

COMMENTS OF BRYAN D. HANCE, FOUNDER OF RADIOACTIVITY.FM

to

COPYRIGHT ROYALTY BOARD

Docket No. RM 2008-7

Request for Comments: Notice and Recordkeeping for Use of Sound Recordings Under Statutory License

By notice published on Tuesday, December, 30, 2008, the Copyright Royalty Board (“CRB”) seeks commentary on recordkeeping costs and other Reports of Use developments.

Pursuant to this notice, I submit these comments to request that CRB not implement its proposed change to census reporting and the Actual Total Performances (“ATP”) metric because the current streaming and playlist recordkeeping products on the market do not store the data needed to properly calculate ATP, and a change would place too large a burden on webcasters already attempting to comply with the existing recordkeeping requirements. Until the ATP metric can be computed properly and accurately given current webcasting technology, this change should not be enacted. Until a greater number of webcasters are participating in the royalty reporting process, any expansion of recordkeeping requirements should be put on hold. In addition, SoundExchange appears ill-equipped to handle the existing recordkeeping output, and thus is likely incapable of developing an adequate reporting system and making it available to webcasters.

Introduction

I believe I can offer the CRB a unique perspective on these matters, as I own and run a recordkeeping compliance service that assists small-market webcasters with their playlist recordkeeping and SoundExchange reporting. I have a background in computer programming and systems administration, and I have worked directly with webcasters on recordkeeping issues for over five years.

In the course of running this recordkeeping service – found at <http://www.RadioActivity.fm> – I have also written several online articles¹ and tools² to help webcasters compile and submit their Reports of Use. Thus, I am in a unique position to offer the CRB experienced commentary in this matter, as I have both the technological background in reports generation and methods as well as real-world experience working with webcasters and radio stations on this very issue.

¹ *RadioActivity: Articles*, <http://radioactivity.fm/articles/> (last visited Jan. 19, 2009).

² *RadioActivity: Tools*, <http://radioactivity.fm/tools/> (last visited Jan. 19, 2009).

My background and origin of interest in the issue:

I have degrees in Computer Science and Journalism from the University of Arizona. While I was obtaining these degrees, I worked as the Systems Administrator for the University of Arizona's student radio station, which was forced to broadcast solely via webcasting after failed attempts to procure an FM frequency.

My career at the University of Arizona spanned the mid- to late- 1990s, a pivotal period during the advancement of the internet, webcasting, and copyright legislation. I closely followed the issues and processes that lead to SoundExchange's creation, and it was during this time that I became interested in providing technological solutions for the recordkeeping issues being discussed in the courts.

With respect to webcaster compliance, I identified several key points that I sought to address with RadioActivity.fm:

- 1) Very few webcasters broadcast in the same manner – the mix of audio formats and broadcast technology make it impossible to produce a single-source solution for recordkeeping compliance.
- 2) A majority of webcasters are forced to rely on manual entry recordkeeping – meaning they literally cannot comply with the various recordkeeping rules unless their Disc Jockeys (“DJs”) hand-enter playlist data as each song is played.
- 3) A majority of webcasters do not have adequate Information Technology staff to assist with the tasks required to comply with recordkeeping requirements.
- 4) The existing commercial recordkeeping solutions are prohibitively expensive and often require a complete overhaul of a station's broadcast systems and infrastructure to a single toolset. This is simply not an option for the majority of webcasters for both financial and operational reasons.

With these core issues in mind, I created RadioActivity.fm to address as many of these roadblocks as possible.

About RadioActivity.fm

I launched RadioActivity.fm in 2005 with a heavy emphasis on its ability to generate Reports of Use by integrating playlist data with streaming server logs. It is now in use by approximately two dozen U.S. webcasters - mostly college, community, and Low Power FM (“LPFM”) stations.

RadioActivity.fm is a web-based system for radio station playlist logging, reporting, and tracking. During their broadcasts, DJs enter song data into RadioActivity.fm's web interface, and this data is stored in a database. Later, the data is combined with a webcaster's streaming server logs to produce the current 2-week, ATH-based version of the SoundExchange Reports of Use. These reports are then submitted to SoundExchange via email.

It may sound like a straightforward process, but in reality, there are major hurdles webcasters face before their Reports of Use can be compiled and sent to SoundExchange. I will list several here, as they pertain directly to the issues at hand.

- **Automation**

Some webcasters use computerized "automation" products in their webcasts – essentially computers or software that can play music instead of relying on a human DJ. There are, at best estimates, hundreds of different automation products available on the market, and integrating these automation playlists into a webcaster's Reports of Use only complicates the process.

- **Streaming configuration**

There are also many different ways a webcaster can stream its music, ranging from commercial stream hosting, off-the-shelf hardware/software combinations, and various vendor solutions. Because the Aggregate Tuning Hours ("ATH") metric requires stations to sum up the total listening time for connected listeners, making sure that a webcaster's streaming setup is properly logging and retaining the proper information has been a recurring issue in my work with RadioActivity.fm. In several cases it has mandated the purchase of new hardware and software – or a switch to a new streaming services provider – in order to properly generate a webcaster's Reports of Use.

- **Staff Training and Data Completeness**

Ensuring that DJs are properly entering all the data required for proper Reports of Use generation has also been a struggle. The process requires a period of staff retraining, and much of the promotional media being sent to webcasters for airplay does not contain the complete set of variables needed for SoundExchange reporting. Mitigating this missing data has also been an issue in my work with RadioActivity.fm.

- **Complete Data Collection and Integration of the Various Data Sources**

The webcasters I deal with have found it difficult enough to comply with the current ATH-based SoundExchange reporting,³ as the data collection, integration, and formatting process is difficult enough to stymie anyone without a background in webcasting technology and database programming. I have been able to perform this for my customers through my services, but this is the end result of several hundred hours of custom software programming and exposure to a wide variety of broadcast technologies.

I have identified these issues here not to, as the CRB says to "revisit... disagreements that the parties have previously commented on at length,"⁴ but instead because they relate to the two

³ See *infra* ATH calculation at pg. 5.

⁴ Notice and Recordkeeping for Use of Sound Recordings Under Statutory License, 73 Fed. Reg. 79727 (Dec. 30, 2008) (to be codified at 37 CFR pt. 370) available at <http://www.loc.gov/crb/fedreg/2008/73fr79727.pdf>

proposed changes the CRB has put forth, namely the **census reporting** and the **Actual Total Performances metric**.

Census Reporting

Due to the factors listed above, the current quarterly ATH-based reporting requirements for Reports of Use generation simply makes the reporting process more feasible. Factors such as those listed above mean that the majority of webcasters lack the manpower and ability to create and submit their Reports of Use more than once per quarter. Again, my points outlined here stem from the direct, hands-on work that I have performed with respect to creating and submitting Reports of Use.

From my perspective, it is extremely advantageous to be able to work with stations and webcasters to prepare them in advance for these quarterly reporting periods – i.e. weeks in which I can pre-determine that a webcaster’s staff have all been alerted to the need to properly record and report their playlists.⁵ This also gives me time to properly ensure that a webcaster’s streaming and automation systems have been configured correctly to record the data needed to compile their Reports of Use.

I realize the CRB has already heard (extensively) from both sides about the time and manpower issues behind proper Reports of Use creation – and that is not the issue that I raise here.

Instead, the CRB has asked specifically about **cost**. Specifically: “Would such software produce records of use that are format compatible with SoundExchange’s data processing system? What are the costs associated with such software?”⁶

I can offer some insight here. The RadioActivity.fm pricing schedule is posted at <http://radioactivity.fm/buy/> and the majority of my stations are paying the ‘basic’ rates are \$360 per year for my services, plus a onetime \$100 setup fee. This pricing schedule is kept to a minimum because I only need to engage with webcasters during their quarterly reporting periods.

The proposed CRB census reporting requirement would effectively increase station reporting duties by a factor of **six**. This would result in at **least** a corresponding sixfold increase in the RadioActivity.fm pricing schedule – to an estimated \$2,160 per year.

A number of my clients – many of which are currently generating and submitting their quarterly, ATH-based Reports of Use to SoundExchange – have already expressed an inability to purchase my services at this increased yearly rate. It is simply a number they cannot afford.

⁵ See *infra* page 4, Staff Training and Data Completeness

⁶ *Id.*

Actual Total Performances

At this point you may be curious why someone like myself – who markets and sells a service for royalty recordkeeping – is alarmed when the proposed CRB changes would only provide an incentive to raise my pricing schedule and attract more clients.

My answer is this: in the course of my work I have become intimately familiar with what is technically **feasible**. While the CRB's proposed change from quarterly to census reporting increases the requirements needed to compile Reports of Use, these could, indeed, be overcome by a sixfold increase in effort and money. It would be difficult and costly, but nonetheless actually within the realm of feasibility.

I believe the CRB's proposed change to the Actual Total Performances ("ATP") metric, however, is deeply flawed, as this metric simply cannot be calculated properly by the current commercially available hardware and software in use by the majority of webcasters. While the census reporting proposal is merely alarming because it increases workload and cost, the ATP metric isn't actually calculable at this point in time.

I have the credentials to speak on this subject. I have written an extensive online guide to calculating ATH,⁷ and I have also made available a free, web-based ATH calculator⁸ to assist webcasters with their Reports of Use generation. Thus, I am versed in both the conceptual and real-world mechanics of ATH calculation, and I have followed the CRB's discussion about ATP very closely due to concerns over its feasibility given current webcasting technology.

Calculating ATH:

From a programmer's perspective, ATH calculation is a fairly straightforward process. Streaming server logs can be parsed for listener connection time and duration and then summed up for the two seven-day periods to calculate the ATH for a reported timespan.

To help explain this process, I have included a small portion of a webcaster's streaming server log here.

```
<01/18/09@08:16:40> [dest: 98.244.81.129] starting stream (UID: 91981)[L: 3]{A: iTunes/8.0.2 (Macintosh; N; Intel)}(P: 2)
<01/18/09@08:22:54> [dest: 98.244.81.129] connection closed (375 seconds) (UID: 91981)[L: 2]{Bytes: 7740601}(P: 2)
<01/18/09@08:28:24> [dest: 61.245.37.151] starting stream (UID: 91984)[L: 3]{A: iTunes/7.1.1 (Windows; N)}(P: 2)
<01/18/09@08:32:37> [dest: 61.245.37.151] connection closed (254 seconds) (UID: 91984)[L: 3]{Bytes: 5247157}(P: 2)
<01/18/09@08:51:15> [dest: 93.131.170.34] starting stream (UID: 91992)[L: 4]{A: WinampMPEG/5.50}(P: 2)
<01/18/09@08:54:50> [dest: 93.131.170.34] connection closed (215 seconds) (UID: 91992)[L: 3]{Bytes: 4568280}(P: 2)
```

⁷ *RadioActivity: Articles: Calculating 'Aggregate Tuning Hours'*, RadioActivity.fm, http://radioactivity.fm/articles/aggregate_tuning_hours.html (last visited Jan. 19, 2009).

⁸ *Supra* note 2.

I have written software that uses the variables colored above in **red** to calculate ATH by totaling the connected listening client times found in streaming server logfiles such as these. This data is then combined with playlist data, which often comes in this form:

Time/title/artist/album/label

01/18/2009 08:00 pm	Hold On John	Johnson & Johnson	Johnson & Johnson	SIC
01/18/2009 08:07 pm	Ready for whatever	Chamillionaire	Paper trail	Atlantic
01/18/2009 08:23 pm	Can It Be	Murs	Murs 4 President	Def Jux
01/18/2009 08:26 pm	The What	The Notorious B.I.G.	Ready To Die	Bad Boy

As previously stated, the combination of these two data sources – streaming server logs and playlist data - is what I use to create a webcaster’s Report of Use. Please note here that what ties the data in the two sources together is the *time* that each one occurs, as it is this time that makes it programmatically possible to extract and parse data from logfiles for reporting purposes.

I include this example here not to bore the CRB with the mechanics of ATH calculation, but instead to show that ATH calculation, while it does require creative programming, is at least a feasible, calculable number.

The same cannot be said for ATP.

Actual Total Performances

The real-world mechanics of calculating and reporting ATP is problematic for several reasons.

First, ATP’s very definition, "[a]ny portion of a sound recording" means the playlist and streaming server data outlined in the prior examples would need to be so closely integrated that one could programmatically tell how many individual streaming listeners were connected for the exact duration of each individual song.

This is problematic because the current streaming, automation, and playlist recordkeeping products available simply do not report the **end time** of a particular playlist entry - nor do they provide an adequate level of time synchronization between the various data sources.

There are other complicating factors as well, but the lack of a playlist end time alone makes it impossible to properly calculate the ‘time span’ of a particular song’s broadcast. This timespan, of course, is needed to cross-reference against the streaming server logs to determine how many listeners were connected during that song’s duration. Without this timespan, then, it is impossible to calculate ATP.

A programmer such as myself, in attempting to calculate ATP using data sources that only contain the start times of individual playlist entries, soon begins cascading into a series of unfortunate “best guess” compromises to account for this missing variable, such as:

- **Attempting to ‘deduce’ start and end times from adjacent playlist entries.**
This is poor implementation, as not all songs are played back to back – there is often non-musical discussion in between each song, meaning adjacent playlist entries do not adequately represent the correct starting and end times for song entries.
- **Computing 1-, 3-, and 5-minute "running ATP averages"**
If a per-song ATP cannot be calculated, then a “per-minute ATP average” could instead be calculated – one that represents the average number of listeners that were connected for a specific interval of minutes. This metric, while is it an interesting hybrid of both the ATP and ATH concepts, is not a true ATP.
- **Using outside data as a source of song duration**
One could also attempt to use various music databases to "look up" individual song durations in order to estimate playlist end times. This is a fool’s errand, however, as such databases are woefully inadequate and often wildly incorrect.

In each of these cases, an unfortunate and severe margin of error is introduced that would result in incorrect ATP calculation for each playlist entry.

As previously stated, I have worked with clients to reconfigure their streaming and recordkeeping systems to support the current 2-week, ATH-based Reports of Use. The process has been a slow one, but the vast majority of these webcasters are making good-faith efforts - often at significant financial cost - to retool and reconfigure their technology and processes and participate in the current 2-week-per-quarter, ATH-based Reports of Use.

Because of the issues outlined above, it is my opinion that the ATP metric cannot be computed properly and accurately given current broadcast and webcasting technology, and its adoption would deter even the most enthusiastic, well-funded and well-equipped webcasters from participating in the reporting process.

I urge the CRB to recognize that ATH is the more approachable and feasible metric for webcasters to use when generating their Reports of Use. Switching to ATP would be a serious – if not fatal – setback to both non-reporting webcasters who still wish to participate, as well as those webcasters already participating in the process.

Station Adoption Rate

In the course of my work with RadioActivity.fm I have spoken to a large number of webcasters about the issues and mechanics of SoundExchange reporting and Reports of Use generation.

I bring the point up now in order to share with the CRB the fact that these webcasters understand and support the idea of proper compensation for their use of copyrighted works. They are not prevented from reports creation and submission by sheer ignorance or indifference, but instead due to the technological and procedural hurdles that I have outlined above. The webcasters I have spoken with simply do not have the proper methods, technology, or staff in place to make their reporting work, and this is the niche I have attempted to fill with my services.

To my knowledge, SoundExchange has never made public any sort of statistics that outline the number of webcasters currently submitting Reports of Use. From my own personal experience, however, I would be surprised if even one percent of U.S. webcasters were participating in the reporting process at this point in time.

This leads me to ask: **If the CRB wishes to make this recordkeeping and Reports of Use submission process function smoothly, why is it proposing a more difficult level of recordkeeping instead of working to identify and address the factors that prevent existing webcasters from participating in the process?**

Surely the easiest path to more playlist reporting and more data collection is to assist and encourage webcasters to submit reports that they are *actually capable of compiling*, instead of making the reports creation and submission even more difficult and time-consuming.

I strongly urge the CRB to seek these kinds of webcaster participation statistics from SoundExchange, and to specifically ask SoundExchange what is being done on their end to address this very issue.

Direct Answers to the CRB's Proposed Questions

Having outlined my specific comments on the census reporting requirements and the Actual Total Performances metric, I would now like to offer some direct responses to CRB questions put forth in the *Notice of Proposed Rulemaking*.

CRB Question:

What, if any, commercially available software has become available since the promulgation of the interim regulation in 2006 that could be used to compile records of use? Would such software produce records of use that are format compatible with SoundExchange's data processing system? What are the costs associated with such software?

Answer:

My service, RadioActivity.fm, is one of an estimated half dozen products on the market that I am aware of that can compile and submit Reports of Use.

RadioActivity.fm fills a specific market segment – mainly webcasters and radio stations that rely on manual entry – just as the other solutions address different webcaster market segments. The current landscape of broadcast technology and webcasting methods make it impossible to create a solution that will meet the recordkeeping needs of every single webcaster.

Regarding associated costs: RadioActivity.fm's pricing schedule is posted at: <http://radioactivity.fm/buy/> This pricing schedule is based on the current quarterly, ATH-based reporting requirements. A switch to census reporting and the ATP metric would result in at **least** a sixfold increase in the pricing schedule I offer to my customers.

CRB QUESTION:

Is it more efficient for the Collective to develop a system to report and deliver the records of use and make that system available to the Services?

Answer:

I have concerns about SoundExchange's ability to maintain its current infrastructure, let alone "develop a system to report and deliver the records of use and make that system available to the Services."⁹

First, from my perspective as a facilitator and submitter of these reports on behalf of my clients, FTP is by far the preferred method of delivery. Yet, to my knowledge SoundExchange still does not offer file transfer protocol ("FTP") delivery of Reports of Use, despite its own FTP submission guidelines outlined and published in its own "Reports of Use Delivery Specifications."¹⁰

Secondly, SoundExchange changed its website from the standard HTML format to a Flash-based website design in 2008. Unfortunately, Flash websites have a number of disadvantages, one of them being that it is impossible to hyperlink, or 'link' to a specific part of a Flash-based website as one can with regular websites.

It may seem trivial, but this unfortunate decision on SoundExchange's part means that one cannot send inquiring webcasters a simple 'link' to the proper sections of the SoundExchange website in order to answer their questions about webcasting, recordkeeping and reporting. It speaks to a certain inability to grasp obvious, fundamental technological issues on SoundExchange's end that does not inspire faith when it comes to its technological decisions.

As a last point, due to the lack of an FTP delivery, I have been emailing my client's Reports of Use to SoundExchange. Despite its own guidelines, published in its "Reports of Use Delivery Specifications,"¹¹ SoundExchange has never acknowledged receipt of these Reports of Use unless prompted in follow-up email contacts.

I once asked a SoundExchange representative about their inability to send even a cursory email acknowledgement for any Reports of Use sent via email. Their response was, plainly enough, was that SoundExchange is not required by law to send such an acknowledgement.

⁹ *Supra* note 4.

¹⁰ SoundExchange, *Guide on Reports of Use Delivery Specifications* 6 (Dec. 4, 2006) available at http://www.soundexchange.com/licensee/documents/Reports_of_Use_Delivery_Spec.pdf.

¹¹ *Id.*

Unfortunately, to this day I still do not receive acknowledgement of the Reports of Use that I email to SoundExchange, and have no record of receipt for these submissions.

If the SoundExchange cannot simply hit "reply" and send a simple email confirmation of their receipt of a Reports of Use, than I have little faith in its ability to “develop a system to report and deliver the records of use and make that system available to participating services.”¹²

It is for these reasons that my overwhelming answer to the CRB’s question here is a resounding: **No.** It would not be more efficient for the Collective to develop a system to report and deliver the records of use and make that system available to the Services.

Conclusion

To sum up, the CRB’s proposed change to the ATP metric is flawed and should not be implemented, as the ATP metric cannot be calculated properly by the current commercially available technology in use by the majority of webcasters. With this in mind, the ATH metric is by far the more calculable metric, and a switch from ATH to ATP would prevent a startling majority of participating webcasters from submitting any future Reports of Use. Quarterly reporting is the more feasible and trustworthy reporting cycle for webcasters to compile and submit their Reports of Use, as it results in proper reports preparation and better data collection. In addition, because of SoundExchange’s poor technological track record and their inability to follow even their own published guidelines with respect to Reports of Use creation and submission, I have severe reservations about any proposal that puts further technological responsibility into their hands.

I would like to thank the CRB for the chance to comment on these matters, and I hope my comments can assist them in their current line of inquiry.

If you should feel the need to contact me, please do so – I am available via the contact information posted at <http://www.radioactivity.fm>, via email at bhance@gmail.com, or via phone at (520) 401-8309.

/s/ Bryan Hance
Bryan D. Hance
Founder of RadioActivity.fm

RadioActivity.fm
PO Box 14681
Portland, Oregon 97293
520-401-8309

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¹² *Supra* note 4.