

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

APPLE INC.,

Petitioner,

vs.

REALTIME DATA, LLC D/B/A IXO,

Patent Owner.

NO. IPR2016-01737  
Patent No. 8,880,862

NO. IPR2016-01738  
Patent No. 8,880,862

DEPOSITION OF CHARLES J. NEUHAUSER, PH.D.

Palo Alto, California

Wednesday, September 27, 2017

Reported By:

LINDA VACCAREZZA, RPR, CLR, CRP, CSR. NO. 10201

JOB NO. 19630

TransPerfect Legal Solutions

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September 27, 2017  
9:49 a.m.

Deposition of CHARLES J. NEUHAUSER, PH.D.,  
held at Fish & Richardson, 500 Arguello Avenue,  
Redwood City, California, pursuant to Subpoena  
before Linda Vaccarezza, a Certified Shorthand  
Reporter of the State of California.

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**A P P E A R A N C E S:**  
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**I N D E X**  
WITNESS: PAGE  
CHARLES J. NEUHAUSER, PH.D.  
EXAMINATION BY:  
MR. NOROOZI.....5

**E X H I B I T S**  
(No exhibits were marked.)

CHARLES J. NEUHAUSER, PH.D.,  
having been duly sworn,  
By the Certified Shorthand Reporter,  
Was examined and testified as follows:  
**EXAMINATION**  
BY MR. NOROOZI:  
Q. Good morning, Dr. Neuhauser. How did you  
prepare for today?  
A. I prepared for today? Well, leaving aside --  
this particular declaration is part of a larger chain  
of events. I think you know that. And just leaving  
that aside, let's see.  
I reviewed the patent. I reviewed the  
declarations that I've written previously, reviewed  
the declaration that I just wrote, of course, and then  
the art -- I looked over Zwiigincew.  
Let's see. What else did I do? I'm trying  
to think of the other things that I've looked at. It  
will probably come back to me. And then met with the  
attorneys here, and let's see what else. That's about  
it.  
Q. How long did you spend in total preparing for  
this deposition?  
A. Leaving aside anything before the submission  
of the declaration, from that point, maybe 15 hours,

1 18 hours, something like that.  
 2 Q. And is that all for prep for this deposition,  
 3 or is it also partially for the work leading up to  
 4 your declaration?  
 5 A. No, no. That just includes from the time  
 6 that the declaration was submitted. I think that's  
 7 right.  
 8 Q. So about two, two and a half days of work?  
 9 A. It could have been more, but I would have to  
 10 think about it a little bit more to get a more  
 11 accurate idea.  
 12 Q. Did you review anything not cited in your  
 13 declaration?  
 14 A. Let's -- is the declaration here some place?  
 15 Q. I think it's in that stack of -- there are  
 16 two of your declarations, I believe one for the 1737  
 17 proceeding and one for the 1738.  
 18 A. Does it have -- do you want a number or  
 19 something?  
 20 Q. So if you could just tell me --  
 21 A. What it is?  
 22 Q. -- which IPR proceeding's declaration you're  
 23 looking at.  
 24 One of them ends in --  
 25 A. One of them should have a '37 or a '38.

1 Q. Right.  
 2 A. I'll let you --  
 3 MR. HUGUENIN-LOVE: I think if you look at  
 4 the bottom right there.  
 5 THE WITNESS: Oh, is that it? Okay.  
 6 MR. HUGUENIN-LOVE: There's a numbering. It  
 7 says 17.  
 8 THE WITNESS: This is 38.  
 9 BY MR. NOROOZI:  
 10 Q. So --  
 11 A. Let's look at the --  
 12 Q. You have a list of materials considered at  
 13 the -- in your declaration, right?  
 14 A. I do. Your question, did I review anything  
 15 other than what's on this list?  
 16 Q. Yes, that's right.  
 17 A. Well, I don't see Zwiegincew on this list,  
 18 but I did look at Zwiegincew, just to refresh my  
 19 memory as to what it was.  
 20 Q. Anything else?  
 21 A. Well, I don't think this list lists the other  
 22 declarations that I submitted, but I already told you  
 23 that, right, that I looked at the previous three  
 24 declarations.  
 25 Q. And just to be clear, which are those three

1 declarations? Which packets and proceedings are they  
 2 in relation to?  
 3 A. I would have to look at them to tell you. I  
 4 mean, they are all related to the same base patent.  
 5 I'm trying to remember. I believe they are all  
 6 related to the '862, with various subsets of claims.  
 7 Q. You're also familiar with '608 and '906  
 8 patents?  
 9 MR. HUGUENIN-LOVE: Object to form.  
 10 THE WITNESS: '608 and '906? I believe those  
 11 are the numbers for the -- they have the same  
 12 specifications as the '862. So I'm familiar with them  
 13 in that sense. I used, actually, the '609 for a while  
 14 instead of the '862, just as a reference, so...  
 15 BY MR. NOROOZI:  
 16 Q. All right. So did you take a look at Apple's  
 17 response to Realtime's motion to amend?  
 18 A. That does remind me of one other thing. I  
 19 looked at -- I can see the document. I looked at  
 20 Dr. Back's declarations, and I believe the Patent  
 21 Office's -- not the Patent Office, but the patent  
 22 owner's motion to amend -- and there were two of  
 23 those. And I think I probably looked at their Fish &  
 24 Richardson's -- I don't know what you call it,  
 25 response or whatever. I probably looked at that.

1 Q. Okay.  
 2 A. I don't remember for sure, but I probably  
 3 did.  
 4 Q. Now, you've submitted one declaration for the  
 5 1737 IPR and another one for the 1738, right?  
 6 A. That's correct.  
 7 Q. Both of them are quite long. I think over  
 8 100 pages, right?  
 9 A. It seems that way, yes.  
 10 Q. And --  
 11 A. It so much nicer now that it's double-sided.  
 12 Q. You understand there's no particular page  
 13 limit on how long your declaration can be?  
 14 MR. HUGUENIN-LOVE: Object to form.  
 15 THE WITNESS: I have some vague understanding  
 16 of that, but I don't really know what the rules are.  
 17 BY MR. NOROOZI:  
 18 Q. In putting together your declaration, you  
 19 didn't feel the need to leave certain opinions that  
 20 you thought were important out because of a page limit  
 21 constraint, right?  
 22 MR. HUGUENIN-LOVE: Object to form.  
 23 THE WITNESS: I never thought that I had a  
 24 page limit constraint. Nobody ever told me I did. So  
 25 I just wrote what I wrote.

1 BY MR. NOROOZI:  
 2 Q. And your goal for your declaration was to  
 3 address what you thought was the closest prior art  
 4 in response to the proposed amendments that  
 5 Realtime has put forth?  
 6 MR. HUGUENIN-LOVE: Object to form.  
 7 THE WITNESS: Well, I think that's generic  
 8 goal. I think that's correct.  
 9 BY MR. NOROOZI:  
 10 Q. In preparing your declaration, did you  
 11 review or consider Apple's invalidity contentions  
 12 in the district court litigation?  
 13 A. I have no idea what they are. Their what?  
 14 I'm sorry.  
 15 Q. Invalidity --  
 16 A. Invalidity?  
 17 Q. -- contentions.  
 18 A. I don't believe so.  
 19 Q. And it's fair to say that your declaration  
 20 does not discuss all of the different prior art  
 21 references that are listed in the approximately 29  
 22 pages of prior art listed on the cover -- on the  
 23 front of the '862 patent?  
 24 MR. HUGUENIN-LOVE: Object to form.  
 25 THE WITNESS: Do I discuss all of those?

1 I do not.  
 2 BY MR. NOROOZI:  
 3 Q. Did you go about reviewing those  
 4 references, and trying to identify whether any of  
 5 them were relevant to the amendments sought in the  
 6 motion to amend?  
 7 A. Did I review any of them or all of them?  
 8 Or --  
 9 Q. Did you systematically go through the list  
 10 of the prior art cited in the '862 patent to see if  
 11 there were references other than Settsu and  
 12 Zwiegincew that you thought were relevant to the  
 13 amendments sought?  
 14 A. I did not.  
 15 Q. At some point, a process was undertaken,  
 16 whether by you directly or in conjunction with  
 17 Apple's lawyers, to identify what you and Apple  
 18 believe is the best and strongest and most relevant  
 19 prior art for demonstrating in your views the  
 20 unpatentability of the claims of the '862 patent,  
 21 right?  
 22 MR. HUGUENIN-LOVE: Object to form.  
 23 THE WITNESS: Well, I don't know what  
 24 Apple has done with respect to that. The two  
 25 pieces of prior art I used seemed appropriate.

1 They certainly seemed appropriate to Dr. Back, I  
 2 think his name is, and so those were the ones I  
 3 looked at because I thought they were good art.  
 4 BY MR. NOROOZI:  
 5 Q. You considered other art as a part of the  
 6 analysis that led you to those two particular  
 7 references?  
 8 A. I considered other art. Prior to doing  
 9 this, previous declarations, I probably thought  
 10 about where other art might be found. I probably  
 11 -- I don't think I took under -- undertook any  
 12 systematic search. I was just kind of curious  
 13 about mostly what a person of under -- ordinary  
 14 skill would understand, what they might know. But  
 15 I don't think I undertook any systematic look.  
 16 Q. Did you, at any point in your work in  
 17 relation to the common specification of the '862  
 18 patent, the '608 patent, and I believe the '936  
 19 patent, come across the Esfahani prior art  
 20 reference?  
 21 MR. HUGUENIN-LOVE: Objection.  
 22 Foundation.  
 23 MR. NOROOZI: And please just keep your  
 24 objections to form.  
 25 THE WITNESS: Estafani?

1 BY MR. NOROOZI:  
 2 Q. I believe it's Esfahani.  
 3 A. Esfahani. I'm aware that there exists,  
 4 but from the previous declaration that I wrote. I  
 5 don't remember whether I looked at it depth or not.  
 6 I know it exists.  
 7 Q. You don't have any --  
 8 A. Dr. Back mentioned it, too, so...  
 9 Q. You don't have any opinion in the two  
 10 declarations that you submitted in response to  
 11 Realtime's motion to amend with respect to the  
 12 Esfahani reference, right?  
 13 MR. HUGUENIN-LOVE: Object to form.  
 14 THE WITNESS: I think the best way to --  
 15 do you have "Estafani"?  
 16 BY MR. NOROOZI:  
 17 Q. Esfahani.  
 18 A. Esfahani. Do you have it here?  
 19 Q. I do not.  
 20 A. Okay. I mean, I can't exclude the  
 21 possibility that I might have remembered something  
 22 from that that might have influenced me in some  
 23 way, but I didn't look at it specifically to  
 24 produce this declaration. I would have put it in  
 25 front if I had.

1 Q. In your list of materials considered, you  
 2 don't mention the Esfahani reference, right?  
 3 A. No, I don't.  
 4 Q. And when you came to prepare your  
 5 declarations that you submitted in response to the  
 6 motions to amend that we are talking about today,  
 7 you did not rely on Esfahani as relevant prior art  
 8 that you thought demonstrated unpatentability with  
 9 respect to the requested amended claims. True?  
 10 MR. HUGUENIN-LOVE: Object to form.  
 11 THE WITNESS: I don't -- I don't think I  
 12 relied on Esfahani in preparing this declaration.  
 13 BY MR. NOROOZI:  
 14 Q. You also did not rely on the Sukegawa  
 15 reference in preparing the declarations that you  
 16 submitted in response to the motions to amend.  
 17 True?  
 18 A. Yes. That's correct.  
 19 Q. You do not offer an opinion in your  
 20 declarations that the sought amended claims would  
 21 be unpatentable over Sukegawa, whether alone or in  
 22 combination with any other reference, right?  
 23 A. Sukegawa alone or in combination with any  
 24 other reference? I don't believe I made any use of  
 25 Sukegawa.

1 Q. And in your declaration, you do not  
 2 dispute that the amendments that Realtime is  
 3 seeking are responsive to the arguments and  
 4 assertions that Apple has put forth in the  
 5 underlying inter partes review proceedings; is that  
 6 right?  
 7 MR. HUGUENIN-LOVE: Objection. Form.  
 8 THE WITNESS: I'm not sure I understand  
 9 the question.  
 10 Keep subdividing it, maybe. I'm not sure  
 11 I understand what you mean by "responsive to" and  
 12 so forth. So let me hear it again or break it  
 13 down.  
 14 BY MR. NOROOZI:  
 15 Q. Well, it's fair to say that you don't have  
 16 an opinion in your declaration that the amendments  
 17 that Realtime is seeking are unrelated to anything  
 18 that is being discussed and debated in the  
 19 underlying inter partes Review Proceeding; is that  
 20 fair?  
 21 MR. HUGUENIN-LOVE: Objection. Form.  
 22 THE WITNESS: Say it again. I don't  
 23 understand the question well enough to determine  
 24 whether or not I have an opinion or no opinion  
 25 about it. That's the problem.

1 Q. You also don't dispute in your  
 2 declarations that the amendments that Realtime has  
 3 sought are responsive to the grounds of  
 4 unpatentability that are at issue in the underlying  
 5 IPRs themselves, right?  
 6 A. Well, you're going to have to give that  
 7 back to me again. There's a lot kind of technical  
 8 terms in there I might have to ask you about. So  
 9 not my technology, yours. Just say it one more  
 10 time or have it read back.  
 11 Q. Let me break it down.  
 12 A. Yeah, yeah. That will help a lot.  
 13 Q. You understand that these motions to amend  
 14 have been filed in the course of inter partes  
 15 review proceedings?  
 16 A. Yes, I understand that.  
 17 Q. And you're aware that in the inter parte  
 18 review proceedings, Apple has put forth grounds of  
 19 unpatentability based on which it contends that the  
 20 existing claims of the '862 patent are  
 21 unpatentable?  
 22 A. The existing claims; not the claims -- the  
 23 amended claims, the existing claims?  
 24 Q. Right.  
 25 A. Yes, I believe I have that understanding.

1 BY MR. NOROOZI:  
 2 Q. You understand the concept of someone  
 3 making an argument and someone else making a  
 4 responsive argument, right?  
 5 A. I understand that.  
 6 Q. And you also understand the converse,  
 7 where someone makes an argument, and someone else  
 8 makes an unresponsive kind of irrelevant response  
 9 to the argument, right?  
 10 A. I've seen that. Yes, I understand that.  
 11 Q. Now, in the underlying inter partes review  
 12 proceedings, there are questions as to whether the  
 13 prior art teaches the various limitations of the  
 14 '862 claims with respect to loading and the  
 15 appropriate type of memory and so forth, right?  
 16 A. Just say it again.  
 17 Q. Let me withdraw that and ask a different  
 18 one.  
 19 A. Or just read it back. When it gets long  
 20 like that, I kind of lose track of the beginning is  
 21 the problem.  
 22 Q. Let me withdraw.  
 23 A. Sure.  
 24 Q. You do not offer an opinion in your  
 25 declaration that a person of skill in the art would

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