Before the
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Washington, D.C.

In the Matter of DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS	Docket No. 2009-1, CRB Webcasting III

WRITTEN DIRECT STATEMENT OF LIVE365, INC.

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Dated: September 29, 2009

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<u>INTRODUCTORY MEMORANDUM OF LIVE365, INC.</u>

Live365, Inc. ("Live365"), through its undersigned counsel, respectfully submits this Introductory Memorandum, which summarizes the testimony and evidence of Live365's written direct case. Through the testimony summarized herein, Live365 demonstrates that the current, industry-wide royalty rates for commercial webcasters are unreasonably high and do ***not*** "represent the rates and terms that would have been negotiated in the marketplace between a willing buyer and a willing seller" for the 2011-2015 period. As demonstrated in the testimony of Live365's economic expert, Dr. Mark Fratrik, the economic assumptions upon which those rates were based have not borne out. Moreover, as Dr. Fratrik and Live365's other witnesses discuss, the current rates inhibit growth of the webcasting industry even though such growth would ultimately inure to the benefit of the copyright owners. Applying the mandatory statutory guidelines for determining "reasonable rates and terms" and based on evidence available to him regarding revenues, costs and profits in the webcasting industry, Dr. Fratrik proposes a royalty rate for commercial webcasters for the 2011-2015 period that better reflects the economic, competitive and programming conditions of the marketplace.

In addition, Live365 – primarily through the written testimony of N. Mark Lam (CEO of Live365) and Johnie Floater (General Manager of Media) – demonstrates that webcasting aggregators, like Live365, operate a different type of eligible transmission service from other webcasters and provide numerous benefits to copyright owners that warrant a discount from the industry-wide rate. As Mr. Lam explains, a webcasting Aggregation Service is a transmission entity that aggregates hundreds, if not thousands, of small independently operated webcasters under one network. An Aggregation Service, like Live365, allows its webcasters to economically and efficiently broadcast their diverse programming while complying with all royalty and copyright laws, as demonstrated by the testimony of Dianne Lockhart, a small webcaster who operates through Live365's network. Moreover, as Messrs. Lam and Floater discuss, aggregation provide numerous cognizable benefits to copyright owners and artists, including but not limited to:

1. monitoring and ensuring compliance by its webcasters with all applicable statutes governing digital performances of sound recordings;
2. ensuring steady royalty streams for copyright holders in the form of monthly lump sum payments,
3. providing monthly full-census statutory performance reports to SoundExchange; and
4. providing additional streams of revenue to the copyright owners.

Based on the numerous benefits to the copyright holders, Dr. Fratrik proposes a royalty discount for Aggregation Services that is comparable to the discount provided by the Performing Rights Organizations to an Aggregation Service for the same benefits above.

Finally, as to determining an appropriate minimum fee under either of the foregoing rate proposals, Live365 submits that any annual minimum fee should be capped at $50,000 for any one licensee. This capped minimum fee proposal is based on the Minimum Fee Agreement that

SoundExchange entered into with the Digital Media Association (DiMA) and its members in 2007, as discussed in Mr. Lam's testimony.

Live365 written direct case comprises the following new witness statements and designation of past testimony:

N. Mark Lam, the Chairman and CEO of Live365, provides an overview of Live365's business, its financials and the investments/costs associated with its company. Mr. Lam explains the negative impact on Live365 of the CRB's rate determination in the last webcasting proceeding and the severe cost-cutting steps taken by Live365 in response to that rate determination. Mr. Lam also explains how an aggregation network, like Live365, provides numerous benefits to copyright owners and SoundExchange and generates promotional benefits to the record labels and music artists. Further, Mr. Lam discusses the aggregation discounts provided to Live365 by the Performing Rights Organizations as well as the capped minimum fee agreement that SoundExchange entered into with DiMA and its members in 2007.

Johnie Floater, Live365's General Manager of Media discusses the revenues generated by Live365 through its advertising and subscriptions fees. He explains that these advertising and subscription revenues have been contracting due to decreased listenership, a loss of paying subscribers, and a soft advertising market in the Internet radio. Mr. Floater also explains the dependence by webcasting entities on advertising networks and sales agencies, which impose fees that further lessen the amount of advertising revenues that a company like Live365 is able to realize. Mr. Floater also discusses some of the benefits that Live365 provides, such as the promotional value to the copyright owners and artists through, for example, the sales of music through Live365's site. He also testifies to the diversity of programming that is provided on Live365's aggregated internet radio network.

Dianne Lockhart, a webcaster, discusses the numerous benefits that an aggregator provides to small, independent webcasters like herself. For example, Ms. Lockhart is able to broadcast the programming of her choosing without having to comply with the significant costs and time-consuming administrative burdens that would face a webcaster doing this on her own and without the benefits of an aggregator. Ms. Lockhart also discusses the effects on her small business of the CRB's rate determination in 2007 for the webcasting industry. Finally, as a songwriter and performer who holds several copyrights to her works, Ms. Lockhart discusses the significant promotional benefits of streaming her works through Internet radio as compared with terrestrial radio.

Dr. Mark Fratrik, Live365's retained expert witness, is an economist with 20 years of experience in the radio industry. Dr Fratrik explains how the current statutory royalty rates are too high for the Internet radio industry as a whole to support and that a significant reduction of the current rates is warranted. The economic assumptions upon which the 2006-2010 sound recordings royalty rates were based have not materialized. Indeed, advertising CPMs have decreased over the past several years, while the ability to charge higher prices for paid subscriptions to make up the difference has been constrained. Based on evidence available to him regarding revenues, costs and profits in the webcasting industry, and applying the mandatory statutory factors for determining "reasonable rates and terms" – including the economic, competitive and programming prongs – Dr. Fratrik concludes the appropriate royalty rate for commercial webcasters for 2011 through 2015 should be set at $.0009 per performance. This proposed rate most clearly represents the rates and terms that would have been negotiated in a competitive marketplace between a willing buyer and a willing seller. In addition, Dr. Fratrik opines that this per performance rate, $.0009, should remain constant throughout the five-year statutory period.

Dr. Fratrik also concludes that the rate for Aggregation Services should be 20% lower than the rate for regular commercial webcasters. This 20% reduction represents both the administrative cost savings and economic benefits that Aggregation Services provide to the owners of the copyrights, and is similar to the discounts that other royalty collection organizations, such as the Performing Rights Organizations, provide to an Aggregation Service for the same types of benefits received by SoundExchange.

In addition to the foregoing witness statements, Live 365 designates the public written direct and rebuttal testimony of **Professor Adam B. Jaffe** in the prior webcasting CRB proceeding, Docket No. 2005-1 CRB DTRA.[1] Prof. Jaffe was the economics expert witness retained by the Digital Media Association.

Respectfully submitted,

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[1] Live365 has not submitted the transcripts of any oral testimony (deposition or trial) of Professor Jaffe, or restricted versions of the written testimony, so as to prevent the disclosure of any Restricted material from Webcasting II in light of the Court's recent September 23, 2009 Protective Order. If necessary, Live365 will provide copies to the Court upon request and under appropriate protection.

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RATE PROPOSAL FOR LIVE365, INC.

Pursuant to 37 C.F.R. § 351.4(a)(3), Live365, Inc. ("Live365") hereby proposes the following rates for the period January 1, 2011 through December 31, 2015 for: (1) the digital audio transmission of sound recordings by eligible nonsubscription transmission services and new subscription services operating under statutory licenses pursuant to 17 U.S.C. § 114(d)(2); and (2) the making of ephemeral recordings necessary to facilitate transmissions by eligible nonsubscription transmission services and new subscription services pursuant to 17 U.S.C. § 112(e). Pursuant to 37 C.F.R. § 351.4(a)(3), Live365 reserves the right to alter or amend its rate proposal during the proceeding up to, and including, the filing of its proposed findings of fact and conclusions of law.

I. ROYALTY FOR SOUND RECORDINGS

A. INDUSTRY RATE FOR COMMERCIAL WEBCASTERS

Each eligible commercial nonsubscription service and new subscription service shall pay the statutory license under 17 U.S.C. § 114 for 2011-2015, as set forth below:

1. Rate: $.0009 per performance

2. Minimum Fee: The annual minimum fee shall be $500 per station or channel, provided that no licensee shall pay more than $50,000 per year as a minimum fee.

B. AGGREGATION SERVICE RATE

1. Definitions

   a. "Webcast aggregation service" is a streaming service that operates a network of at least one hundred (100) independently-operated "aggregated webcasters."

   b. "Aggregated webcasters" means an individual, business organization or other legal entity that individually streams less than 100,000 ATH per month of royalty-bearing performances and utilizes a webcast aggregation service.

   c. "Qualified webcast aggregation service" means a webcast aggregation service that registers with SoundExchange as such and agrees to provide the following services to SoundExchange:

      1) Monitor and enforce Performance Complement rules for each aggregated webcaster; and
      2) Provide monthly 24x7 aggregated full-census statutory performance reports.

2. Rate: Qualified webcast aggregation services shall receive a 20% discount from the industry-wide royalty rate for commercial nonsubscription services and new subscription services.

3. Minimum Fee: The annual minimum fee shall be $500 per station or channel, provided that no qualified webcast aggregation service shall pay more than $50,000 per year as a minimum fee.

II. ROYALTY FOR EPHEMERAL COPIES

With respect to the each of the royalty rates specified above, the royalty payable under 17 U.S.C. § 112(e) for the making of ephemeral copies used to facilitate transmissions of sound recordings should be deemed to be included within – and to comprise 8.8% of – such royalty payments.

Respectfully submitted,

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	)	

<u>TESTIMONY OF N. MARK LAM,</u>
<u>CHAIRMAN, EXECUTIVE COMMITTEE AND CEO OF LIVE365, INC.</u>

INTRODUCTION AND BACKGROUND

1. I am the Chairman of the Executive Committee and CEO of Live365, Inc. ("Live365") and I submit this statement in support of Live365's direct case in the above-captioned proceeding. Live365 is an aggregator of webcasters and an internet radio service provider which owns and operates the website located at www.live365.com. Live365 consists of two businesses: (1) "Broadcast Services," which provides the technology platform, software, tools, services, and know-how to allow Live365's 7,000+ webcasters to broadcast music and other audio content to millions of users through the internet, and (2) "Internet Radio," which provides over 260 genres of high-quality streaming music and other audio content to millions of listeners through its network of aggregated webcasters.

2. I received a B.A. in Economics from Hamilton College, a J.D. from University of California Hastings College of the Law, and an M.B.A. from UCLA Anderson School of Management.

3. I began my professional career at Hughes Aircraft Company, where I performed legal and business analysis. Subsequently, I was a senior consultant at Geneva Company, a leading middle market business valuation and merger and acquisition firm in the 1980's, and a senior investment manager at Dynafund, an international high-tech venture firm.

4. For over a dozen years, I operated my own law firm specializing in forming global alliances and solving business and legal problems for international high-tech companies. My clients included Philips Electronics and Hon Hai Precisions Industry Co., Ltd., the world's largest electronic contract manufacturer and a BusinessWeek Infotech 100 Company with over $60 billion in annual revenue. I was Hon Hai's lead outside counsel for a number of years as Hon Hai grew rapidly from a company with revenues of a few hundred million dollars to over $60 billion dollars. A large portion of my practice included resolving intellectual property disputes and enforcing intellectual property rights.

5. During my career, I have been heavily involved in numerous businesses' operational and financial decision-making. For example, during my tenure at Dynafund, I examined business plans, performed in-depth financial analyses, and supervised a number of companies in our portfolio. I developed experience in assessing investment risks and return on investments as well as operations.

6. In 2006, Professor John L. Graham, an authority in international marketing and negotiations, and I published *China Now* detailing Chinese business practices and negotiation strategies (McGraw Hill). I also published articles in numerous journals and newspapers including the Harvard Business Review. In addition, I served as a lecturer for M.B.A. classes in Global Management and Alliances at the Merage School of Business at UC Irvine, and have been a guest speaker at UCLA, USC, UC Irvine, the California State Bar Education Institute, and

at various trade conferences such as Consumer Electronic Show (CES). Finally, I was a board member of the Digital Media Association ("DiMA") from 2004 to 2007. This is my second participation in a CRB royalty rate setting proceeding.

COMPANY OVERVIEW

7. Live365.com was launched in July 1999, with the mission of making internet radio webcasting ("webcasting") simple and accessible for individuals and organizations. Specifically, Live365 provides internet radio webcasters ("webcasters") with the technology platform, broadcasting tools, software, servers, network capabilities, industry knowledge, bandwidth, royalty compliance guidelines and capabilities, and directories required for internet radio webcasting. Since 2002, Live365's service has aggregated and made available to the public over 38,000 paying webcasters with a wide variety of content offering, while attempting to make webcasters commercially viable and statutorily compliant with royalty obligations.

8. Live365 has been the recipient of numerous awards, including the 2006 WebAward for Music Standard of Excellence & Radio Standard of Excellence, the 2007 Webby Award for Official Honoree in the Radio Category, the 2007 WebAward for Music Standard of Excellence & Radio standard of Excellence, the 2007 Streaming Media Reader's Choice Awards, and CNET Webware 100 2008 for Best Web 2.0 Application.

9. Live365 is, in some respects, like a streaming service provider not unlike other companies in this industry such as Liquid Compass, Abacast, Akami, or Stream the World – all of which are paid by webcasters simply to provide a means for webcasters to transmit their programming to the public. While some of these companies may provide some services in addition to the bandwidth necessary to stream, none has as an extensive set of tools for the webcasters as Live365. Also, those companies are not themselves "services" or webcasters that

pay a statutory royalty. And unlike directories such as Shoutcast, which also does not pay a statutory royalty, Live365 agrees to pay the royalties for most of its aggregated webcasters.

10. Today, Live365 provides end-to-end broadcasting services for 7,000+ active webcasters that reach more than three million unique internet radio listeners each month, while offering over 260 genres of music and programming. In addition, since 2002, Live365 has paid music royalties in excess of $9.5 million, with nearly 80%, or $7.5 million paid to SoundExchange.

11. Live365's services cost tens of millions of dollars to create, and require millions of dollars more per year in ongoing operational costs, including bandwidth and technology costs. However, as discussed below, current statutory rates forced Live365 to cap its Aggregate Tuning Hours (ATH) and to scale back nearly every element needed for a company's growth, such as marketing and sales, talent acquisition, and research and development.

LIVE365'S SERVICE TO WEBCASTERS

12. In July 1999, Live365 launched its webcast packages which give webcasters the ability to customize the stations they program based on their individual preferences. Live365 charges webcasters for packages based on the number of simultaneous listeners, stream quality, amount of storage space, and the ability to co-brand their webcast. These fees charged by Live365 are designed to recover the intellectual property, research and development, human resource, equipment expenditures, time, bandwidth, and other costs invested in providing such a webcasting platform and service. In addition, webcasters can broadcast with Live365 and opt-into our ad network or exclusively stream their own ads and still utilize Live365's other webcasting services. Similarly, webcasters that sign up with Live365 can select to obtain royalty coverage under Live365's licenses or to obtain their own licenses.

13. All webcasters who wish to provide programming through Live365 must agree to terms and conditions that include adherence to copyright and intellectual property right statutes, and acceptance of responsibility for compliance with statutory requirements as set forth on the Live365 website. In addition, Live365 provides phone and email consultations, educational tools, newsletters, and tutorials to current and prospective webcasters regarding all applicable regulations, including, but not limited to, sound recording rights, composition rights, the DMCA sound recording performance complement, and their corresponding obligations.

14. Live365 requires and monitors its webcasters to be compliant with the requisite composition and sound recordings licenses prior to webcasting. Specifically, Live365's system evaluates a playlist before it is made available to listeners to determine if it violates DMCA performance complement rules. (These rules prohibit, among other things, a webcaster from transmitting within any given three hour period: (a) more than three different songs from the same *album* or more than two such songs transmitted consecutively, or (b) more than four different songs by the same *artist* or more than three such songs transmitted consecutively.) If a playlist is in violation, Live365's system informs the webcaster and provides them an opportunity to bring their playlist into compliance. If a webcaster fails to change their playlist as required, Live365 delists the webcaster's station from its directory. As an example, Live365 constantly monitors its network for webcasters who select show titles that include the phrases "all" or "nothing but" in the title in an effort to avoid violations of the DMCA's sound recording performance complement rules. If a webcast is in violation, it is deactivated and the webcaster is asked to correct the identified violation. Otherwise, the webcast will not be allowed to resume streaming until appropriate corrective steps are taken.

15. Live365's aggregation also allows webcasters to participate in ad networks that they would not be able to participate in given their limited listening audience. Ad networks require certain thresholds of audience size, and almost none of Live365's webcasters meet these thresholds on their own. In addition, Live365 handles the trafficking and affidavit reporting required by these ad networks and agencies. See witness statement of Johnie Floater for further discussion.

16. Further, Live365 generates subscription revenues for its webcasters through its proprietary e-commerce, registration, and subscription services by sharing a percentage of its subscription VIP revenue with webcasters. Please see witness statement of Johnie Floater for further discussion.

17. Finally, webcasters aggregating with Live365 are placed in a directory that lists the webcaster and the genre(s) of music they play. This directory is accessed by millions of users per month and provides these webcasters, and the artists they play, instantaneous exposure to a large listening audience. Live365 also provides a search engine as well as a recommendation engine to enable discovery of stations that play certain artists or songs in their playlists.

LIVE365'S SERVICE TO LISTENERS

18. Live365 aggregates thousands of webcasters into an extensive searchable directory of over 260 genres of music, talk, and other audio content for listeners to access and enjoy. Most listeners experience webcasts through Live365's "player window" (Player365) on www.live365.com. Player365 (a pop-up browser window) is an embedded player that displays required metadata information, including artist, album, and song information for the current performance.

19. In addition, Player365 allows users to select stations, but not to skip songs, in adherence to statutory obligations. Throughout this experience, users are presented with a "buy" button, allowing listeners to quickly purchase the sound recording. Please see witness statement of Johnie Floater for further discussion.

20. Users can listen to Live365 in one of two ways – non-subscriber (ad-supported) listening or paid subscriber (ad-free) listening. Subscription members, or VIPs, can listen to most programming without advertising, access exclusive content, and enjoy CD quality sound on many stations. The monthly fee for VIPs ranges from $4.95 to $7.95 per month depending on the length of the subscription chosen. Alternatively, listeners can listen to Live365 webcasts for free through an ad-supported player. Less than 2% of Live365's listeners are paying subscribers, while more than 98% of listeners opt for a free ad-supported experience.

AN AGGREGATION SERVICE, LIKE LIVE365, BENEFITS COPYRIGHT HOLDERS, PERFORMERS & SOUNDEXCHANGE

21. Live365 is a webcast aggregation service. A webcast aggregation service creates a network of hundreds, if not thousands, of small independently operated webcasters that are under one network. An aggregator lowers the barriers to entering the internet radio industry for these small webcasters by providing technological assistance, statutory compliance, and the opportunity to monetize content. In addition, an aggregator gives these small webcasters access to listeners, software, and service that they would not have independently due to the complexity of this business and industry economics. Moreover, as described in the witness statement of Johnie Floater, aggregators provide promotional benefits to a large array of copyright holders and performers.

22. Live365 provides all of the above listed services to over 7,000 webcasters. As further discussed in witness statement of Johnie Floater, Live365's platforms, tools, and services

enable webcasters to economically webcast their programming while fully complying with copyright laws. For its 7,000+ webcasters, Live365's aggregation service ensures statutory compliance, consolidates thousands of webcasts into a single report, and maintains steady royalty streams for copyright holders and performers. All of these tools and services materially benefit SoundExchange and copyright holders.

23. For example, every month after tracking the hundreds of millions of performances on its network and storing this information in a massive data warehouse, Live365 compiles and analyzes all of the data with well-trained engineers using sophisticated algorithms and software, tabulates performances, calculates the royalty payments (with the assistance of accountants), and then wires one lump sum to SoundExchange for the thousands of stations it aggregates, monitors, and administers. This is a highly complex operation that requires high degree of expertise as well as significant costs and expenses in hardware, software, and personnel. Realistically, small webcasters have difficulty performing these functions by themselves.

AGGREGATION DISCOUNTS PROVIDED TO LIVE365 BY PERFORMING RIGHTS ORGANIZATIONS

24. In recognition of the benefits provided by Live365's aggregation of affiliate site reports and music use reports, Performing Rights Organizations ("PROs" consisting of ASCAP, BMI, and SESAC) give discounts to Live365 webcasters. The royalty discounts given to Live365 by BMI, ASCAP and SESAC vary by PRO service. For example, BMI provides approximately a 20% discount for any Live365 webcaster that signs up for the Live365 Minicaster Web Site Music Performance Agreement. *Compare* Exhibit 1 (2007 BMI Web Site Music Performance Agreement, which has an annual minimum fee of $299), *with* Exhibit 2 (Live365 Minicaster Web Site Music Performance Agreement, which has an annual fee of $240 for qualified Live365 "minicasters"). BMI has provided this reduced annual minimum license

fee for Live365 webcasters in exchange for centralized administration including: (i) Live365's collection of license fees on BMI's behalf, (ii) Live365's filing of music use reports with BMI; and (iii) Live365's ensuring compliance with statutory rules.

25. The other PROs (i.e., ASCAP and SESAC) provide even greater discounts to Live365's webcasters for the same reasons – i.e., centralized collection, reporting and compliance. These are the same types of benefits provided to SoundExchange – a similarly situated royalty collection agency as the PROs – yet Live365 is not provided a similarly discounted fee arrangement.

LIVE365'S SIGNIFICANT CREATIVE AND TECHNOLOGICAL CONTRIBUTIONS, CAPITAL INVESTMENT, AND ASSUMPTION OF COST AND RISK

26. It is my understanding that the Copyright Royalty Board must in part set rates according to the "relative roles of the copyright owner and the transmitting entity in the copyrighted work and the service made available to the public with respect to relative creative contribution, technological contribution, capital investment, cost, and risk." 17 U.S.C. § 114(f)(2)(B)(ii). Live365's contributions to each of these elements are significant.

27. Live365 assumes significant risks and costs in establishing and operating an internet radio aggregating service that requires immense capital investment. In fact, $60 million was invested in establishing this company and the creative technological benefits it offers. Significant risks and uncertainties abound for our nascent industry, such as fluctuating statutory royalty fees, obsolescence of hardware and software, and ever increasing diversity of media outlets.

28. Live365 has spent, and continues to spend, millions of dollars in providing its broadcast and internet radio services. Specifically, Live365 has invested close to $10 million in hardware and industry-standard software to date. In addition, many more millions have been

spent to develop, update, and maintain Live365's proprietary technology platform, software, and system during the last ten years. Further, Live365 has to run a 24/7/365 operation in order to offer streaming. This alone costs hundreds of thousands of dollars per year.

29. The following offers a glimpse of Live365's technological infrastructure components:

a. Servers: Different types and scales of servers, including, but not limited to, application, database, data warehouse, streaming, and web servers.

b. Network Equipment: Routers and switches including, but not limited to, Cisco and Force10 high end systems.

c. Storage System: Massive and high-performance storage solution including, but not limited to, NetApp high end storage systems as well as back up storage systems.

d. Industry Standard Software: Industry-strength database system and reporting utilities including, but not limited to, Oracle and Informatica.

e. Proprietary software: Internally developed software systems including, but not limited to, Live365 developed streaming, ad trafficking, search, recommendation, billing, royalty tracking, broadcasting, listening, reporting, and compliance monitoring software that require years of development, improvements, and maintenance.

f. Operations: including, but not limited to, Class A co-location facility with 24/7/365 operations and monitoring.

30. In short, Live365's investment in the above-referenced resources creates a massively parallel streaming system with advanced architecture consisting of a dozen or so

major modules and many applications, tools, resources, and services in order to deliver Live365's services to a large audience and generate royalty revenues for copyright holders.

31. Live365 also continues to spend significant amount of money on ongoing operational costs, including bandwidth, licensing fees, and third party commissions. Ultimately, Live365 is solely responsible for all the costs and risks associated with playing music over the internet.

CURRENT CRB ROYALTY RATES ARE EXCESSIVE AND INHIBIT LIVE365'S GROWTH

32. Since the beginning of my tenure as CEO in September of 2004, Live365 aggressively pursued cost containment and revenue growth measures to strengthen its viability and competitiveness. The Webcaster II statutory royalty rates have become a significant obstacle for viability and growth, forcing Live365 to cap its ATH and take on more extreme cost controls that are unsustainable in the long-term.

33. High statutory royalty rates set in Webcaster II compelled Live365 to limit the size of its workforce, increase workloads, curtail research and development, suspend marketing and sales initiatives, cap listening hours, remove certain Live365 stations from iTunes radio, increase membership pricing, and cut ad-based listening to two-hour segments. *See* Lam Exhibit 3 (detailing the cost-containment steps taken by Live365 following the CRB's webcasting rate determination in 2007 and the subsequent impact on ATH).

34. Since Webcaster II, Live365 has witnessed decreased new VIP member acquisition, increased VIP member churn rates, and decreased ATH. In fact, domestic royalty bearing ATH dropped from 116,815,971 in fiscal year 2006 to 74,663,541 in fiscal year 2008. *See* Lam Exhibits 4 & 5 (summarizing Live365's domestic royalty-bearing ATH, Internet Radio revenues, and costs from FY2006 through FY2009 (through June)).

35. My understanding is that Live365's CPMs are on par with the rest of the webcasters that employ national ad networks for the majority of its advertising sales. However, because CPM projections from several years ago for the internet radio industry have not materialized, Live365 continues to struggle to generate sufficient revenues to pay for the royalty rates.

AGREED UPON CAPPED MINIMUM FEE

36. It is my understanding that the Copyright Royalty Board must set a "minimum fee for each" type of service. In 2007, SoundExchange entered into a Minimum Fee Agreement with DiMA and its members, AOL, Yahoo!, MTV Networks, Pandora and RealNetworks. On August 16, 2007, I signed the agreement on behalf of Live365. *See* Lam Exhibit 6. This agreement capped minimum fees at $50,000 per licensee. I believe this to be an appropriate minimum fee for webcasters and aggregation services.

STATUTORY ROYALTY RATES MUST DECREASE

37. Live365, along with the internet radio industry, needs to recover from the onerous statutory royalty fees set in Webcaster II. Since the announcement of the Webcaster II royalty rates, Live365 has taken very prudent measures to ensure that it did not plunge deeply into the red. Because the royalty fees have been too high, Live365 has proactively limited streaming of music and reduced its ATH on its network. However, measures such as these are counter-productive and unsustainable. Despite our best effort to optimize, we have entered a downward spiral. We need more listeners to grow our revenue, and we need more revenue to reinvest and grow our business. Yet we are limiting our listenership because we cannot afford the high royalty. I believe that this plight is shared by others in the webcasting industry.

38. Any increase in rates at this time will accelerate Live365's downward spiral and hinder its ability to garner royalty revenues for the benefits of copyright holders and record

labels. While Live365's cost containment has allowed it to survive for the last several years, it is crucial that royalties decrease as other cost control measures have been exhausted. Based on these factors, and the factors outlined in Johnnie Floater's declaration and those of our other witnesses, we offer the rate proposal attached to Live365's written direct statement.

I declare under the penalty of perjury that the foregoing is true and correct.

N. Mark Lam

BMI®

http://www.bmi.com

INTERNET-07

WEB SITE
MUSIC PERFORMANCE AGREEMENT

If you estimate your license fee will be less than $1000 per year under the terms of this license agreement, we recommend you use our online Digital Licensing Center available at http://www.bmi.com/newmedia/

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(check one) ___ corporation
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___ limited liability company
___ individual d/b/a _______________________
with its principal offices at ____
____, for the public performance of BMI music on the LICENSEE's Web Site located at http://____ (the "Agreement").

IT IS HEREBY AGREED AS FOLLOWS:

1. TERM: This Agreement begins on _________________ (launch date), continues through the end of December of 2009, and automatically renews on a calendar year-to-year basis thereafter until it is terminated ("Term").

2. DEFINITIONS:
As used in this Agreement, the following terms have the following meanings:
A. "Gross Revenue" means all revenue generated in connection with the Web Site by you, or by anyone acting on your behalf, for or from: (i) access to or use of all or any part(s) of the Web Site (e.g., subscription fees, online time, and other transactional charges); and (ii) advertising (e.g., banners, in-streams ads, hotlinks) on, or sponsorship of, all or any part(s) of the Web Site, including revenue from third parties for including their programming on your web site, commissions from third parties on transactions, and the fair market value of any thing or service in lieu of cash considerations (i.e., trade and barter e.g., exchange of sponsorship or advertising benefits for goods rather than cash payment). Gross Revenue includes revenue from the sale of proprietary software (e.g., jukebox players or software from which revenue is derived) used to access all or any part(s) of the Web Site, but only to the extent that you, or someone acting on your behalf, package(s) or include(s) access to or use of the Web Site with the license for the software. Gross Revenue also includes any donations that you, or someone acting on your behalf, receive(s) in connection with the Web Site. Gross Revenue does not include revenue from the direct sale of physical goods, or revenue generated solely in connection with any web site hosting or stream hosting services you provide for third party web sites that are not licensed under this Agreement. You can deduct advertising agency commissions from your advertising revenue, but only up to 15% actually incurred to a third party advertising agency that you do not own or control. You can also deduct any bad debts that you write off during a reporting period which are related to any billings that you previously reported, but you must include any recoveries of bad debts that were previously written off.
B. "Music Page" means a Web Page which presents one or more icons or hyperlinks that may be clicked on to access performances of music or at which music is played upon loading the Web Page.
C. "Music Revenue" means all Gross Revenue generated in connection with the music on the Web Site, including, but not limited to: (a) music subscription fees; (b) in-stream advertising in programming containing music; and (c) banners or hotlinks on Music Pages. Additionally, if you, or someone acting on your behalf, sell(s) advertising availabilities on a run-of-site basis or offer(s) a subscription service with both music and non-music content, you will include a portion of such revenue as Music Revenue by dividing Music Page Impressions by Page Impressions and then multiplying the run-of-site or subscription service revenue by the result.
D. "Music Page Impression" means a transfer request for a single Music Page.
E. "Page Impression" means a transfer request for a single Web Page.
F. "New Media Territories List" shall mean the list of territories and performing right licensing organizations on the schedule posted in the weblicensing section of BMI's web site (located at http://www.bmi.com/) and designated as such (a copy of which is attached hereto). Please note that BMI may add and delete territories and performing right organizations on this schedule at any time and without notice.

Account No. ____________

G. “Territory” means the U.S. Territory and those territories listed on the New Media Territories List.

H. “U.S. Territory” shall mean the United States, its commonwealths, territories, and possessions.

I. “Web Page” means a set of associated files transferred sequentially from the Web Site to, and rendered more or less simultaneously by, a browser. For purposes of this Agreement, ‘pop-up’ windows, proprietary media players, and/or ‘daughter’ windows with embedded media players that launch when accessing performances of music or upon loading the Web Page are considered part of the Web Page from which they were launched and not a separate Web Page.

J. “Web Site” shall mean your Internet domain comprising a series of interrelated Web Pages currently registered with a domain name registration service and located at the URL identified above. You may license additional Web Sites owned, operated and/or controlled by you by listing such additional sites on Exhibit A hereto, and may amend Exhibit A by written agreement signed by both parties. You must comply separately with all reporting requirements and pay separate license fees under this Agreement, including Annual Minimum License Fees, for each Web Site listed on Exhibit A. References to Web Site shall include those additional sites listed on Exhibit A.

3. GRANT OF RIGHTS:

A. BMI hereby grants you a non-exclusive license to perform publicly over the Internet within the Territory (subject to Paragraph 3(b) below) during the Term all musical works, the right to grant public performing right licenses of which BMI owns or controls during the Term. This Agreement includes only public performances of musical works by transmission over the Internet, and only where such transmissions are accessed from a Web Page on the Web Site; it does not cover any transmissions accessed from a Web Page on a third party web site. Public performances outside of the Territory may be subject to appropriate separate licensing. This Agreement does not include dramatic rights or the right to perform dramatico-musical works in whole or in substantial part. This Agreement also does not license public performances in any commercial establishments, including, but not limited to, where all or a portion of the music available on the Web Site is used as a commercial music service (as that term is customarily understood in the industry); such performances of BMI music shall be subject to appropriate separate licensing.

B. The territorial scope of the grant of rights with respect to any musical works which are affiliated with BMI through a non-U.S. performing right licensing organization not listed on the New Media Territories List is limited to public performances in the U.S. Territory. Public performances of such musical works outside of the U.S. Territory may be subject to appropriate separate licensing.

C. This license does not cover any transmission which is not part of the Web Site, and does not authorize you to grant to others (including, but not limited to, third party web sites, Online Services, cable television system operators and open video systems) any license or right to perform publicly or cause to be performed by any means, method or process whatsoever, any of the musical compositions licensed hereunder. In the event that all or a portion of the Web Site is made available from a third party web site or included on a tier of services by a third party for additional revenue, either independently or with other web sites, LICENSEE shall immediately notify BMI in writing. BMI and LICENSEE expressly agree that any such uses are not licensed under this Agreement and shall be subject to appropriate separate licensing.

D. This Agreement grants only public performing rights in musical works and does not grant any reproduction, distribution, or any other intellectual property right(s) in such musical works, or any digital performance, reproduction, distribution, or any other intellectual property right(s) in any sound recordings, to any person or entity, including those that may receive and/or download or otherwise store the transmission of the musical works licensed hereunder.

4. LICENSE FEES:

A. In consideration of the license granted in this Agreement, you will calculate and pay License Fees to BMI using either of the following License Fee Calculations at your option:

i. Gross Revenue Calculation: License Fee = Gross Revenue x 1.75%

ii. Music Revenue Calculation: License Fee = the greater of (a) Music Revenue x 2.5%; and (b) (Music Page Impressions / 1,000) x $0.12

B. License Fees are due when you file your Statement(s) of Account.

5. ANNUAL MINIMUM LICENSE FEE:

A. An Annual Minimum License Fee is due upon signing the Agreement, and by January 30 (for customers filing annual Statements of Account) or April 30 (for customers filing quarterly Statements of Account) of each calendar year (or any part of a calendar year) of the Term thereafter. Annual Minimum License Fees paid for a calendar year of the Term are credited against any License Fees you may owe for that year. In the event that BMI does not receive the Annual Minimum License Fee by January 30 of any calendar year of the Agreement, BMI may, in addition to any other remedies it may have available to it, cancel this Agreement retroactive to the end of the last calendar year for which an Annual Minimum License Fee was received.

B. You may prorate the Annual Minimum License Fee due for the initial calendar year of the Agreement based on the number of months (or portion thereof) of the initial calendar year that will be covered under the Agreement (e.g., if the start date of your license is August 20, 2007, the Annual Minimum License Fee for 2007 would be $124.58 to cover the period from August through December 31st, 2007)

C. The Annual Minimum License Fee for 2007 is $299.00. For each year of the Agreement after 2007, the Annual Minimum License Fee will be adjusted to reflect the percentage change in the United States Consumer Price Index (All Urban Consumers, All Items) between October of the preceding year and October of the next preceding year, rounded to the nearest dollar amount.

6. STATEMENT(S) OF ACCOUNT:

A. Upon signing the Agreement, you will complete the preliminary Statement of Account attached to this Agreement with a good faith estimate of what your calendar year Gross Revenue will be (rounded to the nearest dollar amount). You will use this estimate for the initial calendar year, or the actual Gross Revenue that you report in your Statement(s) of Account for the immediately preceding calendar year for subsequent years, and the chart below, to determine how often you need to report and pay license fees to BMI.

CALENDAR YEAR REVENUE	STATEMENTS OF ACCOUNT	PAYMENT
$15,000 or less	ANNUAL	MINIMUM
$15,001 - $50,000	ANNUAL	greater of MINIMUM and LICENSE FEE
$50,001 +	QUARTERLY	greater of MINIMUM and LICENSE FEE

B. Annual Statement(s) of Account, and any additional license fees based on such reports, are due on or before March 31 following the calendar year to which they apply (e.g., annual Statement of Account for 2007 will be due on or before March 31, 2007). BMI may assess Late Payment Charges (see Paragraph 8 below) if you fail to report and pay license fees on time.

C. Quarterly Statements of Account, and any additional license fees based on such reports, are due on or before the 30^{th} day after the end of each calendar quarter (e.g., first quarter Statement of Account will be due on or before April 30; the second quarter's, on or before July 30; the third quarter's, on or before October 30; and the fourth quarter's, on or before January 30). BMI may assess Late Payment Charges (see Paragraph 8 below) if you fail to report and pay license fees on time.

D. If, at any point during any calendar year of the Agreement, your actual calendar year Gross Revenue exceeds $50,000, you will file a quarterly Statement of Account on or before the 30^{th} day after the end of the then current calendar quarter, and will continue to report and pay BMI quarterly as provided for above. BMI may assess Late Payment Charges (see Paragraph 8 below) if you fail to report and pay on a quarterly basis as soon as your actual calendar year Gross Revenue exceeds $50,000.

E. Each Statement of Account will be in a form designated by BMI, will be certified by you or your authorized representative, will identify actual Gross Revenue and/or Music Revenue (including Music Page Impressions and total Page Impressions for allocation purposes) generated in connection with the Web Site during the period covered in the Statement(s) of Account (e.g., previous calendar year or previous calendar quarter), and will be accompanied by payment of any additional license fees that may be due above the Annual Minimum License Fee already paid. You agree to make commercially reasonable efforts to use systems and/or software that BMI may develop to prepare and deliver your Statement(s) of Account electronically to BMI.

F. If BMI does not receive your Statement(s) of Account, BMI may bill you for estimated license fees on the basis of your previous Statement(s) of Account. Any payments received will be applied to your account pending receipt of your actual Statement of Account and any additional fees that may be due above the amount already paid. Overpayments will be credited to your account, and refunded to you only after you have submitted all reports and payments due and this Agreement is terminated.

7. AUDIT:

A. BMI has the right to require that you provide BMI with data or information sufficient to ascertain the License Fee due under this Agreement. BMI (and its duly authorized representatives) may, at BMI's expense and during customary business hours, examine your books and records of account relating to any and all statements, accountings and reports required under this Agreement in order to verify their accuracy and/or determine the License Fee due for any unreported period. BMI will only conduct such an examination once (if at all) with respect to each year of the Term (or portion thereof), and will provide you with 30 days prior written notice before conducting such an examination.

B. In addition to any other remedy that BMI may have, in the event that BMI's audit reveals that you have underpaid license fees to BMI, you shall immediately pay the amount owed. If you underpaid BMI by 10% or more of your annual fees, BMI may assess Late Payment Charges on the amount owed from the date the license fees should have been reported to BMI.

8. LATE PAYMENT CHARGES: BMI may impose a late payment charge of one and one-half percent (1 ½%) per month from the date payment was due on any payment that is received by BMI more than ten (10) days after the due date.

9. MUSIC USE REPORTS: BMI will send you electronic requests (e.g., by email) for Music Use Reports identifying all of the musical works on your web site during the reporting period. The electronic request from BMI may also attach a standard form Music Use Report (e.g. a spreadsheet) for LICENSEE to complete and return to BMI via email. Your reports must be sent to BMI electronically (either using the standard form Music Use Report provided by BMI in the electronic request, in another form sent by email or uploaded through BMI's web site, as designated by BMI), and will, at a minimum, include the nature of the use (e.g., in radio-style programming, as on-demand transmissions (full-length or clips), in an audio-visual program, podcasting, etc.), and the title of each song, the featured artist that recorded the song and/or the songwriter(s) or composer(s) that wrote the song, and the number of times the song was performed. If your report includes on-demand uses, you will also include any amount that may have been charged to the consumer to receive, and where reasonably available, the country where the consumer received the transmission. If your report includes audio-visual uses, you will include the song and show title of each audio-visual work, the songwriter and/or artist, duration of use, type of use, usage count, primary author, director, and principal actor(s). If your report includes different types of uses (e.g., radio style programming and music videos), you will provide BMI with traffic and/or usage information so that BMI can allocate the portion of your revenue attributable to each type of use. If you provide any more detailed information in a report to any other person or company that licenses you to use music, you will provide BMI with a copy of that report.

10. INDEMNIFICATION: So long as you are not in default or arrears in payment under this Agreement, BMI shall indemnify, save and hold harmless and defend you and your officers and employees from and against any and all claims, demands and suits alleging copyright infringement that may be made or brought against them or any of them with respect to the public performance within the Territory of any musical works licensed hereunder. BMI's obligations under this paragraph, however, are limited to those claims, demands or suits that are made or brought within the U.S. Territory under U.S. Copyright Law, and only with respect to those works that are BMI-affiliated works at the time you performed them. This indemnity also shall not apply to transmissions of any musical work by you after written request from BMI that you refrain from performance of such work. You agree to give BMI immediate Notice of any such claim, demand, or suit, to deliver to BMI any papers pertaining thereto, and to cooperate with BMI with respect thereto, and BMI shall have full charge of the defense of any such claim, demand, or suit; provided, however, that LICENSEE may retain counsel on its behalf and at its own expense and participate in the defense of such claim, demand or suit.

11. WARRANTY; RESERVATION OF RIGHTS:

You recognize that the license granted herein may cover certain transmissions originating from and/or received in certain territories outside of the U.S. Territory pursuant to experimental agreements with certain non-U.S. performing rights licensing organizations around the world, and that this Agreement may be broader in geographical scope than BMI's previous Internet licenses. Notwithstanding, BMI is offering this Agreement at the same rate as its previous Internet license on an experimental and non-prejudicial basis for the sole purpose of evaluating such international licensing initiatives. Nothing contained in this Agreement is intended to reflect BMI's position with respect to the reasonable value of the license granted herein; BMI hereby expressly reserves its right to re-evaluate the appropriateness of the fees and terms herein, including, but not limited to, the reasonable value of a license that covers transmissions beyond the U.S. Territory, for periods following the Term.

12. BREACH OR DEFAULT: BMI has the right to cancel this Agreement, effective as of the date of BMI's Notice to you, if you don't cure the breach within 30 days after receiving Notice from BMI. This right to cancel is in addition to any other remedies BMI may have, and no waiver by BMI of full performance of this Agreement in any one or more instances shall be a waiver of the right to require full and complete performance of this Agreement for the remainder of the Term.

13. TERMINATING THE AGREEMENT:

A. You can request to terminate the Agreement at the end of December of 2009, or at the end of December of any year after 2009, by notifying BMI in writing at least sixty (60) days before the requested date of termination. Additionally, if you permanently discontinue your use of music on the Web Site (as opposed to temporarily disabling the Web Site and/or the music on the Web Site), you can request to terminate this Agreement at any time during the Term by notifying BMI in writing at least sixty (60) days before the requested date of termination. You are required to submit all reports and payments to BMI before the Agreement will be terminated.

B. BMI may terminate this Agreement at the end of December of any year after 2009, by notifying you in writing at least sixty (60) days before the effective date of termination. Additionally, if BMI terminates its agreements with all other customers in your class and category, BMI can terminate this Agreement at any time during the Term by notifying you in writing at least sixty (60) days before the effective date of termination.

14. ARBITRATION: All disputes of any kind, nature or description arising in connection with the terms and conditions of this Agreement (except for matters within the jurisdiction of the BMI rate court) shall be submitted to arbitration in the City, County, and State of New York under the then prevailing rules of the American Arbitration Association by an arbitrator or arbitrators to be selected as follows: Each of the parties shall, by written notice to the other, have the right to appoint one arbitrator. If, within ten (10) days following the giving of such notice by one party the other shall not, by written notice, appoint another arbitrator, the first arbitrator shall be the sole arbitrator. If two arbitrators are so appointed, they shall appoint a third arbitrator. If ten (10) days elapse after the appointment of the second arbitrator and the two arbitrators are unable to agree upon the third arbitrator, then either party may, in writing, request the American Arbitration Association to appoint the third arbitrator. The award made in the arbitration shall be binding and conclusive on the parties and judgment may be, but need not be, entered in any court having jurisdiction. Such award shall include the fixing of costs, expenses, and attorneys' fees of arbitration, which shall be borne by the unsuccessful party.

15. WITHDRAWAL OF WORKS: BMI reserves the right at its discretion to withdraw from the license granted by this Agreement any musical work as to which legal action has been instituted or a claim made that BMI does not have the right to license the performing rights in such work or that such work infringes another composition.

16. NOTICE: All notices and other communications under this Agreement must be in writing, as described in the following paragraph. Report requests and other correspondence between the parties relating to reporting under the Agreement can be sent electronically and are deemed given upon sending, when sent by electronic mail to the address designated by the parties.

All other notices and communications between the parties hereto shall be in writing addressed to the other party at the address or fax number set forth below (or at such other address or fax number that may be supplied by written notice to the other party) and deemed received: (i) when delivered in person; or (ii) upon confirmed transmission by facsimile device; or (iii) five (5) days after postmarked by ordinary postage prepaid first-class U.S. mail; or (iv) date of confirmed delivery by private courier service:

BMI: 320 West 57th Street
New York, New York 10019
Attn: Vice President, New Media & Strategic Development

BMI New Media Department Fax number: (212) 554-7018

with a separate copy to:

Senior Vice President and General Counsel (sent to the address above)

BMI Legal Department Fax number: (212) 397-0789

LICENSEE: ____

____

____

____

____

Fax number: ____________________________

e-mail: ____________________________

17. ASSIGNMENT: This Agreement may not be assigned without the prior written consent of BMI, not to be unreasonably withheld. For the avoidance of doubt, it is reasonable for BMI to withhold such consent if LICENSEE has failed to submit any payments or reports due.

18. MISCELLANEOUS:

A. Reports and/or payments that are due on a weekend day (or a nationally recognized holiday on which the U.S. Postal Service is not providing service) and received by BMI before the close of business on the next business day following the weekend day or holiday, will not be considered late under the Agreement.

B. BMI will, upon reasonable written request, advise you whether particular musical works are available for performance as part of BMI's repertoire. You will provide BMI with the title and the writer/composer of each musical composition requested to be identified.

C. BMI will make reasonable efforts to be exempted or excused from paying state or local taxes on the License Fees received pursuant to this Agreement. In the event that BMI is not excused from paying such taxes, however, and BMI is permitted by law to pass through such tax to you, you will pay BMI the full amount of such tax when you submit your License Fee payment(s) to BMI.

D. BMI treats the financial, web site traffic, and music usage information that you provide under this Agreement (or that BMI obtains through an audit) as confidential. Your information is made available to BMI agents and employees who need to know such information in order to administer this Agreement. Information is also made available to BMI-represented songwriters, composers, music publishers, as well as foreign rights organizations, but only to show the royalties generated from your use of their works (i.e., song X was played Y times and earned $Z in royalties). BMI will not otherwise disclose your financial, web site traffic, or music usage information unless required to do so by law or legal process. BMI may, however, use the information in your music use reports and the music use reports from other customers to compile aggregate market data, and may disclose such aggregate market data publicly so long as BMI does not specifically identify your information as coming from you.

E. This Agreement constitutes the entire understanding between the parties with respect to the subject matter hereof. This Agreement cannot be waived, added to or modified orally and no waiver, addition or modification shall be valid unless in writing and signed by the parties. This Agreement, its validity, construction, and effect, shall be governed by the laws of the State of New York. The fact that any provisions herein are found by a court of competent jurisdiction to be void or unenforceable shall not affect the validity or enforceability of any other provisions.

BROADCAST MUSIC, INC.

By: ___________________________________
(Signature)

____
(Print Name of Signer)

____
(Title of Signer)

***PLEASE RETURN TO*:**

BMI
ATTN: Web Site Licensing
10 Music Square East
Nashville, TN 37203-4399

PLEASE COMPLETE THE FOLLOWING:

LICENSEE's main offices are located in the U.S. Territory
YES_____ NO_____

____
(LICENSEE)

____
(Signature)

By: _____________________________________
(Print Name of Signer)

____
(Title of Signer)

BMI®
Broadcast Music, Inc.®

INTERNET

WEB SITE
MUSIC PERFORMANCE AGREEMENT

EXHIBIT A

WEB SITE NAME	URL

EXHIBIT B

Web Site Name:	______________________________
Account #	___________________________________

BMI®

WEB SITE MUSIC PERFORMANCE AGREEMENT
Gross Revenue Calculation
ANNUAL FINANCIAL REPORT FORM

Report For Calendar Year: ___________

Company Name: ____

Address: ____

____

____

Telephone No.: ____

URL: ____

YOUR GROSS REVENUE

1.	Subscriber Revenue (including commissions on third party transactions)	$	___________________
2.	Advertising Revenue (less agency commissions)	$	___________________
3.	Provision of Space or Time	$	___________________
4.	Donations	$	___________________
5.	Trade or Barter	$	___________________
6.	Proprietary Software	$	___________________
	TOTAL GROSS REVENUE (add lines 1 through 6)	**$**	___________________

TOTAL GROSS REVENUE $ ____________________ X 1.75% = $ ____________________
LICENSE FEE

TOTAL PAYMENT DUE = $ ____________________

I hereby certify on this __________ day of ____________________, _______ that the above is true and correct.

BY: ______________________________
(SIGNATURE)

____
(PRINT NAME OF SIGNER)

____
(TITLE OF SIGNER)

Please return report and payment to:

Attn: Web Licensing
BMI
PO Box 402974
Atlanta, GA 30384-2974

Please email any questions to: **weblicensing@bmi.com**

EXHIBIT B

Web Site Name: ______________________________

Account # ___________________________________

BMI®

WEB SITE MUSIC PERFORMANCE AGREEMENT
Gross Revenue Calculation
QUARTERLY FINANCIAL REPORT FORM

Report For Calendar Quarter:	Jan. 1 – Mar. 31	Apr. 1 – June. 30	July. 1 – Sept. 30	Oct. 1 – Dec. 31	________ YEAR
	☐	☐	☐	☐	

Company Name: ______________________________

Address: ______________________________

____

____

Telephone No.: ______________________________

URL: ______________________________

YOUR GROSS REVENUE

1.	Subscriber Revenue (including commissions on third party transactions)	$	________
2.	Advertising Revenue (less agency commissions)	$	________
3.	Provision of Space or Time	$	________
4.	Donations	$	________
5.	Trade or Barter	$	________
6.	Proprietary Software	$	________
	TOTAL GROSS REVENUE (add lines 1 through 6)	**$**	________

TOTAL GROSS REVENUE $ ____________________ X 1.75% = $ ____________________
LICENSE FEE

TOTAL PAYMENT DUE = $ ____________________

I hereby certify on this __________ day of ____________________, _______ that the above is true and correct.

BY: ______________________________
(SIGNATURE)

____
(PRINT NAME OF SIGNER)

____
(TITLE OF SIGNER)

Please return report and payment to:

Attn: Web Licensing
BMI
PO Box 402974
Atlanta, GA 30384-2974

Please email any questions to: **weblicensing@bmi.com**

BMI® 1940

10 Music Square East, Nashville, Tennessee 37203-4399

Exhibit B

Web Site Name: ______________________________

Account # ______________________________

BMI®

WEB SITE MUSIC PERFORMANCE AGREEMENT
Music Area Revenue Calculation
ANNUAL FINANCIAL REPORT FORM

Report For Calendar Year: __________

Company Name: ____

Address: ____

____

____

Telephone No.: ____

URL: ____

MUSIC AREA REVENUE

DIRECT MUSIC AREA REVENUE

1. In-Stream Advertising $__________ less agency commissions $__________ $ ____________________
2. Music Page Banner Advertising $__________ less agency commissions $__________ $ ____________________
3. Music Subscriber Fees $ ____________________
4. Other Music Revenue $ ____________________
5. DIRECT MUSIC AREA REVENUE (add lines 1 through 4) $ ____________________

ALLOCATION OF RUN OF SITE REVENUE

6. Subscriber Revenue (including commissions on third party transactions) $ ____________________
7. Advertising Revenue $__________ less agency commissions $__________ $ ____________________
8. Provisions of Space or Time $ ____________________
9. Donations $ ____________________
10. Trade or Barter $ ____________________
11 Proprietary Software $ ____________________
12. RUN OF SITE REVENUE (add lines 6 through 11) $ ____________________
13. ALLOCATION OF RUN OF SITE REVENUE
    ________________ x (__________________ / __________________) $ ____________________
    RUN OF SITE REVENUE TOTAL MUSIC PAGE IMPRESSIONS TOTAL PAGE IMPRESSIONS
14. TOTAL MUSIC REVENUE (add lines 5 and 13) $ ____________________

MUSIC AREA LICENSE FEE

(the greater of A and B)

A. TOTAL MUSIC AREA REVENUE $______________ x 2.5% = $______________
(from line 13)

B. MUSIC PAGE IMPRESSIONS ______________ / 1,000 x $0.12 = $______________
(Total Music Page Impressions)

MUSIC AREA LICENSE FEE $______________

I hereby certify on this __________ day of __________________, _______ that the above is true and correct.

BY: ______________________________
(SIGNATURE)

____
(PRINT NAME OF SIGNER)

____
(TITLE OF SIGNER)

Please return report and payment to:

Attn: Web Licensing
BMI
PO Box 402974
Atlanta, GA 30384-2974

Please email any questions to: **weblicensing@bmi.com**

Web Site Name:	______________________________
Account #	______________________________

Exhibit B

BMI®

WEB SITE MUSIC PERFORMANCE AGREEMENT
Music Area Revenue Calculation
QUARTERLY FINANCIAL REPORT FORM

Report For Calendar Quarter:	Jan. 1 – Mar. 31	Apr. 1 – June. 30	July. 1 – Sept. 30	Oct. 1 – Dec. 31	________ YEAR
	☐	☐	☐	☐	

Company Name: ______________________________

Address: ______________________________

____

____

Telephone No.: ______________________________

URL: ______________________________

DIRECT MUSIC AREA REVENUE

1.	In-Stream Advertising $___________ less agency commissions $___________	$ ____________________
2.	Music Page Banner Advertising $___________ less agency commissions $___________	$ ____________________
3.	Music Subscriber Fees	$ ____________________
4.	Other Music Revenue	$ ____________________
5.	DIRECT MUSIC AREA REVENUE (add lines 1 through 4)	$ ____________________

ALLOCATION OF RUN OF SITE REVENUE

6.	Subscriber Revenue (including commissions on third party transactions)	$ ____________________
7.	Advertising Revenue $___________ less agency commissions $___________	$ ____________________
8.	Provisions of Space or Time	$ ____________________
9.	Donations	$ ____________________
10.	Trade or Barter	$ ____________________
11	Proprietary Software	$ ____________________
12.	RUN OF SITE REVENUE (add lines 6 through 11)	$ ____________________
13.	ALLOCATION OF RUN OF SITE REVENUE __________________ x (____________________ / ____________________) RUN OF SITE REVENUE TOTAL MUSIC PAGE IMPRESSIONS TOTAL PAGE IMPRESSIONS	$ ____________________
14.	TOTAL MUSIC REVENUE (add lines 5 and 13)	$ ____________________

MUSIC AREA LICENSE FEE
(the greater of A and B)

A. TOTAL MUSIC AREA REVENUE $_______________ x 2.5% = $_______________
(from line 13)

B. MUSIC PAGE IMPRESSIONS _______________ / 1,000 x $0.12 = $_______________
(Total Music Page Impressions)

MUSIC AREA LICENSE FEE $_______________

I hereby certify on this __________ day of ___________________, _______ that the above is true and correct.

BY: ______________________________
(SIGNATURE)

____
(PRINT NAME OF SIGNER)

____
(TITLE OF SIGNER)

Please return report and payment to:

Attn: Web Licensing
BMI
PO Box 402974
Atlanta, GA 30384-2974

Please email any questions to: **weblicensing@bmi.com**

BMI® 1940

10 Music Square East, Nashville, Tennessee 37203-4399

http://www.bmi.com

EXHIBIT C
Last Updated: 1/2006

COUNTRY	ORGANIZATION

BMI®

http://www.bmi.com

WEB SITE
MUSIC PERFORMANCE AGREEMENT

WEB SITE PROFILE

Please complete and return with your signed agreements
so we can service your account properly

Site URL: ______________________________

Site Name: ______________________________

Corporate Name: ______________________________

Corporate Contact: ____________________ **Title:** ______________

Corporate Address: ______________________________

Telephone: ____________________ **Fax:** ______________

E-Mail: ______________________________

Financial Contact: ____________________ **Title:** ______________
If different from above

Billing Address: ______________________________
If different from above

Telephone: ____________________ **Fax:** ______________

E-Mail: ______________________________

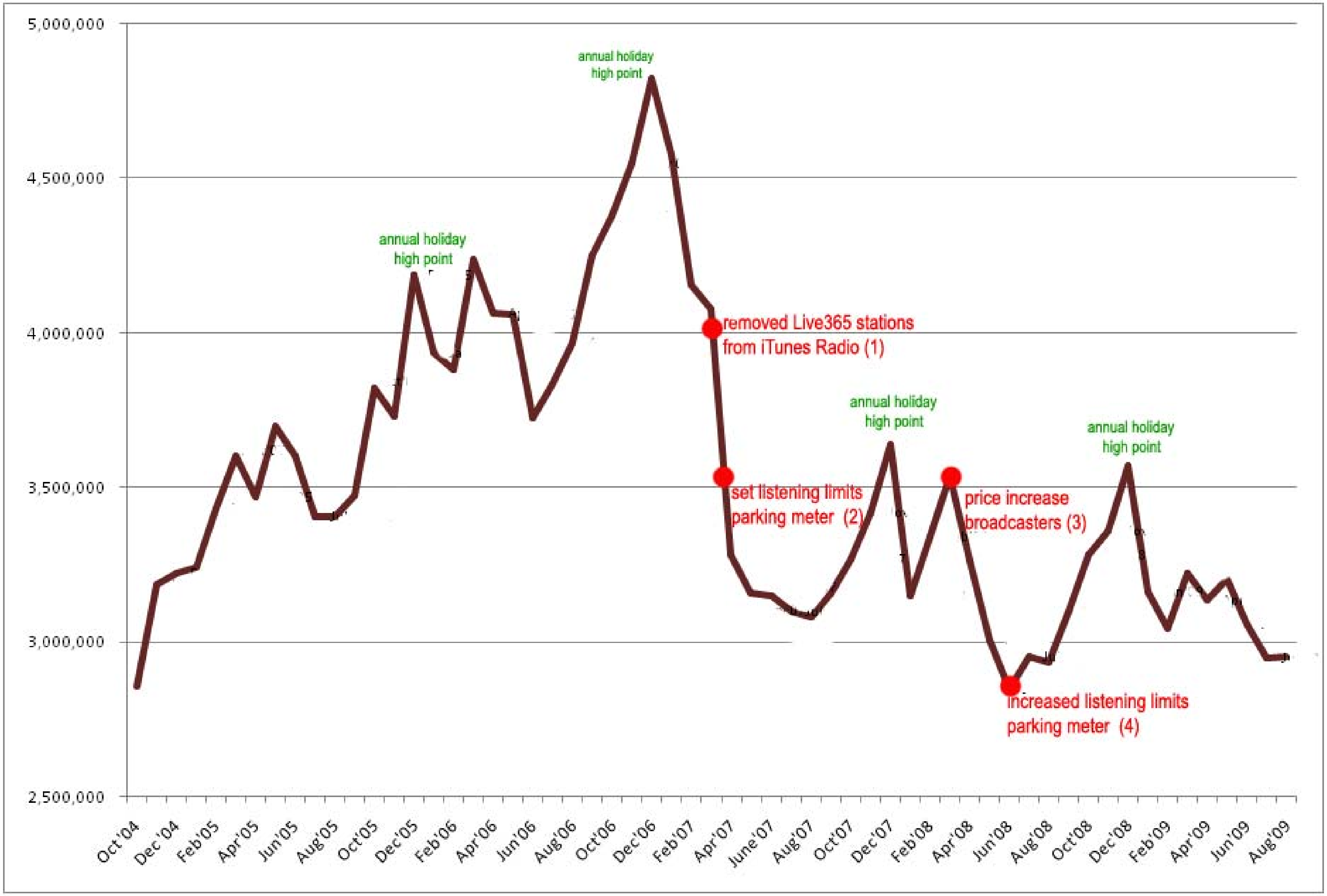
Music
Use Reports Contact: ____________________ **Title:** ______________
If different from above

Telephone: ____________________ **Fax:** ______________

E-Mail: ______________________________

Questions? Please visit our web site at: http://www.bmi.com

Live365 : Business Decisions Affecting ATH



(1) Following CRB rate determination, Live365 removed 40+ Live365 stations from the iTunes directory reducing ATH *(early March 2007)*.
(2) Live365 began restricting listener sessions with use of a proprietary "parking meter" limiting access from 30-60 minutes. *(late March2007)*
(3) Live365 raised prices on broadcast packages followed by increased churn and declining acquisitions.*(March 2008)*
(4) The listener time restrictions set by the "parking meter" were increased to 75-120 minutes resulting in increased ATH.*(June 2008)*

Annual ATH varies by season with October through December generating above average listening and ATH.

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-Jun'09 FY2009 (9 months)
U.S. ATH (Royalty Bearing)	116,815,971	108,598,176	74,663,541	46,650,607
% of Total ATH	*51.7%*	*45.2%*	*42.8%*	*40.6%*
U.S. Revenue (Internet Radio Network Only)				
Internet Radio Network				
Subscription Revenue (U.S. only)	$2,230,456	$2,448,089	$2,962,006	$2,047,964
% 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	$1,321,429
% of Total Subscription Revenue	*99.2%*	*98.6%*	*94.2%*	*91.8%*
Other (CD & Merchandise, Library, Live365)	$47,737	$49,162	$48,826	$21,134
Total U.S. Revenue (Internet Radio Network only)	**$4,336,551**	**$4,707,466**	**$4,980,930**	**$3,390,527**
% of Total Revenue (Internet Radio Network only)	*88.0%*	*88.5%*	*84.5%*	*82.2%*
% of Total Revenue (Broadcast Service and Internet Radio Network)	*49.7%*	*49.2%*	*49.5%*	*47.5%*

Live365: Historical Operating Income Statement

	Oct'05-Sep'06 FY2006	Oct'06-Sep'07 FY2007	Oct'07-Sep'08 FY2008	Oct'08-Jun'09 FY2009 (9 months)
Revenue				
Broadcast Services				
Professional Services	$1,989,891	$2,646,190	$2,738,253	$2,066,259
Consumer Broadcast	$1,602,876	$1,521,203	$1,390,527	$912,815
Other (Syndication, Label Services)	$211,055	$90,723	$27,234	$28,329
Total Revenue (Broadcast Services)	**$3,803,822**	**$4,258,116**	**$4,156,014**	**$3,007,403**
Internet Radio Network				
Subscription	$2,804,052	$3,026,012	$3,757,326	$2,665,065
Advertising	$2,074,727	$2,242,621	$2,090,330	$1,439,577
Other (CD & Merchandise, Library, Live365)	$47,737	$49,162	$48,826	$21,134
Total Revenue (Internet Radio Network)	**$4,926,516**	**$5,317,795**	**$5,896,482**	**$4,125,776**
Total Revenue (Broadcast Services and Internet Radio Network)	**$8,730,338**	**$9,575,912**	**$10,052,495**	**$7,133,179**
Direct Cost of Sales				
DSRP	$1,675,968	$2,011,080	$1,899,082	$1,565,267
ASCAP, BMI, SESAC, Thomson MP3	$305,444	$360,925	$337,501	$246,437
Bandwidth	$594,675	$552,199	$593,140	$286,451
Ad Rep Firms	$729,364	$870,020	$625,029	$427,321
IT and CS (payroll)	$407,894	$408,198	$391,688	$303,300
Others (cc exp, colo facilities, Ad servers, etc)	$689,812	$774,916	$773,858	$543,260
Total Cost of Sales	**$4,403,157**	**$4,977,338**	**$4,620,298**	**$3,372,036**
Operating Expenses (excl. Depreciation, Interest and Tax)				
Net Payroll (including R&D)	$1,963,791	$2,130,766	$2,269,160	$1,568,568
EE Benefits (PTO, payroll tax, health ins, etc)	$471,771	$558,741	$501,159	$404,490
Other SG&A (travel, office, telecomm, outside, etc)	$1,450,374	$1,288,220	$1,217,784	$852,043
Total Operating Expenses	**$3,885,936**	**$3,977,728**	**$3,988,103**	**$2,825,101**
Total Costs and Operating Expenses	**$8,289,093**	**$8,955,066**	**$8,608,401**	**$6,197,137**
Operating Profit (EBITDA)	**$441,245**	**$620,846**	**$1,444,094**	**$936,042**

FOR SETTLEMENT PURPOSES ONLY 8/16/07

Minimum Fee Agreement

In lieu of the per channel minimum fee set in the CRB decision for case Docket No. 2005-1 in connection with the statutory licenses under 17 USC §§ 112 and 114 for the 2006-2010 period (the "Statutory Licenses"), DiMA and SoundExchange agree in principle as follows:

Term	Description
Annual Minimum Fee/ Royalty	- $500 per station or channel, provided that no licensee shall pay more than $50,000. - Applicable to commercial webcasters not covered by any "small webcaster" license (e.g., a push forward of SWSA).
Census Reporting	- Effective beginning within six months, all commercial webcasters not covered by SWSA (as pushed forward) will provide full census reporting for all streams for which payment is made under the Statutory Licenses on a uniform basis so that royalties may be distributed efficiently and accurately. - Reporting will be subject to the same terms (including data elements, format and delivery) set forth in the regulations, except that it will be for every performance under the Statutory Licenses instead of two weeks per quarter.
Stream-Ripping	- DiMA and SoundExchange will meet at least every six weeks, unless otherwise agreed by the parties, to discuss technological issues and potential solutions relating to stream-ripping (i.e., turning internet radio performances into a digital music library by disaggregating, identifying, reproducing and storing individual song files). DiMA and SoundExchange shall create a committee (the "Committee") comprised of individuals with technological expertise to address the issues. - As part of these ongoing discussions, DiMA and representative member webcasters commit to identify, review, internally test and evaluate technologies to prevent stream-ripping. The Committee shall jointly determine the scope of said internal testing, which is contemplated to involve assessment of the feasibility (including associated costs and consumer issues) and effectiveness of technologies and to include actual internal tests by representative DiMA webcasters.
Industry-Wide Adoption	- DiMA and SoundExchange will jointly request that this agreement be implemented on an industry-wide basis by filing a motion with the D.C. Circuit requesting partial remand to the CRB on this issue so that the CRB may gain jurisdiction to approve the agreement. The parties will then request the CRB to implement the agreement on an industry-wide basis for all similarly-situated entities.

- If industry-wide adoption in the foregoing manner is unsuccessful, SoundExchange and DiMA agree to jointly seek legislation embodying this agreement in a manner agreed upon by the parties.
- In all events, SoundExchange immediately agrees to accept the aforedescribed minimum fee/royalty cap on behalf of its members effective 1/1/06 through the end of the term of the Statutory Licenses (to the fullest extent of SoundExchange's statutory authority for nonmembers).

AOL LLC By:	Pandora Media, Inc. By:
Digital Media Association By:	RealNetworks, Inc. By: Michael King
Live365, Inc. By:	SoundExchange, Inc. By:
MTV Networks By:	Yahoo! Inc. By:

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

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.

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. As described more fully in the witness statement of N. Mark Lam, 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, as discussed in the witness statement of N. Mark Lam.

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 legal, compliant, and 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 nearly $1.5 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 while fully complying with copyright laws. Live365's broadcast aggregation creates an expansive network of internet radio stations with a myriad of music variety, drawing millions of listeners. Please see the witness statement of N. Mark Lam for further discussion. 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 in a legal and royalty compliant manner, 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.

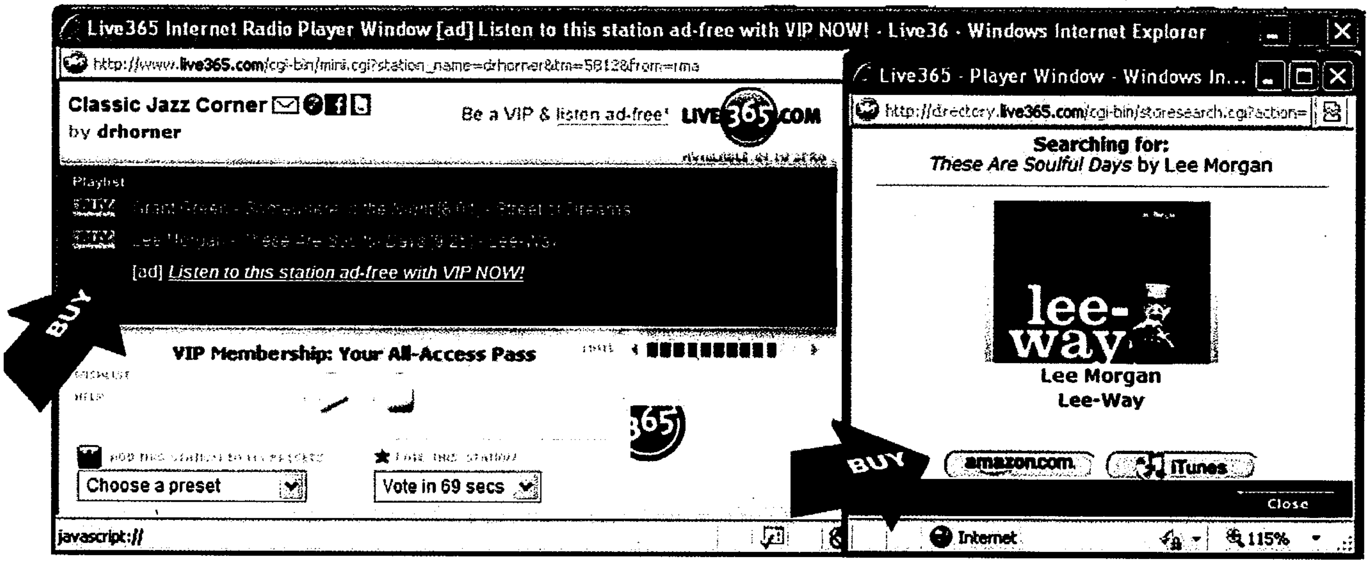
Johnie Floater

LIVE365 Stations Genre Selections

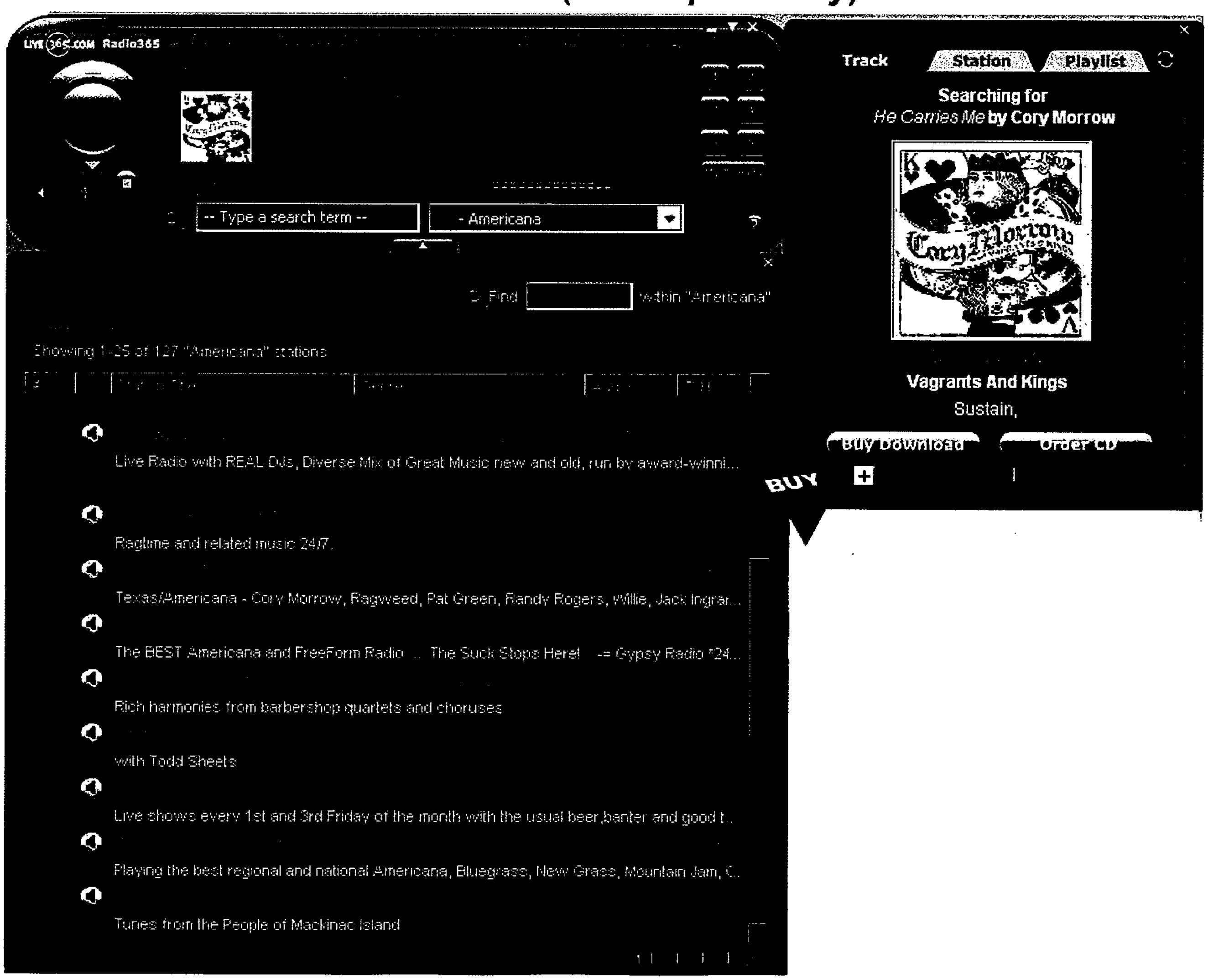
- **Alternative**
  - Britpop
  - Classic Alternative
  - College
  - Dancepunk
  - Dream Pop
  - Emo
  - Goth
  - Grunge
  - Indie Pop
  - Indie Rock
  - Industrial
  - Lo-Fi
  - Modern Rock
  - New Wave
  - Noise Pop
  - Post-Punk
  - Power Pop
  - Punk
- **Blues**
  - Acoustic Blues
  - Chicago Blues
  - 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*)



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;

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(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.

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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.

Statement of Intent of deeper relationship

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

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(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

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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.

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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:	By:
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:** INgrooves
By: [signature]	By: [signature]
Name (print): DAVID PORTER	Name (print) Ross A. McDaniel
Title: DIRECTOR	Title: CEO

Date:	Date: 8-26-04

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

- 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 90 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.

By DAVID PORTER | Title DIRECTOR | Effective Date 8/27/04

INgrooves

By Cory A McDaniel | Title CEO | Effective Date 8-26-04

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 March, 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 unénforceable, 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

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 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. 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 DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS	Docket No. 2009-1, CRB Webcasting III

TESTIMONY OF DIANNE LOCKHART
(LIVE365, INC. WEBCASTER)

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.

3. I also have direct experience in the music industry as a performer. Specifically, I am a songwriter, performer, musical copyright owner, 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 *o*f 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	)	
	)	

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]

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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. *See* Lam Test. ¶21. 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.

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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:

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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.

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[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.

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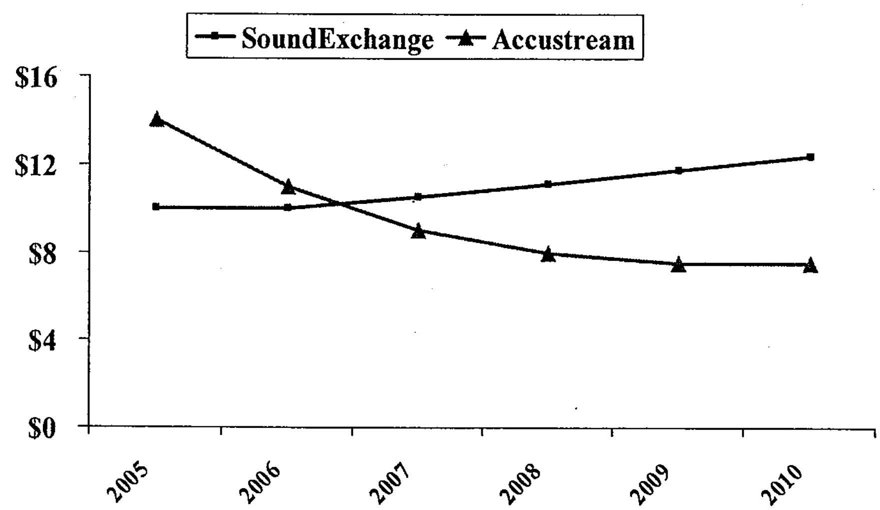
10 *See* Exhibit 2, *Investing in Radio: 2009*, 1st edition, BIA Advisory Services, 2009.

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

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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.

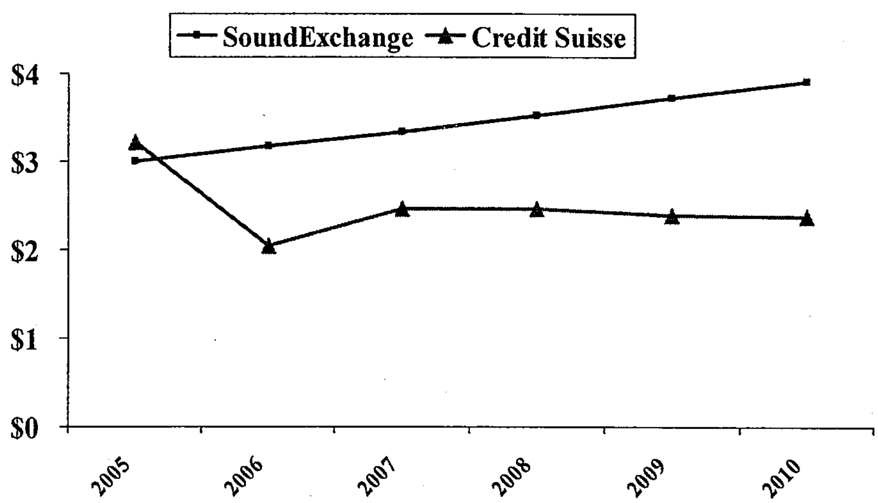
12 The actual CPMs used in this comparison are the annual averages of the monthly values for each of the years.

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

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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.

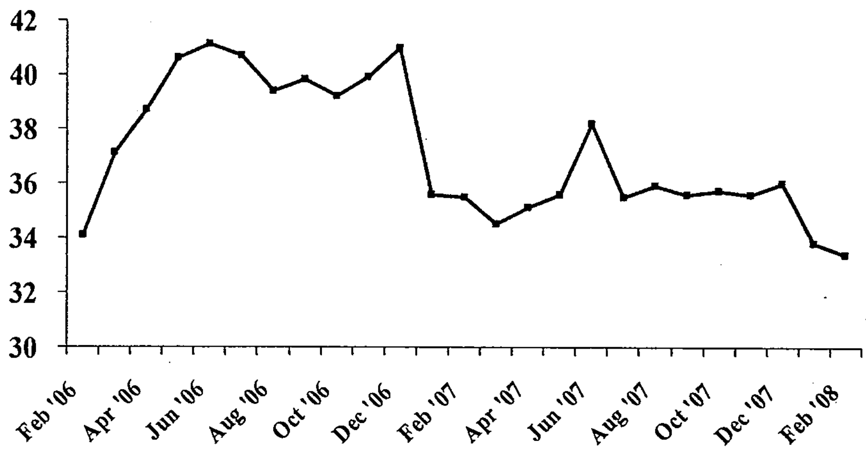
19 Note also that SoundExchange Witness James Griffin cites Bridge Ratings for the proposition that "Listenership – by all accounts – is projected to grow substantially. . . Industry analyst Bridge Ratings predicts that by 2010, 187 million people will listen to webcasting." Griffin Testimony, p. 56.

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 have paid to stream those copyrighted works over the past few years. From that value, I

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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.

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

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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.[27] *See* Lam Test. ¶1; 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.

[27] My analysis of Live365's revenues and expenses are based upon Lam Exhibits 4 & 5.

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] *See* Lam ¶34. 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.

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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 – 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[30]	$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 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. *See* Lam Test. ¶¶26-31. 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 – 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[31]	$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.[32] Table 3

31 This assumes 14 performances per hour.

32 The revenues and EBITDA values are from finance.yahoo.com.

below shows the most recent financial results for eight different public radio companies.[33]

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.[34]

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

[33] 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.

[34] *See* Exhibit 2, *Investing in Radio: 2009*, 1st edition, 2009, BIA Advisory Service.

minus $0.0705).[35] 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[36] 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.[37] AccuStream estimated total Monetizable Listening Hours for calendar year 2008 to be 2,950,635,987 [38] and $84,076,025 in total advertising revenues. Dividing that total revenue estimate by the total listening hours results in an average advertising revenue per ATH of $0.00285.

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[35] 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).

[36] 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.

[37] *See* Exhibit 3 (AccuStream Report), Section 3.

[38] That total listening hours excludes all of the hours for subscription listening which does not have any advertising.

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, and the average subscriber listened to approximately 40 hours per month. *See* Floater Test. ¶¶11, 23. This results in an average subscriber revenue per ATH of $0.1505.[39] 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.[40] *See* Floater 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

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39 Once again, at the present time, I have access to only subscriber usage information from Live365. I reserve the right to amend these calculations after the discovery process. The number of hours relate to the VIP subscribers to Live365.

40 During the discovery process I may have access to other webcasters distribution of hours consumed by subscribers and non-subscribers.

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.[41]

Table 4 below summarizes the above referenced steps.

Table 4 – 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[42]	($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

41 Even with a 5% reasonable profit margin, the typical webcaster in this model loses $0.0029 per ATH.

42 This assumes 14 performances per hour.

revenue in my analysis.[43] 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 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.[44] This calculation results in a value per performance of $0.0009. Table 5 below summarizes my findings using the ZenithOptimedia estimates for advertising revenue.

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43 *See* Exhibit 8, ZenithOptimedia's analysis of the United States of America market, *Advertising Expenditure Forecasts – July 2009,* (ZenithOptimedia Report).

44 This is the average of the number of performances per ATH for Live365 webcasting.

Table 5 – 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[45]	$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 performances subject to the royalty would have been 1,045,289,574. Using the

45 This assumes 14 performances per hour.

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. 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.[46] 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. *See* Lam Test. ¶¶32-33.

46 *See* Exhibit 2, *Investing in Radio: 2009*, 1st edition, 2009, BIA Advisory Services.

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."[47] Dr. Jaffe cited evidence that the four major record companies "collectively represented over 85% of the physical product (mainly CDs)."[48] 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.[49] 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.[50] This high concentration indicates that the record industry has excess negotiating power and can 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

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47 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.

48 Ibid., p. 8.

49 Ibid., p. 9.

50 *See* U.S. Department of Justice Horizontal Merger Guidelines, April 8, 1997

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."[51] Listeners expect, and commercial webcasters deliver, access to a wide variety of artists.

2. Promotional Value

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

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[51] *See* Exhibit 6, *The Infinite Dial 2009*, Arbitron/Edison Research, 2009, p. 12.

company also has agreements with several independent labels waiving the sound recording performance royalty in exchange for promotion of their artists.[52] 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 $1.5 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 exposing users to new music and providing an easy link to sites where users can purchase this music.[53]

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

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52 *See* Floater Test. ¶32.

53 *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").

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.[54] Therefore, the substitutability issue should not play a role in the determination of the royalty rate for commercial webcasters.

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

[54] 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.

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.[55] 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 any organization they form to administer the collection of these royalties. *See, e.g.*, Lam ¶¶21-23.

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. *See* Lam Test. ¶¶24-25. 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

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[55] 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. Lam Test. ¶.

BMI Agreement"). *See* Lam Exhibits 1 & 2. 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%[56] CPI percentage increase to the Live365 Minicaster 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 BMI provides to Live365's webcasters to be 17.1%. 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.

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56 *See* http://www.bls.gov/cpi/cpid0710.pdf for the October 2007 CPI.

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.[57] Part of that advantage in selling 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.[58] 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,

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57 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:

> "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."

58 See the comments of the Clear Channel representative, footnote 57.

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.

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: 9/29/09

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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
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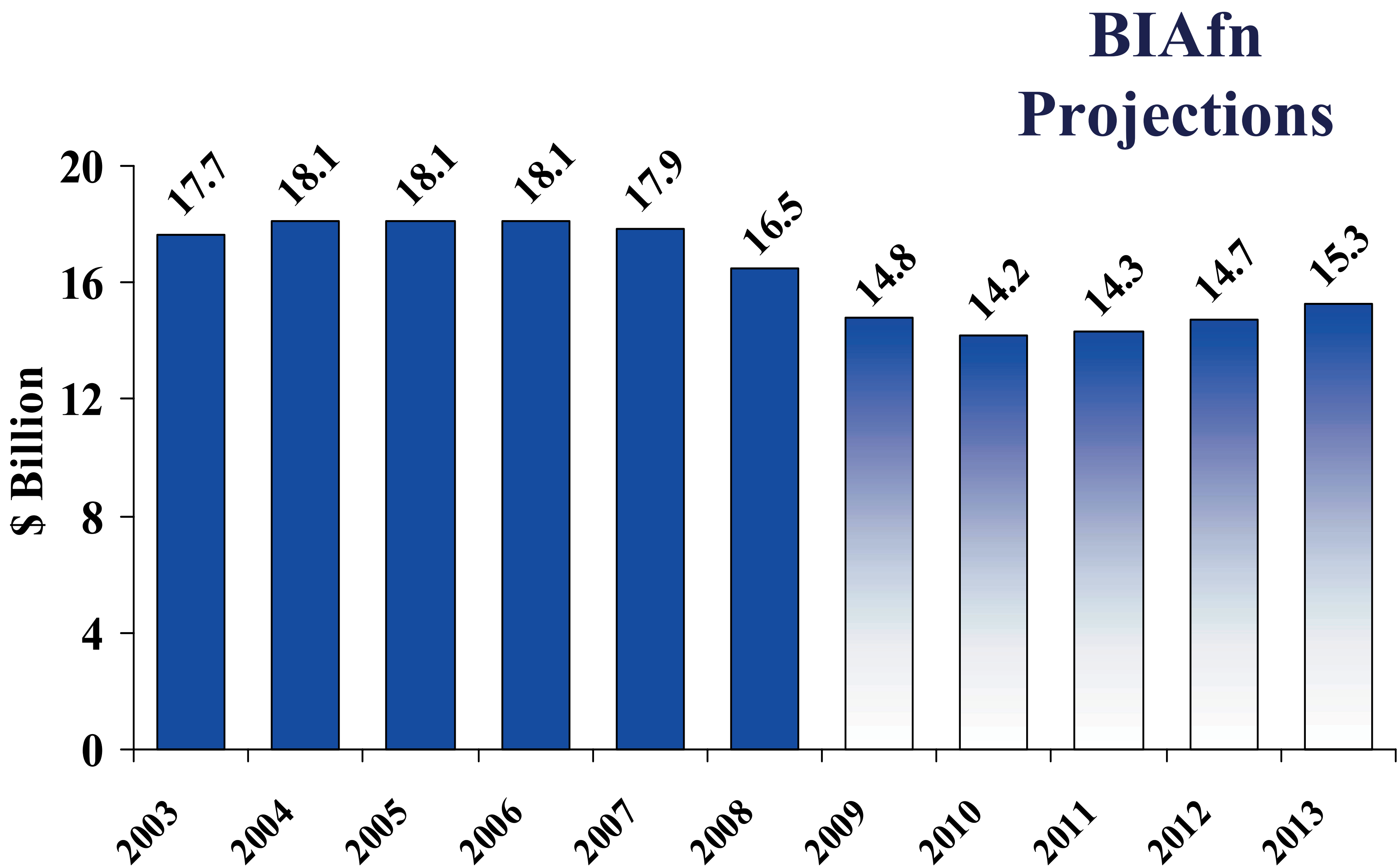
Radio Station Revenues 2003 – 2013



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SECTION ONE

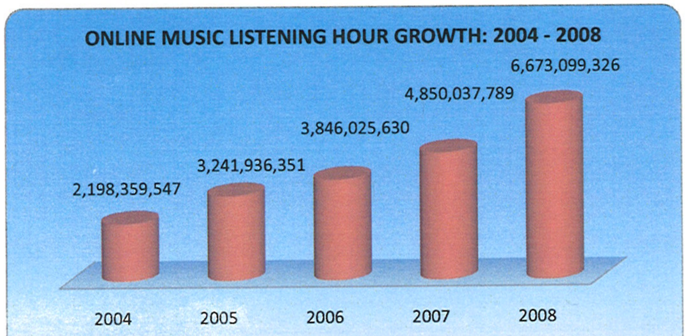
- Listening hours (including Shoutcast, individual streaming track plays and song spins delivered by subscription services) rose 37.6% in 2008 to 6.67 billion
- The monthly average for 2008 was 556.1 million hours of listening time
- Corresponding annual listening hours in 2007 charted 4.85 billion

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.



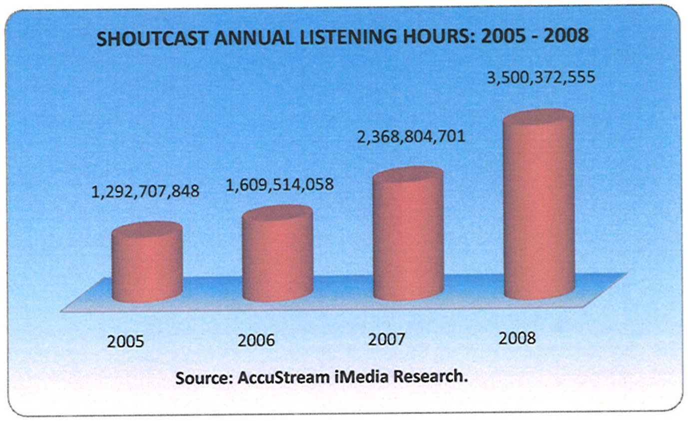
NOTE: Includes subscription services, individual track plays.
Source: AccuStream iMedia Research.

- 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.



- 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

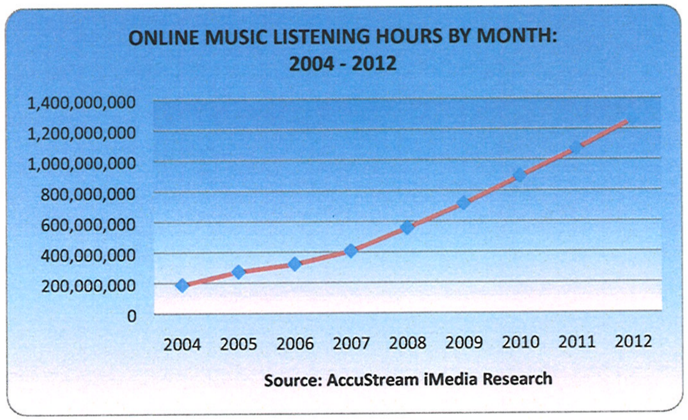
ONLINE MUSIC LISTENING HOUR GROWTH HISTORY AND FORECAST: 2004 - 2012

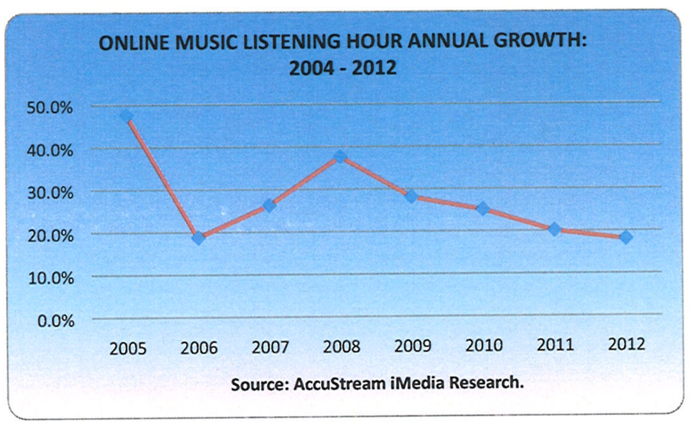
Year	*Hours*	*% Change*	*Average/Month*
2004	2,198,359,547	n/a	183,196,629
2005	3,241,936,351	47.5%	270,161,363
2006	3,846,025,630	18.6%	320,502,136
2007	4,850,037,789	26.1%	404,169,816
2008	6,673,099,326	37.6%	556,091,610
2009	8,541,567,137	28.0%	711,797,261

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

	Date	Time Spent Listening (TSL)	Unique Visitors	Time on site (average)
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

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

	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

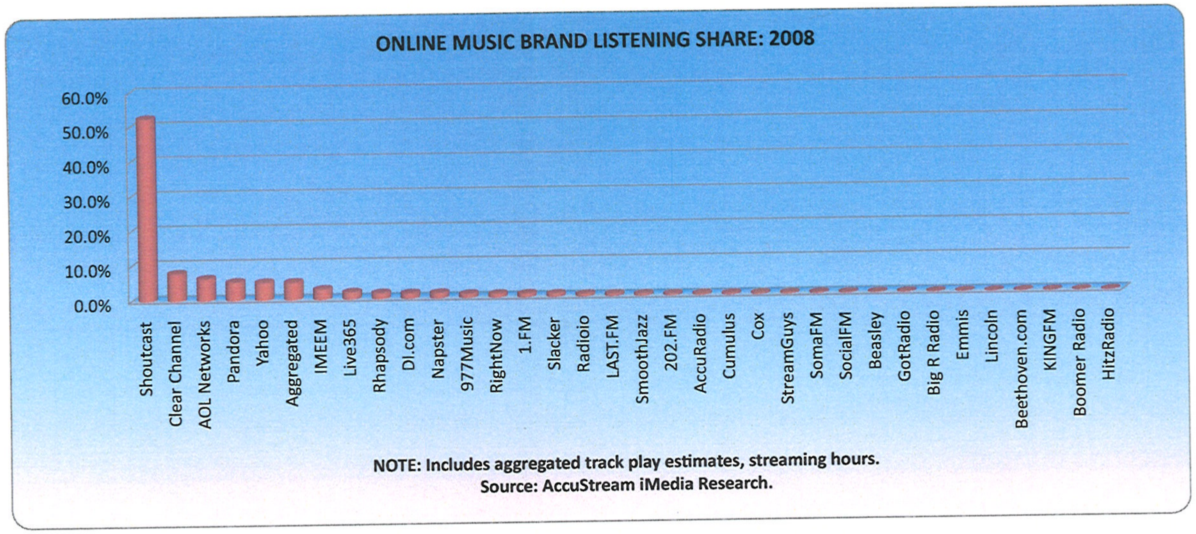
- Shoutcast was the dominant music radio destination, service and platform in 2008 (and previous years) with 52.5% share of total hours
- Clear Channel holds the second spot, with 7.8% share
- AOL Networks had 6.3% share
- Pandora at 5.2% share
- Yahoo Music at 5.1%

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%
Radioio	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.



- 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

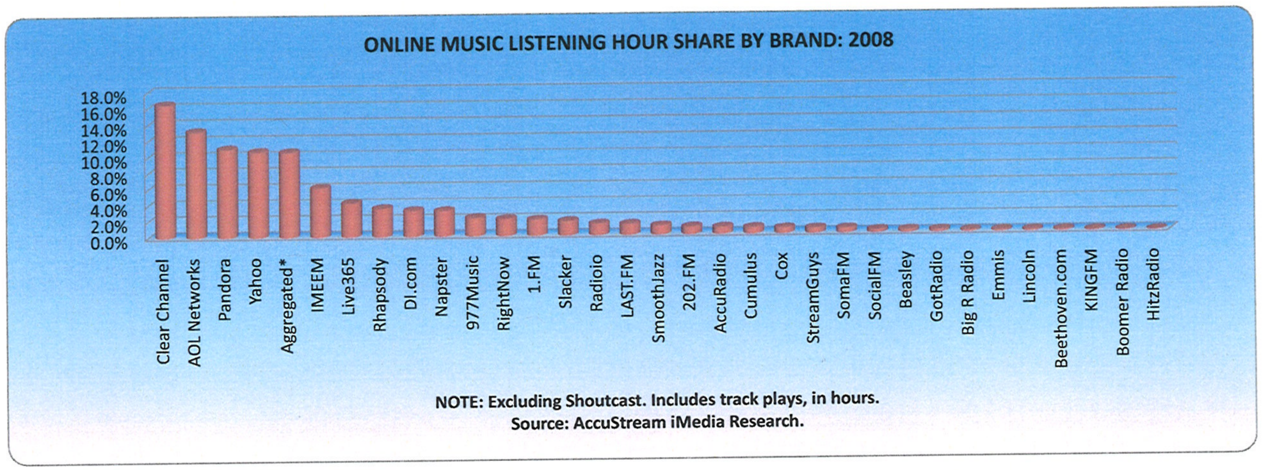
TIME SPENT LISTENING SHARE: 2008
Excluding Shoutcast

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.



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		
					334,752,798	5.0%
(NOTE: Liquid Compass delivers 712 online stations in total)						
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%
Radioio Networks (total listening hours)	March-08	5,202,649	n/a	n/a		
Radioio Networks (total listening hours)	January-08	4,439,878	n/a	n/a		
Radioio Networks (total listening hours)	February-08	4,129,087	n/a	n/a		
Radioio Networks (total listening hours)	September-08	3,644,970	n/a	n/a		
Radioio Networks (total listening hours)	December-08	3,612,129	n/a	n/a		
Radioio Networks (total listening hours)	August-08	3,573,500	n/a	n/a		
Radioio Networks (total listening hours)	July-08	3,500,000	n/a	n/a		
Radioio Networks (total listening hours)	June-08	3,419,280	n/a	n/a		
Radioio Networks (total listening hours)	April-08	3,405,465	n/a	n/a		
Radioio Networks (total listening hours)	October-08	3,316,923	n/a	n/a		
Radioio Networks (total listening hours)	November-08	3,283,753	n/a	n/a		
Radioio 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

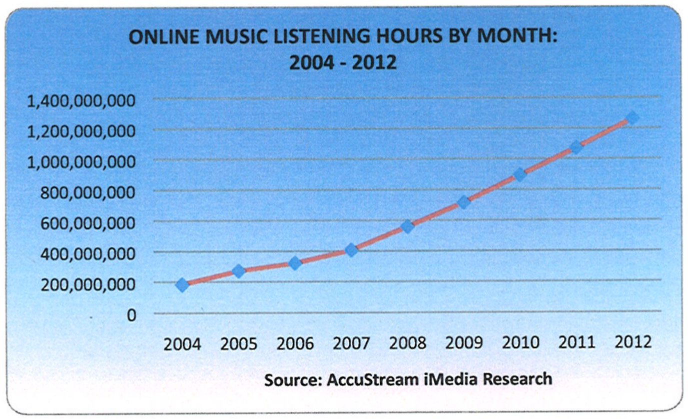
- That's an average of 556.1 million per month

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

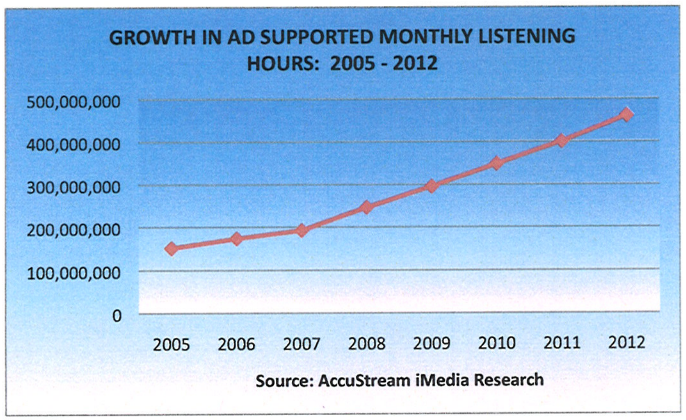
MONETIZABLE LISTENING HOURS: 2005 - 2010

	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.

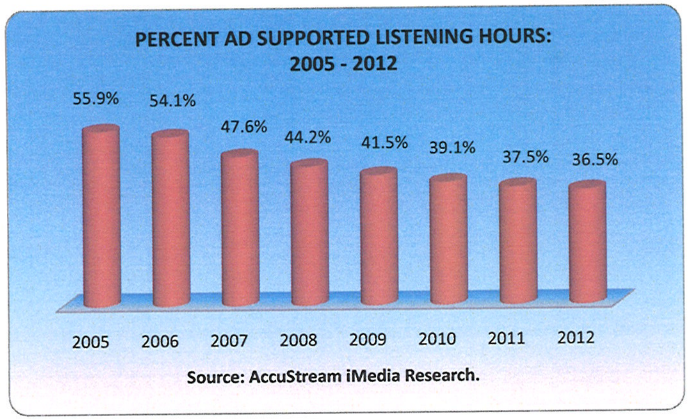


- The percent of ad supported music streams has been declining every year since 2005, registering 44.2% in 2008
- The corresponding figure was 47.6% in 2007
- The forecast percent of ad supported music streams is 41.5% in 2009 and 39.1% in 2010 (assuming Shoutcast does not open up its platform more aggressively to outside advertisers)

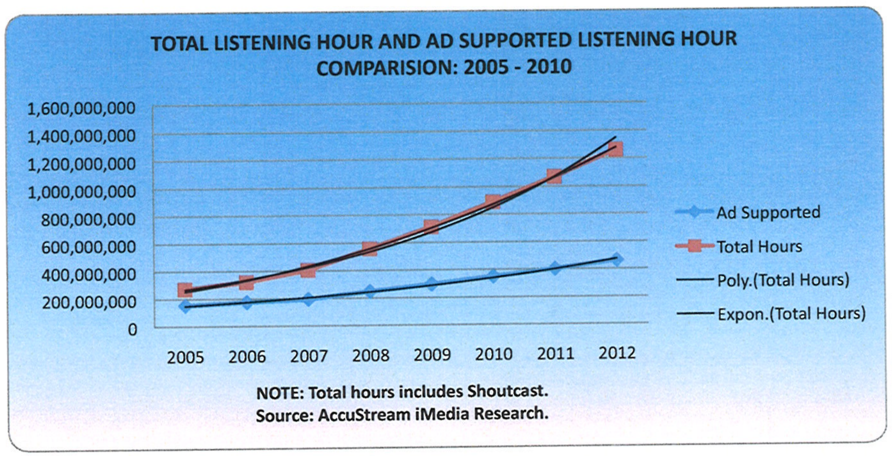
MONTHLY AD SUPPORTED LISTENING HOUR COMPARISON: 2005 - 2012

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



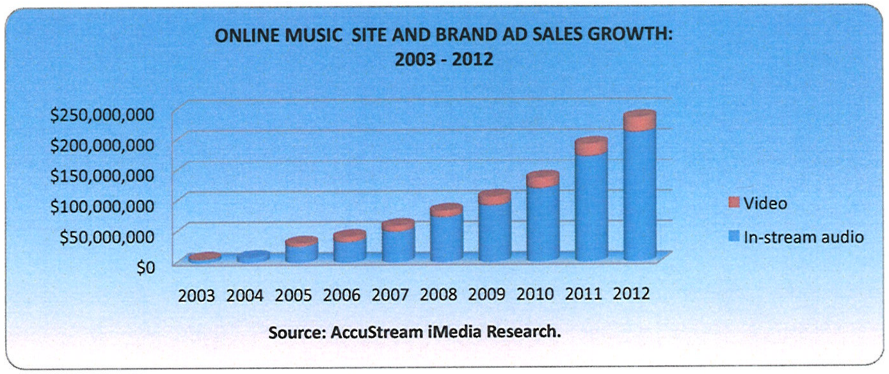
- Gross media spend associated with streaming music sites and online music track plays totaled an estimated $84 million in 2008
- Of that figure, $74.3 million was associated with in-stream audio placements, and $9.7 million in video ad spend
- The market is forecast to reach $106 million 2009, with $92 million generated from in-stream audio media spend

Online Music Site Inventory Sales

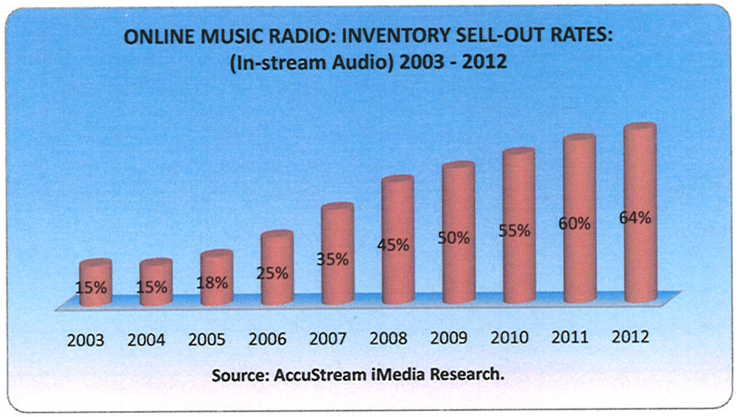
Audio	Video	Total

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.



- 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



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.

U.S. Advertising Outlook 2009

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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

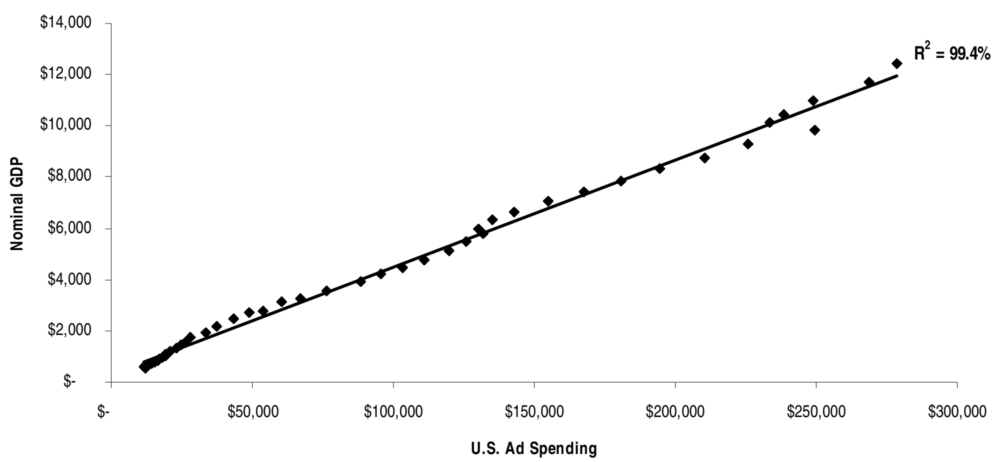
Bracing for a Tough Year: Overview

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.

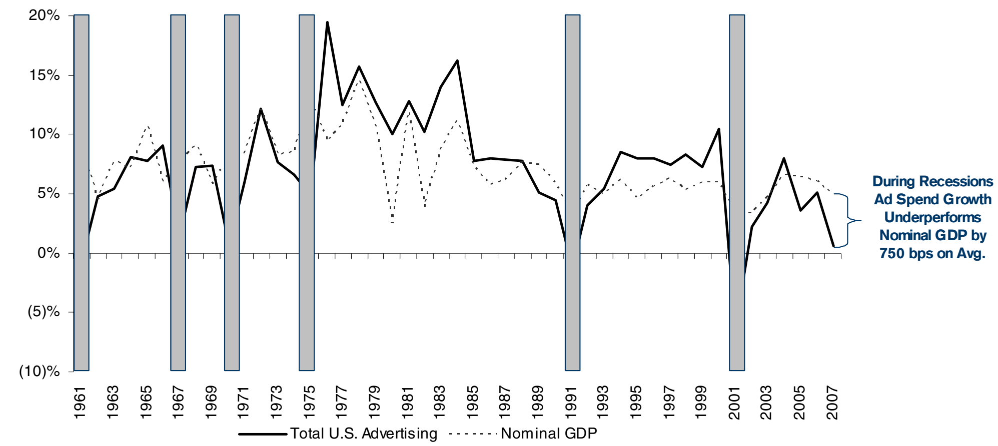
Exhibit 1: Correlation Between U.S. Ad Spend and Nominal GDP, 1980–2007



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).

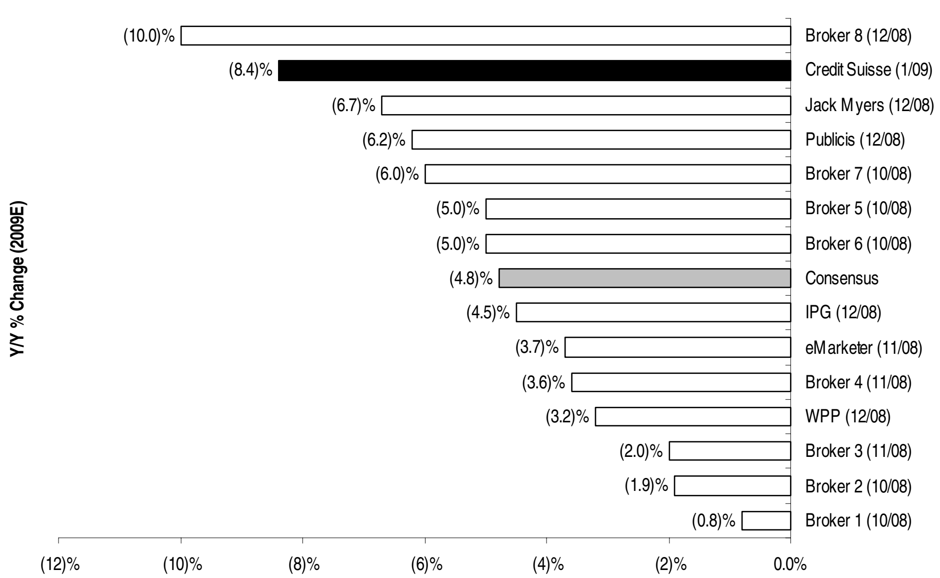
Exhibit 3: Top Down US Ad Forecast, 2009E

	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

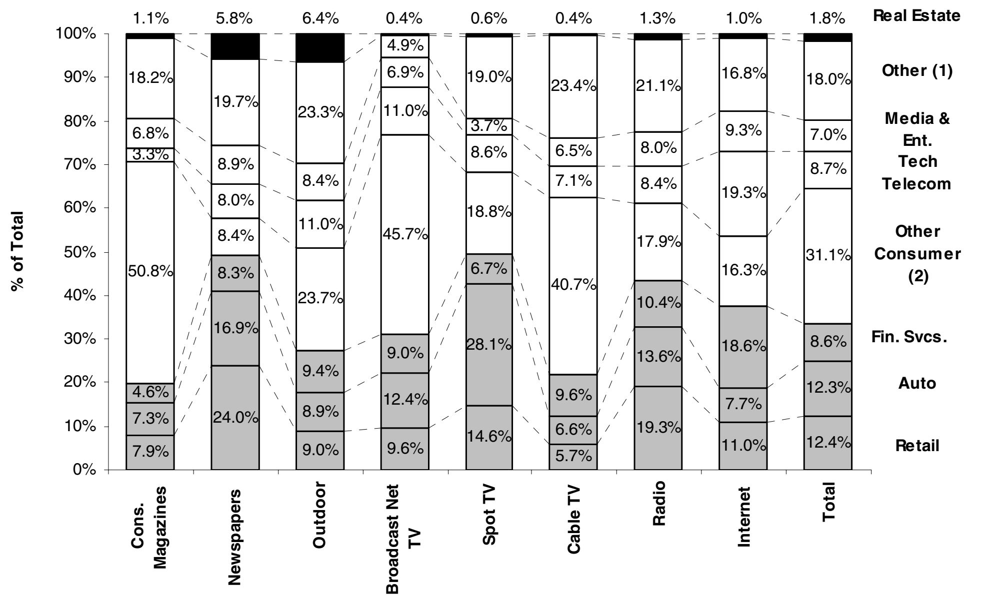


Source: Company data, Credit Suisse estimates

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.

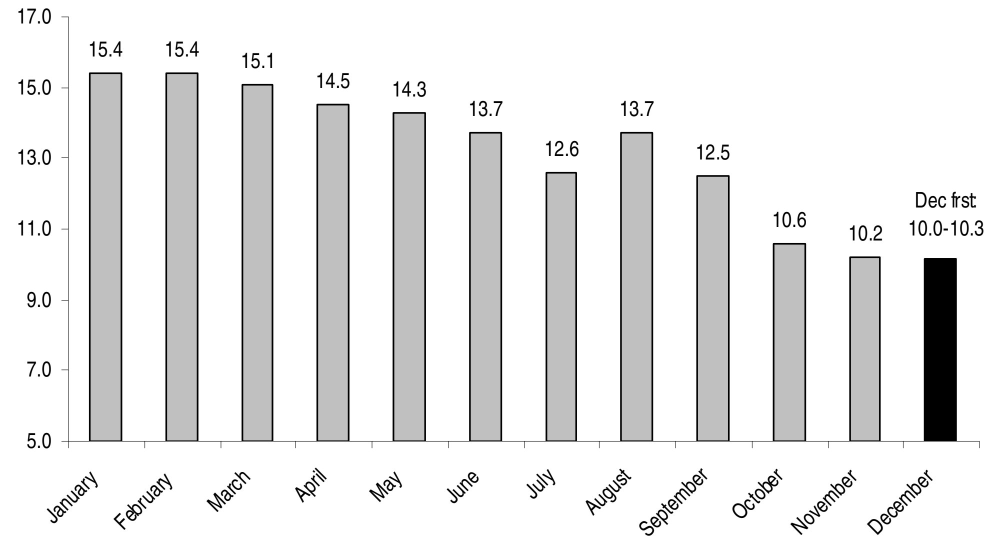
Autos

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)



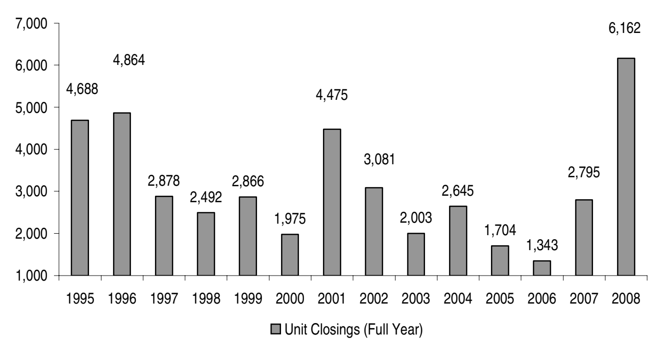
Source: Company data, Credit Suisse estimates (Chris Ceraso)

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.

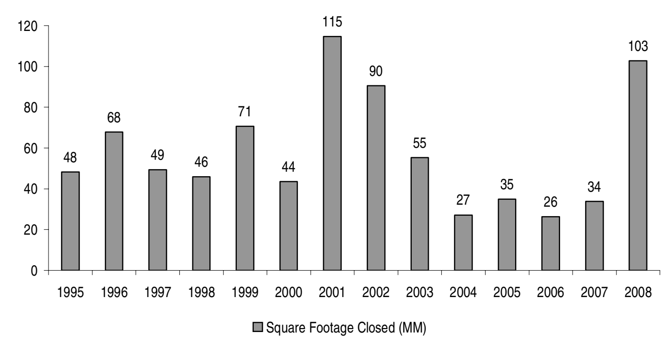
With soft consumer spending trends likely to last throughout 2009 and bankruptcy filings of key retailers such as Circuit City, we believe this leading ad spend category will continue to be highly pressured. As illustrated below, retail store closing have accelerated as retailers have sought to close 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

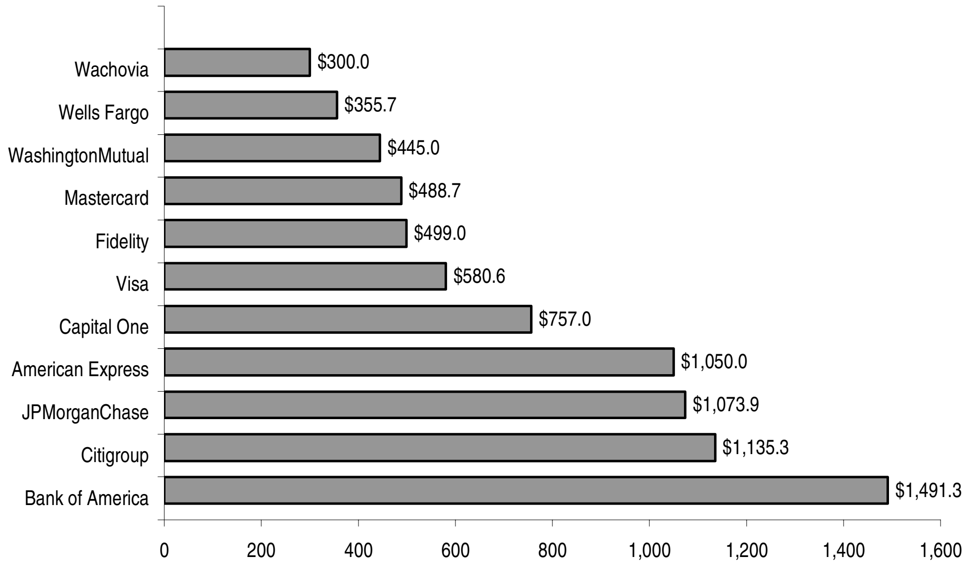


Source: Company data, Credit Suisse estimates (Michael Exstein)

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

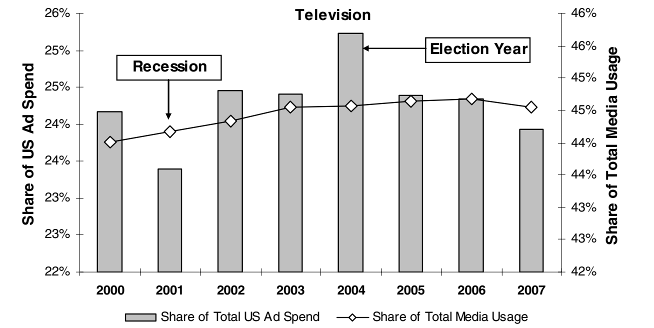
We now turn our attention to the advertising outlook for the key mediums, in order to corroborate our top down estimate with the bottoms up outlook. Our bottoms up work is based on conversations with our network of industry contacts (ad agencies, media buyers/planners, advertising sales people, etc.) 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:

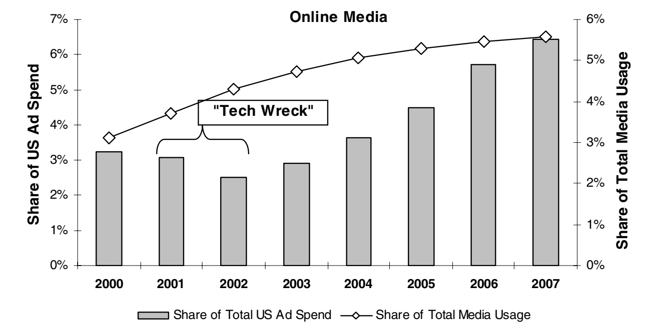
- **Secular/Usage Trends:** In our opinion, mediums with growing usage stand a better chance of growing their share of overall ad budgets. In this context, cable TV and online appear well-positioned as the former continues to take viewership share from their broadcast brethren. On the other hand, mediums 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



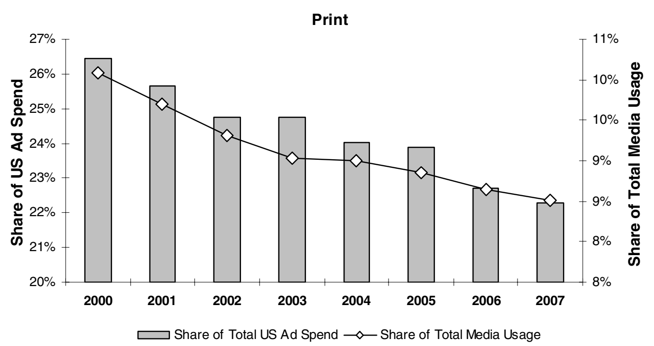
Source: Universal McCann, Veronis Suhler, Credit Suisse estimates.

Exhibit 11: Online Share of Ad Spend versus Time Spent



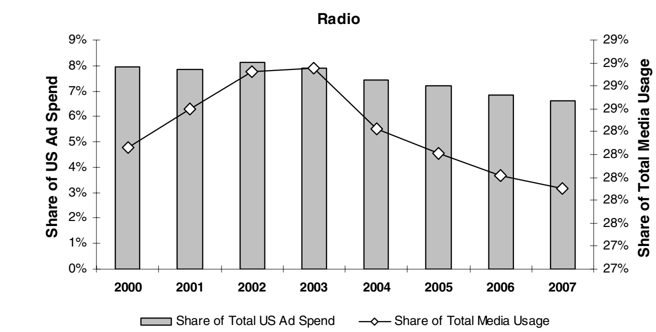
Source: Universal McCann, Veronis Suhler, Credit Suisse estimates.

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.

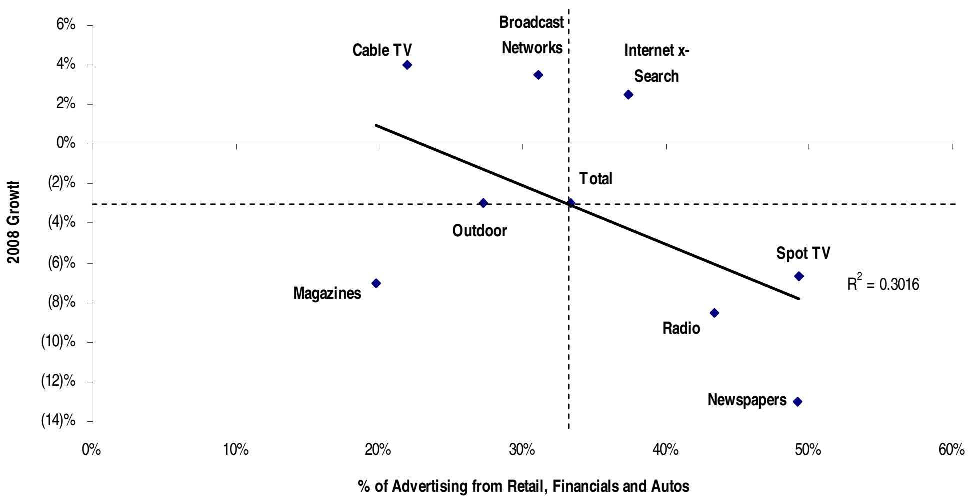
- **Accountability/Measurability/Efficiency:** Additional factors that may play a role in the relative performance of a medium are traits such as accountability, measurability and efficiency. The drive for better measurement and advertising spend accountability is accelerating as the need for greater 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:

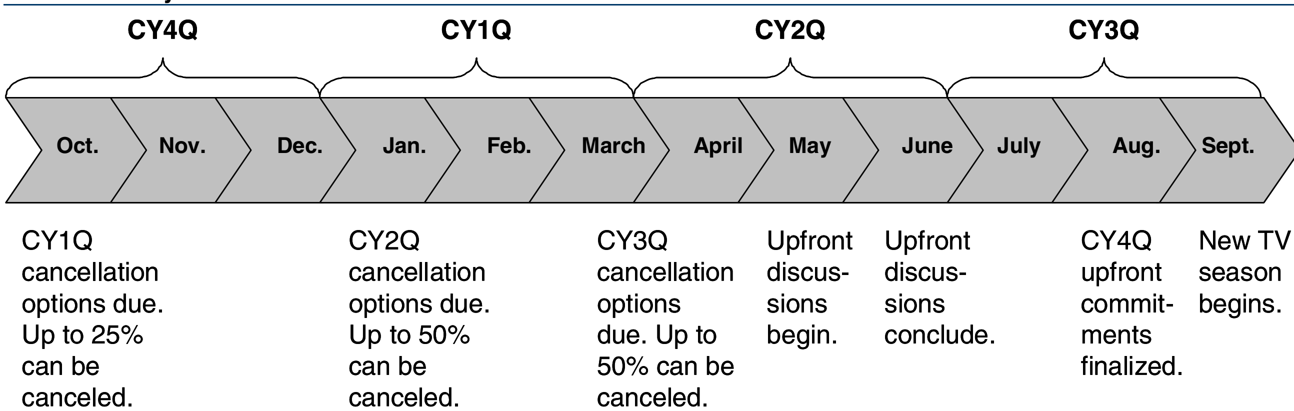
**Note: "Other" includes Direct mail and Online Classifieds*

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



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%**			

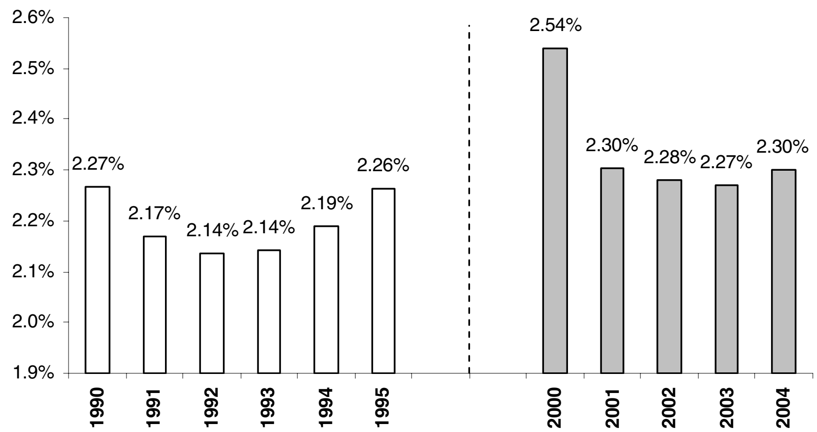
Source: Company data, Credit Suisse estimates

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.

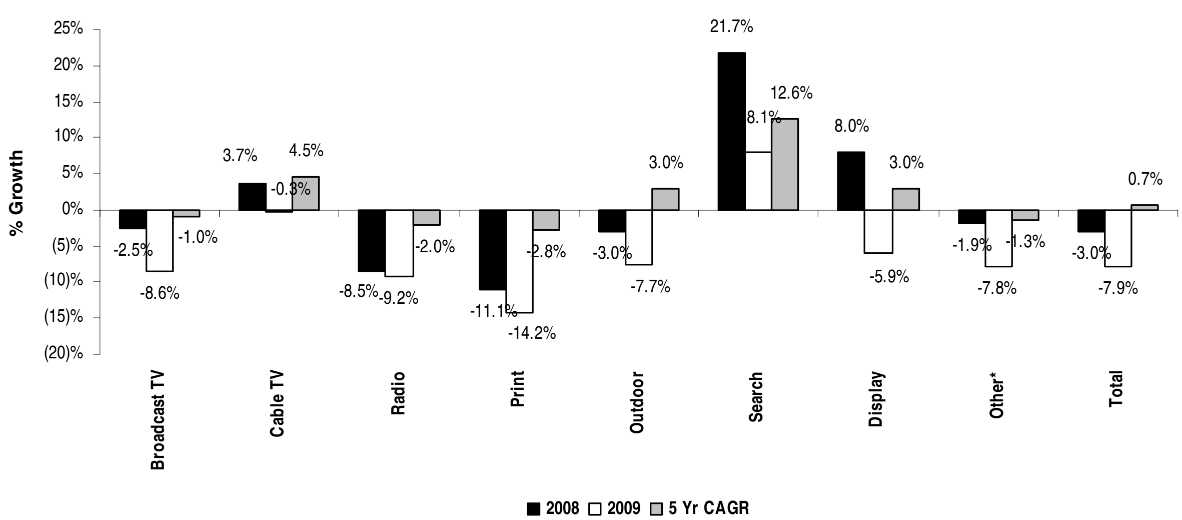
Exhibit 26: Current Ad Cycle versus 1991 Ad Cycle



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.

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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**:

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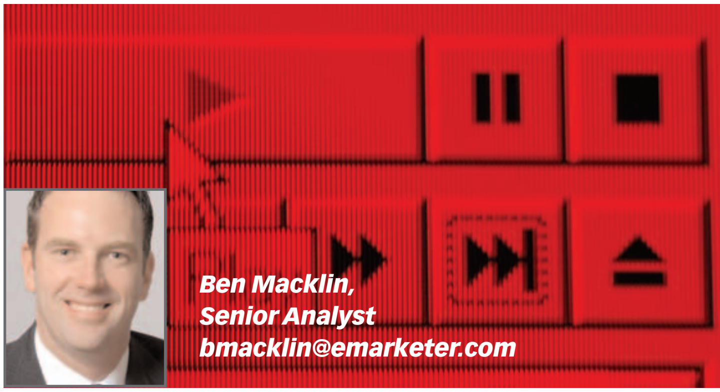

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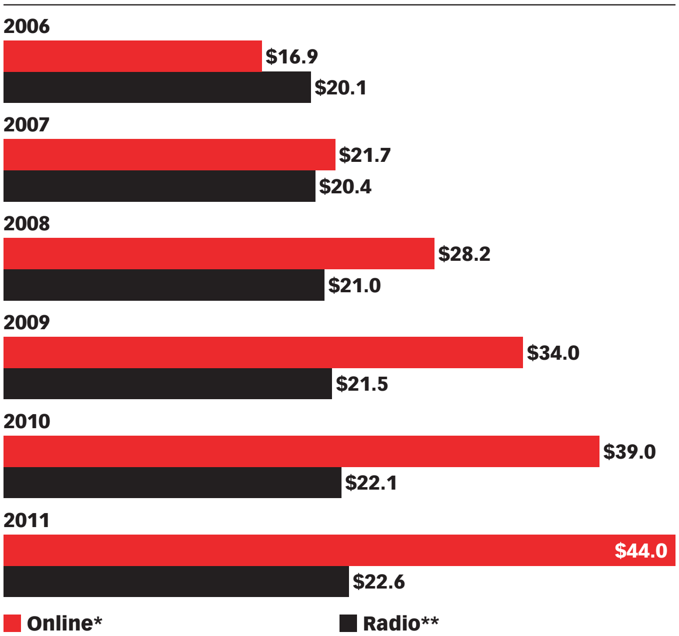
Radio Trends:

On Air and Online

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

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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.

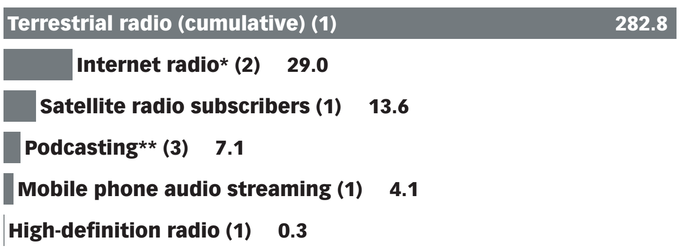
Issues & Questions

- 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

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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

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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

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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

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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

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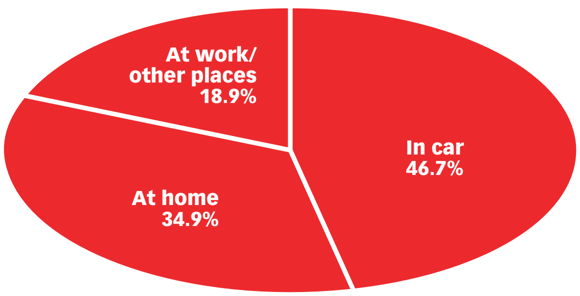
Advertising on Internet radio is a particularly powerful way to drive listeners to a site. Also, measuring a response to an offer or "call to action" is far easier online than measuring the response to a terrestrial broadcast. Further, audio ads enhanced online with visual ads can increase the engagement 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

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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

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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

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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

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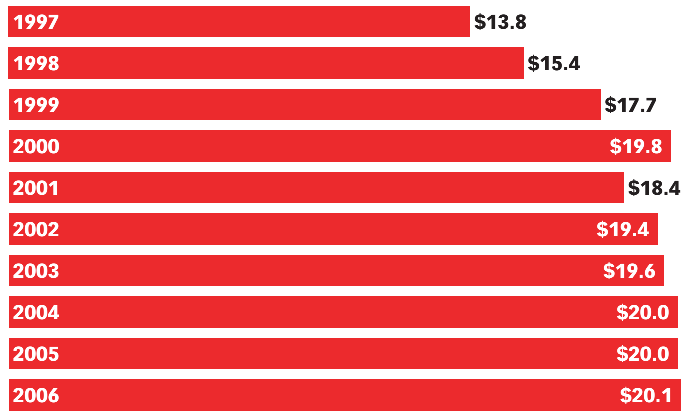
A radio ad can have a far higher emotional response than an Internet banner ad alone. But the RAEL study shows that, when one combines the best of both media, the result is greater than the sum of its individual parts.

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

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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

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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

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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

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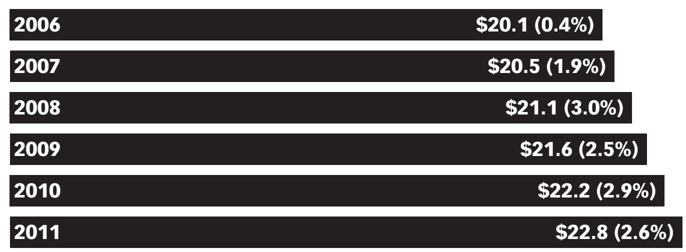
eMarketer expects US radio advertising spending to grow 1.9% during 2007 to $20.5 billion. As 2008 is an election year, radio advertising is likely to benefit. Beyond 2008, eMarketer forecasts steady growth.

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

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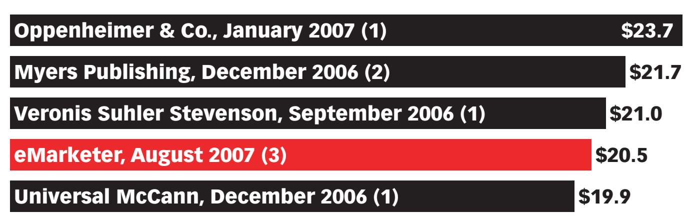
Analysts and investment firms estimate that US radio advertising spending in 2007 will be about $21 billion.

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

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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

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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

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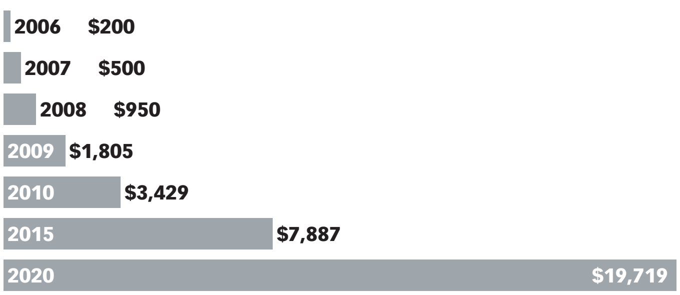
One component of Internet radio advertising spending is advertising on local radio sites. Borrell Associates and Veronis Suhler Stevenson both recently published figures measuring this segment, but their estimates differ significantly. Borrell Associates put total spending on local internet radio advertising 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

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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

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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

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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

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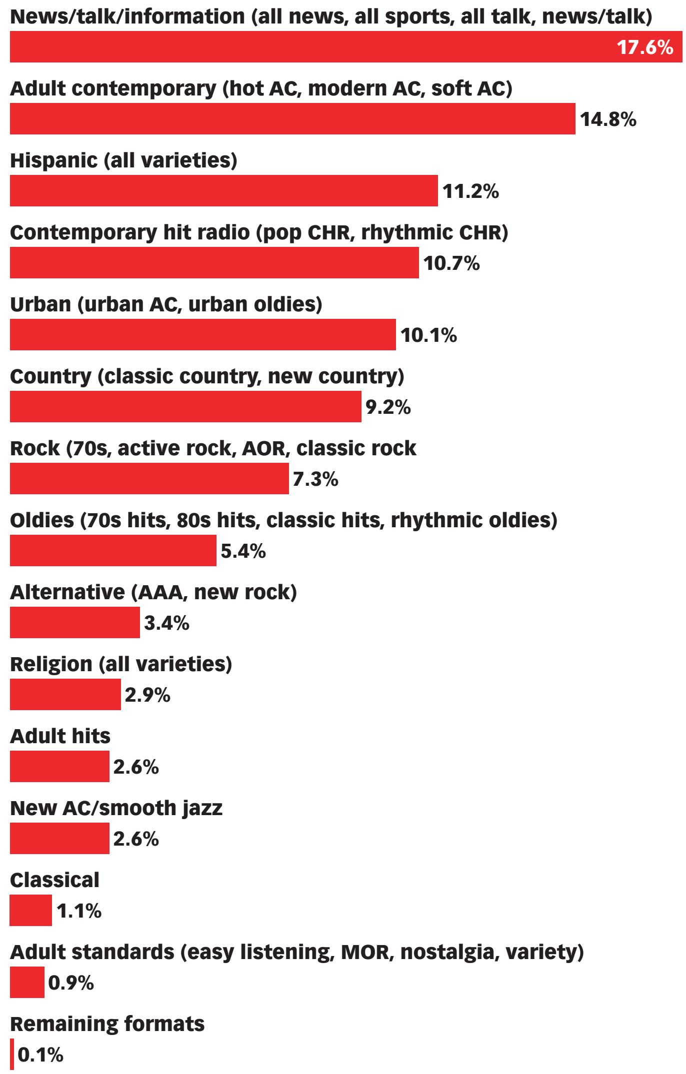
While country music may have the greatest number of dedicated radio stations in radio audience share, the news/talk/information stations garner the greatest share of the radio listening audience, according to Arbitron.

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

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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

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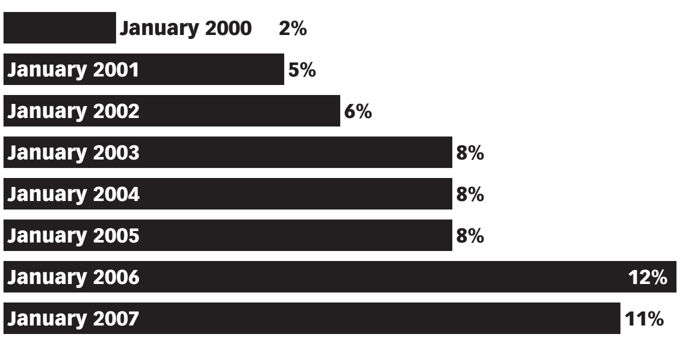
Interestingly, the growth of Internet radio has been quite sporadic over the past seven years. Between 2003 and 2005, growth was relatively flat with 8% of Internet users tuning in to Internet radio each week. By January 2006, however, it reached 12% of Internet users and, at last count, was at 11%.

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

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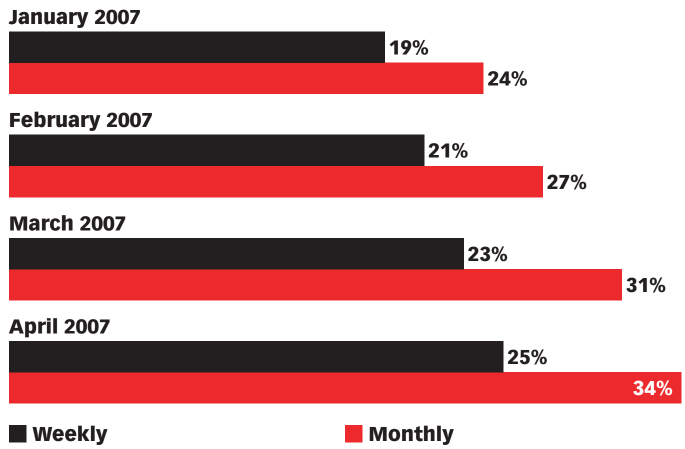
Measuring the growth during the first four months of 2007, Bridge Ratings data show a significant increase in both weekly and monthly Internet radio listeners. One-quarter of respondents cited listening to Internet radio weekly in April 2007.

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

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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

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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

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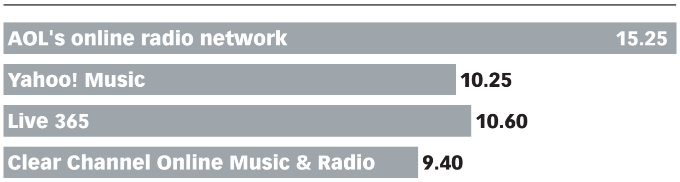
AOL may not top too many Internet lists these days, but it maintains a dominant position in Internet radio. Bridge Ratings reported that AOL Internet radio consumers listen to five hours more Internet radio per week than nearest rival Yahoo! Music.

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

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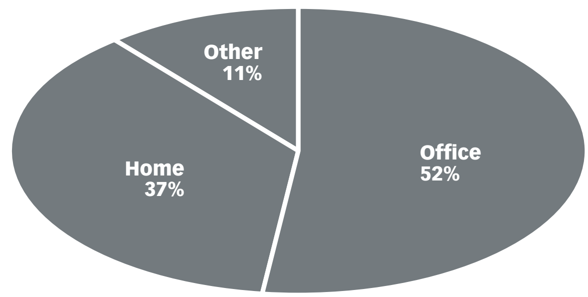
Internet radio listeners can mostly likely be found where they work. For this reason, marketers wishing to target the at-work audience may find Internet radio an attractive proposition.

US Internet Radio Listeners, by Location, April 2007 (% of respondents)



Note: ages 12+
Source: Bridge Ratings as cited in press release, April 18, 2007

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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

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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

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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

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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

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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

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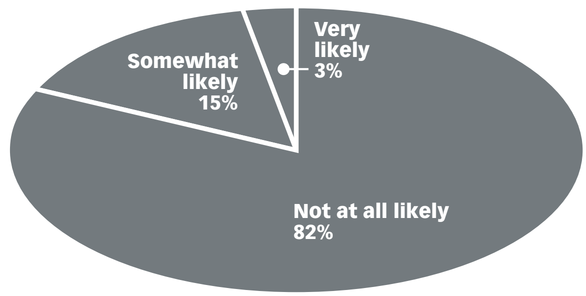
According to Arbitron, 18% of survey respondents who do not subscribe to satellite radio (XM or Sirius) say they are likely to subscribe in the next 12 months. This figure is unchanged in the last year. Only 3% of non-subscribers to satellite radio say they are "very likely" to subscribe in the next 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

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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

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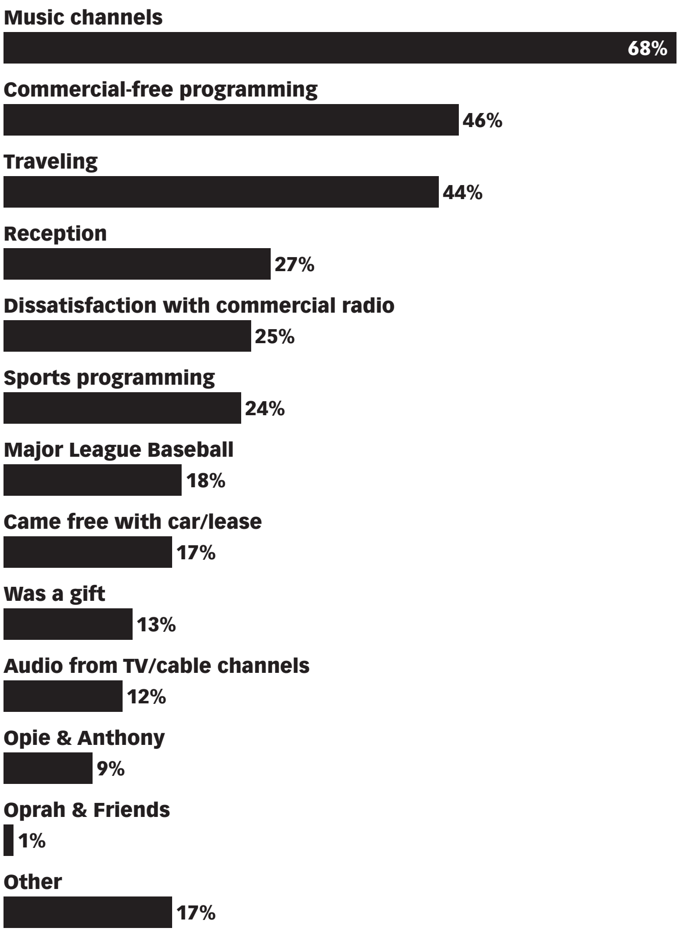
The primary reason for subscribing to either XM or Sirius satellite radio is for the music channels, according to survey data from Jacobs Media. The only significant difference between the two companies is the Howard Stern factor for Sirius. Survey data shows that one-third of respondents cited Howard 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

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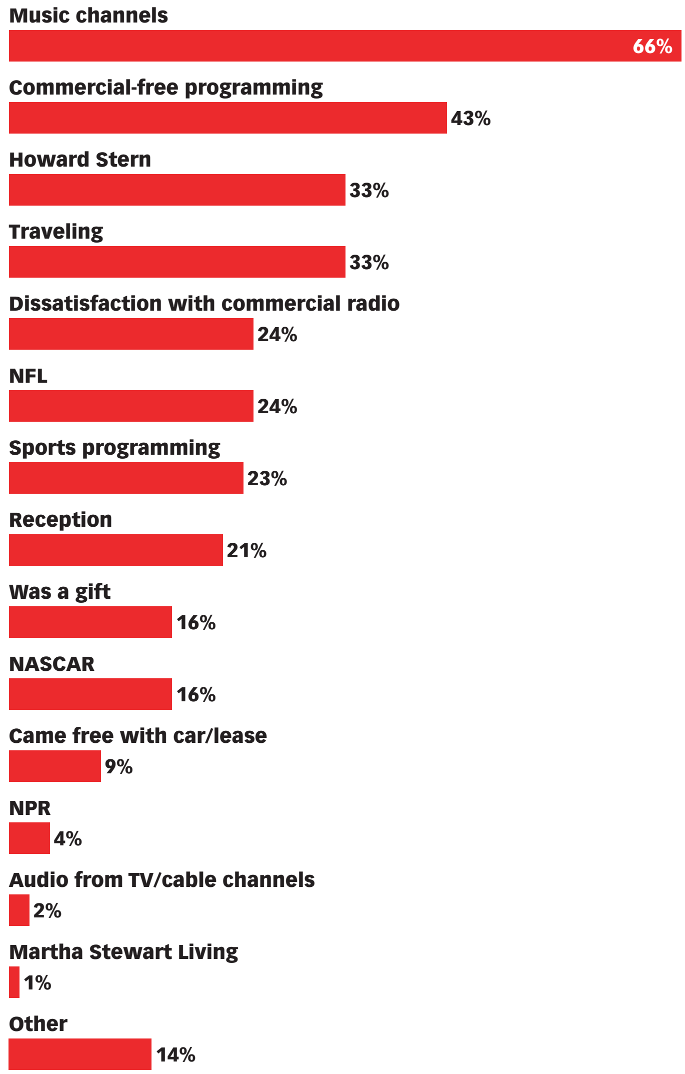
Reasons for Subscribing to Sirius Satellite Radio according to US Sirius Subscribers, February-March 2007 (% of respondents)



Source: Jacobs Media, "Tech Survey III: Satellite Radio," March 20, 2007

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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

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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

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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.

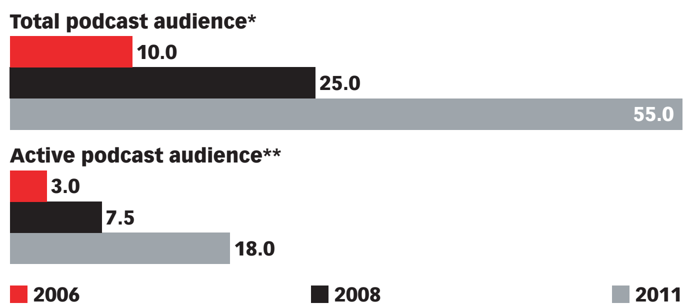
See eMarketer's Podcast Advertising Report
http://www.emarketer.com/Reports/All/Em_ad_podcast_feb07

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)

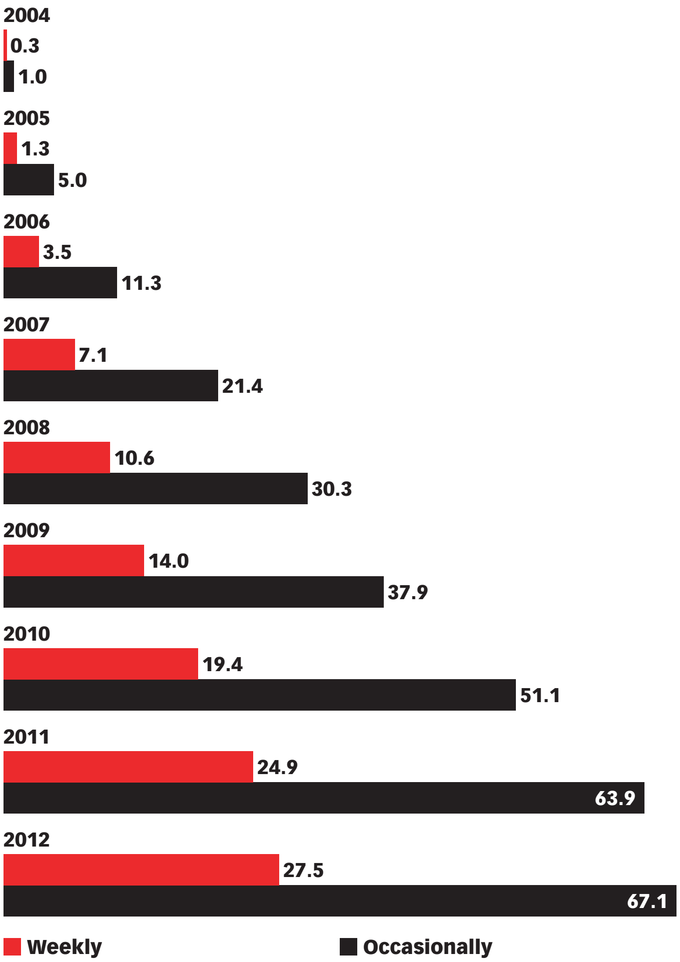


*Note: *individuals who have ever downloaded a podcast; **individuals who download an average of one or more podcast(s) per week*
Source: eMarketer, February 2007

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

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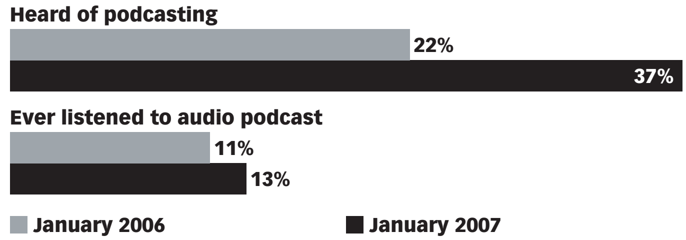
While significantly more people have heard of podcasting in 2007 compared with a year earlier, this has not translated into a similar growth in podcast usage, according to Arbitron.

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

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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

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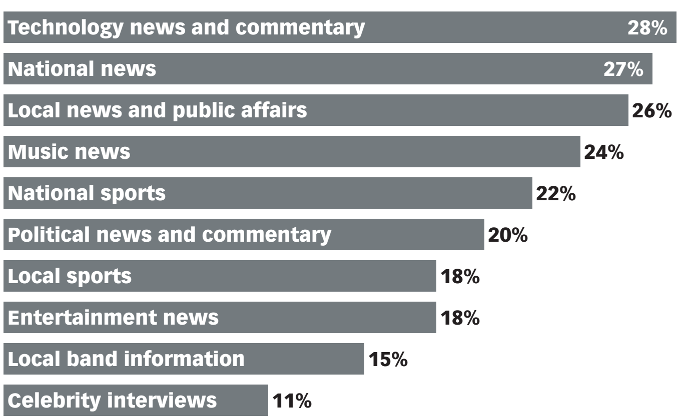
As has been noted, technology news and commentary is the most popular genre of content for US podcast listeners, followed by news and current affairs.

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

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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)

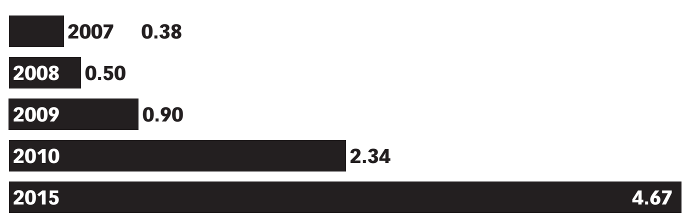
	12-24	25-54	55+	Total
Have heard of				
January 2007	69%	75%	71%	72%
July 2007	70%	77%	68%	75%
Can explain				
January 2007	24%	13%	7%	15%
July 2007	22%	12%	5%	13%
Are interested* in				
January 2007	28%	14%	3%	8%
July 2007	23%	13%	2%	7%

*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

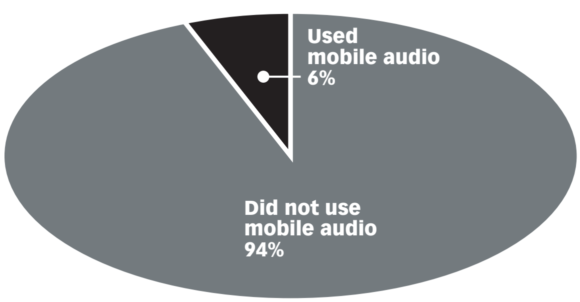
Listening to radio content on mobile audio devices is a far more attractive proposition for consumers than HD radio. Many new mobile handsets now have integrated FM radios, and satellite radio providers have teamed up with mobile operators to have their services available on mobile phones.

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.

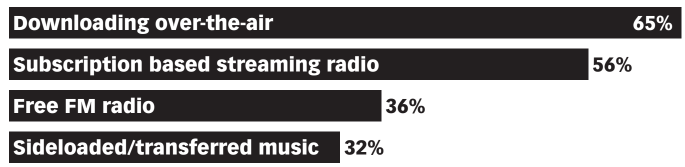
US Mobile Phone Users Who Have Listened to Mobile Audio, Q4 2006 (% of respondents)



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.

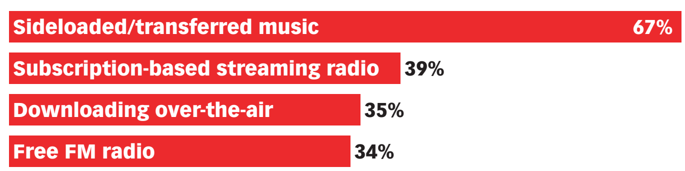
US Mobile Phone Users Who Are Aware of Select Mobile Audio Features, February 2007 (% of respondents)



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.

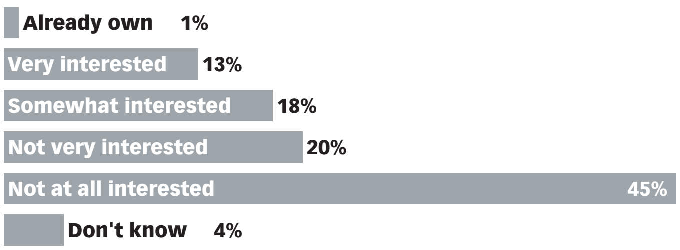
Time per Week that US Mobile Audio Listeners Spend Listening to Select Mobile Audio Features, February 2007 (hrs:mins)

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

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Radio Broadcasting

Internet Radio Scorecard February '08: Terrestrial Radio's Share of Unique Visitors Hits 45%

Radio, TV, & Outdoor

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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

		JPM	Stk. Price	Equity	EV/EBITDA		P/FCF		P/E	
Radio Broadcasters	Ticker	Rating	4/10/08	Mkt. Cap	2008E	2009E	2008E	2009E	2008E	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.

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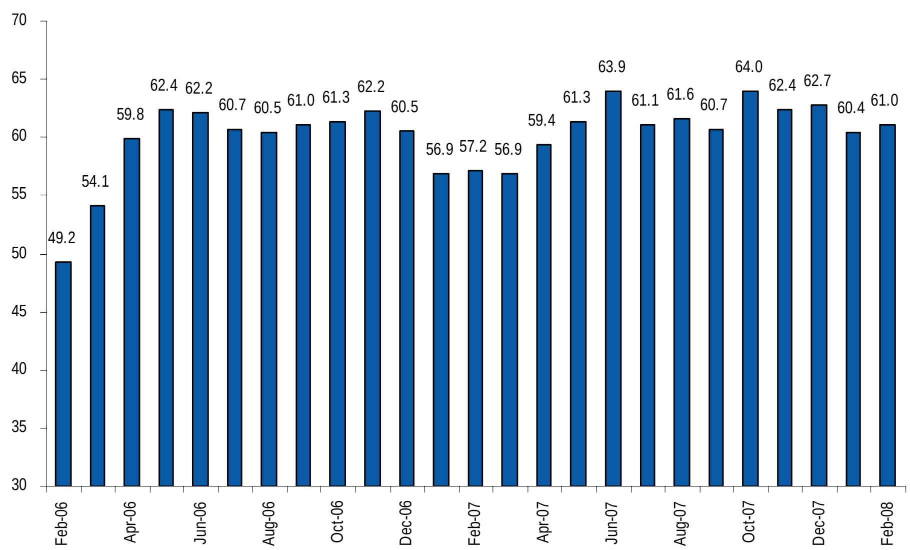
February 2008 Internet Radio Metrics

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



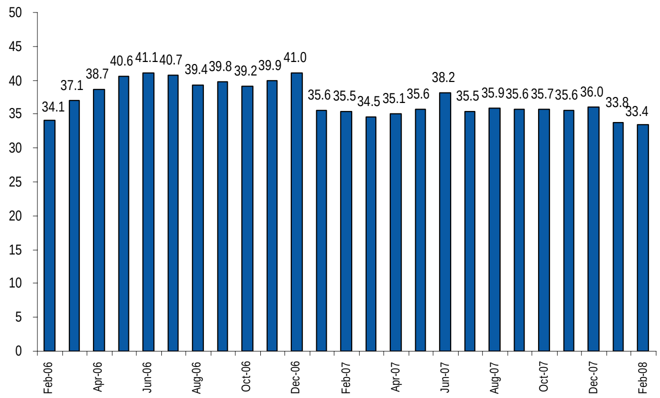
Source: CommScore Media Metrix and JPMorgan calculations.

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

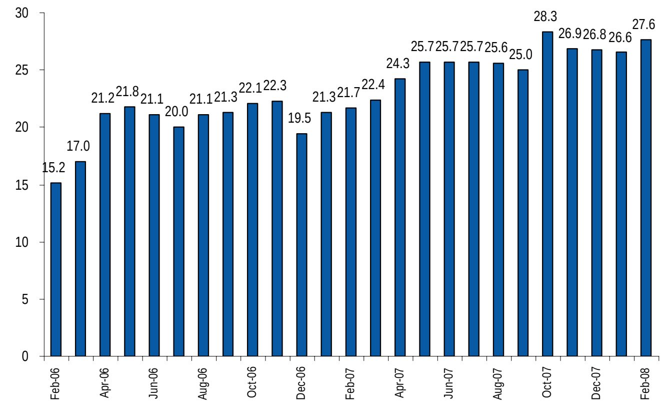


Source: CommScore Media Metrix and JPMorgan calculations.

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.

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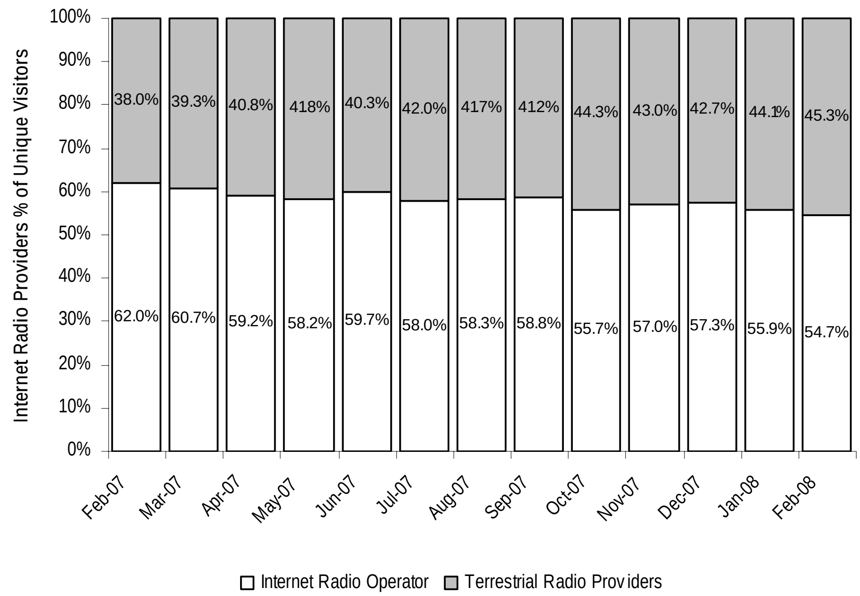
Terrestrial Radio's Share of Unique Visitors Up to 45%

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.

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"Other Disclosures" last revised February 6, 2008.

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ADVERTISING EXPENDITURE FORECASTS
JULY 2009

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ISSN 0968-2163

ZENITHOPTIMEDIA

ZenithOptimedia is one of the world's leading global media services agencies with 218 offices in 72 countries.

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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

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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.

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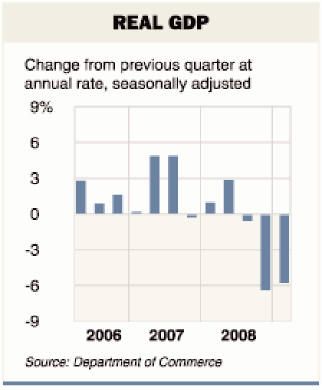

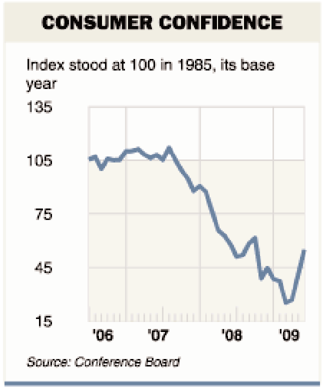

In the first quarter of 2009, US GDP deteriorated for the third consecutive quarter, decreasing at an annual rate of 5.5%. This was largely on account of businesses slashing their capital investments and inventories to cut costs, after supplies had built up following a rapid decrease in personal consumption. 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

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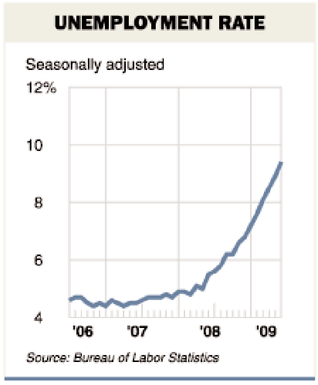
downturn and the ongoing credit crisis, banks are reluctant to lend out their reserves. Core inflation, which excludes volatile food and energy prices, increased 0.3% in April, the largest increase since June 2008, and is up 1.9% over April 2008. Fed officials expect inflation to remain subdued and acknowledge 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	$6,107,599	$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

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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

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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 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.

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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*

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

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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.

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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.

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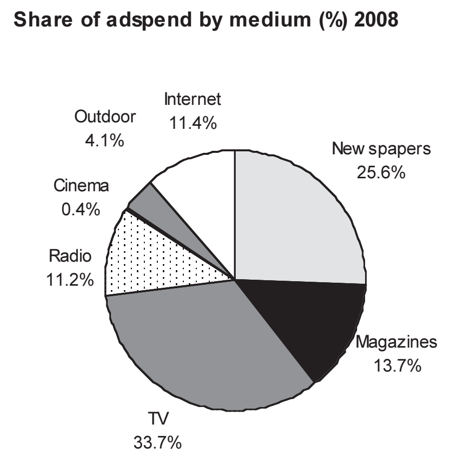

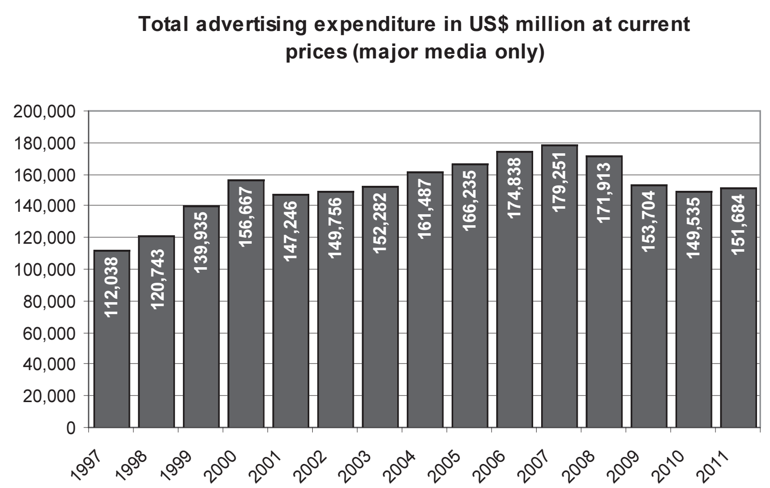

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Year-on-Year % Change

	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**

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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	**85,675**	**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 inlcuded 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)

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**

LIVE365, INC.'S NOTICE OF AMENDED
WRITTEN DIRECT STATEMENT OF DR. MARK FRATRIK

Pursuant to 17 U.S.C. § 803(b)(6)(C)(i) and 37 C.F.R. § 351.4(c), Live365, Inc. ("Live365") respectfully submits the amended written direct statement of Dr. Mark Fratrik. As permitted under the governing statute and regulation, Dr. Fratrik has amended his written direct statement (submitted on September 29, 2009) based on new information received during the discovery process.[1] *See* 37 C.F.R. § 351.4(c) ("A participant in a proceeding may amend a written direct statement based on new information received during the discovery process, within 15 days after the end of the discovery period"); *see also* 17 U.S.C. § 803(b)(6)(C)(i) (same). Dr. Fratrik's amended written direct statement is timely under the relevant regulations. The amendments to Dr. Fratrik's original written direct statement (and how these amendments differ from the original statement) are discussed in detail below.

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[1] Attached hereto as Exhibit A is a version of Dr. Fratrik's amended statement that tracks the changes between his original written direct statement (submitted on September 29, 2009) and the amended version, which is being concurrently filed with this notice.

AMENDMENTS TO DR. FRATRIK'S WRITTEN DIRECT STATEMENT

Through his initial written direct statement, Dr. Fratrik constructed an economic model to calculate a proper royalty based on an examination of revenues, costs and margins of a typical webcaster. Dr. Fratrik's model relies upon information presented in several well-established industry reports (such as AccuStream and ZenithOptimedia) as well as financial data from Live365 – the only non-interactive webcaster whose internal data Dr. Fratrik had access to at the time his direct statement was filed. As noted several times in Dr. Fratrik's initial written direct statement, Dr. Fratrik anticipated that certain new information would be learned from SoundExchange through the discovery process that would supplement his economic model. This anticipation proved to be true. Indeed, the recently-completed discovery period has provided Dr. Fratrik with several additional data points and other information that both strengthen his opinion (and the assumptions upon which his opinion was derived) and provide the Court with more information on which to base its rate-setting determination.

This newly-discovered information has been incorporated into Dr. Fratrik's amended written direct statement as set forth below:

1. **Average Subscription Price Per Subscriber:** Dr. Fratrik uses Live365 internal data to determine the average monthly subscriber fee charged to Live365 subscribers as part of his calculation on revenue (specifically, $6.02 per month) for non-interactive webcasting. SoundExchange and its expert, Dr. Pelcovits, have provided a lower estimate of subscriber revenue per month ($4.13) based on their analysis of multiple non-interactive webcasters. *See, e.g.*, SXW3_0003715. Dr. Fratrik has amended his statement to incorporate this new data into his economic model.

2. Average Hours Of Listening Per Subscriber per Month: Dr. Fratrik uses Live365 internal data to determine the average number of hours a subscriber listens to non-interactive webcasting in his calculation of subscriber revenue per hour (specifically, 40 hours per month). Information has been provided by SoundExchange through the written direct testimony of Dr. Pelcovits that affirms the data provided to Dr. Fratrik by Live365. Specifically, Dr. Pelcovits has provided data on the number of plays per subscriber per month. *See* SXW3_Native_0009 (RESTRICTED).xls; *see also* Corrected Testimony of Michael D. Pelcovits at 32 ("This data yields an average number of 563.36 plays per subscriber per month").[2] Dr. Fratrik's testimony has been amended to reflect this confirming data from SoundExchange.

3. Weighted Average Of Subscription Vs. Non-Subscription Listenership: Dr. Fratrik's economic model relies on Live365 internal data to determine the contribution of revenue to a non-interactive webcaster from subscription and non-subscription performances. Specifically, Dr. Fratrik examines the percentage of hours at Live365 between subscription listening and non-subscription listening. *See, e.g.,* Testimony of Mark R. Fratrik, at 24 ("The values of 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.") SoundExchange has produced documents in the course of discovery that provide further information on this percentage and are based on multiple non-interactive services. *See* SXW3_Native_0025 (RESTRICTED).xls. Dr. Fratrik's Amended Testimony incorporates this newly-acquired information.

[2] At 14 plays per hour, 563.36 plays equals approximately 40 hours per month.

4. **Total Advertising Revenue Of The Non-Interactive Market:** SoundExchange documents produced in discovery also provide evidence about the number of performances in the non-interactive marketplace. *See* SXW3_00007900. Using this information, Dr. Fratrik has done an extrapolation of Live365's advertising revenue based on its percentage share of yearly performances reported to SoundExchange. This extrapolation estimates the size of the advertising market for non-interactive services -- confirming his revenue estimates. Dr. Fratrik's Amended Testimony reflects this recently learned information.

5. **Update Of Dr. Fratrik's Financial Model Based On Live365's FY2009 Financial Data:** At the time of filing of Dr. Fratrik's written direct testimony, Live365's fiscal year had not ended. Those numbers are now available and Dr. Fratrik has updated his statement to provide the most complete record to the Court. These financial statements are attached to Dr. Fratrik's Amended Testimony as Exhibit 9 and 10.[3] The Fiscal Year 2009 calculations can be found in Appendices I-III to the Amended Testimony of Mark R. Fratrik, Ph.D.

Dr. Fratrik's amended direct statement incorporating the changes described above replaces his originally-filed direct statement, except as noted in footnote 3 above. In all other respects, Live365's initial Written Direct Statement, including the written statements of its fact witnesses and all exhibits originally filed, remains unchanged.

[3] Dr. Fratrik incorporates Exhibits 1-8 of his originally-filed written direct testimony (submitted on September 29, 2009) to his Amended Testimony. Live365 has chosen not to re-file those voluminous exhibits at this time with the Amended Testimony. However, should the Court desire a complete set of exhibits to be filed together, Live365 will re-file all exhibits, i.e., Exhibits 1-10.

Respectfully submitted,

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Counsel for Live365, Inc.

February 16, 2010

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

In the Matter of	)
	) Docket No. 2009-~~1,~~1
	) CRB Webcasting III
DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS AND EPHEMERAL RECORDINGS	)

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. *See* Lam Test. ¶21. 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.

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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";

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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:

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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

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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.

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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.

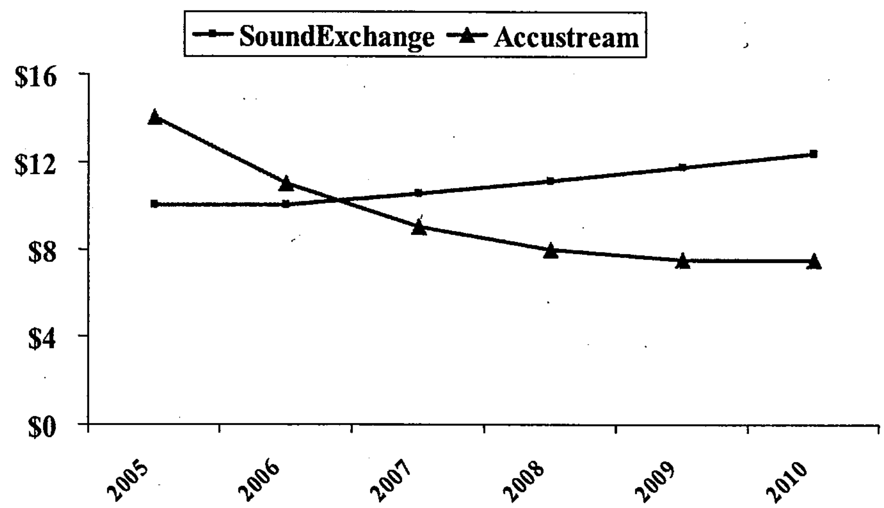
However, what was overlooked, especially in those advertising revenue growth estimates, was the tremendous increase in competition from all advertising sources. The advertising market has seen an explosion in the number of available options for national and local businesses to get their messages out. 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

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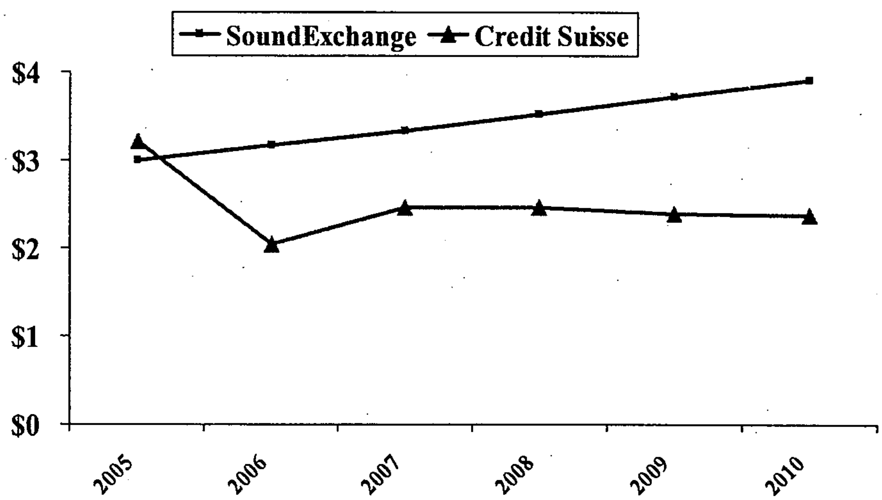
11 Testimony of Erik Brynjolfsson, in the matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2005-1 CRB DTRA, October 2005, (hereafter referred to as Brynjolfsson Testimony) p.29.

12 The actual CPMs used in this comparison are the annual averages of the monthly values for each of the years.

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



[13] *See* Exhibit 3, *Online Music Spins and Media Spend: 2003-2012*, AccuStream iMedia Research, 2009, (hereinafter "AccuStream Report"), Section 3.

[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.

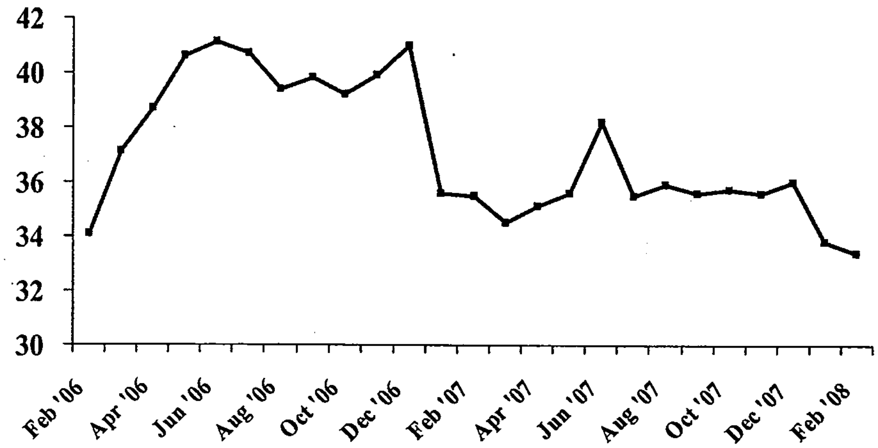
19 Note also that SoundExchange Witness James Griffin cites Bridge Ratings for the proposition that "Listenership – by all accounts – is projected to grow substantially. . . Industry analyst Bridge Ratings predicts that by 2010, 187 million people will listen to webcasting." Griffin Testimony, p. 56.

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

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

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April 2008, p. 3. Note that in this same analysis, the number of Unique Listeners to terrestrial 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.

realities facing commercial webcasters, I can arrive at the value a willing buyer should 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).

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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.

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 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.[27] *See* Lam Test. ¶1; 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

[27] My analysis of Live365's revenues and expenses are based upon Lam Exhibits 4 & 5.

revenue provides a reward for its intellectual property and innovation in developing a technology platform and software service to broadcasters.

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] *See* Lam ¶34. 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.

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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[~~30~~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.

~~30~~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. *See* Lam Test. ¶¶26-31. 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~~[31]~~[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.~~[32]~~[34] Table 3

32 Table 2(a) in Appendix I details the same calculations using Live365's FY2009 revenues and costs.

~~31~~33 This assumes 14 performances per hour.

~~32~~34 The revenues and EBITDA values are from finance.yahoo.com.

below shows the most recent financial results for eight different public radio companies.[3335]

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.[3436]

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

[3335] 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.

[3436] *See* Exhibit 2, *Investing in Radio: 2009*, 1st edition, 2009, BIA Advisory Service.

minus $0.0705).[~~35~~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[~~36~~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.[~~37~~39] AccuStream estimated total Monetizable Listening Hours for calendar year 2008 to be 2,950,635,987 [~~38~~40] and

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[~~35~~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).

[~~36~~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.

[~~37~~39] *See* Exhibit 3 (AccuStream Report), Section 3.

[~~38~~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 $0.00285.

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.[39] 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.

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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.

39 ~~Once again, at the present time, I have access to only subscriber usage information from Live365. I reserve the right to amend these calculations after the discovery process. The number of hours relate to the VIP subscribers to Live365.~~

At Live365, subscribers account for 23.5% of the total ATH in CY2008.[~~40~~44] *See* Floater 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.[~~41~~45]

Table 4 below summarizes the above referenced steps.

[~~40~~] ~~During the discovery process~~ [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 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.

[~~41~~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[42] [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.[43][48] However, ZenithOptimedia did not provide the associated ATH numbers for this revenue estimate. Nevertheless, I calculated the advertising

46 Tables 4 (a), (b) and (c) in Appendix II contain iterations of this model based on recently learned information from the discovery period.

~~42~~47 This assumes 14 performances per hour.

~~43~~48 *See* Exhibit 8, ZenithOptimedia's analysis of the United States of America market, *Advertising Expenditure Forecasts – July 2009,* (ZenithOptimedia Report).

revenues per ATH using this total industry advertising revenue estimate ($200 million 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.[~~44~~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.

[~~44~~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~~[45]~~[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.

50 Tables 5 (a), (b), and (c) in Appendix III contain iterations of this model based on recently learned information from the discovery period.

~~45~~51 This assumes 14 performances per hour.

At an average of 14 performances per hour, the approximate total number of 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

<u>c.</u> **<u>Assessment of Industry Revenue Based on SoundExchange Produced Data</u>**

<u>In discovery, SoundExchange produced documentation that can be used to provide another estimate on the size of the non-interactive webcasting industry. I have</u>

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.

~~e.~~ Conclusion

[52] *See* SXW3_00007900.

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.[4653] My observations on the impact on commercial webcasters have been confirmed. *See* Floater Test. ¶¶15-22. This

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[4653] *See* Exhibit 2, *Investing in Radio: 2009*, 1st edition, 2009, BIA Advisory Services.

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. *See* Lam Test. ¶¶32-33. 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."[~~47~~54] Dr. Jaffe cited evidence that the four major record companies "collectively represented over 85% of the physical product (mainly CDs)."[~~48~~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.[~~49~~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.[~~50~~57] This high concentration indicates that the record industry has excess negotiating power and can extract rates that do not reflect what a willing buyer and willing seller would enter into in a hypothetical competitive market.

[~~47~~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.

[~~48~~55] Ibid., p. 8.

[~~49~~56] Ibid., p. 9.

[~~50~~57] *See* U.S. Department of Justice Horizontal Merger Guidelines, April 8, 1997

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."[~~51~~58] Listeners expect, and commercial webcasters deliver, access to a wide variety of artists.

2. Promotional Value

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

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[~~51~~58] *See* Exhibit 6, *The Infinite Dial 2009*, Arbitron/Edison Research, 2009, p. 12.

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.[~~52~~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 $1.5 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 exposing users to new music and providing an easy link to sites where users can purchase this music. [~~53~~60]

Arista Records, LLC v. Launch Media, Inc., 2009 WL 2568733, *11 n.19 (2d Cir. Aug. 21, 2009).

[~~52~~59] *See* Floater Test. ¶32.

[~~53~~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").

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.[~~54~~61] Therefore, the substitutability issue should not play a role in the determination of the royalty rate for commercial webcasters.

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

[~~54~~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.

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.[~~55~~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 any organization they form to administer the collection of these royalties. *See, e.g.*, Lam ¶¶21-23.

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. *See* Lam Test. ¶¶24-25. In order to determine the discount, I have compared the 2006

[~~55~~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. Lam Test. ¶.

Live365 Minicaster Web Site Music Performance Agreement ("Live365 Minicaster Agreement") with the 2007 BMI Web Site Music Performance Agreement ("General BMI Agreement"). *See* Lam Exhibits 1 & 2. 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%[~~56~~63] CPI percentage increase to the Live365 Minicaster 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 BMI provides to Live365's webcasters to be 17.1%. 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

~~56~~63 *See* http://www.bls.gov/cpi/cpid0710.pdf for the October 2007 CPI.

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.[~~57~~64] Part of that advantage in selling 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.[~~58~~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

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~~57~~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:

> "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."

~~58~~65 See the comments of the Clear Channel representative, footnote 57.

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.

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.

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Mark R. Fratrik, Ph. D.

Date: ____________________

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.

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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.

Document comparison by Workshare Professional on Monday, February 15, 2010 6:13:54 PM

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Moved to	0
Style change	0
Format changed	0
Total changes	571

CERTIFICATE OF SERVICE

I, Rhea Lytle, a secretary with the law firm of Davis Wright Tremaine LLP, do hereby certify that copies of the foregoing **"Live365, Inc.'s Notice of Amended Written Direct Statement of Dr. Mark Fratrik"** were sent via electronic email and via first-class, postage prepaid, United States mail, this 16th day of February, 2010 to the following:

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Rhea Lytle
Rhea Lytle

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	)

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]

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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. *See* Lam Test. ¶21. 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.

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[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";

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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:

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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.

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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.

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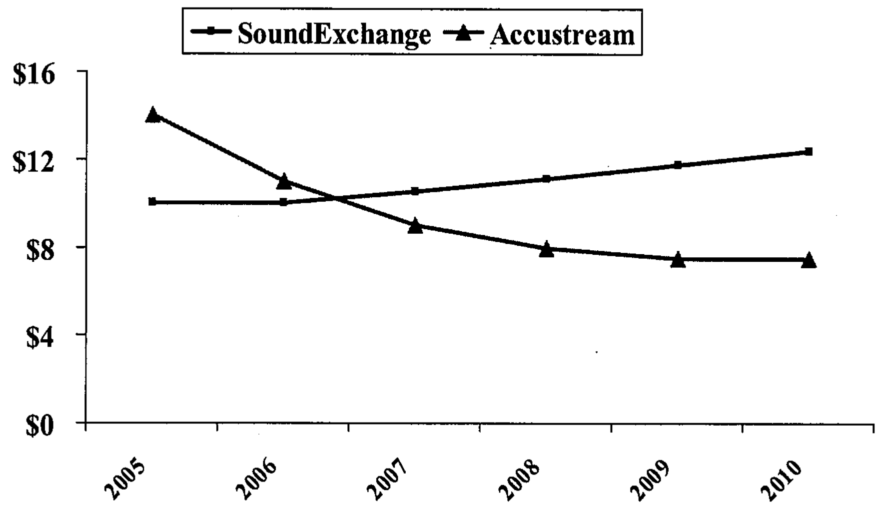
[10] *See* Exhibit 2, *Investing in Radio: 2009*, 1st edition, BIA Advisory Services, 2009.

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

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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.

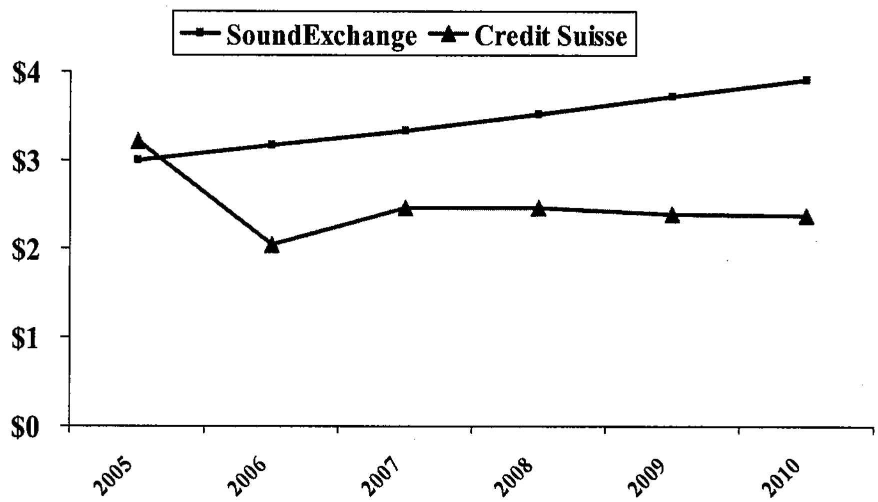
12 The actual CPMs used in this comparison are the annual averages of the monthly values for each of the years.

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

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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.

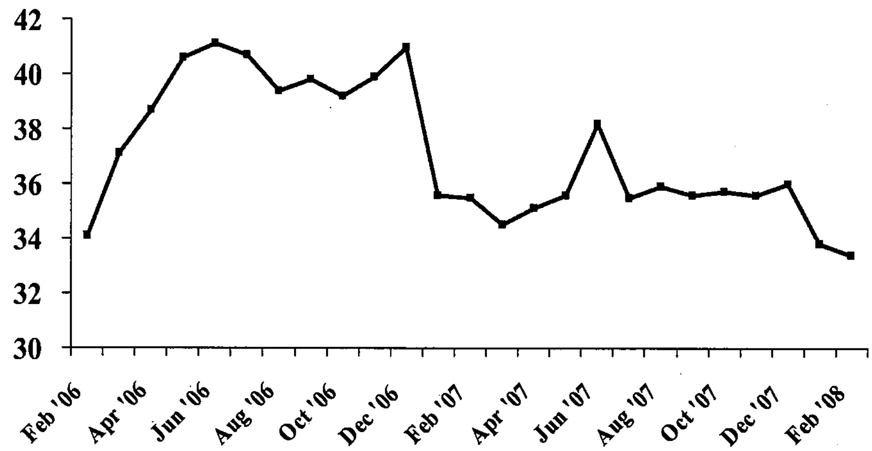
19 Note also that SoundExchange Witness James Griffin cites Bridge Ratings for the proposition that "Listenership – by all accounts – is projected to grow substantially. . . Industry analyst Bridge Ratings predicts that by 2010, 187 million people will listen to webcasting." Griffin Testimony, p. 56.

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

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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

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[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.[27] *See* Lam Test. ¶1; 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.

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27 My analysis of Live365's revenues and expenses are based upon Lam Exhibits 4 & 5.

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] *See* Lam ¶34. 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.

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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. *See* Lam Test. ¶¶26-31. 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

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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 $0.00285.

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

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[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.

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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. *See* Lam Test. ¶¶32-33. 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

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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.

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[58] *See* Exhibit 6, *The Infinite Dial 2009*, Arbitron/Edison Research, 2009, p. 12.

2. Promotional Value

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 $1.5 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.

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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. Lam Test. ¶.

any organization they form to administer the collection of these royalties. *See, e.g.*, Lam ¶¶21-23.

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. *See* Lam Test. ¶¶24-25. 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"). *See* Lam Exhibits 1 & 2. 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 BMI provides to Live365's webcasters to be 17.1%. 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: Feb. 15, 2010

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.

EXHIBIT 1 THRU 8
UNCHANGED FROM ORIGINAL TESTIMONY

EXHIBIT 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%*	*47.5%*

EXHIBIT 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**	**$4,474,858**
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**	**$3,803,579**
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**

CERTIFICATE OF SERVICE

I, Rhea Lytle, a secretary with the law firm of Davis Wright Tremaine LLP, do hereby certify that copies of the foregoing "**Amended Testimony of Mark Fratrik, Ph.D.**" were sent via electronic email and via first-class, postage prepaid, United States mail, this 16th day of February, 2010 to the following:

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Rhea Lytle

Rhea Lytle

Live365 is aware of the requirement of 37 CFR Section 351.4(b)(2) for the submission of transcripts of the testimony of witnesses when their exhibits from prior proceedings are designated in this case. However, the Protective Order in Webcaster II specifically prohibits the dissemination of protected materials, and further prohibits that dissemination in any subsequent proceeding where there is not an identity of parties. The transcripts of Mr. Jaffe's testimony in the Webcaster II proceeding are marked Restricted. As the parties are not identical here, and as the Protective Order in this proceeding does not cover Direct Case exhibits, Live365 cannot file those materials here without violating the Webcaster II Protective Order. Live 365 has copies of those transcripts available, and will file a motion for clarification of this matter with the Judges.

Before the

UNITED STATES COPYRIGHT OFFICE

Library of Congress
Washington, D.C.

In the Matter of Digital Performance Right in Sound Recordings and Ephemeral Recordings	:	Docket No. 2000-9 CARP DTRA 1&2

Testimony of ADAM B. JAFFE

I. INTRODUCTION AND BACKGROUND

A. Qualifications

1. I am a Professor of Economics and Chair of the Department of Economics at Brandeis University in Waltham, Massachusetts. Prior to joining the Brandeis faculty in 1994, I was on the faculty of Harvard University. During academic year 1990-91, I took leave from Harvard to serve as Senior Staff Economist at the President's Council of Economic Advisers in Washington, D.C. At the Council, I had primary staff responsibility for science and technology policy, regulatory policy, and antitrust policy issues. I have served as a member of the Board of Editors of the American Economic Review, the leading American academic economics journal. I am currently an Associate Editor of the Rand Journal of Economics

and a member of the Board of Editors of the Journal of Industrial Economics. I also serve as Co-organizer of the Innovation Policy and the Economy Group of the National Bureau of Economic Research.

2. I have served as a consultant to a variety of businesses and government agencies on economic matters, including antitrust and competition issues, other regulatory issues, and the valuation of intellectual property, including music performance rights. I have served as a business consultant and testified on behalf of both owners and licensees on the subject of the valuation and pricing of intellectual property such as copyrights. I am also the Chair of the Brandeis Intellectual Property Policy Committee. I have filed expert testimony and been qualified as an economic expert in a variety of regulatory, judicial, and arbitration proceedings. At Brandeis and Harvard, I have taught graduate and undergraduate courses in microeconomics, industrial organization, and the economics of innovation and technological change. A true and accurate copy of my curriculum vitae is attached as Appendix A.

B. Background and overview

3. I have been asked by a group of broadcaster streamers, webcasters, and background music services[1] to provide an economic analysis of issues related to valuation of the right of public performance of digital

[1] I use the term "broadcaster streamers" to refer to FCC-licensed radio broadcasters who simultaneously stream their over on-the-air programming on the internet. I use the term "webcasters" to refer to internet-only audio streaming businesses. I use the term

sound recordings and ephemeral recordings under 17 U.S.C. § 114(f)(2)(B) and 17 U.S.C. § 112(e) during the periods of October 1, 1998 to December 31, 2000, and January 1, 2001 to December 31, 2002. Section II provides a framework for my analysis. Sections III through V discuss the public performance of the sound recordings and relate only to broadcaster streamers and webcasters. Background music services are statutorily exempt from Section 114. Section VI, relating to ephemeral copies, applies to broadcaster streamers, webcasters, and background music services. In Section VI, I comment on the economic relationship between the value assigned to the Section 114 public performance right and the right of reproduction in the form of so-called "ephemeral" copies that is governed by Section 112(e).

II. FRAMEWORK FOR ECONOMIC ANALYSIS

A. Economic justification for a compulsory license/arbitration perspective[2]

4. From the perspective of economic analysis, the public policy motivation of a compulsory license/arbitration framework for a sound recording performance royalty derives from the underlying structure of the market for the public performance right. The nature of broadcasting is such that many or most broadcasters need permission for public performance from many distinct original rightsholders in order to produce and broadcast the

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"background music services" to refer to businesses that provide background music primarily to business establishments.

[2] As discussed by Professor Fisher (Testimony of William Fisher), there has not historically been a public performance right in sound recordings.

kind of programming that listeners find most enjoyable. Further, the identification of the particular sound recordings that are going to be broadcast at a point in time is often decided only shortly before the broadcast and consequent public performance of the recordings. These two factors combine to create a situation in which a *competitive* market for public performance royalties for sound recordings may well be characterized by significant transactions costs, because negotiating agreements for the right of public performance with many different parties, often with uncertainty about what is going to be performed when and how often, would involve considerable time, inconvenience, and out-of-pocket costs.

5. In general, public policy seeks to encourage reliance on competitive markets, because such markets in most cases result in prices tied to costs, and prices that appropriately capture the value that buyers put on the good or service in question. But in a market in which a competitive structure would create large transactions costs, it may be advantageous to reduce those transactions costs by allowing centralized licensing of the right in question. Such centralized licensing permits broadcasters to license the rights that they need from a single party, and removes from the licensee the burden of determining, on a performance-by-performance basis, how to acquire the necessary performance rights.

6. This centralization of licensing of the right of public performance comes at a cost: the loss of the benefits of competitive pricing for

the right in question. A single party licensing performance rights on behalf of all or most owners of the rights in sound recordings will not license that right at a competitive price. Rather, such an entity can be expected to act as a monopolist, insisting on a fee for the performance license chosen to maximize the revenues received. In the language of economics, such a centralized licensor has "market power," which is the ability to elevate the market price above the competitive level.

7. Indeed, the high transactions costs that were the justification for centralized license administration make it likely that the monopolist licensor will have considerable market power, i.e., will be able to succeed in setting a monopoly price that is considerably higher than the competitive level. The ability of a monopolist to elevate the price is limited only by the possibility that too high a price will induce some potential buyers to forgo purchasing. In the case of a public performance right, a broadcaster has only three ways to avoid taking a license from a centralized licensor (in the absence of a compulsory license mechanism, which we will come to in a moment). First, the broadcaster could try to get the necessary rights from the individual underlying rightsholders, bypassing the centralized license administrator (assuming that the right of the centralized administrator to license the underlying works is non-exclusive). But the high transactions costs make this option unlikely to be economically viable for many broadcasters. Second, the broadcaster could infringe the copyrights, but such

an illegal option has to be thought of as either unavailable or very costly. Finally, the broadcaster can choose not to broadcast at all, thereby forgoing the overall economic value of their business. Since all of these options are expensive for many potential licensees, they impose only a mild discipline on a centralized license administrator who is not subject to any external pricing constraint.

8. Thus in the absence of a more interventionary public policy, markets of this type must either be hindered by high transactions costs, or else be burdened by monopoly prices that are likely to be far in excess of competitive levels. Compulsory licensing, with the terms and conditions set by arbitration, offers a solution to this dilemma. It offers the possibility of transaction-cost efficient centralized licensing, with terms and conditions of those licenses kept from monopolistic levels by the process of arbitration. I now turn to the particular statutory framework created to implement this approach for particular digital public performances of sound recordings.

B. The economic meaning of the willing-buyer-willing-seller/marketplace test

9. The statute specifies that the Copyright Arbitration Royalty Panel (the "Panel") is to determine license 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."[3] The determination of the willing-buyer-willing-seller/marketplace rate should be

based on economic, competitive, and programming information, including certain specific criteria listed in the statute. I will discuss these specific criteria below. For the moment, I want to focus specifically on the economically appropriate interpretation of the willing-buyer-willing-seller/marketplace test that the statute specifies for the rates and terms that the Panel should establish.

10. The discussion in the previous section suggests that, from an economic perspective, the compulsory licensing/arbitration regime that the statute establishes has a specific economic and public policy motivation. It is designed to resolve the dilemma created by the existence of licensing transactions costs, i.e., the desire to reduce such costs through centralization, combined with concern that such centralization creates market power. Compulsory licensing combined with arbitration can resolve this dilemma: a centralized licensing authority can be authorized, to minimize transactions costs. An obligation to license under rates and terms subject to arbitration can then be used to ensure that the resulting rates and terms are kept to the competitive level.

11. Thus the economic and public policy interpretation of the compulsory licensing/arbitration regime suggests that the willing-buyer-willing-seller/marketplace test should be interpreted to mean that the Panel should set rates and terms that would prevail in a *hypothetical* market that

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[3] 17 U.S.C. § 114(f)(2)(B).

minimizes transactions costs while remaining competitive.[4] After all, if Congress had considered it acceptable for a "market" rate to be one at the level a monopolist would set, it likely never would have created a compulsory license. If the law had simply created a right in the public performance of sound recordings by digital means, and left it entirely to users and rightsholders to negotiate terms, presumably they would have done so. The Recording Industry Association of America ("RIAA"), acting as a monopolist, would have insisted on a monopoly level for the rates, but would not have had any incentive to refuse licenses to users willing to pay that monopoly rate. In the end, we would have had "willing" buyers and a willing seller engaged in a "marketplace" transaction, and we would not have had to convene an arbitration panel to get that result. It simply makes no sense to think that Congress created a compulsory license and an arbitration procedure with the objective of reproducing the same result that would have occurred without those requirements. An interpretation of the willing-buyer-willing-seller/marketplace rule that did not ensure rates and terms at the competitive level would therefore be inconsistent with the statute's economic and policy motivation.

12. My interpretation of the economic and public policy motivation for the compulsory license/arbitration framework is strongly

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[4] The notion that the "marketplace" envisioned by the statute could be a hypothetical one is strongly suggested by the statutory language that governs here, which refers to "...rates and terms that *would have been* negotiated in the marketplace..." rather than "rates and terms that have been negotiated."

supported by the legislative history in this case. Normally, collective negotiation of license fees would potentially be subject to challenge under the antitrust laws, which are designed, among other things, to prevent monopolization. Section 114 *exempts* from antitrust laws collective negotiation of the statutory Section 114 license rates and terms, in order to allow the efficient centralization of the administration of the compulsory license. Congress specifically refused, however, to exempt from antitrust scrutiny collective negotiation of rates and terms of *other* licenses. This structure came about, in part, because of concerns on the part of the Department of Justice (DOJ) about avoiding the creation of monopoly power.[5] Significantly, DOJ acceded to the centralization permitted by the statute in part because the review of rates and terms by an arbitration panel would

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[5] Congress specifically amended the antitrust immunity provision (Section 114(e)) refusing to shield collective fee negotiations from antitrust scrutiny in response to DOJ's concern that the prior proposed provision "could be read to provide statutory authority to record companies to form a licensing cartel. In light of the concentration of the record industry in which 6 major companies account for 80 to 85 percent of the U.S. market, this could, in the words of the Justice Department 'cause great mischief by allowing the formation of a cartel immune from antitrust scrutiny.'" Statement of Senator Patrick Leahy, Digital Performance Right in Sound Recordings Act of 1995, S. 227, Cong. Rec. S-11961. DOJ stated that it was "concerned that proposed subsection (e), by allowing license negotiations by a common agent, would authorize formation of a cartel by performance rights holders." Letter from Acting Assistant Attorney General Kent Markus to Hon. Patrick Leahy, June 20, 1995, reprinted in Cong. Rec. S11961 col. 3 - S11962 col. 1. DOJ recommended deleting section 114(e) altogether, arguing that record companies cannot "form a federally authorized cartel to set higher-than-competitive prices." Leahy Statement; Markus Letter.

After DOJ complained about the prior provision, it then "provided technical assistance to [Congress] as we worked out another approach that authorizes only a clearinghouse to cut down transactions costs without authorizing price fixing by combinations of companies." Leahy Statement. Once the provision was amended, DOJ gave approval, noting that "In the revised bill, the role of the common agent has been substantially curtailed, thus addressing our concern." It stated that now, "the common agent's role is limited to a 'clearing house' function" and that the agent "may not be the instrument of collective operate as a check on the rates that might be demanded by the centralized licensing authority.[6]

13. Congress's intention to ensure competitive rates and terms is also illustrated by its requirement that the centralized licensing agency act only on a non-exclusive basis. By requiring non-exclusivity, Congress allowed for competition through individual direct transactions that can discipline the rates and terms demanded by the central licensing authority, for those users to whom or under those conditions where such "direct" licensing is economically feasible. The legislative history states that the purpose of this requirement was, indeed, to ensure that the rates and terms demanded by the licensing authority not be "supracompetitive," i.e., above the competitive level.[7]

14. The problem of mitigation of market power is handled in an analogous manner with respect to the licensing of the performance rights in musical works. In that arena, the major collective licensing organizations, the American Society of Composers, Authors and Publishers ("ASCAP") and Broadcast Music, Inc. ("BMI"), operate subject to Consent Decrees with the

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negotiation of rates and material terms." Letter from Assistant Attorney General Andrew Fois to Hon. Patrick Leahy, July 21, 1995, reprinted in Cong. Rec. S11963 col. 1.

[6] "Any impasse on licensing fees, terms and conditions can be resolved by the rate panel, if necessary." Fois, *op. cit.*, col. 1.

[7] "The requirement of nonexclusivity is intended to preserve the possibility of direct licensing negotiations between individual copyright owners and operators of digital services, rather than merely between their common agents. For example, nonexclusivity should help prevent copyright owners from using a common agent to demand supracompetitive rates, because such demands might be avoided by direct negotiations with individual copyright owners." Cong. Rec., August 8, 1995, S.11954 cols. 1-2.

Department of Justice that resolved antitrust litigation against them. Under these Decrees, both organizations are constrained to offer licenses under specified terms, and at "reasonable" rates. The Federal Courts that administer the Decrees play a role analogous to this Panel, reviewing the rates demanded by the organizations if voluntary agreement cannot be reached. The Courts have interpreted the term "reasonable" to mean competitive market rates, precisely to prevent the exercise of what otherwise would be the market power of ASCAP and BMI.[8]

15. Thus, another way to state the conclusion that the statute requires that rates and terms be kept to the competitive level would be that the Panel should determine "reasonable" rates and terms. Indeed, the legislative history related to Section 114(f)(2)(B) observes that the Panel will "determine reasonable rates and terms" and that this process is "[c]onsistent with existing law."[9] I will, therefore, for convenience, use the term "reasonable" to describe the rates and terms to be set by the Panel, by which I mean rates and terms consistent with those that would prevail in a competitive market.[10]

C. <u>The use of benchmarks to determine the reasonable fee</u>

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[8] *ASCAP v. Showtime/The Movie Channel, Inc.*, 912 F.2d 563 (2d Cir. 1990).

[9] H. Conf. Rep. No. 105-796, 105th Cong., 2d Sess., at 86 (1998).

[10] Professor Fisher's testimony discusses the meaning of the willing-buyer-willing-seller test from the perspective of the context of this statutory provision within the broader framework of copyright law, rather than from the perspective of economic analysis. This analysis from a different perspective reaches the same conclusion that I do, that is: that the statute calls for the Panel to choose a reasonable rate in the sense of the *Showtime* decision, namely the rate that would prevail in a competitive market.

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16. As a matter of economic analysis, it is typically not possible to determine the reasonable or competitive fee level on the basis of the fundamental underlying costs and benefits. This fundamental indeterminacy of a reasonable fee is common with respect to the valuation of intellectual property, because the "cost" of providing that property to an additional user is essentially zero, while the "value" of the property to the user is inextricably interwoven with other components of the user's product or service.[11] For these reasons, it is common—both in litigation and in voluntary commercial transactions—for royalties for the use of copyrights, patents, and other intellectual property to be established by reference to "comparables" or "benchmarks" rather than derived from explicit cost or value considerations.

17. For any possible benchmark, one must first determine whether the rate it presents can be presumed reasonable, since a benchmark that is itself unreasonable cannot be used to derive a reasonable rate. Second, one must determine the most economically appropriate metric or fee basis to be used in translating the reasonable fee in the benchmark context

[11] In the context of a collective licensing organization such as the RIAA, the fundamental determinants of the license price in a competitive market are the competitive value of all of the underlying individual sound recordings being licensed, plus the competitive value of the aggregation and brokering services that are performed by the centralized licensor. The difficulty of determining the fundamental value of the license derives from the difficulty of valuing the individual sound recording rights, in the absence of a healthy competitive market for those individual rights. If the value of the underlying rights could be determined, the fundamental competitive market value of the brokering/aggregation services could, in fact, be determined. In a competitive market, the value of that package of services would be just the cost of providing them, because competition among different

into a corresponding fee in the current context. Third, one must consider whether any adjustments would be appropriate to correct for relevant economic differences between the benchmark situation and the one at hand. Finally, one must consider how much weight to give to each benchmark, based on its overall economic significance and the relative reliability of any adjustments that may be necessary in each case.

18. The identification of suitable benchmarks in this case is made difficult by the fact that we are attempting to value a new form of intellectual property, in the context of a new performance medium. We cannot, therefore, appeal to direct historical experience. Any market transactions we might observe within this new medium are likely to have been in place for only a short period of time, and to be relatively insignificant in terms of actual royalties paid under them. Parties seeking to make those agreements *themselves* face the same problem we do: they have had no real benchmarks or comparables on which to base their judgment as to what is a reasonable royalty.[12] We would expect it to take some time before there is

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entities to be the centralized licensor would drive the payment for those services to the level of cost (including a reasonable return on any necessary investment).

[12] In fact, proposed amendments to the ASCAP Consent Decree suggest that license fees negotiated by ASCAP and users in the first five years shall not be used as evidence of "reasonableness." See *United States v. ASCAP*, Civ. Action No. 41-1395 (WCC), Second Amended Final Judgment attached to Joint Motion to Enter Second Amended Final Judgment, at 13-14 (S.D.N.Y March 16, 2001). The DOJ cautions that "music users are fragmented, inexperienced, lack the resources to invoke rate court proceedings and are willing to acquiesce to fees requiring payment of a high percentage of their revenue because they have little if any revenue." See *United States v. ASCAP*, Civ. Action No. 41-1395 (WCC), Memorandum of the United States in Support of the Joint Motion to Enter Second Amended Final Judgment, at 35 (S.D.N.Y September 4, 2000).

enough experience with license transactions within this new medium in order for such transactions to reflect reliably a reasonable fee level.

19. Further, even in the presence of good information, there will always be a range of buyer "valuations" corresponding to potential users with varying perspectives, such as different ways of using the rights, differing perceptions of the importance to outside market and financial observers of having secured the rights, different levels of risk aversion and differing access to financial resources. Particularly in the shadow of an impending arbitration proceeding that will set the royalty rate for most users, the RIAA rationally would use its market power and identify those users with the highest valuations (for whatever reason) and try to reach agreement with them. But in a competitive market, the market price will not be determined by the valuation of a small number of users who place the greatest value on the service or product in question. Thus, even if these initial deals in the context of the new medium are in some sense between willing buyers and a willing seller, they are not indicative of the reasonable, competitive market rate. We are therefore unlikely to have available to us, for this nascent medium, demonstrably reasonable benchmark rates from transactions involving the rights and parties covered by Section 114(f)(2)(B).

20. Given this situation, we have two choices. We can rely on limited benchmarks which are from within the new medium but which are not likely to be reasonable, or we can turn to time-tested rates for closely

related rights in closely related media that provide evidence on the competitive rate level. The problem with the first approach is that it is very difficult to know what adjustments would be necessary to an unreasonable rate to render it reasonable. In contrast, by starting with a tested rate in a related context, considering a range of possible adjustments, and being conservative as necessary, we can produce a much more reliable indicator of the reasonable rate in the case at hand.

III. THE BENCHMARK FEE MODEL

A. Identifying a benchmark reasonable fee level

21. The licenses governed by Section 114(f)(2)(B) are for a particular right (public performance of sound recordings, subject to specified statutory restrictions) in a particular, specified medium (digital transmissions by non-subscription services). Ideally, we would like a benchmark that provides evidence regarding the reasonable rate level for a license that is similar along both of these dimensions.

22. Unfortunately, both dimensions present at least some difficulty in identifying benchmark situations that offer a solid foundation for an inference regarding the reasonable fee level. The particular right at issue – public performance of sound recordings – did not exist (or may be said to have existed at "zero value") in the U.S. prior to 1995. Thereafter, U.S. copyright law created a limited public performance right for sound recordings, applicable (at least until quite recently) to relatively few users, that has a non-zero value. Hence, any available market experience with

valuing this right in the U.S. has been in place for only a limited time, has encompassed only limited economic activity and was itself negotiated in an environment where both parties had considerable uncertainty about the ultimate equilibrium value for the right.

23. For this reason, the best available starting point for a reasonable fee for the new public performance of *sound recordings* is the fee paid for the closely related public performance of *musical works,* rights which have enjoyed copyright protection for many years. The musical work is inextricably intertwined with the sound recording itself in producing the value of the public performance; in most cases, to make the performances at issue, a user needs both rights. Indeed, an argument can be made that any determination of the relative overall value of the two rights is inherently arbitrary.[13] Use of a royalty rate for performances of musical works to infer a reasonable royalty rate for performance of sound recordings is the approach taken by the CARP that determined fees for public performances of sound recordings by subscription digital cable radio services under the Digital Performance Right in Sound Recordings Act of 1995.[14] This approach was

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[13] As discussed further below, however, the idea that the *overall* value of the two rights cannot be distinguished does not imply that the royalty rate for the two should be the same. Because the promotional value of performances to owners of sound recordings is greater than the promotional value to composers and publishers, equality of the overall value of the two rights implies that the *royalty* rate on sound recordings should be lower.

[14] See discussion in Librarian of Congress Final Rule and Order, 63 Fed. Reg. 25394, 25404 (May 8, 1998); see Report of the Copyright Arbitration Royalty Panel, Docket No. 96-5 CARP DSTRA, at ¶ 197-202 (November.28, 1997).

also adopted by the Copyright Board of Canada.[15]

24. The digital cable radio CARP determined the sound recording rate on the basis of performance rights fees paid by certain digital cable radio licensees to the performing rights collectives that license musical works.[16] In the current context, the streamers are, in most cases, still in negotiation with ASCAP, BMI, and SESAC over license terms. While some streaming entities may have agreed to licenses for the performance of musical works, the vast majority of significant licensees have not. Hence we do not have available as a starting point a good base of a reasonable fee for performance of musical works within the internet medium.[17]

25. It is possible, however, to identify a well-established benchmark fee for performance of musical works in a closely related media context. Over-the-air broadcast radio has paid royalties for the right of public performance of musical works for over half a century. Over the decades, these royalties have been the subject of numerous negotiations between the

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[15] See Decision of the Copyright Board of Canada, Public Performance of Sound Recordings 1998-2002, August 13, 1999, at 30-32.

[16] While I believe that the musical works marketplace can be a reasonable benchmark for setting rates for performances of sound recordings, in my judgment the small number of licenses used as a benchmark rate in that case was subject to grave questions about their reasonableness, especially given the newness of the media context (as discussed above). Indeed, the reasonableness of the rates in the musical works performing licenses that formed the basis of that CARP decision are currently being challenged in the BMI Rate Court by the users who had originally signed those musical works licenses.

[17] As discussed further below, ASCAP and BMI have, in the internet setting, insisted on royalty formulas based on the licensee's revenue, subject to a minimum fee. If any streamers have accepted these licenses, it is likely that many are paying at the minimum fee level because streamer revenues are so low. It would be difficult to draw reliable inferences about the value of these rights from payments made at the minimum fee level.

over-the-air broadcasters and the organizations that represent composers and music publishers, ASCAP, BMI, and SESAC. In recent years, hundreds of millions of dollars have been paid every year by thousands of individual licensee stations to secure these rights.

26. The over-the-air musical work performance royalties experience is thus of great overall economic significance. In considering whether these rates are likely to be reasonable (consistent with a competitive market), we must consider the likelihood that ASCAP, BMI, and SESAC have market power for the reasons discussed above. Although there are three "centralized" licensors, they do not provide significant competitive discipline on one another, because most broadcasters need licenses from all three in order to operate. Hence, for all the reasons discussed above, in the absence of policy intervention, these collectives would be likely to exact fees significantly in excess of the reasonable level. However, the Consent Decrees under which ASCAP and BMI operate are designed to ensure that reasonable fee levels are maintained.[18] What this means is that if ASCAP or BMI attempts to insist on unreasonable fee levels, licensees have the option of invoking the Rate Court mechanisms to limit the rates to reasonable levels. Of course, use

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[18] Under the terms of the ASCAP Consent Decree, an ASCAP licensee can apply to the U.S. District Court that supervises the Decree for a determination of a reasonable rate. See *United States v. ASCAP*, 1950-1951 Trade Cas. (CCH) ¶ 62,595 (S.D.N.Y. March 14, 1950)(amended final judgment). This review mechanism is commonly referred to as the "ASCAP Rate Court." A "BMI Rate Court" was created in 1994, although even before that time BMI operated under the terms of a Consent Decree with the Justice Department. See *United States v. Broadcast Music, Inc.*, 1966 Trade Cas. ¶ 71,941 (S.D.N.Y 1966), decree modified, 1966-1 Trade Cas. ¶ 71,378 (S.D.N.Y. 1994).

of the Rate Court is costly, and the outcome is potentially uncertain, so we would expect that observed fees for ASCAP and BMI would be somewhat in excess of the reasonable level. Nonetheless, the fees paid to ASCAP and BMI may be viewed as constituting an upper bound on the reasonable fee rate. Fees paid to the third organization, SESAC, are not disciplined by a Rate Court mechanism, and therefore cannot be presumed to be reasonable. Though SESAC fees amount to only a small fraction of overall fees, they provide an additional reason why the true reasonable fee level for all musical works combined is below the level of the aggregate fees paid to ASCAP, BMI, and SESAC.

27. Having established that the over-the-air musical work right provides a strong basis for determining an upper bound on the reasonable fee, I must now consider how that fee can be reliably translated into an economically equivalent reasonable fee for the current proceeding. I proceed in two steps. First, I will express the over-the-air musical work fee in a way that is directly transferable from the over-the-air setting to other settings, including internet transmission. Then, I consider the economic relationship between a reasonable fee for performance of musical works and a reasonable fee for sound recording performances. All available evidence indicates that, all else equal, the right at issue in this proceeding should command a lesser performance royalty than the musical work performance right licensed in the benchmark setting. Although it is not possible to specify the exact magnitude

of the discount that should be applied to the benchmark fee level to derive a reasonable fee level in this setting, I identify a range of possible discounts that would be consistent with the available evidence.

B. Measuring the fee level in the benchmark setting

1. Determining the economically appropriate fee basis

28. In order to determine the appropriate way to translate the fees paid by over-the-air radio stations into an appropriate fee in the internet context, it is important to start from a sensible economic model of the nature of the right being licensed. It is a right of public performance. Hence it seems reasonable that the fees paid should, in some general sense, be proportional to the number of performances. Now, there is some ambiguity as to what constitutes a "performance," in particular whether it is a single song, or some given period of listening time. But clearly, the more different people that listen to a given stream of music, the more performances are occurring.[19] Hence, what I would like to know is the appropriate value of one public performance, meaning one person listening to continuous music for some fixed period of time, or, alternatively, one person listening to the performance of a single song. If I can construct a reasonable royalty rate for one listener hearing one hour of music, or one listener hearing one song, that rate can then be multiplied times the number of hours (or songs) broadcast,

[19] Equivalently, we can think of there being a single performance at a moment in time that is heard simultaneously by many people. Under such an interpretation, the value of the performance is clearly proportional to the number of people who hear it.

and by the average number of listeners tuned in to each hour, to produce an aggregate reasonable royalty fee for a licensee.

29. Thus, the most economically sensible way to construct a reasonable fee model for a public performance license is to define the reasonable fee on a listener-hour or listener-song basis. If reasonable fees are constructed in this manner, they can reasonably be adapted from one broadcast medium to another, so long as the nature of the performances themselves is reasonably similar. That is, if I knew that the reasonable value for the right of public performance of a copyrighted work to one listener hearing one hour of over-the-air-radio is X¢, it is reasonable to presume that the same rate should apply for the same right over the internet, so long as the nature of the performances is similar.

30. Structuring the benchmark on a listener-hour or listener-song basis has several desirable characteristics. First, because the fees are tied in a fundamental way to the volume of performances, the fee will vary across licensees, and will change over time for a given licensee in a very intuitive way. Streamers with more listeners will pay more in royalties; streamers with fewer listeners will pay less. Currently, streaming is in its infancy. The number of listeners is quite small, but is increasing over time. As the technical potential of streaming is more fully realized, and listeners become more accustomed to using the internet to listen to music, listenership will grow further. A listener-hour or listener-song model will automatically

generate a proportional increase in royalty payments.

31. Second, listener hours or listener songs form a basis for royalty calculation that is *directly* tied to the nature of the right being licensed, unlike other bases such as the revenue or programming expenditure of the licensee. Indeed, these other bases are fundamentally only proxies for what we really should be valuing, which is the performances. And the use of proxies such as revenue, particularly in the context of a diverse and fluid environment such as the internet, creates enormous potential measurement problems. How would one determine the revenue associated with streaming activities? Many websites have a streaming and non-streaming component, and individual streamers have made different decisions about how to structure their websites.[20] Should a streamer with many listeners but no revenue pay a zero or minimum fee, while another streamer with few listeners that generates significant revenue (perhaps from users who do not listen to music) pays much more? A fee based on listener hours or listener

[20] Streamers note a number of significant non-streaming features of their sites: artist interviews and promotional events (Testimony of David Goldberg, Launch Media Inc.; Fred McIntyre, Spinner Networks Inc.; Robert Ohlweiler, MusicMatch; Steven McHale, Everstream; David Pakman, myplay), artist discographies and biographies (Testimony of Michael Wise, NetRadio; Charlie Moore, RadioAMP), "chat rooms" where listeners can interact to share musical interests (e.g., Testimony of Rob Reid, Listen.com; David Goldberg, Launch Media, Inc.; Testimony of Tuhin Roy, Echo Networks Inc.), calendars of events (e.g., Testimony of Dan Halyburton, Susquehanna), and pictures from live performances (e.g., Testimony of Dan Halyburton). Listeners to broadcaster streamers may visit the stations' website to obtain information about the station and local news, sports, weather and community events (e.g. Testimony of Stephen Fisher, Entercom). Many stations maintain websites, some with related music features and promotions, but do not stream at all (e.g. Testimony of Dan Mason, CBS/Infinity). Also, as discussed in the Testimony of Michael Mazis, 40% of visitors to streaming websites did not listen to any music in their most recent visit to the site.

songs is an objective formula which avoids all of these measurement problems, while causing the fee to vary in connection with what should cause it to vary—the extent of public performances.[21]

32. Finally, listener hours are relatively easy to measure on the internet. As discussed further below, some services have ratings data produced by Arbitron or other commercial enterprises. Additionally, as explained in the Testimony of Professor Jonathan Zittrain, there is a close relationship between the number of listener hours and the amount of "bandwidth" that a streamer must purchase. Since bandwidth is a key cost input of a streamer's operation, and listener hours are tied to bandwidth, many streamers can or do compute listener hours independent of any need to do so for royalty calculation purposes.[22]

2. Estimating the musical work public performance royalty in over-the-air radio

33. Based on the analysis in the previous sub-section, the fee paid per listener hour or per listener-song for the right of public performance of musical works on over-the-air radio is a good benchmark for a reasonable fee for public performance of musical works on the internet, so long as the nature of the performances on over-the-air and internet radio services is similar. Indeed, the nature of the performances is quite similar, within

[21] The digital cable radio CARP adopted a royalty model based on a percentage of revenue. To my knowledge, the Panel was not presented with data that would have permitted construction of a fee on a listener-hour or listener-song basis.

programming formats.[23] First, broadcaster streamers are streaming the same programming over the internet as they broadcast over the air, so a listener receiving one or the other is getting a nearly identical performance. Even for webcasters, the nature of the performances is qualitatively very similar. It is typically a mixture of albums, other pre-recorded music, and perhaps some live performances. In some cases, the number of performances per hour may differ, both across different over-the-air stations and across different streamers. But the implications of this variation in the *number* of performances per hour are easily dealt with in a listener-hour or listener-song model, as discussed below. In terms of the performances that do occur, it is reasonable to treat the value per performance or performance period for a given listener as reasonably equivalent.

34. Thus, I can construct an estimate of the reasonable fee for the public performance of a musical work on the internet from the fees paid by over-the-air radio stations for that right. As discussed above, the reasonable royalty for *that* right is an upper bound on the reasonable royalty

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[22] One reason that revenue is often used as the basis for royalties in intellectual property agreements is that it is relatively easy to measure. In the particular case at hand, we have a better basis that happens to be also quite easy to measure.

[23] In radio, and potentially on the internet, some stations broadcast primarily talk and others broadcast primarily music. Obviously, when talk is being broadcast, there would typically not be a public performance of music occurring. If such stations do broadcast some non-incidental music, then the nature of the public performance that occurs when that song plays is similar to the performance that occurs when a music station plays a song. Hence, on a per-song basis, the performances on all radio stations and streamers are reasonably similar. On a per-hour basis, a talk station may reasonably be considered to be making fewer performances per hour, because most of what is broadcast is not music. This difference between talk and music stations is considered below.

for the public performance of the sound recording. I will discuss below what adjustments to this upper bound are appropriate to arrive at the reasonable sound recording fee.

35. In developing the over-the-air license royalties on a per-listener basis, the starting point is data on the aggregate fees paid to ASCAP, BMI, and SESAC by over-the-air radio stations holding blanket performance licenses.[24] This blanket license entitles the music user to use any musical work in the performing rights organizations' repertories for a fee that does not vary directly with the amount of music that is actually performed. For typical music stations, which broadcast a substantial amount of music in most programs, the volume and diversity of their music use would make it economically infeasible to acquire the rights for all of this music directly from the underlying rightsholders; thus, the blanket license is the desired license form. Accordingly, a benchmark constructed on the basis of a sample of blanket-license radio stations is appropriate for services that stream primarily music on the internet.

36. Combining the fee information with data on the "ratings" or listening audience of these stations, I can convert the over-the-air music stations' fees to ASCAP/BMI/SESAC into an average fee paid by an over-the-

[24] These license fees were based on license formulae derived from the "net revenue" of the radio stations. As discussed above, however, a percentage of revenue model is at best a proxy for the value of the performances themselves. The revenue formula is a means to an end, where the desired end is a reasonable value for the performance right. What I am assuming is that this proxy does a reasonably good job *within* broadcast radio, producing

air broadcaster per "listener hour." The steps of this calculation are: (i) start with total fees; (ii) divide by the number of hours of broadcasting; and (iii) then divide by the average number of listeners in a given hour. This produces a fee that is paid on average for a single listener tuned to a station for a single hour. This "listener-hour" fee could then be applied to an internet streamer by multiplying it by the number of hours of music streamed and the average number of listeners. This will produce a fee for that streamer that is identical to what would be paid, on average, by an over-the-air broadcaster with the same number of listeners and the same number of music hours broadcast. For other services, the fee will vary in direct proportion to the number of listeners and the number of hours of music broadcast.

37. This listener-hour fee (after adjustment for differences between the benchmark musical work performance right and the sound recording performance right at issue here, as discussed further below) can be used to calculate a reasonable fee for any internet service that streams primarily music. The royalty owed would be the adjusted listener-hour fee times the total aggregate tuning hours ("ATH") for the streamer. ATH is a measure widely used on the internet that represents, in effect, the average number of listeners times the number of hours broadcast.

38. The listener-hour fee represents the average amount paid by radio stations utilizing the blanket licenses of the performing rights

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fees that are roughly proportional to listener hours. Indeed, in the over-the-air fee data organizations. Though the stations used to calculate the benchmark fee utilize formats that are primarily music, there is some variation in the number of songs per hour. Under the ASCAP, BMI, and SESAC licenses, these moderate variations in the number of songs per hour do not generate any differences in the fees paid. Hence, it is reasonable to treat the blanket license fee as insensitive to the actual number of songs played, as long as we are talking about streams that consist primarily of music performances for which a fee obligation is owed to the sound recording copyright owners.

39. It is also desirable to have a license option that is not a "blanket" license. Such a non-blanket license serves two important purposes. First, it is important to have a reasonable license option for streamers that have significant amounts of non-music programming. Clearly, such a streamer is generating fewer music performances per hour, and hence should pay a fee that is reduced in proportion to the non-music parts of the stream. Second, it is also important to structure the license regime in such a way so as to facilitate, to the extent it is economically feasible, the licensing directly from the individual rightsholders of segments of the streamer's music use. That is, while it is likely to be the case that many users prefer to have a blanket license and thereby not need to worry about whose sound recordings they are using, some users may use (or wish to adopt conscious strategies to utilize) primarily music for which no further permission is needed, or music

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discussed below, this assumption is borne out.

for which the permission can be acquired directly from the individual rightsholders. A good existing example of such a licensee is Comedy Central, which streams comedic content on its Comedy Central Radio service. A substantial amount of that content is owned by Comedy Central itself (having been commissioned on a for-hire basis for Comedy Central's cable television program service).[25] Thus, if the license offerings resulting from this proceeding were limited to a "blanket" license, priced to correspond to streamers that need to purchase the sound recording performance rights for most of the material they stream, Comedy Central would implicitly be paying for the right to stream sound recordings that it owns itself.

40. Further, facilitating licensing transactions whereby licensees acquire performance rights directly from the underlying rightsholders will encourage the development of a competitive market in such "direct" licenses.[26] If such a competitive market could develop, it would provide an additional mechanism for ensuring that overall fees are kept to the reasonable level.[27]

41. Streamers that have significant non-music programming, or that have licensed a significant fraction of their music programming directly from individual owners of the performance rights, should be accorded

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[25] See Testimony of Joe Lyons, Comedy Central.

[26] See *United States v. ASCAP*, Civ. Action No. 41-1395 (WCC), Memorandum of the United States in Support of the Joint Motion to Enter Second Amended Final Judgment, at 35 (S.D.N.Y September 4, 2000).

a license form that takes into account both of these situations. One mechanism for doing so would be to adopt the listener-hour approach discussed above, and apply it only to that percentage of the licensee's listener hours that requires a statutory license. Under this segmented-listener-hour model, Comedy Central, for example, would pay a fee calculated on the basis of its listener hours, reduced by the percentage of streamed hours that are occupied by recordings it created and owns or has otherwise secured the rights to, or that do not contain sound recordings.

42. Alternatively, one could calculate the royalty on a "listener-song" basis. That is, rather than charging on the basis of total listener hours (as in the listener-hour model), or on the basis of the percentage of listener hours in which non-direct-licensed sound recordings are being streamed (as in the segmented-listener-hour model), this alternative would charge on the basis of the number of non-direct-licensed songs that are streamed. As with both of the other models, the fee would maintain the element of average listenership, so that the license fee will increase as more people tune in. [28]

43. The reasonable fee level for the listener-song model can be

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[27] Indeed, as discussed above, Congress insisted on *non-exclusive* centralized licensing precisely to facilitate direct licensing as a check on supracompetitive license rates.

[28] The alternative to the blanket license in the ASCAP/BMI over-the-air radio world is a "per-program" license. This license allows the licensee to avoid a royalty obligation for entire programs that are free of music bearing a royalty obligation. This approach is less desirable than the listener-song model described herein, because licensees receive no benefit for direct-licensing or otherwise eliminating fee obligations until an entire program is purged of fee obligations. See *United States v. ASCAP*, Civ. Action No. 41-1395 (WCC), Second Amended Final Judgment attached to Joint Motion to Enter Second Amended Final Judgment, at 13-14 (S.D.N.Y March 16, 2001).

readily calculated from the same information on ratings and fees used to calculate the listener-hour fee, in conjunction with information on the number of songs broadcast per hour on radio programs in different programming formats. That is, the fee per listener hour can be converted to a fee per listener song by dividing it by the average number of songs played per hour.

44. I do not suggest that the segmented-listener-hour or listener-song approaches discussed immediately above be made available to all licensees. A possible problem in giving licensees the unrestricted option of choosing between such approaches and the blanket per-listener-hour fee is that licensees might "self-select," resulting in a situation (to the copyright owners' detriment) where those licensees with the most songs used would choose the listener-hour fee while those with the fewest songs would choose the segmented-listener-hour or listener-song fee. If this happened, the overall average fee would be lower than in the benchmark universe in which all music-format stations utilize the blanket fee, regardless of how many songs they stream per hour.

45. To prevent this outcome, it would be appropriate to reserve the segmented-listener-hour and listener-song licenses for those streamers that have statutory license obligations for content or songs per hour that is below the range of the over-the-air blanket-license radio stations that form the basis of the listener-hour fee rate. Candidates for the segmented-listener-

hour or listener-song models could achieve this status either because their format contains less music overall or because (as in the Comedy Central example) direct licensing of the rights involved eliminates the streamer's obligation to pay for much of their content. Use of these models can be restricted to the appropriate candidates by allowing only streamers that have no more than a designated amount of non-direct licensed content or songs per hour to utilize the segmented-listener-hour or per-song fee structure.

3. Description of data and calculations

46. In order to implement the calculations described above, I needed data on the fees paid to the performing rights societies by the over-the-air broadcasters, on the associated listeners, and on the average songs per hour. There are no publicly available sources of data that I am aware of that provide the total license fees paid by the over-the-air broadcasters as a group to the performing rights societies. The over-the-air radio licenses are signed by the stations directly with ASCAP, BMI, or SESAC. Since there is no centralized source of this fee data, I collected data for a subset of stations in order to implement the model.

47. I have collected data from several of the largest radio groups including ABC, Inc., Bonneville International Corporation, CBS Broadcasting, Inc., Clear Channel Communications, Inc., Crawford Broadcasting Company, Emmis Communications, Entercom Communications Corporation, Salem Communications Corp., and Susquehanna Pfaltzgraff

Co./Susquehanna Radio Corp. These broadcasters include many of the largest radio stations in the United States, and the aggregate fees that form the basis of my calculations represent a significant portion of the total fees paid to the performing rights organizations by over-the-air radio stations. Altogether, my calculations utilize data from approximately 900 "blanket" stations that paid over $143 million in annual fees to ASCAP, BMI, and SESAC.

48. From each broadcaster, I requested total performing rights fees paid by stations in 2000. I used data from all over-the-air, blanket-license broadcasters for which I was able to get Arbitron ratings data.[29] Arbitron is a firm that is relied upon by many industry participants for measurement of radio audiences.[30] These data are frequently relied upon by stations and advertisers when determining advertising rates. Arbitron measures radio audiences using a complex survey that is designed specifically for measuring radio ratings.[31] One of the measures of audience size that Arbitron provides is "average-quarter-hour persons" ("AQH

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[29] Details on the construction of the database, and descriptive statistics of the data, are provided in Appendix B to this report.

[30] Arbitron is an international media and marketing research firm serving radio and TV broadcasters, cable companies, advertisers and advertising agencies, magazines, newspapers, and the online industry in the U.S. and Europe. Arbitron's market research to evaluate America's radio listening patterns has been relied on by radio stations, advertisers, and agencies in the U.S. since 1949. See *Ceridian Corporation, Company Overview*, Market Guide Inc., April 1, 2001.

[31] See The Arbitron Company, *Arbitron Radio Description of Methodology: Radio Market Reports*, at i (2000).

persons"),[32] listening audiences for hundreds of radio stations. These AQH persons are converted into total listener hours for each station, as described in Appendix B. By dividing the total performing rights fees paid by this estimate of total listener hours, I was able to calculate the actual fee paid per listener hour for each station.

49. To calculate a fee per listener song, I need an estimate of the number of songs per hour on each station. Although I do not have actual programming information for each station, I do have a standardized programming format for each station. Data are available from Broadcast Data Systems (BDS) on the average number of songs per hour for music-intensive formats.[33] Given the fee per listener hour and an estimate of the number of songs per hour, the fee per listener song is constructed by dividing the listener-hour fee by the number of songs.[34] The precise calculations underlying the fee per listener song are described further in Appendix B.

50. The result of these calculations (before any adjustment for differences between the musical work performance right and the sound recording performance right at issue here) is a fee per listener hour of approximately $0.0022. The fee per listener song is approximately

[32] Arbitron defines AQH Persons as "The average number of persons listening to a particular station for at least five minutes during a 15-minute period."

[33] For example, Adult Contemporary stations averaged 11.22 songs per hour, while Spanish music stations averaged 7.08 songs per hour. BDS is a leading provider of off-the-air music recognition for the record and radio industries. BDS uses a computer technology to monitor radio broadcasts and to determine what songs are played on the air.

$0.00020.[35]

IV. ADJUSTMENT OF THE BENCHMARK FEE FOR MUSICAL WORK PERFORMANCES IN ORDER TO DETERMINE A REASONABLE FEE FOR THE SOUND RECORDING PERFORMANCES AT ISSUE HERE

A. Conceptual basis for a discount to the musical work performance royalty

51. The previous section explained the derivation of a benchmark starting point for a reasonable sound recording performance fee, based on over-the-air performance fees for musical works. On a fundamental level, it is difficult to determine the relative value within a public performance of the underlying musical work and the sound recording itself. Both are essential. On an anecdotal basis, one can identify particular musical works that clearly have value that transcends that of any particular sound recording of that musical work; conversely, one can identify individual sound recordings whose value transcends that of the musical work being rendered. From an economic perspective, there does not seem to be any basis for saying that the "true" value of one or the other is greater.[36]

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[34] Ultimately, what I care about is the *average* fee per listener song, not the specific fee paid by any single radio station, so there is no significant loss of precision associated with using format averages for the number of songs per hour.

[35] Because the musical works fee formulae are tied to net revenue, and revenue depends generally on listening audience, there is a reasonable degree of consistency in the fee per listener hour across different over-the-air stations. The only systematic pattern of variation that I have discerned is that the fee per listener hour tends to be slightly higher in larger broadcast markets. The proportion of stations from such markets in the data is higher than the proportion in the overall universe of stations. This means that the fee estimates that I have calculated overstate the true average fees per listener.

[36] See Report of the Copyright Arbitration Royalty Panel, Docket No. 96-5 CARP DSTRA, at ¶ 169 (November 28, 1997). See also Decision of the Copyright Board of Canada, Public Performance of Sound Recordings 1998-2002, at 30-32 (August 13, 1999).

52. Although it is not possible to distinguish the relative values of the musical work and the sound recordings themselves, this does not mean that the specific *performance right* licensed by ASCAP, BMI, and SESAC cannot be distinguished in value from the *performance right* at issue here. Indeed, there are several reasons why the benchmark ASCAP/BMI/SESAC royalty is likely to be greater than the reasonable sound recording performance royalty at issue here, both as a general proposition within the competitive markets framework and on the basis of the specific statutory criteria enumerated in Section 114(f)(2)(B):

- The ASCAP, BMI, and SESAC fees that compose the benchmark are above the reasonable rate because of the market power of those entities.
- The promotional value of public performances or "airplay" by broadcasters and streamers is significantly greater to the owners of sound recording copyrights than it is to the owners of the musical works copyrights.
- The technological contribution of the streamers is significantly greater than that of the rightsholders.
- The capital investment of the streamers is significant, and there is significant doubt regarding their ability to recoup these investments with reasonable returns.
- The risks currently faced by the streamers far exceed the risks faced by the rightsholders.
- The costs borne by the streamers, relative to their likely revenues during the license period, are much greater than the costs of the rightsholders relative to their overall revenues.
- The legal right conveyed by Section 114(f)(2)(B) is limited in ways that diminish that right's value, at least for some streamers.

I will now discuss each of these points in more detail.

53. *Market power of ASCAP, BMI, and SESAC.* As discussed above, the organizations that offer blanket performance licenses for musical works have market power because many broadcasters have no realistic alternative to the licenses they offer. In the case of ASCAP, this is disciplined by the possibility of appeal to the ASCAP Rate Court, but this means only that the ASCAP fee cannot exceed the reasonable level by more than an amount that corresponds to the cost and risk of a licensee initiating a Rate Court proceeding. The situation with BMI is similar, with the added factor that the fees paid by the stations to BMI for the period 1997-2001 are, in fact, being contested by the stations, providing further indication that they are above the reasonable level. As to SESAC, there is no rate court option. Although SESAC provides only a small portion of the fees (because of the small repertoire that it controls), it is likely that this fee component is above the competitive level because broadcasters' only alternative to a SESAC license is to try to purge their programming of SESAC music. In effect, SESAC is large enough to make it difficult to broadcast without it, while small enough to apparently avoid Justice Department scrutiny.

54. *Promotional value.* Whatever the underlying or fundamental value of a musical work or a sound recording, the competitive market royalty for the right of public performance of each would be affected by the promotional value created by that performance. From an economic

perspective, we would expect that the *total consideration* provided by a licensee to the owner of a performance right would approximately correspond to the "value" of a performance of the underlying musical work or sound recording. But that "consideration" does not come only in the form of a royalty paid. Typically, a broadcast public performance also provides benefit to the owner of the underlying musical work or sound recording by stimulating sales of albums and other fixed media containing the work being performed.[37] Thus the "total consideration" that is likely to correspond to the value of the performance of the underlying musical work or sound recording is the *sum* of two components: a royalty paid *plus* the promotional value delivered.

55. This analysis suggests that, even if the fundamental value intrinsic to performances of musical works and sound recordings were equal, the reasonable fee levels paid by licensees for the right of public performance would not necessarily be the same. If one or the other of these enjoys a greater promotional benefit, it would generate a lower reasonable royalty fee in order to produce the same total of fee plus promotional value in both cases.

56. As discussed further below, when public performances

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[37] As Professor Fisher notes in his testimony, dating back to the 1920s Congress has repeatedly rejected efforts by the record companies to obtain legislation conferring upon them a right to royalties when their sound recordings are performed by over-the-air broadcast radio and similar media. He concludes that Congress must have viewed the record companies as being adequately compensated by their receipt of a share of the proceeds of increased record sales resulting from such performances. In other words, Congress may be said to have concluded that the promotional value of radio airplay to the

increase sales of albums, the value thereby generated for owners of sound recordings plainly *exceeds* the value thereby generated for owners of musical works. The implication of this fact is that if the fundamental value of the sound recordings and the musical works is indistinguishable, competitive market royalties for sound recordings should be significantly lower than competitive market royalties for musical works.

57. The relevance of promotional value to the royalty determination is explicitly recognized by the statute, which states that the Panel should consider "whether use of the service may substitute for or may promote the sales of phonorecords."[38]

58. This criterion recognizes that, as a matter of logic, the digital performances at issue here could either increase or decrease record sales. This would depend on the extent to which users substitute these performances for performances that they can create for themselves by purchasing albums, or conversely the extent to which hearing sound recordings performed via streaming (within the statutory scheme of the Digital Millennium Copyright Act of 1998) generates interest in purchasing the albums in order to hear them more.

59. The Testimony of Michael Fine addresses this issue based upon the long-term experience with over-the-air radio, and the testimony of

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record companies was of sufficient magnitude such that no additional compensation in the form of a royalty was either necessary or appropriate.

[38] 17 U.S.C. § 114(f)(2)(B)(i).

Professor Michael Mazis examines this issue in some detail, based in part on a survey of internet listeners. Professor Mazis finds that listening to music over the internet enhances rather than displaces music sales. For listeners of both rebroadcast over-the-air stations and internet-only stations, significantly more people report that listening to music over the internet caused them to increase their album purchases compared to those who reported that such listening caused them to decrease such purchases. Thus, qualitative consideration of the substitution versus promotion criterion points in the direction of a lower fee, all else equal.

60. *Relative contributions of technology, capital investment, cost, and risk.* The contributions of the owners of the sound recording rights are embodied in the recording itself. They do not contribute directly to the digital public performance. In contrast, the contributions made by the service providers in terms of technology, capital, other costs and risks are significant.

61. Streamers are making a significant investment in this young and rapidly growing industry. The cost of bandwidth is significant, to the point that many of the licensees in this proceeding incur costs to broadcast the licensed performances that exceed the revenue they receive in return. In contrast, the owners of the sound recording rights have, in many cases, already recovered their costs through the sale of albums. Overall, the licensees are clearly incurring costs relative to the revenues that they are collecting that are far greater than the costs borne by the record companies,

relative to their revenues. It is apparent from the streamer witness statements that setting fees at too high a level would seriously undermine their financial viability.[39]

62. The risk faced by the licensees also is obvious. Streamers and streaming-related services that have failed over the past several years include: VocaLoca,Inc., iCast, BroadcastAmerica.com, Eclectic Radio, OnAir, Westwind Media.com, Soundbreak.com, Katz Interactive (media representation firm, agent for interactive audio ads on the internet; part of Katz Media Group), and Intel Internet Media Services (streaming media content business launched by Intel Corp). [40] In contrast, while the record companies face risks in the creation and promotion of any single record, they are able to spread these risks over their portfolio of recordings. They do not typically face the risk of overall business failure.

63. Many streamers are investing heavily in technological innovation, and a significant number have patents either pending or

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[39] See, e.g., Testimony of Eric Snell, Incanta; Testimony of NetRadio; Testimony of Nathan Pearson, Jr., RadioWave; Testimony of David Juris, XACT.

[40] See Letter from Jaggi Ayyangar, CEO of VocaLoca, Inc., to Creditors of VocaLoca, Inc., dated January 17, 2001; Peter Barlas, *Audio & Video DG Systems Uses Net To Do Something Unusual – Make Profit*, Investor's Business Daily, Apr. 13, 2001; Michael Roberts, *Net Losses: Web radio's future is unlimited, but its present isn't pretty*, found at http://www.westword.com/issues/2001-01-18/message.html (Jan. 18, 2001); Testimony of Clifton Gardiner, Westwind Media.com; Hane C. Lee, *Soundbreak Breaks Down*, found at http://www.thestandard.com/article/display/0,1151,22274,00.html (Feb. 15, 2001); *Not delivering positive results, Katz Interactive shuts down*, found at http://www.kurthanson.com/HT-RAIN/NewsArchives/0201/020101.htm.

approved.[41] These patents involve innovations in such areas as targeted advertisement insertion, listener marketing data collection and accelerated content delivery. Streamers have also invested in creating proprietary hardware and software tools.[42] These innovations have come at considerable cost.

64. Finally, the nature of the legal right being conveyed here is significantly restricted relative to the right conveyed by a musical work performance license. As discussed further in Professor Fisher's testimony, the rights conveyed under Section 114 bear certain specific limitations that *do not* apply to the musical work performance rights whose value has been calculated above. From an economic perspective, a legal right that is restricted in various ways is likely to be less valuable, all else equal, than one that is not.

65. The combination of all of these factors provides overwhelming qualitative evidence that the reasonable rates for the purpose of this proceeding are significantly lower than those implied by direct translation of the fees from the benchmark setting. It is difficult, however, to quantify the precise magnitude of the downward adjustment that should be made. The next two subsections explore the quantitative evidence that I

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[41] See, e.g., Testimony of Echo Networks Inc.; Testimony of Michael Peterson, CLBN; Testimony of myplay; Testimony of RadioWave; Testimony of Incanta; and Testimony of Everstream.

[42] See, e.g., Testimony of NetRadio; Testimony of RadioWave; Testimony of Westwind Media.com; Testimony of CLBN; and Testimony of Everstream.

have been able to identify that sheds some light on the appropriate magnitude of the discount.

B. International evidence on the appropriate discount

66. Unlike the U.S., many countries in the world recognize a fee obligation for over-the-air radio in connection with public performance of sound recordings. As explained further in the testimony of Paul Kempton,[43] in almost all cases where countries have analogous fees for public performance of both musical works and sound recordings, the fee for the sound recordings is no higher, and is generally lower. The international experience described by Mr. Kempton is summarized visually in Exhibit 1.[44] The Exhibit shows, for the 12 countries for which Mr. Kempton was able to make a meaningful comparison, the ratio of: (1) the royalty associated with the performance of the sound recording to (2) the royalty associated with the performance of the musical work.

67. The lowest value of this ratio is .11, while the highest value of this ratio is 1.06. The median across all countries is about .66. Australia, Italy, Switzerland, the Netherlands, Spain, Austria, the U.K., Germany, and Sweden all have sound recording royalties less than the musical work

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[43] See Testimony of Paul Kempton.

[44] As explained further by Mr. Kempton, in some countries the royalties vary with certain attributes of the licensees in ways that differ for the two rights. These situations lead to a range of possible ratios within those countries. Consistent with the testimony of Mr. Kempton, for countries where the royalties vary according to revenue, a range based on the highest and lowest revenue thresholds is indicated in the Exhibit by the shaded areas. In instances where royalties vary according to music use, the royalty associated with the highest percentage of music use was used to calculate the ratio.

royalties. France is the only country in which the royalty for the performance of sound recordings is higher than the royalty for the performance of musical works. This is the result of having to reduce that country's stated royalty for musical works to adjust for the fact that that royalty covers both performance rights and mechanical reproduction rights. Since the sound recording royalty in France does not include the mechanical reproduction right, I have used the adjusted musical works royalty as described in the testimony of Mr. Kempton in order to make an "apples to apples" comparison of the two rates.

68. It is unclear to what extent the differing ratios across countries are driven by differences in promotional value, differences in the nature of the rights in each case, or combinations of both. Overall, however, the tendency toward a significant discount for sound recordings in most countries is clear. Further, the discounts shown in Exhibit 1 *do not* reflect any adjustment for the market power-elevated fee level inherent in the ASCAP/BMI/SESAC benchmark, because the Exhibit compares fees that are typically created in similar ways. There is also no reason to believe that these fees reflect the statutory considerations of the investments, costs, and risks born by the streamers in establishing this new medium.

C. <u>Quantification of the over-the-air promotional value as a basis for estimating the discount</u>

69. As discussed above, it is difficult to know what combination of market, legal, and institutional factors drives the variations across countries shown in Exhibit 1. An alternative approach is to estimate the

difference in the royalties for musical works and sound recordings based on a quantification of the magnitude of promotional value. An advantage of this approach is that it is tied to economic information from the U.S. The disadvantage is that it can only be estimated roughly from publicly available data. Further, this estimate reflects only the magnitude of the discount that would be appropriate *solely* to address the likely difference in promotional value. As such, it understates the magnitude of the discount necessary to produce a reasonable fee, since the promotional value difference is only one of the multiple factors suggesting a significant fee reduction.

70. The basis of the calculation is the difference, as mentioned above, between the benefit derived by sound recording owners and the benefit derived by musical work owners from the sale of albums promoted by over-the-air radio. Approximately 785 million albums were sold in the U.S. in 2000.[45] As discussed in detail in the testimony of Mr. Fine, surveys conducted by Soundscan indicate that at least 27% of album sales can be attributed directly to radio play,[46] in the sense that purchasers indicated that radio was the primary factor leading them to make a given album purchase. This suggests that at least 212 million albums were sold due directly to radio play.

71. These album sales generate value for the owners of both

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[45] See Testimony of Michael Fine. An album is considered to be any *full-length* CD, cassette, vinyl record, or audio DVD.

[46] See Testimony of Michael Fine.

the musical work and the sound recording rights. In the case of composers, the economic value derived from album sales is a "mechanical" royalty. The value of this royalty has been estimated at $.73 per album.[47] In addition, composers receive mechanical royalties on the sale of singles. I estimate that 31 million singles are sold per year, generating mechanical royalties of $.07 each.[48] I do not have information on the fraction of singles sales induced by radio, so I will simply make the overly conservative assumption that *all* singles sales are induced by radio. Adding together promotional value from albums and singles yields a total of $157 million in promotional value per year. This annual benefit derived by composers and their publishers from radio-induced album and singles sales constitutes the value to them of the promotion created by the public performance of their musical works on radio. It is shown on the first line of Exhibit 2.

72. The *total consideration* received by composers as a group for radio performances is the sum of this promotional value and the royalties paid. The total royalties paid to the three musical work licensing

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[47] See M. Nathanson, *The Music Industry and The Internet*, Industry Report (Sanford C. Bernstein & Co., Inc., Dec. 8, 2000) at 2. The ceiling on this mechanical royalty is set by statute at $0.0755 per song. It is common, however, for the record labels to negotiate an agreement with their artists, who are often also the composers of the songs on an album, to reduce the mechanical royalty and/or limit it to a maximum of 10 songs per album. See *You Never Give Me (My) Money: Or 'How Come I Didn't Get Any Mechanicals?'"*, in Anthony R. Berman, Esq., *Multimedia & Entertainment Law Online News;* Volume II, No. 208, 1996; http://www.ibslaw.com/melon/archive/208_money.html. The estimate of $0.73 per album thus may overstate somewhat the mechanical royalty because of the prevalence of such royalty-limiting agreements (in which event my calculations merely *understate* the difference between the promotional value derived by composers and labels from the sale of sound recordings).

[48] See Berman, supra note 47, at 2.

organizations is not publicly available. Exhibit 2 contains an estimate for this total of about $343 million per year.[49] Adding together the promotional value and the estimate of royalties, I arrive at line 3 in Exhibit 2, the total consideration received by composers for radio performances of about $500 million.

73. The owners of the rights to the sound recordings benefit from album sales due to recording company profits. The operating profit per CD earned by recording companies has been estimated to be about $1.65.[50] The accounting concept of operating profit is likely to understate the economic benefit to the record labels, because incremental album sales generated by revenue also contribute margin that helps to cover overhead costs. But to be conservative, I limit the calculation to the use of operating profit. Based on RIAA data, I assume that of the 212 million radio-induced album sales, approximately 195 million are CDs. Assuming *no profit* for non-CD album sales, this translates into promotional value for the owners of the sound recordings of about $322 million per year.[51] Of course, by statute, the owners of sound recordings do not receive any royalties from the radio broadcast performances. But if it is true that the overall value of the sound

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[49] Estimate based on ASCAP press release, May 18, 1998, http://www.ascap.com/press/radio-051898.html; and on ASCAP/BMI/SESAC fee data for sample of radio stations. It should also be kept in mind that for an estimate of the total *reasonable* license fees, this figure is too high for the reasons discussed elsewhere within this report.

[50] See Berman, *supra* note 47 at 2.

[51] Record labels do not earn profits directly from singles, so I have not included any amount for promotional value to the record labels associated with the sale of singles. See *supra* note 47 at 2.

recordings and the musical works is comparable, then the overall value of the performances of the sound recordings would be the same $500 million estimated for the composers. This yields an implied sound recording royalty of about $178 million per year.

74. This implied sound recording royalty is about 52% of the estimated musical works royalty. This estimate suggests that, even without consideration of the likely elevation of the benchmark fees due to ASCAP/BMI/SESAC market power or the specific statutory criteria related to the streamers' contributions and risks, a substantial discount off of the benchmark fee would be appropriate due solely to the promotional value consideration alone.

V. SUMMARY OF THE PROPOSED REASONABLE FEE MODEL

75. As discussed in the previous section, there are multiple important factors suggesting that the reasonable fee for this proceeding is significantly less than the benchmark fee level. Because some of these factors are qualitative, and others are difficult to quantify with precision, it is difficult to put a precise numerical value on the magnitude of the appropriate discount. The international data confirm that sound recording performance fees are typically less than musical work performance fees, but accommodate a very wide range of ratios between the two. The promotional value calculation suggests that a discount of almost 50% would be appropriate based on that consideration *alone*. Neither of these analyses reflects any adjustment for the market power of ASCAP/BMI/SESAC, or application of

the statutory considerations related to the investments, costs, and risks of the streamers. Given this evidence, setting the sound recording performance royalty in the range of 40% to 70% of the benchmark musical works royalty is likely to approximate the reasonable rate that is consistent with the statutory criteria. The lower end of this range would allow for an additional discount beyond that implied by the promotional value calculation, to allow for the additional factors that that calculation ignores. The upper end of the range would allow for the uncertainty that is inherent in the estimates of the elements of that calculation. And the entire range lies within the range of experience observed internationally.

76. Using the conservative adjustment corresponding to the upper limit of this range (sound recording royalty at 70% of musical works royalty), I propose a reasonable fee structure under Section 114(f)(2)(B) as follows. Any licensee can choose a blanket license, and pay a fee calculated at a rate no more than $.0015 times ATH ($.0022 per listener hour from the ASCAP/BMI/SESAC blanket data times .70).[52] In a given license period, streamers that broadcast on average fewer than seven songs per hour for which sound recording rights must be secured from RIAA can, if they choose, elect instead the listener-song model. For this model, the fee would be $.00014 ($.00020 times .70) times the streamer-specific average number of

[52] Streamers who have not tracked ATH could substitute average listeners based on ratings data times the number of broadcast hours.

songs per hour, times the average listenership.[53] Streamers that, in a given license period, have less than 60% of broadcast time containing sound recordings for which sound recording rights must be secured from RIAA can, if they choose, elect the segmented-listener-hour model.[54] For this model, the fee would be the appropriate listener-hour fee, times the fraction of the streamer's broadcast time containing sound recordings for which the rights must be secured.

77. *Minimum fee.* The statute specifies that a minimum fee be imposed to ensure that copyright owners are fairly compensated in the event that other methodologies for setting rates might deny copyright owners an adequate royalty.[55] A minimum fee of $250 per licensee per year, regardless of the number of listeners, would be consistent with minimum fees that are

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[53] The seven-song maximum for this option is approximately the minimum number of average songs for programming formats represented in our blanket license data. Average listeners could come from external ratings, or could be calculated as ATH divided by hours broadcast.

[54] The 60% maximum is approximately the minimum of our blanket license database, derived by comparing the minimum number of average songs (7) to the maximum number of average songs (13).

[55] The legislative history gives several examples of the kinds of situations where a minimum fee might be necessary: "For example, a copyright arbitration royalty panel should set a minimum fee that guarantees that a reasonable royalty rate is not diminished by different types of marketing practices or contractual relationships. For example, if the base royalty for a service were a percentage of revenues, the minimum fee might be a flat rate per year (or a flat rate per subscriber per year for a new subscription service)." H. Conf. Rep. No. 105-796, 105th Cong., 2d Sess., at 85-86 (1998). These examples might be taken to suggest that the use of the listener-hour model—which is not affected by marketing practices or contractual relationships—obviates the need for a minimum fee. Indeed, the suggestion that a flat rate per subscriber could *be* the minimum fee suggests that the result of the listener-hour model could itself constitute the minimum fee.

typical in royalty agreements.[56]

78. *Exclusion of listeners within 150 miles.* Many listeners to broadcaster streamers use the internet merely as an alternative means of accessing their local over-the-air stations.[57] In such a case, the listener has access to a means of hearing the same broadcast that does not generate *any* royalty obligation for the performance of the sound recording. From an economic perspective, it makes little sense for these two similar means of hearing the same performance to encompass different royalty obligations. Further, Congress specifically exempted from the sound recording performance royalty obligation digital rebroadcasts of over-the-air broadcasts that are only heard within 150 miles of the radio broadcast transmitter.[58] The combination of the existence of the "free" over-the-air performance and the Congressional exclusion suggests that it would be appropriate, within the context of the listener-based models presented here, to allow broadcaster streamers to exclude from the fee calculations those listener hours that are

[56] For example, a minimum fee of $264 per year applies in the ASCAP Experimental License Agreement for Internet Sites on the World Wide Web—Release 3.0.

[57] The NPD survey of internet listening habits, as summarized in the Testimony of Professor Mazis, found that the majority of respondents indicated that the station that they listened to most recently over the internet could be heard at home, at work, or in the car (53%), and that this station is within 150 miles of the computer that they listen to (51%). A recent survey by Arbitron found 56% of internet listeners listen to local stations. See The Arbitron Company/Edison Media Research, *Internet VI: Streaming at a Crossroad* (Jan. 2001) at 13.

[58] Section 114(d)(1)(B)(i). I understand that there is a legal dispute regarding the question of whether the simultaneous internet transmission (without regard to geographic limit) of over-the-air broadcast programming is exempt from the sound recording performance right under Section 114(d)(1)(A). *Bonneville v. Peters*, No. 01-408 (E.D. Pa., filed January 25, 2001).

associated with listeners within the 150-mile limit.

79. *Retroactive fees.* It is likely that many streamers will be paying the minimum fee in the first CARP period (1998-2000) because they had small audiences. If a streamer had annual ATH of fewer than 163,000 per year (average listening audience of about 19 for a licensee broadcasting 24 hours a day, 7 days a week), then that streamer would pay the minimum fee. My evaluation of the data on ATH from several streamers suggests that even extrapolating ATH from the beginning of 2001, many streamers will pay at or near the minimum fee.[59]

VI. EPHEMERAL COPIES

80. It is my understanding that, in addition to the royalty for the right of public performance discussed above, the Panel will be considering the royalty for the creation of certain copies of sound recordings made in connection with digital transmission, known as "ephemeral copies." These copies are made solely for the purpose of effectuating the digital transmission of performances. The obligation to secure the right to make these copies falls on the streamers discussed above who are licensed under Section 114(d)(2), as well as on other parties that transmit music to business establishments and are exempt from the payment of royalties for the performance of sound recordings pursuant to Section 114(d)(1)(C)(iv).

81. Professor Zittrain in his testimony provides a detailed

explanation of how these copies come to be made and the function that they perform in effectuating transmission. Based on the testimony of Professor Zittrain, it is my understanding that these copies do not achieve any purpose or create any economic value other than facilitating and effectuating the public performances. Decisions regarding how and when such copies come to be made either are determined by requirements of the technologies used or are driven by the desire on the part of the streamer to reach the largest possible audience. Of course, to the extent that the making of ephemeral copies permits the reaching of a larger audience, this benefit will result in greater total value of the performances themselves.

82. Under these circumstances, there cannot be any economic value associated with the right to make these copies that is separate or distinct from the value of the performances they effectuate.[60] From an economic perspective, it is immaterial how many distinct legal rights are necessary to effectuate the performances. It is the performances that generate the economic value. If that value is distributed over multiple distinct rights (all of which serve to create value only in proportion to the number of performances), the *total* value has to remain the economic value of the performances themselves.

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[59] This is consistent with the fact that many streamers still have tiny audiences compared with the standards of broadcast radio. *Internet VI, supra* note 57 at 11.

[60] Professor Fisher suggests another plausible economic function of the § 112(e) royalty – namely, to compensate copyright owners for any "leakage" resulting from ephemeral copies in the form of unauthorized reproductions made therefrom. Fisher Testimony. Since I am

83. The reasonable performance fee calculations described in the earlier sections of this report are derived from the over-the-air radio context, in which broadcasters do not have to pay any additional royalty for the right to make ephemeral copies. This means that the reasonable fees calculated therefrom correspond to the total economic value of the performances. If there is to be a separate and distinct royalty for the right to make ephemeral copies, the *sum* of the royalty for that right and the royalty for the right of public performance should be set equal to the reasonable fee total described above.

84. It is my understanding that any payments for the right to make ephemeral copies would typically be made to the same parties to whom payments would be made for the right of public performance. Given this situation, and the inherent interconnection of the economic value of the two rates, the most straightforward formulation is to specify a single royalty for the package of the two rights. A reasonable level for this "package" royalty would be that determined by the fee formula described above.

85. If it is deemed necessary to identify what portion of the overall reasonable fee corresponds to the ephemeral copyright, its fundamentally subsidiary nature suggests that it would be a very small fraction. By analogy, suppose that I had determined that the "reasonable" rental rate for a certain car is $29.95 per day. Now suppose that it were

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unaware of any evidence that such leakage is occurring or likely to occur, I have not required, for some reason, to identify two distinct rental rates, one for the car keys and one for the car itself. Clearly, the sum of these two rental rates has to be $29.95 per day. So long as the two rates add up to this amount, for most purposes it wouldn't matter how that overall amount were divided between the keys and the car, because all customers would rent both, and they would rent both from the same party. Still, if some breakdown were required, it would make sense to assign only a trivial value to the keys. As essential as they are for the customer to be able to utilize the car, they constitute only a minor aspect in the overall creation of value for the customer, which is represented by the use of the car itself.

86. It is my understanding that the background music services are exempt from the obligation to make payments for the right of public performance of sound recordings. The statutory and policy contexts of this exemption are discussed by Professor Fisher, who explains why any fee above a nominal level for the ephemeral copies made by these services would eviscerate the Congressional intent in granting the exemption from the performance royalty. As explained above, if one must make a division of the overall value of the performances into a portion associated with the performance right and a portion associated with copies that only facilitate performances, the clearly subsidiary nature of the ephemeral right suggests that it would represent only a very small share of the overall value. This

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attributed any value to this factor in my present analysis of the § 112(e) license.

implies that an appropriate treatment for entities exempt from the performance right is that they pay a fee for ephemeral copies that is a very small fraction of the overall value of the performances. Such a small percentage would also be consistent with Professor Fisher's testimony regarding the need to avoid undoing Congress's action in granting the performance right exemption.[61]

[61] See Fisher Testimony.

I hereby declare under penalty of perjury under the laws of th. United States that the foregoing testimony is true and correct to the best of my knowledge, information and belief.

Adam B. Jaffe

Executed this 6th day of April, 2001:

[Exhibits Omitted Pursuant to 37 C.F.R. § 351.10(c)(3)
copies will be provided upon request]

Before the

PUBLIC VERSION

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

Rebuttal Testimony of ADAM B. JAFFE

On Behalf of Internet Webcasters and Radio Broadcasters

I. Introduction and Background

I have been asked by a group of Internet webcasters and a group of radio broadcasters that simulcast their signals over the Internet[1] to review the arguments put forward by SoundExchange witnesses Dr. Michael Pelcovits and Professor Erik Brynjolfsson in the direct case, and to respond to a number of issues that were raised by the Copyright Royalty Board ("Board"). I have structured this rebuttal testimony as follows: Section II discusses the statutory standard and Dr. Pelcovits' use of a non-competitive benchmark, Section III discusses the flaws in Dr. Pelcovits' model, and

1 Internet webcasters include: the Digital Media Association and its member companies America Online, Inc., Live365, Microsoft Corporation, and Yahoo!, Inc. Radio broadcasters include: Bonneville International Corp., Clear Channel Communications, Inc., The National Religious Broadcasters Music License Committee, and Susquehanna Radio Corp.

Section IV discusses the testimony of Prof. Brynjolfsson. Section V presents a handful of additional issues.

II. The Interactive Digital Audio Transmission Benchmark Does Not Reflect a Competitive Marketplace

In the absence of a compulsory license, markets for digital sound recording performance rights are hampered by high transactions costs related to tracking down the owners of millions of songs, and are burdened by prices set by parties that are able to exert market power. Thus, prices in such markets are likely to be at above-competitive or monopolistic levels in the absence of government intervention. As I discussed in my direct testimony, the statutory license offers a solution to this dilemma: a cost-efficient "blanket" license, with terms and conditions of the license kept from monopolist levels by the regulatory process. In fact, the standard is "the rates to which, absent special circumstances, most willing buyers and willing sellers would agree in a competitive marketplace."[2]

In general, public policy seeks to encourage reliance on competitive markets, because such markets, in most cases, result in prices tied to costs and as such represent the lowest prices to consumers that are consistent with the supply being sustainable in the long run. With the large transactions costs that are inherent in the sound recording performance rights market,

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[2] Library of Congress, Copyright Office 37 CFR Part 261, Docket No. 2000-9 CARP DTRA1&2, Determination of Reasonable Rates and Terms for the Digital Performance of

centralized licensing subject to a mandatory license permits acquisition of rights from a single (or at most a couple) of entities while avoiding the elevation of prices that would otherwise result from the market power of the seller or sellers.

In my direct testimony, I presented a benchmark for the royalties in this proceeding that was explicitly designed to produce royalties that would mimic the competitive level. By contrast, neither Dr. Pelcovits nor Dr. Brynjolfsson has presented any royalty structure for this proceeding that is built upon a foundation of competitive royalty rates. While I will present several other critiques of these two witnesses' models, the failure to ground the rates in a competitive market is, by itself, sufficient grounds for the Board to reject the fee-setting models of these two witnesses.

Dr. Pelcovits derives his sound recording royalty fee for non-interactive services based on a benchmark analysis of sound recording license fees for interactive digital audio transmissions licensed by the four major record labels to interactive music services. Interactive music services are those that provide consumers access to music "on demand." Interactive music services differ from Digital Millennium Copyright Act of 1998 ("DMCA")-compliant streaming in that DMCA-compliant streaming offers customers the opportunity to listen to pre-programmed channels, while an interactive music service provides the opportunity for subscribing consumers to listen to

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Sound Recordings and Ephemeral Recordings, *Federal Register*, Volume 67, No 130, July specific songs on demand. Dr. Pelcovits claims that the marketplace for interactive music services is competitive. But data on the industry, testimony in this proceeding about the nature of that market, and judicial decisions regarding the sellers in that market all confirm that the market is far from competitive and that the record companies possess and exercise significant market power in their role as sellers (licensors) of sound recording performance rights. This fatally infects the observed royalties in this market, and none of the adjustments Dr. Pelcovits makes to the observed interactive-market royalties can remove this infection.

First, the essence of competition is that multiple sellers offer goods or services that are to a significant extent substitutes for each other, so that if one seller attempts to elevate prices above the competitive level, buyers will frustrate that attempt by switching their purchases to a competing, substitutable product. It is the nature of the interactive market used by Dr. Pelcovits that webcasters need licenses from all of the major labels in order to operate.[3] This means, by definition, the sound recording repertoires of the different sellers are not substitute inputs to the webcasting process. They are complementary inputs, all needed to succeed. Without competing, substitutable products there is no competition, and prices will be at the monopoly level, not the competitive level.

8, 2002, Exhibit DBJR-1, at 45244-45245.

Second, the market structure of the industry—a small number of sellers with differentiated products—is one known to be conducive to monopoly pricing rather than competitive pricing.

Finally, Dr. Pelcovits cites certain previous investigations and decisions regarding the record industry in support of his contention that the interactive market is competitive. Upon close scrutiny, however, it turns out that these decisions either did not address the competitiveness of the interactive market utilized by Dr. Pelcovits or did not reach the conclusion Dr. Pelcovits claims was reached.

A. Webcasters' Need for Licenses from All Major Labels Precludes Effective Competition Between Labels in Licensing Sound Recordings in the Interactive Market

A particularly important feature of the marketplace for the transmission of interactive digital audio transmissions is that interactive music services must obtain licenses from *all* of the major record labels in order to operate effectively. This implies that a sound recording performance license from one record label is non-substitutable for the license of another record label—if the licensee needs all of the licenses to operate, then by definition having access to one or more of them cannot substitute for the lack of a license from any one of the major licensors. The requirement that any interactive music service must obtain licenses from all of the major record

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3 Kenswil Deposition Transcript, Exhibit DBJR-2, at 71:7-18; Kenswil Oral Hearing Testimony, June 7, 2006, at 67:12-68:5; Pelcovits Oral Hearing Testimony, May 15, 2006, at 118:18-119:5.

labels to compete gives each record label a significant ability to set the price for its licenses without any constraint or discipline from competitive forces. Indeed, Dr. Pelcovits testified that the record labels do not compete on the basis of price.[4]

The non-competitive nature of this market is further demonstrated by the language of many of the contracts relied on by Dr. Pelcovits. These contracts contain "Most Favored Seller" clauses that increase the payments to a label in the event that a music service signs a more advantageous deal (from the point of view of the label) with another record label. Such provisions are not observed in workably competitive markets. Indeed, such a provision makes little sense in a competitive market: a buyer choosing between two competitive sellers, one of whom demands a higher price, would never agree to that higher price—he would simply purchase from the lower-price seller.

To make this concrete, imagine an unaffiliated gas station negotiating a supply contract with one of the major oil companies. Suppose they agree that the oil company will supply gasoline to the station for some period of time at $2.00 per gallon, and assume that this represents the competitive price. The "Most Favored Seller" clause that appears in the interactive licenses would be analogous to the oil company getting a clause in the contract that says, in effect, if the gas station buys gasoline during the

[4] Pelcovits Oral Hearing Testimony, May 15, 2006, at 143:13-144:3; 172:13-20; 177:13-20.

contract term from another seller at a price greater than $2.00, the first seller would be entitled to receive that higher price, as well. To even construct such language shows its absurdity in a competitive market.

In a competitive market, neither the buyer nor the seller would expect some other seller to be charging a higher price. Further, if some seller did seek such a higher price, the gas station would never consider buying at that price, since the first seller is supplying at $2.00. Indeed, the "Most Favored Seller" clause *only* makes sense if the different sellers are not competing with each other. If they are not competing with each other, then seller #1 *knows* that the buyer will be buying from other sellers as well, in contrast to the typical competitive situation. And if one of the other sellers manages to extract a higher price, that could be evidence that seller #1 failed to extract the full monopoly price in its contract. Hence the "Most Favored Seller" clause only makes economic sense as a device used by a monopolist seller to extract the fullest possible monopoly price from the buyer.

B. Additional Evidence Does Not Support Assumption of Competitive Marketplace for Digital Audio Transmissions

Empirical evidence on the interactive music service marketplace also suggests that the assertion of a competitive marketplace for interactive digital audio transmissions is not supported. The transactions for interactive digital audio transmissions take place between a small number of buyers and

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See also Kenswil Oral Hearing Testimony, June 7, 2006, at 70:8-20.

sellers in a highly concentrated industry that has a history of interdependent actions. To an economist, such evidence suggests that the prices observed in the market will not mirror the competitive level that is envisioned by the statute.

Evidence regarding the inappropriateness of assuming that the benchmark marketplace is competitive can be gathered by performing an updated Herfindahl-Hirschman Index ("HHI") calculation to gauge the degree of concentration/competition of the record labels. The HHI is a measure of market concentration, calculated by summing the squares of the individual market shares of all of the participants. The HHI reflects the distribution of market shares, and appropriately gives greater weight to the market share of larger firms, in accord with their relative importance in competitive interactions. This calculation captures the fact that the contracts from the interactive music services upon which Dr. Pelcovits relied are signed between a small number of music services and a small number of record labels.

In 2005, there were only four major record labels that collectively represented over 85% of the sales of physical product (mainly CDs). The remainder of the market is composed of a number of independent labels. Since I am not aware of evidence in the record regarding the shares of independent labels, I calculate a lower bound for the HHI of 2150 based on evidence in the record regarding the shares of the four major labels.[5] According to the Horizontal Merger Guidelines, the Department of Justice ("DOJ") and the Federal Trade Commission ("FTC") regard markets with HHIs in excess of 1800 to be "highly concentrated."[6] In the merger context, where markets are highly concentrated, it is presumed by regulators that mergers that even slightly increase the concentration are likely to enhance market power or facilitate its exercise. Thus, where markets are highly concentrated, there is a presumption that players in the market have the ability to exercise market power either through unilateral behavior or through coordinated interactions unless other components of the market structure or firm behavior suggest otherwise. Since there has been no showing of such factors, there is little reason to presume the market for interactive digital audio transmissions is competitive.[7]

There is also a long history of regulators finding interdependent conduct in the record industry. Indeed, FTC Commissioner Mozelle

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5 This calculation is based on data presented by the record labels (Exhibit DBJR-3 at SX0033340) regarding the shares of UMG, EMI, Sony-BMG, and Warner Music Group as of November 2005 year-to-date. In these data, the major labels account for 86.6% of the market. The record contains no evidence that I am aware of as to the specific shares of independent labels. If such data were available, they would increase the HHI slightly, since my expectation is that the share of any individual independent record label is reasonably small.

6 Horizontal Merger Guidelines, April 8, 1997, Exhibit DBJR-4, at Section 1.51.c.

7 Note that the HHI analysis is predicated on the assumption that the firms sell competing products. Hence comparison of the observed HHI of 2150 to the cutoff of 1800 in fact greatly *understates* the actual market power in this market. I present the HHI calculation merely to illustrate that even *if* the licenses from the different labels were substitutes in this market, the most likely conclusion would remain that the market is not competitive and any prices observed therein are likely to be above the competitive level.

Thompson cites this history in his statement regarding the Sony-BMG merger saying, "(t)he music industry has been scrutinized closely in the past by the Commission in connection with...practices ranging from alleged anticompetitive Minimum Advertised Price ("MAP") programs to agreements to fix prices and limit advertising. ...the history of parallel MAP policies in particular indicates a propensity for interdependent behavior among the major labels."[8] In 2001, the FTC unanimously found the MAP programs that Commissioner Thompson speaks of to be anticompetitive. These programs facilitated horizontal collusion between record labels to eliminate retail price competition by strict rules and punishments on retailers regarding price advertising.[9]

In 2001, the Antitrust Division of the DOJ launched an investigation into the licensing practices of the labels for interactive music services, which at the time consisted primarily of two record label joint ventures, MusicNet (a joint venture of BMG, EMI Records, Warner Music, and RealNetworks) and pressplay (a joint venture between Sony Music Group and Universal Music Group).[10] Among the DOJ's concerns was that the labels used the joint ventures to obtain information about their competitors' licensing practices.

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8 Statement of Commissioner Mozelle W. Thompson in Sony Corporation of America/Bertelsmann Music Group Joint Venture, File No. 041-0054, Exhibit DBJR-5.

9 Statement of Chairman Robert Pitofsky and Commissioners Sheila F. Anthony, Mozelle W. Thompson, Orson Swindle, and Thomas B. Leary, File No. 971-0070, Exhibit DBJR-6.

10 See "Antitrust Probe of Music Firms Intensifies Investigation: Officials look for evidence that labels cooperated to limit competition to their online ventures," Los Angeles Times, October 15, 2001; and "Aggressive Strategy Brought on Inquiry of Recording Industry," New York Times, October 22, 2001, Exhibit DBJR-7.

Although that investigation was closed in 2003 with no finding of wrongdoing, a recent decision in a legal proceeding found that the record labels deliberately misled the DOJ in that investigation.[11] In particular, the judge pointed to the fact that white papers submitted by the labels and the joint venture music services misstated the degree of disparity in price and terms by underemphasizing the presence of "Most Favored Sellers" clauses and misrepresenting the degree of protection given to competitively sensitive information. In fact, Dr. Pelcovits relies on some of these very agreements between the record labels and MusicNet and pressplay as his "competitive" benchmark (see discussion below).

C. Materials Relied Upon by Dr. Pelcovits Do Not Support Assumption of Competitive Marketplace for Digital Audio Transmissions

Dr. Pelcovits acknowledges that rates for the compulsory license must be rates that most willing buyers and willing sellers would agree to in a "competitive market." In fact, his argument is that the market for interactive digital audio transmissions is competitive, thus meeting the standard and qualifying interactive digital audio transmissions as an appropriate benchmark under the statutory standard as interpreted by the Librarian. He addresses this point explicitly in SoundExchange's Response to

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[11] In re: Napster, Inc., Copyright Litigation Memorandum and Order re: Motion to Compel Production of Privileged Documents, April 20, 2006, No. C04-2121 MHP, Exhibit DBJR-8.

Interrogatories, question 5, and in his oral hearing testimony.[12] The previous subsections demonstrate that the market studied by Dr. Pelcovits is not competitive, because the structure of the industry, the nature of competition therein, and the very structure of the contracts all point to the licensor record labels exercising significant market power.

As stated by SoundExchange "(t)he benchmark analysis employed by Dr. Pelcovits relies on agreements negotiated between individual record companies and individual webcasters in a free market, which is precisely the market framework established by the CARP in 2002 and adopted by the Librarian of Congress in his Final Order."[13] It is important to keep clear in this context that the concept of a "free market" is not a term of art in economics. It most certainly does not mean the same thing as a competitive market. If it has any meaning, standing by itself, it merely conveys that prices in the market are set by market forces. There is, in fact, some question as to whether the contracts examined by Dr. Pelcovits can be characterized as coming from a "free market." As shown in Figure 1, 7 of the 17 agreements examined by Dr. Pelcovits do not represent market transactions, but rather are contracts for which the licensor is a record company, and the licensee is a joint venture in which one party is a record company. Transactions between

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[12] Pelcovits Oral Hearing Testimony, May 15, 2006, at 158:5-13. Responses and Objections to First Set of Interrogatories to SoundExchange from the Digital Media Association and its Member Companies, the Broadcasters, the Small Webcasters, Beethoven.com, National Public Radio, Corporation for Public Broadcasting-Qualified Public Radio Stations, Collegiate Broadcasters, Inc., and Intercollegiate Broadcasting System, Inc., Exhibit DBJR-9, Interrogatory Response 5, at 14.

affiliated entities are not normally considered to be "free market" transactions.

Even putting aside the possibility that these transactions are tainted by affiliate relationships, it still would not follow that sound recording performance rights are licensed to interactive services under *competitive* market conditions. The prices set by an unregulated monopolist are determined in a "free market," and hence the assertion that prices are from a "free" market says nothing about whether those prices can or cannot be expected to approximate the competitive level.

Neither the Copyright Arbitration Royalty Panel ("CARP" or "Panel") nor the Librarian in the previous proceeding made any detailed analysis or specific findings regarding the competitiveness of the sound recording market or the market power of the record companies generally.[14] The 2001 Panel observed that there was no evidence of record label market power, and cited to the testimony of Dr. Jane Murdoch.[15] The cited testimony refers to Dr. Murdoch's cross examination that covered an analysis that she performed of the sound recording market in the 1995-96 time period (performed as part of

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[13] Exhibit DBJR-9, Interrogatory Response 5, at 14.

[14] Even if one could draw from the prior decisions the inference that the market for sound recording performance rights in DMCA-compliant streaming was competitive, it would not necessarily follow that the market for sound recording performance rights on interactive services is also competitive.

[15] In the Matter of Rate Setting for Digital Performance Right in Sound Recordings and Ephemeral Recordings, Docket No. 2000-9 CARP DTRA1&2, Report of the Copyright Arbitration Royalty Panel, February 20, 2002, Exhibit DBJR-10, at 23, footnote 12.

the original subscription services case[16]) that found an HHI of approximately 1000.[17] Since there had been additional consolidation among the record labels between 1995-96 and the CARP's decision in 2002, the concentration analysis discussed by Dr. Murdoch did not accurately reflect the state of the marketplace in 2002, and it certainly does not reflect the state of the marketplace in 2005, since consolidation among record labels has reduced the number of major record labels down to four large players. As noted above, an HHI analysis for current data demonstrates that there is a high level of market concentration in the record industry.

Dr. Pelcovits did not perform an HHI analysis of his own to determine the extent of market power. Instead, he points to the decision by the FTC to close its investigation of the Sony-BMG merger as evidence to support his assumption that "the degree of competition in the market is substantially the same as it was in 2002."[18] However, the FTC language in the letter that closed the investigation into the Sony-BMG merger is much more neutral, stating: "(t)his action [closing the investigation] is not to be construed as a determination that a violation may not have occurred..."[19] Given this

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[16] Library of Congress, Copyright Office 37 CFR Part 260, Docket No. 96-5 CARP DSTRA, Determination of Reasonable Rates and Terms for the Digital Performance of Sound Recordings, *Federal Register*, Volume 63, No 89, May 8, 1998.

[17] See J. Murdoch Oral Hearing Testimony, September 7, 2001, Exhibit DBJR-11, at 8982:12-8984:9.

[18] Exhibit DBJR-9, Interrogatory Response 5, at 14-15.

[19] Letter from Bernard A. Nigro, FTC Deputy Director, to Joseph Kattan, re: The proposed joint venture of Sony Corp. of America and Bertelsmann AG, FTC File No. 041-0054, Exhibit DBJR-12.

language and the fact that the limited documents lacked any discussion of digital music markets, this decision provides no significant support for the contention that the market is competitive.

Although this merger was also approved in Europe, the European Commission's ("Commission" or "EC") decision focused primarily on the physical distribution of sound recordings. The Commission determined, in part based on evidence of discounting, that there was not sufficient evidence to conclude that the merger would lead to enhanced market power in the market for the physical product.[20] There was limited discussion of online music markets in the decision, with the EC report stating that "(t)he information which the Commission received in the market investigation about the actual downloaded or streamed songs does therefore not appear to give a clear picture of the different players' market positions."[21] The Commission noted that ease of collective action "in the market for online licences is in any case higher than in the traditional market for recorded music."[22] Thus, while the EC did not reject the Sony-BMG merger, its conclusions about the online market should not give Dr. Pelcovits comfort regarding the level of competition in the marketplace. More recently, in July 2006, a European court, the Court of First Instance, annulled the European Commission's clearance of the Sony-BMG merger because the court found

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[20] Commission of the European Communities, Commission Decision of 19 July 2004, Case No. Comp/M 3333-Sony/BMG, Exhibit DBJR-13, at 34-35 and 45-46.

[21] Exhibit DBJR-13 at 49.

the evidence used by the Commission to conclude that "the concentration would not bring about the creation of a collective dominant position"[23] to be unpersuasive. Thus, the reliance by Dr. Pelcovits on recent merger decisions as supportive of a competitive marketplace for digital audio transmissions is misplaced.

III. Dr. Pelcovits' Economic Model Is Methodologically Flawed

In principle, one could imagine starting from a royalty benchmark infected with market power, and undertaking adjustments to that benchmark designed to remove the effects of market power and arrive at an estimated competitive level. None of the adjustments that Dr. Pelcovits undertook are designed to address the market power issue. For this reason his estimated royalty cannot be a basis for a competitive royalty rate. Dr. Pelcovits did attempt, however, to adjust his observed interactive rate for certain differences between the interactive and non-interactive, DMCA-compliant markets. In this section, I will put aside the fact that the underlying benchmark is invalid, and simply address the nature of the adjustments made by Dr. Pelcovits to move from the interactive to the non-interactive market. I will show that these adjustments cannot yield a valid non-interactive, DMCA-compliant royalty, even if the starting point were an appropriate competitive benchmark.

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[22] Exhibit DBJR-13 at 50.

A. Dr. Pelcovits' Demand Elasticity Assumption Is Implausible on Its Face

To calculate the non-interactive royalty rate, Dr. Pelcovits utilizes the ratio of the interactive services license fee for sound recordings to the interactive services consumer price. He then applies this ratio to the non-interactive services consumer price to obtain the non-interactive license fee for sound recordings. In doing so, he must assume that the elasticity at market equilibrium is the same for interactive services and non-interactive services.

Although he makes no attempt to empirically verify this assumption, Dr. Pelcovits argues that it is reasonable to assume that the demand elasticities for interactive services and non-interactive services are "very close" because he asserts that these services are nearly identical in all respects, save for the degree of interactivity.[24] Even accepting his untested assertion that the two product offerings have similar characteristics and thus similar demand functions, it does not logically follow that interactive services and non-interactive services have similar demand elasticities. Dr. Pelcovits' assertions amount to arguments that similar factors influence the demand for interactive services and the demand for non-interactive services.[25]

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23 Judgment of the Court of First Instance (Third Chamber), 13 July 2006, Exhibit DBJR-14, at 71.

24 Pelcovits Written Direct Testimony at 36.

25 Dr. Pelcovits concedes that he did no analysis of any sort to support this assertion. Pelcovits Deposition Transcript, Exhibit DBJR-15, at 185:8-14; Pelcovits Oral Hearing Testimony, May 16, 2006, at 193:19-194:2; May 15, 2006, at 171:8-17.

In reasoning from these generalities about demand conditions to a statement about demand elasticities, Dr. Pelcovits confuses two distinct concepts. Sometimes, economists use the phrase "demand elasticity" in a descriptive, non-numerical way to refer to general tendencies in the demand for goods. The shape of the demand function depends on, among other things, the availability, quality, and price of substitutes. Because the degree of interactivity is a key difference in the consumer experience, interactive services and non-interactive services are likely to have different substitutes. Non-interactive streaming is a radio-like experience, and one substitute for Internet radio is over-the-air radio, which costs a consumer nothing. The degree of substitutability of CDs for interactive and non-interactive services is not the same.[26] Therefore, it cannot be simply assumed that interactive services and non-interactive services have similar demand elasticities, even in this descriptive sense.

A different sense of the word "demand elasticity" is precise and numerical. It is, by definition, the mathematical derivative of the demand function multiplied by the ratio of the price to the quantity sold.[27] It is this numerical and precise concept of elasticity that Dr. Pelcovits needs for his model. Now, what is important to understand is that even with demand conditions given and unchanging, this numerical elasticity varies along a

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[26] Sony Music Entertainment Inc. Memo "Licensing Strategy for Commercial Online Exploitation of SMEI Content" (SX0085103-107), Exhibit DBJR-16.

[27] In symbols, $E=(dq/dp)(p/q)$.

demand function as the price or quantity changes.[28] Thus, even if it were true that the general demand conditions facing interactive and non-interactive markets were similar, it would be a bizarre coincidence if it happened to be the case that the elasticities in the two markets were equal in equilibrium, since the equilibrium value of the elasticity in each of them varies continuously across different price and quantity combinations. Even in the most extreme hypothetical case—if interactive and non-interactive services faced exactly the same demand function—the elasticity in the two markets would be equal only if the prices and quantities were the same, which of course they are not.

Thus, it is unsupportable to assume that the numerical demand elasticity is the same in these two markets, and Dr. Pelcovits relies on just this assumption to justify his conclusion that the sound recording royalty rate in the non-interactive market is simply a percentage of the adjusted non-interactive consumer price.

B. Dr. Pelcovits' Model Yields Negative Royalty Rate

During deposition and hearing testimony, Dr. Pelcovits stated that the non-sound recording costs associated with non-interactive services are no less that those associated with interactive services:

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28 There is a class of demand functions called, appropriately, "constant elasticity demand functions," for which the elasticity remains constant at different prices and quantities. The linear demand function utilized by Dr. Pelcovits does not belong to this family, and hence the statement in the text is correct within Dr. Pelcovits' model.

Q: And when you say the other production costs, you're referring to the production costs other than the sound recording license. Correct?
A: Correct.
Q: And you don't have any reason to believe that the production costs, plus a reasonable profit margin for non-interactive digital music services are any less than the production costs and a reasonable profit margin for interactive music service. Do you?
A: I do not.[29]

This is a reasonable assumption. The non-sound recording marginal costs of serving an additional customer in the interactive and non-interactive services includes costs such as bandwidth and musical work royalties. Dr. Pelcovits also assumes these marginal costs are constant.[30]

When this assumption is maintained in Dr. Pelcovits' model, the non-interactive royalty rate is *negative*. In fact, Dr. Pelcovits concedes this in his hearing testimony:

Q: Was it valid for you, when you looked at the price consumers were willing to pay in the marketplace, to look at the average prices paid by consumers for non-interactive services?
A: Yes.
Q: And when you did that, you found a number. Correct?
A: Yes.
Q: And if you subtract from that number…the same production cost plus a reasonable profit number that you found to exist in the

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[29] Pelcovits Oral Hearing Testimony, May 16, 2006, at 185:10-22. He makes a similar statement in Exhibit DBJR-15 at 173:24-174:7.

[30] Pelcovits Written Direct Testimony at 34.

interactive services market, isn't it true that you would actually come out with a negative fee?

A: Yes.[31]

Figure 2 depicts Dr. Pelcovits' model of the benchmark market (i.e., interactive services). The demand for interactive music services (DMS curve) and the derived demand for sound recordings (DD curve) are the same as those in Dr. Pelcovits' written testimony. The consumer price of $8.29 is the amount Dr. Pelcovits calculates as the average monthly subscription price in the interactive market; the license fee of $2.97 is the amount Dr. Pelcovits calculates as the average per-subscriber copyright fee in the interactive market.[32] The difference between these two values is the non-sound recording costs discussed above. Implicit in the consumer price and the sound recording royalty rate reported by Dr. Pelcovits is that non-sound recording costs are equal to $5.32 (i.e., $8.29 - $2.97 = $5.32).

From the interactive price, Dr. Pelcovits calculates a monthly non-interactive subscription price of $4.56.[33] To the extent that non-sound recording costs are the same across the benchmark interactive market and the target non-interactive market as Dr. Pelcovits discusses, it is clear that his model cannot yield a positive royalty rate for the non-interactive services. The consumer price of $4.56 is lower than the implicit non-sound recording

[31] Pelcovits Oral Hearing Testimony, May 16, 2006, at 192:4-20.

[32] Pelcovits Written Direct Testimony at 36.

costs. Since the price must cover both the non-sound recording costs and the royalty, a price of $4.56 with non-sound-recording costs of $5.32 leaves no room for a sound recording royalty. Thus, if it is economically appropriate to charge any sound recording royalty at all, and Dr. Pelcovits is correct that costs in the two different arenas are similar, the only possible conclusion is that one or more of Dr. Pelcovits' key data items (the price in the interactive market, the price in the non-interactive market, or the non-recording cost) are incorrect. Since his conclusions are dependent on all of these items, his conclusions therefore cannot be correct.

C. Dr. Pelcovits' Adjustments for Differences Between Interactive and Non-interactive Services Are Invalid

Thus in addition to starting from an invalid non-competitive benchmark, Dr. Pelcovits' model and data regarding costs and prices are internally inconsistent. Even if we were to put aside these problems, however, there remains the question of the appropriate adjustment for the difference in the value to consumers of interactive and non-interactive services. Dr. Pelcovits assumes such a difference exists, and tries to estimate it based on a regression analysis that includes subscription prices for interactive and non-interactive services. But this analysis represents a very thin reed upon which to build any conclusions about the non-interactive market. Whereas subscription services are common in the interactive world,

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33 See Pelcovits Written Direct Testimony at 41. This figure is calculated by multiplying the interactive price by the .55 adjustment factor.

in the non-interactive world the vast majority of listeners are not subscribers. Only a small fraction of listening is accounted for by consumers who subscribe to streaming services.[34]

Hence the non-interactive subscription services upon which Dr. Pelcovits relies for this analysis represent at best only a small fraction of non-interactive listeners. This small fraction of the total might be okay if these users were *representative* of all non-interactive listeners. But that is not the case. By definition, people who subscribe to a non-interactive service are those who are willing to pay for it, as distinct from listeners to non-subscription services who have to view or listen to ads but do not pay. It is very likely that those consumers who are willing to pay value the service more highly than those that do not pay and utilize non-subscription services. Dr. Pelcovits is trying to draw an inference about the value that (all) non-interactive consumers place on listening, and he is trying to draw that inference from the small fraction of non-interactive listeners who likely have the *highest* value. Inferences drawn from this group simply cannot be extrapolated to the non-interactive listeners overall.

Adjusting for differences in the nature of demand and valuation between interactive and non-interactive services would be crucial to any valid attempt to derive the appropriate royalty in the DMCA-compliant context. Dr. Pelcovits relied on his flawed analysis of high value subscription services

[34] Roback Written Direct Testimony at 4 and 14; Winston Written Direct Testimony at 8.

for that purpose.[35] Dr. Pelcovits' analysis is further belied by the record labels' own treatment of the relationship of interactive and non-interactive video performances. The record companies own voluntary contracts for music videos are priced such that interactive videos are than pre-programmed videos. Pre-programmed videos are priced at whereas on-demand videos are priced at .[36] Even if per play was a valid benchmark, which for reasons stated above it is not, this adjustment for interactivity would far exceed the adjustment applied by Dr. Pelcovits.

IV. Prof. Brynjolfsson's Model Is Based on Unreasonable Assumptions and Therefore Cannot Be Relied Upon

Prof. Brynjolfsson presents an analysis that is numerically independent of that of Dr. Pelcovits. But it shares the same fatal flaw: it is explicitly predicated on a situation in which sound recording performance rights are priced by a monopolist. Without adjustment for the monopoly component of the resulting price—an adjustment that would be difficult and which Prof. Brynjolfsson does not attempt—his calculations are simply irrelevant to the

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[35] Dr. Pelcovits presents an alternative model that accounts for CD substitution in the interactive market. In his alternative model, he assumes that an interactive music user purchases two fewer CDs per year than a non-interactive user. The result of assuming greater relative substitution for CD purchases by interactive users is to decrease the fee relative to the case where he assumes no substitution. Since Dr. Pelcovits did no analysis of the "correct" number (Pelcovits Oral Hearing Testimony, May 16, 2006, at 65:4-13), if the Board found that the substitution was greater than two CDs per year, this would decrease the sound recording royalty further.

[36] Kenswil Oral Hearing Testimony, June 7, 2006, at 60:1-61:15. Though these contracts include a greater of structure with a percentage of revenue option, Mr. Kenswil testified

determination of the competitive royalty rate. In addition, Prof. Brynjolfsson makes a number of errors regarding the data he used that make his estimate invalid even as an estimate for the hypothetical monopoly royalty.

A. Prof. Brynjolfsson's Model Is Not Based on a Rate That Is Constrained by Competition

Prof. Brynjolfsson's analysis is easy to describe. He attempts to estimate the net revenue that would be available to a "large-scale" webcaster after payment of all costs except the sound recording royalty. He then assumes that this net revenue would be the subject of bargaining between the licensor and the licensee, with the licensor garnering some share of the surplus of the licensee. Putting aside for the moment the question of the percentage of the surplus that the licensor would capture, this whole exercise is predicated on a framework of a monopoly licensor. In structuring his model, he treats the sound recording license as the last factor of production for which record labels are able to extract surplus, presumably through their ability to "hold up" the streamers who need the sound recording performance right to stream. As a result, the licensor is able to extract a monopoly price. The Panel has not been charged with setting a monopoly rate for SoundExchange to charge, however. If Congress had wanted that, it could have left it to SoundExchange and its record label members and saved the

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that videos are currently paid at the per-play rate (Kenswil Oral Hearing Testimony, June 7, 2006, at 106:20-107:12).

cost and time of this proceeding. The Panel is looking for the competitive royalty rate, and one cannot estimate the competitive royalty rate based on an estimate of what a monopolist would be able to negotiate.

In a competitive market, the price is not determined by the bargaining power of the sellers; it is determined by the interplay of overall market supply and demand forces. Thus the "bargaining over surplus" model is fundamentally inappropriate for the purpose of estimating the competitive royalty level.

But even within its own framework of monopoly pricing, Prof. Brynjolfsson's model is arbitrary and unsupportable. He simply assumes that the licensor would get 75% of the surplus. This assumption is flawed in the conception that *any* particular percentage for this division can be arrived at through theoretical analysis (rather than observation of some actual situation). He could have said 20% or 50% or 90% or 10%, and they would have been equally plausible and hence equally arbitrary. In the hypothetical, economics simply provides no basis for choosing a specific division of surplus.[37] The only empirical evidence he cites to support his argument of the 75% is the fact that the record labels get close to that percentage for the purchase of downloads.[38] That division is not relevant for evaluating the digital sound recording performance royalty. As shown in the record labels'

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[37] According to Prof. Brynjolfsson's own testimony, "There's no way to be exactly precise about how much, what that share will be." (Brynjolfsson Oral Hearing Testimony, May 8, 2006, at 114:15-17)

own documents, the labels recognize that the sound recording royalty rate that a record label can expect to realize varies by the type of service or product offered.[39] As the label witnesses recognized, the closer the product is to a physical product, the larger the percentage of profits the labels receive.[40] It is incorrect for Prof. Brynjolfsson to use evidence from the download market to in any way support a split between record label and streamers.

Another flaw in Professor Brynjolfsson's approach is revealed by the fact that, although streamers need both the sound recording and musical work performance rights equally, Prof. Brynjolfsson does not treat the two rights symmetrically. In his model, the musical work royalty is a fixed 5.1% of revenue, whereas the sound recording rate is equal to 75% of the surplus.[41] He provides no explanation of his asymmetric treatment of the musical work performance right versus the sound recording performance right even though in his oral testimony he recognized that the same economic principles apply to the sound recording rights and the musical work rights.[42] In this market, both rights are essential to streaming and neither has a substitute. From an analytical perspective, it would have been just as valid to assign 5.1% of the

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38 Brynjolfsson Written Direct Testimony at 8.

39 See record label documents including Exhibit DBJR-16 and Sony Music Entertainment Inc. Memo "Overview of Internet and 'Streaming Radio' Deals", SX0085108-111, Exhibit DBJR-17. Statement of Edgar Bronfman, Jr., Chairman and CEO, Warner Music Group, Before the Committee on the Judiciary, United States Senate, on Parity, Platforms and Protection: The Future of the Music Industry in the Digital Radio Revolution, April 26, 2006, Exhibit DBJR-18.

40 Kenswil Oral Hearing Testimony, June 7, 2006, at 84:5-85:20.

41 Brynjolfsson Written Direct Testimony at 44.

revenue to the *sound recording* owners, and then imagine a monopolist owner of the musical work rights negotiating for some share of the remaining surplus. There is no analytical basis to assume that one of these two essential inputs "goes first" and the other gets to act as a monopolist in grabbing a share of the surplus.

The Recording Industry Association of America ("RIAA") has long argued that the sound recording royalties should be higher than the musical work royalties because their investment in the original creation of the work is greater.[43] Economically, this assertion amounts to a claim that the market for digital performance rights should be affected by the sunk costs related to the original creation of the sound recording. But Prof. Brynjolfsson recognizes that sunk costs should not impact the negotiation between streamers and record labels.[44] From an economic perspective, a rational decision-maker should only consider future revenues against future expenses.[45] Currently and in the foreseeable future, the costs associated with producing a sound recording are recouped through the sale of the recordings themselves, such as CDs and digital downloads. In the market for streaming, the marginal cost of producing the sound recording is very close to zero,[46] and any revenue captured by the record labels in this market is incremental

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[42] Brynjolfsson Oral Hearing Testimony, May 8, 2006, at 328:7-20.

[43] Jaffe Written Direct Testimony at 23.

[44] Brynjolfsson Oral Hearing Testimony, May 9, 2006, at 46:10-18.

[45] Brynjolfsson Oral Hearing Testimony, May 9, 2006, at 46:13-15.

revenue. The revenues from streaming make up a miniscule proportion of overall revenues derived from sound recordings, and therefore the labels depend on other channels to recoup their costs of producing an album.[47] Indeed, the record label witnesses testified that a lack of streaming revenues would not at all change their investment decisions related to music production.[48] Given this position, there is no economic basis for Prof. Brynjolfsson's key assumption that sound recording owners would be able to extract surplus from the webcasters.

B. Prof. Brynjolfsson's Rate Depends on Accurately Predicting Revenues and Costs

Like Dr. Pelcovits, Prof. Brynjolfsson starts from a monopolist benchmark, and hence cannot be expected to end up with a competitive royalty level. But even ignoring this fundamental flaw, Prof. Brynjolfsson's results depend on his having used accurate and reliable data regarding webcaster costs and revenues. But, as is discussed in more detail by the webcaster witnesses,[49] certain of the assumptions that Prof. Brynjolfsson

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46 Brynjolfsson Deposition Transcript, Exhibit DBJR-19, at 60:18-22.

47 Responses and Objections to Second Set of Interrogatories to SoundExchange from the Digital Media Association and its Member Companies, the Broadcasters, the Small Webcasters, Beethoven.com, National Public Radio, Corporation for Public Broadcasting-Qualified Public Radio Stations, Collegiate Broadcasters, Inc., and Intercollegiate Broadcasting System, Inc., Exhibit DBJR-20, Interrogatory Number 11, Attachments 1-4. While the sum of money is approximately 0.2% of total revenue, the record labels would not get this additional revenue without streamers. Therefore, it is wrong to simply assume the record labels have significant bargaining power.

48 Kushner Oral Hearing Testimony, June 12, 2006, at 133:10-135:5.

49 Roback Rebuttal Testimony; Winston Rebuttal Testimony; Lam Rebuttal Testimony.

uses to construct his model are inconsistent with the testimony of webcaster witnesses.[50]

While I will leave discussion of the specific data inconsistencies to other witnesses, I want to raise two particular issues that call into question the reliability of the data used in Prof. Brynjolfsson's models.

First, the manner in which Prof. Brynjolfsson collects revenue data is based on estimating the CPM (cost per thousand), the sell-out rate, and the inventory for four different types of advertising. Economically, these variables are interdependent since we expect that if the price of advertising (CPM) is higher, the streamers will sell fewer ads (lower sell-out rate). Although Prof. Brynjolfsson testified that he agrees with this fundamental economic logic,[51] he inexplicably chooses to use different sources for these interdependent numbers. This modeling decision will not yield a reliable outcome for revenue.

Second, Prof. Brynjolfsson uses suspect statistical techniques to forecast the fixed costs of a large-scale webcaster in 2005. Prof. Brynjolfsson oversimplifies and underestimates the actual costs and investments necessary to run a successful streaming service that are described by webcasting witnesses.[52] This is not surprising to me, given how he constructs

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50 For example, Ronning Lipset testified that the average CPM for Internet radio is about $3.40 (Lipset Written Direct Testimony at 7), whereas Prof. Brynjolfsson assumes CPMs that range from $3-$20 (Brynjolfsson Written Direct Testimony at 29).

51 Exhibit DBJR-19 at 163:6-10.

52 Roback Written Direct Testimony at 2.

the costs. He relies on data from 2001 brought forward into 2005 with an imprecise regression analysis to estimate fixed costs for a webcaster. He models fixed costs using a statistical technique, linear regression, taking 2001 data for a much smaller-scale webcaster and projecting costs based on a 2005 operating scale. However, the size of a webcasting operation in 2005 is much larger than in 2001, and these projections for fixed costs are based on projecting the 2001 data outside of the range of data.[53] It is well recognized in the field of econometrics that "out of sample" forecasting produces results with a lower degree of precision.[54]

C. Prof. Brynjolfsson's Model Cannot Be Applied to the Entire Market

Prof. Brynjolfsson's model is based on the particular business model of a large, efficient webcaster. He testified that the royalty rate should be determined based on what a large, commercial webcaster could pay.[55] He claims it is economically appropriate to look at large webcasters and makes no attempt to set a rate that would apply to other business models.[56] If Prof. Brynjolfsson were providing private strategy advice to a monopolist licensor,

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[53] The scale of webcasting in the 2001 data ranges from 25 average quarter hours ("AQH") per month to 20,000 AQH per month. (See Ting and Wildman Appendix, 2001, cited in Brynjolfsson Written Direct Testimony.) Prof. Brynjolfsson assumes that the scale of a webcaster in 2005 is 37,037 AQH per month and grows to 113,028 AQH per month by 2010. In 2010, the "typical" webcaster is over five times as large as the maximum monthly AQH upon which Brynjolfsson originally relies.

[54] Greene, William H., *Econometric Analysis*, Second Edition (New York: Macmillan Publishing Company, 1993), Exhibit DBJR-21, at 165.

[55] Brynjolfsson Oral Hearing Testimony, May 18, 2006, at 27:7-28:3.

[56] Brynjolfsson Written Direct Testimony at 6.

that might be good advice. But in a competitive market, the market price is determined by the marginal buyer, not by the buyer with the highest valuation. Hence Prof. Brynjolfsson's reliance on a model that reflects the willingness to pay of only the largest licensees represents another way in which he departs from the competitive market standard.

Prof. Brynjolfsson believes it will be beneficial for the market if the royalty is set at a level that only the largest and most efficient webcasters can afford, because it will allow the most efficient webcasters to survive and force the others to exit the market.[57] Under Prof. Brynjolfsson's scenario, there will be less competition in webcasting, and the large webcasters will be able to charge higher prices to their consumers. This is not the competitive market outcome envisioned by the statute.

D. Prof. Brynjolfsson Asserts That Setting the Rate Too High Is Better for the Market than Setting It Too Low

Prof. Brynjolfsson asserts that the Panel should be concerned about setting too low a rate, because he claims that a mistake by the Panel in the form of too low a royalty will not be fixed by subsequent negotiation, whereas a price that is too high will not stick but will be negotiated downwards.[58] This assertion confirms once again Prof. Brynjolfsson's conception of this proceeding as somehow intended to yield a royalty outcome at the monopolist

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[57] Brynjolfsson Written Direct Testimony at 6.

[58] Brynjolfsson Written Direct Testimony at 8-9.

level: it is only if the Panel sets the rate above the *monopoly* level that market negotiations will tend to lower it.

Even an unrestricted monopolist does not set an infinitely high price. At some level further increases in the price reduce profits, because sales are reduced more than the profit per sale is increased. A profit-maximizing monopolist sets the price at the level that yields the greatest profit, which is the point at which the loss of profits from declining sales just balances the increase in profits from a higher price per unit. If, somehow, this proceeding were to set a price above that profit-maximizing monopoly level, SoundExchange would certainly have an incentive to agree to reduce the price down to the monopoly level. But the monopoly level is, in general, above the competitive level, which is the level that the law and the Librarian have instructed the Panel to seek. If the Panel were to set a price above this correct, competitive level—but below the monopoly level—the monopolist would not agree to any reduction. Hence Prof. Brynjolfsson's assertion that a price set too high would be self-correcting is true only for a price set *much* too high, i.e., above the monopoly price level.

We have evidence that the statutory rate was set too high at least in some situations since independent record labels have signed deals with Yahoo! outside the statutory framework at a lower effective rate.[59] Prof.

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[59] Agreement between Yahoo! and The Orchard Enterprises, Inc., Exhibit DBJR-22.

Brynjolfsson admitted such deals should factor into his analysis of the market.[60]

V. Other Issues

A. Relationship of Over-the-Air Musical Work Performance Rights to Internet Musical Work Performance Rights

In my oral testimony on June 28, 2006, I was asked "If the PROs [performing rights organizations] no longer received a royalty for terrestrial radial [*sic*] air, would that likely impact the royalty rates they might seek in the Internet market?"[61]

I have characterized the market for non-interactive streaming performance rights (whether for sound recordings or for musical works) as one in which any revenue received is perceived as incremental, so that the marginal cost of supplying this market is perceived by the sellers to be zero. For this to be true, two conditions must hold. First, the costs of producing the underlying works whose performance is to be licensed have to be sunk. Second, the revenue from this group of users has to be relatively small relative to total revenue, so that variations in the royalty level in this market will be unlikely to affect the ongoing supply of new performable works over the life of the proposed agreement. As I have discussed earlier, these two conditions clearly hold for both musical works and sound recording performances in the DMCA-compliant streaming market.

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60 Brynjolfsson Oral Hearing Testimony, May 9, 2006, at 68:22-69:9.

If something changed so that the owners of musical works no longer received performance royalties for over-the-air radio, these two conditions would still hold, so I don't think the PROs' demands in the Internet streaming market would change. It would still be the case that the costs of creating existing musical works are sunk. And it would still be the case that the revenues from the Internet streaming market, for any plausible range of royalties, would be a small fraction of the total revenues of the owners of musical works, and hence would be unlikely to affect the future supply of such works.

B. Cost of Litigation for Sound Recording Performance Rights and Musical Work Performance Rights

During my oral testimony, I was also asked about the effect of litigation costs for decision-making parties, particularly parties involved in negotiations with SoundExchange and ASCAP and BMI. In my direct testimony, I commented that the cost of relying on the statutory license for sound recording performance rights would be the expected reasonable rate plus litigation costs.[62] The litigation cost effect in 2001 was asymmetric: while Yahoo! could avoid the costs by settling with the RIAA, the RIAA would not realize a similar reduction in litigation costs because the RIAA still had to litigate the case with other parties. Thus, the RIAA can be presumed to have offered Yahoo! a rate that was the expected outcome of the statutory

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[61] Jaffe Oral Hearing Testimony, June 28, 2006, at 152:4-10.

[62] Jaffe Written Direct Testimony at 14.

process (since it had no savings in litigation costs) in 2001; whereas Yahoo! can be presumed to have been willing to settle for a reasonable rate plus the cost of litigating. In fact, Yahoo! witness David Mandelbrot testified in 2001 that litigating to get a reasonable rate would cost even more than the deal proposed to Yahoo! by the RIAA.[63]

With respect to musical work licenses, webcasters have the option, under ASCAP and BMI Consent Decrees with the Justice Department, to go to Rate Court if the parties cannot settle on a reasonable rate. Rate Court does not become involved unless the parties cannot agree on reasonable fees. Since a Rate Court proceeding is time-consuming and costly, licensees are likely to turn to Rate Court only if the fees demanded by ASCAP and BMI are significantly above the reasonable level. The Rate Court is expensive for ASCAP and BMI as well, but their incentives differ from those of the licensees because any agreement they make is likely to have at least some effect as a precedent on other licenses. Thus, while licensees can be expected to accept a fee level somewhat above the reasonable level in order to avoid the costs of the Rate Court, ASCAP and BMI are less likely to accept fees lower than what they think the Rate Court might produce, despite the costs of the Rate Court, because such acceptance likely would adversely affect the

[63] Testimony of David Mandelbrot, Yahoo! Inc., In the Matter of Digital Performance Right in Sound Recording and Ephemeral Recordings, Docket No. 2000-9 CARP DTRA1&2, October 15, 2001, Exhibit DBJR-23, at 3-4.

revenues that they can obtain from other licensees. Thus, if anything, the musical work royalty rates are likely to be on the high side of reasonable.

C. Royalty Rates for Different Types of Streamers

SoundExchange and its witnesses assert that the same royalty rate should apply to all services, ignoring the reality of economic differences among services. There are a range of different types of streamers including commercial webcasters and radio simulcasters as well as non-commercial streamers. There is no a priori reason that a single price for sound recording performances should apply uniformly to all services. Distinctions regarding the fees for different types of streamers should be made on the basis of the conclusion that the competitive market value of the sound recording is different in different contexts. For an economist reaching conclusions about differences in the market value of sound recordings, there are several factors that should be considered in setting the appropriate royalty rate.

Musical Work Royalty Rate: An important indicator of the competitive value of the sound recording royalty for different types of streamers is the musical work royalty. As I discuss in my direct testimony regarding webcasters, there is no reason to expect the outcome of the negotiations would be higher for musical work performances than for sound recording performances.[64] Thus, if there is available evidence regarding the outcome of such musical work royalty negotiations for a given licensee or group of

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[64] Jaffe Written Direct Testimony at 19-20.

licensees, such contracts should provide good evidence of the reasonable rates and terms for the streaming of sound recordings for those different types of streamers.

Economic forces that differ across different types of streamers drive their marketplace negotiations, and musical work royalty rates, if available, capture these differences. Since the performances are generally the same for musical works and sound recordings, the musical work royalty rate reflects economic differences across services driven by such factors as the number of songs per hour, the relative value of music versus other programming elements, and alternatives that a buyer can turn to in reaching its audience. To the extent that there is not a musical work royalty rate for different streamers, these factors should be considered in adjusting the available benchmarks across different types of streamers.

Promotional Value: Another factor to consider is promotional value. To the extent that evidence exists that airplay in a given medium is promotional of the sale of sound recordings, economically such promotional value would point to a downward adjustment in the sound recording royalty rate.

D. Other Evidence Demonstrates that SoundExchange's Rate Proposal Is Much Too High

There is substantial evidence in this proceeding, including the record label's own documents, that shows that there is a spectrum of different contexts for the sale or licensing of sound recordings. Over-the-air radio represents one end of this spectrum, in which no royalty is collected by the record labels for a large volume of public performances. At the other end of the spectrum lies the sale of CDs and digital downloads, in which the purchaser acquires the sound recording and the unlimited ability to play it. In between these two extremes lie DMCA-compliant streaming, customized streaming,[65] and "on-demand" streaming, with the first closest to over-the-air radio and the last closest to CD sales and digital downloads. It is widely accepted that the value that can be extracted by the owners of sound recordings increases continuously as you move from over-the-air radio across the spectrum to CD sales and downloads. This means that a plausible royalty for DMCA-compliant streaming must be less than the comparable royalty for all other contexts except for over-the-air radio.

In particular, this uncontested view of the relationship of these markets implies that the royalties for DMCA-compliant streaming must be less than the royalties for any form of interactive streaming. Record labels have entered into voluntary agreements with several customized radio streamers that they deem to be interactive at royalty rates in the range of - [66] As discussed above, these agreements and the royalty rates therein reflect the significant market power of the record labels in these situations. They cannot, therefore, be used

[65] Customized streaming allows users to rate the songs or artists being streamed.

[66] Eisenberg Oral Hearing Testimony, May 11, 2006, at 67:16-69:13; Kenswil Oral Hearing Testimony, June 7, 2006, at 182:8-183:7.

directly as benchmarks for the appropriate rate for DMCA-compliant streaming. But one can say for sure that the appropriate DMCA-compliant rate must be materially less than the rates for customized/interactive streaming. Nonetheless, SoundExchange has put forward in this proceeding proposed royalties for the lower-valued DMCA context that are fifty percent to one hundred percent greater than those agreed to voluntarily by its members in the higher-valued customized/interactive streaming context.

SoundExchange and its experts have dismissed the significance of these customized service contracts on the grounds that their royalty terms are somehow contaminated by the existence of the compulsory license for DMCA-compliant streaming. This contamination argument does not survive economic scrutiny. Suppose, for the sake of argument, that it were true that the presence of the existing CARP-set rate for DMCA-compliant streaming does affect the perspective of interactive services in terms of their willingness to pay higher royalties for interactive services closest on the spectrum to DMCA-compliant streaming. The fact remains, however, that there is no legal or economic force compelling the record labels to agree to some hypothetically depressed royalty rate for these types of interactive services. Now, acting as monopolists, they might conclude that it was in their interests to accept a rate that is lower than the monopoly profit-maximizing price that they could achieve were the DMCA-compliant rate not available. But there is no reason why any potential licensor would sign on to license at a rate below the *competitive* level. If the label cannot secure a fee it deems acceptable, it can simply choose not to license and thus leave the interactive service unable to operate its service. Thus any reduction in the royalties for customized streaming caused by the existence of the compulsory license has to represent movement from a hypothetical monopoly price towards a price that is less than the monopoly price, but no less than the competitive price for that context.

In summary, the observed royalty rates voluntarily agreed to by the labels in deals with customized streamers cannot be lower than the competitive royalty rate for that context, because no label would have an incentive to agree to a sub-competitive rate. And those rates cannot be lower than the competitive royalty rate for DMCA-compliant streaming, because everyone agrees that sound recording royalties should increase as one moves across the spectrum of performances in the direction of greater interactivity. Hence SoundExchange's proposed rates, being far in excess of these voluntary customized streaming rates, are implausible on their face.

I declare under the penalty of perjury that the forgoing is true and correct.

Adam B. Jaffe

Adam B. Jaffe

September 29, 2006

[Exhibits Omitted Pursuant to 37 C.F.R. § 351.10(c)(3)
copies will be provided upon request]

CERTIFICATE OF SERVICE

I, Rhea Lytle, a secretary with the law firm of Davis Wright Tremaine LLP, do hereby certify that copies of the foregoing "**WRITTEN DIRECT STATEMENT OF LIVE365, INC.**" were sent via electronic email and via Federal Express, this 29th day of September, 2009 to the following:

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