. Industry Viability

The concept of economic viability is central to the ability of a given industry to sustain competitive rates of return in the long run. An industry that has reached or is approaching viability will be marked by convergence around profitable business models and abandonment of those models that are deemed unsustainable over the long run. Key enabling technologies will become more mature leading to the creation of de facto standards as industry leaders adopt the technologies on larger and larger scales. Widespread adoption of these technologies will lead to increased demand for technology inputs (such as bandwidth), and competition between technology suppliers to meet this demand will result in more predictable and lower costs for industry participants.

After a period of rapid growth, the rate of user adoption will slow, allowing competing webcasters to focus their marketing efforts on the substantial number of existing end-user customers. Improvements in technology will also make the industry more attractive to end-users who were hesitant to participate in the industry in its early stages. As market leaders emerge, they will achieve efficiencies in their sales and marketing investments due the strength of their brands. Additionally, in media businesses, the size of their audiences will make them more attractive to advertisers who seek efficient means to reach their target audiences. In the webcasting businesses these marketing efficiencies will manifest themselves as follows: With increased and improved measurement of Internet audience size and efficacy of advertising (especially audio advertising), advertisers' acceptance of the Internet as a viable medium will increase. Thus, advertisers will invest more of their advertising dollars in this medium.

3.5. Webcaster Viability

The webcasting industry, like others, will eventually consolidate into a small number of large participants. As in other industries, successful webcasters that reach a sustainable scale will experience cost and revenue advantages that may be difficult for competitors to match. Small webcasters which fail to attain a certain number of listeners will likely be unprofitable and will either go out of business or will be acquired by a larger company in order to drive traffic to the acquirer's website or for other strategic reasons. As the webcasting industry consolidates, it will be possible for some webcasters to achieve a sustainable size and become economically viable, producing competitive returns on their business.

The royalty rate for the statutory licenses today should be set at a rate consistent with long-run viability, despite the fact that royalty rates may be changed every two years. Providing lower royalty rates while the webcasting industry grows towards viability may be the most desirable pricing for webcasters, but it is certainly not a pricing strategy that a willing seller would agree to in a free market. If it were, landlords would give Internet startups free or discounted rent, broadband suppliers would give free or discounted network access, equipment suppliers would give free or discounted equipment – all in return for promises to pay more when and if the startups became more profitable. We do not see this in free markets of willing buyers and willing sellers and we have never recommended such pricing to a client.

There is a further problem with setting a royalty rate lower than what would be reflected through consideration of the future point of viability. Under-pricing major resources to firms in an industry lengthens or prevents entirely the shakeout of weaker firms and the consolidation of the remainder into viable, profitable competitors. It is well known that subsidized industries have a tendency to remain unprofitable, thus continuing to require the subsidy.

4. Statutory Licensing Royalty Rate Analysis

Strategic Pricing Group applied the same methodology for constructing an Economic Value Estimation® as discussed above to estimate the value of the statutory licenses to the webcaster who has reached sustainable scale at the point of viability. The first thing we considered was the competitive alternatives to the statutory licenses. Next, we estimated the economic value of the statutory licenses on a webcasters' business. Based on this economic value, we then suggested an incentive for the webcaster to purchase the statutory licenses. Finally, by subtracting this incentive from the total economic value, we arrived at a reasonable rate for the statutory licenses. We have concluded that RIAA's proposed prices are reasonable relative to the economic value of the DMCA statutory licenses to the licensees.

4.1. Traditional (Internet-Only) Webcaster Economic Value Estimation®

Internet-only webcasters program channels -- typically by genre (e.g., World, Alternative, and Oldies) -- for consumer end-users. The source of the music is the copyrighted sound recordings created by record companies and recording artists, which are encoded and transmitted over the Internet. Examples of Internet-only webcasters include NetRadio and Spinner (now owned by AOL/Time Warner). Outlined below is a detailed summary of our analysis.

Step 1: Identify the reference value of the customer's next best competitive alternative and the cost of that alternative (i.e., the reference value).

The first step in quantifying the economic value of a product is to identify the cost of the competitive product that the webcaster customer views as their next best alternative. After identifying the next best alternative, we restate the cost of this alternative in terms of units of the product for which we are calculating economic value. This restated cost is the offering's reference value.

Webcasters' future growth depends upon three categories of inputs that are presently identifiable: 1) operational infrastructure; 2) bandwidth and associated technologies to support distribution; and 3) content. For an entity that intends to develop a portion or all of its business around the delivery of non-interactive performances of copyrighted sound recordings, there are several alternative means for acquiring and deploying the first two categories of inputs (operational infrastructure and distribution technology). For the third category (content), there are no competitive alternatives to the statutory licenses without negotiating with individual record labels. The statutory license offers access to all sound recordings created after 1972 without the need to negotiate with individual labels directly. Webcasters who want to stream these sound recordings without negotiating with each label have no alternative except to pay for the statutory licenses. Therefore, we conclude that there is no relevant alternative for a statutory license and the reference value is $0.

Step 2: Identify all factors that differentiate the product from the competitive alternative and determine the value to the customer of these differentiating factors.

Once the reference value is known, then the incremental positive and negative value delivered by a product can be calculated. This incremental value is quantified in the form of increased revenues or decreased costs that result from differences between the product and any competitive alternative. Sources of value may be subjective (for example, greater satisfaction in using the product) or objective (for example, cost savings or profit gains). The positive and negative values associated with the product's differentiating attributes comprise the differentiation value.

Differentiation value for a statutory license for sound recordings can be thought of in the following ways:

- The music's impact on the ability of a site to attract, grow and retain an audience and the corollary effects on the site's ability to sell more advertising and/or command higher rates for its advertising inventory.
- The attractiveness of the site's content or audience to other sites and the corresponding effect on the site's ability to generate referral fees, collect commissions, or generate licensing fees.
- For those sites engaging in e-commerce impact on gross margins through changes in customer buyer behavior such as purchase frequency, order size and/or choice of higher margin products.

In order to quantify the differentiation value of the statutory licenses to the webcaster, we calculated the incremental operating income (incremental revenues due to using the statutory licenses minus incremental and avoidable costs due to using the statutory licenses) of a successful webcaster at a future point of viability. This operating income is the value of the statutory licenses to the webcaster. To do this, we undertook a financial modeling process.

The relevant costs that must be considered in estimating value are those that are both incremental and avoidable. In the webcasting industry, the major implication of having no economically viable alternative for the statutory licenses to operate in the non-subscription streaming business (i.e., having a reference value of $0) is that all ongoing costs, including the ongoing fixed costs of the business of webcasting, must be considered avoidable and thus included in the value estimation. Over time, webcaster costs will decline on average due to industry maturity, webcaster efficiency and as a webcaster achieves economies of scale with growth. Costs will also decline as a webcaster becomes more experienced and efficient in operations, even if the business were to remain the same size. Further, some technology-related costs, such as bandwidth, show trends of decline over time, on a per unit basis as the industry matures and technology continually improves.

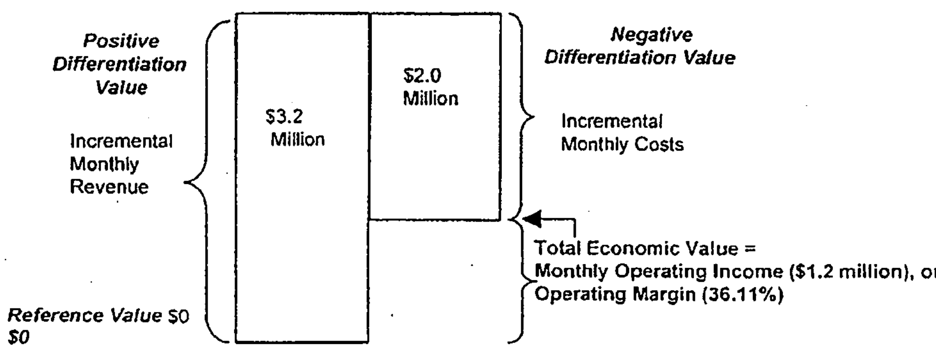
It is important to note that many webcasters will attempt to offer both DMCA-compliant and non-DMCA-compliant (interactive, exclusive license, etc.) programming. This type of webcaster will realize additional revenues and costs as they add other businesses. Our models consider only the part of the webcaster's business model related to streaming music covered under the DMCA. The analysis assumes a "stand-alone" business rather than a business with multiple business units. This is the most conservative assumption because the fixed costs of the business are not shared across multiple business units.

Step 3: Sum the reference value and the positive and negative differentiation value to determine the total economic value.

Once the differentiation value (in the webcaster's case, its potential operating income before paying for the statutory licenses) is quantified, this amount is added to the reference value of $0. The result is the total economic value of the statutory licenses to the webcaster. In this case, the economic value of the licenses to use copyrighted sound recordings is the webcaster's operating income (relevant revenues minus relevant costs). Using the modeling techniques described above, we determined a webcaster's monthly operating income at a future point of viability. Dividing this operating income by the webcaster's revenue, we arrived at the webcaster's projected operating margin at the point of viability (36.11%). A graphical depiction of the Economic Value Estimation® is shown in Figure 3.

Figure 3: Traditional (Internet-only) Webcaster Economic Value Estimation®

Figure 3 illustrates our analysis in Appendix 1A. The economic value of a statutory license to webcasters is the webcaster's monthly operating income. The operating income is the difference between the relevant and ongoing revenues and costs at a future point of viability.



Step 4: Determine the selling price, recognizing that products must usually be priced below economic value as an incentive to purchase.

The total economic value (reference value plus differentiation value) is the point of indifference for the informed purchaser. This is the price at which the buyer would be indifferent between one product and the next best alternative. When pricing the product based on its economic value, there must be some incentive for the purchaser to choose this offering. In this case, the total economic value is the webcaster's operating income (or operating margin) at the point of viability. If a webcaster had to pay statutory license fees equivalent to the total economic value, the business would just break even and there would be no profit remaining for the owner of the business. Therefore, the fee for the statutory licenses should be based on some portion of the value of the statutory licenses, which allows investors/owners to make a reasonable return on their investment. This is, in effect, the incentive for using the statutory licenses.

A webcaster's operating margin at the point of viability should enable the webcaster to cover its earlier operating losses, *and* to generate an acceptable rate of return. In our analysis, we calculate the range of operating margins a webcaster will need to earn at the point of viability to produce these acceptable returns. A company that can deliver a 25% annualized return is generally considered a successful business. We therefore conducted our analysis using returns of 20-30% over the life of the business. We assume a conservative growth rate between Year 5 and Year 10. Beginning in Year 10, we assume zero growth in earnings and give credit for the future earnings of the company. In conducting our rate-of-return analysis (shown in Appendix 2) we concluded that a webcaster could generate a 20-30% rate of return by earning an operating margin in the range of 8.43%-17.05%. By subtracting this return from the total economic value of the licenses, we arrive at the appropriate range for the statutory license royalty fee.

The final step in our analysis is to convert the license fee to a per performance rate. This conversion is shown in Appendix 3. The conversion uses a typical volume of 12 performances per hour. This volume is consistent with the average number of performances by radio stations, found in the Broadcast Data Systems Music Density Analysis. The resulting royalty rate is the range of $.0043 (allowing a 30% return) to $.0062 (allowing a 20% return) per performance.

Our analysis thus confirms that the rates RIAA is proposing for the statutory licenses are within the range of rates that would be obtained in a free market of willing buyers and willing sellers. The proposed rate is lower than the economic value of the statutory licenses, providing economic incentive to the webcaster. When considering the long-term returns of the webcaster business, it is not only possible for a successful webcaster to afford to pay the proposed statutory license fee, but also, the webcaster can achieve an attractive rate of return on this business that would be economically viable as the industry matures.

4.1. Other Types of Webcaster Services

There are variations on the Internet-only webcaster business model, including aggregators and syndicators.

Aggregators are 3rd party providers that aggregate content from multiple sources. They may aggregate non-broadcast (i.e., Internet-only channels) onto a single site or aggregate multiple terrestrial radio stations so that no single station has to make the large capital investment necessary to stream independently. The aggregator typically requires the listener to select the station's transmission (Internet-only or terrestrial) from among many other stations on the aggregator's website (e.g., Yahoo! Broadcast) and/or allows the listener to select the stream directly from the radio station's website (e.g., SurferNetworks).

Like the Internet-only webcaster, the aggregator business model derives revenue largely through advertising. Some aggregators, but not all, also charge the broadcasters a fee for their services. Relative to the webcaster, the aggregator experiences some marketing and programming cost efficiencies, but also some incremental technical and equipment costs. We believe that the long run differences in magnitude in the types of costs between Internet-only and aggregator services will be insignificant. For these reasons, we recommend charging the aggregators the same royalty rate as the Internet-only model.

Syndicators are businesses that provide music streaming services and technology to third-party websites, including retail sites (such as EddieBauer.com or PotteryBarn.com). Retail websites may purchase streaming music services from syndicators (such as Websound and Radioamp.com) in the form of "branded radio," with music selected to reinforce the brand image of the retailer. Music has long been used in off-line retail environments to add to the shopping experience. Studies have shown that music can influence buyer mood and purchase behavior, and it is generally believed that music can have a positive impact on shopping behavior (e.g., length of shopping time and purchase amount) and the retailers' revenues. Additionally, research indicates that music targeted to the audience and to the brand and offering has a potentially greater economic impact on the retailer.

We believe that on-line retailers, by offering syndicated music on their websites, will experience similar results to those of off-line retailers (i.e., increased revenues). Syndicated music that is carefully selected to match the on-line retailer's targeted audience and brand image will add more value to the retailer than random music or no music. Because the retailer will derive added value by providing syndicated music, we believe the syndicator – the provider of such music – will be able to capture a portion of this added value. Therefore, the royalty rates for the statutory licenses covering performances used on retail websites should command a premium.

5. Appendices

Appendix 1A: Webcaster Analysis

Appendix 1B: Notes for EVE® Analysis

Appendix 2: Purchase Incentive / Rate of Return Analysis

Appendix 3: Royalty Rate Conversion / Recommended Per Performance Rate

6. Bibliography

Appendix 1A: EVE Analysis

Internet-Only Webcaster	Point of Viability

NOTE: Numbers subject to rounding

Volume		
Unique listeners per month	3,000,000	1
Listening hours per month per user	4	2

MONTHLY REVENUES

Audio Cost Per Thousand Exposures (CPM)	**$**	**30**	3
Audio spot load per hour (:30)		12	4
Potential number of impressions per month		144,000,000	5
Price per impression	$	0.030	6
Percent of ad inventory sold		60%	7
Total revenue from audio ad sales	$	2,592,000	
Banner (on Player) CPM	**$**	**10**	8
Banner spot load per hour (1 banner every two minutes)		30	9
Potential # of impressions per month (discount by 75%)		90,000,000	10
Price per impression	$	0.01	11
Percent of ad inventory sold		25%	12
Total revenue from banner ad sales	$	225,000	
Sponsorship			
Sponsorship opportunties per month		8	13
Estimated revenue per sponsorship	$	30,000	14
Total revenue from sponsorship sales	$	240,000	
E-commerce			
Unique listeners per month		3,000,000	
Percent of users that engage in e-commerce		1.9%	15
Average amount spent per transaction		$39.88	16
Commissions		7.5%	17
Total revenue from e-commerce sales	$	170,503	
Other			18
Positive Differentiation Value (Monthly Revenue)	**$**	**3,227,503**	
Annualized Revenue	*$*	*38,730,039*	

Appendix 1A: EVE Analysis

MONTHLY EXPENSES			
Encoding			
Total cost to outsource encoding	$	3,000	[19]
Bandwidth or Streaming			
Average speed of transmission, kilobits per second (kbps)		50	[20]
Seconds per hour		3,600	[21]
Listening Hours (unique listeners * listening hours per month)		12,000,000	[22]
kilobits (kb) per month streamed		2,160,000,000,000	[23]
Convert to megabytes (MB) per month streamed		270,000,000	[24]
Price per MB	$	0.0008	[25]
Cost of Bandwidth or Streaming	$	226,895	
Data Storage or Hosting	$	4,000	[26]
Web Hosting	$	16,000	[27]
Product Development/R&D/Programming	$	177,513	[28]
Sales	$	1,069,950	[29]
Marketing	$	258,200	[30]
General and Administrative	$	129,100	[31]
Other Licenses	$	112,963	[32]
Depreciation & Amortization	$	64,550	[33]
Negative Differentiation Value (Monthly Expenses)	$	2,062,170	
Annualized Expenses	$	*24,746,043*	
Economic Value $$ (Monthly Operating Income)	$	1,165,333	
Economic Value % of Revenues (Operating Margin)		36.11%	

Appendix 1B: Notes for EVE® Analysis

	VOLUME
1	Unique listeners per month means the number of individuals who stream music on the webcaster's website in one month. Each individual is only counted once, even if they stream music many times. Wall Street Journal, "The Internet Offers a Radio Station Life After Death," February 5, 2001: NetRadio already achieves 2.5 million unique users per month. Forrester, "Self-Serve Audio Evolution," May 2000, projects 99 million streaming audio users by 2005. Webnoize, "Internet Radio Realities," Spring 2001, projects that Internet radio audiences will grow to 103 million users as early as 2002. An industry source stated figures between 1 million and 5 million unique listeners as a point of viability. We believe that 3 million is a reasonable figure for this analysis, anticipating the ongoing consolidation of the industry, and adoption of streaming technology. This number of unique users would comprise 1/33 of Forrester's projected US listener base for streaming audio.
2	Listening hours per month per user is the aggregate time that each unique listener is streaming DMCA-compliant music on the website in a month. Jacobs Media, "Corporation for Public Broadcasting Competitive Scan," January 2001, cites Arbitron "Broadband Revolution," October 2, 2000: In broadband homes, people are currently listening to streaming audio for an average of 18 minutes per day (9 hours per month). Forrester "Self-Serve Audio Evolution," May 2000: Current average radio listening hours = 10.2 hours per week (times 4 = 40.8 hours per month); current average Internet radio listening hours = 1 hour per week (times 4 = 4 hours per month). Industry Standard, "Internet in Media Time," May 1, 2000: Average annual radio consumption in 2000 = 1,074 hours, or 89.5 hrs per month. Industry sources have stated that 4 hours per month is a reasonable figure for webcasters at the point of viability. We believe that 4 hours per month is a reasonably conservative figure, especially given increased adoption of streaming, and movement from broadcast radio listening to Internet radio.
	MONTHLY REVENUES
	AUDIO ADS Audio advertisements are one source of webcaster revenue. Previously, audio advertisements were heard before the music streams (i.e., "gateway ads"); however, new technologies now allow audio ad insertion into the music stream, providing more opportunities for audio advertising.
3	Audio cost per thousand exposures (CPM) is the price that advertisers pay the webcaster to reach 1,000 listeners with their audio advertisement. Hi-Wire CEO quoted in Wall Street Journal, February 5, 2001, "Internet Offers Radio Station Life after Death" said that advertisers are willing to pay $30-$60 CPM for a targeted audio commercial. Webnoize, "Internet Radio Realities," Spring 2001: $25-$40 CPM. Jupiter, "Luring Listeners as Worlds Collide," December 20, 2000: Various rate cards show CPMs in the range of $50-$120, $40-$85, $15-$35, $35-$42. Radio and Internet Newsletter, June 8, 2000, "The national rep firms are telling us that the basement (price) is an unwired (i.e., no geographical targeting) buy at a $35 CPM. What we're selling in our local markets is a $45-55 CPM. We've gotten buys up to a $100 CPM." Kagan Streaming Summit, March 2001: Gordon Bridge (SurferNetwork) stated that audio ads will sell for more than traditional radio. Traditional radio is $8-$10 CPM, audio ads today are selling in the $30-$60 CPM range. He said that prices should go up significantly with targeting over time, as advertisers improve the ability to refine the parameters of who is receiving the ads. We believe that this CPM rate will be higher than rates for radio stations, due to targeting and the interactive nature of the advertising. Industry sources have stated that $30 CPM is reasonable for the point of viability. We believe that $30 CPM is a reasonable figure.

Appendix 1B: Notes for EVE® Analysis

4	Audio spot load per hour is the number of audio advertisements that will potentially be transmitted in one hour of programming, assuming that each audio ad is 30 seconds long. We believe that Internet radio spot loads will approach those of broadcast radio. Jacob's Media, "Corporation for Public Broadcasting Competitive Scan," January, 2001 -- The "overwhelming majority of radio stations run at least 12 spots per hour, with many running more than 14" at present. <u>Radio and Internet Newsletter</u>, June 8, 2000, for webcasters, audio spot load per hour = 12 spots at present. <u>Streaming Media</u>, "Q&A With BroadcastAmerica," May 31, 2000 -- 12 spots per hour for average radio station, at present. Industry sources have stated figures between 10 and 12 spots per hour as reasonable. We believe that 12 audio spots per hour is a reasonable figure. NOTE that much webcasting will be Internet transmission of AM/FM broadcasts, where the current 12-14 ads per hour will be simply replaced with inserted ads.
5	Potential number of impressions per month is the calculation, (unique listeners per month * listening hours per month * audio spot load) = (3,000,000 * 4 * 12) = 144,000,000.
6	Price per impression is the calculation, (CPM divided by 1,000) = ($30 / 1,000) = $0.030.
7	Percent of ad inventory sold is the percentage of audio ad spots available (i.e., ad inventory) that has been sold to advertisers. Industry sources have stated figures between 40% and 70% for point of viability. We believe that 60% is a reasonable figure. As Internet radio demonstrates value as an ad property, and as targeting capabilities for advertising improve, we project that successful webcasters will be capable of selling more of their inventory than current webcasters.
	BANNER ADS ON PLAYER Banner ads are another source of revenue for webcasters. These are the traditional Internet visual ads. We are only considering the banner ads on the player, i.e., not on other parts of the website. If the webcaster had banner ads elsewhere on the site, those ads would generate additional revenue (i.e., increase the webcaster value).
8	Banner cost per thousand exposures (CPM) is the price that advertisers pay the webcaster to reach 1,000 listeners with their banner (i.e., visual) advertisement. <u>The Standard</u>, "Net Ads Keep on Ticking," September 4, 2000, cited $27 average CPM rates for banner ads on music/streaming media sites, at present. <u>AdRelevance</u>, "The State of OnLine Advertising," February 2001: Average rate card Q4 2000 for Music and Streaming Media websites = $25 CPM. Yahoo! Rate Cards, February 23, 2001, for categories including music and radio, CPMs = $36-$69 and $57-$72. <u>Radio and Internet Newsletter</u>, June 8, 2000, for webcasters, typical banner ads sell for about a $20 CPM, at present. DoubleClick Entertainment rate card = $25-$40 CPM, March 28, 2001. Industry sources have stated $10 CPM as reasonable for the point of viability. Ads in the past year have gone as high as $20-$30 CPM. Rates have since come down due to market shifts, but can be expected to go up in the future for the viable webcaster. We believe that $10 is a reasonable figure, reflecting a significant discount off today's published rate cards. (See also item 10 describing a discount on ad exposures).
9	Banner spot load per hour is the number of banner advertisements that will potentially be transmitted in one hour of programming. Industry sources stated spot loads between 15 (1 every 4 minutes) and 120 spots (1 every 30 seconds) for present day webcasters. We believe that a load of one banner every 2 minutes is a reasonable figure for a webcaster at viability, considering only one banner ad displayed on the player.

10	Potential number of impressions per month is the calculation, (unique listeners per month * listening hours per month * banner spot load * 25%) = (3,000,000 * 4 * 30 * 0.25) = 90,000,000. This number is discounted by 75% to account for the idea that in 5 years, some listeners will stream music from non-PC devices, some of which may not display banner advertising. An industry source stated that in 5 years, 75% of streaming will be via non-PC devices. NOTE: A webcaster will likely have banner ads in addition to those on the player, elsewhere on the site. While those ads will generate additional revenue attributable to the music (and additional positive differential value), the number of additional ads will be a function of the structure of the site. We have not attempted to quantify that additional revenue so as not to speculate on the number of additional pages that might be available from site to site.
11	Price per impression is the calculation, (CPM divided by 1,000) = ($10 / 1,000) = $0.010.
12	Percent of ad inventory sold is the percentage of banner ad spots available (i.e., ad inventory) that has been sold to advertisers. AdRelevance, "The State of OnLine Advertising," February 2001: Q4 2000 House advertising for Entertainment/Society websites = 30%, meaning 70% ad inventory was sold. An industry source has stated figures of 40% to 50% for point of viability. Another suggested limiting advertising to 2 spots per listener per hour. We believe that 25% inventory sold is reasonable for a viable webcaster.
	SPONSORSHIP Sponsorship is a source of webcaster revenue. An advertiser or organization may sponsor a program, event, a portion of the website, or e-mail campaign.
13	Sponsorship opportunities per month are the number of sponsorships allowable by the webcaster each month. Industry sources have stated figures between 4 and 8 for point of viability. We believe that 8 is a reasonable figure for a viable webcaster.
14	Estimated revenue per sponsorship is the price a sponsor must pay for the sponsorship opportunity. An industry source stated that the figure of $30,000 per sponsorship opportunity is reasonable for a webcaster at the point of viability.
	E-COMMERCE E-commerce is a source of webcaster revenue. E-commerce allows the user of the webcaster's site to make retail purchases. Depending on the business model, purchases might be made either directly from the webcaster's website, or through an affiliate agreement with a third-party retail site (e.g., Amazon.com). In this case, we assume the latter scenario, where the webcaster receives a commission on the sales.
15	Percent of users that engage in e-commerce is the percentage of listeners who will make a purchase. We conservatively include only listeners, not other visitors to the webcaster's site who don't stream. The Standard, "The Detail on E-Retail," May 1, 2000: "Net pure-plays find that 3.5% of unique visitors make a purchase." Audiobase, "Building a Sound Foundation for E-Commerce," September 22, 2000: Less than 3% of on-line shoppers ever become buyers. Wall Street Journal, "Clinching the Holiday E-Sale," October 9, 2000: 1.8% of retail website visits are converted to purchases. Industry sources have stated figures between 1.5% and 2% at point of viability. We believe that 1.9% is a reasonable figure, especially given webcasters' claims to promote music sales. This would represent a 5% per year increase over the 1.5% of listeners, to reflect a viable webcaster's improving its sales conversion rate.

16	Average amount spent per transaction is the average dollar value of each e-commerce transaction. Shop.Org Press Room, citing Boston Consulting Group data from February 26, 2001: "Online consumers in the least satisfied category spent $428 in the 12 months of 2000, while satisfied respondents spent $673 online, engaging in nearly 50 percent more transactions. Satisfied customers engaged in 9.4 transactions while the unsatisfied customers had an average of 6.5 transactions over the 12 months." $428 / 6.5 transactions = $65.85 average expenditure per transaction $673 / 9.4 transactions = $71.60 average expenditure per transaction BizRate.com: Average purchase amount of online purchases of books, music, DVD's and videos, May-Sept 2000 = $50-$68. We estimated a current average purchase of $25, increasing by 25% by 2005 to reflect the broadening of e-commerce products sold by webcasters, and improved branding. The average price per e-commerce transactions also assumes an additional increase of 5% per year to reflect inflation. Industry sources have stated that the resulting purchase price of approximately $40 is reasonable.
17	Commissions are paid by the third-party retail site to the webcaster. Commissions are typically a percentage of the e-commerce purchase price. Webnoize report, "Internet Radio Realities," Spring 2001: "Volume is the key, and a heavily trafficked webcasting hub could command an affiliation fee of 10-15% [of the purchase price], as compared to the 5-7% offered to smaller sites." Industry sources have stated figures between 7.5% and 10% as reasonable for a viable webcaster. We believe that 7.5% of the purchase price is a reasonable figure for a webcaster at the point of viability.
	OTHER REVENUE SOURCES
18	Our research indicates that many webcasters will have additional revenue sources that could be included in positive differentiation value. Examples include live streaming concerts, and revenues from the sale of programming technology to allow users to program DMCA-compliant playlists. We conservatively do not include these additional revenues because they are difficult to credibly quantify, and may not apply to the industry as a whole. However, we must call attention to their existence, as they do add to the economic value of the statutory license.
	MONTHLY EXPENSES
	ENCODING Encoding is a technical process that converts the sound recordings to a digital format for transmission over the Internet.
19	Total cost to outsource encoding is the cost the webcaster pays to a third-party to encode the music. We believe that outsourcing the encoding process to a third-party is becoming more common than the webcaster encoding in-house. This total represents, at the point of viability, a monthly license cost to access an already-encoded library from a service provider. Industry sources have stated that $3,000 per month for encoding costs is reasonable for the point of viability. NOTE that if a webcaster chooses to use the encoded music for purposes other than streaming DMCA compliant music, then the encoding cost is not an incremental cost to this business, and the economic value of the statutory license would be higher.
	BANDWIDTH OR STREAMING Streaming is the process of transmitting the sound recordings from the webcaster to the listener. Bandwidth is the volume of Internet "pipeline" used to transmit the sound recordings. Webcasters typically pay according to volume of music streamed.

20	Average speed of transmission is the speed at which the sound recordings are streamed to the listener. This is measured in kilobits per second (kbps). Wired.Com, "Shrinking Streams to Grow Bigger," November 23, 2000: Current bit rates range from 20 to 64 kilobits per second (kbps). Industry sources have stated figures from 50-56 kbps for the point of viability. We believe that 50 kbps is a reasonable figure. As codecs and associated technology improve, webcasters will be able to stream better quality music with smaller streams, yet there will still be some variability as listeners demand different levels of quality. This idea is further validated in the Live-365 "Understanding Internet Radio" discussion of multicasting, as well as Panel 1 of the Kagan Streaming Summit, March 2001.
21	Seconds per hour is the calculation, (seconds per minute * minutes per hour) = (60 * 60) = 3600.
22	Listening hours is the calculation, (unique listeners per month * listening hours per month) = (3,000,000 * 4) = 12,000,000.
23	Kilobits (kb) per month streamed is the calculation, (average speed of transmission (kbps) * seconds per hour * listening hours per month) = (50 * 3,600 * 12,000,000) = 2,160,000,000,000.
24	Megabytes (MB) per month streamed is the calculation, (kilobits per month streamed divided by 8 kilobits per kilobyte divided by 1,000 kilobytes per megabyte) = (2,160,000,000,000 / 8 / 1,000) = 270,000,000.
25	Price per megabyte (MB) is the cost the webcaster pays for bandwidth. Jupiter, "Online Music Radio: Luring Listeners as Worlds Collide," December 20, 2000, cites that streaming companies are typically charging $.005 per MB. The Standard, "Streaming Bleeds Cash," September 25, 2000: $.01 per MB. Streaming Media report, "The Cost of Streaming Services" 2000, cites that prices vary significantly. 100% of respondents streaming over 10 million MB per month were paying less than one penny per MB. Six rate cards for streaming over 10 million MB ranged from $.0075 per MB to $3 per MB. These rates are typically negotiable, i.e., webcasters will ask for discounts. Wired.Com, "Shrinking Streams to Grow Bigger," November 23, 2000, "Bandwidth is falling faster than Moore's Law. Bandwidth costs decrease by half about once every 12 months." Kagan Streaming Summit, March 2001, Jeff Morris, Panel 1: Codecs and compression algorithms are improving. Moore's Law states that "Every 18 months, processing power (of semiconductors) doubles while cost hold constant." This law has proven true through the years and will remain true for the foreseeable future. It is commonly believed that telecommunications bandwidth, computer storage, and other new technologies are subject to Moore's Law, whereby capacity doubles every 18 months (Southwest Missouri State University, Department of Management website). An effect of Moore's Law is that these technologies cost approximately half as much in this same timeframe (MIT Technology Review, May/June 2000). We believe that a webcaster at the point of viability will be able to negotiate the best prices for bandwidth, and therefore use $.005 per MB as a starting point. We then discount this over 5 years at 30% per year, to reflect the fact that bandwidth prices are reported to fall according to Moore's Law. An industry source has stated that this is a reasonable way to project declining costs of bandwidth.
	DATA STORAGE OR HOSTING
26	Data storage or hosting costs are for the infrastructure (i.e., technology and support) needed to store the sound recordings. This infrastructure can be owned by the webcaster, however, we believe outsourcing data storage or hosting to a third-party will be more common. Kagan Streaming Summit, March 2001, Jeff Morris, Panel 1: Codecs and compression algorithms are improving. "Moore's Law applies on storage." Like encoding, we believe that webcasters will pay for access to an already-stored library of music. Industry sources have stated that $4,000 per month is reasonable for a webcaster at the point of viability. We believe that $4,000 per month is a reasonable figure. NOTE that if a webcaster chooses to use the stored music for purposes other than streaming DMCA compliant music, then the storage cost is not entirely an incremental cost to this business, and the economic value of the statutory license would be higher.

	WEB HOSTING
27	Web hosting costs are for the infrastructure (technology and support) needed to manage the webcaster's website. An industry source has stated the figure of $8,000 per month for a smaller webcaster, and $16,000 per month for the point of viability. We believe that $16,000 is a reasonable figure. NOTE that if a webcaster chooses to use the website for purposes other than streaming DMCA compliant music, then the web hosting cost is not a completely incremental cost to this business, and the economic value of the statutory license would be higher.
	PRODUCT DEVELOPMENT/R&D/PROGRAMMING
28	This cost represents in-house technical costs, including personnel to manage information technology, as well as programmers of content, research, and development of new products such as players. An industry source has stated a figure of 5.5% of revenues is reasonable for a webcaster at viability. NOTE that if a webcaster chooses to use its technical resources for purposes beyond streaming DMCA compliant music, then this cost is not a completely incremental cost to this business, and the economic value of the statutory license would be higher.
	SALES
29	Commissions are paid by the webcaster to the advertising agencies, which represent the advertisers. Commissions are a percentage of the ad and sponsorship revenue generated. <u>Radio and Internet Newsletter</u>, February 16, 2001: 30-40% commission on ad revenue RIAA's negotiated agreements allow up to 30% commissions on ad revenue. Industry sources have stated figures of 35% for a viable webcaster. We believe that 35% of ad and sponsorship revenues is a reasonable figure for a webcaster at the point of viability.
	MARKETING
30	Marketing costs are the webcaster's expenses to promote their site and build their brand. Industry sources have stated figures between 8% and 10% of revenues for webcasters who have built their brand, depending on size. We believe that 8% is a reasonable figure for the point of viability, because over time a business will be more efficient in using its resources, and the expense will be smaller as a percentage of a large webcaster's revenues, though it grows in absolute dollars. NOTE that if a webcaster engages in businesses beyond streaming DMCA-compliant music, the marketing and other overhead costs would be allocated across multiple types of services. Therefore only a fraction of the cost would be incremental to this business, and the economic value of the statutory license would be higher.
	GENERAL AND ADMINISTRATIVE (G&A)
31	G&A costs are general operating expenses and infrastructure costs typically associated with operating a business enterprise. These may include, but are not limited to, executive and administrative salaries, utilities, real estate, office supplies and incidental expenses. Some salaries in this model are captured in Product Development/R&D/Programming, Encoding, and Sales. An industry source stated a figure of 4% of revenues as reasonable for the point of viability. NOTE that if a webcaster engages in businesses beyond streaming DMCA-compliant music, or is owned by another entity, the G&A and other overhead costs would be allocated across multiple types of services. Therefore only a fraction of the cost would be incremental to this business, and the economic value of the statutory license would be higher.
	OTHER LICENSES
32	BMI/ASCAP licenses for musical work rights. We use 3.5% of revenues.

	DEPRECIATION & AMORTIZATION
33	Depreciation is the decline in value of property caused by wear or obsolescence and is usually measured by a set formula, which reflects these elements over a given period of useful life. Amortization is the allocation (and charge to expense) of the cost or other basis of tangible and intangible assets over its estimated useful life. We estimate that for a small webcaster today, D&A may be estimated at 7% of revenues. This percentage would decrease by 10% annually over 5 years, as a webcaster would become more efficient in their use of fixed assets. For a larger player (who is generating more revenues), we estimate costs at half of this figure. This results in an estimate of 2% of revenues for a webcaster at the point of viability. An industry source has stated that 2% of revenues is reasonable for a viable webcaster. NOTE that if a webcaster engages in businesses beyond streaming DMCA-compliant music, the depreciation and other overhead costs would be allocated across multiple types of services. Therefore only a fraction of the cost would be incremental to this business, and the economic value of the statutory license would be higher.

Appendix 2: Purchase Incentive / Rate of Return Analysis

Chart A - Inputs to ROR Analysis

FROM Appendix 1A Internet-only Economic Value Analysis		
Webcaster Annualized Revenues at point of viability (Year 5)	$	38,730,039
Economic Value, or Operating Margin at point of viability, BEFORE PAYING compulsory license fees		36.11%
FROM Chart B Average Revenues and Expenses for Year 0		
Webcaster Average **Revenues** Year 0	$	266,428
Webcaster Average **Expenses** Year 0	$	2,298,592

Chart B - Sample Current-State Webcasters

	RIAA Licensee		NetRadio 1998		Averages	
Revenue	$	277,856	$	255,000	$	266,428
Op Expense	$	390,184	$	4,207,000	$	2,298,592
Op Income	$	(112,328)	$	(3,952,000)	$	(2,032,164)

NOTE: Numbers subject to rounding

Appendix 2: Purchase Incentive / Rate of Return Analysis

Chart C -- Solve for Operating Margin in Year 5, for 20% ROR

Input Acceptable Rate of Return 20%
Solve for Operating Margin Required to Generate Return 8.43%

* Shaded row indicates point of viability

Year	Total Expenses	Total Revenue	Op Margin	Op Gain/Loss
0	2,298,592	266,428	-762.74%	(2,032,164)
1	3,973,073	721,230	-450.87%	(3,251,844)
2	6,867,383	1,952,393	-251.74%	(4,914,990)
3	11,870,142	5,285,192	-124.59%	(6,584,950)
4	20,517,318	14,307,190	-43.41%	(6,210,128)
5	35,463,798	38,730,039	8.43%	3,266,241
6	40,196,364	44,539,545	9.75%	4,343,181
7	45,594,789	51,220,476	10.98%	5,625,688
8	51,755,650	58,903,548	12.13%	7,147,898
9	58,789,764	67,739,080	13.21%	8,949,316
10+	**Present Value of Expected Future Earnings**		**13.21%**	**44,746,580**
			IRR	**20%**

Chart D -- Solve for Operating Margin in Year 5, for 30% ROR

Input Acceptable Rate of Return 30%
Solve for Operating Margin Required to Generate Return 17.05%

* Shaded row indicates point of viability

Year	Total Expenses	Total Revenue	Op Margin	Op Gain/Loss
0	2,298,592	266,428	-762.74%	(2,032,164)
1	3,895,345	721,230	-440.10%	(3,174,115)
2	6,601,306	1,952,393	-238.11%	(4,648,913)
3	11,187,004	5,285,192	-111.67%	(5,901,813)
4	18,958,229	14,307,190	-32.51%	(4,651,039)
5	32,127,854	38,730,039	17.05%	6,602,184
6	36,360,028	44,539,545	18.36%	8,179,516
7	41,183,003	51,220,476	19.60%	10,037,474
8	46,682,096	58,903,548	20.75%	12,221,451
9	52,955,177	67,739,080	21.82%	14,783,903
10+	**Present Value of Expected Future Earnings**		**21.82%**	**49,279,676**
			IRR	**30%**

NOTE: Numbers subject to rounding

Appendix 2: Purchase Incentive / Rate of Return Analysis

METHODOLOGY AND ASSUMPTIONS UNDERLYING ROR ANALYSIS

We have established that a stand-alone webcaster operating at the point of viability can earn a 36.11% operating margin, BEFORE paying for the statutory license. This is the economic value of the statutory license. We must now determine what portion of that value can be captured by the copyright holders, i.e. what is an appropriate royalty to charge the webcaster.

As stated in the report, an appropriate royalty rate is one that would allow the webcaster to generate a reasonable rate of return on its investment in the business of webcasting. A webcaster's "return" is defined as the amount of money the webcaster will earn from being in this business, above and beyond what is required to cover operating losses in the early years as well as ongoing operating expenses. "Return" is most often expressed as an annual percentage rate, or "rate of return" (ROR). The ROR equates to an annual "interest rate" the webcaster wishes to earn on a particular investment (here, the investment is the amount of money needed to cover operating losses) for every year of the investment.

Although ROR is normally expressed as a constant annual percentage rate, the actual realized rate of return is seldom constant from year to year. In many cases, the rate grows over time. In this example, the rates of return are higher in the later, more profitable years. Standard practice in evaluating ROR is therefore to compute the annualized (constant from year to year) rate of return that is equivalent to the fluctuating rates actually realized. We consider an annualized rate of return of 20%-30% to be reasonable, as discussed in the text.

Given that, without paying for the statutory license, the webcaster can earn a 36.11% operating margin, we must now determine what operating margin the webcaster would NEED to earn in order to generate the target rate of return. As discussed in the text, that operating margin is the "purchase inducement" to the webcaster. The DIFFERENCE between these two operating margins is the portion of the value that should be captured by the copyright holders, and therefore charged to the webcaster as the royalty (See also SPG Report Figure 2). This analysis solves for the necessary operating margin, as follows:

1. MODEL THE WEBCASTER'S GROWTH

In order to analyze rates of return, we need to model the webcaster over its lifetime. Here we model three phases of growth: Year 0 (representing webcasters prior to this proceeding), to the point of viability in Year 5; Years 6 to 9, where the webcaster is still growing, but at a much slower rate; and a steady state after Year 9, where the webcaster is no longer growing. We model the annual revenues and expenses, and calculate the resulting annual operating margins ((revenues-expenses)/revenues) and operating gain or loss (revenues-expenses), for each of the three phases, as shown in Charts C and D.

Year 0-5 -- As shown in Chart B, we use an average of revenues and operating expenses of NetRadio in year 1998, and a smaller RIAA licensee in year 2000. We choose 1998 for NetRadio to represent more typical webcasters today, who have not yet reached NetRadio's present size. Since no one can know exactly how revenues and expenses will grow for any particular webcaster until the point of viability, we extrapolate the growth of revenues and expenses between the two points that we have established at Years 0 and 5, by growing the revenues and expenses at their respective average annual growth rates (resulting in the same percent rate of growth every year). This is a conservative method, resulting in lower growth (in terms of actual dollars) in early years. This is the reason that the model does not show profitability for the webcaster until after Year 4. NOTE: The figures for Total Expenses in Year 5 are different from those in the EVE® analysis (Appendix 1A), because here they reflect the operating margin which this model computes, as described in Step 2 below.

Year 6-9 -- Here we assume that both the industry in general and the webcaster will continue to grow. Since the industry will start to stabilize, and will have gone through significant consolidation by this point, we use a more conservative growth rate here than in the earlier years.

Year 10 and Beyond -- To maintain a conservative perspective on the model, we assume that the business will be in a steady state in Year 10 and beyond-- It will not grow, but will continue to generate value (earnings), which must be accounted for. We account for the ongoing value of these earnings by taking their present value (earnings in Year 9, divided by required rate of return). If the webcasting business were to be sold at any point in time, the sale value would also take these future earnings into consideration.

2. SOLVE FOR THE NECESSARY OPERATING MARGIN AT POINT OF VIABILITY (YEAR 5)

Once the growth in revenues and expenses over the lifetime of the webcaster is modeled, it is possible to solve for the operating margin at the point of viability which the webcaster must earn, to be in a position to cover all operating losses AND generate the target annual rate of return (20%-30%) over its lifetime. Chart C shows the results for a 20% rate of return, and Chart D shows the results for a 30% rate of return. We can see that the "IRR" (Internal Rate of Return) calculation of the column of operating gains and losses confirms that the resulting operating gains and losses provide these returns to the webcaster. IRR is defined as the "interest rate" received for an investment consisting of payments (negative values) and income (positive values) that occur at regular periods (here, years).

Note that revenues are identical in both Charts C and D, but expenses are different (after Year 0). This is because the different rates of return will require the webcaster to earn different operating margins-- a higher rate of return will demand a higher operating margin (more profitability), and a lower rate of return will need less of a margin.

The difference between the operating margin representing the economic value (36.11%) and the necessary operating margin to generate the ROR (8.43%-17.05%) is the portion of the economic value that can be captured by the copyright holders. This is converted into a per-performance royalty rate in Appendix 3.

Appendix 3: Royalty Rate Conversion / Recommended Per Performance Rate

NOTE: Numbers subject to rounding

	FROM Appendix 1: Internet-only Economic Value Analysis	
A	Economic value (Operating Margin) at point of viability, before paying compulsory license fees	36.11%
B	Monthly webcaster revenues at point of viability	$3,227,503
C	Listening hours per month	12,000,000
D	Performances per hour	12
E	Economic value per performance	$ 0.0081

	FROM Appendix 2: Rate-of-Return Analysis		
F	Acceptable rate of return	**20%**	**30%**
G	Operating margin required to generate return (purchase inducement)	8.43%	17.05%

	Royalty Rate Conversion		
H	Value to be captured by copyright holders (A - G)	27.68%	19.06%
I	Monthly royalty $ (H x B)	$893,373	$615,162
J	Performances per month (C x D)	144,000,000	144,000,000
K	Per Performance Royalty Rate (I / J)	$ 0.0062	$ 0.0043

Exhibit 4

Illustrative Revenue Per Play Calculation For Pandora and Live365
Based on Total Internet Radio Revenues

	Revenue ($ Million)		Plays (Million)		Revenue/Play ($)
Year	Pandora	Live365 [3]	Pandora	Live365 [6]	
2008	19 [1]	[redacted]	[redacted] [4]	[redacted]	[redacted]
2009	50 [2]	[redacted]	[redacted] [5]	[redacted]	[redacted]

[1] "Music Labels Reach Online Royalty Deal", The New York Times, 7/8/2009.

[2] "How Pandora Slipped Past the Junkyard", The New York Times, 3/7/2010.

[3] Tab 9 of Live365 Trial Exhibit 30.

[4] Top 25 Webcasters by Usage 2008 (SXW3_Native_0015).

[5] SXW3_Native_0026. The [redacted] million pla is an estimate based on apparently 10 months of data. Specifically, I estimate the figure by determining the average monthly plays for the first 10 months then extrapolating for the final two months. The formula is ([redacted]/(10/12)).

[6] Live365 Financial Data.

Exhibit 5

6/7/2010

Illustrative Non-Interactive Royalty Rate Calculation
Based on Pandora and Live365 Total Internet Radio Revenue

[A]	[B]	[C]	[D] = [B] / [C]	[E]		[F] = [A] x ([E]/[D])	
Interactive Royalty Rate [1]	Average Interactive Subscription Fee [2]	Interactive Average Number of Plays Per Subscriber [3]	Interactive Revenue/Play	Non-Interactive Revenue/Play [4]		Non-Interactive Royalty Rate	
				2008	2009	2008	2009
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[1] Pelcovits p.33.
[2] Pelcovits p.25.
[3] Pelcovits p.31.
[4] See Exhibit 4.

Exhibit 6

Non-Interactive Royalty Rate Calculation
Based on 95% Confidence Interval of Pelcovits' Interactivity Coefficient

Interactivity Coefficient [1]	Standard Error [1]	t Distribution Critical Value [2]	95% Confidence Interval Endpoints		Interactivity Adjustment [3]		Interactive Fee Per-Play [4]	Per-Play Adjustment [4]	Non-Interactive Royalty Rate	
			Low End	High End	Low End	High End			Low End	High End
$8.52	2.00	2.365	$3.79	$13.25	0.715	0.004	$0.02194	0.5101	$0.008	$0.00004

[1] Pelcovits p. 27.

[2] Wooldridge, <u>Introductory Econometrics</u>, 4th Edition, p.825.

[3] The interactivity adjustments are calculated as follows: 1) .004 = (13.3-13.25)/13.3; and 2) 0.715 = (13.3 - 3.79)/13.3.

[4] Pelcovits p. 33.

Before the
COPYRIGHT ROYALTY BOARD
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS	Docket No. 2009-1, CRB Webcasting III

CORRECTED REBUTTAL TESTIMONY OF ALEXANDER "SANDY" SMALLENS

I. BACKGROUND & QUALIFICATIONS

1. My name is Alexander "Sandy" Smallens. I am the Founder and Managing Director of Audiation, Inc., a digital media consultancy which provides leadership, strategy and business development for start-ups and multi-national media companies, including Oddcast, My Damn Channel, AdBlade, TuneGenie, Vibe Media and MyNet. Much of my focus with Audiation is selling digital solutions to brands and agencies, as well as developing and selling sponsorships for new digital radio channels. As a seventeen-year digital media executive,[1] I have had operational responsibility for divisions in the following industries:

a) The Record Industry: I was the founder of Atlantic Records' multimedia department in 1995, one of the first fully-staffed such departments in the industry, which debuted the first full-length online streams of major artists such as Tori Amos. I was employed at Atlantic Records from 1993-1996.

[1] A copy of my curriculum vitae is attached as Exhibit 1.

b) Online Music Content: As a Senior Vice President of online music website SonicNet, and subsequently at MTVi (after their acquisition of SonicNet) in the last 1990s, I launched and oversaw the industry's first-ever audio-visual streaming radio product, Flash Radio, and oversaw the first-ever music video on demand site, Streamland. Later, as Executive Vice President of GetMusic (1999-2001), a joint venture of BMG Entertainment and the Universal Music Group which was eventually acquired by Vivendi and named Vivendi Universal Net USA, I created and oversaw Videolab, the first site to enable users to remix popular music videos, as well as GetMusic Karaoke, the first online karaoke application to feature major recording artists.

c) Broadcast Radio: In my capacity as Vice President for Interactive Sales & Marketing at CBS Radio (2005-2006), I was the corporate executive responsible for sales of all CBS Radio digital assets. Then, as Senior Vice President for the digital division at Entercom Communications (2006-2009), I had oversight of the entire digital platform, including the creation, operation and monetization of the company's streams, websites, podcasts and mobile products. At both CBS and Entercom, I engineered digital sales strategy, oversaw pricing and collateral, trained local sales staff and personally pitched multi-platform programs to hundreds of agencies and brands.

d) Digital Advertising: As Chief Operating Officer of Oddcast (2002-2004), a viral marketing agency and technology company, I sold complex branded entertainment solutions to advertising agencies and brands. I continue to work closely with the company.

2. At CBS, in particular, I was responsible for creating and selling digital asset sponsorship packages – including everything from station websites, streams, HD2 channels and podcasts – to companies such as DaimlerChrysler, Vonage, Verizon, AT&T, Quiznos, Monster.com, Motorola and many others. I also oversaw CBS's relationship with advertising networks like Yahoo! and worked closely to train ad sales teams in many of the company's markets to ensure fluency in online ad sales.

3. At Entercom, I had profit and loss (P&L) responsibility for the company's digital department, and had direct and dotted line responsibility for over 60 staff members, including a corporate operations team and webmasters and digital sales managers across the country. My team was responsible for all policies, decisions, deals, third-party vendor relationships and day-to-day operations of Entercom's digital assets, as well as all sales activities and ad operations. I reported to the CEO and was a member of Entercom's Operating Committee, a small team of senior executives charged with setting strategic priorities and policies for the company.

4. I have spoken at numerous digital conferences, including Radio Ink's Convergence, AdTech, Digital Hollywood, Streaming Media East, and several others. I was also involved in the development, testing and launch of TargetSpot, an online audio advertising network, in my capacities at both Oddcast and CBS Radio. Under my tenure, Entercom became the second major radio group to sign a partnership deal with TargetSpot, and I directly oversaw all aspects of that relationship.

5. I have been a songwriter and musician since high school, and from 1987 through 1994, I composed and performed with Too Much Joy, a Giant/Warner Brothers recording artist. Too Much Joy enjoyed Top 15 success on modern rock radio and toured nationally, performing with major acts such as The Go-Go's and The Flaming Lips.

6. I graduated from Yale University in 1987 with a B.A. in Political Philosophy. As a student at Yale, I was Editor-in-Chief of the campus' music magazine, *Nadine,* and concurrently interned at *Spin Magazine*, where I authored several articles.

7. The following testimony is based on my seventeen years of experience in the digital media industry, including five years in senior positions related to the digital space at top-tier terrestrial broadcasters; ongoing business development and sales responsibilities in the digital advertising space; extensive responsibilities at Atlantic Records; and my years as a recording artist.

II. OVERVIEW OF TESTIMONY

8. My testimony will rebut SoundExchange's rosy assessment of statutory webcasting that was presented at the direct hearing. Contrary to statements made in SoundExchange's direct case – and specifically by Dr. Pelcovits – statutory webcasting services are facing substantial economic challenges that point to a less-than-robust market, especially under the current royalty scheme. My testimony discusses the unique challenges that statutory webcasters face in attempting to maximize revenues for their product.

9. My testimony primarily addresses the following issues:

a) The growth of listenership in the statutory webcasting industry does not necessarily create a proportional growth in revenues. In fact, the glut of advertising inventory created by increased audience sizes exerts downward pressure on the revenue potential of statutory webcasters. Moreover, surplus advertising inventory is exacerbated by a unique set of challenges.

b) The marketplace for ad-supported music services is quite challenging, as witnessed by the failure and/or fire-sale of various entities in the space. For example, after Last.FM's sale to CBS Interactive, Last.fm has not yet achieved profitability, and has in fact scaled-back its ad-supported offerings.

c) Subscribers account for a small and dwindling amount of statutory webcasting listening. The vast majority of statutory webcasting – unlike on-demand interactive services – is based on ad-supported, *non-subscription* listening.

d) Pandora, the most successful "pure play" webcasting company in terms of audience size and revenue, would have to spend almost every cent of its 2009 revenues on the sound recording royalty if it were subject to the full statutory rate for 2009 that was determined by the Copyright Royalty Board in the Webcasting II proceeding. Therefore, a royalty rate that is *higher* than (or even close to) the current rates – as SoundExchange has proposed in this proceeding – would not represent what a willing buyer would agree to.

e) Statutory webcasters have inherent economic disadvantages compared with the National Association of Broadcaster ("NAB") and Sirius XM simulcasters with respect to operating, marketing and sales costs as well as revenue generation.

f) Statutory webcasting provides promotional benefits, increases album/download sales, and provides much-needed exposure to copyright holders.

III. DR. PELCOVITS' ASSESSMENT OF THE STATUTORY WEBCASTING MARKET IS FUNDAMENTALLY FLAWED

10. In Section 4 of his written testimony, entitled "The Statutory Webcasting Market," Dr. Pelcovits provided a lofty assessment of the statutory webcasting industry as "the backdrop for [his] analysis."[2] He relies upon various secondary and tertiary sources for his

[2] SoundExchange Trial Ex. 2 (Amended & Corrected Written Direct Testimony of Dr. Michael Pelcovits ("Pelcovits ACWDT")), at 6-14.

premise of a "robust and evolving market for webcasting."[3] He makes this analysis without having spoken to any executives at any webcasting companies.[4] Instead, he cites growth in reported performances and listenership based on usage reports from SoundExchange, a report by Arbitron/Edison Research, as well as an examination of two recent market entrants, Last.fm and Slacker, which purportedly have been able "to succeed in the market."[5] In addition, Dr. Pelcovits points to the estimated growth of the overall advertising market for Internet radio as evidence of a "robust" market for webcasting.

A. Webcasting Listenership Has Flattened Over The Last Year

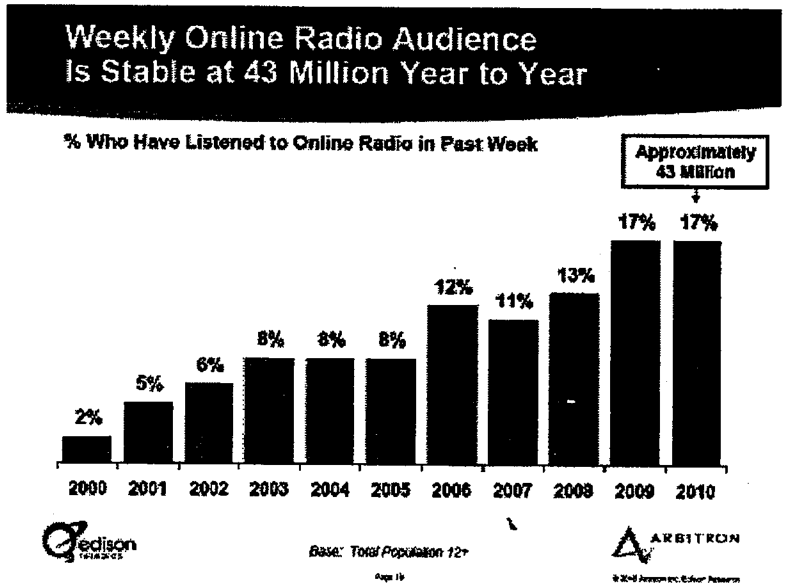
11. Dr. Pelcovits' assessment of the webcasting market is flawed in numerous ways. His finding that "the webcasting industry continues to grow" refers primarily to listenership, and does not take into account the difficulties in monetizing this growth. One of the main sources to support his growth assertion, the 2008 and 2009 "Infinite Dial" reports by Arbitron and Edison Media Research, combine both news/talk/sports and music formats, and does not provide a specific breakout. In my experience, for many terrestrial simulcasters, non-music formats – which do not have the same royalty obligations of Internet music services – dominate overall online listening and drive listenership growth. Therefore, Dr. Pelcovits' failure to take into consideration the allocation of listenership attributable to news, talk and sports formats, with respect to the report he cites, is a considerable flaw. In addition, as Internet penetration has leveled off, so too has online radio listenership. Since Dr. Pelcovits' testimony, the April 2010 Arbitron/Edison "Infinite Dial" study shows that listenership growth flattened from 2009-2010, as shown in the table below. Therefore, future growth of Internet radio listenership is uncertain.

[3] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 11.

[4] Direct Hearing Tr., April 19, 2010, at 172:3-172:6.

[5] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 10.

Table 1



B. Dr. Pelcovits Ignores Economic Realities Of The Webcasting Marketplace

i. Consolidation Of Listenership

12. Before addressing Dr. Pelcovits' disregard for industry economics, it is worthwhile to briefly examine the consolidation of listenership among Pandora and simulcasters (terrestrial and satellite). Specifically, the aggregate statutory webcasting market demonstrates that an increase in aggregate tuning hours and/or aggregate revenue of the entire industry is, in fact, heavily skewed by a few companies. According to Sound Exchange's 2009 usage reports, the top four entities in terms of aggregate performances are: Pandora ([redacted]% market share by volume); CBS Radio and Clear Channel [redacted]% market share by volume); and satellite radio companies Sirius-XM ([redacted]% market share by volume). Combined, these four entities account for over 80% of 2009's aggregate yearly performances reported to SoundExchange.[6] The statutory webcasting market was not nearly as consolidated just a few years earlier, during which

[6] Live365 Trial Ex. 14 (SXW3_Native_0015 (RESTRICTED)), at 8.

time the top four entities represented only 50.58% and 53.82% of the aggregate performances in 2006 and 2007, respectively.[7] In his direct statement, Dr. Pelcovits did not break down the revenue growth, specifically for ad revenues, that are attributable to each company.

ii. Audience Growth Does Not Equate To Increased Revenues

13. An obvious point neglected by Dr. Pelcovits is that growth in webcasting listenership does not, in and of itself, translate to financial success or even viability – especially with the risk of increasing royalty rates. First, the overwhelming majority of statutory listening is ad-based, hence heightening the importance of advertising revenues. Second, every single song streamed triggers additional costs; however, ad-supported webcasters cannot recover these costs in the same per-song manner. Therefore, unless CPM (i.e., cost per thousand impressions) and inventory sell-out rates (i.e., the percentage of the total advertising impressions sold) keep pace with the growth in listenership, statutory webcasters – which are already saddled with increasing hosting, bandwidth and royalty costs due to this growth – are indeed penalized for the success of their increased listenership. However, given persistent industry trends, CPMs are subject to significant downward pressures. Consequently, the inverse relationship between costs associated with listenership growth and CPM revenues will likely continue. These findings are all consistent with my own observations in the industry.

iii. Dr. Pelcovits Disregards The Decline In Advertising Rates And Its Impact On The Economic Health Of The Statutory Webcasting Industry

14. Dr. Pelcovits' analysis of the statutory webcasting industry suffers from other deficiencies. Specifically, he failed to consider CPM rates, inventory sell-outs, and the impact of each factor on the statutory webcasting market. Again, these are important factors because the majority of statutory webcasting is ad-based listening.

---

[7] Live365 Trial Ex. 14 (SXW3_Native_0015 (RESTRICTED)), at 2, 4.

15. In addition to audience size, the most relevant factors are advertising *rates* (in the form of CPMs) – not aggregate advertising *revenues* – and inventory sell-out rates. In my experience, these metrics determine the revenue potential for ad-supported services (and, implicitly, the royalty rate they could afford to pay). Statutory webcasters can assess their revenue potential in a variety of ways. One manner is to assess the total impressions served over the course of a given time period and factor in average CPMs and sell-out percentage. Impressions can be determined by multiplying total monthly listening sessions by average spots served per listening session. In other words, if my station's listeners generally stay connected for 90 minutes (i.e., that is the station's Average Time Spent Listening, or TSL), and I serve six spots per hour, I know that each listening session generates an average of nine ad impressions. Put into practice, if I know my listenership generates a total of one million ad impressions over a month, and I generally sell 50% of that inventory at a $3 CPM, then I know the current revenue potential of this station is $1,500/month (500,000 impressions sold at a $3 CPM). No such analysis, which could have illustrated webcasters' ad revenue capabilities, was provided by Dr. Pelcovits.

16. In my experience with terrestrial broadcasters, CPMs for online audio ads have generally been stagnating or declining – especially for inventory that is sold via multi-market deals or ad networks (such as TargetSpot). Multiple sources confirm this stagnation and/or reduction in average statutory webcasting industry CPMs. Dr. Pelcovits, for example, acknowledged that there is no evidence of CPMs increasing:

> *Q. Sitting here today, you cannot say that CPMs have been rising, can you?*
>
> *A. Are you talking about CPM in terrestrial broadcasting or in webcasting?*
>
> *Q. Well, let's start with the webcasting market.*

A. I have not seen evidence of CPM increasing.[8]

17. Further, Live365's General Manager of Media, Johnie Floater, cites internal data that reveal a decline in CPMs since 2006 for streaming audio ads as well as CPMs for ad banners and video gateway ads (short, video-based ads that play automatically when a user clicks to listen to a stream).[9] And in his testimony, BIA/Kelsey Vice President Mark Fratrik, PhD, confirms that CPMs for audio ads have fallen steadily since 2005, citing figures from AccuStream iMedia Research released in 2009.[10] Even major streaming media destinations such as MySpace and YouTube are plagued by low CPMs and "low-value," excess ad inventory "that can only command weak CPMs, and they're not growing its value as quickly as content costs are growing."[11] All of these findings are consistent with my own observations.

C. Statutory Webcasters' Necessary Reliance On Ad Networks Results In Lower Yield And Higher Cost Of Sale

18. Non-interactive webcasters face a specific challenge in monetizing their audio ad inventory. Since there is theoretically no limit on a statutory webcasters' ad inventory – as opposed to the finite inventory of terrestrial radio stations, which can drive demand and command higher CPMs (as I observed during my experience at two of the largest terrestrial radio companies in the U.S.) – adding listeners does not necessarily drive more value creation. As Mark Mulligan of Forrester Research concludes, "many ad-supported content destinations are

---

[8] Direct Hearing Tr., April 19, 2010, at 177:15-20.

[9] Live365 Trial Ex. 29 (Corrected Written Direct Testimony of Johnie Floater, April 25, 2010 ("Floater CWDT")), at 5.

[10] Live365 Trial Ex. 30 (Corrected & Amended Written Direct Testimony of Mark Fratrik, April 26, 2010), Exhibit 3 at Section Three

[11] Mark Mulligan, "Paying for Success: When Audiences Grow More Quickly Than Ad Revenue." Forrester Research, April 17, 2009 (SXW3_00018073 – 00018079), at 3. *See* Exhibit 2.

not growing ad revenue effectiveness as quickly as their audiences are growing in size and level of engagement."[12]

19. Audience growth without complimentary growth in sell-out rate creates a "glut" of unsold inventory. To address this, non-interactive webcasters who do not have sufficiently-sized local audiences that can be targeted and who lack the robust, specially-trained sales forces of the NAB simulcasting entities, must rely on ad networks. Ad networks aggregate unsold advertising inventory from a variety of online entities and make it available to marketers. This inventory is commonly referred to as "remnant" – left-over advertising spots which generate a small number of ad impressions. By collecting this disparate inventory from multiple websites, ad networks hope to amass enough impressions to be able to sell it. Marketers generally expect to pay lower CPMs for ad network inventory because it is an amalgamation of remnant impressions. [redacted]

20. In addition, ad networks charge aggressive commissions to sell this low-priced inventory. These commissions are generally higher than the commissions that would be paid to an in-house salesperson for selling the same inventory. So webcasters that are reliant on ad networks yield lower revenues from their ad inventory and realize a much smaller percentage of revenue for every dollar made. For this reason, media companies generally consider ad networks to be a last resort, backfill for the less desirable inventory that their sales team cannot monetize. In fact, in December 2009, CBS Interactive – whose online properties contain highly trafficked

[12] *See id.* at 2.

content (including CBS.com, CNET, Gamespot and TV.com) – declared they would almost completely eliminate their reliance on third-party ad networks.[13]

21. Further, there are not enough streaming media advertisers making big enough buys to fill even this lower-priced inventory. As Johnie Floater has testified, "advertising orders consistently do not fill all of Live365's advertising inventory; therefore, increasing the number of ad spots her hour would not generate more revenues since Live365 already cannot fill all of its commercial availabilities."[14] I am not surprised by this comment. In my capacity at both CBS Radio and Entercom, most major online ad buys happened in the context of cross-platform deals (including on-air and online inventory). Marketers generally earmarked a small percentage (5-10%) of their total spend to online [redacted]. Frequently, the online portion of the buy would be the first thing to go if their budgets tightened up. This problem is exacerbated by the fact that many streaming network buys are "dayparted" – limited to airing during specific hours of the broadcast day, which means that weekends and overnight hours are vastly undersold. The shortfall of paid ads results in webcasters over-delivering for their existing advertisers or rotating "house" or promotional spots through the ad inventory, prompting a deterioration of the quality of the listening experience for the user. This can lower Average Time Spent Listening (TSL) and, therefore, reduce the number of ad impressions served per listening session, further reducing revenue generation. At the same time, the webcaster is incurring per performance costs for the listenership during the undersold non-daypart hours.

22. There is a variety of reasons for this shortfall in advertising sales. Streaming audio advertising is still relatively new to marketers, and commands a low single-digit

---

[13] Michael Learmonth, "CBS Interactive Dumps Ad Networks," *AdvertisingAge*, Dec. 14, 2009, available at http://adage.com/digital/article?article_id=141054. *See* Exhibit 3.

[14] Live365 Trial Ex. 29 (Floater CWDT), at 4-5.

percentage of overall broadcast radio revenues. In addition, producing quality streaming radio ads requires a different expertise than producing, say, a compelling banner ad, and many marketers are reluctant to delve into this area. In many cases, webcasters display synchronized ad banners when a streaming audio spot plays, but it is difficult to determine if the listener is looking at their streaming web player when these banners display or has either minimized the player or buried it beneath other browser windows. It has been my experience that synchronized banner ads for streaming audio spots have historically generated low click-through rates for this reason, another discouraging factor in the eyes of media buyers.[15]

23. Also, as I explain below in my discussion of the differences between pure Internet radio services and broadcast simulcasters, Internet radio companies – which do not have mass audiences concentrated in a particular geographical market – have to rely on national advertisers as a source of revenue. These national advertisers are few, and have many other established outlets for their advertising (e.g., radio, television and cable networks; print, etc.) that offer larger audiences than Internet radio. Thus, it is not easy to cause these advertisers to change their practices to dedicate money to Internet radio. For these reasons, plus simply the amount of inventory that is available in the marketplace,.webcasters generally have low CPMs and low sell-out rates that have not kept pace with their audience growth.

[15] Another factor leading to a misplaced view of the robustness in the online radio industry is Dr. Pelcovits' apparent reliance on inconsistent ad spending numbers, which seem to suggest a *decrease* in ad spending through 2011. On page 11of his Amended & Corrected Written Direct Testimony (SoundExchange Trial Ex. 2), he cites a $101 million figure in digital advertising spending for the radio industry *for the first quarter of 2009*. This suggests that digital advertising spending for the radio industry would be over $400 for the entire year in 2009. In the next sentence, he cites a different analysis that projects $350 million *for the entire year in 2011*. Note that the $350 million figure originally came from a report prepared by ZenithOptimedia, which revised its projections downward two times, and is now down to $286 million for its 2011 estimate.

D. Far From Dr. Pelcovits' "Robust And Evolving Market," The Ad-Supported Music Space Is Withering Under The Weight Of Royalty Payments To Record Labels; Last.fm Is Under-Performing

24. The Internet music space is littered with examples of failed and shuttered ad-supported music services (e.g., SpiralFrog, Ruckus Network) as well as once-promising music start-ups forced to sell themselves for a fraction of their previous value. imeem "raised above $50 million in funding over the last two years...with the valuation north of $200 million."[16] The company ended up selling to MySpace for "$1MM in cash" in December 2009.[17] Prior to its sale, the service had been "reportedly running out of money, especially because of how much it has to pay for music licensing deals it has with record labels."[18] Lala Media, Inc. ("Lala"), another popular music service, was recently acquired and then shuttered by Apple as of May 31, 2010.[19] Further, two of the largest companies subject to statutory rates and terms of Webcasting II – i.e., Yahoo! LAUNCHcast and AOL Radio – exited the webcasting business shortly after the Webcasting II determination by partnering with CBS Radio, who "powers" Yahoo! and AOL-branded offerings and provides all content licensing, programming and royalty payments.

[16] Rafat Ali, "Music Social Network Imeem In Play; Hires Bank; Laying Off 25 Percent," *PaidContent*, Oct. 22, 2008, available at http://paidcontent.org/article/419-music-social-network-imeem-in-play-does-25-percent-layoffs/. *See* Exhibit 4.

[17] Michael Arrington, "Ok, Now It's Done. MySpace Music Completes Acquisition of iMeem," *TechCrunch*, Dec. 8, 2009, available at http://techcrunch.com/2009/12/08/imeem-myspace-music-completes-acquisition/. *See* Exhibit 5.

[18] Eric Eldon, "Music startup imeem making money, not dying unless the labels kill it," *Venture Beat*, March 26, 2009, available at http://venturebeat.com/2009/03/26/music-startup-imeem-making-money-not-dying-unless-the-labels-kill-it/. *See* Exhibit 6.

[19] Lala had been losing money before its acquisition by Apple, and its value had declined precipitously. During the first quarter of 2009, Warner Music Group recorded a charge of $11 million to write-down its $20 million investment in Lala to its estimated fair value of $9 million. *See* SEC Form 10-Q, Warner Music Group Corp. (May 7, 2009). This write-down occurred only one year after Warner had made its $20 million investment in Lala. *See* SEC Form 10-K, Warner Music Group Corp. (Nov. 25, 2008).

25. Dr. Pelcovits points to the purported success of Last.FM, purchased for $280 million in May 2007 by CBS Interactive. Now, in 2010, Last.FM is a poster child for how difficult it is to create a successful, ad-supported streaming model – even with the backing of a major media company, such as CBS. According to Forrester Research, "Last.FM has struggled to find its new identity within CBS and its paymasters recently took the decision to turn off free-streaming outside of the major territories due to the inability to generate sufficient advertising revenue....further evidence of the challenges of making free pay."[20] *Digital Music News* acknowledges that "CBS appears to be struggling to properly monetize its $280 million investment."[21] Also, Last.FM's ability to attract subscribers has been lackluster to date. The CBS Interactive VP overseeing Last.FM recently admitted that it has only "tens of thousands" of paying subscribers despite self-reported traffic of about 10 million unique visitors per month in the U.S. alone, and hopes to be profitable (finally) by 2010.[22] These examples hardly paint the picture of a robust market.

E. Demographic Targeting Has Not Materialized In An Impactful Way

26. Dr. Pelcovits also touts "the ability of advertisers to obtain detailed demographics on listeners" as a revenue-driver for webcasters.[23] Beyond rudimentary IP-based geo-targeting, however, more detailed targeting is reliant on users voluntarily filling out registration forms. But most terrestrial simulcasters do not require user registration, nor do many statutory webcasters.

---

[20] Mark Mulligan, "Last.FM's Fond Farewell to Streaming (Sort of)," *Forrester Research*, April 13, 2010, available at http://blogs.forrester.com/mark_mulligan/10-04-13-lastfm's_fond_farewell_streaming_sort. *See* Exhibit 7.

[21] "Last.fm Flips the Subscription Switch... In Smaller Markets," *Digital Music News*, Dec. 30, 2009, available at http://www.digitalmusicnews.com/stories/032409last/. *See* Exhibit 8.

[22] Robert Andrews, "Interview: CBS Thinks Last.fm Will Turn A Profit This Year," *PaidContent*, March 18, 2010, available at http://paidcontent.org/article/419-interview-cbs-thinks-last.fm-will-turn-a-profit-this-year/. *See* Exhibit 9.

[23] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 11.

And for good reason: there is a plethora of "no registration required" options for listening to streaming music online; hence, requiring it makes a webcaster less competitive. "Consumers are...spoiled for choice for free music on streaming sites such as Last.FM, Pandora and YouTube."[24] Ultimately, in this competitive environment, requiring registration is still the exception, not the norm.

27. Moreover, I have observed that, while targeting may increase the CPM rate for a particular demographic, the net effect may still reduce overall per-performance revenue. By way of example, a service could obtain a CPM rate of $12 for men in the 24-35 age bracket in select major markets during certain hours of the day. The problem, however, is that much smaller revenue – or even no revenue – may be obtained for listeners who do not meet these restrictions, even though the per-performance royalty rate is the same for both. Consequently, demographic targeting can and does lead to further excess inventory and lower overall per-performance revenue. In sum, targeting has yet to have any material impact on overall online radio CPMs.

F. Dr. Pelcovits Ignores The Costs Associated With New Platform Launches, And Over-Estimates The Profit Potential

28. Dr. Pelcovits identifies new features, such as song skipping and mobile access, provided by webcasters and asserts – without any authority – that such features should yield copyright holders greater royalty payments. For example, Dr. Pelcovits states that mobility "in a free market would generate additional payments to the owners of the copyright in the sound recordings."[25] While it may be true that mobility will increase listening and overall revenue, the same issue of glut and low-bucket CPMs comes into play in the mobile space. Because the

[24] Mark Mulligan, "Paying for Success: When Audiences Grow More Quickly Than Ad Revenue." *Forrester Research*, April 17, 2009 (SXW3_00018073 – 00018079), at 1. *See* Exhibit 1.

[25] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 13.

mobile audience is a fraction of the overall streaming audience, and because more expensive video pre-roll ads and display ads are even less relevant in the overall ad mix on a mobile device, webcasters face significant challenges in monetizing this mobile audience. Thus, merely increasing audience size through mobile application does not mean that there is any increase in revenue per listener. Again, this means that services are increasing their costs without any unique way to increase their per listener revenues.

29. Moreover, Dr. Pelcovits did not take into consideration the additional cost of developing and delivering these new features. For instance, Apple's successful new portable device, the iPad, requires many webcasters to develop a new, device-specific player. Also, any of these new features are the result of web services' significant investments in creating and maintaining these players. Therefore, even if one assumes that new features (such as mobility) increase revenues, Dr. Pelcovits still fails to take into consideration the services' additional investments and costs. Finally, Dr. Pelcovits also fails to consider whether his identified new features would ultimately increase revenue *per play*, the key metric for a license that is paid on a per-performance basis.

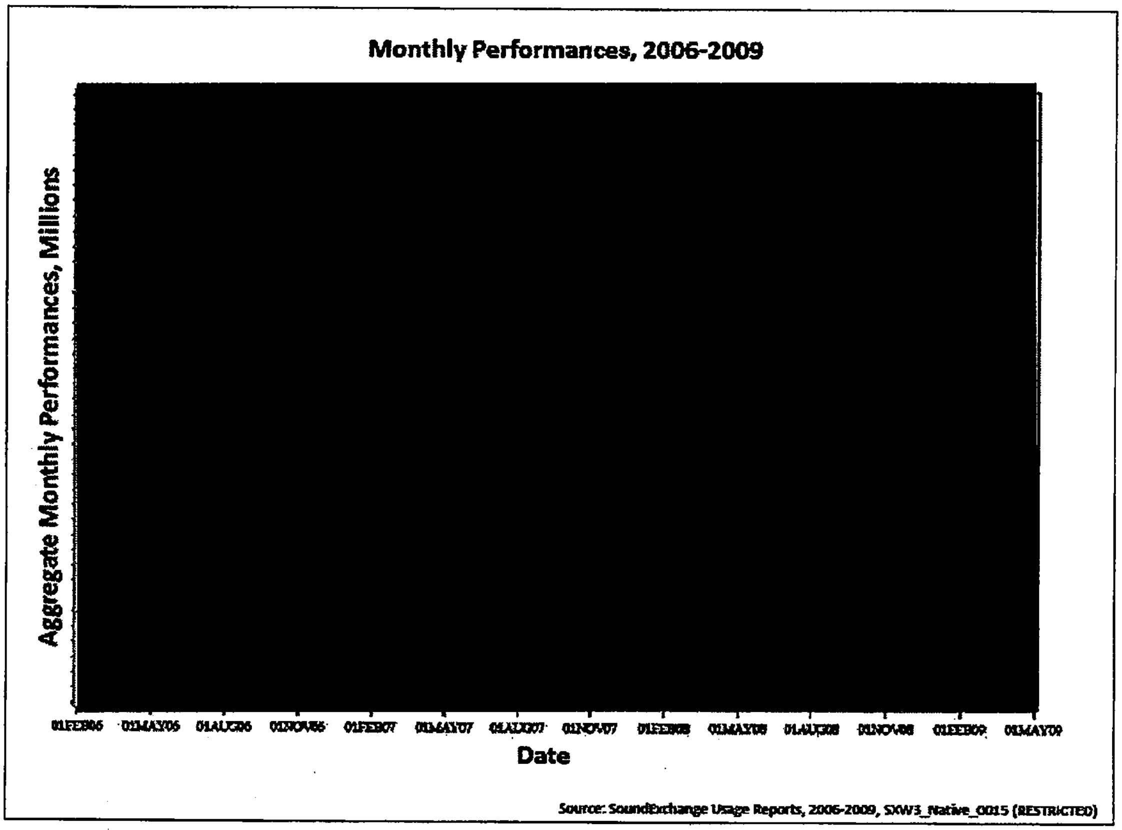
IV. EVERY DOLLAR OF REVENUE EARNED BY PANDORA, THE MOST SUCCESSFUL STATUTORY WEBCASTER, WOULD HAVE BEEN PAID TO COVER THE SOUND RECORDING ROYALTY IN 2009

30. Dr. Pelcovits' assessment of webcaster growth is heavily skewed by a single entity, Pandora, the best-known Internet radio service by a substantial margin.[26] The positive trajectory of the "Statutory Webcasters' Aggregate Monthly Performances 2006-2009" graph on page 8 of Dr. Pelcovits' Amended & Corrected Written Direct Testimony primarily reflects

[26] The Infinite Dial 2010: Digital Platforms and the Future of Radio, *Edison Research*, at 23.

Pandora's growth, as Dr. Pelcovits himself acknowledged.[27] This is further illustrated in Table 2 (below), which derives from graphs prepared in connection with Dr. Pelcovits' report.

Table 2

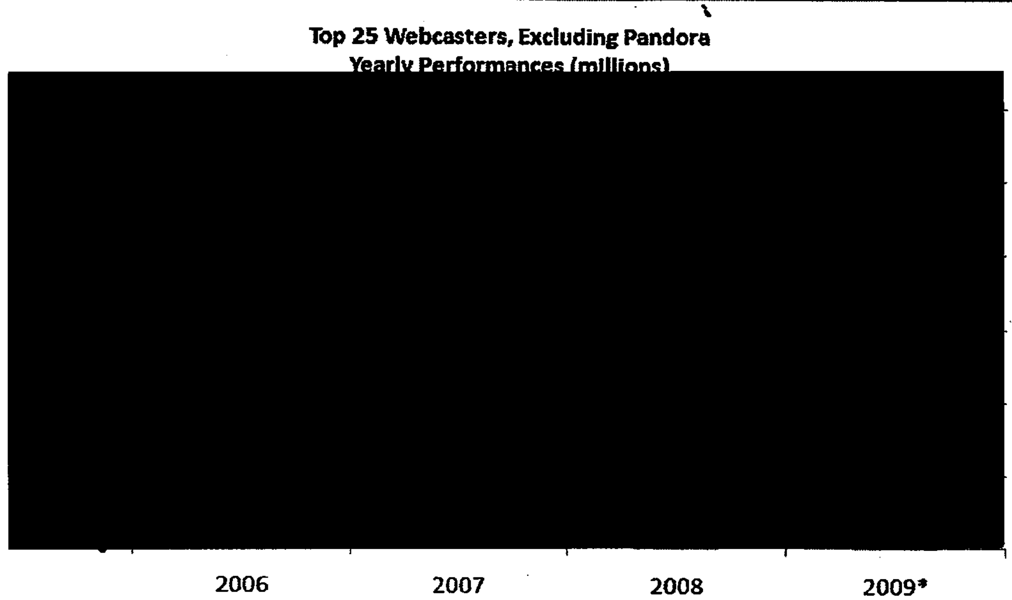


As Table 2 shows, the purported "popularity" of webcasting and the upward trend in aggregate performances is almost completely a function of one service's growth: Pandora's. Moreover, over this same time period, the amount of aggregate performances by other statutory webcasting services has been flat or declining over the past few years, again undermining Dr. Pelcovits' conclusion of a robust market. Indeed, removing Pandora from this consideration reveals a very different trajectory in terms of aggregated performances, as shown in Table 3 below.

---

[27] Pelcovits Depo Tr. (Dec. 14, 2009) at 214:1-215:4.

Table 3



[redacted]

* 2009 data based on 10-month data, plus estimated projection for remaining two months (derived from averaging prior 10 months). (SXW3_Native0015 (Restricted))

31. Further, Pandora, which "accounts for roughly 44-45 percent of total SoundExchange royalties for non-interactive streams,"[28] would not be able to sustain a viable business were they subject to the full statutory rates. From January 2009 through October 2009, Pandora reported [redacted] performances. Based on averaging the amount of monthly performances during those 10 months, one can conservatively estimate that the remaining two months of 2009 would amount to [redacted] performances. This is conservative because, historically, streaming hours rise significantly during the holiday season as people tune into holiday-themed channels and spend more time listening. Therefore, we can conservatively estimate that Pandora's total performances for 2009 were [redacted]. If you multiply that

[28] "Pandora: These Numbers May Surprise You," *PaidContent*, March 18, 2010, available at http://paidcontent.org/article/419-pandora-these-numbers-may-surprise-you/. *See* Exhibit 10.

amount by the statutory royalty rate for 2009 – i.e., $.0018 – Pandora would have owed [redacted] for only the sound recording performance royalty! **This means that just about every dollar in reported revenue that Pandora earned in 2009 – and it's widely reported to have been about $50 million – would have gone to a single cost.** [redacted]

32. A 10-year old company, Pandora represents one of the most successful, most listened-to, and most established statutory webcaster in this space. No willing buyer – much less the biggest buyer in the statutory webcasting industry – could realistically ever agree to a rate that ate up all of its revenues, leaving no money to meet other expenses or to provide a return to investors. Expecting willing buyers to pay rates through 2015 that are substantially higher than the 2009 rate – as SoundExchange proposes – is utterly unrealistic and unsustainable for the statutory webcasting industry. Therefore, this reality check refutes Dr. Pelcovits' testimony that the proposed rates "fall within a reasonable range that would be paid by a willing buyer" as not even the biggest "buyer" could afford such rates.[30]

V. INTERACTIVE AND NON-INTERACTIVE MARKETS ARE HIGHLY DIFFERENT

33. The interactive and the non-interactive marketplaces are vastly different. First, interactive or "on demand" services like Napster, which enable users to pinpoint the exact song they want to hear, serve as a celestial catalogue for listeners. Essentially, people can hear what they want, when they want it. The experience is more akin to the experience of owning a CD or

[redacted]

[30] Direct Hearing Tr., April 19, 2010, at 163:22-164:6.

digital track that can be played on demand than it is to listening to the radio. On the other hand, Pandora and other non-interactive webcasters are essentially more tailored versions of the traditional radio experience and can be considered a "passive" or "lean back" listening experience. Second, while on-demand interactive services have faced significant challenges in growing their subscriber base, adding subscribers to a non-interactive service is even more challenging due to the plethora of free sources, such as NAB simulcasters. Consequently, ad-supported listening is the primary business model in non-interactive webcasting. Moreover, the competitive landscape for non-interactive services is much more crowded.

A. Majority Of Statutory Webcasting Is Based On Ad-Supported, Non-Subscription Listening

34. Dr. Pelcovits assumes that comparing subscription figures in the interactive and non-interactive webcasting markets will provide a suitable framework for setting rates. The flaw with this assumption is that the vast majority of the statutory webcasting listening is *not* based on subscription listening. Subscription levels for statutory webcasters are small and not growing. Live365 reports that fewer than 2% of its users are subscribers.[31] As previously stated, Last.FM's subscription users number in the tens of thousands. Rhapsody's self-reported shrinkage from 800,000 subscribers in Q1 2009 to 650,000 subscribers in Q1 2010 further bear out the difficulty of subscription-based models for online music companies.[32] And, based on my experience and observations, subscription-based streaming by NAB entities and other simulcasters is non-existent or, at best, negligible.

[31] Live365 Trial Ex. 29 (Floater CWDT), at 5.

[32] Glenn Peoples, "Analysis: Subscription Model Takes Another Hit," *Billboard.biz*, May 10, 2010, available at http://www.billboard.biz/bbbiz/content_display/industry/e3i975b286fc2a9c455fe7816e39f48bd1b. *See* Exhibit 11.

B. Statutory Webcasting Services Will Likely Continue To Be Ad-Supported And Not Subscription-Based, Unlike Interactive Services

35. On a practical level, the assumption that the webcaster can increase subscription rates significantly simply does not make sense. The vast majority of music listeners are casual listeners, some using more than one Internet service interchangeably. They listen to music that they can get for free, on their radio or from other sources, and buy few CDs or digital music files each year. The subscription services cater to a limited percentage of the public that finds music more important, and is willing to pay for the interactive service to get access to that music. The non-interactive market for the most part serves the more causal listener, who may want to hear some music, but need not be involved in selecting exactly what they want to hear. There is nothing to indicate that this more casual audience, which traditionally has not spent significant amounts on music in the past, will suddenly want to spend more of their disposable income on a service where they cannot dictate what they want to hear. Thus, based on my observations within the industry (including the evidence cited above), it is my opinion that non-interactive streaming will continue to be a mainly advertising-supported medium.

VI. NAB AND SATELLITE SIMULCASTERS HAVE SIGNIFICANT ADVANTAGES OVER NON-NAB STATUTORY WEBCASTERS

36. There is no basis for Dr. Pelcovits' establishment of the WSA agreements as the "low end" of the range of market outcomes. This assertion ignores several advantages that NAB and satellite simulcasters have over statutory webcasters. It is an understatement to say that these the business of simulcasting has a different cost/revenue structure from the operations of pureplay statutory webcasting companies. On the cost side, NAB/satellite simulcasters do not need to invest in any "start up" costs to create content to stream – they merely require a small investment to encode and deliver their existing station signals through the Internet. Years of

marketing and developing audiences for their on-air personalities and programming present an instant competitive advantage in the world of webcasting. Their stations' appeal is broad-based and programmed to appeal to a mass audience. In contrast, many statutory webcasters have more specialized formats that are not available on over-the air radio/simulcast formats and that are meant to appeal to a niche audience via their more tailored offering.

37. Additionally, simulcasters do not need to invest in a new ad sales team – they already have a team of seasoned experts who have sold audio advertising for years to local (in the case of NAB simulcasters) and national marketers (in the case of both NAB and satellite simulcasters). Also, they have a built-in source to market and cross-promote their simulcast streams: promotional or programming inventory on their over-the-air signals and station websites. It should also be noted that NAB entities historically have not had to pay sound recording performance license fees for their over-the-air broadcasts given their promotional value – despite evidence that the Internet is quickly over-taking radio as a source for new music discovery. This year, 52% of people in the 12 to 34 year old bracket turn to the Internet first to discover new music; 32% turn to radio.[33]

38. Simulcasters have many other inherent cost savings. Unlike the statutory webcaster, who must pay all of its operating costs from the revenues derived from its operations, most of the costs of the simulcaster have already been paid by the revenues of its primary operations. The offices of the simulcaster are already paid for by the primary business. Computer systems for billing, traffic (i.e., the scheduling of advertising) and for other purposes are already on hand. Other personnel (e.g., receptionists, clerical personnel, technicians and engineers, etc.) and infrastructure already exist, being paid for by the primary business of the

[33] The Infinite Dial 2010: Digital Platforms and the Future of Radio, *Edison Research*, at 16.

simulcaster. As these costs do not need to be spent on the streaming, the simulcaster can afford royalties that its webcasting competitors cannot.

39. On the flip side, the NAB simulcasters can derive higher CPMs for their inventory than can statutory webcasters. The radio groups' streams are primarily sold locally by a seasoned team of experts to an audience of buyers who have been buying inventory on their stations for years. In addition, streaming spots are frequently packaged with over-the-air inventory to maximize value for the marketer, increase online inventory-sell out rates, and command a greater piece of the marketing spend, boxing out other online radio entities. To the extent that broadcasters rely on ad networks such as TargetSpot, it is as a last resort when inventory remains unsold. TargetSpot accounted for a very small portion of total streaming revenues in my terrestrial radio experience. NAB simulcasters' selling is fundamentally local, and because it is targeted as such (and further refined by the established demographics of a station format's audience), their sales teams can and do extract higher CPMs. Statutory webcasters, in general, lack this local edge and are much more reliant on advertising agencies and networks, which take enormous commissions. In the competitive landscape of Internet radio, the business of pure play and other webcasters are clearly disadvantaged in relation to the NAB and satellite simulcasters, and thus less able to meet royalty rates. Thus, rates paid by statutory pureplay webcasting companies, not those paid by NAB stations or satellite simulcasters, should be considered the "low end" of the market outcome.

VII. STATUTORY WEBCASTING PROVIDES PROMOTIONAL BENEFITS TO COPYRIGHT HOLDERS

40. Numerous studies have confirmed the positive sales impact and promotional benefits of statutory webcasting for recording artists. NPD Group's Russ Crupnick was quoted in February of this year as stating that "online radio services lead to a 41% increase in paid

downloads."[34] In addition, Pandora CTO Tom Conrad stated in May of this year that Pandora was driving sales of 1 million songs a month, and that "for every song purchase Pandora drives, users are likely to buy 3 to 5 more songs on top of the one they found."[35] According to written testimony that was submitted by Timothy Quirk (Vice President of Programming for Rhapsody) in this proceeding, Rhapsody's internal data proves that "More non-interactive plays of a particular track correlate clearly and directly with more MP3 sales of that track."[36]

41. The above-referenced statistics directly contradict Dr. Pelcovits' assertion that "there is even more reason to believe that non-interactive (i.e., statutory) services would be as much of a substitute for purchasing music as interactive services."[37] These statistics also mitigate against Warner Music Group's W. Tucker McCrady's stated concern about webcasting becoming a "substitution" for digital sales, because statutory webcasting is clearly additive.[38] This advantage is unique to statutory webcasters versus on-demand services like Napster, Rhapsody and Spotify, which, according to the NPD analysis cited above, drives digital download sales lower by 13%.[39]

---

[34] Greg Sandoval, "Pandora spurs music sales, Spotify not so much," *CNet News*, Feb. 26, 2010, available at http://news.cnet.com/8301-31001_3-10459568-261.html; *see also* Eliot Van Buskirk, "Of Course On-Demand Music Replaces Sales – It's Supposed To," *Wired Magazine*, Feb. 25, 2010, available at http://www.wired.com/epicenter/2010/02/of-course-on-demand-music-replaces-sales-its-supposed-to/. *See* Exhibits 12 & 13.

[35] MG Siegler, "The iPhone Is Accelerating Music Sales For Pandora," *The Washington Post*, May 7, 2009, available at http://www.washingtonpost.com/wpdyn/content/article/2009/05/07/AR2009050703545.html. *See* Exhibit 14.

[36] Written Direct Testimony of Timothy Quirk, Sept. 29, 2009, at 4 ("Quirk WDT").

[37] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 35.

[38] SoundExchange Trial Ex. 7 (Written Direct Testimony of W. Tucker McCrady, Sept. 23, 2009), at 2.

[39] Greg Sandoval, "Pandora spurs music sales, Spotify not so much," *CNet News*, February 26, 2010, available at http://news.cnet.com/8301-31001_3-10459568-261.html. *See* Exhibit 12.

42. Most importantly, as a songwriter and performer, I am keenly aware of the promotional value of statutory webcasting – especially in a time where most terrestrial radio stations have been reduced to playlists of 250 or fewer songs in established musical formats. AM/FM radio's appetite for new music outside of the established formats has dwindled. In fact, only a handful of "alternative" commercial stations and formats that used to play bands like mine still exist. For the most part, the only stations that still play bands like Too Much Joy, and more obscure alternative bands, are online. The value of this exposure far outweighs the small digital performance royalties that are accorded to performers at any level.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Alexander "Sandy" Smallens

Exhibit 1

ALEXANDER "SANDY" SMALLENS

110 Bobolink Road
Yonkers, NY 10701
tel: 917 860 9819
email: sandysmallens@gmail.com

***Summary:** Digital media pioneer who has built and run profitable divisions for top media companies and start-ups in the social media, broadcast, music/entertainment and media technology industries. Flawless track record of success in revenue generation, creative innovation, cross-discipline general management and multi-platform sales. Acknowledged leader, team builder and change agent.*

PROFESSIONAL EXPERIENCE

Audiation
6/09 – Present

Founder & Managing Director

- Boutique consultancy which provides top-level leadership to start-ups and seasoned companies in the Digital and Broadcast space. Clients include the leading Social Media/Viral Marketing Agency Oddcast; the leading online branded entertainment company My Damn Channel; the largest premium ad network, AdBlade; leading urban lifestyle outlet Vibe; Turkey's largest Internet portal MyNet; music media innovators Tune Genie; and others.

Entercom Communications, Corp.
6/06 – 6/09

Senior Vice President, Digital

- Head of Digital division for top 4 radio broadcaster, reported to CEO; member of 8-person Operating Committee, which drives all corporate decisions.
- Drove Digital revenues 500% in three years, creating an 8-figure business; grew all digital traffic exponentially (sites, streams, videos and podcasts).
- Oversaw operations, staffing, strategy, business development, creation, development, sales and execution of entire business, including supervising a staff of 100 and managing 120 station websites and 90 streaming stations across 23 markets.
- Innovation milestones:
  - First radio group to launch cross-platform mobile streaming (iPhone/BlackBerry/Google phone)
  - First radio group to create a stand-alone regional sports portal which is experiencing explosive growth (weei.com)
  - First radio group to adapt open source CMS tools (Drupal, WordPress)
  - Deep integration with EveryZing (audio search engine), effectively making our audio programming searchable
  - Aggressive social networking strategies and training
  - First non-owner radio group to make their inventory available to TargetSpot (automated self-service advertising)
  - Various rich media applications and cutting-edge content development across all station formats

CBS Radio/Viacom
1/05 – 6/06

Vice President of Interactive Marketing and Sales

- Senior-most Interactive executive for largest major market radio broadcaster; reported to President.
- Directly responsible for creating and executing digital sales and business development strategy for entire 180 station portfolio, including streaming network, podcasting (including KYOU-AM, the nation's first all podcast station) and all web assets.
- Negotiated and executed category-level relationships and cross-media sponsorships with technology companies (Microsoft, Yahoo!,

Google, Real Networks, AOL), major brands and advertising agencies.

- Generated 6- and 7-figure deals with clients such as DaimlerChrysler, Monster.com, Motorola, Quiznos, Verizon and others.
- Negotiated first-ever mobile agreements for radio company, including: streaming stations over Sprint and Cingular phones; 25-station site license of SMS/MMS marketing platform; and a 'make your own ringtone' application.

Oddcast
1/02 – 12/04

Chief Operating Officer

- Number two executive at privately-held viral marketing technology company of 25, with direct responsibility for sales, marketing, PR, and general management; reported to Founder/CEO.
- Company increased year-over-year revenue 50% in 2002 and 2003.
- Conceived, pitched products, and managed all aspects of accounts with major advertising agencies and brands such as Coca-Cola, McDonalds, MTV, Unilever, ESPN, Washington Mutual, ConAgra, Vivendi Universal, BET and L'Oreal.
- Led the successful development and launch of new products, mini-sites,and initiatives in a short timespan, while managing P&L.

Vivendi Universal Net USA
11/99 – 12/01

Executive Vice President

- Number two executive at Vivendi's consumer music portal. Managed staff of 40, reported to President/CEO.
- Oversaw creation, development, licensing, marketing and delivery of all content for GetMusic, RollingStone.com and Farmclub.com.
- Properties experienced 550% growth in unique users and traffic, and became the number two music content destination.
- Launched and successfully marketed several groundbreaking programs, including "GetMusic Karaoke"; "Videolab," which enabled users to mix their own music videos (hailed by *NY Times*, *LA Times*, *Entertainment Weekly* and many others); and "The A List," an interactive show hosted by Rolling Stone/VH1 veteran Anthony DeCurtis (guests included Michael Jackson, Kid Rock, Alicia Keys and Lou Reed).

SonicNet, Inc. /MTV
1998 - 1999

Senior Vice President

- Managed staff of 15; reported to CEO.
- Charged with growing company from scrappy bulletin board focused on indie artists to full-blown, multi-media destination site featuring major and upcoming stars.
- Oversaw creation, development, delivery and marketing of all content for the largest online music network, recipient of 1999 Yahoo! Internet Life Award for Best Music Site, as well as three nominations for 2000.
- Produced all events, and supervised all media applications including the web's first music videos on demand site (streamland.com) and visual radio station (flashradio.com).
- Primary point person for all recording artist/record label relationships, as well as key relationships with: AOL; Yahoo!; Microsoft; Real Networks; the Vans Warped Tour; and the DMX/Jay-Z Tour.
- Acquired by MTV; member of 3-person team that transitioned company, and served as SVP at MTV following transaction.

Prodigy Internet
1996 - 1998

Vice President and General Manager

- Managed staff of 13; reported to SVP, Content.
- Responsible for the majority of content areas on the nation's third largest ISP including music, entertainment, lifestyles, hobbies, cultures, family and education.

SANDY SMALLENS RESUME

- Brokered all deals, negotiated contracts, developed dynamic content areas via partnering/marketing relationships and built community sites from the ground up.
- Executed high profile co-marketing deals with Warner Bros. and Atlantic Records to distribute Prodigy software on prominent music CD releases. Pioneered successful content-based retailing in such areas as cigars, music and pets.

Atlantic Records
1995 - 1996

Senior Director, New Media

- Managed staff of five; reported to SVP, Marketing.
- Built the record industry's first comprehensive New Media dept. from the ground up.
- Developed label and artist web sites from scratch. Executive Produced groundbreaking mixed-media CD/CD-ROM.
- Pioneered music industry use of streaming audio with history-making Tori Amos single. Strategized for the label in the digital frontier, negotiated all deals.

1993 - 1995

Director, Media/Interactive Services

- Oversaw staff of four; reported to VP, Artist Relations.
- Responsibilities included overseeing all online activities; creating and executing campaigns for artists on the commercial online services; and producing sites for artists.
- Created and edited all label-related media communication.

Set To Run Public Relations
1990 - 1993

Vice President, Marketing/Creative Service

- Conceptualized and directed media campaigns and strategies for wide array of recording artists, such as: Beastie Boys, New Order, David Bowie, B-52's, the Cure, LL Cool J, and Public Enemy.

Too Much Joy
1987 - 1994

Founding Member, Composer, Bassist/Vocalist

- Co-Founded, wrote, recorded, performed and toured with Giant/Warner Bros. four-piece satiric punk-pop band Too Much Joy. Released four major label albums and several independent ones, toured nationally as a headlining act and opening for the Go-Go's, Love Tractor, the Mekons, Violent Femmes, Gang of Four, Flaming Lips, Barenaked Ladies, Orchestral Maneuvers in the Dark, and many others. Billboard Top 15 Modern Rock act with MTV exposure.

Media Writer
1987 - 1990

- Wrote features and reviews for *Spin Magazine* and promotional materials including advertising copy, artist biographies, press releases, pitch letters and think pieces.
- Clients and artists included: John Mellencamp; Billy Idol; Soul Asylum; Sony Music Entertainment; Martin Bandier (CEO; EMI Music Publishing); and Relativity Records among many others.

EDUCATION

Yale University

B.A. Political Philosophy, *cum laude*

###

Exhibits 2-14 were not admitted into evidence.

Before the
COPYRIGHT ROYALTY BOARD
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS	)	Docket No. 2009-1, CRB Webcasting III

CORRECTED REBUTTAL TESTIMONY OF
ALEXANDER "SANDY" SMALLENS

I. BACKGROUND & QUALIFICATIONS

1. My name is Alexander "Sandy" Smallens. I am the Founder and Managing Director of Audiation, Inc., a digital media consultancy which provides leadership, strategy and business development for start-ups and multi-national media companies, including Oddcast, My Damn Channel, AdBlade, TuneGenie, Vibe Media and MyNet. Much of my focus with Audiation is selling digital solutions to brands and agencies, as well as developing and selling sponsorships for new digital radio channels. As a seventeen-year digital media executive,[1] I have had operational responsibility for divisions in the following industries:

a) The Record Industry: I was the founder of Atlantic Records' multimedia department in 1995, one of the first fully-staffed such departments in the industry, which debuted the first full-length online streams of major artists such as Tori Amos. I was employed at Atlantic Records from 1993-1996.

[1] A copy of my curriculum vitae is attached as Exhibit 1.

b) Online Music Content: As a Senior Vice President of online music website SonicNet, and subsequently at MTVi (after their acquisition of SonicNet) in the last 1990s, I launched and oversaw the industry's first-ever audio-visual streaming radio product, Flash Radio, and oversaw the first-ever music video on demand site, Streamland. Later, as Executive Vice President of GetMusic (1999-2001), a joint venture of BMG Entertainment and the Universal Music Group which was eventually acquired by Vivendi and named Vivendi Universal Net USA, I created and oversaw Videolab, the first site to enable users to remix popular music videos, as well as GetMusic Karaoke, the first online karaoke application to feature major recording artists.

c) Broadcast Radio: In my capacity as Vice President for Interactive Sales & Marketing at CBS Radio (2005-2006), I was the corporate executive responsible for sales of all CBS Radio digital assets. Then, as Senior Vice President for the digital division at Entercom Communications (2006-2009), I had oversight of the entire digital platform, including the creation, operation and monetization of the company's streams, websites, podcasts and mobile products. At both CBS and Entercom, I engineered digital sales strategy, oversaw pricing and collateral, trained local sales staff and personally pitched multi-platform programs to hundreds of agencies and brands.

d) Digital Advertising: As Chief Operating Officer of Oddcast (2002-2004), a viral marketing agency and technology company, I sold complex branded entertainment solutions to advertising agencies and brands. I continue to work closely with the company.

2. At CBS, in particular, I was responsible for creating and selling digital asset sponsorship packages – including everything from station websites, streams, HD2 channels and podcasts – to companies such as DaimlerChrysler, Vonage, Verizon, AT&T, Quiznos, Monster.com, Motorola and many others. I also oversaw CBS's relationship with advertising networks like Yahoo! and worked closely to train ad sales teams in many of the company's markets to ensure fluency in online ad sales.

3. At Entercom, I had profit and loss (P&L) responsibility for the company's digital department, and had direct and dotted line responsibility for over 60 staff members, including a corporate operations team and webmasters and digital sales managers across the country. My team was responsible for all policies, decisions, deals, third-party vendor relationships and day-to-day operations of Entercom's digital assets, as well as all sales activities and ad operations. I reported to the CEO and was a member of Entercom's Operating Committee, a small team of senior executives charged with setting strategic priorities and policies for the company.

4. I have spoken at numerous digital conferences, including Radio Ink's Convergence, AdTech, Digital Hollywood, Streaming Media East, and several others. I was also involved in the development, testing and launch of TargetSpot, an online audio advertising network, in my capacities at both Oddcast and CBS Radio. Under my tenure, Entercom became the second major radio group to sign a partnership deal with TargetSpot, and I directly oversaw all aspects of that relationship.

5. I have been a songwriter and musician since high school, and from 1987 through 1994, I composed and performed with Too Much Joy, a Giant/Warner Brothers recording artist. Too Much Joy enjoyed Top 15 success on modern rock radio and toured nationally, performing with major acts such as The Go-Go's and The Flaming Lips.

6. I graduated from Yale University in 1987 with a B.A. in Political Philosophy. As a student at Yale, I was Editor-in-Chief of the campus' music magazine, *Nadine,* and concurrently interned at *Spin Magazine*, where I authored several articles.

7. The following testimony is based on my seventeen years of experience in the digital media industry, including five years in senior positions related to the digital space at top-tier terrestrial broadcasters; ongoing business development and sales responsibilities in the digital advertising space; extensive responsibilities at Atlantic Records; and my years as a recording artist.

II. OVERVIEW OF TESTIMONY

8. My testimony will rebut SoundExchange's rosy assessment of statutory webcasting that was presented at the direct hearing. Contrary to statements made in SoundExchange's direct case – and specifically by Dr. Pelcovits – statutory webcasting services are facing substantial economic challenges that point to a less-than-robust market, especially under the current royalty scheme. My testimony discusses the unique challenges that statutory webcasters face in attempting to maximize revenues for their product.

9. My testimony primarily addresses the following issues:

a) The growth of listenership in the statutory webcasting industry does not necessarily create a proportional growth in revenues. In fact, the glut of advertising inventory created by increased audience sizes exerts downward pressure on the revenue potential of statutory webcasters. Moreover, surplus advertising inventory is exacerbated by a unique set of challenges.

b) The marketplace for ad-supported music services is quite challenging, as witnessed by the failure and/or fire-sale of various entities in the space. For example, after Last.FM's sale to CBS Interactive, Last.fm has not yet achieved profitability, and has in fact scaled-back its ad-supported offerings.

c) Subscribers account for a small and dwindling amount of statutory webcasting listening. The vast majority of statutory webcasting – unlike on-demand interactive services – is based on ad-supported, *non-subscription* listening.

d) Pandora, the most successful "pure play" webcasting company in terms of audience size and revenue, would have to spend almost every cent of its 2009 revenues on the sound recording royalty if it were subject to the full statutory rate for 2009 that was determined by the Copyright Royalty Board in the Webcasting II proceeding. Therefore, a royalty rate that is *higher* than (or even close to) the current rates – as SoundExchange has proposed in this proceeding – would not represent what a willing buyer would agree to.

e) Statutory webcasters have inherent economic disadvantages compared with the National Association of Broadcaster ("NAB") and Sirius XM simulcasters with respect to operating, marketing and sales costs as well as revenue generation.

f) Statutory webcasting provides promotional benefits, increases album/download sales, and provides much-needed exposure to copyright holders.

III. DR. PELCOVITS' ASSESSMENT OF THE STATUTORY WEBCASTING MARKET IS FUNDAMENTALLY FLAWED

10. In Section 4 of his written testimony, entitled "The Statutory Webcasting Market," Dr. Pelcovits provided a lofty assessment of the statutory webcasting industry as "the backdrop for [his] analysis."[2] He relies upon various secondary and tertiary sources for his

[2] SoundExchange Trial Ex. 2 (Amended & Corrected Written Direct Testimony of Dr. Michael Pelcovits ("Pelcovits ACWDT")), at 6-14.

premise of a "robust and evolving market for webcasting."[3] He makes this analysis without having spoken to any executives at any webcasting companies.[4] Instead, he cites growth in reported performances and listenership based on usage reports from SoundExchange, a report by Arbitron/Edison Research, as well as an examination of two recent market entrants, Last.fm and Slacker, which purportedly have been able "to succeed in the market."[5] In addition, Dr. Pelcovits points to the estimated growth of the overall advertising market for Internet radio as evidence of a "robust" market for webcasting.

A. Webcasting Listenership Has Flattened Over The Last Year

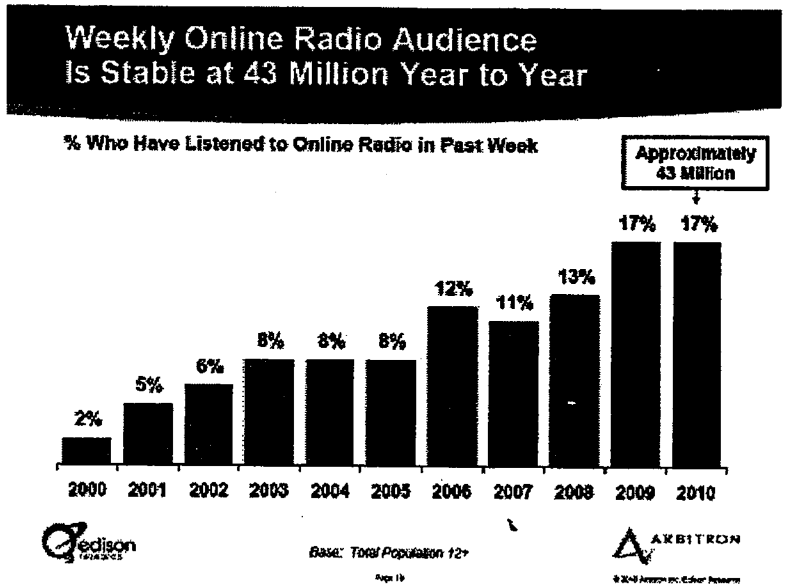
11. Dr. Pelcovits' assessment of the webcasting market is flawed in numerous ways. His finding that "the webcasting industry continues to grow" refers primarily to listenership, and does not take into account the difficulties in monetizing this growth. One of the main sources to support his growth assertion, the 2008 and 2009 "Infinite Dial" reports by Arbitron and Edison Media Research, combine both news/talk/sports and music formats, and does not provide a specific breakout. In my experience, for many terrestrial simulcasters, non-music formats – which do not have the same royalty obligations of Internet music services – dominate overall online listening and drive listenership growth. Therefore, Dr. Pelcovits' failure to take into consideration the allocation of listenership attributable to news, talk and sports formats, with respect to the report he cites, is a considerable flaw. In addition, as Internet penetration has leveled off, so too has online radio listenership. Since Dr. Pelcovits' testimony, the April 2010 Arbitron/Edison "Infinite Dial" study shows that listenership growth flattened from 2009-2010, as shown in the table below. Therefore, future growth of Internet radio listenership is uncertain.

[3] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 11.

[4] Direct Hearing Tr., April 19, 2010, at 172:3-172:6.

[5] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 10.

Table 1



B. Dr. Pelcovits Ignores Economic Realities Of The Webcasting Marketplace

i. Consolidation Of Listenership

12. Before addressing Dr. Pelcovits' disregard for industry economics, it is worthwhile to briefly examine the consolidation of listenership among Pandora and simulcasters (terrestrial and satellite). Specifically, the aggregate statutory webcasting market demonstrates that an increase in aggregate tuning hours and/or aggregate revenue of the entire industry is, in fact, heavily skewed by a few companies. According to Sound Exchange's 2009 usage reports, the top four entities in terms of aggregate performances are: Pandora ([redacted]% market share by volume); CBS Radio and Clear Channel [redacted]% market share by volume); and satellite radio companies Sirius-XM ([redacted]% market share by volume). Combined, these four entities account for over 80% of 2009's aggregate yearly performances reported to SoundExchange.[6] The statutory webcasting market was not nearly as consolidated just a few years earlier, during which

[6] Live365 Trial Ex. 14 (SXW3_Native_0015 (RESTRICTED)), at 8.

time the top four entities represented only 50.58% and 53.82% of the aggregate performances in 2006 and 2007, respectively.[7] In his direct statement, Dr. Pelcovits did not break down the revenue growth, specifically for ad revenues, that are attributable to each company.

ii. Audience Growth Does Not Equate To Increased Revenues

13. An obvious point neglected by Dr. Pelcovits is that growth in webcasting listenership does not, in and of itself, translate to financial success or even viability – especially with the risk of increasing royalty rates. First, the overwhelming majority of statutory listening is ad-based, hence heightening the importance of advertising revenues. Second, every single song streamed triggers additional costs; however, ad-supported webcasters cannot recover these costs in the same per-song manner. Therefore, unless CPM (i.e., cost per thousand impressions) and inventory sell-out rates (i.e., the percentage of the total advertising impressions sold) keep pace with the growth in listenership, statutory webcasters – which are already saddled with increasing hosting, bandwidth and royalty costs due to this growth – are indeed penalized for the success of their increased listenership. However, given persistent industry trends, CPMs are subject to significant downward pressures. Consequently, the inverse relationship between costs associated with listenership growth and CPM revenues will likely continue. These findings are all consistent with my own observations in the industry.

iii. Dr. Pelcovits Disregards The Decline In Advertising Rates And Its Impact On The Economic Health Of The Statutory Webcasting Industry

14. Dr. Pelcovits' analysis of the statutory webcasting industry suffers from other deficiencies. Specifically, he failed to consider CPM rates, inventory sell-outs, and the impact of each factor on the statutory webcasting market. Again, these are important factors because the majority of statutory webcasting is ad-based listening.

---

[7] Live365 Trial Ex. 14 (SXW3_Native_0015 (RESTRICTED)), at 2, 4.

15. In addition to audience size, the most relevant factors are advertising *rates* (in the form of CPMs) – not aggregate advertising *revenues* – and inventory sell-out rates. In my experience, these metrics determine the revenue potential for ad-supported services (and, implicitly, the royalty rate they could afford to pay). Statutory webcasters can assess their revenue potential in a variety of ways. One manner is to assess the total impressions served over the course of a given time period and factor in average CPMs and sell-out percentage. Impressions can be determined by multiplying total monthly listening sessions by average spots served per listening session. In other words, if my station's listeners generally stay connected for 90 minutes (i.e., that is the station's Average Time Spent Listening, or TSL), and I serve six spots per hour, I know that each listening session generates an average of nine ad impressions. Put into practice, if I know my listenership generates a total of one million ad impressions over a month, and I generally sell 50% of that inventory at a $3 CPM, then I know the current revenue potential of this station is $1,500/month (500,000 impressions sold at a $3 CPM). No such analysis, which could have illustrated webcasters' ad revenue capabilities, was provided by Dr. Pelcovits.

16. In my experience with terrestrial broadcasters, CPMs for online audio ads have generally been stagnating or declining – especially for inventory that is sold via multi-market deals or ad networks (such as TargetSpot). Multiple sources confirm this stagnation and/or reduction in average statutory webcasting industry CPMs. Dr. Pelcovits, for example, acknowledged that there is no evidence of CPMs increasing:

> *Q.* *Sitting here today, you cannot say that CPMs have been rising, can you?*
>
> *A.* *Are you talking about CPM in terrestrial broadcasting or in webcasting?*
>
> *Q.* *Well, let's start with the webcasting market.*

A. I have not seen evidence of CPM increasing.[8]

17. Further, Live365's General Manager of Media, Johnie Floater, cites internal data that reveal a decline in CPMs since 2006 for streaming audio ads as well as CPMs for ad banners and video gateway ads (short, video-based ads that play automatically when a user clicks to listen to a stream).[9] And in his testimony, BIA/Kelsey Vice President Mark Fratrik, PhD, confirms that CPMs for audio ads have fallen steadily since 2005, citing figures from AccuStream iMedia Research released in 2009.[10] Even major streaming media destinations such as MySpace and YouTube are plagued by low CPMs and "low-value," excess ad inventory "that can only command weak CPMs, and they're not growing its value as quickly as content costs are growing."[11] All of these findings are consistent with my own observations.

C. Statutory Webcasters' Necessary Reliance On Ad Networks Results In Lower Yield And Higher Cost Of Sale

18. Non-interactive webcasters face a specific challenge in monetizing their audio ad inventory. Since there is theoretically no limit on a statutory webcasters' ad inventory – as opposed to the finite inventory of terrestrial radio stations, which can drive demand and command higher CPMs (as I observed during my experience at two of the largest terrestrial radio companies in the U.S.) – adding listeners does not necessarily drive more value creation. As Mark Mulligan of Forrester Research concludes, "many ad-supported content destinations are

[8] Direct Hearing Tr., April 19, 2010, at 177:15-20.

[9] Live365 Trial Ex. 29 (Corrected Written Direct Testimony of Johnie Floater, April 25, 2010 ("Floater CWDT")), at 5.

[10] Live365 Trial Ex. 30 (Corrected & Amended Written Direct Testimony of Mark Fratrik, April 26, 2010), Exhibit 3 at Section Three

[11] Mark Mulligan, "Paying for Success: When Audiences Grow More Quickly Than Ad Revenue." Forrester Research, April 17, 2009 (SXW3_00018073 – 00018079), at 3. *See* Exhibit 2.

not growing ad revenue effectiveness as quickly as their audiences are growing in size and level of engagement."[12]

19. Audience growth without complimentary growth in sell-out rate creates a "glut" of unsold inventory. To address this, non-interactive webcasters who do not have sufficiently-sized local audiences that can be targeted and who lack the robust, specially-trained sales forces of the NAB simulcasting entities, must rely on ad networks. Ad networks aggregate unsold advertising inventory from a variety of online entities and make it available to marketers. This inventory is commonly referred to as "remnant" – left-over advertising spots which generate a small number of ad impressions. By collecting this disparate inventory from multiple websites, ad networks hope to amass enough impressions to be able to sell it. Marketers generally expect to pay lower CPMs for ad network inventory because it is an amalgamation of remnant impressions. [redacted]

20. In addition, ad networks charge aggressive commissions to sell this low-priced inventory. These commissions are generally higher than the commissions that would be paid to an in-house salesperson for selling the same inventory. So webcasters that are reliant on ad networks yield lower revenues from their ad inventory and realize a much smaller percentage of revenue for every dollar made. For this reason, media companies generally consider ad networks to be a last resort, backfill for the less desirable inventory that their sales team cannot monetize. In fact, in December 2009, CBS Interactive – whose online properties contain highly trafficked

[12] *See id.* at 2.

content (including CBS.com, CNET, Gamespot and TV.com) – declared they would almost completely eliminate their reliance on third-party ad networks.[13]

21. Further, there are not enough streaming media advertisers making big enough buys to fill even this lower-priced inventory. As Johnie Floater has testified, "advertising orders consistently do not fill all of Live365's advertising inventory; therefore, increasing the number of ad spots her hour would not generate more revenues since Live365 already cannot fill all of its commercial availabilities."[14] I am not surprised by this comment. In my capacity at both CBS Radio and Entercom, most major online ad buys happened in the context of cross-platform deals (including on-air and online inventory). Marketers generally earmarked a small percentage (5-10%) of their total spend to online [redacted]. Frequently, the online portion of the buy would be the first thing to go if their budgets tightened up. This problem is exacerbated by the fact that many streaming network buys are "dayparted" – limited to airing during specific hours of the broadcast day, which means that weekends and overnight hours are vastly undersold. The shortfall of paid ads results in webcasters over-delivering for their existing advertisers or rotating "house" or promotional spots through the ad inventory, prompting a deterioration of the quality of the listening experience for the user. This can lower Average Time Spent Listening (TSL) and, therefore, reduce the number of ad impressions served per listening session, further reducing revenue generation. At the same time, the webcaster is incurring per performance costs for the listenership during the undersold non-daypart hours.

22. There is a variety of reasons for this shortfall in advertising sales. Streaming audio advertising is still relatively new to marketers, and commands a low single-digit

[13] Michael Learmonth, "CBS Interactive Dumps Ad Networks," *AdvertisingAge*, Dec. 14, 2009, available at http://adage.com/digital/article?article_id=141054. *See* Exhibit 3.

[14] Live365 Trial Ex. 29 (Floater CWDT), at 4-5.

percentage of overall broadcast radio revenues. In addition, producing quality streaming radio ads requires a different expertise than producing, say, a compelling banner ad, and many marketers are reluctant to delve into this area. In many cases, webcasters display synchronized ad banners when a streaming audio spot plays, but it is difficult to determine if the listener is looking at their streaming web player when these banners display or has either minimized the player or buried it beneath other browser windows. It has been my experience that synchronized banner ads for streaming audio spots have historically generated low click-through rates for this reason, another discouraging factor in the eyes of media buyers.[15]

23. Also, as I explain below in my discussion of the differences between pure Internet radio services and broadcast simulcasters, Internet radio companies – which do not have mass audiences concentrated in a particular geographical market – have to rely on national advertisers as a source of revenue. These national advertisers are few, and have many other established outlets for their advertising (e.g., radio, television and cable networks; print, etc.) that offer larger audiences than Internet radio. Thus, it is not easy to cause these advertisers to change their practices to dedicate money to Internet radio. For these reasons, plus simply the amount of inventory that is available in the marketplace, webcasters generally have low CPMs and low sell-out rates that have not kept pace with their audience growth.

[15] Another factor leading to a misplaced view of the robustness in the online radio industry is Dr. Pelcovits' apparent reliance on inconsistent ad spending numbers, which seem to suggest a *decrease* in ad spending through 2011. On page 11of his Amended & Corrected Written Direct Testimony (SoundExchange Trial Ex. 2), he cites a $101 million figure in digital advertising spending for the radio industry *for the first quarter of 2009*. This suggests that digital advertising spending for the radio industry would be over $400 for the entire year in 2009. In the next sentence, he cites a different analysis that projects $350 million *for the entire year in 2011*. Note that the $350 million figure originally came from a report prepared by ZenithOptimedia, which revised its projections downward two times, and is now down to $286 million for its 2011 estimate.

D. Far From Dr. Pelcovits' "Robust And Evolving Market," The Ad-Supported Music Space Is Withering Under The Weight Of Royalty Payments To Record Labels; Last.fm Is Under-Performing

24. The Internet music space is littered with examples of failed and shuttered ad-supported music services (e.g., SpiralFrog, Ruckus Network) as well as once-promising music start-ups forced to sell themselves for a fraction of their previous value. imeem "raised above $50 million in funding over the last two years...with the valuation north of $200 million."[16] The company ended up selling to MySpace for "$1MM in cash" in December 2009.[17] Prior to its sale, the service had been "reportedly running out of money, especially because of how much it has to pay for music licensing deals it has with record labels."[18] Lala Media, Inc. ("Lala"), another popular music service, was recently acquired and then shuttered by Apple as of May 31, 2010.[19] Further, two of the largest companies subject to statutory rates and terms of Webcasting II – i.e., Yahoo! LAUNCHcast and AOL Radio – exited the webcasting business shortly after the Webcasting II determination by partnering with CBS Radio, who "powers" Yahoo! and AOL-branded offerings and provides all content licensing, programming and royalty payments.

[16] Rafat Ali, "Music Social Network Imeem In Play; Hires Bank; Laying Off 25 Percent," *PaidContent*, Oct. 22, 2008, available at http://paidcontent.org/article/419-music-social-network-imeem-in-play-does-25-percent-layoffs/. *See* Exhibit 4.

[17] Michael Arrington, "Ok, Now It's Done. MySpace Music Completes Acquisition of iMeem," *TechCrunch*, Dec. 8, 2009, available at http://techcrunch.com/2009/12/08/imeem-myspace-music-completes-acquisition/. *See* Exhibit 5.

[18] Eric Eldon, "Music startup imeem making money, not dying unless the labels kill it," *Venture Beat*, March 26, 2009, available at http://venturebeat.com/2009/03/26/music-startup-imeem-making-money-not-dying-unless-the-labels-kill-it/. *See* Exhibit 6.

[19] Lala had been losing money before its acquisition by Apple, and its value had declined precipitously. During the first quarter of 2009, Warner Music Group recorded a charge of $11 million to write-down its $20 million investment in Lala to its estimated fair value of $9 million. *See* SEC Form 10-Q, Warner Music Group Corp. (May 7, 2009). This write-down occurred only one year after Warner had made its $20 million investment in Lala. *See* SEC Form 10-K, Warner Music Group Corp. (Nov. 25, 2008).

25. Dr. Pelcovits points to the purported success of Last.FM, purchased for $280 million in May 2007 by CBS Interactive. Now, in 2010, Last.FM is a poster child for how difficult it is to create a successful, ad-supported streaming model – even with the backing of a major media company, such as CBS. According to Forrester Research, "Last.FM has struggled to find its new identity within CBS and its paymasters recently took the decision to turn off free-streaming outside of the major territories due to the inability to generate sufficient advertising revenue....further evidence of the challenges of making free pay."[20] *Digital Music News* acknowledges that "CBS appears to be struggling to properly monetize its $280 million investment."[21] Also, Last.FM's ability to attract subscribers has been lackluster to date. The CBS Interactive VP overseeing Last.FM recently admitted that it has only "tens of thousands" of paying subscribers despite self-reported traffic of about 10 million unique visitors per month in the U.S. alone, and hopes to be profitable (finally) by 2010.[22] These examples hardly paint the picture of a robust market.

E. Demographic Targeting Has Not Materialized In An Impactful Way

26. Dr. Pelcovits also touts "the ability of advertisers to obtain detailed demographics on listeners" as a revenue-driver for webcasters.[23] Beyond rudimentary IP-based geo-targeting, however, more detailed targeting is reliant on users voluntarily filling out registration forms. But most terrestrial simulcasters do not require user registration, nor do many statutory webcasters.

[20] Mark Mulligan, "Last.FM's Fond Farewell to Streaming (Sort of)," *Forrester Research*, April 13, 2010, available at http://blogs.forrester.com/mark_mulligan/10-04-13-lastfm's_fond_farewell_streaming_sort. *See* Exhibit 7.

[21] "Last.fm Flips the Subscription Switch... In Smaller Markets," *Digital Music News*, Dec. 30, 2009, available at http://www.digitalmusicnews.com/stories/032409last/. *See* Exhibit 8.

[22] Robert Andrews, "Interview: CBS Thinks Last.fm Will Turn A Profit This Year," *PaidContent*, March 18, 2010, available at http://paidcontent.org/article/419-interview-cbs-thinks-last.fm-will-turn-a-profit-this-year/. *See* Exhibit 9.

[23] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 11.

And for good reason: there is a plethora of "no registration required" options for listening to streaming music online; hence, requiring it makes a webcaster less competitive. "Consumers are...spoiled for choice for free music on streaming sites such as Last.FM, Pandora and YouTube."[24] Ultimately, in this competitive environment, requiring registration is still the exception, not the norm.

27. Moreover, I have observed that, while targeting may increase the CPM rate for a particular demographic, the net effect may still reduce overall per-performance revenue. By way of example, a service could obtain a CPM rate of $12 for men in the 24-35 age bracket in select major markets during certain hours of the day. The problem, however, is that much smaller revenue – or even no revenue – may be obtained for listeners who do not meet these restrictions, even though the per-performance royalty rate is the same for both. Consequently, demographic targeting can and does lead to further excess inventory and lower overall per-performance revenue. In sum, targeting has yet to have any material impact on overall online radio CPMs.

F. Dr. Pelcovits Ignores The Costs Associated With New Platform Launches, And Over-Estimates The Profit Potential

28. Dr. Pelcovits identifies new features, such as song skipping and mobile access, provided by webcasters and asserts – without any authority – that such features should yield copyright holders greater royalty payments. For example, Dr. Pelcovits states that mobility "in a free market would generate additional payments to the owners of the copyright in the sound recordings."[25] While it may be true that mobility will increase listening and overall revenue, the same issue of glut and low-bucket CPMs comes into play in the mobile space. Because the

[24] Mark Mulligan, "Paying for Success: When Audiences Grow More Quickly Than Ad Revenue." *Forrester Research*, April 17, 2009 (SXW3_00018073 – 00018079), at 1. *See* Exhibit 1.

[25] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 13.

mobile audience is a fraction of the overall streaming audience, and because more expensive video pre-roll ads and display ads are even less relevant in the overall ad mix on a mobile device, webcasters face significant challenges in monetizing this mobile audience. Thus, merely increasing audience size through mobile application does not mean that there is any increase in revenue per listener. Again, this means that services are increasing their costs without any unique way to increase their per listener revenues.

29. Moreover, Dr. Pelcovits did not take into consideration the additional cost of developing and delivering these new features. For instance, Apple's successful new portable device, the iPad, requires many webcasters to develop a new, device-specific player. Also, any of these new features are the result of web services' significant investments in creating and maintaining these players. Therefore, even if one assumes that new features (such as mobility) increase revenues, Dr. Pelcovits still fails to take into consideration the services' additional investments and costs. Finally, Dr. Pelcovits also fails to consider whether his identified new features would ultimately increase revenue *per play*, the key metric for a license that is paid on a per-performance basis.

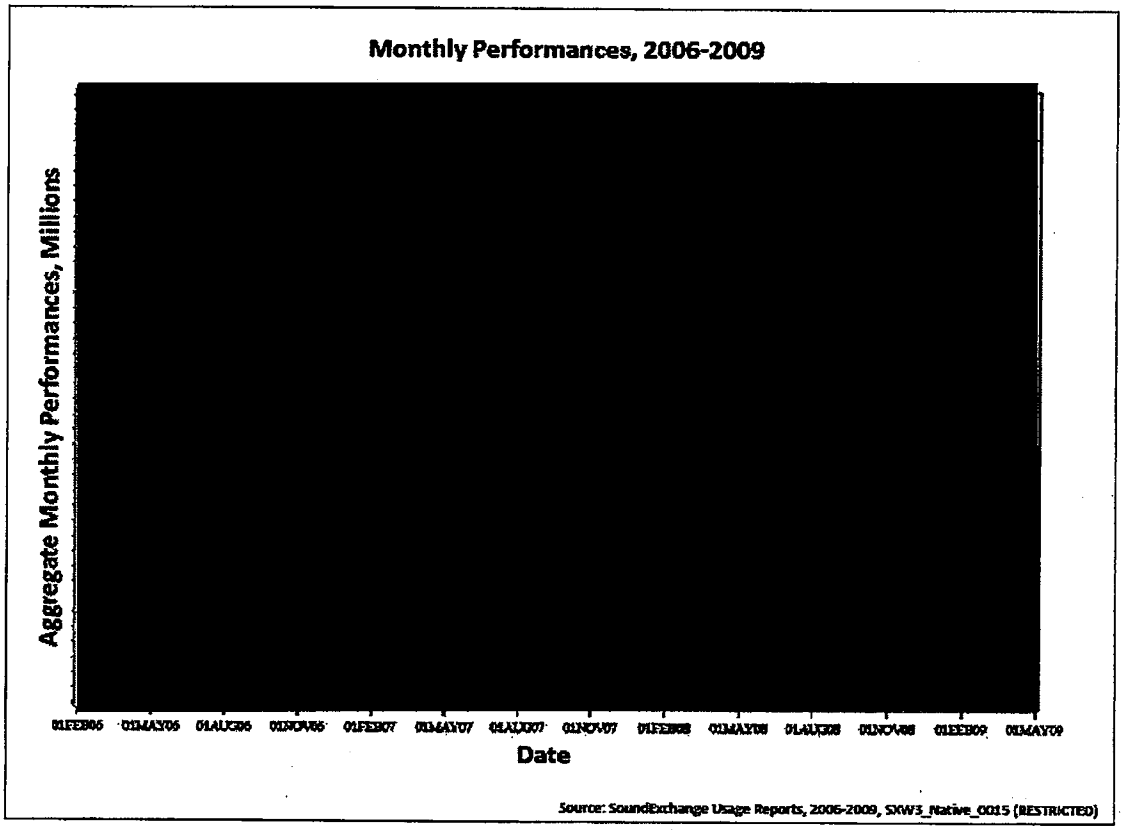
IV. EVERY DOLLAR OF REVENUE EARNED BY PANDORA, THE MOST SUCCESSFUL STATUTORY WEBCASTER, WOULD HAVE BEEN PAID TO COVER THE SOUND RECORDING ROYALTY IN 2009

30. Dr. Pelcovits' assessment of webcaster growth is heavily skewed by a single entity, Pandora, the best-known Internet radio service by a substantial margin.[26] The positive trajectory of the "Statutory Webcasters' Aggregate Monthly Performances 2006-2009" graph on page 8 of Dr. Pelcovits' Amended & Corrected Written Direct Testimony primarily reflects

[26] The Infinite Dial 2010: Digital Platforms and the Future of Radio, *Edison Research*, at 23.

Pandora's growth, as Dr. Pelcovits himself acknowledged.[27] This is further illustrated in Table 2 (below), which derives from graphs prepared in connection with Dr. Pelcovits' report.

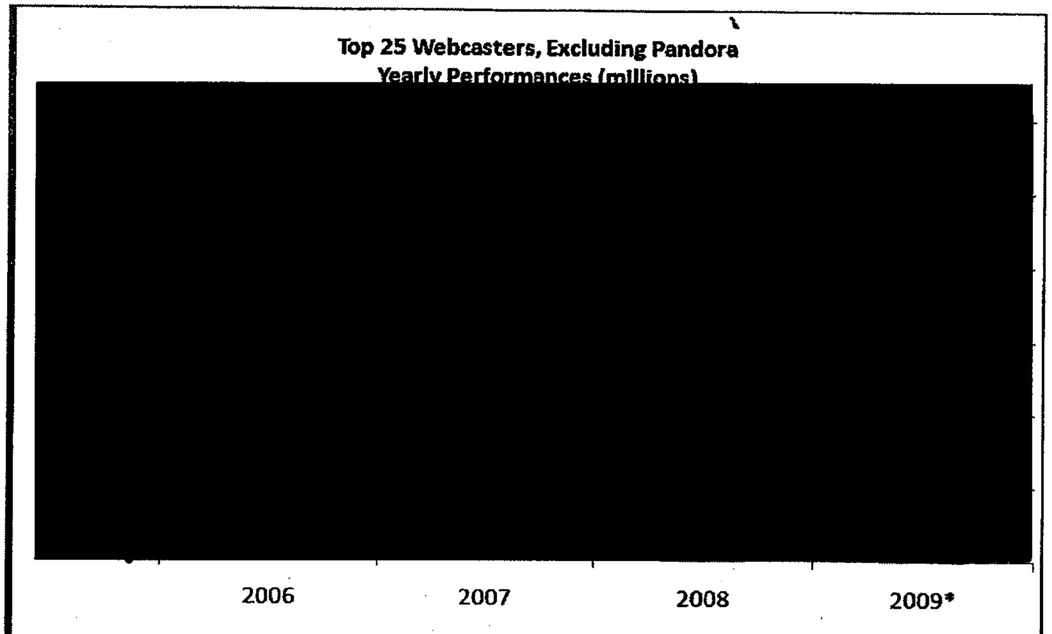
<u>Table 2</u>



As Table 2 shows, the purported "popularity" of webcasting and the upward trend in aggregate performances is almost completely a function of one service's growth: Pandora's. Moreover, over this same time period, the amount of aggregate performances by other statutory webcasting services has been flat or declining over the past few years, again undermining Dr. Pelcovits' conclusion of a robust market. Indeed, removing Pandora from this consideration reveals a very different trajectory in terms of aggregated performances, as shown in Table 3 below.

[27] Pelcovits Depo Tr. (Dec. 14, 2009) at 214:1-215:4.

Table 3



* 2009 data based on 10-month data, plus estimated projection for remaining two months (derived from averaging prior 10 months). (SXW3_Native0015 (Restricted))

31. Further, Pandora, which "accounts for roughly 44-45 percent of total SoundExchange royalties for non-interactive streams,"[28] would not be able to sustain a viable business were they subject to the full statutory rates. From January 2009 through October 2009, Pandora reported [redacted] performances. Based on averaging the amount of monthly performances during those 10 months, one can conservatively estimate that the remaining two months of 2009 would amount to [redacted] performances. This is conservative because, historically, streaming hours rise significantly during the holiday season as people tune into holiday-themed channels and spend more time listening. Therefore, we can conservatively estimate that Pandora's total performances for 2009 were [redacted]. If you multiply that

[28] "Pandora: These Numbers May Surprise You," *PaidContent*, March 18, 2010, available at http://paidcontent.org/article/419-pandora-these-numbers-may-surprise-you/. *See* Exhibit 10.

amount by the statutory royalty rate for 2009 – i.e., $.0018 – Pandora would have owed [redacted] for only the sound recording performance royalty! **This means that just about every dollar in reported revenue that Pandora earned in 2009 – and it's widely reported to have been about $50 million – would have gone to a single cost.** [redacted]

32. A 10-year old company, Pandora represents one of the most successful, most listened-to, and most established statutory webcaster in this space. No willing buyer – much less the biggest buyer in the statutory webcasting industry – could realistically ever agree to a rate that ate up all of its revenues, leaving no money to meet other expenses or to provide a return to investors. Expecting willing buyers to pay rates through 2015 that are substantially higher than the 2009 rate – as SoundExchange proposes – is utterly unrealistic and unsustainable for the statutory webcasting industry. Therefore, this reality check refutes Dr. Pelcovits' testimony that the proposed rates "fall within a reasonable range that would be paid by a willing buyer" as not even the biggest "buyer" could afford such rates.[30]

V. INTERACTIVE AND NON-INTERACTIVE MARKETS ARE HIGHLY DIFFERENT

33. The interactive and the non-interactive marketplaces are vastly different. First, interactive or "on demand" services like Napster, which enable users to pinpoint the exact song they want to hear, serve as a celestial catalogue for listeners. Essentially, people can hear what they want, when they want it. The experience is more akin to the experience of owning a CD or

---

[redacted]

[30] Direct Hearing Tr., April 19, 2010, at 163:22-164:6.

digital track that can be played on demand than it is to listening to the radio. On the other hand, Pandora and other non-interactive webcasters are essentially more tailored versions of the traditional radio experience and can be considered a "passive" or "lean back" listening experience. Second, while on-demand interactive services have faced significant challenges in growing their subscriber base, adding subscribers to a non-interactive service is even more challenging due to the plethora of free sources, such as NAB simulcasters. Consequently, ad-supported listening is the primary business model in non-interactive webcasting. Moreover, the competitive landscape for non-interactive services is much more crowded.

A. Majority Of Statutory Webcasting Is Based On Ad-Supported, Non-Subscription Listening

34. Dr. Pelcovits assumes that comparing subscription figures in the interactive and non-interactive webcasting markets will provide a suitable framework for setting rates. The flaw with this assumption is that the vast majority of the statutory webcasting listening is *not* based on subscription listening. Subscription levels for statutory webcasters are small and not growing. Live365 reports that fewer than 2% of its users are subscribers.[31] As previously stated, Last.FM's subscription users number in the tens of thousands. Rhapsody's self-reported shrinkage from 800,000 subscribers in Q1 2009 to 650,000 subscribers in Q1 2010 further bear out the difficulty of subscription-based models for online music companies.[32] And, based on my experience and observations, subscription-based streaming by NAB entities and other simulcasters is non-existent or, at best, negligible.

[31] Live365 Trial Ex. 29 (Floater CWDT), at 5.

[32] Glenn Peoples, "Analysis: Subscription Model Takes Another Hit," *Billboard.biz*, May 10, 2010, available at http://www.billboard.biz/bbbiz/content_display/industry/e3i975b286fc2a9c455fe7816e39f48bd1b. *See* Exhibit 11.

B. Statutory Webcasting Services Will Likely Continue To Be Ad-Supported And Not Subscription-Based, Unlike Interactive Services

35. On a practical level, the assumption that the webcaster can increase subscription rates significantly simply does not make sense. The vast majority of music listeners are casual listeners, some using more than one Internet service interchangeably. They listen to music that they can get for free, on their radio or from other sources, and buy few CDs or digital music files each year. The subscription services cater to a limited percentage of the public that finds music more important, and is willing to pay for the interactive service to get access to that music. The non-interactive market for the most part serves the more causal listener, who may want to hear some music, but need not be involved in selecting exactly what they want to hear. There is nothing to indicate that this more casual audience, which traditionally has not spent significant amounts on music in the past, will suddenly want to spend more of their disposable income on a service where they cannot dictate what they want to hear. Thus, based on my observations within the industry (including the evidence cited above), it is my opinion that non-interactive streaming will continue to be a mainly advertising-supported medium.

VI. NAB AND SATELLITE SIMULCASTERS HAVE SIGNIFICANT ADVANTAGES OVER NON-NAB STATUTORY WEBCASTERS

36. There is no basis for Dr. Pelcovits' establishment of the WSA agreements as the "low end" of the range of market outcomes. This assertion ignores several advantages that NAB and satellite simulcasters have over statutory webcasters. It is an understatement to say that these the business of simulcasting has a different cost/revenue structure from the operations of pureplay statutory webcasting companies. On the cost side, NAB/satellite simulcasters do not need to invest in any "start up" costs to create content to stream – they merely require a small investment to encode and deliver their existing station signals through the Internet. Years of

marketing and developing audiences for their on-air personalities and programming present an instant competitive advantage in the world of webcasting. Their stations' appeal is broad-based and programmed to appeal to a mass audience. In contrast, many statutory webcasters have more specialized formats that are not available on over-the air radio/simulcast formats and that are meant to appeal to a niche audience via their more tailored offering.

37. Additionally, simulcasters do not need to invest in a new ad sales team – they already have a team of seasoned experts who have sold audio advertising for years to local (in the case of NAB simulcasters) and national marketers (in the case of both NAB and satellite simulcasters). Also, they have a built-in source to market and cross-promote their simulcast streams: promotional or programming inventory on their over-the-air signals and station websites. It should also be noted that NAB entities historically have not had to pay sound recording performance license fees for their over-the-air broadcasts given their promotional value – despite evidence that the Internet is quickly over-taking radio as a source for new music discovery. This year, 52% of people in the 12 to 34 year old bracket turn to the Internet first to discover new music; 32% turn to radio.[33]

38. Simulcasters have many other inherent cost savings. Unlike the statutory webcaster, who must pay all of its operating costs from the revenues derived from its operations, most of the costs of the simulcaster have already been paid by the revenues of its primary operations. The offices of the simulcaster are already paid for by the primary business. Computer systems for billing, traffic (i.e., the scheduling of advertising) and for other purposes are already on hand. Other personnel (e.g., receptionists, clerical personnel, technicians and engineers, etc.) and infrastructure already exist, being paid for by the primary business of the

[33] The Infinite Dial 2010: Digital Platforms and the Future of Radio, *Edison Research*, at 16.

simulcaster. As these costs do not need to be spent on the streaming, the simulcaster can afford royalties that its webcasting competitors cannot.

39. On the flip side, the NAB simulcasters can derive higher CPMs for their inventory than can statutory webcasters. The radio groups' streams are primarily sold locally by a seasoned team of experts to an audience of buyers who have been buying inventory on their stations for years. In addition, streaming spots are frequently packaged with over-the-air inventory to maximize value for the marketer, increase online inventory-sell out rates, and command a greater piece of the marketing spend, boxing out other online radio entities. To the extent that broadcasters rely on ad networks such as TargetSpot, it is as a last resort when inventory remains unsold. TargetSpot accounted for a very small portion of total streaming revenues in my terrestrial radio experience. NAB simulcasters' selling is fundamentally local, and because it is targeted as such (and further refined by the established demographics of a station format's audience), their sales teams can and do extract higher CPMs. Statutory webcasters, in general, lack this local edge and are much more reliant on advertising agencies and networks, which take enormous commissions. In the competitive landscape of Internet radio, the business of pure play and other webcasters are clearly disadvantaged in relation to the NAB and satellite simulcasters, and thus less able to meet royalty rates. Thus, rates paid by statutory pureplay webcasting companies, not those paid by NAB stations or satellite simulcasters, should be considered the "low end" of the market outcome.

VII. STATUTORY WEBCASTING PROVIDES PROMOTIONAL BENEFITS TO COPYRIGHT HOLDERS

40. Numerous studies have confirmed the positive sales impact and promotional benefits of statutory webcasting for recording artists. NPD Group's Russ Crupnick was quoted in February of this year as stating that "online radio services lead to a 41% increase in paid

downloads."[34] In addition, Pandora CTO Tom Conrad stated in May of this year that Pandora was driving sales of 1 million songs a month, and that "for every song purchase Pandora drives, users are likely to buy 3 to 5 more songs on top of the one they found."[35] According to written testimony that was submitted by Timothy Quirk (Vice President of Programming for Rhapsody) in this proceeding, Rhapsody's internal data proves that "More non-interactive plays of a particular track correlate clearly and directly with more MP3 sales of that track."[36]

41. The above-referenced statistics directly contradict Dr. Pelcovits' assertion that "there is even more reason to believe that non-interactive (i.e., statutory) services would be as much of a substitute for purchasing music as interactive services."[37] These statistics also mitigate against Warner Music Group's W. Tucker McCrady's stated concern about webcasting becoming a "substitution" for digital sales, because statutory webcasting is clearly additive.[38] This advantage is unique to statutory webcasters versus on-demand services like Napster, Rhapsody and Spotify, which, according to the NPD analysis cited above, drives digital download sales lower by 13%.[39]

---

[34] Greg Sandoval, "Pandora spurs music sales, Spotify not so much," *CNet News*, Feb. 26, 2010, available at http://news.cnet.com/8301-31001_3-10459568-261.html; *see also* Eliot Van Buskirk, "Of Course On-Demand Music Replaces Sales – It's Supposed To," *Wired Magazine*, Feb. 25, 2010, available at http://www.wired.com/epicenter/2010/02/of-course-on-demand-music-replaces-sales-its-supposed-to/. *See* Exhibits 12 & 13.

[35] MG Siegler, "The iPhone Is Accelerating Music Sales For Pandora," *The Washington Post*, May 7, 2009, available at http://www.washingtonpost.com/wpdyn/content/article/2009/05/07/ AR2009050703545.html. *See* Exhibit 14.

[36] Written Direct Testimony of Timothy Quirk, Sept. 29, 2009, at 4 ("Quirk WDT").

[37] SoundExchange Trial Ex. 2 (Pelcovits ACWDT), at 35.

[38] SoundExchange Trial Ex. 7 (Written Direct Testimony of W. Tucker McCrady, Sept. 23, 2009), at 2.

[39] Greg Sandoval, "Pandora spurs music sales, Spotify not so much," *CNet News*, February 26, 2010, available at http://news.cnet.com/8301-31001_3-10459568-261.html. *See* Exhibit 12.

42. Most importantly, as a songwriter and performer, I am keenly aware of the promotional value of statutory webcasting – especially in a time where most terrestrial radio stations have been reduced to playlists of 250 or fewer songs in established musical formats. AM/FM radio's appetite for new music outside of the established formats has dwindled. In fact, only a handful of "alternative" commercial stations and formats that used to play bands like mine still exist. For the most part, the only stations that still play bands like Too Much Joy, and more obscure alternative bands, are online. The value of this exposure far outweighs the small digital performance royalties that are accorded to performers at any level.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Alexander "Sandy" Smallens

Exhibit 1

ALEXANDER "SANDY" SMALLENS

110 Bobolink Road
Yonkers, NY 10701
tel: 917 860 9819
email: sandysmallens@gmail.com

***Summary:* Digital media pioneer who has built and run profitable divisions for top media companies and start-ups in the social media, broadcast, music/entertainment and media technology industries. Flawless track record of success in revenue generation, creative innovation, cross-discipline general management and multi-platform sales. Acknowledged leader, team builder and change agent.**

PROFESSIONAL EXPERIENCE

Audiation
6/09 – Present

Founder & Managing Director

- Boutique consultancy which provides top-level leadership to start-ups and seasoned companies in the Digital and Broadcast space. Clients include the leading Social Media/Viral Marketing Agency Oddcast; the leading online branded entertainment company My Damn Channel; the largest premium ad network, AdBlade; leading urban lifestyle outlet Vibe; Turkey's largest Internet portal MyNet; music media innovators Tune Genie; and others.

Entercom Communications, Corp.
6/06 – 6/09

Senior Vice President, Digital

- Head of Digital division for top 4 radio broadcaster, reported to CEO; member of 8-person Operating Committee, which drives all corporate decisions.
- Drove Digital revenues 500% in three years, creating an 8-figure business; grew all digital traffic exponentially (sites, streams, videos and podcasts).
- Oversaw operations, staffing, strategy, business development, creation, development, sales and execution of entire business, including supervising a staff of 100 and managing 120 station websites and 90 streaming stations across 23 markets.
- Innovation milestones:
    - First radio group to launch cross-platform mobile streaming (iPhone/BlackBerry/Google phone)
    - First radio group to create a stand-alone regional sports portal which is experiencing explosive growth (weei.com)
    - First radio group to adapt open source CMS tools (Drupal, WordPress)
    - Deep integration with EveryZing (audio search engine), effectively making our audio programming searchable
    - Aggressive social networking strategies and training
    - First non-owner radio group to make their inventory available to TargetSpot (automated self-service advertising)
    - Various rich media applications and cutting-edge content development across all station formats

CBS Radio/Viacom
1/05 – 6/06

Vice President of Interactive Marketing and Sales

- Senior-most Interactive executive for largest major market radio broadcaster; reported to President.
- Directly responsible for creating and executing digital sales and business development strategy for entire 180 station portfolio, including streaming network, podcasting (including KYOU-AM, the nation's first all podcast station) and all web assets.
- Negotiated and executed category-level relationships and cross-media sponsorships with technology companies (Microsoft, Yahoo!,

Google, Real Networks, AOL), major brands and advertising agencies.

- Generated 6- and 7-figure deals with clients such as DaimlerChrysler, Monster.com, Motorola, Quiznos, Verizon and others.
- Negotiated first-ever mobile agreements for radio company, including: streaming stations over Sprint and Cingular phones; 25-station site license of SMS/MMS marketing platform; and a 'make your own ringtone' application.

Oddcast
1/02 – 12/04

Chief Operating Officer

- Number two executive at privately-held viral marketing technology company of 25, with direct responsibility for sales, marketing, PR, and general management; reported to Founder/CEO.
- Company increased year-over-year revenue 50% in 2002 and 2003.
- Conceived, pitched products, and managed all aspects of accounts with major advertising agencies and brands such as Coca-Cola, McDonalds, MTV, Unilever, ESPN, Washington Mutual, ConAgra, Vivendi Universal, BET and L'Oreal.
- Led the successful development and launch of new products, mini-sites and initiatives in a short timespan, while managing P&L.

Vivendi Universal Net USA
11/99 – 12/01

Executive Vice President

- Number two executive at Vivendi's consumer music portal. Managed staff of 40, reported to President/CEO.
- Oversaw creation, development, licensing, marketing and delivery of all content for GetMusic, RollingStone.com and Farmclub.com.
- Properties experienced 550% growth in unique users and traffic, and became the number two music content destination.
- Launched and successfully marketed several groundbreaking programs, including "GetMusic Karaoke"; "Videolab," which enabled users to mix their own music videos (hailed by *NY Times*, *LA Times*, *Entertainment Weekly* and many others); and "The A List," an interactive show hosted by Rolling Stone/VH1 veteran Anthony DeCurtis (guests included Michael Jackson, Kid Rock, Alicia Keys and Lou Reed).

SonicNet, Inc. /MTV
1998 - 1999

Senior Vice President

- Managed staff of 15; reported to CEO.
- Charged with growing company from scrappy bulletin board focused on indie artists to full-blown, multi-media destination site featuring major and upcoming stars.
- Oversaw creation, development, delivery and marketing of all content for the largest online music network, recipient of 1999 Yahoo! Internet Life Award for Best Music Site, as well as three nominations for 2000.
- Produced all events, and supervised all media applications including the web's first music videos on demand site (streamland.com) and visual radio station (flashradio.com).
- Primary point person for all recording artist/record label relationships, as well as key relationships with: AOL; Yahoo!; Microsoft; Real Networks; the Vans Warped Tour; and the DMX/Jay-Z Tour.
- Acquired by MTV; member of 3-person team that transitioned company, and served as SVP at MTV following transaction.

Prodigy Internet
1996 - 1998

Vice President and General Manager

- Managed staff of 13; reported to SVP, Content.
- Responsible for the majority of content areas on the nation's third largest ISP including music, entertainment, lifestyles, hobbies, cultures, family and education.

SANDY SMALLENS RESUME

- Brokered all deals, negotiated contracts, developed dynamic content areas via partnering/marketing relationships and built community sites from the ground up.
- Executed high profile co-marketing deals with Warner Bros. and Atlantic Records to distribute Prodigy software on prominent music CD releases. Pioneered successful content-based retailing in such areas as cigars, music and pets.

Atlantic Records
1995 - 1996

Senior Director, New Media

- Managed staff of five; reported to SVP, Marketing.
- Built the record industry's first comprehensive New Media dept. from the ground up.
- Developed label and artist web sites from scratch. Executive Produced groundbreaking mixed-media CD/CD-ROM.
- Pioneered music industry use of streaming audio with history-making Tori Amos single. Strategized for the label in the digital frontier, negotiated all deals.

1993 - 1995

Director, Media/Interactive Services

- Oversaw staff of four; reported to VP, Artist Relations.
- Responsibilities included overseeing all online activities; creating and executing campaigns for artists on the commercial online services; and producing sites for artists.
- Created and edited all label-related media communication.

Set To Run Public Relations
1990 - 1993

Vice President, Marketing/Creative Service

- Conceptualized and directed media campaigns and strategies for wide array of recording artists, such as: Beastie Boys, New Order, David Bowie, B-52's, the Cure, LL Cool J, and Public Enemy.

Too Much Joy
1987 - 1994

Founding Member, Composer, Bassist/Vocalist

- Co-Founded, wrote, recorded, performed and toured with Giant/Warner Bros. four-piece satiric punk-pop band Too Much Joy. Released four major label albums and several independent ones, toured nationally as a headlining act and opening for the Go-Go's, Love Tractor, the Mekons, Violent Femmes, Gang of Four, Flaming Lips, Barenaked Ladies, Orchestral Maneuvers in the Dark, and many others. Billboard Top 15 Modern Rock act with MTV exposure.

Media Writer
1987 - 1990

- Wrote features and reviews for *Spin Magazine* and promotional materials including advertising copy, artist biographies, press releases, pitch letters and think pieces.
- Clients and artists included: John Mellencamp; Billy Idol; Soul Asylum; Sony Music Entertainment; Martin Bandier (CEO; EMI Music Publishing); and Relativity Records among many others.

EDUCATION

Yale University

B.A. Political Philosophy, *cum laude*

###

Exhibits 2-14 were not admitted into evidence.