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

In the Matter of	)	
ADJUSTMENT OF RATES AND TERMS FOR PREEXISTING SUBSCRIPTION SERVICES AND SATELLITE DIGITAL AUDIO RADIO SERVICES	)	**Docket No. 2006-1 CRB DSTRA**

TESTIMONY OF

JAMES GRIFFIN

Managing Director of OneHouse LLC

October 2006

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I. CREDENTIALS

I am Managing Director of OneHouse LLC, a media technology practice focused on bridging the gaps between media and technology companies.

I am a media technologist and have pursued this practice in various ways since the early 1980's, when my University of Pittsburgh and University of Kentucky communications studies ended with my taking a job in a highly-advanced electronic newsroom at a Knight-Ridder newspaper in Lexington, Kentucky, the Lexington Herald-Leader. Two and a half years later I became an International Representative for The Newspaper Guild in Washington, D.C., representing journalists and other media employees with regards to issues focused on new media and technology.

In 1992 I began work with Geffen Records as a consultant, and became its chief technology officer in 1993. While working for Geffen, my team released Aerosmith's *Head First*, a full-length on-line commercial song, recognized by the Smithsonian as an historic beginning. In 1996 Geffen's technology department was ranked by InfoWorld as among the world's best.

In 1998 I started a company called Cherry Lane Digital with Milt Okun's Cherry Lane Music Group. Cherry Lane Digital provided consulting services to Universal Studios, ABC/Disney, Microsoft, Nokia, Viacom, American Management Association, and many other companies, musicians and creative endeavors. Today that same company is called OneHouse LLC and is owned and run wholly by me.

In 1999 I testified on file sharing issues before the Senate Judiciary Committee with seven witnesses, including Lars Ulrich of Metallica and Michael Robertson of MP3.com, before Senators Orrin Hatch and Patrick Leahy, amongst others.

In 2001 I served as an expert witness in the first webcasting Copyright Arbitration Royalty Proceeding, and I recently served in this role again during the 2006 Copyright Royalty Board's webcast rate hearing.

I regularly lecture on media technology in academic environments including the Royal Society for the Arts in London, where I was recently invited to become a Fellow of the Society. I delivered numerous talks and performed extensive work for the Nokia Research Center in Helsinki, and I lectured before the Aula group in Finland. I served for two years (1997, 1998) as technologist-in-residence for the Marketspace studies program at the Harvard Business School. I have lectured at numerous business and law schools, including Northwestern, the University of Illinois, the University of California at Los Angeles, the University of California at Berkeley, the University of Texas, George Washington University, Georgetown University, and the University of Southern California.

I am a member of the National Academy of Recording Arts & Sciences, and serve on the advisory boards of numerous community groups, including the Electronic Frontier Foundation and the Future of Music Coalition. My CV is included as Attachment A to this testimony.

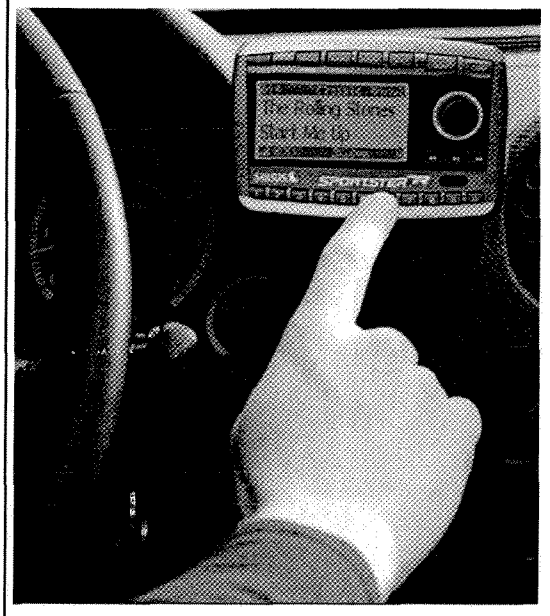
II. INTRODUCTION AND SUMMARY

Satellite Digital Audio Radio Services (SDARS) took more than a decade to progress from planning to fruition, but now they are growing in what some call the fastest, most successful adoption of pay media in history. Massive growth is now the rule at both SDARS, and lock-ins with automobile brands guarantee subscriber numbers will roughly triple or quadruple over the next five to ten years. This testimony will discuss the nature and development of this important method of digital distribution, and explain how its reliance on music content has important implications for the music marketplace as a whole.

The medium of satellite digital audio is very different from the terrestrial radio from which it has its origins, and from the other digital distribution streams with which it competes today. Its scope is continental, the quality digital, and access is conditioned on payment. Combined with precise audience data, personalization, and entry barriers against competition, this medium has attracted and retained subscribers, investors, talent, and now advertisers.

The heart and soul of this rapidly developing industry is music, with many dozens of music channels available on a single dial, and music functionality, including features that make music easy to find and play nearly anywhere, such as artist and song alerts that tell a listener whenever a favorite piece of music is playing on any satellite radio channel. One need look no further than the music-centric advertisements (see the examples below), testimonials, and habits of SDARS listeners to understand that music, and the features that make use of it, is *the* make or break aspect of the service.

SDARS ADS' MUSIC FOCUS



Sirius Sportster[1]

Delphi's XM Roady[xt2]

Music's ubiquity and importance do not, however, ensure that it will be given its due. Instead, the situation brings to mind the African proverb "when the elephants fight, the grass suffers." The elephants here are the SDARS – product-service juggernauts who compete to provide consumers with as much music and music functionality as they can in an effort to increase their subscriber base. Yet because sound recordings are licensed compulsorily, the SDARS have the opportunity to balance their books on the backs of sound recording rights holders.[3] Music *must* part with rights for which other copyright

[1] http://shop.sirius.com/edealinv/servlet/ExecMacro?nurl=control/StoreItem.vm&ctl_nbr=2640&siId=608257&catLevel=1&scLevel=0&thisCatLevel=&oldParentID=7870&catParentID=7870&scId=7875.

[2] http://www.xmradio.com/roadyxt/index.jsp

[3] For the sake of convenience and brevity, I use the terms "music" and "sound recording" interchangeably, although it is only the copyright in the sound recording of a piece of music that is at issue in these proceedings. Moreover, I am aware that SoundExchange's

holders are handsomely compensated. One need only look at the spectacular deals offered non-sound-recording rights holders (Howard Stern, Oprah Winfrey, etc.) to see that content on SDARS has serious value. The panel has the opportunity to ensure that music--content that is *by far* the most popular SDARS programming – is compensated in line with its value, just as non-music rights holders are.

The story for fair compensation, however, does not end there. SDARS offer endless amounts of high option value music to the listener, reducing the need, as well as the time and money, available for consumers to purchase and listen to phonorecords. No doubt some will boldly claim that the growth of satellite radio, rather than satiating the desire for music (and robbing the time and wallets necessary to listen to it) somehow stimulates music's purchase. But the results speak for themselves: with the fantastic growth of SDARS has come a dramatic decline in phonorecord sales, and the correlation is clearly causation for many.

Indeed, the music industry is shifting from relying on products to relying on services, from controlling the quantity and destiny of boxes and downloaded files to many streams of service revenue derived from fundamentally substitutable forms of delivery and digital distribution (*e.g.*, iTunes, interactive webcasts, cell phone services, ring tones). Music gets its value in the marketplace because it can say "no" to these distributors unless it is fairly compensated. Allowing SDARS to avoid making fair payment here is nothing less than a decision to subsidize, and thereby favor, one competitor in a crowded marketplace. No one, including myself, knows with certainty which of these many streams

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royalty is shared among copyright holders and artists. When I refer to right holders, I do not mean to exclude artists, who also benefit from the license proceeds.

will predominate ten, fifteen, or twenty years from now, but this panel should not choose for the market by giving one competitor a leg up.

My testimony proceeds as follows: I first explain how SDARS work (Part III.A) and describe how the service differs from conventional radio, and from other distribution methods like webcasting (Part III.B). I then introduce the two SDARS, XM and Sirius, and discuss how because music is by far their most popular offering, the two services compete vigorously to offer the greatest amount of music functionality possible to the consumer (Part III.C). The next section (Part III.D) observes that SDARS content is extremely valuable when it is sold in the marketplace, and argues that SDARS must pay music its fair market value as well. Those who own sound recording rights today must recoup their costs from many streams of delivery and distribution. If SDARS can draw listeners in through a superior service, that is to their credit. But they should succeed on the strength of their service, not through an artificial subsidy that is unfair to sound recording rights holders and other distribution streams. Finally, in Part III.E, I discuss the SDARS's bright financial future, which is based, among other things, on their low marginal cost structure, and their increasing penetration in the automobile market.

III. DISCUSSION

A. Satellite Digital Audio Radio Services (SDARS) Described and Defined

Discovered by Heinrich Rudolf Hertz between 1885 and 1889, radio waves have long held a fascination with their almost magical transcendental power, let alone their ability to carry sound and video. As a professor of physics at Karlsruhe Polytechnic, Hertz generated electromagnetic waves in his laboratory, proving the 1864 hypothesis of James Clerk Maxwell, who had predicted their existence and compared them to light waves.

Hertz published his discoveries in the journal *Annalen der Physik* and expanded upon them in his first book, *Untersuchungen Uber Die Ausbreitung Der Elektrischen Kraft* (Investigations on the Propagation of Electrical Energy), now considered amongst the most important contributions to science and the arts, a work that led to breakthroughs in creating the broadcast media we know today as radio and television.

Both radio and television are dependent upon the propagation of electrical energy from radio antennas, with the relative wave forms of this energy carrying the information that is interpreted as sound, images, or both in synchronization. So it is that our media channel assignments carry remnants of Heinrich's progeny: An FM (frequency modulated) radio station may refer to its relative place on the radio dial with a numeric designation, 88.1 megaHERTZ, for example, just as AM (amplitude modulated) radio station will refer to its similar numeric assignment on its dial: 560 megaHERTZ.

Acoustic Becomes Electric

With Hertz's discovery, and a great deal of broadcast development, acoustic became electric, liberating sound and video to find a shorter path from creator to audience.

Where musicians and actors once controlled their art with their feet – after all, if they were not in the room, you could neither see them nor hear them – they now watched and listened with disbelief as their sounds and images were transported over land and across great oceans, changing the world of media in much the same way as had Gutenberg more than two-hundred years earlier with his moveable type and printing press that enabled the easy replication of words and images previously scripted by hand. Electric broadcast brought the world a friction-free Gutenberg, an extraordinary development.

Electric Becomes Digital

Electric became digital within decades as International Business Machines (IBM) was founded in 1914 and was selling punch cards by the 1920's. The first commercial radio broadcast took place at roughly the same time with the KDKA broadcast of presidential election results from Pittsburgh on November 2, 1920.

Today, these whiz kids of technology, radio and digital, are married, and the once static-laden analog waveforms are now carrying zeros and ones as the foundation for precise digital transmission without pops and clicks and atmospheric distortion once common to radio broadcasting.

Together, radio and computers are nothing like their parents. Radio was local, the dial limited, the content felt free. Computers were stodgy, room-sized appliances, mobile only when moved in large trucks.

This generation of offspring, the SDARS, are continental, with an endless, pay-as-you go selection of music. They carry weather and traffic information to vehicles that float, drive and fly. A receiver will fit in your pocket and alert you whenever your favorite band is playing, whether you are listening to the music then or not.

SDARS: Satellite Digital Audio Radio Services

It was in the late 1980's that satellite radio broadcasting businesses were proposed to carry digital audio bounced from earth to space and back to listeners empowered by special receivers to listen to SDARS. By 1992 XM was incorporated and about a decade later, in 2001, the first satellite was in orbit providing initial coverage to North America.

In the interim, in April 1997, XM paid the FCC $89,999,999 for its digital audio radio service license, and Sirius paid $83,346,000. XM was the first of the SDARS to operate, launching its first two satellites in 2001. The story at XM would be repeated soon by Sirius, which had anticipated beating XM to market but instead trailed XM's satellite launch by about a year.

Evolution not Revolution

Satellite radio represented an extension of preexisting technologies when it first launched more than five years ago. Satellites had long been used to deliver a variety of information to business and individuals. The first television signal broadcast by satellite took place in 1962. And DirecTV began broadcasting satellite cable television in 1994, a full seven years before XM went on the air. It was thus not a revolution in broadcasting in 2001 when XM first broadcast its audio signal via satellite. Nor of course, did the SDARS actually design or launch their satellites themselves. Those jobs were contracted to companies like Boeing that had the requisite technical skills.

To be sure, the SDARS faced technical difficulties in making their system operable, as there is no such thing as a casual satellite system. But in terms of technical innovation – innovation that is now five years old and counting – it is difficult to credit the SDARS with having revolutionized the transmission of information. It is also important to

understand that while the satellites required large capital expenditures, they represent the type of costs that a business and its financial backers can estimate with substantial certainty, and create a type of risk that can be insured against. Indeed, XM's satellites allegedly have not performed up to specifications, and the company has received compensation for their failings.

While SDARS transmission was neither a radical step forward in terms of technology nor a particularly unusual business risk, it indisputably allowed SDARS to do things with content that had never been done before. SDARS gave listeners access to streaming audio that contained a breadth and depth of music previously unavailable on AM or FM airwaves, or available all around the country. Simply put, satellite transmission allowed audio content, and primarily music content, to be delivered to more people in more new ways than ever before.

Not Just Satellite

While satellites can and do carry the bulk of the traffic from XM and Sirius to their subscribers, they are not the only means of transmission. The orientation of the satellites to the ground-based radio receivers traveling under bridges and through "canyons" or tall buildings and other obstructions requires that in certain locations – actually, hundreds of locations – the satellite transmissions are supplemented by terrestrial "repeater" transmitters that retransmit the radio waves carrying the digits that constitute the broadcast signal from XM and Sirius.

Webcast

Furthermore, even multiple satellites and hundreds of repeaters are sometimes incapable of providing an adequate signal to the audience of radio receivers, so those

receivers are increasingly constructed with back-up sources for digital audio. It is now common to use receivers that can access the same XM or Sirius content via the Internet, wireless "Wi-Fi," cellular, or wired delivery to portable radio and computer units, which may well be indoors and located away from a window or other more direct path to the satellite signal. When these units operate in this mode, their content delivery is covered by the rates, terms and conditions set by the webcasting decisions of the Copyright Royalty Board.

Simulcast

Finally, because the SDARS wish to expose a larger crowd to their content than is represented by owners of their receivers, SDARS content is sometimes simulcast over AM-FM broadcast stations and repurposed for airlines and cable television.

For example, the popular XM radio show by Opie and Anthony, once broadcast terrestrially over AM and FM, is now broadcast simultaneously over AM-FM and satellite for several of its many daily hours of broadcast, exposing the AM-FM audience to XM satellite offerings and further publicizing the new medium. To hear the show in its entirety every day, you need satellite. Its hosts literally start their show at the AM-FM broadcast studio and walk over to the XM satellite facility for its second half.

In-flight and in-home entertainment systems carry XM and Sirius programming, too, in an effort to offer value to the systems' subscribers and exposure to XM and Sirius for the purposes of marketing.

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The conclusion is clear. SDARS today use many paths to reach their growing audience: satellite, terrestrial transmitters, the Internet in all its forms, regular AM-FM radio, and in-flight and in-home entertainment networks.

B. SDARS Are Not Like Radio – Or Anything Else

Although SDARS are called a radio service, they have little in common with AM-FM radio except the name, and SDARS are different in important ways from other distribution streams, too.

Scope

The geography of satellite's scope is unparalleled. Unlike radio, the same SDARS channels can be heard from California to Maine, and everywhere in between. Further, unlike webcasting with its bandwidth costs that increase with listenership, it does not cost any more to broadcast to 1,000,000 people than it does to broadcast to 10. Only satellite can blanket the United States with digits at little or no marginal cost. While SDARS have difficulty reaching every nook and cranny at every moment, make no mistake about it: satellite delivery measures its reach by continents, not zip codes.

Targeting

The number of channels enabled by digital satellite delivery permits the targeting of niche audiences for the purposes of delivering highly focused programming and advertising. Each service has at least one channel for every music format, and often several channels. For example, XM offers six separate country stations that play "Classic Country," "90s & Today Country," "Progressive Country," "Traditional County," "New Country Hits," and "Superstar Country Hits of 80's and 90's," respectively. Sirius offers no less than 13 different rock stations featuring "Mellow Rock," "Early Classic Rock," "Later Classic Rock," "Deeper Classic Rock," "Adult Album Rock," "Classic Hard Rock,"

"Pure Hard Rock," "Alternative Rock," "Garage Rock," "New/College/Indie Rock," "Punk, Hip-Hop, Hard Rock Mix," "Singer-Songwriters and Acoustic Rock," and "Christian Rock."

In addition to going deep in familiar genres, SDARS are full of channels that are all but absent from conventional radio: there are entire SDARS channels to devoted to blues, folk, choral, reggae, or disco music. This affords a level of narrowcast service provision unattainable by standard broadcasters and the advertisers they serve.

Quality

SDARS is by its very definition digital: the radio waveforms convey not the primary audio information but zeros and ones into which the audio and other information is embedded. As a result, the pops and clicks and atmospheric distortions of traditional radio are absent, and depending upon the codec (formula for compression and decompression) employed it can sound as good as an audio compact disc to most listeners. Some of the new SDARS codecs enable the transmission of 5.1 surround sound, six channels of information where there are otherwise only two (stereophonic) or one (monophonic). This can make a great difference in perceived sound quality, especially with respect to the reproduction of live music, and on popular portable equipment SDARS quality can be indistinguishable from purchased digital songs.

Ease of Use

Finding programming on satellite radio is much like punching a number on a television remote control. Together the SDARS have approximately 300 hundred channels, each with its own name and number (*e.g.*, Channel 74 on XM is "Bluesville"). Unlike radio there is no "tuning" to zero in on the channel. Unlike webcasting, SDARS

offer all-in-one easy to use receivers that make it simple to dial through all of the SDARS channels to see what is on.

Greater Functionality

The above features combine to make SDARS far more interactive than traditional radio. The music played by radio stations is not intended to be interactive: music from a few genres is broadcast to large groups of people who have no way of knowing when a particular song or artist is being played on some other channel. The SDARS offer entirely different functionality with their deep dials with almost unlimited choice that ensure that a listener can always find songs that he likes. Combine this with the alert feature – which monitors the other channels for you and tells you when even your most obscure favorite artist is on the air – and it can truly be said that SDARS are more interactive than radio, including in ways that even webcasting is not. This is particularly the case when we consider the easy to use hardware and the nationwide coverage the SDARS provide.

Conditional

The digital delivery model of the SDARS enables conditional access to the data stream, empowering the providers to charge money for listening to the content provided. It also permits XM and Sirius to restrict access to certain channels for purposes of age restriction or other limiting access criteria.

Entry Barriers

SDARS face no competition from new entrants to their medium, as it is restricted to two satellite providers for the United States. Every other medium has either some competition or unlimited competition from new and existing services.

Metrics

Each of the SDARS knows who is in its audience, their names and addresses, their phone numbers, e-mail addresses and credit card information. The SDARS know precisely which equipment the listener is using, and can count and contact its crowd. Radio as we know it offers none of these advantages.

C. The Two SDARS Are Competing Using Sound Recording Rights As A Weapon

The two satellite digital audio radio services are, as expected, engaged in a fierce on-going competition for the affection of those tens of millions of Americans and others willing to pay money for access to digital media (and those advertisers trying to reach them).

The prime draw that each of the SDARS can hold out is music. To be sure, the SDARS also offer non-music content as a means of distinguishing themselves (and for which they pay high market-based prices), but music and music functionality are the broad base of SDARS service. They grew their services in large part based on music, and without music there would be no critical mass of listeners sufficient to support the service in the first place.

Given that music is key, it has fostered competition between the SDARS to make their music offerings as attractive as possible. Thus, choice and interactivity have become weapons in the battle between these competitors with each daring the other further across the line demarcating the balance between performance (the traditional domain of radio) and distribution (the stuff of sound recordings).

1. The Competitors

XM, headquartered in the nation's capital, was the first satellite digital audio radio service, and it remains the largest, with over 700 employees serving over seven million subscribers. The latest 10-Q filing by XM with the United States Securities and Exchange Commission tells the current story in their own words:

> We are America's leading satellite radio service company, providing music, news, talk, information, entertainment and sports programming for reception by vehicle, home and portable radios nationwide and over the Internet to over 7.0 million subscribers. Our basic monthly subscription fee is $12.95. We believe XM Radio appeals to consumers because of our innovative and diverse programming, nationwide coverage, many commercial-free music channels and digital sound quality.
>
> Our 2006 channel lineup includes more than 170 digital channels of choice from coast to coast. We broadcast from our studios in Washington, DC, New York City, including Jazz at Lincoln Center, and the Country Music Hall of Fame in Nashville. We have added new and innovative programming to our core channel categories of music, sports, news, talk and entertainment. Also included in the XM Radio service, at no additional charge, are the XM customizable sports and stock tickers available to users of certain receivers and other online services.[4]

Sirius, based in Manhattan, reaches just under five million paid receivers, trails XM's audience base by more than two million subscribers and has 614 employees at last count. Sirius made a similar 10-Q filing with the U.S. Securities and Exchange commission, so their status too can be cast in their light:

> We are a satellite radio provider in the United States. We currently broadcast 133 channels of programming to listeners

[4] XM Satellite Radio Holdings, Inc., Form 10-Q Executive Summary at 29 (filed August 4, 2006) (available online at www.sec.gov/Archives/edgar/data/1091530/000119312506162536/d10q.htm).

> across the country. We offer 69 channels of 100% commercial-free music and feature 64 channels of sports, news, talk, entertainment, traffic and weather for a monthly subscription fee of $12.95.
>
> We broadcast through our proprietary satellite radio system, which currently consists of three orbiting satellites, 139 terrestrial repeaters that receive and retransmit our signal, a satellite uplink facility and our studios. Subscribers receive our service through SIRIUS radios, which are sold by automakers, consumer electronics retailers, mobile audio dealers and through our website. Subscribers can also receive our music channels and certain other channels over the Internet. As of June 30, 2006, we had 4,678,207 subscribers.
>
> Our music channels are also available to DISH satellite television subscribers and certain of our music channels are offered to Sprint subscribers over multi-media handsets. We also offer traffic and weather data services for a separate fee. Subscribers to DISH satellite television, Sprint and our traffic and weather data services are not included in our subscriber count.[5]

In summary, XM leads Sirius in subscribers with 7.1 million to Sirius' near-5 million, but Sirius the past two quarters has added subscribers at a faster rate.[6]

The two companies charge essentially the same price for the same services, as the recent advertisements from their websites show.

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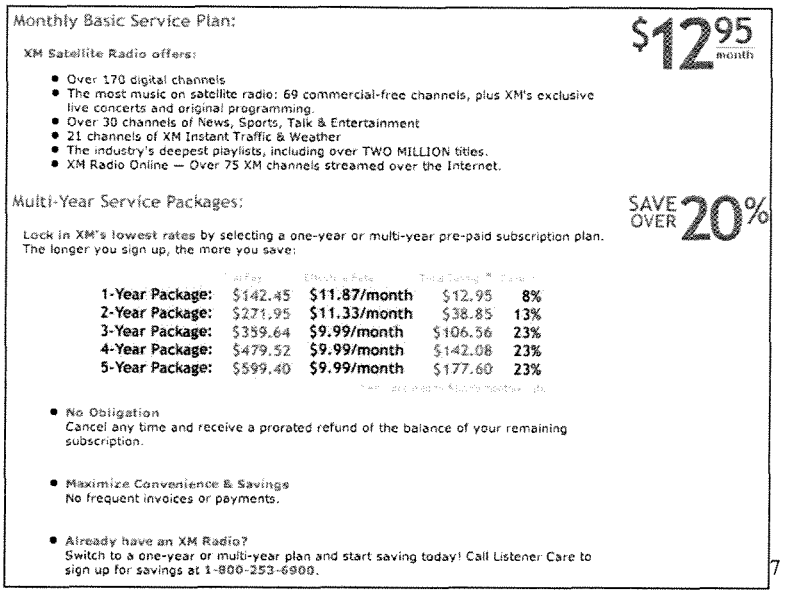
[5] Sirius Satellite Radio Inc., 10-Q, (filed August 7, 2006), available online at http://www.shareholder.com/Common/Edgar/908937/950117-06-3434/06-00.pdf.

[6] Katy Bachman, *Sirius Launches Internet Radio*, MediaWeek, October 16, 2006, http://www.mediaweek.com/mw/search/article_display.jsp?vnu_content_id=1003255035.



Monthly Basic Service Plan: $12.95/month

XM Satellite Radio offers:

- Over 170 digital channels
- The most music on satellite radio: 69 commercial-free channels, plus XM's exclusive live concerts and original programming.
- Over 30 channels of News, Sports, Talk & Entertainment
- 21 channels of XM Instant Traffic & Weather
- The industry's deepest playlists, including over TWO MILLION titles.
- XM Radio Online — Over 75 XM channels streamed over the Internet.

Multi-Year Service Packages: SAVE OVER 20%

Lock in XM's lowest rates by selecting a one-year or multi-year pre-paid subscription plan. The longer you sign up, the more you save:

1-Year Package:	$142.45	$11.87/month	$12.95	8%
2-Year Package:	$271.95	$11.33/month	$38.85	13%
3-Year Package:	$359.64	$9.99/month	$106.56	23%
4-Year Package:	$479.52	$9.99/month	$142.08	23%
5-Year Package:	$599.40	$9.99/month	$177.60	23%

- No Obligation
  Cancel any time and receive a prorated refund of the balance of your remaining subscription.
- Maximize Convenience & Savings
  No frequent invoices or payments.
- Already have an XM Radio?
  Switch to a one-year or multi-year plan and start saving today! Call Listener Care to sign up for savings at 1-800-253-6900.

[7]

XM

GO ANNUALLY AND SAVE — SIRIUS BARGAIN

We've got two great deals that save you money. Our annual subscription, where you pay for 11 months and get **one month free**; and our two-year subscription, where you pay for only 21 months and get **three months free**.

1 YEAR $142.45 w/ 1 MONTH FREE

2 YEARS $271.95 w/ 3 MONTHS FREE

GO MONTH TO MONTH — GET THE BEST FOR ONLY

Pay just $12.95 monthly. That's a lot of radio for a little cash, plus the freedom to pay as you go.

$12.95/mo

GO ON & ON & ON — NEVER PAY ANOTHER BILL

Subscribe for the lifetime of your radio! Pay ONLY $499.99 once and forget about bills. Plus, act soon and you can transfer your lifetime subscription to a different SIRIUS Receiver when you upgrade or replace your radio — up to three times — for only $75 per radio. Offer ends January 31, 2007. Hurry!

$499.99

MULTI-SUBSCRIPTION SAVINGS — RADIOS 2-4

Listen to SIRIUS wherever you are. Subscribers save big on SIRIUS when they activate additional radios. Get up to three additional subscriptions for only $6.99 a month each. Interested? Check out our portable Plug & Play radios.

$6.99/mo

[8]

SIRIUS

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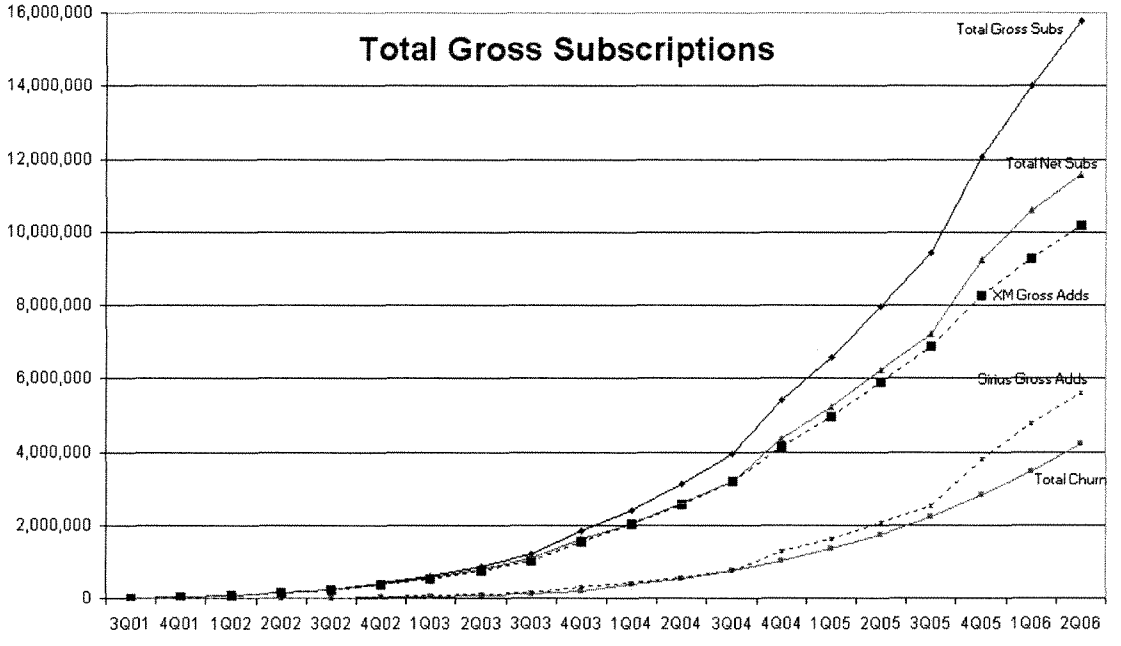
[7] XM web site, opening screen, captured on October 16, 2006, available online at http://www/xmradio.com.

[8] Screen capture from Sirius' website plan offerings, October 16, 2006, available on-line at http://www.sirius.com.

XM last year recorded one-year sales growth of 128.38 percent[9] – compared to Sirius' one-year sales growth of 262 percent.[10] As of October 16, 2006, XM had a market capitalization of $3,231,730,000 to Sirius's $5,395,640,000. In August 2005, Satellite Radio Techworld charted the Total Gross Subscriptions of the two services combined as follows:



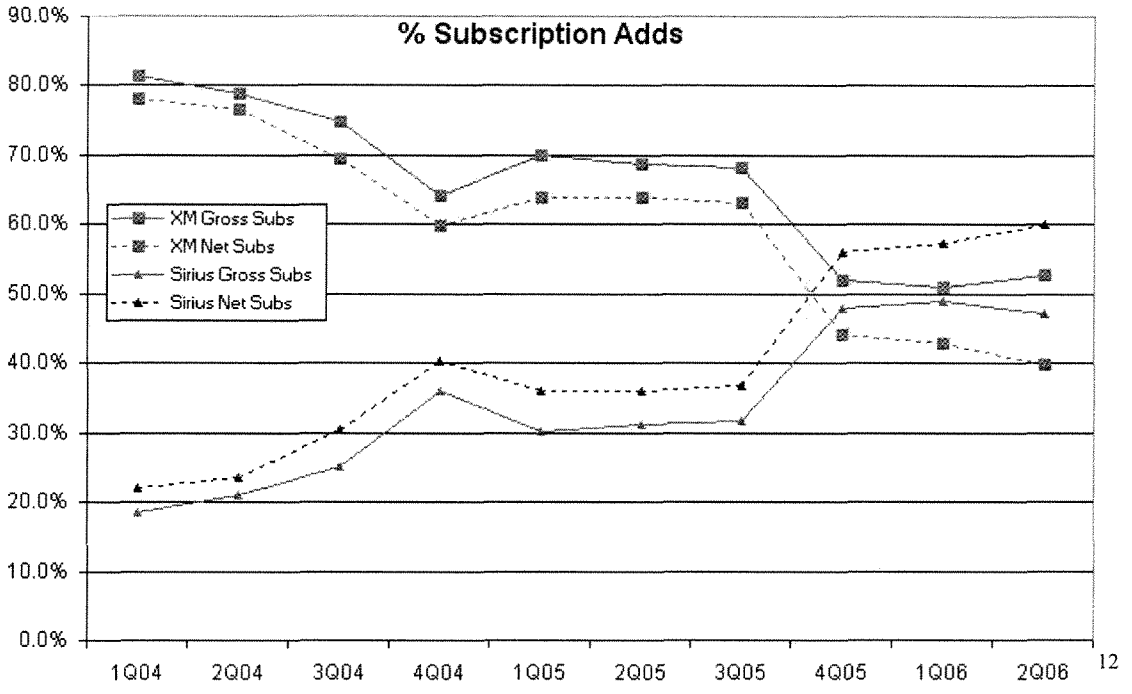
[11]

Percentage of New Subscriber Growth

One measure for the competition between the services is the battle for new subscribers. Where XM once held a commanding 80 percent of the market for new

[9] XM Radio 2005 Annual Report, Letter to Stockholders, available at http://library.corporate-ir.net/library/11/115/115922/items/199733/XMAR05.pdf.
[10] Sirius Satellite Radio 2005 Annual Report, Letter to Stockholders, available at http://investor.sirius.com/downloads/2005AR.pdf.
[11] *Is the Satellite Radio Subscription Model Dead?*, Satellite Radio Techworld, August 5, 2006, http://satelliteradiotechworld.blogspot.com/search?updated-max=2006-10-03T05%3A55%3A00-05%3A00&max-results=20.

subscribers, Sirius now has taken the lead with almost a 60 percent share of new sign-ups. Again, Satellite Radio Techworld charted the progress in August of this year:

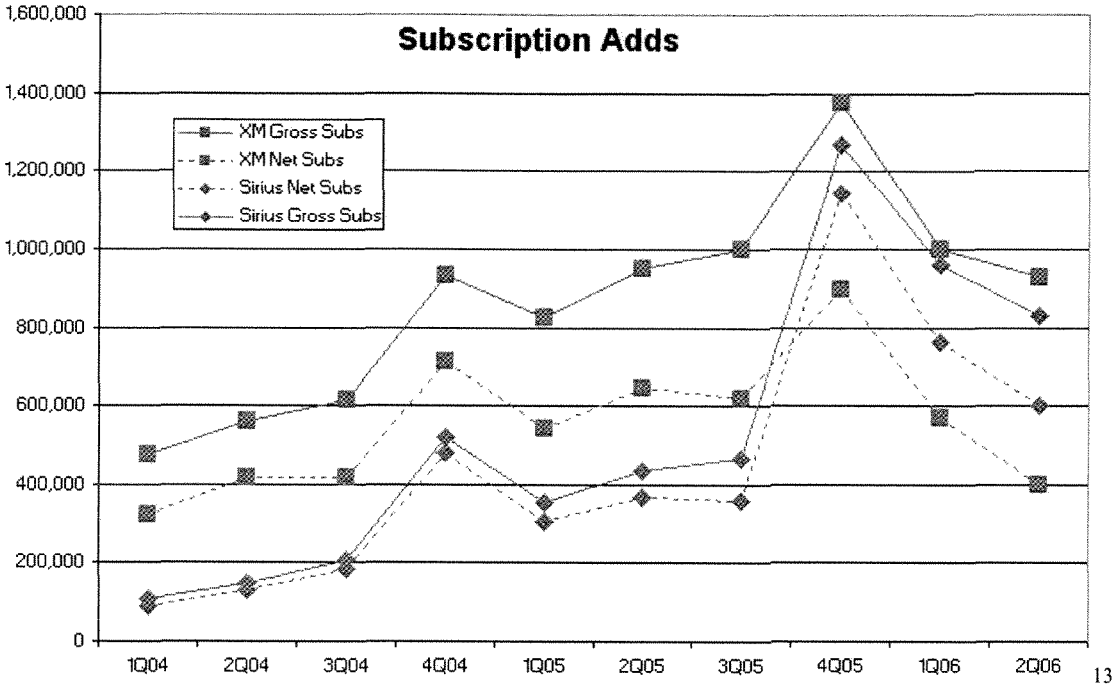


[12]

Total Numbers of Gross and New Subscribers

Another measure for subscriber growth is to look at total numbers of new subscribers, both gross and net. Satellite Radio Techworld charted these changes in August of 2006:

[12] *Quarterly Subscriptions as of 2Q06*, Satellite Radio Techworld, Aug. 1 2006, http://satelliteradiotechworld.blogspot.com/2006/08/quarterly-subscriptions-as-of-2q06.html.


Subscription Adds
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
XM Gross Subs
XM Net Subs
Sirius Net Subs
Sirius Gross Subs
1Q04
2Q04
3Q04
4Q04
1Q05
2Q05
3Q05
4Q05
1Q06
2Q06
[13]

[13] *Id.*

2. It's The Music

The key to the SDARS' attraction is the availability of many channels of music, most of it commercial-free and all of it digital. The SDARS understand this. Lee Abrams, the third employee hired at XM and now its Chief Creative Officer, has explained how the company renamed its satellites from XM-1 and XM-2 to Rock and Roll, respectively, and how XM-3 and XM-4 are similarly named Rhythm and Blues. To date, XM has not named a satellite after a talk show host or sports league.

SDARS advertising is saturated with references to the services' music offerings. I obtained copies of the 21 different SDARS advertisements that ran on national broadcast or national cable television between August 2005 and August 2006, from VMS, an advertising-monitoring company. All but five featured the SDARS' music programming offerings. The ads typically stress the breadth of the service's music offerings. For example, in the Sirius advertisement "Blue People Say It's Better Than Radio," a young woman says, "It feels like you got every song ever made. Rock, pop, hip hop, no commercials."[14] And as part of XM's current "Are You On" Campaign, XM is running advertisements on both television and its website that feature animated characters enjoying music.[15]

One can search in vain for an advertising photograph of an SDARS device that does not display it showing music programming on its screen. And XM website's opening "splash screen" highlights its primary offering with an image of a turntable for playing sound recordings and trumpeting its choice of 170 programming channels:

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[14] *See Blue People Say It's Better Than Radio* (SX Ex. 003 DP); *see also Woman Drives Car With Boyfriend On Roof* (SX Ex. 003 DP).

[15] *See Music Changes Hair, A Switch Within Us*, (SX Ex. 003 DP); *see also* http://www.xmradio.com/on/index.html?refsrc=hp_ex, captured on October 26, 2006.

[16]

The XM and Sirius websites also contain testimonials from customers who stress the importance of music to the services:

> THANK YOU, THANK YOU, THANK YOU... Since I activated my service two weeks ago I have yet to listen to anything other than the XM format. Unbelievable sound quality, content and selection. No more need to ever buy another CD. The service is a bargain at twice the price. Your loyal listener for life.
>
> Mike S.
> Simi Valley, California[17]
>
> XM is like having the biggest cd changer go with you everywhere. Say goodbye to all of those annoying commercials and say hello to XM.
>
> Derek K.
> Macomb, Michigan[18]
>
> I installed the [Sirius] Starmate in my car since I have a 55 mile commute. I don't even have to drag all my CDs around

[16] XM web site, opening screen, captured on October 16, 2006, available online at http://www/xmradio.com.
[17] http://testimonials.xmradio.com/ captured on October 18, 2006.
[18] http://testimonials.xmradio.com/xm_experience/xm_experience_more.html, captured on October 18, 2006.

> anymore! I have gotten 2 of my friends Starmates as well. Thanks for providing such a fantastic alternative to boring standard FM radio.
>
> Tony Bosco, 51, Signal Mountain, TN
> Mechanical Engineer[19]
>
> Good new music on FM radio just doesn't exist. If I want to hear the same ten songs every three hours, I can just put my MP3 player on repeat. Every time I turn on my SIRIUS radio I hear something new.
>
> Omar Moustafa, 30, Programmer[20]

Sirius makes the point clearly as well in its advertisements for its SDARS service for business owners.

> Tired of paying high fees for business music? Or maybe you wanted to have music for your business but it was always too expensive. **Now each month, for just the cost of a couple of CDs,** SIRIUS brings you over half a million COMMERCIAL-FREE songs in 67 diverse channels, 24/7. From pop to jazz, from blues to classical, from standards to classic rock - whatever suits your business and pleases your customers, we've got it.[21]

These anecdotes are emblematic of larger truths about user listening practices. I have reviewed the survey results obtained by Dr. Yoram Wind in this case, and I am not surprised in the least that they reveal that music is three or four more times important to the consumer than any other SDARS genre. When nearly 50 percent of respondents name music as the most important programming genre, while no other genre is cited by 13

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[19] http://www.sirius.com/servlet/ContentServer?pagename=Sirius/Page&c=WhatIsHome&cid=1107787276710, captured on October 18, 2006.

[20] *Id.*

[21] http://www.sirius.com/servlet/ContentServer?pagename=Sirius/Page&c=FlexContent&cid=1059597407488 (emphasis added).

percent of respondents, it paints a clear picture of where the value in SDARS programming lies.

Indeed, it is misleading even to speak of non-music genres because non-music channels constantly use music to support their programming aims. I devoted many hours of listening to both XM and Sirius non-music channels, and can report that extensive use of music is made on all these channels. The Howard Stern channels, sports, news and other offerings all used music both as feature elements and supplementary portions of their programming.

The right to choose music from an unlimited buffet as a programmer or disc jockey contributes mightily to the way these announcers perform their shows. Howard Stern, for example, would not be the same show if he were not able to play any song at any time he chooses, and this is also true for other "non-music" shows on the SDARS.

The SDARS' formula for delivering popular music is hardly a mystery. Music is desirable, and SDARS are popular because they play more music and more varieties of music than does terrestrial radio. There is an audience for each type of music that SDARS provide, whether it is soul, reggae, or big band jazz. It is as if someone opened a music store selling all types of music when the competition had been limited to selling only the most popular and mainstream music.

3. From Channel We To Channel Me

Given that music is satellite radio's great common attractor, it should come as no surprise that the SDARS compete fiercely with their music offerings and attempt to offer listeners as much option value as possible. By "option value" I mean the ability to listen to music of your choice, where and when you want it. Option value is attractive to customers because it represents a better bang for their buck—and it obviates the need to obtain the

music from other sources; option value increases for music that is "pulled" by you, rather than "pushed" to you. We pay extra for option value in music, and the option to hear it where and when you want it is the principal reason we buy a sound recording of that music.

As alluded to above, however, SDARS is not radio precisely because it has more option value. Option value comes in the first instance from the breadth and depth of the SDARS dial. When you can choose from 13 rock and roll stations alone, the chances are good you will find the rock music that you like.

This option value is further enhanced by competition between the SDARS to provide ever-higher quality sound. Like a jeweler offering 21 karat gold where others offer only 14 karat, XM is now stepping up to offer music in six channels (five – front left, front right, center, rear left and rear right – plus a subwoofer) of surround sound, literally offering more of the digits that constitute a phonorecord than do their competitors.[22]

However, because the SDARS ultimately have programming offerings of similar depth and breadth, the race has therefore expanded from software (music and media) to hardware (the products and services that enable the software). Thus, option value also comes from the incredible and ever-escalating portability of the devices. When you can listen to your music without interruption driving from work to home, or from Oregon to Oklahoma, you have control. And when your car SDARS device fits in your pocket so you can continue listening while walking down the street, that provides control, too.

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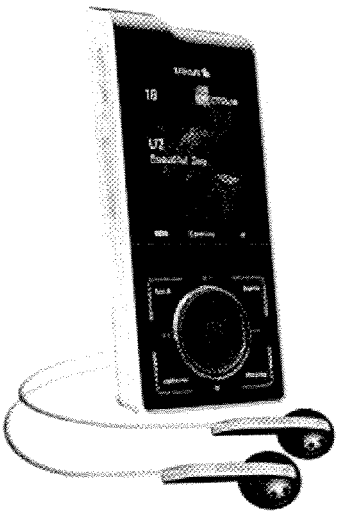
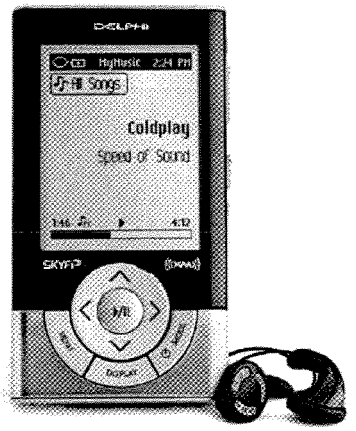
[22] http://www.orbitcast.com/archives/xm-satellite-radio-launches-xm-hd-51-surround-music-channels.html.



Sirius Stilleto
"Sleek, stylish, personal, powerful, and completely portable."[23]



XM SKYFi3
"A lightweight unit . . . with a built-in receiver [and] 'antenna' headphones. . .for true portability. [Also] ideal for car use."[24]

But the competition is not limited just to portability. The SDARS are also competing to see who can provide the user with the most "pull" like experience. Typically, turning push into pull is forbidden by statute or otherwise limited by contractual terms and conditions extended in direct licensing negotiations. It is the unusual sound recording owner or publisher that intends to blur the distinction between push and pull, between that which is chock full of option value and that which is intended to have far less. Not surprisingly, it is precisely this sort of disintermediation that has become the prime weapon in the product and service battle between XM and Sirius.

Thus, we now see players that allow users to rewind and fast forward through pieces of music, to record hours of music at a time for subsequent playback, and

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[23] http://shop.sirius.com/edealinv/servlet/ExecMacro?nurl=control/StoreItem.vm&ctl_nbr=2640&siId=1745656&catLevel=1&scLevel=1&thisCatLevel=&oldParentID=7870&catParentID=7874&scId=7874.

[24] http://reviews.cnet.com/4531-10921_7-6641066.html.

automatically create perfect playlists with the names and artists of every song recorded. It is my understanding that whether such features are within the scope of sound recording performance license is an issue several interested parties currently are litigating. If such recording functionality is determined to be outside the compulsory license, then it constitutes activity that must be separately licensed outside of the statute and this proceeding. If such features are found to be within the license, however, then that would certainly represent an increase in option value that the compulsory rate must take into account.

Although the legality of *some* SDARS store and save functions is being litigated, that litigation extends only to the SDARS hardware that is licensed by the SDARS themselves. There are third-party "stream-ripping" software products like Replay Radio that allow the user to record songs for future use in the same way. The user simply connects his satellite radio receiver to his computer and makes a perfect permanent digital copy of hours of satellite radio programming. Stream-ripping is real—the software is available on-line—and it demonstrates just how much option value can be gleaned from music that is ostensibly delivered through a push mechanism.

Even leaving aside such functionality, the battle to provide option value still rages. At the forefront of this battle are XM players that will alert you whenever a favorite artist or song is being played on *any* XM channel, regardless of whether you are listening to it or not. The user's guide and operating manual for the new Delphi SKYFi3 enumerates the personalization features available on this device.

TuneSelect™
TuneSelect can alert you whenever one of your favorite songs or artists is playing on any XM channel.

1. Press the **Menu** button, scroll to "Settings" and press the **Play/Pause** button to select it.
2. Scroll to "Preferences" and press the **Play/Pause** button to select it.
3. Scroll to "TuneSelect" and press the **Play/Pause** button to select it.
4. Scroll to "Alerts" and press the **Play/Pause** button to toggle alerts on and off.
5. Scroll to "Edit List" and press the **Play/Pause** button to select it.
6. Scroll to "Add Tune Select" and press the **Play/Pause** button to select it.
7. Press the **Play/Pause** button to select "Artist" or "Song" for entry. Once you have completed your entries, scroll to "Accept" and press the **Play/Pause** button.

As you populate the list with entries, you can follow the steps above to access TuneSelect, select an item from the list, press the **Play/Pause** button then select options such as delete or activating alerts.

Saving and Retrieving Favorite Artists/Songs

1. When you hear one of your favorite songs or artists, press the **Menu** button, scroll to "Bookmark" and press the **Play/Pause** button. At the next menu, scroll to either "Tune Select Artist" or "Tune Select Song" and press the **Play/Pause** button to confirm.
2. When any song or artist on the TuneSelect list is currently playing on any XM channel, your SKYFi3 will beep and flash "Artist/Song Found" on the display. Press the **Play/Pause** button to switch to that channel.[25]

These devices are portable, they are affordable (many sell for around $200), and they give the user the chance to always know whenever their favorite music is playing on any of XM's many channels. That provides the user with an experience of on-demand listening that is wholly incomparable to traditional push services.

Essentially, these personalization features take what was once Channel We – a shared listening experience – and transform it to Channel Me, a personalized media delivery service with the just-in-time delivery of custom content. What was push becomes more like pull – you decide more of what you hear, and less of what you hear is pushed by others without your input. What was broadcast becomes truly narrowcast.

In sum, SDARS are competing to create option value for their most valuable content, music. The consumer benefits from option value; the question is whether sound recording rights holders will be fairly compensated for the value music is providing.

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[25] Page 46, SKYFi3 Operating Manual, http://skyfi3.delphi.com/images/SKYFi3_user_guide.pdf.

D. The Value Of Sound Recording Rights In A Multistream World

That music is what makes the SDARS run does not guarantee that sound recording rights holders will be fairly compensated. In the marketplace, value is revealed when a content holder can say "no" to a deal. The spectacular deals inked by Howard Stern, Oprah Winfrey, Major League Baseball, and others remove any doubt that SDARS do not highly value the content they buy on the market. Unlike these non-music content creators, however, the value of music cannot be revealed in the marketplace directly because sound recording rights holders and artists cannot say "no."

That legal and economic reality charges this panel with determining the appropriate rate for music. Given that music is the backbone of the SDARS service--far more so than any particular non-content provider, sound recording right holders deserves to be substantially compensated in the same way. The alternative is to allow the SDARS to obtain music at a subsidized rate, one that does not reflect the value music would obtain if it could say "no" to the SDARS.

Subsidization should be of particular concern to this panel because of the music marketplace's changing nature. Where recording companies once relied on a single medium (the LP, the CD, etc.) to earn a return for their investment, they now rely on many streams of distribution, with digital distribution growing in prominence every year. At some level all of these streams are substitutable: music obtained from one distribution method reduces the need to obtain it somewhere else. Thus, whether it is because of the option value that SDARS provide, or simply the time and money the service consumes, SDARS users will have less need and ability to rely on other distribution streams. If SDARS offer the best service, they are entitled to their customers. But they should not be given an artificial leg up in the competition through a sub-market rate for the music they

are using to entice those customers. This panel was not convened to pick winners and losers for the digital future, and it should ensure that the license is set at a rate that does not subsidize the use of one distribution stream over another.

1. Comparisons To Non-Music Content

There is no doubt that content broadcast on SDARS has value; indeed, it has very high value. The market tells us this through the deals that the SDARS have made with various non-music content providers, but the market is only informative in such cases because those content providers had the right to walk away from the deal.

For example, Howard Stern's deal has been reported to have a net present value of $415,000,000 over five years. Similarly, XM's three-year-contract with Oprah and Friends is reputed to be $55 million (and Oprah gets half the advertising revenue) for a *30-minutes* voice-time commitment on each of 39 annual weeks to XM. Further, XM has agreed to pay $650 million for an 11-year contract to broadcast Major League Baseball games.

$83 million per year for two Howard Stern channels, $55 million over three years for 30 minutes per week of Oprah Winfrey's content, and $650 million dollars for baseball games through 2016. The numbers are striking, but it would be a mistake to think that Howard Stern, Oprah Winfrey, and Major League Baseball are not worth what they get. Instead they prove the opposite conclusion: that SDARS (and their financial backers) expect to earn returns of hundreds of millions of dollars on the content. If this were not so, the Howard Sterns of the world could not command such a premium in the marketplace.

Yet this content is a mere fraction of the SDARS' programming options. While it is popular, it is nowhere near as popular as music programming for the reasons discussed above. Thus, these high payments demonstrate music's high (and, in fact, higher) value. Indeed, they understate it, as it is unlikely these additional channels (and the revenues they

generate) could even exist without the solid base of compulsory sound recording rights acquired by XM and Sirius.

The SDARS are quick to argue that this non-music content is exclusive to their service and therefore more valuable than music, which is available from multiple sources. But as anyone who has watched a baseball game or the Oprah Winfrey show knows (or even Howard Stern's new on-demand cable show), this non-music content can hardly be called exclusive. Instead, the real difference is that sound recording copyright owners cannot walk away from dealing with the SDARS while these other content providers can.

2. Substitution Among Many Streams

Music's inability to say "no" has important consequences against the backdrop of today's market for music. In the old days, music was generally available through a limited number of media. You could listen to music on the radio or you could buy an LP (or eventually a cassette tape or a CD.) Today, the consumer enjoys choice among a large (and increasing) number of distribution methods. CD sales are still important, but they are an ever-declining segment in a market that now includes iTunes direct downloads, Napster webcasting, Sprint Power Vision cell phone streaming, and dozens of other formats.

Having lost its primary warhorse, sound recording copyright owners now must recoup their costs from these many streams of distribution. For the most part, music can do this because they can negotiate in the market with these distributors to obtain a fair return for their content. A compulsory license, however, has the potential to upset this balance by subsidizing one distribution scheme over another. If SDARS pay less for the value they derive from music, they can charge a sub-market rate for that music. All else being equal, consumers will flock to these sub-market rates to obtain their music, unfairly privileging the SDARS against their less-fortunate market based competitors. The market

is not blind to this phenomenon. Just last year Citigroup issued a hold on Warner Music Group stock because of the view that satellite radio was cannibalizing CD sales.[26]

Put another way, SDARS already enjoy a substitution effect in their favor. Whether the substitution results from the high option value the service offers (*e.g.*, being able to listen to a 24/7 folk channel reduces the need to buy folk CDs), or simply from the fact that listening to SDARS consumes time and money that otherwise would be spent on other forms of music, SDARS will draw consumers away from other means of distribution. That is fair so long as the substitution is revenue neutral with respect to the sound recording content at issue. SDARS should be applauded if they have a superior service that allows them to attract customers away from other distribution schemes. But it is competition in the market that should decide which service comes out on top, not a sub-competitive rate that is set artificially.

Ultimately, no one knows which distribution scheme or schemes will prove to be triumphant over the next ten or fifteen years. As I discuss in the next section, the SDARS certainly have a bright enough future to make them a very legitimate competitor. But competition is the key word here. The stakes are high for digital distribution; what used to be a novel sideshow has become the main event as digital distribution platforms become more prevalent. It would be inappropriate for this panel to pick SDARS as the winner in this digital competition by giving them access to sound recordings at lower rates than what the market would allow.

[26] Citigroup research report on Warner Music Group (Sept. 22, 2005).

E. SDARS Are Prospering And Growing

The satellite radio industry has a distinctive economic structure. It has faced high start-up costs on the front end, but now with its infrastructure in place it is enjoying lower costs as it adds subscribers. In addition, satellite radio is taking increasing advantage of other revenues streams, such as advertising and selling weather information to pilots. Although satellite radio has not yet turned a profit, by all accounts it will do so in the very short term, likely as early as 2008. From then on out, satellite radio is expected to perform extremely well financially. Indeed, the projections are sufficiently high such that even a very substantial increase in the license rate will not dent the profits.

1. Revenues

I will spare the reader a restatement of the massive growth in subscribers and revenues, facts already established previously in this testimony. Much of the future of these companies depends on whether they continue to grow, and the result is therefore somewhat speculative. Reasonable people can differ, of course, but it is the rare or lone market analyst that suggests holders of XM or Sirius stock sell their holdings. Indeed, quite the contrary, a substantial majority of all analysts followed by the Wall Street Journal have favorable Buy, Strong Buy or Hold ratings on both of these stocks.

Their attitudes can be summed up by Forbes columnist Marilyn Cohen, writing in the most recent issue of Forbes on-line:

> The newest frontier is satellite radio, available by subscription. Wall Street's skeptics say that Sirius Satellite Radio and XM Satellite Radio Holdings are going to run out of listeners willing to pay $13 a month. But I see plenty of big spenders out there, the same people who pay $70 for cable television and spend $3.55 a day for a Starbucks cappuccino. This new technology for radio listeners has expanded our choices and changed audio entertainment just as thoroughly as cable changed television. It

> took a few years for cable and satellite television to catch on. Just give this concept time.[27]

More importantly, there is good reason to believe this growth will continue due to existing, finalized automobile OEM contracts, which are explored in the next section.

2. Automobile Contracts

Automobile contracts or "lock-ins" bring both exclusive and non-exclusive relationships that make it likely that in coming years every new automobile that leaves the lot from any of these dealers can have an activated SDARS radio in the car. This alone offers a reliable assurance that XM and Sirius will continue to see substantial subscriber growth over the coming decades.

XM has commitments from Audi, Buick, Cadillac, Chevrolet, Freightliner, GM, Infinity, Isuzu, Lexus, Nissan, Pontiac, Toyota, Volkswagen, Saab, Honda, Acura and Hyundai to offer or guarantee installation in a portion or all of the automobiles sold by these manufacturers.

Sirius has a similar list of commitments: Aston Martin, Audi, BMW, Daimler-Chrysler, Dodge, Ford, Infiniti, Jaguar, Jeep, Land Rover, Lincoln, Mini, Mazda, Mercedes-Benz, Mercury, Nissan, Volvo, and Winnebago Industries.

The newest development is an agreement between XM and Acura to install XM receivers in pre-owned automobiles sold by Acura dealers. This is sure to become a new trend in the competition between XM and Sirius, and a sure source of new revenue over the coming five to ten years.

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[27] Marilyn Cohen, *Radio Days*, Forbes.com, Oct. 30, 2006, http://www.forbes.com/forbes/2006/1030/236.html (internal citations omitted).

Bottom-line, the advantage of automobile relationships cannot be overstated. Any product or service with guaranteed installation and activation in over a dozen car makers has a bright future.

3. Other partnerships

Each of the SDARS is making alliances with marketing partners that assure additional exposure and subscribers. Predictably, they have selected – and been selected by – partners with potential SDARS audiences.

For example, XM has announced partnerships with Avis, jetBlue, Air Tran, United and DirecTV. Sirius has also announced partners: Monaco, Radio Shack, Dish Network, and Hertz. Rental car companies bring real income, as do retail partners and airline delivery, not to mention the marketing advantages that accrues from the additional exposure.

4. Advertising Revenues

While both XM and Sirius tout their line-up of commercial-free music channels, not all their channels are commercial-free, nor are all the XM music channels commercial-free. As with the early days of cable, what was once touted as commercial-free pay television is now simply pay television, with some of the channels lacking commercials and the trend most decidedly towards growing revenues from advertising.

For example, Howard Stern currently reportedly charges approximately $9,000 per live read commercial on his Sirius show, and a recorded standard spot goes for $6,000. Further, Opie and Anthony reportedly receive $250 to $300 per commercial on XM.

As a percentage of revenues, advertising was two percent of SDARS revenues in 2005, and it appears 2006 will end with advertising constituting a full five percent of

revenue, more than doubling within the year. Each company already has cleared at least $20 to $30 million for the year to date in 2006.

MediaWeek's Katy Bachman noted the fundamental shift to SDARS advertising in a recent column:

> As the network radio upfront gets underway, Internet radio and satellite radio this year are officially players after bum-rushing the marketplace last year to steal share. Now, advertisers such as Pfizer, Geico and Procter & Gamble have included both satellite and Internet radio in their radio budgets. Walgreens and Home Depot, which have already made their buys in traditional network radio are considering the new media as well.
>
> While neither Internet nor satellite radio is likely to overtake traditional network radio buys anytime soon, both are becoming strong options and could help wake up the sleepy radio segment, down 2.6 percent last year.[28]

She was more specific about the role of satellite services:

> Satellite is also fine-tuning its pitch. Today (Oct. 9), XM Satellite Radio is hosting an upfront presentation, capped off by a Sting concert from XM's Artist Confidential series.
>
> "We'll never replace network radio, but we've reached a critical mass that has great appeal to national advertisers," said D. Scott Karnedy, senior vp of sales/marketing solutions for XM.
>
> Thanks to new programming such as Oprah & Friends, XM sales to date have exceeded $30 million, up from $20 million for all of 2005. "We're anticipating a much higher sellout than last year, similar to traditional networks' 30 to 40 percent," Karnedy said. [29]

Sirius is joining this revenue party:

> XM rival Sirius Satellite Radio is also bullish headed in to the upfront. "Every day is an upfront here," said Scott Greenstein,

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[28] Katy Bachman, *Satellite Buoy Radio's Upfronts*, MediaWeek, Internet, Oct, 9, 2006, http://www.mediaweek.com/mw/news/recent_display.jsp?vnu_content_id=1003222155.

[29] *Id.*

> president of entertainment and sports for Sirius, home of Howard Stern and radio coverage of the National Football League. "Some of the money is coming out of network radio, some of it from local and we're developing new advertisers," he said. As of Aug. 1, Sirius had booked $22 million in advertising from advertisers such as P&G, Heineken, Verizon and HBO, compared to $6 million for all of 2005.[30]

5. Other Revenue Streams

Music programming subscriptions, advertising and advanced hardware sales are not the only sources of revenue for SDARS, which are increasingly selling access to their wireless digital delivery service to others who want digital carriage.

Businesses buy music from the SDARS, too, as do automobile manufacturers, purveyors of traffic and navigation displays, and weather reporting services for pilots, boaters and emergency responders. (See advertising examples below, *infra* nn. 31-33).

In addition, a new form of revenue has arisen in the form of licensing to foreign subsidiaries. Sirius and XM now have Canadian counterparts to whom they license their rights, including music, non-music and other programming.

An example of such a deal was reported by XM in its last 10-Q filing with the United States Securities and Exchange Commission:

> In November 2005, XM entered into a number of agreements ("Agreements") with XM Canada that provide XM Canada with exclusive rights to offer XM satellite digital radio service in Canada. In December 2005, XM Canada issued to XM 11,077,500 Class A Subordinate Voting Shares representing a 23.33% ownership interest and 11% voting interest in XM Canada. These shares were determined to have a fair value of $152.1 million, based on the XM Canada initial public offering price of CDN$16.00 per share. The Agreements have an initial term of ten years and XM Canada has the unilateral option to extend the term of the Agreements for an additional five years at no additional cost beyond the current financial arrangements.

[30] *Id.*

XM Canada has expressed its intent to exercise this option at the end of the initial term of the Agreements.

The various deliverables of these Agreements entered into in November 2005 are considered a single accounting unit in accordance with the Emerging Issues Task Force ("EITF") Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables* ("EITF No. 00-21"), and as such are accounted for as follows:

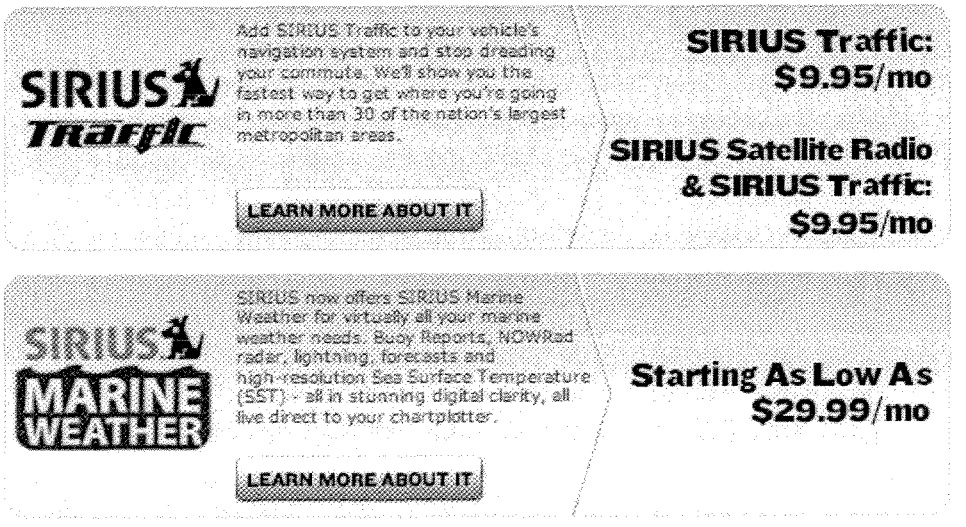
The $152.1 million fair value of the shares received is recorded as Deferred income on XM's Condensed Consolidated Balance Sheets and amortized on a straight-line basis into income as Other revenue in the unaudited Condensed Consolidated Statement of Operations over the 15-year expected term of the Agreements. During the three and six months ended June 30, 2006, XM amortized $2.5 million and $5.0 million, respectively, into income as Other revenue. As of June 30, 2006, the Deferred income balance related to the fair value of shares received was $146.2 million.

XM receives a 15% royalty fee for all subscriber fees earned by XM Canada each month for its basic service and a nominal activation fee for each gross activation of an XM Canada subscriber on XM's system. During the three and six months ended June 30, 2006, XM accrued $549,000 and $732,000, respectively, in subscriber revenue royalty and activation fees and recognized revenue of $12,000 and $16,000, respectively, as Other revenue in the unaudited Condensed Consolidated Statement of Operations. The remaining unrecognized revenue was recorded as Deferred income and will be amortized on a straight-line basis into income over the remaining expected term of the Agreements in accordance with the EITF Issue No. 00-21. As of June 30, 2006, the Deferred income balance related to the subscriber revenue royalty and activation fees was $0.7 million. In subsequent periods, we will recognize the pro-rata portion of the current period's accrued revenue in addition to the amortization for each previous periods' accrued revenue.

In addition, XM Canada will pay XM $69.1 million for the rights to broadcast and market NHL games for the 10-year term of XM's contract with the NHL. The $69.1

> million payment is comprised of $57.0 million in license fees and $12.1 million in advertising costs and will be paid in ten annual installments ranging from $5.25 million to $7.50 million per year. In accordance with EITF No. 99-19, *Reporting Revenue Gross as a Principal versus Net as an Agent,* XM recognizes these payments as Other revenue. During the three and six months ended June 30, 2006, XM recognized $1.1 million and $2.2 million, respectively, of license fees; and $0.8 million and $0.8 million, respectively, of advertising cost reimbursements, as Other revenue.[31]

Finally, not ones to leave parts of the whale unsold, SDARS are also licensing access to airlines, cable television companies and others that need music and entertainment. Indeed, with additional satellite and other delivery capacity coming on-line, it appears both services will soon launch video channels, too, likely targeted at backseat passengers such as children.



[32]

[31] XM Satellite Radio Holdings, Inc., Form 10-Q, (filed August 4, 2006), at pp. 11-12, available online at www.sec.gov/Archives/edgar/data/1091530/000119312506162536/d10q. htm.

[32] http://www.sirius.com/servlet/ContentServer?pagename=Sirius/CachedPage&c=Page&cid=1065475754240.

Get XM for Your Business:

$27.95 month

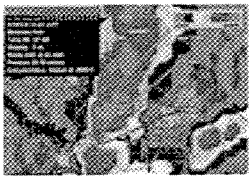
Finally an affordable, flexible, music solution for small businesses!

- Just $27.95/month.
- No contracts.

More Information [33]

Introducing XM WX Satellite Weather!

XM WX Satellite Weather provides the same proven technology used by broadcast meteorologists across the country direct to aviators, mariners, and emergency responders.



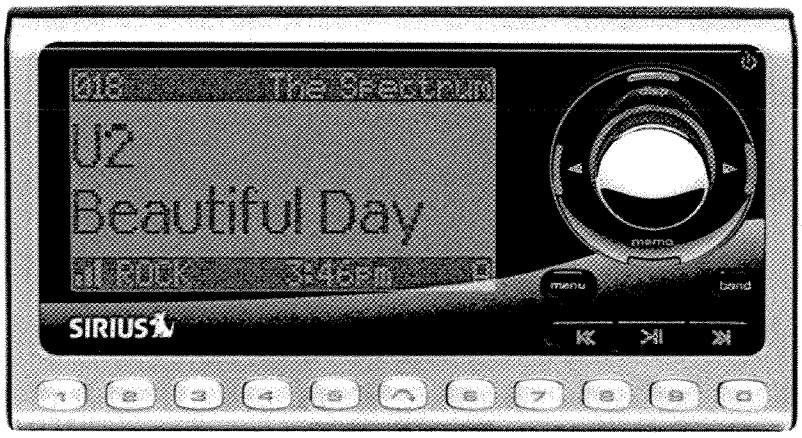
More About XM WX [34]

[33] http://www.xmradio.com/service_subscription/service_subscription.jsp.
[34] *Id.*

IV. CONCLUSION

SDARS are unique in meaningful ways: They offer programming to a geographically diverse audience in full digital quality, and they can and do condition access on the pre-payment of about $13 per month. In addition, they offer targeting, interactivity and personalization features typical of or coveted by other digital media companies. Combined with their entry barriers and audience data, these are terrific businesses engaged in a tough competition.

The result is that they are using their most valued commodity – music – as a weapon, offering their subscribers as much option value as they can. The question is whether sound recording rights holders will receive their due as the backbone of the SDARS service. Other content providers may simply negotiate to obtain their market value. Music's value is greater than any of these non-content providers. Setting a rate that reflects this value is fair to sound recording copyright holders, fair to the SDARS, and fair to the many distribution streams that compete with them.



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

James Griffin

Date: 10-28-2006

Attachment A: Griffin Professional CV

James H. Griffin
P.O. Box 126
The Plains, Virginia 20198
703-945-1784

March 1998 to present: CEO, Cherry Lane Digital LLC, The Plains, Virginia
Cherry Lane Digital focuses on the digital delivery of art and its monetization, especially music and wireless. Cherry Lane Digital is part of Milt Okun's Cherry Lane Music Group of companies, which include a prominent growing music publishing operation. Cherry Lane Digital is primarily now a vehicle through which we offer consulting services that absorb the uncertainty of technology companies about media, and that of media companies about technology. Our clients have included Nokia, major and independent sound recording companies and their industry associations, Yamaha, Dreamworks, Universal Studios, Endemol, The Rolling Stones, Viacom, Fox, American Management Association, Intertainer, Real Networks, Microsoft and many others, and have spoken before global gatherings including the UK, Belgium, Germany, Austria, Hungary, Netherlands, Ireland, China, Canada, Finland, Sweden, Denmark and Spain.

I serve as a writer, contributing to books, magazines and newspapers, and I lecture and speak internationally at companies, business schools and conferences, including Harvard Business School, Northwestern, UCLA, USC, George Washington, CalTech, Berkeley, and many others. I've lectured at the Royal Society for the Arts in London, and will lecture again on the first week of November 2005. I've lectured numerous times at the Nokia Research Center in Helsinki. In July 2000 I testified before the Senate Judiciary Committee at its oversight hearing on digital music, and in 2001 I was a witness before the Copyright Arbitration Royalty Proceeding on the subject of webcasting. I founded in 1998 the Pho group, an organization that meets worldwide to share meals and electronically exchanges messages daily on the topic of art's digital delivery, and in 2004 Pho was a finalist for the Billboard Digital Entertainment Award for Best On-Line Community. Pho's thousand-plus membership enjoys dialogue on the digital economy in music, movies, books and all media.

1993 to 1998: Director of Technology, Geffen Records, Los Angeles
I founded and ran Geffen's technology department, where we were recognized for releasing the first on-line commercial digital song, Aerosmith's Head First in June 1994. We were selected in 1996 as one of the top 25 technology departments in the world.

1983 to 1993: International Representative, The Newspaper Guild, Washington, D.C.
I represented journalists in their contract negotiations, representation proceedings, board and arbitration hearings, and enforcement actions. Also political organizing, lobbying and similar activity.

1980 to 1983: Lexington Herald-Leader, Lexington, Kentucky
News Assistant, Staff Writer. Covered horse racing, basketball, news, obituaries. Kentucky Derby coverage, Kentucky sports.

Education

1975 to 1977: University of Pittsburgh, Pittsburgh, Pennsylvania
Nationally recognized for forensics competition, student journalist.

1978 to 1980: University of Kentucky, Lexington, Kentucky
Nationally recognized for forensics competition, student journalist.

Exhibits Sponsored by James Griffin

Exhibit No.	Description
SX Ex. 003 DP	CD containing video advertisements *Blue People Say It's Better Than Radio; Woman Drives Car With Boyfriend On Roof; Music Changes Hair;* and *A Switch Within Us*