

HIGHLY CONFIDENTIAL
FILED UNDER SEAL

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

VIACOM INT'L INC., ET AL.,)	
)	
Plaintiffs,)	ECF Case
v.)	Civil No. 07-CV-2103 (LLS)
)	
YOUTUBE, INC., ET AL.,)	
)	
Defendants)	
)	
)	
THE FOOTBALL ASSOCIATION)	
PREMIER LEAGUE LIMITED, ET AL.,)	
on behalf of themselves and all others)	
similarly situated,)	ECF Case
)	Civil No. 07-CV-3582 (LLS)
Plaintiffs,)	
v.)	
)	
YOUTUBE, INC., ET AL.,)	
)	
Defendants.)	
)	

**DECLARATION OF DAVID KING IN SUPPORT OF DEFENDANTS'
OPPOSITION TO PLAINTIFFS' MOTIONS FOR SUMMARY JUDGMENT**

I, DAVID KING, pursuant to 28 U.S.C. § 1746, declare as follows:

1. I work at Google as a Product Manager for YouTube's Content ID system. On March 1, 2010, I executed a declaration in support of YouTube's motion for summary judgment in this case. That declaration described YouTube's development and implementation of content-identification technologies, including the suite of video and audio "fingerprinting" tools that we call "Content ID." I have read the portions of Viacom's motion for summary judgment discussing Content ID and submit this declaration in response to certain assertions that Viacom has made.

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2. YouTube started background work on video fingerprinting in the fall of 2006 (shortly after the Google acquisition) and began full-scale development efforts on Content ID in January 2007. At that time, YouTube was also working to implement the audio-based fingerprinting technology we had licensed from Audible Magic. In early 2007, Audible Magic's primary application was identifying sound recordings; the technology was untested in identifying audiovisual content such as clips from television shows and movies. In contrast, the video fingerprinting tool that YouTube had begun developing was specifically designed to identify such audiovisual content.

3. Audible Magic also had no ability to identify musical compositions embodied in sound recordings. In February 2007, I asked Jeremy Stern, Audible Magic's Vice-President of Business Development, if Audible Magic could provide YouTube with data that mapped the specific sound recordings it could detect to the musical compositions underlying those sound recordings. Mr. Stern informed me that Audible Magic did not have such data.

4. During the time that YouTube was building and testing Content ID (from January to September 2007), I was in frequent contact with a number of media companies to keep them abreast of our efforts and to make sure that the tool we were developing would be useful for their needs. Viacom was one of the companies that I regularly spoke with about these issues. My main contacts at Viacom were Alan Bell, the Chief Technology Officer of Paramount, and Joe Simon, the Chief Information Officer of Viacom.

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5. Viacom was one of the first content owners that YouTube invited to participate in the pre-launch testing of Content ID. YouTube wanted to work with rights holders who had a significant range of content and who had the technical sophistication to do a serious test of our technology, regardless of whether we thought they would ultimately use Content ID to block their content from appearing on YouTube or to find their content for purposes of monetization.

6. Viacom accepted YouTube's invitation, and the parties signed a test agreement on June 13, 2007. After that, my team had a series of meetings and discussions with Viacom's team to discuss our technology and the testing protocols, including a "Video Fingerprinting Partner Kickoff Meeting" held on July 19. In the summer of 2007, Viacom conducted two separate tests of Content ID, one on behalf of Paramount Pictures and another on behalf of MTVN. A sample of the correspondence between Viacom and YouTube concerning the development and testing of Content ID is attached as Exhibits 1-7 of this declaration.

7. Content ID officially launched in early October 2007. Content owners immediately began signing up to use Content ID to identify their content on YouTube. At that time, Content ID was open for Viacom to use, free of charge. On October 15, 2007, a member of my team wrote to Viacom to confirm that Content ID was operational and to expressly invite Viacom to start using it:

Our updated Video ID system has been running on live YouTube uploads for 2 weeks now. If you would like to use the actual Video ID system that is now operational, your Technical Account Manager can supply the necessary contract. We at YouTube would like to thank you for your participation and look forward to having you use the live Video ID system.

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A copy of that email is attached as Exhibit 8 of this declaration.

8. YouTube never conditioned the availability of Content ID, whether to Viacom or any other content owner, on the content owner's willingness to license its content to appear on YouTube. To the contrary, we made clear that content owners were free to use Content ID, if they wished, exclusively to block their content from appearing on YouTube.

9. Viacom and YouTube entered into a written agreement for Viacom to start using Content ID on February 1, 2008. A true and correct copy of that agreement is attached to this declaration as Exhibit 9. Among other things, that agreement expressly provides that "Rights Owner does not agree to license and monetize content, and elects only to block or track content."

10. Content ID can only identify content for which reference fingerprints exist in YouTube's system. To get reference fingerprints into YouTube's system, the right holder typically provides a copy of the works (or portions of those works) that it wants to match and YouTube generates the reference fingerprints. Alternatively, the rights holder can create reference fingerprints itself and provide them to YouTube. Under the February 1, 2008 agreement, Viacom agreed to "deliver to Google" either copies of its works needed to create fingerprints or the fingerprints themselves. Based on that agreement, we expected Viacom immediately to begin providing reference material so that Content ID could start matching any Viacom content that might be uploaded. We had multiple discussions with Viacom in the first few months of 2008 to urge them to do so and to address any technical issues

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that arose. But it was not until May 2008 that Viacom first started providing the reference material needed for Content ID to locate Viacom content on YouTube.

11. In March 2009, I was informed that Cherry Lane, a music publisher, was interested in learning more about Content ID. I offered to participate in a teleconference with Cherry Lane's representatives, but they insisted on an in-person meeting. Accordingly, I flew to New York met with Keith Hauprich and other representatives of Cherry Lane. In that meeting, I described how Cherry Lane could use Content ID to detect the presence of content on YouTube that they believed Cherry Lane had rights to. Following that meeting, YouTube provided Cherry Lane with a written agreement to allow it to use Content ID. Cherry Lane never signed the agreement and never elected to begin using Content ID.

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

Dated: San Bruno, California
April 29, 2010


David King

King Exhibit 1

To: "dgking@google.com" <dgking@google.com>
From: "Bell, Alan - Paramount" <Alan_Bell@Paramount.com>
Cc: "Simon, Joe" <Joe.Simon@viacom.com>, "Lanterman, Jeanne - Paramount"
<Jeanne_Lanterman@Paramount.com>
Bcc:
Received Date: 2007-06-22 22:28:23 GMT
Subject: Technical contact at Viacom and Paramount

David,

Very pleased to have the opportunity to begin collaborating with Google on evaluation of content identification technology. I along with Joe Simon, CIO for Viacom, will be your primary contacts. We would like to set up a phone call to initiate our interaction and figure out the first few steps. My office will be in contact to set this up at your earliest convenience

Alan Bell

EVP and CTO, Paramount Pictures

Office: 323-956-8990

[REDACTED]

King Exhibit 2

To: "David G King" <dgking@google.com>
From: "Bell, Alan - Paramount" <Alan_Bell@Paramount.com>
Cc: "Mark Yoshitake" <myoshitake@google.com>
Bcc:
Received Date: 2007-07-12 00:40:11 GMT
Subject: RE: Technical contact at Viacom and Paramount

Dave,

I was wondering if you had been able to check if we could ingest our material for the reference directly from an HDD. Also, when do you expect that the test plan document will be circulated?

alan

-----Original Message-----

From: David G King [mailto:dgking@google.com]
Sent: Tuesday, June 26, 2007 2:06 PM
To: Bell, Alan - Paramount
Cc: Simon, Joe; Lanterman, Jeanne - Paramount; Mark Yoshitake
Subject: Re: Technical contact at Viacom and Paramount

Alan,

Thank you for getting in touch, and please forgive my slight delay in getting back to you. I'll do my best to work with your schedule whenever you can free up the time to talk. We should start by getting on the phone so I can describe how we plan to run the trial, and how you

can prepare assets for testing. I've included Mark Yoshitake on our side. He runs our partner management group and will facilitate the technical elements of the trial.

Regards,
David King



Bell, Alan - Paramount wrote:

>
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>
>
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> Google on evaluation of content identification technology. I along
> with Joe Simon, CIO for Viacom, will be your primary contacts. We
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>
>
>
> Alan Bell
>
> EVP and CTO, Paramount Pictures

>
> Office: 323-956-8990

>
> [REDACTED]

>
>

King Exhibit 3

To: "myoshitake@google.com" <myoshitake@google.com>, "dgking@google.com" <dgking@google.com>
From: "Simon, Joe" <Joe.Simon@viacom.com>
Cc: "Bell, Alan - Paramount" <Alan_Bell@Paramount.com>, "Lanterman, Jeanne - Paramount" <Jeanne_Lanterman@Paramount.com>, "Rockwell, Nick" <Nick.Rockwell@mtvn.com>, "L'Archevesque, Lee" <Lee.LArchevesque@viacom.com>
Bcc:
Received Date: 2007-07-18 00:39:21 GMT
Subject: Re: Technical contact at Viacom and Paramount

I'm travelling on business for the next couple of days; but Nick Rockwell and Lee L'archevesque are available to chat

----- Original Message -----

From: Mark Yoshitake <myoshitake@google.com>
To: David G King <dgking@google.com>
Cc: Bell, Alan - Paramount; Simon, Joe; Lanterman, Jeanne - Paramount
Sent: Tue Jul 17 19:12:53 2007
Subject: Re: Technical contact at Viacom and Paramount

Hi Alan, Joe,

My name is Mark Yoshitake and I will be responsible for working with you during this trial. I am responsible for this trial with our partners and and delighted to work with you on this.

I'd like to have a conference call to go over the systems and process we have set up for testing. We would like to get started with some ingestion via our web ingest uploads.

If we go the hard drive route, we will have to do some custom coding that would take a bit longer and you will have to prepare metadata XML feeds for this, which may take longer for you as well.

Can we start with a call to go over the deck attached? When is a good time for you in the next couple days?

-- Mark

On 6/26/07, David G King <dgking@google.com> wrote:

Alan,

Thank you for getting in touch, and please forgive my slight delay in getting back to you. I'll do my best to work with your schedule whenever you can free up the time to talk. We should start by getting on the phone so I can describe how we plan to run the trial, and how you can prepare assets for testing. I've included Mark Yoshitake on our side. He runs our partner management group and will facilitate the technical elements of the trial.

Regards,
David King



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>
>
> Alan Bell
>
> EVP and CTO, Paramount Pictures
>
> Office: 323-956-8990
> [REDACTED]
> [REDACTED]
>
>

--
Mark Yoshitake, Senior Technology Program Manager | Content Partnerships
myoshitake@google.com <mailto:myoshitake@google.com> [REDACTED]

King Exhibit 4

To: "myoshitake@google.com" <myoshitake@google.com>, "dgking@google.com" <dgking@google.com>
From: "Bell, Alan - Paramount" <Alan_Bell@Paramount.com>
Cc: "Bell, Alan - Paramount" <Alan_Bell@Paramount.com>, "Kisor, Robert - Paramount" <Robert_Kisor@Paramount.com>, "Salter, John - Paramount" <John_Salter@Paramount.com>, "L'Archevesque, Lee" <Lee.LArchevesque@viacom.com>, "Rockwell, Nick" <Nick.Rockwell@mtvn.com>, "Simon, Joe" <Joe.Simon@viacom.com>, "Lanterman, Jeanne - Paramount" <Jeanne_Lanterman@Paramount.com>
Bcc:
Received Date: 2007-07-19 22:43:44 GMT
Subject: Email addresses

Thanks very much for taking us through the test process this morning.

Here is the email contact list covering Paramount and MTVN/Viacom for matters regarding the tests.

We will be having an internal call tomorrow to review the information from today's call with you, and anticipate getting started early next week.

Alan Bell
EVP and CTO, Paramount Pictures
Office: 323-956-8990
[REDACTED]

King Exhibit 5

To: "Bell, Alan - Paramount" <Alan_Bell@paramount.com>
From: "Mark Yoshitake" <myoshitake@google.com>
Cc: "dgking@google.com" <dgking@google.com>, "Kisor, Robert - Paramount" <Robert_Kisor@paramount.com>, "Salter, John - Paramount" <John_Salter@paramount.com>, "L'Archevesque, Lee" <Lee.LArchevesque@viacom.com>, "Rockwell, Nick" <Nick.Rockwell@mtvn.com>, "Simon, Joe" <Joe.Simon@viacom.com>, "Lanterman, Jeanne - Paramount" <Jeanne_Lanterman@paramount.com>
Bcc:
Received Date: 2007-07-20 19:24:54 GMT
Subject: Video Identification Trial - Viacom + YouTube - Meeting Notes

Hi -

Thanks for your time yesterday and the contact information. I've taken notes from our meeting below and have followed up with my engineering team about the various open questions we discussed.

Top level findings are that the test material **will** run again all material like it will be in production but that it will only report on matches from your library. Since it is also not recommended that we log into a single account simultaneously, we should setup 3 different accounts for each entity and link them on the back end, which is I can do through our backend systems.

On delivery of hard drive, we are open to this, but it turns out, we either need to have both references and lookup material through the HD or both through the web interface. The hybrid approach will not be supported until mid-late august if we even end up supporting this.

Pls let me know if you would like to discuss this in more detail for clarification. I look forward to running this trial with you.

-- Mark

*Video Fingerprinting Partner Meeting - Viacom, Paramount, MTVN *

*Current Status: *Kick-Off meeting complete
Meeting Notes | 07.19.2007 | 8-10am PST, Conference Call

Attendees:

- Alan Bell, EVP and CTO - Paramount
- Joe Simon, CIO - Viacom
- Nick Rockwell, VP Technology - MTV Networks
- Lee L'Archevesque, VP Info Security - Viacom
- Robert Kisor, VP Technology - Paramount
- John Salter, VP Technology - Paramount
- Mark Yoshitake, Sr Technology Program Manager, Content Partnerships
- YouTube

*

**Decisions/Key Points*:

- Will proceed with trial - anticipate getting started early next week
- Will likely use 1 account and segment reporting by using labels in the metadata => UPDATE: suggest using 3 user accounts and link them on the backend to avoid having to tag the videos with metadata, will verify if

this is absolutely possible and any limitation by end of day

- Setup separate meeting to discuss direction of production systems in parallel to launching the trial

Open Issues:

- Need to find solution for Paramount for reference generation and physical delivery (Mark) - if Paramount is fine with giving us Ref + Lookup on HD and we run testing, we can do this now.
- if Paramount wants to ingest long-form reference via HD and then do web lookups for test videos, it will require code changes on the YouTube side and that would not be ready until mid-late

Action Items:

- Determine if we will ever allow for only video fingerprints to be submitted as opposed to masters in the future (Mark) - answer - we are investigating this option - a binary for distribution to partners is not ready today
- Determine if users can login simultaneously into one account (Mark)
- Check on feasibility of ingesting masters to generate references for Paramount via hard drive + XML metadata
- Send contact info for everyone from meeting to Mark (Alan - done)
- Send email aliases for identification matching reporting (Viacom/Paramount)
- Create YouTube account to be used for trial purposes (Viacom/Paramount)
- Provision account to be trial enabled (Mark)
- Setup meeting to discuss product direction for production systems and operational considerations (Mark)

*Summary:

- *Partner Training deck*: went through the test process deck in detail
- *Security concerns*: discussed security concerns about masters for Paramount and asked about secure handling of content within YouTube
- *Paramount references*: approximately 300 dvd titles to deliver at over 300 GB (1 GB average slightly compressed format)
- *Account setup*: want to potentially separate the test to 3 accounts for the Viacom entities for ease of management
- *File size limitations*: some titles could be over 1 GB so limitation on the web front end could be an issue for ingest
- *Paramount Hard Drive delivery*: potentially wants to deliver reference material to YouTube in a hard drive and is not comfortable uploading masters via the web interface or leaving masters behind, and is willing to provide necessary XML metadata
- *Establishing large reference repository up front*: instead of delivering the reference material piecemeal on an on-going basis, wanted to deliver all reference content to build the largest reference library before doing any testing. This would allow for the most optimal testing of the content since there will be the highest diversity of content in the library
- *Reference Segmentation*: questions around reference material being segmented into separate databases
- *Deletion*: Wants the ability to delete content from the servers,

which is possible from the web interface

- *MTV Networks/Viacom upload process*: Test suite material is not encoded at master level and is low impact material so will opt to use standard ingest model via web upload for reference and tests
- *MTV Networks/Viacom limited references*: Will have more test material than reference material b/c they are building a lot of test cases, most likely around 10 reference assets to exercise the algorithm
- *Direction Follow-up*: Want to discuss what they would like to see in the production systems in a follow up meeting
- *Reporting segmentation*: discussed segmentation of the video files in the reports and using the labels and description text to label this content

Questions:

Q: Can YouTube handle 1 GB+ sizes for reference material, since many master from Paramount are larger than 1 GB?

A: Not today, but will follow-up on this limitation - follow-up - we can ingest longer form via hard drive

Q: Can we submit just the video fingerprints? Other partners allow us to do that. We would feel more comfortable with that from a content security perspective. Will you ever allow for that in the future when we roll out production systems?

A: No, we don't have the capability for that during this trial. We can not distribute the software since we are still developing it and we may not in the future. I will follow up with an answer for this.

Q: Does the test material run against everything in the reference library or just against the reference material we are uploading? Accuracy would be better tested if it ran against everything

A: Runs against everything (corrected from conversation earlier today), so as to be most representative of our production systems. This will run against everything but during trial we filter out and show only matches against their own ref content. We won't show matches from other content here.

Q: Is there recommended video length of test material?

A: Would recommend mimicking what users tend to do, but it is up to you. Recommend above 30 sec and less than 10 min.

Q: If we use 3 accounts to upload reference material, will the tests match against all of it or only against content uploaded in one account?

A: Will run against everything in the reference database (corrected from conversation earlier), runs against everything from the same linked parent account - we can actually set up 3 user accounts and have the test run against all material uploaded in all three, but investigating if this is true if we also ingest via HD

Q: Can users login simultaneously to upload to one account?

A: I don't know, I will check on this - Update: this is not recommended so likely we should setup 3 user accounts

Q: Can we deliver masters for references, have you generate the fingerprints and not have to leave it with you?

A: I understand the concern and I will determine what a good solution is here. However, we may be continuing to improve extraction so we may need masters. Will follow up on this.

Q: Are you testing the matching or the extraction?

A: Actually this will be both (corrected from conversation earlier)

Q: Are multiple addresses ok for the reports to be sent out to?

A: Yes

On 7/19/07, Bell, Alan - Paramount <Alan_Bell@paramount.com> wrote:

>
> Thanks very much for taking us through the test process this morning.
>
>
>
> Here is the email contact list covering Paramount and MTVN/Viacom for
> matters regarding the tests.
>
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> We will be having an internal call tomorrow to review the information from
> today's call with you, and anticipate getting started early next week.
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> Alan Bell
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> EVP and CTO, Paramount Pictures
>
> Office: 323-956-8990
>
> [REDACTED]
>
>

--
Mark Yoshitake, Senior Technology Program Manager | Content Partnerships
myoshitake@google.com [REDACTED]

King Exhibit 6

To: "Bell, Alan - Paramount" <Alan_Bell@paramount.com>
From: "Mark Yoshitake" <myoshitake@google.com>
Cc: "dgking@google.com" <dgking@google.com>, "Kisor, Robert - Paramount"
<Robert_Kisor@paramount.com>, "Salter, John - Paramount" <John_Salter@paramount.com>, "L'Archevesque, Lee" <Lee.LArchevesque@viacom.com>, "Rockwell, Nick" <Nick.Rockwell@mtvn.com>, "Simon, Joe" <Joe.Simon@viacom.com>, "Lanterman, Jeanne - Paramount" <Jeanne_Lanterman@paramount.com>
Bcc:
Received Date: 2007-07-23 20:11:32 GMT
Subject: Re: Video Identification Trial - Viacom + YouTube - Meeting Notes

Alan,

Thanks for the reply. The plan you outlined below should work great.

-- Mark

On 7/23/07, Bell, Alan - Paramount <Alan_Bell@paramount.com> wrote:

>
> Mark,
>
>
> We at paramount will send you our email info this afternoon.
>
>
> As far as the uploading process is concerned, we would like to start this
> week by uploading segments of our movies up to ~10mins. We will upload a
> sufficient number of files to populate the reference database for the
> purposes of a first-pass evaluation of the ID technology. We are planning
> to upload about 10-20hrs worth of MPEG2 files (~100 -200 files). Please
> confirm this is suitable from YouTube point of view
>
>
>
> Thanks, Alan
>
>
> -----
>
> *From:* Mark Yoshitake [mailto:myoshitake@google.com]
> *Sent:* Monday, July 23, 2007 11:41 AM
> *To:* Bell, Alan - Paramount
> *Cc:* dgking@google.com; Kisor, Robert - Paramount; Salter, John -
> Paramount; L'Archevesque, Lee; Rockwell, Nick; Simon, Joe; Lanterman, Jeanne
> - Paramount
> *Subject:* Re: Video Identification Trial - Viacom + YouTube - Meeting
> Notes
>
>
>
> Hi everyone,
>
> Hope you had a great weekend. I'm assuming since MTVN sent account
> information separately that we are setting up 3 different accounts. Based on
> the findings outlined below, its been clarified that we can test your

> material, even if upload to different accounts, against reference videos
> provided by all three entities.
>
> Pls send me the other accounts as you set this up. I will work on getting
> mtvn setup today.
>
> Following up on ingestion. We have a number of possible solutions for
> Paramount that I would like to discuss:
> 1) bring physical media to our ingest lab and run the reference generation
> in lab - this will take a really long time to run since we will be running
> it off of once machine as opposed to many, probably about 100 hours or so
> 2) send media to us, we will generate references and send you the data
> back via fedex.
> 3) give you the reference generation software, and then have you upload
> the generated references - this is the long term plan, but we can not have
> the software to distribute until late august since it is still not ready for
> commercial use and we need to run security audits on it
>
> Pls let me know how Paramount would like to proceed and in the meantime, I
> will setup mtvn for web-based testing.
>
> -- Mark
>
> On 7/20/07, *Mark Yoshitake *<myoshitake@google.com> wrote:
>
> Hi -
>
> Thanks for your time yesterday and the contact information. I've taken
> notes from our meeting below and have followed up with my engineering team
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> Top level findings are that the test material **will** run again all
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> - *Reporting segmentation*: discussed segmentation of the video
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> against all material uploaded in all three, but investigating if this is
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> A: I dont know, I will check on this - Update: this is not recommended so
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> Q: Are you testing the matching or the extraction?
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> Q: Are multiple addresses ok for the reports to be sent out to?
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> On 7/19/07, *Bell**, Alan - Paramount* <Alan_Bell@paramount.com> wrote:
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> Thanks very much for taking us through the test process this morning.
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> Here is the email contact list covering Paramount and MTVN/Viacom for
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>
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>
> We will be having an internal call tomorrow to review the information from
> today's call with you, and anticipate getting started early next week.
>
>
>
>
>
>
> Alan Bell
>
> EVP and CTO, Paramount Pictures
>
> Office: 323-956-8990
> 
>
>
>
>
>
>
>
>
> --

> Mark Yoshitake, Senior Technology Program Manager | Content Partnerships
> myoshitake@google.com | t: [REDACTED]

> [REDACTED]

>

>

>

> --

> Mark Yoshitake, Senior Technology Program Manager | Content Partnerships
> myoshitake@google.com | t: [REDACTED]

> [REDACTED]

>

--

Mark Yoshitake, Senior Technology Program Manager | Content Partnerships
myoshitake@google.com | t: [REDACTED] o: [REDACTED]

King Exhibit 7

To: "Kisor, Robert - Paramount" <Robert_Kisor@Paramount.com>
From: "David G King" <dgking@google.com>
Cc: "Mark Yoshitake" <myoshitake@google.com>, "Bell, Alan - Paramount"
<Alan_Bell@Paramount.com>, "Salter, John - Paramount" <John_Salter@Paramount.com>, "L'Archevesque,
Lee" <Lee.LArchevesque@viacom.com>, "Rockwell, Nick" <Nick.Rockwell@mtvn.com>, "Simon, Joe"
<Joe.Simon@viacom.com>, "Lanterman, Jeanne - Paramount" <Jeanne_Lanterman@Paramount.com>
Bcc:
Sent Date: 2007-07-31 22:23:31 GMT
Subject: Re: Video Identification Trial - Viacom + YouTube - Meeting Notes

Bob,

Thanks for this data. This will really help us understand how we should plan to support your testing through the trial.

This is a trial, rather than a production release, precisely because there are some kinks to work out. With that spirit in mind, we'd like to talk with you every couple of weeks throughout the trial to gather your feedback on how we can continue to improve the platform. Can you fit in a call already this week?

I'd like to respond to a few common questions we've heard from partners in advance of talking on the phone. These questions relate to issues in running testing efficiently.

Some have asked about uploading test files greater than 20 minutes in length. The general user policy on YouTube limits video uploads to 10 minutes in length, and the video lookup service was built with this in mind, only handling files up to 20 minutes in length (we doubled the time constraint to allow for some headroom). Note that there is no length limitation on reference videos as that side of the service was built with the understanding that it would be more convenient for content owners to upload assets as a single chunk of content, and plenty of movies run 2 hours or longer.

Most of you are uploading very high quality versions of your assets to run testing, especially on the reference video side of the service. Our platform was built to operate within the standard YouTube video spec, so the first thing we do with your files is to transcode them to that relatively low-quality standard. For your reference, I've provided our video spec below. I bring this up for a few reasons. First of all, working with smaller files will improve transfer rates and reliability, adding efficiency to your process. Secondly, working with lower quality files should help alleviate your security concerns as the utility of low grade files is less. I don't mean to suggest that you should not trust our security measures, which we take very seriously, but transferring low quality files simply carries less risk. Changing your uploads to a lower bit rate will not alter the results you see from the platform.

YouTube video specification
Video format - Flash 7 .flv (SVQ3 codec)
Video bitrate - 256 kbps
Framerate - 24-30 frames per second
Resolution - 320x240
Audio format - .mp3 (22kHz sampling)
Audio bitrate - 64 kbps
Total bitrate - 320 kbps

Please let us know when you would be available to talk on the phone.

Regards,
David King

Kisor, Robert - Paramount wrote:

>
> Mark,
>
> Paramount is anticipating uploading the following additional volume of
> material during the trial.
>
>
>
> Approx. 125 reference files
>
> Approx. 75MB average per reference file (the range is 30MB to 120MB)
>
> Approx. 90 test files
>
> Approx. 15MB average per test file (the range is 1MB-50MB)
>
>
>
> If we get any surprise in our test results we may need to submit
> additional test cases.
>
>
>
> Bob Kisor
>
>
>
>
>
> -----
>
> *From:* Mark Yoshitake [mailto:myoshitake@google.com]
> *Sent:* Monday, July 30, 2007 10:57 AM
> *To:* Bell, Alan - Paramount
> *Cc:* dgking@google.com; Kisor, Robert - Paramount; Salter, John -
> Paramount; L'Archevesque, Lee; Rockwell, Nick; Simon, Joe; Lanterman,
> Jeanne - Paramount
> *Subject:* Re: Video Identification Trial - Viacom + YouTube - Meeting
> Notes
>
>
>
> Folks -
>
> We are trying to determine if we need to make changes to our current
> trial system for ingestion. Can you answer these questions:
>
> Approximately how many reference videos will you test against during
> this trial?
> Approximately how large are the file sizes for the reference videos?
> Approximately how many test videos will you use for matching during

> this trial?
> Approximately how large are the files sizes for the test videos?
>
> This will help us determine if we will need to build something outside
> of web upload to handle ingestion, as it seems we may have run into
> some issues last week during the first few days.
>
> Thanks,
>
> Mark
>
> On 7/23/07, *Mark Yoshitake* <myoshitake@google.com
> <mailto:myoshitake@google.com>> wrote:
>
> Alan,
>
> Thanks for the reply. The plan you outlined below should work great.
>
> -- Mark
>
>
> On 7/23/07, *Bell**, Alan - Paramount* <Alan_Bell@paramount.com
> <mailto:Alan_Bell@paramount.com>> wrote:
>
> Mark,
>
>
>
> We at paramount will send you our email info this afternoon.
>
>
>
> As far as the uploading process is concerned, we would like to start
> this week by uploading segments of our movies up to ~10mins. We will
> upload a sufficient number of files to populate the reference database
> for the purposes of a first-pass evaluation of the ID technology. We
> are planning to upload about 10-20hrs worth of MPEG2 files (~100 -200
> files). Please confirm this is suitable from YouTube point of view
>
>
>
> Thanks, Alan
>
>
>
> -----
>
> *From:* Mark Yoshitake [mailto:myoshitake@google.com
> <mailto:myoshitake@google.com>]
> *Sent:* Monday, July 23, 2007 11:41 AM
> *To:* Bell, Alan - Paramount
> *Cc:* dgking@google.com <mailto:dgking@google.com>; Kisor, Robert -
> Paramount; Salter, John - Paramount; L'Archevesque, Lee; Rockwell,
> Nick; Simon, Joe; Lanterman, Jeanne - Paramount
> *Subject:* Re: Video Identification Trial - Viacom + YouTube - Meeting
> Notes
>

>
>
> Hi everyone,
>
> Hope you had a great weekend. I'm assuming since MTVN sent account
> information separately that we are setting up 3 different accounts.
> Based on the findings outlined below, its been clarified that we can
> test your material, even if upload to different accounts, against
> reference videos provided by all three entities.
>
> Pls send me the other accounts as you set this up. I will work on
> getting mtvn setup today.
>
> Following up on ingestion. We have a number of possible solutions for
> Paramount that I would like to discuss:
> 1) bring physical media to our ingest lab and run the reference
> generation in lab - this will take a really long time to run since we
> will be running it off of once machine as opposed to many, probably
> about 100 hours or so
> 2) send media to us, we will generate references and send you the data
> back via fedex.
> 3) give you the reference generation software, and then have you
> upload the generated references - this is the long term plan, but we
> can not have the software to distribute until late august since it is
> still not ready for commercial use and we need to run security audits
> on it
>
> Pls let me know how Paramount would like to proceed and in the
> meantime, I will setup mtvn for web-based testing.
>
> -- Mark
>
> On 7/20/07, *Mark Yoshitake *<myoshitake@google.com
> <<mailto:myoshitake@google.com>>> wrote:
>
> Hi -
>
> Thanks for your time yesterday and the contact information. I've taken
> notes from our meeting below and have followed up with my engineering
> team about the various open questions we discussed.
>
> Top level findings are that the test material **will** run again all
> material like it will be in production but that it will only report on
> matches from your library. Since it is also not recommended that we
> log into a single account simultaneously, we should setup 3 different
> accounts for each entity and link them on the back end, which is I can
> do through our backend systems.
>
> On delivery of hard drive, we are open to this, but it turns out, we
> either need to have both references and lookup material through the HD
> or both through the web interface. The hybrid approach will not be
> supported until mid-late august if we even end up supporting this.
>
> Pls let me know if you would like to discuss this in more detail for
> clarification. I look forward to running this trial with you.
>
> -- Mark
>

> *Video Fingerprinting Partner Meeting - Viacom, Paramount, MTVN *

>

> *Current Status: *Kick-Off meeting complete

> *Meeting Notes* | 07.19.2007 | 8-10am PST, Conference Call

>

> *Attendees *:

>

> * Alan Bell, EVP and CTO - Paramount

> * Joe Simon, CIO - Viacom

> * Nick Rockwell, VP Technology - MTV Networks

> * Lee L'Archevesque, VP Info Security - Viacom

> * Robert Kisor, VP Technology - Paramount

> * John Salter, VP Technology - Paramount

> * Mark Yoshitake, Sr Technology Program Manager, Content Partnerships - YouTube

>

> *

> Decisions/Key Points*:

>

> * Will proceed with trial - anticipate getting started early next week

> * Will likely use 1 account and segment reporting by using labels in the metadata => /UPDATE/: suggest using 3 user accounts and link them on the backend to avoid having to tag the videos with metadata, will verify if this is absolutely possible and any limitation by end of day

> * Setup separate meeting to discuss direction of production systems in parallel to launching the trial

>

>

> *Open Issues*:

>

> * Need to find solution for Paramount for reference generation and physical delivery (Mark) - if Paramount is fine with giving us Ref + Lookup on HD and we run testing, we can do this now.

> * if Paramount wants to ingest long-form reference via HD and then do web lookups for test videos, it will require code changes on the YouTube side and that would not be ready until mid-late

>

>

> *Action Items*:

>

> * Determine if we will ever allow for only video fingerprints to be submitted as opposed to masters in the future (Mark) - answer - we are investigating this option - a binary for distribution to partners is not ready today

> * Determine if users can login simultaneously into one account (Mark)

> * Check on feasibility of ingesting masters to generate references for Paramount via hard drive + XML metadata

> * Send contact info for everyone from meeting to Mark (Alan - done)

> * Send email aliases for identification matching reporting (Viacom/Paramount)

> * Create YouTube account to be used for trial purposes (Viacom/Paramount)

> * Provision account to be trial enabled (Mark)

> * Setup meeting to discuss product direction for production systems and operational considerations (Mark)

>

>
> *Summary:
>
> * *Partner Training deck*: went through the test process deck in
> detail
> * *Security concerns*: discussed security concerns about masters
> for Paramount and asked about secure handling of content within
> YouTube
> * *Paramount references*: approximately 300 dvd titles to deliver
> at over 300 GB (1 GB average slightly compressed format)
> * *Account setup*: want to potentially separate the test to 3
> accounts for the the Viacom entities for ease of management
> * *File size limitations* : some titles could be over 1 GB so
> limitation on the web front end could be an issue for ingest
> * *Paramount Hard Drive delivery*: potentially wants to deliver
> reference material to YouTube in a hard drive and is not
> comfortable uploading masters via the web interface or leaving
> masters behind, and is willing to provide necessary XML metadata
> * *Establishing large reference repository up front*: instead of
> delivering the reference material piecemeal on an on-going
> basis, wanted to deliver all reference content to build the
> largest reference library before doing any testing. This would
> allow for the most optimal testing of the content since there
> will be the highest diversity of content in the library
> * *Reference Segmentation*: questions around reference material
> being segmented into separate databases
> * *Deletion*: Wants the ability to delete content from the
> servers, which is possible from the web interface
> * *MTV Networks/Viacom upload process*: Test suite material is not
> encoded at master level and is low impact material so will opt
> to use standard ingest model via web upload for reference and tests
> * *MTV Networks/Viacom limited references*: Will have more test
> material than reference material b/c they are building a lot of
> test cases, most likely around 10 reference assets to exercise
> the algorithm
> * *Direction Follow-up*: Want to discuss what they would like to
> see in the production systems in a follow up meeting
> * *Reporting segmentation*: discussed segmentation of the video
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>
>
> Alan Bell
>
> EVP and CTO, Paramount Pictures
>
> Office: 323-956-8990
>
> [REDACTED]
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> --
> Mark Yoshitake, Senior Technology Program Manager | Content Partnerships
> myoshitake@google.com <mailto:myoshitake@google.com> | t: [REDACTED]
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> [REDACTED]
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> I c: [REDACTED]
>

King Exhibit 8

To: "David G King" <dgking@google.com>
From: "George Salem" <gsalem@google.com>
Cc:
Bcc:
Received Date: 2007-10-16 11:54:44 GMT
Subject: It's up to you now! They wanted the ""boss""

----- Forwarded message -----

From: Bell, Alan - Paramount <Alan_Bell@paramount.com>
Date: Oct 16, 2007 3:05 PM
Subject: RE: YouTube Trial ending (Viacom / Paramount Account)
To: George Salem <gsalem@google.com>
Cc: "Perry, Alfred - Paramount" <Alfred_Perry@paramount.com>

George,

please forward to me the necessary contract, or let me know who I should contact,

Thanks

Alan

EVP and CTO
Paramount Pictures

From: George Salem [mailto:gsalem@google.com]
Sent: Monday, October 15, 2007 5:47 PM
To: FPTest; -PPC-IT-Fingerprint Test
Cc: Mark Yoshitake
Subject: YouTube Trial ending (Viacom / Paramount Account)

Dear Trial Partner:

We are concluding the Video Fingerprint Trial on Wednesday, 17 October. At that time, your account options will be updated and videos will no longer have an option to be uploaded for fingerprint testing. Daily reports will

conclude on Wednesday; your test and reference videos will be deleted from our servers shortly after that.

Our updated Video ID system has been running on live YouTube uploads for 2 weeks now. If you would like to use the actual Video ID system that is now operational, your Technical Account Manager can supply the necessary contract.

We at YouTube would like to thank you for your participation and look forward to having you use the live Video ID system.

Regards,

George Salem
YouTube LLC
650.246.4560
