

Exhibit 36

9/25/2019

Network-1 Technologies, v. Google LLC and Youtube LLC
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Jim Schrempp

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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

NETWORK-1 TECHNOLOGIES, INC.,
PLAINTIFF,

vs.

No. 14 Civ. 2396 (PGG)

GOOGLE LLC AND YOUTUBE, LLC,

14 Civ. 9558 (PGG)

DEFENDANTS.

CONFIDENTIAL - OUTSIDE ATTORNEYS' EYES ONLY
VIDEOTAPED DEPOSITION OF
JIM SCHREMPP

Wednesday, September 25, 2019

Reported By: KATHLEEN WILKINS, CSR #10068,
RPR-RMR-CRR-CCRR-CLR-CRC

BE IT REMEMBERED that on Wednesday, September 25, 2019, commencing at the hour of 11:04 a.m. thereof, at CROWELL & MORING, Three Embarcadero Center, 26th Floor, San Francisco, California, before me, Kathleen A. Wilkins, RPR-RMR-CRR-CCRR-CLR-CRC, a Certified Shorthand Reporter, in and for the State of California, personally appeared JIM SCHREMPP, a witness in the above-entitled court and cause, who, being by me first duly sworn, was thereupon examined as a witness in said action.

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Jim Schrempp

1 MR. LEDAHL: Brian Ledahl from
 2 Russ August & Kabat on behalf of the plaintiff,
 3 Network-1.
 4 MR. RAMSEY: This is Gabe Ramsey, along
 5 with my colleague Kayvan Ghaffari, from
 6 Crowell & Moring, counsel for the witness,
 7 Jim Schrempp.
 8 THE VIDEOGRAPHER: Will the court reporter
 9 please swear in the witness, and then we can begin.
 10 JIM SCHREMPP,
 11 having been duly sworn,
 12 was examined and testified as follows:
 13 EXAMINATION BY MR. DANG
 14 BY MR. DANG:
 15 Q. Would you please state your name for the
 16 record.
 17 A. Jim Schrempp.
 18 Q. Have you ever been deposed?
 19 A. Yes.
 20 Q. Okay. Just a quick refresher on how this
 21 will go.
 22 I've got a series of questions for you.

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1 Q. Okay. Do you have any papers related to
 2 audio content recognition?
 3 A. No, I don't think so.
 4 Q. What about patents?
 5 A. Classes in patents? I'm sorry. I
 6 didn't --
 7 Q. Oh, sorry.
 8 Do you have any patents related to the
 9 field of audio content recognition?
 10 A. I do.
 11 Q. About how many, would you say?
 12 A. I think I'm named inventor on, I would
 13 guess, 20, 25. I'm not precise. Don't know a
 14 precise count.
 15 Q. Okay. And when did you start obtaining
 16 those patents on audio content recognition?
 17 A. Probably in the year 1990 -- '99, I think
 18 we started.
 19 Q. And where were you employed in 1999?
 20 A. Audible Magic.
 21 Q. Are you still employed at Audible Magic?
 22 A. No.

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1 If any of them are poor questions or could be
 2 rephrased, definitely let me know, and I'll try to
 3 ask a better question.
 4 I was going to try to take a break maybe
 5 every hour or so. But if you want a break sooner or
 6 you want to keep going, just let me know.
 7 A. Mh-hmm.
 8 Q. Does that sound good?
 9 A. Yeah.
 10 Q. All right. Let's start with your
 11 education.
 12 Where did you go to school?
 13 A. I went to college at Cal Poly, San Luis
 14 Obispo.
 15 Q. And did you receive your undergrad there
 16 or your master's or any other degrees there?
 17 A. Undergraduate degree in computer science.
 18 Q. Okay. And when did you graduate?
 19 A. 1980.
 20 Q. And did you take any classes on content
 21 recognition or machine learning while in school?
 22 A. To be honest with you, I can't recall.

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1 Q. Do you have any current relation with
 2 Audible Magic?
 3 A. I am on the board of directors.
 4 Q. And when did you join the board of
 5 directors?
 6 A. In -- when I joined the company.
 7 Q. Okay. What was your position at Audible
 8 Magic when you joined the company? Was it just as a
 9 board -- on the board of directors, or did you have
 10 another job title?
 11 A. It was vice president of software
 12 development.
 13 Q. And around that time, in 1999, did you
 14 ever begin working on a product called Clango?
 15 A. Yes.
 16 Q. And in general terms, what was Clango?
 17 A. Clango was a media recognition tool that
 18 would run on a personal computer, monitor a stream
 19 of audio, return -- if it could identify audio, it
 20 would. It would return title, artist, a link to
 21 purchase. I think you could add it to a favorites
 22 list, you know, that kind of stuff.

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Jim Schremp

1 Q. Is it fair to say that Clango identified
2 audio by its content?
3 A. Yes.
4 MR. LEDAHL: Objection. Form.
5 BY MR. DANG:
6 Q. And what was your role in working on
7 Clango in 1999?
8 A. I was vice president of software
9 development. I was responsible for the whole
10 product.
11 Q. Okay. And who else at Audible Magic was
12 working on Clango at that time?
13 A. I don't know if I have a complete list. I
14 would say Erling Wold, Tom Blum, Doug Keislar,
15 Jim Wheaton, Alan Edel, Lou Kvitek. We had some
16 contractors in at the time. They didn't -- they
17 didn't stay long. That's all I can -- there may
18 have been more, but, yeah.
19 Q. And why try to identify songs based on
20 their audio content?
21 MR. LEDAHL: Object to the form.
22 THE WITNESS: State -- could you give me

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1 BY MR. DANG:
2 Q. And do you remember around when you first
3 had this idea?
4 MR. LEDAHL: Objection. Vague.
5 THE WITNESS: 1999, I believe. There
6 was -- yeah. I think the first idea for this --
7 it's pretty clear in my mind. I don't know the
8 date. But we were on a ski trip in Tahoe, and we
9 had this idea of pushing a button on the radio.
10 Somebody said, "Boy, I don't know what
11 that song is on the radio."
12 And another person said, "Boy, I wish you
13 could push a button on the radio and get the
14 answer."
15 And I was sitting in the back seat of this
16 Tahoe, you know, Ford -- whatever the brand is, you
17 know, SUV. And I remember thinking, well, actually,
18 we could do that. You know, that could be done.
19 And then it morphed from there over time
20 into identifying content off the -- that people were
21 listening to on their laptops or their PCs rather
22 than being over the radio. But that was -- that was

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1 the question again.
2 BY MR. DANG:
3 Q. Yeah. Why -- why were you working on a
4 product that sought to identify audio by its
5 content?
6 MR. LEDAHL: Same objection.
7 THE WITNESS: So we had -- we had this
8 idea that there was a market for -- audio was being
9 streamed, and people didn't have metadata
10 associated -- they were starting to listen to audio.
11 It was either being streamed or they were playing it
12 from files on their system, and that they wouldn't
13 know necessarily what the name of the exact title or
14 the artist was for the particular piece of music or
15 whatever audio they were listening to at the time.
16 I think they were music focused.
17 So we thought, well, if we could identify
18 it, then we could link those people to some kind of
19 a purchase, and we could make money, you know,
20 from -- by selling -- I think we were originally
21 selling Amazon CD -- you know, we would buy the CD
22 at Amazon and pass it on to the person.

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1 the genesis point. So pretty clear in my mind for
2 that.
3 BY MR. DANG:
4 Q. Do you have an understanding of what the
5 term "watermarking" means?
6 A. Yeah. Generally familiar with that.
7 Q. And what do you -- what is your
8 understanding of the term "watermarking" in this
9 field?
10 A. In this field, my belief is watermarking
11 means inserting some -- some binary files into a
12 file that can later be extracted to identify that
13 file or that stream of bits. Tip -- yeah.
14 Q. At the outset of the Clango project, did
15 you give any consideration to using watermarking to
16 identify audio?
17 MR. LEDAHL: Object to form.
18 THE WITNESS: I don't know that we -- we
19 probably thought of -- tried to think of a lot of
20 things, but I don't think watermarking was practical
21 for that kind of application. It just didn't --
22 didn't make sense to us, or I don't think it did,

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1 yeah.
 2 //
 3 BY MR. DANG:
 4 Q. And could you describe a little more why
 5 you thought that watermarking wasn't practical.
 6 A. Well, we were trying to identify
 7 content -- excuse me -- that would be available in
 8 the wild. So we couldn't necessarily -- we wanted
 9 to identify content that had been released you know,
 10 years ago, so a CD of The Doors that had been
 11 released years before watermarking was even
 12 available, it wouldn't have a watermark in it.
 13 We wanted to identify content that didn't
 14 require us to insert anything into the initial
 15 stream. We wanted to identify content that was
 16 available from anywhere.
 17 Q. And did Clango have any competitors at the
 18 time it was being developed?
 19 MR. RAMSEY: Objection. Vague.
 20 THE WITNESS: Yeah, not that I'm aware of.
 21 I mean not that I recall, I should say.
 22 BY MR. DANG:

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1 So you will tell me if I shouldn't answer?
 2 MR. RAMSEY: Yes, sir, I will. I will be
 3 very clear about that.
 4 THE WITNESS: I thought so. I was just
 5 making sure.
 6 So could you repeat the question, then.
 7 BY MR. DANG:
 8 Q. Yeah.
 9 What was the role of the folks at Muscle
 10 Fish in developing Clango?
 11 A. So they were responsible for the
 12 underlying audio identification technology, the core
 13 thing that would actually make it work.
 14 Q. And did you work with everyone at Muscle
 15 Fish, or were there particular individuals at Muscle
 16 Fish who you worked with?
 17 A. Well, in '99 -- or 2000 -- early, I guess
 18 my primary contact was Erling Wold in those days.
 19 Q. And what would Erling -- what was the form
 20 in which Erling Wold would provide you with work
 21 product related to Clango?
 22 MR. LEDAHL: Object to form.

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1 Q. Did Audible Magic work with a company
 2 called Muscle Fish in developing Clango?
 3 A. We did, yes.
 4 Q. What was Muscle Fish?
 5 A. My understanding, Muscle Fish was a
 6 consulting group of four engineers that had
 7 developed an audio identification technology. And
 8 we worked with them to apply that technology to --
 9 to our solution for Clango.
 10 Q. I know it's a while ago. Do you remember
 11 the four engineers who --
 12 A. I do.
 13 Q. -- formed the consulting group?
 14 A. I do. It was Tom Blum, Erling Wold,
 15 Jim Wheaton, and Doug Keislar.
 16 Q. And what was the role of Muscle Fish in
 17 developing Clango, then?
 18 MR. LEDAHL: Objection. Vague.
 19 THE WITNESS: Muscle Fish supplied the --
 20 just as a form here, they object, I still answer?
 21 MR. RAMSEY: Yeah, yeah, yeah.
 22 THE WITNESS: Okay. Thanks.

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1 THE WITNESS: At the time, we would be --
 2 you know, so we were developing software that would
 3 wrap around a library. And he was supplying a
 4 library to us that we would incorporate in our
 5 product. So I would -- his delivery would probably
 6 be -- probably be email or FTP. I'm not -- I
 7 actually don't remember exactly how we got the
 8 product delivered.
 9 BY MR. DANG:
 10 Q. Okay. Well, let's take a step back.
 11 What in -- what in general terms is a
 12 library?
 13 A. So a library would be a piece of software
 14 produced that could be linked into or somehow called
 15 from another piece of software to do some particular
 16 function, is my just rough definition.
 17 Q. And generally speaking, how often was
 18 Erling providing you with these libraries?
 19 MR. LEDAHL: Objection.
 20 THE WITNESS: That would -- pretty
 21 frequently. I mean, I think we used to get them
 22 sometimes -- it could be a day-by-day things if

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