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UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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FACEBOOK, INC., INSTAGRAM, LLC, and  
WHATSAPP INC.,

Petitioners,

v.

BLACKBERRY LIMITED,

Patent Owner

-----x

IPR2019-00516

IPR2019-00528

DEPOSITION OF RAJEEV J. SURATI, Ph.D.

Thursday, January 16, 2020

Boston, Massachusetts

Reported by: Michael D. O'Connor, RMR, CRR,

CRC

Job No. 3840974

Pages 1-207



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6 Thursday, January 16, 2020  
7 10:04 a.m.  
8  
9  
10 DEPOSITION of RAJEEV J. SURATI,  
11 Ph.D., held at Cooley, LLP, 500 Boylston  
12 Street, Boston, Massachusetts, pursuant to  
13 notice, before Michael D. O'Connor,  
14 Registered Merit Reporter, Certified  
15 Realtime Reporter, Certified Realtime  
16 Captioner, and Notary Public in and for the  
17 Commonwealth of Massachusetts.  
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1 APPEARANCES:  
2  
3 ATTORNEYS FOR PETITIONERS:  
4 COOLEY LLP  
5 One Freedom Square  
6 Reston Town Center  
7 11951 Freedom Drive  
8 Reston, Virginia 20190  
9 (703) 456-8039  
10 BY: YUAN LIANG, ESQ.  
11 yliang@cooley.com  
12  
13  
14 ATTORNEYS FOR PATENT OWNER:  
15 QUINN EMANUEL URQUHART & SULLIVAN, LLP  
16 50 California Street, 22nd Floor  
17 San Francisco, California 94111  
18 (415) 875-6387  
19 BY: SAM STAKE, ESQ.  
20 samstake@quinnemanuel.com  
21  
22  
23  
24  
25

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<p>1 PROCEEDINGS</p> <p>2</p> <p>3 (Document marked as Exhibit 1</p> <p>4 for identification) 09:56:53</p> <p>5 (Document marked as Exhibit 2 09:56:53</p> <p>6 for identification) 09:57:19</p> <p>7 (Document marked as Exhibit 3 09:57:46</p> <p>8 for identification) 09:58:23</p> <p>9 (Document marked as Exhibit 4 09:58:23</p> <p>10 for identification) 09:58:50</p> <p>11 (Document marked as Exhibit 5 09:58:50</p> <p>12 for identification) 09:59:48</p> <p>13 (Document marked as Exhibit 6 09:59:48</p> <p>14 for identification)</p> <p>15</p> <p>16 RAJEEV J. SURATI, Ph.D.</p> <p>17</p> <p>18 having been satisfactorily identified by the</p> <p>19 production of his driver's license, and duly</p> <p>20 sworn by the Notary Public, was examined and</p> <p>21 testified as follows:</p> <p>22</p> <p>23 EXAMINATION</p> <p>24 BY MR. LIANG: 10:04:30</p> <p>25 Q. Good morning, Dr. Surati. 10:04:57</p> <p style="text-align: right;">Page 6</p>	<p>1 Q. And is there any reason why you 10:05:58</p> <p>2 can't give your best and most accurate 10:06:02</p> <p>3 testimony today? 10:06:04</p> <p>4 A. No such reason. 10:06:05</p> <p>5 Q. So you mentioned that you had been 10:06:08</p> <p>6 deposed around 20 times now. In those 20 10:06:10</p> <p>7 proceedings, about how many were you testifying 10:06:19</p> <p>8 on behalf of the patent owner? 10:06:21</p> <p>9 MR. STAKE: Objection to form. Do 10:06:27</p> <p>10 you mean patent owner BlackBerry in this 10:06:30</p> <p>11 case? 10:06:32</p> <p>12 MR. LIANG: No. Just patent 10:06:33</p> <p>13 owners in general. 10:06:35</p> <p>14 A. I think that's what I took you to 10:06:36</p> <p>15 mean. So in terms of IPRs or just any 10:06:39</p> <p>16 proceeding? 10:06:48</p> <p>17 Q. Any proceeding, IPR or District 10:06:48</p> <p>18 Court. 10:06:56</p> <p>19 A. Of the cases where I'm doing 10:06:56</p> <p>20 patent litigation stuff, whether it be inter 10:07:06</p> <p>21 partes review, I think it's half and half. I 10:07:10</p> <p>22 can't recall off the top of my head, whether it 10:07:12</p> <p>23 was ten of those, five and five, but in that 10:07:14</p> <p>24 range. 10:07:19</p> <p>25 Q. Okay. Obviously you've worked on 10:07:19</p> <p style="text-align: right;">Page 8</p>
<p>1 A. Good morning. 10:05:05</p> <p>2 Q. I'm going to ask you some 10:05:06</p> <p>3 questions about your deposition experience to 10:05:15</p> <p>4 kind of get your sense of familiarity with 10:05:20</p> <p>5 depositions. 10:05:22</p> <p>6 How many times have you been 10:05:23</p> <p>7 deposed before? 10:05:24</p> <p>8 A. Probably something around 20 10:05:25</p> <p>9 times. 10:05:30</p> <p>10 Q. So you're obviously familiar with 10:05:30</p> <p>11 how depositions go, right? 10:05:32</p> <p>12 A. Generally. 10:05:35</p> <p>13 Q. And you are under oath, so 10:05:37</p> <p>14 everything you say here today has the same 10:05:38</p> <p>15 force and effect as if it were stated in open 10:05:40</p> <p>16 court, or in this case, open hearing; you 10:05:44</p> <p>17 understand that, right? 10:05:46</p> <p>18 A. I do understand that. 10:05:47</p> <p>19 Q. And you can ask me to clarify my 10:05:47</p> <p>20 questions at any time. 10:05:51</p> <p>21 Do you understand that? 10:05:53</p> <p>22 A. I understand that. 10:05:53</p> <p>23 Q. And are you under any medications 10:05:54</p> <p>24 today that can affect your testimony? 10:05:56</p> <p>25 A. No. 10:05:58</p> <p style="text-align: right;">Page 7</p>	<p>1 cases for both IPR and District Court, right? 10:07:23</p> <p>2 A. Depositions, have I done 10:07:26</p> <p>3 depositions for both of those? 10:07:31</p> <p>4 Q. Yes. 10:07:32</p> <p>5 A. Yes. 10:07:33</p> <p>6 Q. What's the approximate breakdown 10:07:33</p> <p>7 between depositions and IPR versus District 10:07:37</p> <p>8 Court? 10:07:41</p> <p>9 A. I would say it's more IPRs, 10:07:41</p> <p>10 because they tend to be more common. Probably 10:07:43</p> <p>11 70/30. I'd have to look through the list to 10:07:47</p> <p>12 see. 10:07:57</p> <p>13 Q. And in front of you are a number 10:07:57</p> <p>14 of exhibits that are already in the record for 10:08:00</p> <p>15 these IPR proceedings. You can feel free to 10:08:04</p> <p>16 refer to them at any time you'd like during 10:08:07</p> <p>17 today's deposition. I'll ask you some 10:08:09</p> <p>18 questions about those as we go on. 10:08:12</p> <p>19 You understand that you're here 10:08:18</p> <p>20 for two related IPR proceedings, right? 10:08:23</p> <p>21 A. The '516 and '528 IPRs. 10:08:26</p> <p>22 Q. Correct. And both of those relate 10:08:33</p> <p>23 to U.S. Patent No. 8,279,173, right? 10:08:35</p> <p>24 A. Yes, that's what I understand. 10:08:41</p> <p>25 Q. Okay. And is it okay if I refer 10:08:43</p> <p style="text-align: right;">Page 9</p>

1 to that as the '173 patent? 10:08:46  
2 A. That's fine. 10:08:48  
3 Q. With respect to the two related 10:08:56  
4 IPR proceedings, would you understand if I 10:08:57  
5 refer to one as the '516 IPR or the '516 10:08:59  
6 proceeding, and the other as the '528 IPR or 10:09:03  
7 '528 proceeding? 10:09:07  
8 A. Sure. 10:09:08  
9 Q. You've obviously rendered opinions 10:09:09  
10 in both proceedings, right? 10:09:22  
11 A. I have. 10:09:24  
12 Q. What did you do to prepare for 10:09:34  
13 today's deposition? 10:09:37  
14 A. Well, post having submitted the 10:09:37  
15 signed IPRs, I've looked over -- 10:09:41  
16 MR. STAKE: Here I'll just caution 10:09:44  
17 you not to reveal the substance of 10:09:46  
18 preparations, but it's fine to generally 10:09:48  
19 explain when you meant and who you met, 10:09:54  
20 that sort of thing. 10:10:02  
21 A. I read through a number of patents 10:10:03  
22 and different documents that were used to 10:10:05  
23 construct the IPRs. I met with Counsel Stake 10:10:07  
24 here yesterday. I think I spoke to another 10:10:17  
25 counsel on the phone, Ogi. I forgot his last 10:10:26  
Page 10

1 name. It's quite a mouthful. And I looked at 10:10:35  
2 other documents, like the petition. 10:10:44  
3 Q. Okay. And approximately how long 10:10:46  
4 did you meet with Mr. Stake? 10:10:49  
5 A. Oh, like seven hours maybe. 10:10:52  
6 Q. Okay. And approximately how long 10:10:57  
7 did you meet with the counsel, the other one, 10:11:00  
8 on the phone? 10:11:08  
9 A. Counselor Ogi, I think something 10:11:10  
10 like an hour, half hour. Probably more like a 10:11:14  
11 half hour. 10:11:17  
12 Q. I want to start off by asking you 10:13:27  
13 some questions about your qualifications to be 10:13:29  
14 an expert in this case. 10:13:32  
15 So if you would turn to your 10:13:41  
16 declaration for the '516 proceeding. 10:13:44  
17 A. Okay. 10:13:57  
18 Q. And would you agree that the '173 10:13:58  
19 patent generally relates to photo tagging? 10:14:05  
20 A. So just a second. Yeah, at a 10:14:08  
21 very, very high level, the topic of the '173 10:14:55  
22 has to do with is photo tagging. 10:15:01  
23 Q. And on Paragraph 36 of your '516 10:15:03  
24 declaration, you talk about a website called 10:15:12  
25 Photo.net that you founded, right? 10:15:15  
Page 11

1 A. Yeah, that I cofounded with Philip 10:15:17  
2 Greenspun. 10:15:23  
3 Q. Did Photo.net have a photo tagging 10:15:30  
4 feature? 10:15:34  
5 A. In a very general sense we had a 10:15:34  
6 way to associate tags with photos and, you 10:15:37  
7 know, put key words and describing certain 10:16:24  
8 properties or characteristics pertaining to the 10:16:27  
9 photographs, like locations, equipment, or 10:16:29  
10 things like that. 10:16:31  
11 Q. And with respect to Photo.net, how 10:16:32  
12 would a user associate tags with photos? 10:16:39  
13 A. So as I recall, the way you do it 10:16:48  
14 is you would upload a photo and you would 10:16:51  
15 either have an opportunity at the time you were 10:16:56  
16 uploading or subsequently once it was uploaded 10:16:58  
17 you could edit a photo and you could affiliate 10:17:02  
18 things like, oh, there's an equipment field, so 10:17:04  
19 there's equipment that's got a camera field. 10:17:09  
20 Let's put a camera of a certain type that may 10:17:12  
21 already be entered or one that you can add to 10:17:16  
22 it, and that would then be associated with a 10:17:17  
23 particular photo image number that was unique 10:17:21  
24 to that photo. 10:17:24  
25 Q. Once the user inputs the tags, 10:17:25  
Page 12

1 those tags would get saved into the system, 10:17:43  
2 right? 10:17:46  
3 A. Yeah. The tags would get saved 10:17:46  
4 into this database, the photo DB, and there was 10:17:53  
5 some structure behind that. 10:17:58  
6 Q. Could you generally describe the 10:18:03  
7 structure? 10:18:04  
8 A. So what I recall was that I would 10:18:05  
9 create new tables for like the camera. Like 10:18:11  
10 there would be a camera table, there would be a 10:18:18  
11 reference to, you know, different names of 10:18:20  
12 cameras and IDs for those cameras, and that 10:18:25  
13 those -- that there would be a separate field 10:18:27  
14 for that type of key word. 10:18:34  
15 So what's a little bit different 10:18:35  
16 about this is that you would have key words of 10:18:38  
17 a certain type associated with each photo, but 10:18:41  
18 they would be kept in different tables. 10:18:46  
19 Does that make sense? So, for 10:18:51  
20 example, you might have -- it would be a camera 10:18:54  
21 table, and that camera table would have 10:19:00  
22 different names for cameras. And then you'd 10:19:03  
23 have -- I'm just trying to remember here. 10:19:06  
24 What I'm trying to say is you 10:19:24  
25 would have key words that would have unique 10:19:27  
Page 13

<p>1 names, and you could then later on use the 10:19:34  2 existing names or enter a new one, but they 10:19:38  3 would all be unique -- they'd have unique 10:19:41  4 identifiers with them. 10:19:45  5 What I'm trying to say is like, in 10:19:47  6 other words, it wasn't like, oh, there's a key 10:19:49  7 word field for this photo and we'd put like ten 10:19:51  8 different key words in there. There would be, 10:19:54  9 oh, it's a -- it has this field associated with 10:19:57  10 this spot. Like there would be a table that 10:20:02  11 had a photo_ID in it, and then there would be a 10:20:04  12 camera -- a camera_ID associated with that 10:20:08  13 photo, and that camera_ID would come from an 10:20:11  14 equipment camera table, and the camera -- in 10:20:15  15 other words, there were sort of like multiple 10:20:22  16 tables. It wasn't like we threw a lot of bits 10:20:25  17 into it. 10:20:27  18 Does that help you? 10:20:28  19 Q. Well -- 10:20:29  20 A. Break it down a little bit? 10:20:33  21 Q. Let's break it down a little bit. 10:20:35  22 A. Okay. 10:20:36  23 Q. So let's use one example, I guess. 10:20:37  24 So is it accurate to say that for any 10:20:58  25 particular photo that was uploaded, you could 10:21:01</p> <p style="text-align: right;">Page 14</p>	<p>1 A. Which is the IDs from these two 10:23:35  2 things would be matched up. 10:23:40  3 Q. Okay. So let's take these one at 10:23:46  4 a time. So you said there would be a photo 10:23:47  5 table? 10:23:53  6 A. Yes. 10:23:54  7 Q. And could you describe what the 10:23:55  8 photo table was like? 10:24:01  9 A. Yeah. It would have things like 10:24:02  10 who the photographer was, and other information 10:24:06  11 like that, and a photo_ID associated with it, 10:24:10  12 as well as a pointer to the photo in the photo 10:24:13  13 database -- oh, in the file system. There 10:24:18  14 would be a unique photo_ID in it. 10:24:22  15 Then there would be subsequent 10:24:25  16 tables that, like location or equipment, that 10:24:27  17 would tie into that photo_ID. It might be 10:24:35  18 camera equipment or film and media equipment or 10:24:40  19 lens equipment. Then there would be 10:24:42  20 potentially custom fields associated with that, 10:24:44  21 and custom tables associated with that photo. 10:24:48  22 So in other words, you could add 10:24:52  23 -- a user could add their own kind of thing, 10:24:56  24 you know, in the same way that you have a 10:24:59  25 camera table that could be affiliated with that 10:25:01</p> <p style="text-align: right;">Page 16</p>
<p>1 apply a tag for the particular camera that was 10:21:05  2 used to take that photo? 10:21:11  3 A. That's right. 10:21:14  4 Q. For example, the particular camera 10:21:16  5 could be a Canon EOS Digital Rebel? That's the 10:21:53  6 example, I think you listed in Paragraph 36 of 10:22:00  7 your declaration. 10:22:03  8 A. That's right. 10:22:04  9 Q. Obviously there were other models 10:22:05  10 of cameras as well; is that right? 10:22:17  11 A. Yes. Like a Canon EOS 1D or 10:22:19  12 something like that. 10:22:24  13 Q. Okay. So, for example, the Canon 10:22:25  14 EOS Digital Rebel could be a tag that was 10:22:45  15 applied to or associated with a particular 10:22:49  16 photo; is that fair? 10:22:51  17 A. So it would be a tag that would be 10:22:54  18 -- in a loose way, yeah, in the sense that 10:23:01  19 there would be multiple photos probably that 10:23:03  20 would have that tag associated with it, but it 10:23:09  21 would be through saying that there's a photo 10:23:12  22 table, there's a camera table, there's a camera 10:23:15  23 to photo mapping, if that makes sense. So 10:23:30  24 that's how that would be done. 10:23:32  25 Q. Okay. 10:23:34</p> <p style="text-align: right;">Page 15</p>	<p>1 thing, you could have another table that might 10:25:04  2 be like flash, like the flash table, and you 10:25:06  3 could add stuff like that to it. 10:25:12  4 So I guess the distinction I was 10:25:14  5 trying to make was, we were trying to make it 10:25:16  6 so that you could add tables with unique -- 10:25:18  7 like so you wouldn't just type in a name, like 10:25:25  8 Canon Flash and then that would be affiliated 10:25:27  9 with it. You would be able to have a unique ID 10:25:30  10 associated with that particular type of Canon 10:25:35  11 Flash. 10:25:39  12 So when other people used it, they 10:25:40  13 would find that Canon Flash and it wouldn't be 10:25:42  14 -- it would be unique, but not duplicative. 10:25:51  15 Meaning, for example, if you had 10:25:54  16 Canon Flash 1S, and in one case the "s" was 10:25:56  17 lower case and in the other case it was 10:26:00  18 capitalized, the user interface would show you 10:26:02  19 the choices when you're tagging it, if that 10:26:05  20 makes sense. 10:26:08  21 So imagine that you had this table 10:26:09  22 -- I mean this example I have here where I have 10:26:10  23 in 36, that's the static version of U of it. 10:26:16  24 But if I said edit this, you would see 10:26:20  25 equipment show up with a camera, and then there 10:26:25</p> <p style="text-align: right;">Page 17</p>

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