

UNITES STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC.,

Petitioner,

vs.

UNIVERSAL SECURE REGISTRY, LLC,

Patent Owner.

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Case IPR2018-00812

U.S. Patent No. 8,856,539

DEPOSITION OF VICTOR SHOUP, Ph.D.

New York, New York

Monday, February 11, 2019

Reported By:  
MICHELLE COX

Job No.: 35044

Page 2

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3  
4 February 11, 2019  
5 10:57 a.m.  
6  
7 Deposition of VICTOR SHOUP, Ph.D., held at  
8 the offices of Wilmer Cutler Pickering Hale and  
9 Dorr LLP, 250 Greenwich Street, New York, New  
10 York, pursuant to Notice, before Michelle Cox,  
11 a Certified LiveNote Reporter and Notary Public  
12 of the State of New York and New Jersey.  
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Page 4

1 IT IS HEREBY STIPULATED AND AGREED by and  
2 between the attorneys for the respective  
3 parties herein, that filing and sealing be and  
4 the same are hereby waived.  
5 IT IS FURTHER STIPULATED AND AGREED that  
6 all objections, except as to the form of the  
7 question, shall be reserved to the time of the  
8 trial.  
9 IT IS FURTHER STIPULATED AND AGREED that  
10 the within deposition may be sworn to and  
11 signed before any officer authorized to  
12 administer an oath, with the same force and  
13 effect as if signed and sworn to before the  
14 Court.  
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Page 3

1 A P P E A R A N C E S :  
2  
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Page 5

1 VICTOR SHOUP, called as a witness, having  
2 been duly sworn by a Notary Public, was  
3 examined and testified as follows:  
4 EXAMINATION BY  
5 MR. HEFAZI:  
6 Q Good morning, Dr. Shoup.  
7 So Dr. Shoup, I understand you've been  
8 deposed before, most recently in another matter  
9 between Apple and Universal Secure Registry; is  
10 that correct?  
11 **A That's correct.**  
12 Q And have you been deposed in any other  
13 matters?  
14 **A No, I have not.**  
15 Q Okay. What did you do to prepare for  
16 today's deposition?  
17 **A You mean, specifically, aside from writing**  
18 **my declarations and such?**  
19 Q Correct.  
20 **A I met with Apple counsel couple of times**  
21 **in the last week, just to review things. I**  
22 **also, on my own, reviewed my declaration -- my**  
23 **declarations, plural, and various prior art**  
24 **references and the USR patents themselves.**  
25 Q Okay. And you mentioned the declarations,

<p style="text-align: right;">Page 6</p> <p>1 you reviewed those.</p> <p>2 And did you see anything that you thought</p> <p>3 was incorrect or inaccurate?</p> <p>4 <b>A No.</b></p> <p>5 Q And you understand the opinions in your</p> <p>6 declaration?</p> <p>7 <b>A Absolutely. They are my opinions.</b></p> <p>8 Q And you stand by those opinions?</p> <p>9 <b>A Absolutely.</b></p> <p>10 Q And you understand, I guess, the prior</p> <p>11 art?</p> <p>12 MR. SELWYN: Objection; form.</p> <p>13 <b>A I -- I've read and reviewed and understand</b></p> <p>14 <b>the prior art references that are mentioned in</b></p> <p>15 <b>my declaration.</b></p> <p>16 Q Okay. And you also understand the USR</p> <p>17 patents at issue in these proceedings?</p> <p>18 <b>A I've read and reviewed the USR patents,</b></p> <p>19 <b>and feel competent in my understanding of them.</b></p> <p>20 Q Okay. And you mentioned that you had met</p> <p>21 with Apple counsel a couple of times.</p> <p>22 Is that Mr. Selwyn and Ms. Grewal?</p> <p>23 <b>A Yes. And also Kelvin Chan and</b></p> <p>24 <b>Derek Gosma.</b></p> <p>25 Q Okay. Did you meet with anyone that was</p>	<p style="text-align: right;">Page 7</p> <p>1 not an attorney?</p> <p>2 <b>A No, I did not.</b></p> <p>3 Q And you mentioned that you started</p> <p>4 preparing or meeting with the attorneys a</p> <p>5 couple of weeks ago.</p> <p>6 When was -- strike that.</p> <p>7 When did you start preparing for your</p> <p>8 deposition?</p> <p>9 <b>A For this particular deposition?</b></p> <p>10 Q Correct.</p> <p>11 <b>A I don't know that I know the exact date.</b></p> <p>12 <b>Sometime after my last deposition.</b></p> <p>13 Q Okay. I guess, approximately, how many</p> <p>14 hours would you say you spent reviewing these</p> <p>15 materials and preparing for this deposition?</p> <p>16 <b>A Maybe 30 to 40 hours.</b></p> <p>17 Q And other than your declarations, the</p> <p>18 prior art cited in the declarations and the USR</p> <p>19 patents, are there any other documents that you</p> <p>20 reviewed in preparing for your deposition</p> <p>21 today?</p> <p>22 <b>A Well, I reviewed other documents in</b></p> <p>23 <b>preparing my declaration, but --</b></p> <p>24 Q My question is focused just on your</p> <p>25 deposition.</p>
<p style="text-align: right;">Page 8</p> <p>1 <b>A Deposition?</b></p> <p>2 <b>I don't believe so.</b></p> <p>3 Q Did you review your deposition transcript</p> <p>4 from the prior deposition?</p> <p>5 <b>A Yes, I did.</b></p> <p>6 Q And did you see anything inaccurate in</p> <p>7 that deposition transcript?</p> <p>8 <b>A There were a couple of typos there that</b></p> <p>9 <b>I -- I did submit a, what's it called, an</b></p> <p>10 <b>errata, a couple of typos.</b></p> <p>11 Q Okay. And other than --</p> <p>12 <b>A Yes, if you don't mind, there's one point</b></p> <p>13 <b>in which I felt kind of silly about. I did --</b></p> <p>14 <b>there was a question regarding my interaction</b></p> <p>15 <b>with any referral -- expert witness referral</b></p> <p>16 <b>services, and I mentioned one. But there</b></p> <p>17 <b>actually are a couple of others that I just</b></p> <p>18 <b>honestly wasn't thinking about them at the</b></p> <p>19 <b>time, and so I didn't mention them. I can tell</b></p> <p>20 <b>them to you now, I guess.</b></p> <p>21 Q Sure.</p> <p>22 I think the one you mentioned was with</p> <p>23 Avi Rubin, Harbor Labs?</p> <p>24 <b>A That's correct. I couldn't remember the</b></p> <p>25 <b>names at the time, but it was Avi Rubin's</b></p>	<p style="text-align: right;">Page 9</p> <p>1 <b>company. And the two others are, I did review</b></p> <p>2 <b>that since that time to make sure I got the</b></p> <p>3 <b>names right, GLG Group and ForensisGroup.</b></p> <p>4 Q Okay. But other than your testimony in</p> <p>5 your prior deposition, you haven't submitted</p> <p>6 any other testimony in the form of a deposition</p> <p>7 or declaration or --</p> <p>8 <b>A Regarding these proceedings?</b></p> <p>9 Q Just generally.</p> <p>10 <b>A No.</b></p> <p>11 MR. HEFAZI: Let me mark as Exhibit 1.</p> <p>12 Counsel, I have two copies of this</p> <p>13 somewhere. I might not have two copies of</p> <p>14 each.</p> <p>15 (Deposition Exhibit 1, United States</p> <p>16 Patent No. 8,856,539, marked for identification</p> <p>17 as of this date.)</p> <p>18 Q So this is Exhibit 1, U.S. Patent</p> <p>19 No. 8,856,539.</p> <p>20 (Discussion off the record.)</p> <p>21 Q Okay. So this is Shoup Exhibit 1, U.S.</p> <p>22 Patent No. 8,856,539.</p> <p>23 And you've seen this document before?</p> <p>24 <b>A Yes, I have.</b></p> <p>25 Q And I'm going to call this the '539 Patent</p>

<p style="text-align: right;">Page 10</p> <p>1 you'll understand that I'm referring to this  2 exhibit here, correct?  <b>3 A Yes.</b>  4 Q And you've read all of the '539 Patent,  5 correct?  <b>6 A Yes, I have.</b>  7 Q And when was the last time you read the  8 '539 Patent?  <b>9 A You mean when is the last time I read it  10 from front to back?</b>  11 Q Let's start there.  <b>12 A That might have been a while. I mean,  13 certainly during the preparation of my  14 declaration, I read through it several times.  15 I don't know that during my preparation for  16 this deposition, I may have focused more on the  17 claims and relevant portions of the  18 specification as they pertained to the claims.</b>  19 Q Okay. But you did review this patent as  20 part of your -- preparing form your deposition?  <b>21 A Yes. As I said, mainly focusing on the  22 claims themselves, and then the relevant parts  23 of the specification.</b>  24 Q Okay. And you understand the claims of  25 this patent?</p>	<p style="text-align: right;">Page 11</p> <p><b>1 A Yes.</b>  2 Q Okay. And how long would you say you  3 spent looking and reviewing this '539 Patent  4 during your preparation for your deposition  5 today?  <b>6 A It's hard to attach a particular number.</b>  7 Q Just an approximate ballpark.  8 MR. SELWYN: Objection; form.  <b>9 A Much of the time I spent reviewing this  10 was in conjunction with reviewing the  11 declarations that -- my declaration pertaining  12 to the '539 Patent.</b>  <b>13 So it's hard to say how much time I spent  14 on each one of those.</b>  15 Q Okay. In combination, reviewing the  16 declaration and the '539 Patent, how many hours  17 would you say you spent?  <b>18 A Well, I said I spent 20 to 30 hours in  19 total. So let's say, 15.</b>  20 Q Okay.  <b>21 A Ten to 15. And that's a "ballpark  22 estimate," as you call it.</b>  23 MR. HEFAZI: Let me now mark as Shoup  24 Exhibit 2, U.S. Patent No. 5,930,767 to  25 Williams Louis Reber et al.</p>
<p style="text-align: right;">Page 12</p> <p>1 And I only have one copy of this.  2 (Deposition Exhibit 2, United States  3 Patent No. 5,930,767, marked for identification  4 as of this date.)  <b>5 A And if you don't mind, can we just call  6 this Reber.</b>  7 Q Certainly.  <b>8 A Verbally.</b>  9 Q Okay. And the Reber patent, this is one  10 of the references you're relying on in  11 challenge the '539 Patent, right?  <b>12 A Yes.</b>  13 Q Okay. And you've read all of the Reber?  <b>14 A Oh, yes.</b>  15 Q And when was the last time you reviewed  16 Reber?  <b>17 A Saturday.</b>  18 Q And how long did you spend reviewing  19 Reber?  <b>20 A On Saturday, four hours.</b>  21 Q And how long, in the total course, both in  22 preparing your declaration and preparing for  23 this deposition, have you spent reviewing  24 Reber?  <b>25 A I can't give a specific number to that.</b></p>	<p style="text-align: right;">Page 13</p> <p>1 Q Would it have been more or less than ten  2 hours?  <b>3 A Let's say more than ten.</b>  4 Q More than 20 hours?  <b>5 A I'm not sure.</b>  6 Q You've reviewed it sufficiently, such that  7 you believe you understand Reber, correct?  <b>8 A I have a good understanding of Reber.</b>  9 Q Okay. Let's turn to Figure 1 of Reber.  10 Okay. And Figure 1 is a block diagram of  11 Reber's transaction system, right?  <b>12 A That's correct.</b>  13 Q And in Figure 1, there is an End User, 26.  14 Do you see that?  <b>15 A Yes, I do.</b>  16 Q And there's a dashed box around a number  17 of the items in Figure 1.  18 Does that represent the end user's  19 location?  <b>20 A Yeah. The last time I remember reviewing  21 this and reading through references to End User  22 Location 24, and I -- to be honest, I don't  23 know if it's a bug in the diagram. But I  24 couldn't find anything labeled 24.</b>  25 Q Okay. But as a person of skill in the</p>

<p style="text-align: right;">Page 14</p> <p>1 art, do you understand Figure 1, that the 2 dashed box surrounding certain elements in 3 there, to represent the user location? 4 MR. SELWYN: Objection; form. 5 <b>A Since it wasn't specified in the diagram,</b> 6 <b>I haven't really -- I don't have an opinion on</b> 7 <b>what the dashed box represents.</b> 8 <b>I just certainly can -- took the words</b> 9 <b>"user location" in the specification to mean</b> 10 <b>what they ordinarily mean.</b> 11 Q So I guess you don't have an opinion as to 12 whether the dashed box surrounding certain 13 items in Figure 1 is the user location? 14 MR. SELWYN: Objection; form. 15 <b>A Since the dashed box isn't labeled, and</b> 16 <b>since I did not, to the best of my knowledge, I</b> 17 <b>don't remember reading a description, like, the</b> 18 <b>dashed box in Figure 1 represents such and</b> 19 <b>such, I don't really have an opinion.</b> 20 Q Okay. So it's your opinion that one 21 skilled in the art, looking at Figure 1 in the 22 Reber specification, would be unable to 23 determine whether or not the dashed box 24 represents user location? 25 MR. SELWYN: Objection; form.</p>	<p style="text-align: right;">Page 15</p> <p>1 <b>A All I can say is my first impression is,</b> 2 <b>that may be reasonable, but I withhold an</b> 3 <b>opinion.</b> 4 Q Okay. Okay. So within the dashed box, 5 there's a box labeled 34. 6 That's the display device, correct? 7 <b>A Box labeled 34. That's correct.</b> 8 Q And that would be, like, a computer 9 monitor; is that right? 10 <b>A Let's -- well, for example, in Figure 8 of</b> 11 <b>the Reber patent, 34 is identified as -- that</b> 12 <b>embodiment is identified as a computer monitor.</b> 13 Q Okay. And that computer monitor would be 14 at the end user's location? 15 <b>A That seems reasonable, yes.</b> 16 Q And at the -- Box 32, there's a network 17 access apparatus that connects to the 18 electronic network. 19 Do you see that? 20 <b>A Yes.</b> 21 Q And that network access apparatus, it 22 would also be reasonable to say that that's at 23 the user location? 24 <b>A Right.</b> 25 <b>So I think it's helpful to look at</b></p>
<p style="text-align: right;">Page 16</p> <p>1 <b>Figure 8 in conjunction with the discussion of</b> 2 <b>Figure 8 of Column 10 of Reber at Line 9, where</b> 3 <b>it says, "Figure 8 is an illustration of an</b> 4 <b>example of the data reader 30 and the network</b> 5 <b>access apparatus 32 at the user location."</b> 6 <b>So that is consistent with the assertion</b> 7 <b>that that's at the user location.</b> 8 <b>And then it continues to say, "In this</b> 9 <b>example, the network apparatus 32 comprises of</b> 10 <b>a personal computer 140," which you can see</b> 11 <b>labeled in Figure 8.</b> 12 Q There's also a data reader in Figure 1 13 labeled 30. 14 And I guess that also appears in Figure 8 15 as item 30? 16 <b>A That's correct.</b> 17 Q And that would also be at user location, 18 at the end user's location? 19 <b>A In some embodiments, yes.</b> 20 Q Does Reber disclose any embodiments where 21 it's not at the user location? 22 <b>A Yes.</b> 23 Q Can you show me where that is? 24 <b>A So, for example, as Reber discloses, the</b> 25 <b>second data -- so I'm looking at Column 4,</b></p>	<p style="text-align: right;">Page 17</p> <p>1 Line 21 where it says, "Alternatively, the 2 second data element is generated within the 3 network access apparatus 32. In this case, the 4 second data element can be prestored in the 5 network access apparatus 32, or it can be 6 generated by a code generator associated with 7 the network access apparatus 32. Preferably, 8 the code generator generates the second data 9 element, which is a time-varying and 10 nonpredictable by unauthorized parties." 11 Now, the second data element is something 12 that is disclosed earlier as being something 13 that can be read by the data reader. 14 Also, the other thing that can be read by 15 the data reader, and we can look at references 16 or citations, if you wish, is the first data 17 element. 18 And later on Column 4, Line 50, it says, 19 "Alternatively, the first data element is 20 generated in response to a user-initiated event 21 received by an input device of the network 22 access apparatus 32. In this case, the end 23 user 26 can select the item and initiate a 24 transaction based upon a second human-viewable 25 image 62 displayed by the display device 34."</p>

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