

**Before the
Copyright Royalty Judges
Library of Congress
Washington, D.C.**

In the Matter of

Mechanical and Digital Phonorecord
Delivery Rate Adjustment Proceeding

Docket No. 2006-3 CRB DPRA

**The Written Rebuttal Testimony of
Alexander Kirk**

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REBUTTAL TESTIMONY OF ALEXANDER KIRK

1. My name is Alexander Kirk and I am Senior Director of Product Management for Rhapsody at Rhapsody America, LLC, a joint venture between Viacom and RealNetworks, Inc. In my position, I am responsible for overseeing the design of our products, specifically the Rhapsody Music Service. I balance the various requests of different business units and customers and make hard choices about what to do and not to do, and when to do it, with the goal of providing the best possible product and service for our subscribers. I work to keep the service innovative and competitive in the short term and develop strategic direction for the long term. In addition to my own contributions, I manage a team of product managers each responsible for different areas of the Rhapsody service.

2. Previously, I worked at Liquid Digital Media, where I helped create most of Wal-Mart's digital music services, including their web-based music store and their on-demand CD burning kiosks and service. I was one of the architects of the Rhapsody Music Service. In that capacity, I wrote the business plan and served as the Product Manager for Rhapsody 1.0. I have co-authored a patent for Internet radio technology and designed professional audio products. One of those products was awarded "Editor's

Choice” by Musician Magazine and another was nominated for a technical excellence award by MIX magazine, a trade journal for recording engineers.

3. My interest in the digital music industry is personal as well. I have been a musician for most of my life, including a stint as a professional musician, although only a modestly successful one. Aside from recording my own independent releases, I worked as an independent record producer and backing musician for other groups. I have contributed source cues to some low-budget films and television programs, and have been a member of ASCAP and received performance royalties from ASCAP for nearly 10 years. I continue to write, record, and perform music today.

4. I have a Bachelor’s degree in economics from Dartmouth College, where I also received two special citations of merit for achievement in electronic music. Since 1999, I have spent several summers teaching at Duke University’s Talent Identification Program for gifted and talented youth. There, I developed and taught a class called “A History of 20th Century Music,” an intense multidisciplinary course incorporating music, music theory, art, and technology. This course has also been turned into an educational CD-ROM.

5. As a result of my experience and background, I am familiar with streaming technology, how streaming services are offered in the marketplace, and the implications of developments in streaming technology for the digital music industry. I understand the Copyright Owners are proposing a mechanical royalty to be assessed on “interactive streaming.” As I understand it, mechanical royalties are due when a phonorecord of a sound recording of a musical work is made and distributed to an end user. No such copies are made in the process of streaming. Any copies made to optimize

the user experience of streaming under existing technological constraints are solely instruments of delivering streams to end users.

I. COPIES MADE TO OPTIMIZE STREAMING ARE A FUNCTION OF RAPIDLY EVOLVING TECHNOLOGY

6. Streaming does not deliver copies of a media file to a user's computer/device. To meet consumer demand for the most seamless "streaming" experience, other applications have been developed that -- while they may not provide "pure" streaming -- are intended to provide the same "streaming experience," *i.e.*, a one-time performance of media or data that produces no accessible copy for the user after the performance is rendered.

A. OPTIMIZING VIA TRADITIONAL COPIES

7. Some "streaming" providers utilize technology at the user end to optimize the streaming experience. During the streaming process, this technology may create a local copy on the user's machine (in the form of a phonorecord, for example) of some or all of the data file for some indeterminate, but more than momentary, period of time. Sometimes, copies made for this purpose are not delivered by the streaming provider; rather, they are created without the knowledge of either the user or the content provider, as simply a byproduct of the operating system or specific media rendering application. Other times they are made more deliberately as a result of decisions by the provider. In either case, the copies are technologically the same, regardless of whether the streaming experience is interactive or not.

8. Such copies made to "optimize" streaming are not intended to be accessed by the user and are not sold to the user as identifiable copies. Instead, they are used to ensure the streaming experience is as technically error-free as possible from the user's

perspective. For example, optimizing in this manner reduces delay or latency or jitter that may result from bandwidth issues or slow computer/device processing speeds. In addition, such copies may provide streaming services in a way that reduces costs to the end user or service provider, reduces processing speed requirements, or utilizes network resources most efficiently.

9. Copies used to optimize streaming in this manner are fundamentally different than what the industry and the users consider to be “downloads.” The sole purpose of such “stream-optimizing” copies is to facilitate the streaming experience under current technological constraints, which are constantly evolving. These copies are intended to be hidden from the user, who expects to receive a performance, not a copy. Such copies are not sold to the user as identifiable copies; they are mere byproducts of the technology used to deliver a performance. By contrast, the common usage of the term “download,” as understood by service providers and end users, refers to a copy over which the user is permitted and expected to exercise some dominion and control. They are specifically identified to the user (not hidden), and are delivered to fulfill the user’s desire to possess a phonorecord, not to render a performance.

10. In addition, tracking and accounting for each and every such copy, no matter how ephemeral, that is delivered to the local storage of a user’s device for the purpose of providing a streaming experience, would be practically impossible, or at least not possible without disruption so great that no one would bother enabling media delivery at all. The operating system of a given personal computer, for example, typically creates temporary files as a matter of course -- this could include a so-called “page file” where RAM contents are copied to the hard drive or other temporary files which may or may

not be regularly or automatically purged. A user's web browser may also create its own cache of data that could include all or part of a media file that is intended only to optimize the streaming experience.

B. RHAPSODY'S UNIQUE SOLUTION

11. Rhapsody uses a proprietary streaming technology known as "RAD/EA" streaming, which does not deliver copies of music files. RAD/EA streaming starts with specially prepared music files, distilling the original music file and removing key bits of data. This process yields two different files: the "RAD" file (residual arbitrary data) and the "EA" file ("essential audio"). Without the missing data contained in EA file, the RAD file is not just incomplete -- it is unplayable.

12. The first time a user streams a particular work using RAD/EA, the RAD file is downloaded to the user's PC as quickly as possible, where it is usually stored on the hard drive or other local storage medium. Once a sufficient portion of the RAD file has been downloaded, the servers begin to stream the EA file to the user's PC.

13. The special Rhapsody client software combines portions of the EA stream with the RAD file to render the original work. As the EA file is streamed, Rhapsody's proprietary client software must re-authenticate with the Rhapsody servers every 30 seconds in order to get the next part of the EA file. The client software deletes the EA bits from memory immediately after they have been combined with the RAD file and played.

At most, the user has just under 30 seconds of playable music on their PC, much in the same way a moving buffer copy exists and is

disposed of in pure streaming. After the work has been played, the RAD file is typically left behind in a cache on the user's PC. If the user chooses to play the work again, the EA file is streamed again from the beginning, and the recombination and discard process described above is repeated.

II. THE ISSUE OF "INTERACTIVITY"

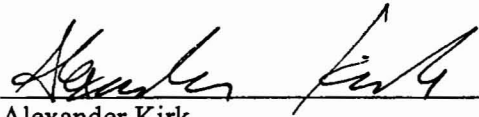
14. I understand the Copyright Owners in this proceeding are seeking to be paid only for "interactive" streaming, as they define it. However, the publisher's definition of "interactive" ("a digital delivery of a sound recording of a musical work, using streaming technology, in response to an end user's request") is vague. Under this definition, any streaming transmission might be "interactive." Indeed, the definition potentially would cover even 30-second clips, which are the generally prevailing industry standard for promotional uses and have been for years. This could result in massive disruption, since to my knowledge none of these uses were made with the expectation of having to pay or account for publishing royalties. To the extent that "interactive" streaming is susceptible to any practical definition relative to "non-interactive" streaming, it should be much more narrowly constrained to avoid such disruption.

15. I am aware of and support DiMA's proposed definition of an "incidental digital phonorecord delivery." My understanding is that this definition is limited to circumstances in which a truly "interactive" streaming experience delivers a phonorecord of a specific sound recording for immediate playback in response to a user's request for that specific sound recording; that is, when a stream is delivered "on-demand".

This definition

accurately comports with the industry standard definition of “interactive”, and would result in far less disruption to the digital music industry. In the unfortunate event that mechanical royalties were to be required for such activities, 30-second promotional clips should be expressly exempted to prevent massive disruption in existing industry practices and potential impairment of digital music sales.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief:


Alexander Kirk

APRIL 04, 2008
Date