

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MASIMO CORPORATION
Petitioner,

v.

APPLE INC.
Patent Owner.

Case No. IPR2023-00664
U.S. Patent No. 11,106,352

Tuesday, December 5, 2023

Remote Zoom Deposition of CRAIG

ROSENBERG, PH.D., taken with the witness
participating from his residence in Seattle,
Washington, beginning at 12:04 p.m., EST, before
Ryan K. Black, Registered Professional Reporter,
Certified Livenote Reporter and Notary Public in
and for the Commonwealth of Pennsylvania

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I N D E X

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E X H I B I T S

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1 CRAIG ROSENBERG, PH.D.,
2 called to testify remotely via Zoom
3 videoconference, having been first duly sworn or
4 affirmed, was examined and testified as follows:

5 * * *

6 MR. ANAPOL: Usman, are you going to
7 state your appearance or do you want me to go
8 first?

9 MR. KHAN: You can go ahead.

10 MR. ANAPOL: I'm Jeremy Anapol, from the
11 law firm Knobbe Martens Olson & Bear, on behalf
12 of the petitioner, Masimo Corporation.

13 MR. KHAN: Good afternoon, Jeremy and
14 Dr. Rosenberg. My name is Usman Khan. I'm here
15 on behalf of patent owner, Apple, taking the
16 deposition today.

17 EXAMINATION

18 BY MR. KHAN:

19 Q. Dr. Rosenberg, if you're ready to get
20 started, I can begin.

21 A. I'm ready.

22 Q. First of all, thank you very much for
23 being here today. I appreciate your time. I'm
24 going to start off with some general questions,
25 and I understand you have some experience doing

1 this before. So what I will typically do here
2 is, in between, have some breaks. To the extent
3 you feel like you'd like a break, you know,
4 please just let me know a few minutes ahead of
5 time so that I can finish up the line of
6 questioning or pause at an appropriate place.

7 Does that work for you?

8 A. Yes, it does.

9 Q. Great. Thank you.

10 And during the breaks, you understand
11 that you're not allowed to discuss the substance
12 of your testimony today until your cross
13 examination is concluded?

14 A. I understand that, yes.

15 Q. And will you let me know if at any point
16 anyone does communicate with you in any manner
17 during the course of the deposition today?

18 A. I certainly will.

19 Q. Thank you.

20 So do you understand that your testimony
21 today is sworn testimony taken under oath?

22 A. I understand that.

23 Q. And do you understand that the oath
24 you've taken is as solemn as the oath you would
25 take as if you were testifying at trial?

1 A. Yes.

2 Q. And do you understand that the
3 dep -- deposition testimony today can be used
4 at trial or subsequent briefs in these IPR
5 proceedings?

6 A. Yes, I understand that.

7 Q. And today we are discussing your
8 declaration, which is Exhibit 1003 in
9 IPR2023-00664; is that correct?

10 A. Yes. I haven't memorized the number of
11 the IPR, but that's my understanding.

12 Q. And are you taking any medications
13 that would prevent you from answering the
14 questions completely and truthfully, to the best
15 of your ability?

16 A. I am not.

17 Q. Is there anything else that would
18 prevent you from answering the questions
19 completely and truthfully, to the best of your
20 ability?

21 A. There is not.

22 Q. So the -- your declaration, which is
23 Exhibit 1003 -- and is it okay if I refer to the
24 proceedings as the -664 proceedings and the
25 patent in question as the '352 patent?

1 A. Yes, it is.

2 Q. Great. So with respect to your
3 declaration, Exhibit 1003 --

4 (Whereupon feedback was heard over the
5 Zoom connection.)

6 MR. KHAN: Sorry. I'm getting an echo
7 from somewhere.

8 Okay. I'll continue.

9 BY MR. KHAN:

10 Q. So with respect to your declaration, did
11 you write the declaration yourself?

12 A. I did write the declaration myself.
13 There was some editorial comments, if you will,
14 from the attorneys. I had discussions with the
15 attorneys about the subject patent, about the
16 prior art references. We had extensive
17 discussions about that, and various drafts were
18 circulated back and forth. They were edited in
19 multiple rounds until they reflected my opinions,
20 and only then is when I signed it.

21 Q. Other than yourself and the attorneys of
22 record for Masimo, was anyone else involved in
23 contributing to the declaration?

24 A. There was not.

25 Q. And how many hours would you say rough

1 -- just rough, approximate, did it take for you
2 to complete your work on the declaration?

3 A. This is approximate. I haven't reviewed
4 my invoices, but --

5 MR. ANAPOL: Objection. Calls for
6 speculation.

7 THE WITNESS: It is true. It would be
8 spe -- it would be a guess. If -- if you want
9 that, the guess, then I guess I can provide that.
10 BY MR. KHAN:

11 Q. That's fine.

12 MR. ANAPOL: Same objection.

13 THE WITNESS: Maybe somewhere between
14 40 and 80 hours, would be my guess. Per -- you
15 know, perhaps 60 to 80 hours would be -- would be
16 a guess.

17 BY MR. KHAN:

18 Q. Okay. Thank you.

19 And my understanding is you have been
20 deposed before; is that correct?

21 A. That is correct.

22 Q. And can you give me a -- an approximate
23 of how many times you may have been deposed
24 before?

25 A. I believe it's 47 times previous to

1 today.

2 Q. And how many of these were -- are an IPR
3 proceeding?

4 A. Again, I'm estimating, but I would say
5 probably about 20 -- 15 to 20.

6 Q. And when was the last IPR deposition you
7 took?

8 A. Oh, gosh. I would have to check my
9 records to know -- to know when. It's in my CV.
10 I could actually -- I think my CV was an appendix
11 to my report, but I don't have that in front of
12 me. That may -- on my CV, I believe I list the
13 -- my testimonies in order. So if you were to
14 look at my CV near the -- the last page or two,
15 you would see that toward the -- the very end.
16 And it would, I think, be clear from the case
17 number whether it was an IPR or not.

18 Q. Okay. And is the CV up to date as in
19 the latest case that's noted in your CV is,
20 indeed, the latest case that you worked on?

21 A. Yes.

22 Q. For the deposition today, did you review
23 your declaration?

24 A. I did review my declaration, yes.

25 Q. And did you review the Board's

1 institution decision?

2 A. I did not review that as part of the
3 prep for this. I probably reviewed that, you
4 know, during the writing process, but not for
5 preparing for this deposition.

6 Q. And did you review some of the other
7 references that you cited in your declaration?

8 A. I did.

9 Q. Thank you.

10 So turning to your CV, which is Exhibit
11 1004, if you'd like to pull it up or access it,
12 you know, feel free to. It's your CV. I just
13 wanted to ask you a few questions on there.

14 A. Sure. I'll bring it up.

15 MR. ANAPOL: Usman, I refreshed the
16 Exhibit Share folder, but I don't see it in
17 there.

18 THE CONCIERGE: The CV? I'll put it in
19 right now.

20 MR. KHAN: Thanks, Olivia. It's Exhibit
21 1004.

22 (Exhibit No. 1004, Dr. Rosenberg's
23 Curriculum Vitae, was introduced electronically.)

24 THE CONCIERGE: It should be in there
25 now.

1 BY MR. KHAN:

2 Q. And please let me know when you have it
3 open, and I can move forward.

4 A. Hmm. I did -- I did try to download
5 it, just to make a hundred percent sure it's the
6 same. And it seemed to download fine. But when
7 I bring it up, it says, "Error. Failed to load
8 PDF document."

9 MR. KHAN: Yeah. I have the same error
10 on my end.

11 THE WITNESS: Is this the CV that just
12 says Craig S. Rosenberg, Ph.D, on the top and
13 then has an email address and a phone number on
14 the right? Is that the CV we're looking at?

15 BY MR. KHAN:

16 Q. Yes. It's the same thing you submit
17 -- that's the one, I believe.

18 A. Okay.

19 Q. The same one you submitted.

20 A. Okay. You can ask me questions. I
21 have -- I have a copy of what I submitted.

22 Q. Great.

23 So turning to your CV, you received your
24 bachelor's in 1988; is that correct?

25 A. That is correct.

1 Q. And that was in industrial engineering?

2 A. That's also correct.

3 Q. And then your graduate research and
4 studies was focused in human factors; is that
5 correct?

6 A. I missed what you said. My what studies
7 were focused in --

8 Q. Your graduate studies. Your master's
9 and Ph.D.

10 A. Correct. Yes.

11 Q. Could you describe what human factors
12 means and what your studies involved?

13 A. Of course.

14 So human factors is the study of
15 human-computer communication, sometimes called
16 HCI, or computer-human interaction. HCI,
17 human-computer interaction. So how people
18 interface with computers, how to design
19 user interfaces to best take into account the
20 capabilities and the limitations of the operators
21 of those computer systems.

22 In my master's degree, I was -- well,
23 my -- my master's thesis was on flight simulation
24 and designing flight simulators and visual queues
25 to realism, the graphics associated with flight

1 simulators and what human pilots could discern
2 depending on the characteristics of the user
3 interface on those flight simulators.

4 I did a tremendous amount of studies in
5 air traffic control and designing perspective and
6 stereoscopic and virtual air traffic control
7 displays.

8 And in the Ph.D, I went on to continue
9 studying human-computer interaction, again
10 focusing more on stereoscopic displays, advanced
11 human-computer interaction, augmented reality and
12 virtual reality displays. So mostly the high
13 end, if you will, or the more advanced forms or
14 more futuristic, at least at that time, studying
15 AR and VR in the early '90s forms of
16 human-computer interaction.

17 Q. Your CV notes that you are a co-founder
18 of a startup called Healium, based in Seattle.
19 Did I pronounce that correctly?

20 A. Yes. It was really co-based in Seattle
21 and San Francisco. I co-founded that with an
22 emergency room physician in San Francisco. So
23 he and I were the two cofounders of the company.

24 We were an early Google Glass -- they
25 called them Google Glass explorers, so developers

1 that could get early -- really the only access to
2 Google Glass, which was a -- one of their early
3 augmented reality displays. And we were building
4 electronic medical records -- well, the ability
5 for physicians to view their electronic medical
6 records in a heads-up, hands-free manner so they
7 didn't have to look away from their work, look
8 away from the patient, interact with a standard
9 computer system.

10 Q. And your CV notes that while you were
11 there, you were leveraging wearable technologies;
12 is that correct?

13 A. That's correct. The Google Glass is a
14 wearable technology.

15 Q. Did you work with Masimo's wearable
16 technologies?

17 A. No. I actually don't believe I was even
18 familiar with Masimo's -- the company or their
19 products prior to this case.

20 Q. Okay. Being someone who has
21 been involved in the field of, I guess, user
22 interfaces and wearable technologies, when you
23 were working at Healium, were you aware of
24 Masimo's W1 device?

25 MR. ANAPOL: Objection. Outside the

1 scope.

2 THE WITNESS: I was -- I was not.
3 As I said, I wasn't familiar with Masimo until
4 I started working on this case.

5 BY MR. KHAN:

6 Q. Thank you.

7 Have you, during the course of your
8 career, taught any classes in graduate school
9 that relate to user interfaces?

10 A. Not in graduate school -- well, while I
11 was a graduate student -- actually, I think I had
12 just received my Ph.D, I taught undergraduate
13 class in human-computer interaction at the
14 University of Washington engineering school.

15 Q. In that class, the human-computer
16 interaction class that you taught at the
17 University of Washington, approximately what
18 year would that be?

19 A. Approximately '94. I'm looking to see
20 if -- yeah. So I'm looking at a line item. It
21 says Associate Assistant Research Professor,
22 University of Washington, December '94 to
23 December '95.

24 Q. Do you recall the subject matter or
25 syllabus that you taught in that class?

1 A. I do. I do. It was introduction to
2 human factors. I don't think it was even called
3 introduction to human factors. It was just
4 called human factors. It was a 300-level class
5 for juniors -- typically juniors, undergrads
6 getting a bachelor of science in industrial
7 engineering or a bachelor of science in
8 mechanical engineering or a bachelor of science
9 in electrical engineering or a bachelor of
10 science in computer science, are, typically, the
11 students that would take that class.

12 And it's all about user interfaces,
13 so, you know, mostly graphical user interfaces,
14 but it also touch on more advanced forms of
15 interfaces such as heads-up displays, volumetric
16 displays, virtual and augmented reality displays,
17 haptic displays, things like that.

18 Q. Of the advanced forms of interfaces, did
19 you cover smartphone interfaces in that class?

20 A. I can't recall specifically. It's been
21 many, many years since I reviewed the course
22 materials that I presented. Smart -- you know,
23 in the '94-'95 time period, that was very early
24 on. I mean, it was more feature phones, really.
25 I mean, really at that time, there weren't

1 -- cell phones, I think, were really -- there
2 were satellite phones, the big chunky satellite
3 phones. Most professionals were carrying pagers
4 at that time and using land lines to call back.

5 So I would -- the -- the notion of
6 having a smartphone with the touch screen display
7 that could run apps I don't believe was even
8 present at that time period.

9 Q. Are you a named inventor in any patent?

10 A. No, not any issued patent. I have
11 one application from many, many years ago that I
12 abandoned -- ultimately abandoned. And I have
13 two patent applications that are currently, I
14 guess, going through prosecution, if you will, or
15 the Patent Office is evaluating the patentability
16 of those patents. But no issued patents with my
17 name at the moment.

18 Q. The application that was abandoned, what
19 was the reason for it being abandoned?

20 A. The reason it was abandoned -- this
21 was around 2010 time frame -- had to do with GPS.
22 I had written an app for Android and iOS that
23 would, essentially, track yourself. It was
24 called WhereWuz. It allowed you to determine
25 where you were at various points in the past, or

1 determine if you ever were at a certain location,
2 and, if so, when.

3 And a friend of mine was the attorney
4 that was helping me prosecute that patent, if you
5 will, to submit it, get it into shape, and
6 handling all of the office actions from the
7 Patent Office. He was doing this gratis, you
8 know, without charge to myself.

9 And after a couple of back and forth
10 with the Patent Office, where I'm continuing to
11 refine the application, I was getting very busy
12 with my work. And I just felt like I should
13 either pay him for his work -- I -- I didn't feel
14 good about continuing to ask for him to pursue
15 his time free for myself. So the combination of
16 that and me just getting very busy with other
17 work around that time frame, I decided to not
18 continue to ask him to do work on my behalf.

19 Q. So your CV does not list those pending
20 patents or even the abandoned patent application.
21 If we were to request that information, would you
22 be willing to provide it, the patent application
23 numbers?

24 A. Absolutely. Yes.

25 Q. Thank you.

1 Now, switching to the declaration
2 itself, which is Exhibit 1003 --

3 MR. KHAN: Olivia, you may -- could you
4 upload that so Dr. Rosenberg and Jeremy can
5 access it?

6 THE CONCIERGE: Yes.

7 (Exhibit No. 1003, Dr. Rosenberg's
8 Expert Declaration, was introduced
9 electronically.)

10 THE WITNESS: And I do have -- I do have
11 an unmarked printout of my declaration with me,
12 as well, as well as a PDF version that's
13 unmarked, as well.

14 MR. KHAN: Okay. I'm okay either way.
15 So whatever you're more comfortable with.

16 Jeremy, do you have it in front of you?
17 Is it okay if I move forward?

18 MR. ANAPOL: Yeah. Go ahead.

19 MR. KHAN: Okay. Thanks.

20 BY MR. KHAN:

21 Q. So, Dr. Rosenberg, in your declaration
22 you offered several opinions regarding the
23 alleged obviousness of the challenged claims in
24 these proceedings. What does it take for a claim
25 to be obvious?

1 MR. ANAPOL: Objection to the extent it
2 calls for a legal conclusion.

3 THE WITNESS: On Page 11 of my report
4 -- of my declaration, there's a section on
5 obviousness, and it's Paragraphs 27 through 32.
6 So I'm more than happy to read that to you, but I
7 think that's the most succinct understanding of
8 what it takes for a claim to be obvious.

9 BY MR. KHAN:

10 Q. So I did read that section, but I'm
11 interested to know what your understanding is of
12 obviousness and what it takes for the claims to
13 the obvious.

14 MR. ANAPOL: Asked and answered.

15 THE WITNESS: Well, this definitely is
16 my understanding. I'm not an attorney, and it
17 is a -- it is a question really for attorneys.
18 Now, experts do need to understand it, as well.
19 Typically, as you likely know, these sections are
20 provided by the attorney -- or by the attorneys
21 the expert is working with -- and they represent
22 what it means for a claim to be obvious.

23 It -- one moment. Let me just see if I
24 can paraphrase for you.

25 So obvious analysis needs to take

1 into account the scope and content of the prior
2 art, the differences between the claimed subject
3 matter and the prior art, the level of skill and
4 art of the POSITA at the time of the invention.
5 Any secondary considerations of nonobviousness
6 could and should be taken into account, should
7 they be present. If the reference relates to
8 the same problem as the claimed invention that
9 supports the use of referenced prior art and
10 obviousness.

11 So the prior art that's presented here
12 is all within the same field of invention, and
13 it's all, you know, pertinent to and in the same
14 field as the subject '352 patent.

15 If a POSITA -- person of ordinary skill
16 in the art -- when reading -- you know, when
17 reading the prior art, it would -- if the subject
18 patent -- if the claims of the subject patent
19 would have been obvious, in light of the prior
20 art, I guess is, sort of, a high-level summation,
21 but these five or six paragraphs from 27 to 32 go
22 into a little bit more legal detail as to what it
23 takes to perform an obviousness analysis.

24 BY MR. KHAN:

25 Q. Can I ask you to turn to Paragraph 82 in

1 your declaration and the second-to-last sentence?

2 A. Of course.

3 Q. Please let me know when you're there.

4 And if it helps, that's Page 71 of your
5 declaration.

6 A. Thank you.

7 All right. I'm looking at Paragraph 82.
8 I haven't read it yet, but I see it now.

9 Q. The second-to-last sentence reads,
10 "In any event, even if the claim language
11 required bottom-to-top swipe to start how you
12 predefine the location on the wake screen, Chae
13 discloses or makes obvious a bottom-to-top swipe
14 at a predefined location on the wake screen."

15 Did I read that correctly?

16 A. "In any event, if the claim language
17 required the bottom-to-top swipe to start at a
18 predefined location on the wake screen, Chae
19 discloses or makes obvious a bottom-to-top swipe
20 at a predefined location on the wake screen."
21 Yes.

22 Q. Thank you.

23 So I wanted to just ask -- focus in on
24 the phrase used there, "Chae discloses or makes
25 obvious."

1 Is there a reason you said it "discloses
2 or makes obvious," and not just one of them?

3 A. No. I think just trying to be
4 inclusive, but I don't -- there's no hidden
5 meaning behind that.

6 Q. So in your opinion, does discloses -- a
7 reference, "Chae discloses something," is it
8 something that reference here, "Chae making it
9 obvious"?

10 MR. ANAPOL: Objection to the extent it
11 calls for a legal conclusion.

12 THE WITNESS: I would say there are
13 differences.

14 Something can be disclosed explicitly.
15 Something can be implied, like a lighter form of
16 disclosure, like, well, one would understand that
17 when reading it, it might not use those exact
18 words, but I would say there's different levels
19 of disclosure.

20 And "making obvious" would be, "well, if
21 Chae discloses you can swipe in a direction to
22 bring up a particular screen, it would be obvious
23 that it doesn't have to be bottom-to-top, but a
24 left-to-right, a top-to-bottom could also bring
25 up that same screen, or could bring up a

1 different screen."

2 It's -- there's not -- the inventive
3 element of '352 is not, "wow, no one ever thought
4 of left-to-right. Right-to-left was very
5 well-known, but, my gosh, this is just a great
6 invention because we've discovered left-to-right
7 swipe." I mean, that's kind of an absurd thought
8 and statement. What was well-known and what Chae
9 shows, and Narendra as well, is that you can
10 swipe in a direction and have that input,
11 that gestural input, bring up a given screen.
12 The fact that it's left-to-right or
13 right-to-left, that's not the inventive element
14 of the '352 patent.

15 So Chae makes obvious that even if
16 left-to-right is not mentioned in Chae, it would
17 be obvious to a POSITA that, oh, if top-to-bottom
18 is disclosed in Chae, which it is; or
19 bottom-to-top is disclosed in Chae, which it is,
20 then left-to-right would be an obvious variation,
21 variant, if you will, that would involve no
22 extra -- there would be no technical difficulties
23 associated with that. It's just -- it's just not
24 a leap at all, either in terms of the idea or the
25 implementation.

1 BY MR. KHAN:

2 Q. So is it correct in understanding that
3 you used the words here, "makes obvious," because
4 there was no clear disclosure of a left-to-right
5 swipe in Chae?

6 MR. ANAPOL: Objection. Misstates
7 testimony.

8 THE WITNESS: Well, I guess I would want
9 to review Chae to see -- to, you know, confirm
10 and agree with your statement that there's no
11 left-to-right. But I did say, "makes obvious,"
12 because, as I just explained, even if Chae
13 doesn't talk about a left-to-right or a
14 right-to-left, and only talks about a
15 top-to-bottom or bottom-to-top, that those are
16 obvious substitutions that a POSITA would easily
17 see and/or make if it made sense for his or her
18 project/inventions, what they were working on at
19 the time.

20 BY MR. KHAN:

21 Q. In your declaration, you also refer to
22 a person of ordinary skill in the art; is that
23 correct?

24 A. Yes, I do. I believe I have a section
25 on that, as well.

1 Q. And how did you arrive at the
2 description of a POSITA? I'm referring to
3 POSITA as a person of ordinary skill in the art.

4 A. Yeah. One moment. Let me -- I'd like
5 to go to that section.

6 If you wouldn't mind pointing me to that
7 section. I'm looking at Paragraph 24, and that's
8 perspective of person of ordinary skill in the
9 art. But I believe I had a definition of a
10 POSITA also, but I didn't see that in the table
11 of contents.

12 If you're looking at a particular
13 section where I define that?

14 Q. Yeah. I think you can look at
15 Paragraphs 33 and 34.

16 A. Thank you.

17 In Paragraph 34 is where you provide a
18 description of the POSITA. Based -- I'm reading
19 from 34.

20 "Based on my education and experience
21 within the art of the invention at the relevant
22 time, the POSITA of the '352 patent would have
23 had at least a bachelor's degree in a discipline
24 related to human-computer interaction, such as
25 human factors, computer science, computer

1 engineering or an equivalent discipline, and
2 at least two years of experience working with
3 touchscreen user interfaces. More education
4 could substitute for less work experience and
5 vice versa."

6 So I believe your question is how did I
7 arrive at that?

8 Q. Yes.

9 A. Well, first off, I feel it's very
10 accurate and that that would represent a person
11 of ordinary skill in the art to work on and
12 practice and understand the '352 patent. Second,
13 I met that -- met and exceeded a definition of a
14 POSITA at the time of the '352 patent. And my
15 recollection -- I mean, I certainly provided
16 input. I really can't recall did I just tell the
17 attorneys I was working with, you know, this is
18 what a POSITA is and we should go with this, or
19 if one was provided to me and I edited it and I
20 honed it and fine-tuned it. But -- so if your
21 question is exactly who wrote these words first,
22 I'm not sure. But this is very typical,
23 extremely typical, to many of the cases and
24 patent cases I work on where they have to do with
25 user interface. I don't think there's anything

1 that's a typical or controversial about this in
2 my opinion.

3 Q. So why do you say two years and not
4 three years of experience?

5 A. I do say more education could substitute
6 for less work experience and vice versa. So what
7 I'm trying to capture there is, as you know,
8 everyone is a little different. Some people
9 don't even have a four-year technical degree.
10 So, you know, Bill Gates is a computer scientist,
11 he does -- he had one year of college. So some
12 people could have less work experience and more
13 college experience, or vice versa. I think that
14 the definition of a POSITA would still stand and
15 still be applicable. If we substituted three
16 years of experience, I would still want that
17 phrase at the end there: "More education could
18 substitute for less work experience and vice
19 versa."

20 I don't think the obvious analysis
21 hinges at all on whether it's two years or
22 three years. Like, someone with two years of
23 experience not would find it obvious, but someone
24 with three years would? I mean, I wouldn't -- I
25 don't believe that.

1 So I think this is a good middle ground,
2 if you will, for a common average, if you will,
3 of what a POSITA would likely be. They're a
4 few years out of college. They have a technical
5 degree. They've worked with UI. They've worked
6 with touch screens. They would have all of the
7 skills necessary to practice the '352 invention,
8 or the alleged invention, if you will, of '352.

9 Q. Thank you.

10 I guess my -- what I was trying to
11 understand is, you know, you note, at least in
12 the Paragraph 34, that a POSITA would have had
13 a bachelor's degree in, you know, certain
14 disciplines, and at least two years of
15 experience, right? And then you say, you know,
16 more education could substitute for less work
17 experience, all right? So, essentially, in your
18 statement, at least two years of experience is
19 the floor. I'm curious why you chose at least
20 two years of experience? Why not one year of
21 experience or why not three years of experience?
22 Two is very specific. Why say "at least two
23 years of experience"?

24 MR. ANAPOL: Asked and answered.

25 THE WITNESS: Yeah. And I would posit

1 that one year and three years is just as specific
2 as two years. I was just going for what I feel
3 would be a good average.

4 As I mentioned, Bill Gates didn't have
5 any college -- didn't have a college degree, had
6 one year of college. I think the same was
7 true for Mark Zuckerberg. Both accomplished
8 programmers. Both, you know, very successful
9 businessmen, of course.

10 Having the skills to practice it --
11 there's many hackers that have never gone to
12 college that possess amazing programming skills
13 and amazing design skills. So what we're trying
14 to get at here is what I would think would be
15 typical -- or I used the word average. You know,
16 this would be a very typical POSITA.

17 Could you have a POSITA that didn't
18 -- that just had one year of work experience?
19 Absolutely. Could you have one with three years?
20 Yes, you could have that too. But I'm trying
21 -- I'm trying to get at what I think would be
22 average and typical.

23 I haven't seen these definitions of
24 skill in the arts have ranges in the past. But
25 if one were asking me, would it be okay -- you

1 know, would it be appropriate to have a range,
2 one to three years' experience? I would say,
3 yes, I think that would capture -- that would
4 capture the average and some on the lower end of
5 work experience and some on the higher end.

6 Again, I don't feel that this definition
7 would impact the degree to which the claims of
8 the '352 are obvious in light of the prior art,
9 whether or not it was one year or three years or
10 two years.

11 BY MR. KHAN:

12 Q. Thank you. And that first sentence
13 of Paragraph 34, you also note, "Based on my
14 education and experience within the art of the
15 invention at the relevant time." What do you
16 mean by "at the relevant time"?

17 A. Well, let's see. I'm looking at the
18 second page of the '352 patent, and it says the
19 provisional application, 62/507181, was filed on
20 May 16th, 2017.

21 So to the extent that Apple is claiming
22 that the priority date of the '352 patent goes
23 to May 16th, 2017, I would say that would be the
24 date of the relevant time, May 2017.

25 Q. Thank you. Now, in Paragraph 32 you

1 briefly talk about secondary considerations.

2 I'll give you a minute to read Paragraph 32.

3 You can let me know when you're done.

4 A. Yes. I'm done with that. And I think
5 there's another section on Page 141, as well,
6 where I address Paragraph 168.

7 Q. Yeah. So I guess in both Paragraph
8 168 and 32, you make the statement that you're
9 not aware of any evidence of secondary
10 considerations; is that correct?

11 A. That's correct.

12 Q. Did you do a search to try to find any
13 evidence of secondary considerations?

14 A. I can't recall -- I can't recall
15 if I did a search for specifically looking for
16 secondary considerations of nonobviousness. But
17 really that's -- that's my best answer. I -- I
18 don't believe so, but -- but I may -- I may have.
19 So I'm sorry I don't have a better recollection
20 of that.

21 I certainly wasn't presented any that
22 -- you know, to analyze. And I certainly would
23 welcome and be open, if you will, to doing
24 that analysis, if presented with any secondary
25 considerations of nonobviousness. I would

1 certainly review them, and, if asked by counsel,
2 I could even do that search explicitly. But I
3 can't recall if I did that previously or not.

4 If I did, I didn't find anything. I can
5 say that.

6 Q. Section 5 of your declaration is
7 directed to claim construction; is that correct?

8 A. Yeah. Can you give me a page number,
9 please?

10 Q. Page 29. Or the table of contents, I
11 guess.

12 A. Yes. I'm on Page 29, and I see that
13 section.

14 Q. Okay. What's the standard you used for
15 the claim construction?

16 MR. ANAPOL: Objection; vague. And to
17 the extent it calls for a legal conclusion.

18 THE WITNESS: Well, my understanding
19 is that claims don't need to be explicitly
20 construed unless it helps resolve a specific
21 dispute.

22 My understanding is that the -- I was
23 not aware of a specific dispute in the IPR
24 proceedings that required an explicit claim
25 construction.

1 The standard is plain and ordinary. You
2 know, plain and ordinary meaning by a person of
3 skill in the art at the time of the invention is
4 what -- is the standard I used.

5 I'm thinking of the -- I'm not sure if
6 that's the same as the Phillips standard or if
7 that's slightly different, so, again, I'm not a
8 lawyer, but I would just leave it at plain and
9 ordinary by a POSITA at the time of the
10 invention.

11 BY MR. KHAN:

12 Q. Just to clarify, is it your position
13 that none of the terms in the '352 patent require
14 construction?

15 A. It's my position that in order to show
16 obviousness, there doesn't need to be an explicit
17 construction beyond the plain and ordinary
18 meaning for the purposes of this IPR. And the
19 -- I'm unaware of, really, any dispute that would
20 require an explicit instruction.

21 I think that sums up my opinion.

22 Q. So that the terms that you covered in
23 your claim construction section, are you offering
24 a construction of those terms?

25 MR. ANAPOL: Objection; vague. And to

1 the extent it calls for a legal conclusion.

2 THE WITNESS: Well, I'm hesitant to
3 say yes to that, because I don't know the legal
4 ramifications of a comment such as, Dr. Rosenberg
5 is explicitly construing wake screen user
6 interface to mean X, and, you know, he said so in
7 his deposition.

8 I am offering in pages -- I'm sorry,
9 Paragraphs 37 -- in this whole section, really,
10 so going on 37 through -- Paragraphs 37 through
11 55, what a person of skill in the art would have
12 understood when reading the '357 -- I'm sorry, the
13 '352 patent application -- '352 patent, at the
14 time of invention, so in May 2017, what their
15 understanding would be of these various terms:
16 Wake screen user interface, home screen user
17 interface, widget screen user interface and
18 control panel user interface.

19 And I provide my opinion as to what a
20 POSITA would understand those to mean and why
21 they would believe that to mean. So I'm not sure
22 if that rises to the level of me offering a
23 construction or if that's just sitting at the
24 level of, this is what a POSITA would understand.
25 So I don't want to -- I really don't know the

1 legal implications of me saying, yes, "I'm
2 offering a construction. It may not rise to that
3 level." I think I'd feel most comfortable just
4 saying this -- I'm offering my opinion and the
5 evidence why a POSITA would understand how these
6 various terms would be understood.

7 BY MR. KHAN:

8 Q. So why did you include the understanding
9 of a POSITA in a section that is entitled Claim
10 Construction?

11 A. Oh, I wouldn't read in too much meaning
12 to the section -- the name of the section -- the
13 header for that section. Perhaps just because it
14 was the most concise way to -- to --

15 (Whereupon feedback was heard over the
16 Zoom connection.)

17 Jeremy, I believe it's your mic. If you
18 can mute and unmute for an objection, I think
19 that hopefully that will fix the echo.

20 Again, please don't read in too much to
21 that header section. I believe that that was
22 just for the purpose of creating a concise header
23 for that section that -- that -- I mean, I could
24 have written, "what a POSITA would understand as
25 to these four various terms when reading the '352

1 patent at the time of the invention," but that
2 would be much more wordy.

3 Q. So is it your understanding that what
4 a POSITA would have understood these terms to
5 mean is not the same thing as offering a claim
6 construction?

7 A. I think that's --

8 MR. ANAPOL: Objection. Calls for a
9 legal conclusion.

10 THE WITNESS: Yeah. I was going to
11 say the same thing. I really think that's -- it
12 may -- it may be different, and I just haven't
13 studied that. That's a legal question. I'm
14 not sure in the eyes of the law -- patent law
15 specifically, if it's the same thing or
16 different, so I don't know the answer to that.

17 MR. KHAN: Okay. Thank you.

18 Can we take a five-minute break -- we're
19 at the top of the hour. I'll offer a five-minute
20 break. Is that okay with everyone?

21 MR. ANAPOL: Yes.

22 (Recess taken -- 1:00 p.m.)

23 (Resume testimony -- 1:08 p.m.)

24 BY MR. KHAN:

25 Q. Dr. Rosenberg, you referred to certain

1 claim terms in your declaration, such as the
2 wake screen user interface, home screen user
3 interface, widget screen user interface and
4 control panel user interface; is that correct?

5 A. That is correct.

6 Q. Can you describe what a wake screen user
7 interface is?

8 A. Sure. I'm reading from Paragraph 39.
9 "In my opinion, 'wake screen user interface,'
10 recited in Claims 1, 9 and 17 should be construed
11 to mean a user interface displayed when the
12 device wakes up."

13 So I guess that would be a concise
14 opinion as to what wake screen user interface
15 means.

16 Q. What do you mean when you say,
17 "the device wakes up"?

18 A. On Paragraph 40 I say, "The
19 specification describes waking the device from
20 the screen-off state to the screen-on state and
21 then displaying the wake screen user interface."
22 And then there's references as to it's the
23 subject patent '352, Columns 2, 31 through 34,
24 and Columns 3, 63 through 66.

25 So waking up would be going from

1 a screen-off state to a screen-on state --
2 transitioning from a screen-off state to a
3 screen-on state. And that's also directly from
4 the '352 patent, Column 38, Lines 18 through 20,
5 and Column 48, Line 24 through 29.

6 And then it goes on to say -- these are
7 all saying the same thing, but, lastly, "A wake
8 screen user interface, 504, is displayed on
9 waking the device," and that's Column 50, Line 32
10 through 33 -- I'm sorry. Yeah. That's correct.
11 Line -- or Column 50, 32 through 33.

12 But I will say, though, that it
13 shouldn't be understood that that's the only
14 way to get to the wake screen. I mean, that is
15 when a wake screen user interface is displayed.
16 But as you know from some of the claims, it's
17 possible to get back to the wake screen interface
18 from other screens, as well. So there are ways
19 to get to a wake screen interface when the
20 display is already on. Like, from the home
21 screen to the wake screen, you can do that, as
22 well, per the claims. But if you're asking what
23 is a wake screen user interface, that would be
24 the screen that is displayed when the device
25 wakes up, or goes from a screen-off state to a

1 screen-on state.

2 Q. Does the waking up of a device
3 necessarily have to be from a screen-off
4 state to the screen-on state, or are there
5 other possibilities, as well?

6 A. Yes, there are other possibilities,
7 and that's what I had just said at the end of
8 my answer to the last question; that one can go
9 from, let's say, the home screen user interface
10 where the screen is on to the wake screen. So it
11 doesn't have to go from a screen-off state to a
12 screen-on state. I believe it's Claim 5 of the
13 '352 patent describes going from the home screen
14 to the wake screen.

15 Q. Just to clarify, my question was not
16 about when the wake up screen would be displayed,
17 but what it means for waking the device up.
18 Slight distinction. Is that any -- is that
19 clear?

20 A. I think so. Yeah. Thank you for
21 clarifying. So you're asking what would a POSITA
22 understand it to mean that a smartphone, a mobile
23 device smartphone with a touch screen is waking
24 up? Is -- am I to answer that question?

25 Q. Sure.

1 A. I believe that a POSITA would
2 understand, in light of reading the '352 patent
3 at the time of the invention, that that would
4 be transitioning from a screen-off state to a
5 screen-on state, and that's found at Column 38,
6 Lines 18 through 20, and Column 40, Lines 24
7 through 29. So that's what it would mean to wake
8 up the phone: transitioning from a screen-off
9 state to a screen-on state.

10 Q. You also discuss a home screen user
11 interface. What does -- sorry. Can you describe
12 what a home screen user interface is?

13 A. Sure. I'm reading from Paragraph 44 of
14 my declaration. "A home screen user interface
15 should be construed to mean a screen 'different
16 from the wake screen user interface' that,
17 'includes a plurality of application icons
18 corresponding to different applications.'"
19 And the specification refers multiple times to
20 figures that depict home screen user interface
21 522. You can see that in Figure 5H, which I have
22 replicated on Page 33 of my report.

23 So it -- again, it's -- it's different
24 from the wake screen user interface, and it
25 includes a plurality of icons that correspond to

1 different applications. And, again, this comes
2 from Claims 1, 9 and 17 of the '352 patent.

3 Q. But what makes a screen a home screen?

4 A. Well, a POSITA's understanding of a home
5 screen when reading the '352 patent at the time
6 of the invention, May 2017 time frame, would be
7 that it included a plurality of applications
8 corresponding -- a plurality of icons -- excuse
9 me -- that correspond to different applications,
10 and you see that on Figure 5H that I have on Page
11 33 of my report. So a plurality of applications
12 corresponding to different applications.

13 Q. So I understand what you've said in
14 Paragraph 44 that the home screen user interface
15 includes these plurality of application icons
16 corresponding to different applications. I
17 understand what it includes. But my question is
18 a little bit different. It's what makes a screen
19 a home screen?

20 MR. ANAPOL: Asked and answered.

21 THE WITNESS: I was going to say the
22 same thing. I really can't think of a different
23 answer. That -- that is -- that would be a
24 POSITA's understanding, in reading the '352
25 patent, as to what would make it a home screen.

1 It needs to be different from the wake screen,
2 and it needs to have a plurality of icons that
3 correspond to different applications. That's
4 what makes it a home screen. And, you know, in
5 the context -- well, context probably isn't the
6 right word. A POSITA reading '352, that's what
7 they would understand home screen to mean.
8 It -- it's -- you know, it's -- it's relatively
9 broad. It's -- there doesn't -- there's not a
10 bunch of very specific things that it needs to
11 have to be a home screen in the '352.

12 BY MR. KHAN:

13 Q. So does a widget screen user interface
14 also include a plurality of application icons
15 corresponding to different applications?

16 A. One moment.

17 Q. Is the widget screen also used -- sorry.
18 Is the widget screen user interface also
19 different from the wake screen user interface?

20 A. Yeah. Those -- those are two
21 different --

22 MR. ANAPOL: Sorry. Usman, did you
23 withdraw your previous question? You just asked
24 two different questions in a row. So can we just
25 be clear about what question is pending?

1 MR. KHAN: Okay. I thought he answered
2 the first question. But I'll take two steps
3 back. All right?

4 BY MR. KHAN:

5 Q. So the first question was, does the
6 widget screen user interface include a plurality
7 of application icons corresponding to different
8 applications?

9 A. So the widget screen user interface --
10 and this is from Paragraph 47 of my report --
11 means a screen that is, quote, different from the
12 wake screen user interface, which I think was
13 your -- maybe your -- your next question you'll
14 ask, and different from the home screen user
15 interface. So it can't be the same screen, you
16 know, per the '352 patent. And this is what
17 it needs to include -- and this is directly from
18 Claims 1, 9 and 17 of the '352 -- quote, "It
19 includes a plurality of user interface objects
20 corresponding to different applications wherein a
21 respective user interface object of the plurality
22 of user interface objects contains application
23 content from an application corresponding to the
24 respective user interface object, and, when
25 selected, causes display of an application

1 corresponding to the respective user interface
2 object."

3 So a widget screen user interface can
4 include icons, application icons, but it needs to
5 include a plurality of widgets. And widgets
6 are different from icons. Widgets contain
7 application content from an application
8 corresponding to that user interface object.

9 So to be a widget screen, it needs to
10 have more than one widget that's associated with
11 that screen, and, yes, it is different from the
12 wake screen and it's different from the home
13 screen.

14 Q. So I'm trying to understand your
15 construction, and I want to ask you, based off
16 of the definitions you've given, if I have been
17 presented with two use -- two user interfaces --
18 I don't know which one is which. So I have two
19 screen user interfaces, and each one of the
20 interfaces has a plurality of application icons
21 corresponding to different applications, and it's
22 different -- and both are different from the wake
23 screen user interface, which one is the home
24 screen user interface and which one is the widget
25 screen user interface?

1 A. All right. So I missed --

2 MR. ANAPOL: Objection. Incomplete
3 hypothetical.

4 THE WITNESS: Yeah. I missed something
5 that was very important in your question, which
6 is please describe in detail the two screens, and
7 then I'll answer your question. One -- one of
8 the screens had ... and I'll let you finish.
9 One of the screens has ... tell me what's on that
10 screen. And then tell me specifically what's on
11 the second screen.

12 BY MR. KHAN:

13 Q. So one of the screens -- so I'll just
14 say screen A -- screen user interface A --

15 A. Yes.

16 Q. -- includes a plurality of application
17 icons corresponding to different applications.

18 A. Only? Are you saying only? Only
19 application icons? No widgets? No application
20 icons that are displaying content from
21 applications corresponding to that user? Because
22 this is an important distinction, if it's -- is
23 that your question?

24 Q. It's just displaying a plurality of
25 application icons corresponding to different

1 applications.

2 A. Okay. I would need more information to
3 say whether that goes above a home screen -- goes
4 beyond a home screen and becomes a widget screen.
5 Based upon my clarifying question, does it also
6 include a plurality of widgets?

7 Q. I said, no, it doesn't.

8 A. Okay.

9 Q. So, yeah.

10 A. Okay. You've described screen A.

11 Q. Okay. That's screen A. Screen B
12 also has a plurality of application icons
13 corresponding to different applications.

14 A. With no widgets?

15 Q. That's right.

16 A. So there's no widgets on screen A and
17 there's no widgets on screen B?

18 Q. Yes.

19 A. And your question is?

20 Q. Which one is the home screen?

21 MR. ANAPOL: Same objection.

22 THE WITNESS: I would say that they both
23 could be home screens. They both could be home
24 screens. There's Android 4.2; you can have many
25 home screens that are home screens. There does

1 not have to be only one home screen in a system.

2 BY MR. KHAN:

3 Q. And in your opinion, a home screen user
4 interface, can it also have a widget?

5 A. Yes.

6 Q. So in the scenario 2, where now you have
7 the two, --

8 A. Scenario B.

9 Q. -- screen A and screen B, and both have
10 a plurality of application icons and widgets,
11 both have them, which one is the home screen?

12 A. Okay. Well, first off, I mean, you're
13 just stating hypotheticals; you know, in this
14 hypothetical system where you've got, let's
15 describe what might be on screen A and on screen
16 B. We're not talking about what's disclosed in
17 '352 or the prior art. So I just want to make
18 that clear. And I think your hypothetical
19 question is, if you have, now, two screens, we'll
20 call them A prime and B prime, and A prime has a
21 bunch of applications, and I think you said a
22 singular widget; and screen B has a bunch of
23 application icons and a single widget, if that's
24 correct so far, and then you asked me which one
25 is the home screen, something like that?

1 Q. Yeah. So I did not specify it's a
2 single widget. It could be one or more widgets
3 on both screens.

4 A. All right. Well, I said --

5 MR. ANAPOL: Excuse me. Incomplete
6 hypothetical. Outside the scope.

7 THE WITNESS: Yeah. That's also
8 important. That's why, you know, I'm trying
9 to be very specific here. Because to meet the
10 definition of a widget screen interface, you
11 need a plurality of user interface objects that
12 contain application content. So there would be a
13 difference between a single widget and a
14 plurality of widgets.

15 To meet the definition of a plurality of
16 a widget screen user interface, all you need,
17 according to the '352 patent, is two or more
18 widgets. It can have icons.

19 So if in your hypothetical you have, on
20 screen A, application icons and multiple widgets,
21 and in your hypothetical in screen B you have
22 multiple application icons and multiple widgets,
23 they would both be, in the eyes of '352, as laid
24 out by, you know, the claim language of Claims 1,
25 9 and 17, those would both be considered widget

1 screen user interfaces because each of those
2 screens would have a plurality of widgets on
3 them, which -- they -- they describe them as
4 being user interface objects that contain
5 application content from applications
6 corresponding to the respective user interface
7 object. And if you click on them they open the
8 application. I'm using the shorthand. That's a
9 widget. A POSITA would understand that's a
10 widget. They're using kind of a verbose way of
11 describing that same thing.

12 But I think I've answered your question
13 that if each of these screens had a plurality of
14 icons and plurality of widgets, they would both
15 be considered a widget screen user interface in
16 your hypothetical.

17 BY MR. KHAN:

18 Q. I guess my question was slightly
19 different in that my question was which one of
20 these two screens would be the home screen user
21 interface.

22 In your answer you said both would be
23 the widget screen user interfaces. Does that
24 mean that neither of these two are a home screen
25 user interface?

1 A. I'm just mapping your hypothetical to
2 what a POSITA would understand when reading the
3 '352 patent as to how a widget screen user
4 interface is defined, so --

5 MR. ANAPOL: Sorry. Just for the
6 record, same objection. Sorry. I was muted.

7 THE WITNESS: And how it's defined is
8 it will become -- it is a widget user -- widget
9 screen user interface if there's a plurality of
10 application -- I'm sorry, user interface objects
11 that contain application content. Essentially,
12 as I described before, widgets.

13 So I -- I'm -- again, I'm just mapping
14 your hypothetical to the '352 patent; that,
15 you know, there's really -- there's not much
16 discussion that I recall of, in your -- it's not
17 -- it's somewhat devoid to -- to the '352 patent.
18 I don't recall reading about, you know,
19 embodiments where, well, here's a system with
20 just two widget screen user interfaces and no
21 home screen; and here's a system -- here's an
22 embodiment with just two home screens but no
23 widget screen user interface.

24 So you're not really, at least from
25 my recollection, describing things that are

1 described in the prior art or the '352 patent,
2 but you're asking hypotheticals about, well, if a
3 screen had X and Y and this other screen had, you
4 know, A and B, what would they be called?
5 Which one would be the home screen and which one
6 would be the widget screen? And that's what
7 -- I'm mapping your hypothetical to what is a
8 relatively clear description in Claims 1, 9 and
9 17 about what it means to be a widget screen user
10 interface and what it means to be a home screen.

11 BY MR. KHAN:

12 Q. So I'm going to -- I'm going to be
13 asking, in the example that I gave, is it your
14 opinion that there are two widget screen user
15 interfaces and zero home screen interfaces?

16 MR. ANAPOL: Sorry. Objection. Outside
17 the scope. Incomplete hypothetical. Asked and
18 answered.

19 THE WITNESS: Okay. So I think a -- in
20 -- in looking at home screen user interface -- so
21 home screen -- there's nothing -- one sec. I
22 just want to review this, but I have something
23 more to say on this for sure.

24 BY MR. KHAN:

25 Q. Please take your time. Just, yeah, you

1 can take your time reading that.

2 A. All right. So here's what I'd like
3 to say on the matter. The home screen user
4 interface includes -- and I'm saying that word
5 with emphasis -- a plurality of application
6 icons. It does not say that it includes
7 application icons only. So a home screen could
8 include other objects, such as widgets. A widget
9 screen includes user interface objects that
10 contain application content, i.e., widgets.
11 It doesn't mean that it has to only have widgets.
12 It could also have application icons.

13 So the home screen and the widget
14 screen -- to be a widget screen, you need a
15 plurality of widgets. To be a home screen, you
16 need a plurality of application icons. So that
17 is true.

18 Now, which -- if you're asking which one
19 now is the home screen and which one is the -- is
20 the widget screen, I think a POSITA would turn
21 to the claims. And going from the wake screen,
22 which is the screen that transitions from the
23 power-off to the power-on -- or I'm -- that's
24 -- I misspoke there. That goes from -- I didn't
25 even want to say the sleep state to the -- to the

1 wake state, but from the screen-off state -- I'll
2 put it that way -- to the screen-on state.

3 And in Claim 1 -- excuse me one moment.
4 Yeah. Claim 1. Claim 1, basically. So like I
5 said, if each of the screens had a plurality of
6 icons and a plurality of widgets and you're
7 trying to determine, oh, I mean, they would -- if
8 it's just that, they would each meet the
9 definition of a home screen and they would each
10 meet the definition of a wake screen. But I
11 think a POSITA would look to Claim 1 and to
12 define that in response to detecting a first
13 input that's directed to a portion of the wake
14 screen, that they would transition -- they would,
15 essentially, display a home screen user interface
16 that's different from the wake screen user
17 interface. So whichever of those two screens
18 that they're transitioned to would be -- in the
19 parlance of the '352 patent, would be called the
20 home screen.

21 But because a wake screen -- I'm sorry
22 -- a home screen user interface doesn't have to
23 have only application icons and a wake screen
24 user interface doesn't have to have only widgets,
25 '352 -- a POSITA when reading '352 at the time of

1 the patent would understand that all you need is
2 the plurality of application icons or widgets to
3 be a home screen and/or a widget screen
4 respectively.

5 Q. So to clarify, in the example that I
6 gave you, is it now your position that either one
7 of those two screens, screen A or screen B, could
8 be the home screen user interface or the widget
9 screen user interface?

10 A. No --

11 MR. ANAPOL: Same objections.

12 THE WITNESS: Yeah. No. Not quite.
13 The screen that would be transitioned to from the
14 wake screen, whatever screen was transitioned to
15 by going through the limitations of Claim 1,
16 would be considered the home screen per the
17 '352 patent.

18 BY MR. KHAN:

19 Q. And so what are those limitations?

20 A. You want me to read the limitations of
21 Claim 1?

22 Q. That you are indicating would --

23 A. 1F.

24 Q. -- mean that that particular screen is
25 the home screen user interface?

1 A. Yeah. It would be embodied in 1F. It
2 starts with, "In response to detecting the first
3 input that's directed to the portion of the wake
4 screen user interface." And it goes on after
5 some intermediate words, "Displaying of a home
6 screen user interface that's different from the
7 wake screen," and it goes on more.

8 So whatever of those two screens was
9 displayed, because, as you described, I mean,
10 you're purposely in your hypothetical making them
11 very, very similar, because they both have a mix
12 of icons and a plurality of icons and they both
13 have a plurality of widgets. So you're -- you
14 were asking me which one is -- which one of those
15 two is the home screen. I think 1F gives the
16 best guidance to a POSITA as to which of those
17 two would, whichever screen is displayed by 1F.

18 Q. So in your construction that you
19 offered, you did not include these limitations as
20 being part of what would determine what a home
21 screen user interface would be; is that correct?

22 A. Well, --

23 MR. ANAPOL: Objection; vague.

24 Go ahead.

25 THE WITNESS: Sorry to speak so quickly.

1 I don't mean to not give you time to object.

2 There's an arbitrary number of
3 hypotheticals I could have addressed in the
4 report. You're asking me at deposition here to
5 consider this hypothetical. So, no, I didn't
6 -- I didn't address that specific hypothetical.
7 In the definition of a wake screen, in the
8 definition of a home screen, in the definition
9 of a widget screen and in the definition of the
10 control panel screen, I -- I was pulling from,
11 specifically, the specification claims of the
12 '352 patent as to what it means to meet that.

13 You asked me a very specific question as
14 to, well, if these two screens are essentially
15 almost identical, because they both have a
16 plurality of icons and a plurality of widgets,
17 how could you tell them apart? I answered -- I
18 answered that by saying a POSITA would look to
19 Claim 1 to get their answer, and that's what
20 I've described previously.

21 BY MR. KHAN:

22 Q. Thank you.

23 What is a widget?

24 A. Let me go back to that same section.
25 I'm reading from 47. I'm not reading exactly

1 from, but the content comes from 47. I would
2 describe a widget or -- I would say a POSITA
3 would underscribe -- would understand what a
4 widget is when reading the '352 patent as being a
5 user interface object that contains application
6 content from an application that corresponds to
7 that user interface object, and if that user
8 interface object is selected, it displays the
9 application corresponding to that user interface
10 object.

11 So think of an icon for an application.
12 The graphic designers create a static icon. The
13 icon is always the same. Your icon for Chrome,
14 it looks like the Chrome icon. It does not
15 change. It does not display user application
16 content from the application.

17 In contrast, let's look at a weather
18 widget. The weather widget may show an
19 icon, but that icon is variable, and the icon is
20 dynamic, and it gets its information from the
21 application that is not yet fully launched. It
22 may show partly cloudy. It may show rainy. It
23 may show bright sunshine. So the widget is able
24 to show application content from the application
25 that corresponds to it, and it needs to be

1 selectable to launch the application when
2 selected.

3 That's what a POSITA would understand
4 a widget to be from reading the '352 patent.
5 Widgets were well-known prior to the '352 patent,
6 as well. That's -- the '352 patent is not
7 claiming to be the inventor of widgets.

8 Q. Sorry. Just to clarify, when you said
9 47, did you mean Paragraph 47?

10 A. Yes. Did I say Page 47

11 Q. You just said 47. I wasn't clear if it
12 was paragraph or page. But I couldn't find the
13 widget definition in Paragraph 47.

14 A. Well, this is a definition of a widget
15 screen user interface, which has a plurality of
16 widgets. And I started reading from the one,
17 two, three, the fourth line of 47.

18 Q. I see.

19 A. Yeah. It says, "Includes a plurality of
20 user interface objects." So I basically said
21 that a widget is and I started from, "a user
22 interface object corresponding to different
23 applications," so you can have multiple widgets
24 corresponding to multiple applications, but each
25 of those widgets have to be able to get and

1 display application content.

2 So -- and I used the example of the
3 weather app, but there could be a stock quote
4 app or a contacts app, you know, different
5 applications that are able to truly, essentially,
6 give the user a preview of some useful
7 information prior to opening the app itself, in
8 contrast to something like your Outlook or your
9 Chrome icon doesn't really give you much useful
10 information. It's always consistent.

11 Q. Is the name of an application
12 application content?

13 MR. ANAPOL: Sorry. Can you just repeat
14 the question, Usman? I didn't hear it.

15 BY MR. KHAN:

16 Q. Is the name of the application
17 application content?

18 A. Well, what's implied, what's understood
19 by a POSITA, is this is dynamic -- like I said
20 previously in describing widgets, this is dynamic
21 information that changes; it gives something
22 useful.

23 You know, is an icon application
24 content? Well, the programmers when programming
25 their app and creating the app and distributing

1 the app, they had to create the bitmap for the
2 icon. So I guess you could -- one could say that
3 it's part of the application, but it veers very
4 far from a POSITA's understanding of a widget and
5 would completely eliminate -- if one would say
6 that the name of an app or the bitmap of an icon
7 is application content, it would, essentially,
8 obliterate all widgets.

9 You know, widgets are -- widgets provide
10 dynamic content. They provide content that's
11 variable and changes and provides useful
12 information, depending on -- on what's -- what's
13 displayed. So it's really a -- what I would call
14 a hyper-technical distinction that, certainly,
15 I don't think the authors or the -- the readers
16 -- POSITAs reading the '352 patent would agree
17 with because, essentially, it makes everything a
18 widget. Then you be -- then there's no such
19 thing as icons. Because, oh, everything's a
20 widget because everything has application
21 content. So I disagree with that whole promise.

22 Q. Dr. Rosenberg, do you use the word
23 dynamic in Paragraph 47?

24 A. I do not use the word "dynamic."
25 I was describing to you what would a POSITA

1 understand when reading about -- when they see a
2 widget screen user interface. And, you know,
3 it's listed multiple times in the '352 patent.
4 Paragraph 100 comes to mind; 150 through 152
5 comes to mind. They talk about widgets.
6 So I mean, to answer your question very
7 specifically, no, I don't use the word dynamic,
8 but that doesn't mean that a POSITA doesn't
9 understand what a widget is.

10 Q. I can appreciate that, and just for our
11 purposes, if we can just stick to answering the
12 question, that would be great. But I appreciate
13 your clarification.

14 A. Sure. I just don't --

15 MR. ANAPOL: Objection; argumentative.

16 THE WITNESS: I just wouldn't want
17 things to get taken out of context, so I like to
18 give full and complete answers.

19 MR. KHAN: I can understand.

20 BY MR. KHAN:

21 Q. Dr. Rosenberg, to the best of your
22 knowledge, does your dep -- does your declaration
23 use the word "dynamic"?

24 MR. ANAPOL: Objection; relevance.

25 THE WITNESS: I would need to read

1 through it to see if I used it in some context.
2 Likely not, because I didn't believe that
3 -- because widgets were well-known, and I even
4 included other prior art, Shuttleworth, Hong,
5 Android, you know, that show that POSITAs knew
6 what widgets meant, that I guess it didn't -- I
7 didn't feel the need to go into even more detail
8 as to how a widget would be described outside of
9 the scope of the '352 patent. I was sticking to
10 how it was described in the -- the one -- in
11 Claims 1, 9 and 17 of the '352 patent.

12 But, again, it would be very
13 inconsistent to describe a widget -- I'm sorry,
14 the name of an application "application content,"
15 because then, all of a sudden, icons go away.
16 Your home screen would just go away, because
17 you can -- because everything has application
18 content, a hundred percent of the things.
19 So then you have no home screen. So that's very
20 inconsistent with '352, because there's obviously
21 a home screen. So that just wouldn't make sense
22 to a POSITA.

23 BY MR. KHAN:

24 Q. Dr. Rosenberg, what is a control panel?

25 A. I'm looking at Page 37 of my report.

1 And so a control panel user interface, which
2 contains control elements, if you will, elements
3 that can control the device, needs to be
4 different from -- quote, "different from the wake
5 screen user interface and the widget screen user
6 interface, and it includes a plurality of
7 controls for controlling one or more device
8 functions of the computer system."

9 So was your question what is a control?
10 Was that the full question? What is a control in
11 the context of smartphones?

12 Q. That was going to be my next question,
13 so please go ahead and answer.

14 A. Mm-hmm.

15 Well, I'm sure you're familiar with
16 graphical user interface. On Page 38, there's an
17 example of -- of a figure from the '352 patent.
18 It's Figure 5C, as in Charlie, E as in echo. And
19 there's a collection of controls that are on that
20 user interface. So they -- and, you know,
21 because we're dealing with graphical user
22 interface here, they might be buttons, radio
23 buttons, checkboxes, sliders, potentially
24 drop-down lists, that would control one or more
25 device functions. So things like the brightness

1 of the screen, the volume of the device, whether
2 or not it's in airplane mode, whether or not
3 you enabled or disabled Bluetooth or Wi-Fi.
4 Those would all be examples of controls;
5 controls, in the more narrow sense, as -- as used
6 by the '352 patent.

7 I mean, arguably, any button in any user
8 interface, devoid of '352 patent, would be a form
9 of a control. But a control, in the context of
10 '352 that's on a control panel user interface in
11 the context of smartphones with touch screens,
12 would be something very similar to the collection
13 of user interface objects that are shown in
14 Figure 5CE of the '352 patent.

15 Q. Below that figure on Page 38, at the end
16 of Paragraph 51, you mentioned that the control
17 panel user interface limitation includes at least
18 two controls.

19 My question was why at least two
20 controls?

21 A. Yeah. Let me -- I think I need to look
22 at some of the claims to -- oh.

23 I believe this was taken from -- if you
24 look at the top of Page 39 where I say, quote,
25 "Includes a plurality of controls for controlling

1 one or more device functions of a computer
2 system," so I believe that's taken directly
3 from claim language. One second.

4 So Claim 7 -- that comes directly from
5 Claim 7 where it says, "A control panel user
6 interface needs to be different from the wake
7 screen, different from the user interface"
8 -- "the wake screen user interface and the widget
9 screen user interface, and the control panel user
10 interface includes a plurality of controls for
11 controlling one or more device functions of the
12 system."

13 You know, this is very much in parallel,
14 if you will, with the definition of, The home
15 screen had to have a plurality of application
16 icons, the widget screen interface had to have a
17 plurality of widgets, or user interface objects
18 that displayed application content. So the
19 authors of '352 are just, essentially, following
20 along that pattern of requiring a plurality of
21 controls. That's why there needs to be more than
22 one.

23 Q. So if the claim limitation did not
24 include a plurality of controls, Claim 7 here, if
25 there was a single -- if there is a control panel

1 user interface with a single control, would that
2 still be a control panel user interface as
3 generally understood in the art, or would it be
4 different? Would it not be a control panel user
5 interface, as understood in the art?

6 MR. ANAPOL: Objection. Outside the
7 scope. Incomplete hypothetical.

8 THE WITNESS: Well, I really haven't
9 analyzed that. I haven't analyzed that and I
10 don't have an opinion on that now at the moment.
11 I'd really need to analyze and think about
12 -- think about whether, you know, that met the
13 definition of the control panel user interface.
14 I can tell you if it does have a plurality, it
15 does. But I don't have an opinion as I sit here
16 now as to whether a single control would meet
17 that definition.

18 I think you used the phrase, you know,
19 "as understood," or -- like, I forget exactly how
20 you phrased it, but you just said, like, the
21 general understanding. And my understanding is
22 it's most -- you know, this analysis is typically
23 done with the understanding of a POSITA reading
24 the subject patent, not necessarily devoid of
25 the subject patent. But I don't have a opinion.

1 I really don't offer new opinions on the fly.
 2 So I -- I don't have an opinion right now on the
 3 three -- whether -- if a single control on a
 4 screen would meet this or not.

5 BY MR. KHAN:

6 Q. So earlier we were talking about the
 7 claim construction section, and you mentioned
 8 that you are offering what you thought was the
 9 plain and ordinary meaning of these terms.
 10 Control panel user interface is one of the terms
 11 that you've included in this section, and I'm
 12 asking you what the plain and ordinary meaning of
 13 this term would be in -- in -- as would be
 14 understood in the art?

15 A. Yes. Yeah. And I --

16 MR. ANAPOL: Objection.

17 Hold on, Dr. Rosenberg.

18 THE WITNESS: Sure.

19 MR. ANAPOL: Objection. Outside the
 20 scope. Improper hypothetical. Asked and
 21 answered.

22 THE WITNESS: Yeah. You did ask that
 23 question earlier, maybe five minutes ago, when we
 24 first turned to control -- what is the -- excuse
 25 me, what is the control, and we started talking

1 about this. I think your question morphed over
2 time to, well, what if it was just the same? You
3 know, then you asked me, why do you think it
4 needs to be a plurality of controls, and I
5 pointed you to Claim 7. And then you asked,
6 well, what if it was just a single control, and I
7 -- I said -- I haven't really analyzed or thought
8 about that yet.

9 And then your last question seems to
10 be a question that you asked earlier, which is
11 what's the plain and ordinary meaning of a
12 control. And, typically, I would say it's by a
13 POSITA, when reading the '352 patent at the time
14 of the invention, not necessarily devoid of all
15 of the documents that are in this case.

16 So I can certainly answer again,
17 if you'd like me to, what a control is, as
18 understood by a POSITA when reading the '352
19 patent at the time of the invention.

20 BY MR. KHAN:

21 Q. So I don't want to rehash, perhaps,
22 what we've already done, but let me maybe draw a
23 distinction in the language that was used in your
24 own declaration, and that's a source, perhaps, of
25 some of my questions here.

1 At the last sentence, the Paragraph 51,
2 you have noted, quote, "A POSITA would have
3 understood that the control panel user interface
4 limitation includes at least two controls." The
5 last sentence of Paragraph 52 states, "Therefore,
6 a POSITA would have understood that a control
7 panel user interface may also include other
8 objects."

9 A. Yes.

10 Q. So the last sentence of Paragraph 51,
11 you used the term control panel user interface
12 limitation and talks about how a POS -- and then
13 you discussed how a POSITA would have understood
14 that limitation.

15 At the end of Paragraph 52, you actually
16 offer your thoughts on what a POSITA would have
17 understood as that phrase encompassing, right;
18 that a control panel user interface may also
19 include other objects. And so you have in your
20 declaration offered opinions on what the control
21 panel and user interface would include, and
22 that's why I'm asking you whether the control
23 -- according to you, the control panel user
24 interface at what a POSITA would consider is
25 a con -- well, what would a con -- a POSITA

1 consider a control panel user interface and
2 whether just one control would be sufficient if
3 that one control is provided on a user interface.

4 MR. ANAPOL: So same objections, and
5 I'll also add form and relevance. So outside the
6 scope, asked and answered, form, relevance and
7 improper hypothetical.

8 THE WITNESS: And I'll try to address
9 the multiple elements in your question.

10 So looking at the last sentence of
11 Paragraph 51 and the last sentence of Paragraph
12 52, all of my analysis, in terms of what a POSITA
13 would understand, is in the context of a POSITA
14 reading the subject patent, the '352 patent, at
15 the time of the invention.

16 I'm not offering, unless I explicitly
17 say so, opinions about what a POSITA would
18 understand, in general, devoid of all of the
19 issues and documents in this case.

20 So the fact that I put the word
21 "limitation" after "control panel user
22 interface," at the last sentence of Paragraph 51,
23 but I didn't add that one-word limitation at the
24 -- after, quote, "control panel user interface"
25 for the last sentence of 52, please don't read

1 anything into that.

2 All of the -- as I just said, all of
3 the analysis that I'm doing is as understood by a
4 POSITA when reading the '352 patent at the time
5 of the invention. So they're getting this -- as
6 you see, I'm really pointing to -- to, well,
7 Claim 7. I'm pointing to Column 14 -- I'm sorry,
8 Column 4, Lines 15 to 18, and Column 80, Lines 15
9 to 22 of the specification.

10 So really the understanding of the
11 control panel user interface comes from those
12 references of the '352 patent. And it's under
13 -- they're understood by a POSITA when reading
14 the patent. I'm not offering opinions, certainly
15 in these two sections, and probably not anywhere,
16 about what a POSITA would understand void of the
17 case.

18 Now, addressing your last point, well,
19 what if it was only a single control? Would that
20 -- I don't know if you phrased it if that would
21 meet the limitation or does that change it to be
22 a control panel user interface. All I can say is
23 what I said before, is a POSITA when reading the
24 '352 patent at the time of the invention, when
25 reading Claim 7, would see that in order for it

1 to be a control panel user interface, it would
2 need to have a plurality of controls. And you
3 see that toward the very end of Claim 7.

4 And I also talked earlier about what a
5 control was, and I pointed you to Figure 5C, as
6 in Charlie, E as in echo, and I described various
7 elements of these graphical user interfaces that
8 control device functions, and I talked about some
9 examples, such as brightness, volume, you know,
10 Wi-Fi, Bluetooth, et cetera.

11 So I don't have a -- again, I don't have
12 an opinion as to your hypothetical about, well,
13 let's say there's this other hypothetical system
14 that just has a single control that does that.
15 Is it a control panel user interface? I'm not
16 offering an opinion on that right now.
17 Hopefully --

18 MR. ANAPOL: So -- sorry.

19 THE WITNESS: I was just saying,
20 hopefully -- I am trying to be responsive to your
21 questions. I really -- you know, I don't like
22 -- I don't ever try to be evasive. I really
23 try to answer the question as thoroughly and
24 completely as I can, and hopefully that did
25 -- that did that.

1 MR. KHAN: I can -- I can appreciate it.
2 And I thank you for that.

3 MR. ANAPOL: So, Usman, we've been going
4 for about an hour now, so if we can take a break
5 at a convenient stopping point.

6 MR. KHAN: Yeah. We can take a
7 five-minute break.

8 Just as a heads up, the next session
9 will probably be addressing the video -- the
10 Android video that was part of the grounds.
11 So I'm happy to take a five-minute break and
12 reconvene. If you'd like to take a little bit
13 longer and just view that video, I'm happy to do
14 it either way.

15 Do you have a preference?

16 MR. ANAPOL: We can take ten minutes.
17 I believe I have a local copy, so I don't have to
18 stream it. But I'll confirm that over the break
19 that I have a copy so I can review it as you ask
20 questions about it.

21 MR. KHAN: Okay. Thank you. I
22 appreciate that. So we can take a ten-minute
23 break, then, and go off the record.

24 (Recess taken -- 2:13 p.m.)

25 (Resume testimony -- 2:30 p.m.)

1 (Exhibit No. 1007, a YouTube video, was
2 introduced electronically.)

3 BY MR. KHAN:

4 Q. So, Dr. Rosenberg, on Pages 46 to 48
5 of your declaration, you discussed Exhibit 1007
6 which you refer to as "the Android reference"; is
7 that correct?

8 A. That's correct.

9 Q. And on Page 48 of your declaration,
10 you provide a snapshot of the Android reference,
11 which is a YouTube video; is that correct?

12 A. That's correct, yes.

13 Q. Can you describe what the video is
14 revealing? And by "the video" I mean Android
15 Exhibit 1007.

16 A. Sure. One moment. I just want to
17 scroll to 2:06 and just confirm that's where the
18 screenshot is.

19 Yeah. That is. So is your question
20 what the video, in general, is describing, or
21 what this specific screenshot from the video is
22 describing?

23 Q. Initially just what's generally described
24 in the video.

25 A. The video is describing how you can add

1 widgets to Android 4.2. It shows how you can
2 navigate between them. It seems to have a focus
3 on security, which is a -- you know, except for
4 Claim 2 isn't really super-relevant, but just
5 what can a user see on a widget if -- if
6 the phone is authenticated or -- or not
7 authenticated. But, in general, it just shows
8 some of the capabilities of widgets when using
9 Android 4.2.

10 Q. And the device that's being used, is
11 that an Android phone in the video?

12 A. I think he says what it is right at the
13 very beginning.

14 Here, I'm going to mute myself just for
15 a second while I watch just the very beginning.

16 Android 4.2 Jelly Bean running on a
17 Nexus 4 is the hardware that he's using.

18 Q. Okay. Now, could I ask you,
19 maybe, to -- the snapshot that you provided is
20 specifically at 2:06 of the video. In that time
21 period from 2:06 to about 2:12, so about six
22 seconds of that video, --

23 A. Yes.

24 Q. -- could you describe what is going on
25 there?

1 A. Well, I just want to -- I mean, I can
2 see that this is -- just, again, scrolling
3 through those couple of seconds, it's displaying
4 the inbox widget, so, essentially, a few lines
5 from emails associated with the presenter's Gmail
6 account, and he's showing what the user can see
7 in this Gmail widget.

8 Q. Okay. Do you recall how the user got
9 to this screen that is shown in your figure on
10 Page 48 at minute 2:06 of the video?

11 A. No, not specifically. I mean,
12 typically, widgets -- typically, widgets are
13 displayed -- you know, the widget is displaying
14 the application content prior to opening it up.
15 So if this is a widget, which I believe it is,
16 by selecting it it would take you to the Gmail
17 application and it would launch it. But I don't
18 believe that the user -- again, I'd want to
19 review, but it just -- widgets just need to be
20 observed. So if he's just observing a widget,
21 you can see that.

22 Now, with Android 4.2, widgets can be
23 shown on the lock screen. Widgets can be shown
24 on widget screens. You can create an arbitrary
25 number of screens and in those screens you can

1 put an arbitrary number of icons and/or widgets.
2 So, essentially, you can -- it can map directly
3 to the patent where you have certain screens that
4 have plurality of widgets, certain screens that
5 have a plurality of icons, and those are multiple
6 screens.

7 So I created a video of my own --
8 hopefully that was submitted as part of my
9 report, but I have it as part of my files, too --
10 of me using Android 4.2 as well doing similar
11 things.

12 MR. KHAN: Okay. That's all I have.

13 Jeremy, do you have any questions for
14 redirect?

15 MR. ANAPOL: No.

16 MR. KHAN: Okay. Dr. Rosenberg, thank
17 you very much for your time. I appreciate it.
18 I have no further questions. I think we're good
19 for the day.

20 (Deposition concluded -- 2:37 p.m.)
21
22
23
24
25

C E R T I F I C A T E

I do hereby certify that I am a Notary Public in good standing, that the aforesaid testimony was taken before me, pursuant to notice, at the time and place indicated; that said deponent was by me duly sworn to tell the truth, the whole truth, and nothing but the truth; that the testimony of said deponent was correctly recorded in machine shorthand by me and thereafter transcribed under my supervision with computer-aided transcription; that the deposition is a true and correct record of the testimony given by the witness; and that I am neither of counsel nor kin to any party in said action, nor interested in the outcome thereof.

WITNESS my hand and official seal this 7th day of December, 2023.



Notary Public

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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