From: [redacted] (CNECT)
Sent: Friday, January 20, 2017 12:11 PM
To: [redacted] (CNECT)
Cc: [redacted] (CNECT); [redacted] (CNECT); [redacted] (CNECT); [redacted] (CNECT)
Subject: call with Audible magic

Personal Data

[redacted],

A quick summary for you to follow the discussion we had with Audible Magic on Wednesday (18.01). [redacted] is speaking to INA today and we may try to contact also other technology providers to get more info.

[redacted]
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Slide 3 (chart of effective technologies) – it includes estimates made by AM (average costs and effectiveness), mainly based on their own data.
Effectiveness of a technology depends on the type of content:

- File name (metadata) could be a first indication of what the file can contain, eg if the name of a song or artist is given in metadata
- Fingerprints: the most efficient in general terms but the levels of actual efficiency will vary, eg it can be very efficient for sound recordings and not so much for recognising compositions.
- File hash: can be effective for enforcement purposes on P2P networks , not so much on UGC networks as each hash is unique which means that each use would create a new hash even if it may be the same content , ie there are as many hash files as ripping of a same content: as a result, hash file technology is good to "validate" that a particular file encapsulates a specific content, but not to identify and block all files that encapsulate such content)
- Watermark technology is the least documented

At the same time, effectiveness assumes that the process can be measured. But it is not how the market works today – there are too many files out there. What needs to be achieved is a balance between the expectations of RH and the affordability of a technology for service providers.

With regard to cases where a service makes available different types of content and would need to check all these, currently there is no service provider with a blended technology that could deal at one go with different contents. Depending on the characteristics of a service, it may therefore need to acquire different types of technologies (which would entail additional costs).Technically, it is feasible to apply different technologies to a particular upload even subsequently or in parallel (checking is very quick).

With regard to **costs** per transaction, the identification of a large file may involve more than one transaction. The longer the file, the more numerous the transactions (request sent to the system). So one transaction does not always equal one upload.

Pricing is based on the number of transactions carried out per month per slice (eg 5000-100 000 transactions/month; 100 000 – 1 m transactions/month; 1million to 100 million, and the last tier is beyond 100 million transactions per month) SME cases studies mentioned in their presentation (Spinnup and VNG: under 4000/5000

uploads per month) so this would fall within the first tier which is considered small. Of course, pricing will decrease with the increase in the volume of transactions checked.

As to actual practices by platforms/their clients, they don't know whether all user uploaded content is checked or only a selection. But it is difficult for a platform to discriminate between uploads, so probably there is no picking and choosing. AM provides the customer with their software which creates a fingerprint of an upload and then it is sent (as a separate workflow) to the central database of AM, to check matches. It is for the customers to decide what is checked (possibility to discriminate) or, in case of a longer file, to send for identification only a portion of the file. AM has no way to control this. The checks may also be made at a different time than at the moment of upload, e.g. some services send for identification only the content with a large number of views, or only once it gets viewed for the first time.

We asked them why Soundcloud uses 2 technologies (their own and AM). They explained that AM is used generally ex ante, whereas they probably use their own technology for checking post-upload.

Vis a vis users, pre-emption (content is blocked before upload) provides better user experience than takedown (ex post).