

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD
3

4 -----X

5 MOTOROLA SOLUTIONS, INC.,

6 Petitioner,

7 Case IPR2023-01294

8 U.S. Patent No. 8,831,664 B2

9 -against-

10
11 STA GROUP, LLC,

12 Patent Owner.

13 -----X

14
15 REMOTE DEPOSITION OF

16 DR. SHMUEL SHAFFER

17 October 1, 2024
18
19
20

21 REPORTED BY: KIARA MILLER

22 FILE NO.: 554829

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Petitioner,
Case IPR2023-01294
U.S. Patent No. 8,831,664 B2
-against-

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Patent Owner.

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Deposition of DR. SHMUEL SHAFFER, taken on
behalf of PETITIONER, at Remote Location,
commencing at 12:18 p.m., October 1, 2024,
before Kiara Miller.

1 A P P E A R A N C E S:

2
3 ON BEHALF OF PETITIONER:

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5 30 ROCKEFELLER PLAZA
New York, New York 10112

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MATTHEW THOMPSON, ESQ.

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15 BY: CLARE FREDERICK, ESQ.
BRENNAL. LEGAARD, ESQ.

1 D R . S H M U E L S H A F F E R, after having
2 first been duly sworn by a Notary Public of the
3 State of New York, was examined and testified as
4 follows:

5 COURT REPORTER: Please state your
6 name and address for the record.

7 THE WITNESS: Shmuel Shaffer, the way
8 it is spelled on the screen. The
9 address is 1211 Cowper, C-O-W-P-E-R,
10 Street, Palo Alto, California 94301.

11 EXAMINATION BY

12 MR. KNIERIM:

13 Q Good morning, Dr. Shaffer.

14 A Good morning, Mike.

15 Q Where are you located right now?

16 A I'm in the office of the attorneys here.

17 Q That would be the office of K&L Gates?

18 A That's correct.

19 Q And what city are you in?

20 A This is in Palo Alto.

21 Q Is counsel present with you in the room
22 today?

1 A There is Brenna, and there is Clare.

2 Q Okay. Do you have any paper materials
3 with you today?

4 A I have a whole bunch of printed
5 documents here.

6 Q Okay. And --

7 A I was told that they are blank copies.
8 I did not see them before.

9 Q I'm sorry, I missed that. Could you
10 repeat that?

11 A Yeah, I did not go to them. They are
12 just parts of papers that the attorneys
13 prepared, and I was told that they are blank
14 other than the document material.

15 Q Do you mean they are unmarked? Is that
16 what you're trying to say?

17 A I was told that they're unmarked, but I
18 personally am just conveying what I was told.
19 I did not go through them. So it's not that
20 I saw that they're unmarked, but I was told
21 that they're unmarked.

22 Q Okay. And I'd like to go through those

1 and get a list of what you have in front of
2 you, but we'll wait a little bit to do that.

3 Do you have any chat programs or other
4 windows other than those that are necessary
5 to conduct this remote deposition on your
6 computer right now?

7 A Okay. So the computer that I'm using is
8 not my computer. If you want, Clare will
9 have to say what is on her computer. But
10 open now on my screen, what I see is that
11 screen, and there is a chat on the side that
12 I believe you probably also access to it. I
13 think the chat is part of the Zoom. So this
14 is one computer I have.

15 And I was given another computer, which
16 I requested, that has a directory with all of
17 the paperwork that I was told you may want me
18 to make some reference to.

19 What else is on that computer, I have no
20 idea. It's not my computer.

21 MS. LEGAARD: If you want me to chime
22 in on that issue, and I guess I would

1 say for the record that Dr. Shaffer is
2 using my colleague, Clare Frederick's,
3 computer. The chat -- you know, it's
4 got Teams on it. Teams is closed.
5 Outlook is closed. It has her files
6 on it. He won't be accessing any of
7 those files. If you see an issue with
8 that, Mike, just let us know now.

9 MR. KNIERIM: No issue. Thank you.
10 And maybe to short circuit this, can
11 you represent that the paper materials
12 and electronic materials he has access
13 to are the exhibits from this matter
14 and nothing new?

15 MS. LEGAARD: Yes, and they are
16 unmarked.

17 MR. KNIERIM: Okay. Thank you.

18 Q Okay. Dr. Shaffer, is there any reason
19 you can't testify truthfully, to the best of
20 your ability today?

21 A Not that I know of. Other than being
22 jet-lagged out of my mind, everything is

1 good.

2 Q If you do not understand any of my
3 questions today, please let me know. And if
4 you do not let me know, I'll assume that you
5 understood the question; is that fair?

6 A That's very fair.

7 Q Okay. And I'll also ask that you listen
8 carefully to my questions and answer only my
9 questions. If you have more to say, your
10 lawyers will have an opportunity to ask you
11 follow-up questions; is that also fair?

12 A I will do my best. If I say more than
13 what you want to hear, please stop me. I
14 know I do have the tendency of being, like, a
15 teacher, whatever. So if I think that you're
16 asking for some clarification of some manner,
17 if I fail, please let me know. If I failed
18 and I over-answer, please let me know.

19 Q Okay. All right. Thank you.

20 Have you ever heard the term
21 "out-of-band signaling"?

22 A Out-of-band signaling, yes, definitely.

1 Q What does that mean?

2 A There is the band in which the signal
3 is, and then there's other bands, which mean
4 it's not -- in that band, it's a different
5 band, and the signaling is conveyed there.

6 Q What about "in-band signaling"? Have
7 you heard that term?

8 A In-band signaling, definitely.

9 Q What does that mean?

10 A It means that the signaling is conveyed
11 within the band.

12 Q And what does the term "band" mean in
13 that answer?

14 A It depends on the context.

15 Q What about in the context of radio
16 systems?

17 A Again, it depends on the specific radio
18 system. But you know, I'm kind of -- I'm
19 stopping. I'm not sure how much you want to
20 hear, so, again, it depends on the context of
21 the radio system.

22 Q Okay. What type of context would you

1 need to answer that question?

2 MS. LEGAARD: Object to form.

3 A I mean, numerous contexts. I'm not sure
4 that I'm prepared to give you now answer
5 about contexts. If you have specific one
6 that you have in mind, please ask me and, per
7 your request, I answer specifically to your
8 question.

9 Q Have you heard of trunked radio systems
10 before?

11 A Of course.

12 Q What are trunked radio systems?

13 A So let me start explaining what trunked
14 is, and then we'll combine it with the radio.
15 Is it okay with you?

16 Q Please.

17 A So trunking, there is a -- the notion is
18 one attempts to create a connection, a bridge
19 between Point A and Point B. There are
20 limited resources in the system because there
21 is very large number of end points. And as
22 such, it does not make sense to assign an

1 ongoing set of resources to establish
2 connections between all of the possible
3 points within the collection of end points.

4 So, for example, if there are two
5 companies, people in one company will use
6 some like PBX, for example, and that may
7 provide multiple ways, but may provide the
8 ability for any person in the company to call
9 any other person simultaneously at the same
10 time. The same way it applies to the other
11 company.

12 But given the fact that there is a
13 limited number at any time of people from
14 Company A attempting to call Company B, there
15 is no need to provide enough resources in
16 broad network for anyone from Point A to talk
17 with anyone in Point B -- in Company B in
18 realtime at the same time.

19 So as such, we are doing some pulling or
20 pooling of resources, and we have less
21 resources in the middle that will be
22 facilitating the connection between a person

1 in Company A and a person in Company B. And
2 the trunking is basically a certain method, a
3 certain algorithm that will assign resources
4 as per needed for the connection of a person
5 from Company A to Company B.

6 That, of course, comes with some issues
7 because sometimes larger number of people
8 from Site A will like to talk with people
9 from Site B, and as such, we're running out
10 of resources. A good trunking system may
11 provide for some queuing, some other systems,
12 for example, just give you busy tone, turkey
13 tone, telling you, sorry, even though you're
14 free to talk and Person B in Company B is
15 free to talk, the system cannot accommodate a
16 connection. So they'll give you turkey tone
17 and tell you please try later and busy tone.

18 Some other trunking companies may
19 provide queuing capabilities EDX is one of
20 those, for example. And such, they'll queue
21 the request. And then as some calls will
22 hang up and free resources, other calls will

1 take over them. Some other trunking
2 capabilities may have preemption that if a
3 call comes for one reason or another, they
4 may preempt another call.

5 So in lesson, trunking is basically a
6 method for assigning limited resources per
7 needed for some communication, per needed.

8 Now, within radio, it's the same thing.
9 If in telephone, it was real line, real hard
10 wire, copper wire, optics line, whatever; we
11 see it within radio you have limited
12 frequency band. One is so much bandwidth in
13 order to conduct decent communication, as you
14 may have noticed, deciding which we're in
15 does not have sufficient bandwidth and as
16 such, we couldn't establish a connection with
17 you.

18 So to establish the communication, we
19 can get into channel low, whatever, depends
20 how much bandwidth one needs at a given error
21 rate to conduct decent communication between
22 two sides. And as such, now the bandwidth on

1 the spectrum.

2 Now I'm moving from trunking into
3 connecting with radio trunking. That
4 spectrum, that band -- that channel within
5 the band is the needing resource. And as
6 such, one will have those working channels
7 that are basically frequency chunks, and
8 those frequency chunks are going to be pooled
9 and used as reusable resource.

10 So if I call you today via radio, I may
11 get one spectrum, one chunk of spectrum.
12 Tomorrow when I call you, that chunk of
13 spectrum may be taken by someone else, and
14 that trunking will allocate another chunk of
15 spectrum.

16 Am I going too much? Am I going too
17 little?

18 Q No, that's very helpful. Thank you. I
19 think you said quite enough.

20 I did have some follow-up questions. My
21 first follow-up question is does a trunked
22 radio system make use of out-of-band

1 signaling?

2 A I would say yes. Some do, for sure.

3 Q And you mentioned in your prior answer
4 this concept of working channels which are
5 frequency chunks.

6 Did I get that right?

7 A Yeah. I should say it's --

8 Q So in trunk --

9 A I'm sorry, I should say it's usually
10 continuous chunk. It doesn't have to be.

11 Or continuous spectrum is better word.
12 Frequency, we talk about spectrum and chunks.

13 Q Okay. So in trunked radio systems you
14 have working channels, and you also have a
15 control channel, correct?

16 A That's correct.

17 Q And for out-of-band signaling in a
18 trunked radio system, certain information is
19 transmitted on a control channel, and other
20 information is transmitted on a working
21 channel, correct?

22 A That would be correct.

1 Q I'm sorry, did you say that would be
2 correct?

3 A By some definition, when you say some
4 information, the word "information" is
5 extremely broad. But if we use, like,
6 extremely broad definition of "information,"
7 yeah.

8 Q Okay. Are there benefits to using
9 in-band signaling as opposed to out-of-band
10 signaling?

11 A This is spectrum. This is spectrum.

12 Q So there are no benefits, or are there
13 particular reasons why one might choose to
14 use in-band signaling as opposed to
15 out-of-band signaling?

16 A I will have to think about this one.
17 It's really not something that I'm ready to
18 answer now.

19 You know, I'll give you one example: In
20 the old days with AB -- AB signaling, AB
21 signaling was basically based on bit robbing,
22 bit robbing within the audio. So, you know,

1 this is the old, plain old telephony system,
2 also known as POTS, P-O-T-S. It had the
3 disadvantage, needless to say, that it was
4 basically taking some of the bandwidth of
5 that signal so that one note necessarily
6 something that human ear usually wouldn't be
7 able to notice unless you're a musician. It
8 was not able to convey the same high fidelity
9 voice system that did not use a bit -- bit
10 robbing, bit stealing, whatever it was called
11 with AB signaling.

12 So in general, I mean, if I were to
13 design a system, I would design a system with
14 a out-of-band signaling and give the in-band
15 for higher fidelity if higher fidelity is
16 needed.

17 Q Okay. Can trunked radio systems use
18 in-band signaling.

19 A I think that the sky is the limit. Any
20 person can use anything that they want. At
21 the end of the day, it's all about what does
22 the standards say, and it's all about what

1 is -- you know, what's the standards which
2 does not guarantee operational system. It
3 just provides visual in some ways,
4 aspiration. There is the user's agreement,
5 so if you and I agree that we'll do whatever
6 we want to do, I mean, you and I can agree
7 that we will be passing signaling via the
8 audio and audio via the other one.

9 Of course, the system is going to be
10 extremely poorly. It's very poor
11 characteristic, render it useless, but people
12 can agree about whatever you want to agree.

13 Q So you would agree that -- well, strike,
14 withdraw.

15 Am I understanding you correctly that
16 you're saying that whether to use in-band or
17 out-of-band signaling on a trunked radio
18 system is a design choice?

19 MS. LEGAARD: Object to form.

20 THE WITNESS: What would I do with
21 that now?

22 MS. LEGAARD: You can answer --

1 (inaudible) -- questions unless you're
2 instructed not to answer it.

3 A Yeah, as I said, I believe that two
4 entities can design good system, can design
5 bad systems. And by the end of the day, the
6 two of us decide to design good or bad
7 system. It's up to the customer to decide
8 later which system they want to purchase.

9 And so if you're asking me is it
10 possible for people to agree on anything,
11 yes, it's possible for people to agree to put
12 the basement on the roof, yes, I agree.

13 Q Is there any technical reason why one
14 could not use in-band signaling as opposed to
15 out-of-band signaling --

16 (Technical difficulties.)

17 Q Is there any technical reason why one
18 could not use in-band signaling as opposed to
19 out-of-band signaling to send a particular
20 type of data?

21 A Yeah, so as I mentioned before, the way
22 that the spectrum was allocated by, for

1 example, the FCC and other -- you know, so
2 this is more regulatory body other than some
3 standard bodies. It goes back to what is the
4 bandwidth that you need in order to convey
5 information properly, and this is the
6 bandwidth which is allocated to audio/video.

7 And if you start basically stealing or
8 robbing, okay, as I mentioned before, the AB
9 signaling was called bit robbing, so it was
10 not called bit robbing for no reason. It was
11 called bit robbing because it robbed the
12 audio from quality, provided, to some extent,
13 suboptimal and solution. By the time they
14 did not have a better one, so they can use
15 suboptimal, but they acknowledge it. They
16 call it bit robbing.

17 Q Okay. So the bit robbing that you just
18 referred to means that if you transmit more
19 data over the control channel, you have less
20 bandwidth for the working channel; is that
21 right?

22 MS. LEGAARD: Object to form.

1 A That's not right. That's not what I
2 said.

3 Q Okay. Well, please explain.

4 A So now, can I ask the lady who
5 transcribe what I said, to read what I said
6 so that it'll be clear that I did not say
7 what you just asserted I said?

8 Q No, no. I mean, I can ask you the
9 question again. I'm just trying to
10 understand what you meant when you mentioned
11 "bit robbing" in your prior answer.

12 Can you explain for me what bit robbing
13 is?

14 A Of course. Okay. So I apologize. It's
15 my mistake. I thought you were trying to
16 assert that I said something which I
17 definitely did not.

18 So having said that, the standard
19 defines -- at times it's the FCC will define,
20 okay, probably the FCC is usually -- we start
21 with the FCC. The standard will define phone
22 frequency. F1 to F2 is for control. From F2

1 to F3 is one working channel; F3 to F4,
2 another working channel, et cetera, okay.

3 Now, what happens is that one -- at
4 least I'm not aware of system. Maybe some
5 people would do that. That people will try
6 to move voice over the control channel.
7 It'll be, like, bizarre system, okay, I'm not
8 aware of anything though.

9 So you have the control bandwidth, and
10 this is where control is going to flow. You
11 have the voice and video bandwidth, and this
12 is where the voice and video will flow. And
13 if you try to move video/voice into the
14 control, you're going to get really terrible
15 system. And as I mentioned before, we saw
16 the beginning of this call, the network
17 carrier did not give you enough bandwidth,
18 and we just were not able to conduct video
19 communication. So needless to say, we just
20 had working proof that moving voice/video
21 over control or over low bandwidth is just a
22 futile, not very smart idea.

1 Going the other way, a way in a ways,
2 beginning to rob the voice and video from
3 bandwidth, when you rob communication like
4 audio/video communication of the required
5 bandwidth, as per the protocol that designed
6 it, you start basically chiseling away from
7 the quality. If it's video, you can see some
8 clouds, some lines. If it's -- if it is
9 voice, you can hear, like, we used to call it
10 at Cisco "robo voice." It's kind of like a
11 machine-made voice.

12 Did I answer the question?

13 Q Yes, it did. Thank you.

14 So aside from bandwidth considerations,
15 are there any other technical reasons why one
16 would not move data from the control channel
17 to the working channel or vice versa?

18 A You're asking me like very broad
19 questions, and I was told by Brenna that
20 you'd be asking me today about my patent, and
21 this is what I have prepared. I like to
22 study more. It's not what I would do, okay.

1 I'm kind of a score engineer that wouldn't
2 basically adhere to the protocol in Cisco,
3 we're always trying to adhere to protocol and
4 improve upon them and not kind of become
5 some...

6 Sticky ideas that otherwise -- as I
7 said, system quality is really kind of the
8 thing that always guided me.

9 So what you're asking me is to come with
10 ideas while implementing a system that I
11 believe would be inferior because it's not
12 going to be delivering good quality. It's
13 not what I consider until now.

14 Q Sure and that's fair enough if you don't
15 know --

16 A Your voice all of sudden --

17 Q Can you hear me now?

18 A Something happens with your voice, you
19 lost like six DB.

20 MR. KNIERIM: Let's go off the
21 recorded briefly.

22 (Whereupon, a recess was taken

1 from 12:44 p.m. until 12:45

2 p.m.)

3 Q So if you don't know the answer that's
4 fine. I just want to ask the question again,
5 sitting here today, can you think of any
6 other technical reason why one would not take
7 data from the control channel and transmit it
8 on the working channel or vice versa?

9 MS. LEGAARD: Object to form.

10 A Yeah, so I think, the thing that comes
11 to mind immediately, is the notion that it
12 will result in poor quality system and one
13 sacrifices things at times to achieve some,
14 but just kind of -- it's not something that I
15 would entertain doing.

16 Q Okay, all right?

17 A Cisco send many people to stand on
18 committees with broad standards. We adhere
19 to standards.

20 Q I'm sorry, Doctor. Again, I'd ask that
21 you listen carefully to my question and
22 answer only my question, if you want to add,

1 your attorney will have the opportunity to
2 ask you all the questions.

3 We are here today, as you mentioned
4 because you submitted a declaration
5 concerning the '644 Patent; is that right?

6 A That's correct.

7 Q I believe that that's previously been
8 marked as Exhibit 1,001 and I understand that
9 you have a copy of that with you today?

10 A Give me a second, I get from it from the
11 other screen.

12 (Whereupon, U.S. Patent No.
13 8,831,664 B2 was previously
14 marked as Exhibit 1001.)

15 Q You're an inventor on this patent,
16 correct?

17 A Correct.

18 Q Can you please tell me what you believe
19 your invention is?

20 MS. LEGAARD: Object to form.

21 A The invention is about a method system
22 that basically is able to monitor plurality

1 of channels. Identify condition of alarm and
2 upon doing that it renders to an end device
3 and modified and elevated. Modified voice,
4 video experience.

5 Q What do you mean by modified voice video
6 experience?

7 A Modified, so in some ways we would like
8 to alert a person that there is a certain
9 condition that requires urgent attention.
10 And various claims that we have there will
11 talk about rendering or delivering to an end
12 device either higher volume of information,
13 of audio. It can lower audio of other times
14 because we're talking here about a device
15 that can get plurality of audio streams,
16 video streams. So we can either make it to
17 elevate is basically some relative. We take
18 something at a specific level take it higher,
19 take the levels make them lower. We also
20 discuss the ability of providing different
21 perception, I think to the end user. But if
22 it's not delivered to the end user, but it is

1 done, via rendering a modified signal to the
2 end point such as the end user will think
3 that the video/audio was delivered from
4 specific end game. Special end game.

5 Q You understand for an invention to be
6 patentable, it has to, among other things, be
7 new?

8 A There's no doubt in my mind.

9 Q What is new about the invention of the
10 '644 Patent?

11 A I think what is new is the notion that
12 we are monitoring plurality of channels
13 detecting a certain signal in one of these
14 plurality of channels. And as such we are
15 modifying the media that is being delivered
16 to the end point in a way that is going to
17 later via that end device render to the end
18 user in a way that is going to be more
19 obvious to the end user that -- some special
20 condition has been -- had occurred.

21 Q What were you working on when you came
22 up with the idea for invention of the '644

1 Patent?

2 MS. LEGAARD: Objection.

3 A So at the time I was employed by Cisco
4 System and I was the head of development for
5 the safety and security system business unit
6 also known as S3BU. And we worked on a
7 product on a system -- not a product, it was
8 a system called IPICS.

9 Q I-P-I-C-S?

10 A Yes. I believe so.

11 Q What is IPICS?

12 MS. LEGAARD: Object to form.

13 A Do you have the patent in front of you?

14 Q Are you asking me if I have a copy of
15 the '644 Patent in front of me?

16 A Correct.

17 Q I do, but my question to you is what is
18 IPICS?

19 A Of course, I'm going to answer you, but
20 you know, in order to answer it would be
21 great if you'd be so kind and move to
22 Figure 1.

1 And basically IPICS is a collection,
2 it's a system that includes routing
3 capabilities, includes the -- the media
4 server, includes the management center, it
5 includes some applications that may be
6 running on IP phones. Includes any
7 communication modality that- until IPICS was
8 not able to communicate with everyone.
9 Includes some software that ran on PCs, so
10 some of the components is basically what
11 Figure 1, of the application, is.

12 So I hope that it's okay that I ask for
13 everything in front of you because I want to
14 make reference to it to answer the question.

15 Q Sure. That's helpful, thank you.

16 A couple follow-ups.

17 First, IPICS predated the invention of
18 the '644 Patent; is that correct?

19 A That's correct.

20 Q If you look at Figure 1, can you point
21 to --

22 A I'm sorry, I'd like to correct my answer

1 if its okay.

2 Q Please.

3 A IPICS is umbrella. It's an umbrella
4 name. It's almost like iPhone, okay. So one
5 cannot say that iPhone predated one or
6 another patent of Apple. Okay. Some
7 versions of iPhone predated a specific date,
8 some came after that date. So I would like
9 to correct my answer to some version of IPICS
10 predated the invention. Some others may have
11 come after that, may for sure, came after
12 that.

13 Q Let's focus on the IPICS version 1.0,
14 that predated the invention of the '644
15 Patent, correct?

16 A I don't have the dates in front of me,
17 so I trust that you checked it, so it's not I
18 trust that this is the case. I don't have
19 the dates in front of me.

20 Q Certainly when you were working to
21 invent the '644 Patent a version of IPICS
22 existed, correct?

1 MS. LEGAARD: Object to form.

2 A I believe that yes, that I would like to
3 make very clear distinction because I swore
4 to say the truth and only the truth, I'm
5 trying to be very careful. I believe that
6 yes, but I think that if I find later that
7 it's not the case, I mean it's concrete
8 dates. You know, it's not what I say, what I
9 don't say. The patent has a date, the
10 release has a date. The patent of date is
11 clear in front of me. The release, the
12 specific release dates of IPICS and the
13 content of each one of them, I honestly do
14 not remember.

15 Q Okay. If you look back at Figure 1 of
16 the '644 Patent, can you point me to what
17 components of Figure 1, were present in
18 IPICS?

19 MS. LEGAARD: Object to form.

20 A What was present?

21 Q Correct.

22 A So what components were present, so

1 IPICS one must have -- it's part of router,
2 router was definitely there. There was a
3 media server, but you know, what features the
4 media server had at the time, the UMS, the
5 universal media server, what feature it had
6 and what it did not have at the time, it's
7 cell phone model each release you put more
8 things, so management center. I'm sure we
9 had a management center because we had to
10 manage the system, what features were exactly
11 implemented, I cannot tell you.

12 Phone systems of course, there were
13 phone systems. We developed numerous things
14 on the browser of the phone. What was
15 developed at the time or not, I cannot
16 recall.

17 Q Let's just take through a couple of
18 those. Looking at Figure 1, you think that
19 IPICS 1 had UMS on the 34?

20 MS. LEGAARD: Object to form.

21 A Okay. Did it have a media server, yeah,
22 I mean, it dealt with media, so I'm sure that

1 it had a media server. What the media server
2 did, yeah, so I can say for sure and this
3 is -- I can very say for sure, the media
4 server had conferencing capability. And
5 that's a bit -- so my, okay, so the
6 procedures keeps coming up and down.

7 So yeah, the media server had a
8 conferencing capabilities. What other
9 capabilities it has, I do not recall, if any
10 at all.

11 Q Okay. And that's fine. Not a memory
12 test.

13 To your knowledge did IPICS 1, have an
14 RMS as depicted in Element 30, in Figure 1?

15 A Directly it was, the router was there,
16 it's a key thing.

17 Q I think you said it also would have
18 necessarily had a management server depicted
19 in 38, in Figure 1?

20 A Every system has to be configured
21 somehow, so I'm sure there was a management
22 center.

1 Q What about server 14, which includes a
2 server administration console, did IPICS 1
3 have that as well?

4 MS. LEGAARD: Objection to form.

5 A Server 14.

6 Yeah, a console port, yes.

7 But again, not the way it is depicted
8 here. For sure not the way it is depicted
9 here because now when I'm looking to the
10 server 14, I see, for example, a policy
11 engine, policy engine for sure was not part
12 of the first operational view, I don't
13 remember, but you know, the simple
14 administration, yes, you know, one needs to
15 be able to log into a system, and yeah.

16 Q Okay. Did the invention of the '644
17 Patent involve any new hardware?

18 MS. LEGAARD: Object to form.

19 A Did the invention have any new hardware?

20 I'm not sure I understand the question.

21 Go ahead and ask me and if it's okay I
22 would like to ask a question to clarify.

1 Q So earlier I asked you if you understood
2 that to get a patent on an invention that
3 invention has to be, among other things, new
4 and you agreed with that, right?

5 A No doubt.

6 Q What I'm trying to understand here is
7 what's new in '644 Patent invention as
8 compared to, for example, IPICS 1.0 and so my
9 follow-up question is, is there any new
10 hardware that was invented by the '644
11 Patent?

12 MS. LEGAARD: Same objection.

13 A So you have to teach me what you mean by
14 invention of new hardware, because for me
15 hardware is.

16 I say for someone who sees my résumé is
17 in front of you, I used the run the hardware
18 organization at Simmons. Hardware for me is
19 things that ranges from the chasse in which
20 the system is in, new printed circuit boards
21 that are in. New A6 that are in. Use of --
22 when we build new hardware, yes, at times we

1 design new ASIC, but otherwise used
2 off-the-shelf components. Whether this is I6
3 resistors, capacitors, whatever. I would
4 still view things that when you build a
5 system, you may go forward and use
6 off-the-shelf CPU and memory that comes from
7 other vendors, yet when you put in your
8 system, in my opinion, it is still a new
9 system albeit it uses all of the
10 off-the-shelf components.

11 So I'm a little bit at loss to the
12 question because we -- if you ask me did we
13 have to develop a new ASIC, the answer is no,
14 we did not develop a new ASIC for that. But
15 then for any ASIC, you know, the ASIC that
16 you develop or the FPGA that you use, you can
17 always do it, if the speed is not needed I
18 can always do it in software using existing
19 CPUs. I'm a little bit kind of lost with
20 what you said.

21 Whether the invention required new
22 hardware, because whatever is done in ASIC

1 today, I can always or quite often it's first
2 developed on top of existing CPUs, just new
3 software modules. And I'm not sure how to
4 answer that question.

5 Q Understood. Just for a record, ASIC and
6 FPGA, correct?

7 A That's correct.

8 Q Why don't we take a look at the -- you
9 know before that, did you prepare for today's
10 deposition?

11 A Yeah.

12 Q What did you do to prepare?

13 A I was given a collection of documents by
14 Claire, who sits here. She asked me to
15 review them, I did.

16 Q Which documents?

17 A She gave me actually, let me just bring
18 those - of course the document itself, the
19 '664, I think, the patent, she gave me a copy
20 of my declaration. And she gave me a copy of
21 another document that basically the attorneys
22 wrote based on my declaration, I don't

1 remember the name of the document and I don't
2 have it here in front of me.

3 Q I just want to make sure I got that and
4 I'll let you continue your answer.

5 You said that they gave you another
6 document that the attorney's wrote that's
7 based on your declaration?

8 A Can I ask the attorney for the name of
9 this document? Claire sits here, she can
10 say.

11 Q I think maybe we can address this off
12 the record at a different time, but you're
13 not aware of what that document is sitting
14 here right now?

15 A I believe that attorneys submitted, I
16 don't know if it's the petition or what.

17 Q Patent response, is that what you're
18 talking about?

19 A Based on my technical input to them they
20 took it and set into legalese with all kind
21 of words that we don't use usually. So she
22 wanted me to read that stuff.

1 Q Okay. Understood. Please continue with
2 your list of documents.

3 A So this is all that I read.

4 Q What about the references that you talk
5 about in your declaration, did you review
6 those as well?

7 A I reviewed them when I read the
8 declaration.

9 Q Did you meet with your lawyers to
10 prepare for today's deposition?

11 A I did.

12 Q How long did you meet for?

13 A We met yesterday.

14 Q For how long?

15 A Specifically seven hours.

16 Q Okay. Other than yesterday, did you
17 meet to prepare for today's deposition?

18 A We had a short meeting on Friday, one
19 hour.

20 Q Okay. Any other meetings?

21 A No. Just want to make sure in the
22 meeting yesterday Brenna was present. Brenna

1 was not present in the meeting on Friday.

2 Q Who was present on Friday?

3 A Claire was there.

4 Q Anyone else?

5 A I'd have to go to my notes, I'm not very
6 good with names, but I'm sure Claire will
7 give you the names of her peers.

8 Q To your recollection, was there another
9 individual present?

10 A Yeah, yeah.

11 Q You just don't recall the name?

12 A I just don't recall the names, yeah.

13 Q How many individuals were present?

14 A I think we were three, four people,
15 yeah. But again, Claire is here if you want
16 to answer and ask Claire I don't know.

17 Q Understood. You're the one in the hot
18 seat today, Doctor, so I'm going to ask you.

19 A Yeah, I'm not really a people person
20 that takes note of these things, you know.

21 Q Yeah, understood. On you're meeting on,
22 after Friday, the meeting after that, who was

1 present at that meeting?

2 A In the meeting yesterday there was
3 Claire, was Jason there? I think Jason was
4 there, Claire, and Brenna.

5 Q Okay. All right. Were any nonlawyers
6 present at any of those meetings?

7 A I'm sorry?

8 Q Were any nonlawyers present at those
9 meetings, other than yourself?

10 A There was the guy who brought lunch, but
11 other than that, no.

12 Q Okay. How many times have you been
13 deposed before?

14 A I was deposed with you before, with your
15 company, a few months ago. I don't remember
16 the date, but I'm sure you guys have it.

17 Q Yeah, so we'll get to that in a minute.
18 I'm asking for a total number of times
19 you've been deposed.

20 A You mean not related to this case?

21 Q Yes.

22 A So a few. I don't remember the number,

1 the specifics.

2 Q Okay. You mentioned at your prior
3 deposition between the same parties that
4 happened several months ago.

5 Since that deposition, have you been
6 deposed in any other proceeding?

7 A No. I was not.

8 Q All right. Let's take a look back at
9 the 101 patent, Exhibit 1001. And I'd like
10 you to walk me through this and I'd like you
11 to help me understand it.

12 If we could start on Column 1.

13 A Please, bear with me.

14 Q Sure.

15 There's a big header there that says,
16 "Background of the invention."

17 Do you see that?

18 A This is correct.

19 Q And starting at around Line 33, it says:

20 "Typically the management center
21 supports a plurality of channels where
22 less important channels are rendered to

1 one ear and the channels that are more
2 important are rendered to the other
3 year."

4 Do you see that?

5 A That's correct.

6 Q What is a "management center"?

7 A Basically, a dispatcher -- a dispatcher
8 that basically -- he's kind of the big
9 brother who looks over many operations, like,
10 for example, FEMA now for the storm on the
11 east coast. They may have some people who
12 are supplying food, people who are rescuing
13 people from rivers, people who are policing,
14 people who are firefighters, whatever, PG&E
15 equivalent, which is coming from the local
16 power company, some other utilities.

17 And someone needs to coordinate between
18 all of them. So someone sits in the control
19 center listening to different groups of
20 radio; police can be on Channel 5,
21 firefighters can be on 17, or God knows what,
22 utilities can be on different band

1 altogether.

2 And someone sits and basically when he
3 hears that police wants to enter a certain
4 area, he may, you know, get on the other
5 metric of the utilities and ask them, you
6 know, from an electricity point of view, is
7 the area safe, and kind of, basically, move
8 resources and coordinate.

9 So that's kind of the management center.

10 Q Okay. Great.

11 So this sentence that we just read also
12 uses the term "channels." And I think you
13 used that in your answer, as well.

14 My question to you is: What does
15 "channels" mean here?

16 A Yeah, so channel, in my mind, is
17 basically a connection that facilitates
18 communication between various entities that
19 are members that have access to these
20 channels.

21 Q Okay.

22 A Actually, you know, in some ways,

1 channel could be viewed -- it's known, but
2 could be viewed in similarity to maybe like a
3 conference room, that when we're in a
4 conference, I can say all of us on channel
5 number so and so, because we are all
6 communicating in some way, albeit that's not
7 necessarily what the radio with which the
8 talk is going to be.

9 But it has some elements of it, yes.

10 Q Management centers predated the '644
11 Patent, right?

12 A I'm sorry?

13 Q Management centers predated the '644
14 Patent, right?

15 MS. LEGAARD: Objection to form.

16 A You know, I would never make such bold
17 statement like what you said. I would know
18 it, but I think it -- it has some
19 presumption, in your statement, that I will
20 not use. The way that I would put this
21 statement is, specific features of management
22 center existed before, some other features

1 were developed after that.

2 Again, I give the example of iPhone. If
3 I say that, you know, iPhone predated
4 something it's one thing, but that's
5 meaningless, you know, some AI within iPhone
6 albeit, it's spelled "iPhone," did not
7 predate something. It's something new, but
8 some other features of iPhone existed there
9 before.

10 So management center is very broad
11 umbrella that keeps evolving. And the key
12 thing is the evolution and I'm totally with
13 you that one cannot patent the concept of the
14 management center, this is not what we're
15 doing. But one can definitely enhance those
16 new features, and those new features, of
17 course, by the name "new" are new and if they
18 are innovative, are patentable.

19 Q Okay. Great.

20 A Again --

21 Q That was great. Thank you.

22 A -- and I'm engineer. What's patentable

1 or not I leave to you, to the attorneys to
2 argue about.

3 Q I'd like to get on the same page here,
4 Doctor. I do have limited time today, right?
5 And I'm trying to keep my questions focused.
6 I would really appreciate it if you listened
7 carefully and answered only my questions.
8 And, again, if you have more to say, you'll
9 have an opportunity to with your attorneys as
10 well. I appreciate that.

11 Let me move on to my next question which
12 is: Channels predated the '644 Patent,
13 right?

14 MS. LEGAARD: Objection to form.

15 A Channels, yeah. I mean, the Panama
16 Channel was done long before this patent.

17 Q Right. And in this sentence that we
18 just read on Column 1, Lines 33 to 6, it
19 says, "Less important channels are rendered
20 to one ear and channels that are more
21 important are rendered to other ear."

22 That's a functionality that existed

1 prior to the '644 Patent, correct?

2 MS. LEGAARD: Object to form.

3 A So normally I'm aware of the fact that,
4 you know, one, this was what Dolby sound
5 does, correct. You know, they would render
6 preassigned voice to one side versus another
7 side. So yes, yes.

8 Q Whose ear are we talking about here?

9 And I can rephrase that.

10 You look at the sentence we just read,
11 it talks about rendering to an ear, a right
12 ear -- I'm sorry -- one ear.

13 Whose ear is that?

14 A I mean, we're talking about people, so I
15 guess it says it's a person with those ear,
16 right.

17 Q Is it the dispatcher's ear?

18 A It's the person who sits at a dispatch
19 center, for example, yeah, so it is going to
20 be -- yeah, a dispatcher is a good example.

21 Q Okay. So that would be like wearing a
22 headset where you have two earphones and one

1 channel can go to one and another channel can
2 go to the other; is that right?

3 A That's one possibility, yeah. I can
4 have two microphones, yeah, correct.

5 Q Do you mean two speakers or what did you
6 mean by "two microphones"?

7 A Two speakers. I apologize. Thank you
8 for catching it.

9 Q Your point is it doesn't need to be a
10 headset, it can be a speaker on one side of
11 the desk and a speaker on the --

12 A Correct. And I, by the way, it doesn't
13 have to be two; it can have more than two. I
14 should say at least two.

15 Q Okay. If we look at the next line, Line
16 37, it says, "Universally, channels are
17 statically configured where the volume of
18 each channel can be manually adjusted by an
19 end user."

20 Do you see that?

21 A Correct.

22 Q And I believe that's consistent with

1 your prior answer, that prior to the '644
2 Patent, you could adjust the volume of
3 different channels manually, correct?

4 A That's correct.

5 Q Who is the end user in that sentence, on
6 Lines 37 to 38, is that also the dispatcher?

7 A In one embodiment, yeah. A person who
8 sits at the management center is usually a
9 dispatcher, I think that this is how they
10 call it.

11 Q Okay. So then it would be fair to say
12 that the person who sits at the management
13 center is the person who, prior to the '644
14 Patent, manually adjusted the volume of the
15 channels?

16 A That's correct.

17 Q Okay.

18 A That's correct.

19 Q As I understand from the declaration,
20 one of the components of your invention is
21 than when an alert is received in one of the
22 media strains, priority associated with that

1 media stream is elevated; is that right?

2 A Give me just one second.

3 Can you please restate the words of your
4 question?

5 Q Yeah, one aspect of your invention in
6 the '644 Patent is that when an alert is
7 received in one of the media streams the
8 priority associated with that media stream is
9 elevated; is that correct?

10 A This is correct. This is very correct.

11 Q All right. Does the '644 Patent provide
12 any examples of elevating the priority of a
13 media stream?

14 A I believe it does.

15 Q Can you give me -- would you please
16 explain some of those examples for me.

17 A So one example is going to be if the
18 plurality, if I'm listening now and the
19 police and the fire and the utilities are
20 talking at the same time, and one deems that
21 an electrician got electrocuted and we need
22 to elevate that channel, the police and the

1 fire volumes are going to be taken down so we
2 can hear better the discussion on the
3 utility.

4 Another possibility is we're going to
5 increase the volume of utility. Another
6 possibility is going to be if the procedure
7 calls, for example, that sound that comes
8 from the front is the highest priority for
9 the person, then we're going to stream out of
10 the media server two media streams with
11 equivalent phase and the perception of the
12 dispatcher is going to be as if the utility
13 is coming from the front, while with the
14 other police and fire will add a certain
15 phase shift, and as such, it would change the
16 perception of the end user, as to the
17 direction from which the audio, the specific
18 audio is coming from.

19 Q Okay. Let me just take one of the
20 examples you gave me, which is, where you
21 said increasing the volume.

22 You with me so far?

1 A I'm with you.

2 Q Okay. So in that example, what is the
3 elevation of priority? Is it the increase in
4 volume?

5 MS. LEGAARD: Object to form.

6 A Yeah, so needless to say, that -- so
7 first, you know, when you're talking about
8 elevation, the elevation is relative to the
9 environment, correct? So if everyone is
10 sitting around the room here, and I'm
11 sitting, I'm not elevated as compared to
12 them. If they're sitting on their chairs and
13 I sit on the table relative to them, then I'm
14 elevated.

15 So yes, the thing that's relative to the
16 other one, I'm changing my volume or my
17 height, or alternatively, you know, I can
18 elevate myself by me staying on the chair and
19 asking them to stay on the floor. That also
20 elevates me, not by actually acting on me but
21 acting on them, because I did not move but
22 they were moved to the floor; these are two

1 examples of elevation.

2 Q Understood. And if you don't mind, take
3 a look at the abstract of the '644 Patent on
4 the very first page.

5 A Please bear with me while I go there.

6 Q About half way down on the abstract
7 there's a sentence that says, "Elevating the
8 priority can include," let me know when
9 you're ready.

10 A Oh, so you mean the next one, "Elevating
11 the priority can include."

12 Okay. I'm with you.

13 Q Okay. It gives a few examples here, it
14 says, "Elevating the priority can include
15 increasing the volume of the media stream
16 receiving the alert."

17 That's the first one, right?

18 A Um-hmm.

19 Q "It can also include changing a spacial
20 direction for rendering the media stream
21 receiving the alert."

22 That's the second one, right?

1 A Correct.

2 Q What does "changing the spacial
3 direction" mean?

4 A So there is a certain phenomena that our
5 brain is able to detect from what direction
6 the person talks to you. The way the brain
7 does it, and I'm not a neurologist, but -- so
8 this is my engineering understanding is,
9 given the fact -- Brenna sits to my right,
10 for example, so if Brenna were to say
11 something, her voice is going to come to my
12 ear, the wave, the voice wave is going to
13 come to my right ear first, with a short
14 delay after that, it's going to come to the
15 left ear, and as such, the brain -- okay.

16 It's a revelation of God made us this
17 way, your choice.

18 What happens is the brain says, okay,
19 because I heard it in the right ear before I
20 heard it in the left ear, I should assume
21 that Brenna sits on the right side. If
22 someone were to sit on the other side, the

1 left ear is going to get the same signal
2 slightly before the right ear is going to get
3 it. So you can trick a certain voice, okay.

4 So, for example, going back to Figure 1,
5 the media stream that comes from a radio is a
6 single media stream, needless to say. So
7 someone talks into a single microphone that
8 they have, that's how push-to-talk radio
9 works. And we would get a single-media
10 stream. Then it goes to the universal media
11 server, the universal media server, if
12 detecting the alarm, whatever, will be able
13 to split the single voice into two different
14 media streams, but the two media stream is
15 going to inject a certain delay and present
16 one before the other.

17 And the presentation is going to go to
18 the end device, to the dispatch center here,
19 that you're discussing. So that the end
20 device as it renders, now two different media
21 streams, to two different ears or more than
22 two, to plurality of speakers, the person is

1 going to be under the illusion as if the
2 sound came from one direction versus another
3 direction.

4 Q Okay. Understood.

5 A Is this good enough? Should I say more?
6 Did I say too much?

7 Q No. That's great. Thank you.

8 Let's kick through the rest of this in
9 the abstract. The next one on the list, for
10 what satisfies elevating a priority is,
11 "Rendering the media stream receiving an
12 alert from priority spatial direction."

13 Do you see that?

14 A Yeah.

15 Q What is a "priority spatial direction"?

16 A Yeah, so this one goes more to
17 procedures, which means we can agree that if
18 you hear anyone whispering to your right ear,
19 that's the highest priority. We can agree
20 that if you whisper to my left ear or if you
21 talk to me from the front, it's going to be
22 the highest priority.

1 So once we agree on what's the
2 procedure, that spatial direction when it's
3 coming from the front, coming from the right,
4 coming from the left, becomes the high
5 priority. It's no issue of procedural
6 agreement.

7 And by the way, safety and security,
8 because it's depending on life, is extremely
9 high procedural operation.

10 Q Okay. Right.

11 Last one that satisfies the elevating
12 the priority is, "Identifying a primary
13 channel and rendering the alert message to
14 the primary channel."

15 Do you see that one?

16 A (Reading from document).

17 Yeah, so in this junction, now I can
18 view the spatial directions as different
19 channels, correct.

20 There is a channel that I had between me
21 and Brenna, who sits on my right, so I can
22 render the voice for this channel. You know,

1 there's no one sitting on my left, but there
2 could be, but there would be a certain
3 channel communication via the air, and I feel
4 this is still talking about the spatial
5 channel that is basically --

6 Q I'm sorry. Are you saying identifying a
7 primary channel is still talking about
8 spatial channels; is that your testimony?

9 A So we're talking about changing the
10 spatial direction -- easy way to increase the
11 size here, okay.

12 Sorry. Okay. Now I can read better.

13 Changing a spatial direction for
14 rendering the media stream receiving the
15 alert, okay. So the changing.

16 Rendering a media stream receiving the
17 alert to priority spatial direction,
18 identifying a primary channel and rendering
19 the alert message to the primary channel,
20 that's one possibility of doing it.

21 Another possibility, but I'll have to
22 get you to into the IPICS, one possibility

1 is, for example, if I have a screen, I can
2 have, you know, people usually talk behind.
3 I'm inventing on the fly, but I'm saying
4 that's one possibility because this statement
5 is without limitation. I can always have one
6 channel in the middle and say this is the
7 priority channel. If anyone -- if there is
8 anything there, move it to this specific
9 channel.

10 Q Okay. So if an alert comes in on
11 another channel, what you would do is you
12 would render that to the primary channel in
13 the middle?

14 A Well, I will say that -- but again, this
15 is one challenge that I have because the word
16 "channel" is very broad. So it is --
17 basically the way it is rendered to the end
18 user, it's not necessarily that if you are
19 transmitting an alert, that alert has to move
20 from Channel 3 to Channel 5, okay. You still
21 saying in this aspect on the same channel,
22 but this is the channel in which it is

1 delivered to the end user, which is the
2 closest.

3 We are not doing it by anything in the
4 end device. We're just giving it to the end
5 device in a way that it will render to the
6 user in a way that the user will be able to
7 recognize it, that it's different.

8 Q Right. So if an alert comes in on
9 Channel 3 and Channel 5 has been determined
10 to be the priority channel, the system would
11 then render --

12 A No.

13 Q -- the alert that came in on
14 Channel 3 --

15 A I don't think it will ever work like
16 that. I mean, you could do it. I don't
17 think it'll be a good system because it may
18 be very confusing. I mean, if I know that
19 the utility people are on Channel 3, then if
20 someone gets electrocuted, I don't want to
21 get, you know, cry for help on Channel 5 and
22 now I don't know, you know, did it come from

1 the utility, did it come from the police, you
2 know.

3 A good system must preserve -- if it
4 came on Channel 3, on the radio Channel 3, if
5 I were to design the system, it will stay on
6 Channel 3, yeah.

7 MS. LEGAARD: I think we've been going
8 about an hour.

9 MR. KNIERIM: Yeah, let's take a
10 break, and we'll get back into this
11 when we pick up.

12 (Whereupon, a recess was taken
13 from 1:34 p.m. until 1:44 p.m.)

14 MR. KNIERIM: Back on the record.

15 Q All right. Dr. Shaffer, if you wouldn't
16 mind, please turn to Column 2 of the '664
17 Patent.

18 A Column 2. Give me one second.

19 I'm at Column 2, 50 -- 47, starting with
20 "Note that"?

21 Q Correct. Why don't you just take a
22 minute to the read that to yourself.

1 A Okay.

2 Q My question to you is: is this
3 embodiment excluded by the claims of the '664
4 Patent?

5 A I'm not sure that I understand the
6 question.

7 Q Would you like me to repeat the
8 question?

9 A No, no. I'd like to explain the
10 question in the different words.

11 So what you're talking here is a
12 description of Figure 1, correct?

13 Q Correct.

14 A And Figure 1 has different elements,
15 whether this is 40, 50 whatever, okay?

16 Q Correct.

17 A And it says that elements 40, 50 -- use
18 maybe -- get another copy so I can read the
19 text and then figure at the same time. So
20 40, I see, it's, like, handheld devices.

21 So "while element 24 is an example of
22 end-user equipment," so 24 -- okay. And the

1 question is -- what do you mean by excluding
2 things? I mean, this is the system that we
3 are describing within reach. It's the
4 environment in which the invention takes
5 place. So, I mean, if I exclude some of the
6 system, then there is no system. I don't
7 understand the question. I'm sorry.

8 Q Right. And I'll try my best to
9 rephrase. But I'm -- I think that's what I'm
10 trying to get at, right.

11 In your opinion, the claims are
12 completely consistent with this portion of
13 the specification on Column 2, Lines 47
14 through 58; is that right?

15 A I mean, that's a description of the
16 invention, so this is part of what invention
17 is.

18 Q Are there any embodiments in the '664
19 Patent specification that are not covered by
20 the claims?

21 MS. LEGAARD: Object to form.

22 A I'm not sure that I understand the

1 question. I'm sorry.

2 Q What don't you understand about it?

3 A So there's a patent description, and the
4 description of the patent is the description
5 of the patent. Now you're asking me whether
6 some of the description of the patent should
7 be excluded and it will still be a patent.
8 Well, had it been excluded, it will not be
9 the patent. I don't understand it.

10 I mean, if I take a book, and I said
11 that this is the War and Peace, and I take
12 Chapter 17, and you ask me is still the War
13 and Peace, I'm going to say, well, if you
14 take Chapter 17 of War and Peace, it's no
15 longer War and Peace book. So I don't
16 understand where you're heading.

17 Q I'm going to try to help you out.

18 You understand that the patent can
19 describe various embodiments, correct?

20 A Correct.

21 Q And you understand that the patentee
22 need not claim all of those embodiments that

1 are disclosed in the patent, correct?

2 A That's correct.

3 Q A patentee may decide to draft a claim
4 that covers Embodiment 1 but not
5 Embodiment 2.

6 Do you understand that?

7 A That's not how I would usually write a
8 patent. What I would usually do is -- and
9 I'm not sure -- again, you know, I know that
10 you're asking me for -- to be short, but I
11 don't know how to answer in a short way. I
12 just want --

13 Q Let me try to help you out again. I'm
14 not asking if you would do it. I'm just
15 asking that if you understand that on a
16 theoretical level if one so chose, they could
17 draft claims that cover only certain
18 embodiments of the patent and not others.

19 Do you understand that?

20 A I think that this is possible. I mean,
21 I can take, you know -- not that I'm
22 proposing anything -- take this patent and

1 erase, you know, three quarters of the
2 patents and submit it to the patent office.
3 I mean, that's kind of between the inventor
4 and the attorney.

5 Q Right. And what I just want to
6 understand from you is for the '664 Patent,
7 did you exclude any embodiments with the
8 claims of the '664 Patent?

9 MS. LEGAARD: Object to form.

10 A So I am not sure that at the time that
11 the patent was written that I was involved in
12 excluding or not excluding, and I think that
13 goes to my previous testimony that IPICS was
14 really, like, 24/7 job. So I focused mainly
15 on my work. I disclosed information to
16 attorneys. I read it. But I'm not sure how
17 much attention I paid at that time, excluding
18 or not excluding things.

19 Q You filed an oath for this patent,
20 correct?

21 A I filed an oath that I read it and I
22 approved it, correct.

1 Q Right. You swore to the patent office
2 that you reviewed and understand the contents
3 of the specification, including use, correct?

4 A Correct.

5 Q Okay. So let me ask again: Do the
6 claims of the '664 Patent exclude any
7 embodiments that are disclosed in the
8 specification?

9 MS. LEGAARD: Object to form.

10 A I'll have to go and read it once again
11 very carefully as to each one of the
12 embodiments and ask myself the question, had
13 I been writing it today, based on much
14 broader understanding, by the way, about the
15 patent process because, you know, for the
16 last over ten years, I've been really
17 involved very heavily with creating patent
18 portfolios for companies. So I'm by far more
19 aware of the legalese these days than what I
20 was aware at that time.

21 So I will have to go and read it very
22 carefully and ask the question, "Shmuel, had

1 you been writing it today, would you add some
2 more claims?" But I'm not ready to answer
3 that question now.

4 Q Okay. Well, we will go through one by
5 one, and we will ask you that question. But
6 just to be clear, I'm not asking you if today
7 you would add more claims; I'm asking you if
8 the claims of the '664 Patent, as they exist,
9 exclude any embodiments in the '664 Patent.

10 And let's start with Column 2, Lines 47
11 through 58. Do the claims of the '664 Patent
12 exclude the embodiment disclosed in that
13 section?

14 MS. LEGAARD: Object to form.

15 A Okay. We're talking about 47 through
16 52?

17 Q Fifty-eight.

18 A Oh, 58.

19 So basically what you're saying is are
20 there other -- I'm trying to rephrase your
21 question and not to put words in your mouth
22 but to just to be sure I understand it.

1 So you're asking me had I been writing
2 today claims, would I write more claims based
3 on that one?

4 Q No. No, my question is do the claims of
5 the '664 Patent exclude the embodiment
6 disclosed in Column 2, Lines 47 through 58?

7 MS. LEGAARD: Object to form.

8 A Can you give me an example of how a
9 claim excludes something? Because, again,
10 you know, this exclusion stuff is more
11 legalese that I'm -- I'm not sure I'm with
12 you, and I apologize for that, okay. I'm a
13 nerd; I'm not an attorney.

14 Q Yeah, does the claim -- do the claims in
15 the '664 Patent cover the embodiment in
16 Column 2, Lines 47 through 58?

17 MS. LEGAARD: Object to form.

18 A Do they cover? I mean -- okay. So
19 these lines provide collection of components,
20 that this components, when enabled in a
21 specific way, okay, which I believe was
22 innovative; they will deliver to end user a

1 certain set of features that I believe was
2 not existing at that time. And as such, they
3 basically describe the environment.

4 Because -- you understand it better than
5 I do, so, you know, please correct me because
6 I'm moving now to legalese -- in order to be
7 able to claim a system, I need to describe a
8 system. And to describe a system, I need to
9 describe the components of the system. So
10 this is what we are doing here. So I'm not
11 so sure about exclusion. It's a new term for
12 me which I'm not familiar with, so.

13 Q Okay. Let's take some examples. In
14 this portion of Column 2, there's reference
15 to end-user devices at 40 and 50, right?

16 A Correct.

17 Q Those could be end points in the claim,
18 right?

19 A Correct. Like, for example, 40 are
20 push-to-talk radios. So by no means we claim
21 we invented push-to-talk radios, but that's
22 part of the overall system.

1 Q Right, right. In other words, the claim
2 does not exclude using push-to-talk radios
3 like those in 40 as the end point, correct?

4 A I mean, it includes it specifically. It
5 is part of it, so.

6 Q Right. And that's what I'm trying to
7 understand here. So let's --

8 A But -- I'm sorry, but it does mean that
9 it must be there. You know, it's IPICS
10 environment. So, for example, I can have
11 environment in which there is no IP phone and
12 it still operates.

13 Q Understood.

14 Okay. And then it says elements 40 and
15 50 are examples of field equipment and
16 element 24 is an example of end-user
17 equipment, which resides in the control
18 center.

19 Do you see that?

20 A Yes. Correct.

21 Q And that element 24 could also be an end
22 point in the claim, correct?

1 A No, no, no. The element 24 includes two
2 different things. So I think that we need to
3 define what "end point" is, correct?

4 Q Yeah. Let's look at the next sentence.
5 It says:

6 "These devices, herein referred
7 to as 'endpoint' as used herein in this
8 document, may include VHS radios, UHF
9 radios, PSTN telephones, IP phones,
10 push-to-talk telephones, cellular
11 telephones, laptops, desktop computers,
12 personal digital assistants, or any
13 other suitable end-user device capable
14 of exchanging audio or data in the
15 architecture."

16 Do you see that?

17 A Correct.

18 Q Okay. And that informs the previous
19 sentences that 40, 50 and 24 are endpoints,
20 correct?

21 A That 40, 50 and?

22 Q Twenty-four.

1 A Yeah, so 24 includes two things,
2 correct? It includes, for example, a server,
3 the management center, okay. So the server
4 itself, I would not call it end point, okay.
5 And the end point is the screen, maybe, that
6 the user listen -- is using. The end point
7 may be a speaker or the microphone that the
8 user is using. Servers usually would not be
9 called end points.

10 Q Okay. Understood.

11 So your opinion is the server is not an
12 end point, but the screen could be an end
13 point or the speaker could be an end point or
14 the microphone could be an end point?

15 A Yes, yes.

16 Q If you keep reading, and you can read as
17 much for context as you wish, but there's the
18 next sentence that starts "FIG 2A is a
19 simplified schematic diagram of display 60."

20 Do you see that?

21 A Yes. Figure 2A. Okay.

22 Q And you can reference Figure 2A as well

1 if you like, just to take a look at it.

2 Is my understanding correct that this
3 display is part of the management center 38,
4 as depicted in Figure 1?

5 A Where do you get 38? I'm sorry.

6 Q Yeah, so if you take a look at Figure

7 2A. Are you with me so far?

8 A Yes.

9 Q You'll see here there's a depiction of a
10 screen, right?

11 A Yes.

12 Q Is that screen displayed on
13 element 38 --

14 A Yeah, correct. By the way, it doesn't
15 have to be. It could be, correct.

16 Q Where else could it be displayed?

17 A So portions of it or different version
18 of that could be displayed, for example, on
19 the Cisco IP phone. Cisco IP phone has a
20 screen. The screen has a browser. And one
21 possibility is to utilize that browser as a
22 simplified -- simplified management center

1 screen.

2 Q Okay. So the -- this screen could run
3 on, for example, a Cisco IP phone that has a
4 screen in the network.

5 Is that what you're saying?

6 A Yeah, like, for example, the 36 on the
7 left. So the 36 on the left is attempting to
8 depict some like the Cisco IP phone. And,
9 again, when I say "Cisco IP phone," Cisco IP
10 phone has a whole family of IP phone. I'm
11 talking about the member of the family that
12 has a large screen and with a simplified
13 browser.

14 Q Sure. I'm sorry, what figure are you
15 looking at that shows 36 on the left?

16 A I'm sorry. Figure one. I apologize.
17 Figure one has -- to the right of 38, there
18 is 36.

19 Q Oh, I see it. Perfect. Thank you.

20 A And it has the Cisco -- I mean, it has
21 an IP phone, not to say Cisco, but what I'm
22 saying that -- for example, Cisco IP phone

1 was one of the places that we worked on.

2 Q Okay. That references number 36, "Phone
3 Client," is an end point, correct?

4 A Definitely.

5 Q Does this Figure 2A look at all like the
6 interface of the IPICS PNC?

7 MS. LEGAARD: Object to form.

8 A Sure. It has some elements that what I
9 think it looks exactly the same or not, I
10 honestly cannot remember now how the screen
11 looked at the time.

12 Q The IPICS PNC screen have different
13 squares for different talk groups?

14 A They definitely had different areas for
15 different, yeah.

16 Q If you look at element number 62 in
17 Figure 2A.

18 Do you see that?

19 A Right.

20 Q What is that?

21 A Rather than me telling you what it is,
22 let me just go search what it is 62 and I'll

1 tell you.

2 So it says it also include the volume
3 control 62 and each of the channels and have
4 its own volume adjustment.

5 Q So reference No. 62 is pointing to a
6 volume control?

7 A This is what the thing says, yes, and
8 I'm at Column 3, Line 34.

9 Q Perfect.

10 And do you recall if Cisco, IPICS, PNC
11 included a volume control like 62?

12 A I don't recall. I believe that, yes,
13 but the difference between what I'm
14 testifying on and I believe, so this one I
15 believe that, yes, if your definite answer, I
16 think in the previous deposition there was a
17 document of the PNC we can order.

18 Q You can put IPICS to the side for
19 now and I'm just going to ask you about the
20 patent.

21 What does the volume control 62 do and
22 what is it used for?

1 A So I'll refer you back to the patent
2 itself, Column 3, it says there, Figure 2,
3 also includes volume control 62 and each of
4 the channels can have its own volume
5 adjustment. Basically says, if I'm the
6 dispatcher and I would like to hear the
7 firefighter louder, I will go and select the
8 firefighter -- we refer to VTG or channel
9 whatever, virtual talk group and I will
10 increase the volume of that thing, and as a
11 result when a person from that specific group
12 speaks, I'll hear them louder than the other
13 people.

14 Q And that's a manual process, correct?

15 A That's a manual process correct,
16 increase use, the plus, decrease use, the
17 minus.

18 Q If you look at Column 3, Line 15, it
19 says:

20 "PTT devices, such as those shown
21 in Figure 1 generally at 40 and 50, are
22 commonly used in safety and security

1 environments."

2 Do you see that?

3 A Correct.

4 Q And just to clarify, these PTT devices
5 are examples of end points, correct?

6 A Definitely.

7 Q If you look down a little bit further on
8 Line 19, it says, "Management center is an
9 example of a PTT device, which supports a
10 plurality of channels."

11 Do you see that?

12 A That's correct.

13 Q Management center 38 is also a PTT
14 device, correct?

15 A The management center can be a PTT
16 device, correct.

17 Which basically means that the
18 dispatcher can be a member of any of these
19 groups, he's not only passive listener, but
20 he has the push to talk capabilities, if he
21 requests the floor, if he gets the floor he
22 can talk to the team. It's a bidirectional

1 on beat not at the same time type of
2 communication.

3 Q The fact that management center has or
4 supports a plurality of channels means that
5 the dispatcher can hear audio from multiple
6 channels, correct?

7 A That's correct.

8 Q And sometimes the audio from those
9 channels might overlap, correct?

10 A That's correct.

11 Q Do field PTT devices typically support
12 a plurality of channels?

13 MS. LEGAARD: Object to form.

14 A Indeed field devices -- field devices
15 usually don't, they could with IPICS.

16 Q Okay.

17 A But you know, if you just ask me like
18 the most of the end point devices, like push
19 to talk that the average officer, policeman
20 in the field has good support, the single
21 channel at the time it can select three
22 channels, but it's a single channel at the

1 time, same for fire, same for utilities, et
2 cetera.

3 Q Understood. And thank you for the
4 clarification. Just so I understand it, PTT
5 devices in the field typically do not support
6 listening to multiple channels at the same
7 time, correct?

8 MS. LEGAARD: Object to form.

9 A So I will put in this way, usually until
10 IPICS, you're correct. With IPICS we're
11 changing some paradigms here.

12 Q Understood, understood.

13 Have you heard the term LMR?

14 A Land Mobile Radio.

15 Q Do LMR field devices have the capability
16 to listen to multiple channels at the same
17 time?

18 A Since you're asking the same question
19 again, I think I did not answer the previous
20 one properly. So I can explain it maybe
21 really properly. The way Motorola used them,
22 the answer would be no. The way IPICS used

1 them, I would say why not because I can
2 always go and use IPICS and create what we
3 use -- sorry, what we call VTG and the
4 terminology VTG is mentioned in the write-up.
5 Virtual talk group, I can take basically fire
6 and police, usually one is UHF, one is VHF.
7 They are totally different channels just
8 using the simple controller, they don't talk
9 to each other. We can take these two
10 different bands into the IPICS environment
11 and send them as a single stream. So now
12 even though you are utility person, if added
13 into the same virtual talk group you will be
14 able to hear police and fire and utility.

15 Q Understood.

16 A Yes. In the IPICS environment the
17 answer is yes, in Motorola the answer is no.

18 Q So for conventional LMR devices prior to
19 IPICS, the old ones, they would need to
20 receive a command for tuning to tune to the
21 correct frequency in order to receive
22 information, correct?

1 MS. LEGAARD: Object to form.

2 A If you're given the floor you'll be
3 given the ability to talk on channel five, so
4 it is not that someone tells the policeman I
5 mean, procedurally they're told what channel
6 they'll be and then the whole team before
7 they go to action move to channel seven, and
8 then the whole team for the rest of
9 communication channel seven.

10 Q If we go back to Column 3, Line 21.

11 A I'm with you.

12 Q Line 21 to 29, why don't you take a
13 minute to read that to yourself.

14 A The management center starting up to
15 what line.

16 Q 29.

17 A 29. Please bear with me.

18 Q Is this embodiment excluded by the
19 claims of the '664 Patent?

20 A No. So I'll answer it, I apologize if I
21 use more words than you want me to, but if
22 it's done in a manual way I don't think we

1 are claiming anything about manual way. But
2 if it is done automatically, yes, I think
3 that we have claims for that.

4 Q Okay. all right. Great.

5 We were talking earlier about spatial
6 direction and you gave an explanation about
7 the delay between a signal from one side and
8 the other, do you recall that?

9 A Correct.

10 Q The portion of the specification you
11 just read, it also uses the terms spatial
12 arrival directions and I wanted to understand
13 if that means that the audio is simply being
14 piped to one ear, either the right or the
15 left or something other than that?

16 A So it is piped to -- in one embodiment
17 it can be piped to one ear or to the other
18 ear. But the way that we describe it is I
19 think is left ear, right ear and is known
20 that it is coming from the right direction or
21 from the left direction by basically varying
22 the angle, and of course, the volume also is

1 another embodiment, but I don't think that's
2 what you're asking about now.

3 Q Yeah, and I think that's helpful. Let
4 me try to rephrase my question a little bit.

5 Rendering audio to the right ear as
6 opposed to the left ear is one example of
7 changing the spatial direction of the media
8 stream, correct?

9 MS. LEGAARD: Object to form.

10 A Okay, so we're talking about moving to
11 one ear versus the other ear and your
12 question is whether this is one form of what.

13 Q Let me start over, let me try to make it
14 easier.

15 Why don't we look at point No. 3 on
16 Column 8.

17 A Bear with me please. I'm with you.

18 Q And Claim 3 says, "Where in elevating a
19 priority comprises changing a spatial
20 direction for rendering the media stream
21 receiving the alert."

22 You with me so far?

1 A Correct, I'm with you.

2 Q My question is, is changing from the
3 left ear to the right ear one example of
4 changing the spatial direction for rendering
5 the media stream?

6 MS. LEGAARD: Object to form.

7 A I will not put this one in the same way
8 because for me the direction is based on
9 like, again, I go back to the specific
10 example, when Brenna talks to me now, okay, I
11 hear her voice almost at the same volume two
12 different ears in a specific delay and as
13 such I know that Brenna sits to my right,
14 okay. If I was to hear only in one ear,
15 okay, and since you ask, I'll give you more
16 detail and information, there is some that is
17 called the cocktail party impact or effect,
18 that people who lose hearing in one ear have
19 hard time distinguishing between a sound
20 arriving at two different -- like, if you're
21 in the cocktail party, if both of your ears
22 work your brain can decide Brenna is on my

1 right side, I want to listen only to her and
2 as of other sound that arrives not at the
3 same angle of arrival difference, I can
4 exclude them. But if I have only one ear, I
5 will not be able to tell the direction from
6 where Brenna voice is coming, correct.
7 Because regardless of where she sits, if I
8 deliver only to one ear I have no idea what
9 direction it's coming and it doesn't matter
10 if I lost right ear or left ear, I lose the
11 spatial capability. And as such on/off
12 operation, the way you describe it, I would
13 not describe it as rendering in different
14 direction. The spatial direction. I would
15 describe it as on/off. But it's not a
16 direction. For direction, the brain must get
17 two signals at different phase, again, that's
18 my understanding about band operation. By
19 the way, I do have full understanding about
20 the cocktail party syndrome, I can talk about
21 my peer dissertation in this element if you
22 want also.

1 Q That's okay for now. Let me just make
2 sure I understand your testimony. Your
3 opinion is that changing from the left ear to
4 the right ear is not an example of changing
5 the spatial direction for rendering a media
6 stream?

7 A That's correct because I'm stating that
8 once you reduce volume in one ear to zero you
9 are moving to off operation, it has nothing
10 to do with that. Because for direction one
11 must have two ears with almost the same
12 volume, some different volume, but the key
13 there in the direction is two ears getting
14 signal with different phase, must be.

15 Q Got it. And if we take a look down here
16 on Column 3.

17 A I'm sorry. Are you back Column 3 or
18 Claim 3?

19 Q Column 3.

20 A Can you let me just go there. It's not
21 my PC, I'm sorry, I'm not used to this PC.
22 I'm with you Column 3.

1 Q Line 39 through 45.

2 A Starting with the "for example."

3 Q Yes. And for your benefit and for your
4 reference, why don't you read the paragraph
5 starting on Line 30 to yourself all the way
6 down to Line 45, so you have the full
7 context.

8 A I'm with you.

9 Q So this paragraph provides an example of
10 a problem this can solve, right?

11 A It says, for example, so yeah, it is an
12 example.

13 Q Yeah, and in this example, what happens
14 is that the management center 38 is
15 configured to render to the right ear of the
16 dispatcher communication over a UHF radio
17 channel, right?

18 A Yeah.

19 Q And then the left ear is configured to
20 receive communication from a VHF channel,
21 right?

22 A Right.

1 Q Is this embodiment excluded by claims in
2 the '664 Patent?

3 MS. LEGAARD: Form.

4 A Is this excluded -- I think portions of
5 it are not excluded, the way I think about it
6 now could have been potentially one more
7 claim here, but I mean it's not in totality
8 excluded, but again, what I'm talking about
9 exclusion, what I interpret it that it is
10 almost like saying had I been writing this
11 patent today, would I write another claim.
12 So I probably would have squeezed another
13 claim out of it.

14 Q That's not my question. I'm not asking
15 you if you'd write another claim. I'm asking
16 you seeing it today, do the claims as they
17 exist in the '664 Patent exclude this
18 embodiment in Column 3, Lines 30 through 45.

19 MS. LEGAARD: Object to form.

20 A So again, you know, blame it on my poor
21 English of a new immigrant who came to this
22 country four years ago. But the notion of

1 exclusion is not really clear to me, so I'm
2 struggling with answering it. I'll say the
3 following, so in the example here, we have
4 yet another way to distinguish between one
5 signal and another signal and needless to
6 say, the brain knows when I hear some in one
7 ear only, it's different than I hear it only
8 in the other ear. But in listening in a
9 single ear does not provide spatial
10 impression for a person. So this is what I'm
11 trying to emphasize that for the brain to
12 interpret spatial direction and again some
13 will say an ear expert or a neurologist can
14 explain better, but you must get two signals
15 with a phase difference, this is how one gets
16 the spatial direction. If I hear in one ear
17 or not in another ear, I might be aware there
18 is a difference here, if our procedurals
19 thing said the right ear is high priority and
20 the left ear is low priority, the brain would
21 be able to be trained that this is one versus
22 the other, there is difference. But it's not

1 a spatial difference. Spatial according to
2 my understanding of the word spatial and the
3 brain operation must involve two signals, one
4 to the one ear and one to the other ear.

5 Q Understood. And I just want to point
6 out that you're talking about spatial
7 directions, which is in Claim 3, which is a
8 dependent claim, not required by Claim 1. So
9 let me rephrase my question and see if that
10 changes your answer.

11 Sitting here today, as the claims exist
12 in the '664 Patent and as Claim 1 exists in
13 the '664 Patent, does Claim 1 exclude the
14 embodiment in Column 3, Line 30 through 45?

15 MS. LEGAARD: Object to form.

16 A I totally don't understand the meaning
17 of this exclusion.

18 Q Does Claim 1 cover this embodiment?

19 A I'm sorry?

20 Q Does Claim 1 cover this embodiment on
21 Column 3, Lines 30 through 45?

22 A You're asking me legal questions. I'm

1 all ready to answer technical questions. So
2 I'm not so sure how to answer that.

3 Q Sitting here today, you can't answer
4 whether or not Claim 1 covers the embodiment
5 described in the specification at Column 3,
6 Lines 30 through 45?

7 A So what we're talking here is about
8 turning up volume. So turning up volume is
9 definitely something that Claim 1 covers.

10 Q Okay.

11 A Correct.

12 Again, I'll be surprised -- you're kind
13 of a little bit confusing me here so I
14 apologize. Let me just read this one.
15 Monitoring, receiving, elevating priority,
16 yeah, adjustment is made. And the adjustment
17 definitely includes the provisioning and the
18 provisioning is the volume, yeah, so yeah.
19 So is this what you're asking me whether it
20 covers, so you know, there is increasing in
21 volume, and yes, we are talking and claiming
22 the increase in volume.

1 Q Okay. I'm not trying to confuse you.
2 I'm just asking whether Claim 1 covers or
3 not. It sounds like you're saying it does,
4 am I right about that?

5 A Yeah, the increasing of the volume is
6 covered, yeah.

7 Q Okay.

8 A Again, I'm not saying you're
9 intentionally confusing me, I apologize if
10 this is what you understood, I'm just saying
11 that the exclusion concept for me, it is new,
12 okay. I can easily say now hundreds of
13 patents which are with my name. I work with
14 advising to startups of patents, this
15 exclusion of stuff is not terminology until
16 today I heard.

17 Q Okay. If you look further down in
18 Column 3, the next paragraph starting in Line
19 46, it continues.

20 Why don't you read that paragraph to
21 yourself, and let me know when you're done.

22 A All the way to 55?

1 Q Correct.

2 A I'm with you.

3 Q Following the example, "An officer has
4 been shot or has been injured, such that he
5 requires assistance," it says, "In this
6 instance the alert came on the VHF non-high
7 priority channel."

8 Do you see that?

9 A Yes.

10 Q Can you tell me what the alert is in
11 this example?

12 A Is the word "alert" mentioned here?

13 Q It says, "In this instance, the alert
14 came on the VHF non-high priority channel."

15 A Got it.

16 So the alert is the information that an
17 officer got shot.

18 Q Is that just --

19 A Mention --

20 Q I'm sorry, just so we have a clear
21 record.

22 What is the "alert" here in this

1 example?

2 A Yeah, the alert can be one of numerous
3 things. It can be the sound of the gun. So
4 the specific analyzing the media stream,
5 hearing a gun, and the system knows that
6 whenever guns are involved, it is a high
7 alert. It could be that someone is saying
8 "man down."

9 Someone can push a button that basically
10 is addressing that this is alert message.

11 Q What would happen when somebody pushes a
12 button that indicates it's an alert message?

13 A So a message can come here indicating
14 that -- so, for example, I can be talking to
15 you now over the channel, and as I'm talking
16 to you, I get shot and I push the button, and
17 the button -- while I'm talking to you, let's
18 you know that something is of high urgency.
19 I should be getting high priority.

20 Q Did PTT devices typically have buttons
21 like that in the '664 Patent?

22 A Some may have, some may not.

1 Q You're aware that at least some had a
2 button that when you pressed indicated that
3 there was an emergency alert?

4 A I am not familiar with exactly the
5 specifics of Motorola other push to talk
6 devices.

7 Q The '664 Patent would cover an example
8 where a police officer presses an emergency
9 alert button to indicate that there's an
10 emergency situation?

11 MS. LEGAARD: Objection. Incomplete
12 hypothetical.

13 A It can be either done on push to talk
14 that is in the field. It can be done on a
15 new device that has our system with our
16 application running on it, with the simple
17 signal, virtual talk group.

18 So it can come from different places
19 but, again, it can also be carried by the
20 voice itself.

21 Q Right. So there's different options.
22 The '664 Patent can cover an alert where the

1 officer simply keyed up and said "I've been
2 shot," right, that's one?

3 A Right.

4 Q It could cover a circumstance where the
5 officer is keyed up and a gunshot is heard
6 and that could be the alert, right?

7 A Yeah.

8 Q Or thirdly, it could be the officer
9 presses the emergency alert button indicating
10 that there's an emergency situation and, that
11 would be the alert, right?

12 A That's correct -- yeah.

13 Q Are there any other types of alerts
14 that --

15 MS. LEGAARD: Objection. Counsel, I
16 think you interrupted.

17 Q Are there any other types of alerts that
18 you can think of?

19 A Yeah, I mean, the alert is either send
20 from a hard button that can be on the device,
21 can be soft button on device on -- in the
22 device can be carried in the media itself.

1 Q Could be a tone, for example?

2 A Could be a tone. It's not covered
3 necessarily in this thing, you know. It's,
4 again, you know, it goes back to
5 extrapolations, I think this is what you're
6 trying to do, which is to be a tone.

7 If there are devices that agree to that,
8 potentially could be, but I would not make
9 this statement. I think you're trying to
10 extrapolate beyond what this patent was.

11 Q You're not sure, sitting here today,
12 whether the specification discusses alert
13 tones?

14 MS. LEGAARD: Object to form.

15 A No. I think I discussed very clearly
16 that the alert tone can be a signal, like a
17 gunshot, that the system is programmed to
18 basically analyze the media. And I think it
19 can be from the control channel as a message,
20 so.

21 Q It can also be carried in a control
22 packet, right?

1 A Control packet is good, yeah.

2 Q Okay.

3 A I'm sorry. I would like to take back
4 what I said. Okay. Because --

5 Q No, sir, I'll allow you to do it in this
6 instance, but going forward I really would
7 ask you to answer my question. Your counsel
8 will have opportunity to ask you follow-up,
9 but please, go ahead.

10 A So I just want to be very, very precise,
11 okay, because it's not in control package.
12 It's with package associated with the channel
13 like the claim say. So it is not that it can
14 be in any packet. It can with packet
15 associated with a channel.

16 Q Please turn to Column 8, Claim No. 9.

17 A I'm with you.

18 Q It says, "Where any alert is received in
19 a control packet of a media stream."

20 Do you see that?

21 A No, I'm sorry. I apologize. Column 8,
22 Line 9?

1 Q Column 8, Claim 9, which is on Line 61.

2 A I'm sorry. Claim 9. I went to Line 9.

3 "The method of where the alert is
4 received in a control packet of the media
5 stream," yeah.

6 Q Okay. So just so we're clear, the alert
7 could be a voice signal that says cops are
8 down, that's one option?

9 A Correct.

10 Q Another option it could be included in a
11 controlled packet of a media stream, right?

12 A That's not how I understand patents.
13 And, again, this is legalese and you and the
14 attorneys will have to argue that between
15 yourself.

16 But the way I understand it is that
17 Claim 9 is under the restrictions of Claim 1.
18 And since Claim 1 very clearly says,
19 "Associated with a channel," or whatever it
20 says there, or is associated with the
21 channel, okay.

22 It means that Claim 9 must include that

1 restriction also, am I right?

2 Q I'm not the one that's answering the
3 question today, but just let me ask you a
4 very simple question.

5 A I think I answer it. Okay. I believe
6 that you are correct, but under the
7 restrictions of Claim 1, which according to
8 my understanding of how claims are written,
9 Claim 9 includes all the restriction of
10 Claim 1.

11 Q Okay. And alternatively, the alert can
12 be received in a header of a packet of a
13 media stream, correct?

14 A Under what the restriction say of
15 Claim 1, yes.

16 MR. KNIERIM: Okay. Why don't we take
17 another short break and we can pick it
18 up after that.

19 THE WITNESS: Of course.

20 (Whereupon, a recess was taken
21 from 2:39 p.m. until 2:54 p.m.)

22 Q Dr. Shaffer, during the breaks today

1 have you discussed the source of your
2 substance of your testimony with counsel?

3 A Yes.

4 Q What'd you talk about?

5 A She told me not to get into any
6 discussions.

7 Q What else did she tell you?

8 A She asked me to be short.

9 Q What else did she tell you?

10 A She wants me to be short.

11 Q That was it?

12 I'm sorry you're nodding your head, does
13 that mean yes?

14 A Basically that, you know, she pays me to
15 teach her not to teach you.

16 Q She told you that she pays you to teach
17 her and not me; that's what you're saying?

18 A No. I think that's my -- that's what
19 I'm meaning. She wants me to answer your
20 questions and no more. So she kind of
21 reiterated what you asked me to do, she
22 reinforced it with me.

1 Q Okay. Well, I think we can agree on
2 that.

3 On Column 3 of the '664 Patent, let's
4 continue with the example you were just
5 reading.

6 And if you would humor me, please read
7 the paragraph on Line 56 through 65, and let
8 me know when you're done.

9 A I apologize. In what column am I?

10 Q Three.

11 A Going back to Column 3, bear with me.
12 I'm in Column 3 and starting with what line?

13 Q Fifty-six.

14 A Fifty-six through 65.

15 In the columns with techniques and
16 teachings?

17 Q Okay.

18 A Yes. Up to 65. Okay. Give me a
19 second.

20 Okay.

21 Q So this is the continuation of the
22 example you were discussing earlier, correct?

1 A Correct.

2 Q And this portion of the example explains
3 what the present invention can do after
4 identifying the alert message, correct?

5 A Correct.

6 Q One of the things it can do is -- and it
7 refers to this as an intelligence response.
8 Do you see this, "intelligence response"?

9 A Correct.

10 Q So the first thing it can do is
11 "Provision communication from the left ear to
12 the right ear or vice versa."

13 Right? Do you see that?

14 A Correct.

15 Q All right. Whose ear are we talking
16 about here?

17 A Always the person, always the
18 dispatcher.

19 Q The person sitting at the management
20 center?

21 A That's correct.

22 Q And that would be Numeral 38 in

1 Figure 1?

2 A In Figure 1? In Figure 1, which numbers
3 you mentioned?

4 Q Thirty-eight.

5 A Thirty-eight, 38 yes, yes.

6 Q In this example -- I'm sorry.

7 A It's a person that sits next to that,
8 okay. And the management center there does
9 not necessarily show the speakers. I mean,
10 it shows more of the screen, but one should
11 understand that, you know, just like my PC
12 has a speaker, that this one would have
13 speakers, speakers.

14 Q Understood.

15 And just get to get a clear record, to
16 make sure we got that answer on record.

17 In the example on Column 3, Lines 55
18 through 65, the media stream will change from
19 the left ear to the right ear of the person
20 sitting at Management Center 38, correct?

21 A Correct.

22 Q Okay. It continues and it says,

1 "Another intelligent response mechanism
2 simply turn up the volume on the channel that
3 the alert."

4 Did I read that --

5 A I'm sorry. Are you on Line 66?

6 Q It's actually at Line 63.

7 A Oh, 63, "Simply turn up the volume on
8 channel," the -- yeah.

9 Q Okay. And, again, the volume would be
10 at the Management Center 38, correct? Let me
11 rephrase that -- withdrawn.

12 The act of turning up the volume would
13 occur at the Management System 38, correct?

14 A Well, you know, again, English is such a
15 funny language. When you say "turn the
16 volume," turn the volume can mean one of two
17 things; and we definitely mean one thing and
18 not the two of them. So the turning of the
19 volume is the way, since we're talking now
20 about the person, so this is the perception
21 of person is that the volume was turned to
22 the person. This one does not say,

1 necessarily, were the volume has been turned
2 on.

3 The claim, on the other hand, says
4 exactly where it was turned on. This one
5 does not say -- it does say the perception of
6 the user is he hears a louder sound.

7 Q Understood. And I guess all I'm trying
8 to understand is where is that person
9 located? Are they at Management Center 38?

10 A That's on place. There's a second with
11 IPICS -- some of our field equipment can
12 probably also do the same thing, but the
13 management center is definitely a place.

14 Q Okay. In this example that we just
15 talked through, can you identify what
16 constitutes elevating the priority associated
17 with the media stream?

18 A So elevating the priority, as I
19 mentioned before, can be -- oh, in the
20 specific example.

21 Well, so this one says, "another
22 intelligent," so it says, "Simply turn up the

1 volume on the channel of the alert," okay.

2 So in this specific thing, it says that it is
3 turning up the volume, all right.

4 Q So turning up the volume would be
5 elevating the priority, in this example?

6 A Yeah, I think that's what it says.

7 Q Okay. And in this example, what
8 constitutes adjusting how the media stream is
9 provisioned to an end point?

10 A Well, this provision would be played as
11 a louder volume.

12 Q So, again, increasing the volume is
13 adjusting how the media stream would be
14 provisioned to the endpoint?

15 A Yes. Correct.

16 Q Okay.

17 A Simply turn up the volume, this is what
18 it says, correct.

19 Q Okay. And in the prior sentence, where
20 it says, "Communications from the left ear to
21 the right ear or vice versa," in that
22 example, what constitutes elevating the

1 priority?

2 A So I will say the following: In
3 general, if the two of us are talking, when
4 we're talking at the civilized normal way
5 that we are talking, I would call it
6 non-elevator. If one of us started raising
7 the voice, I would say it's elevated. So
8 that's one example of elevation.

9 And this is almost like -- we don't have
10 to agree on that. It's almost like within
11 our DNA we know if someone is yelling, you
12 know, or when a baby wants some attention
13 he's going to cry and alert us. So that's
14 one type of alert.

15 Over here, we can agree that the right
16 ear has higher priority than the left ear,
17 I'm not saying it's always going to work,
18 because some people are hard of hearing.
19 It's based on procedural agreement between
20 the two of us. If we agree that this is how
21 we signify, we can agree that when we say,
22 you know, some -- whatever thing, that

1 constitutes that this is the elevation, you
2 know.

3 French people may use a different word
4 than simple thing, you know, in English, we
5 would say alert on this channel; French
6 person is going to read some other alphabet
7 soup, so it is procedural.

8 Q Understood. What is the endpoint in
9 this example on Column 3, Lines 56 through
10 65?

11 A Well, the endpoints are usually what we
12 discussed before. So if we're talking about
13 a dispatcher, it's basically they dispatch
14 stations at things like what is depicted here
15 in Channel 38, I think. What is depicted in
16 channel -- in Figure 2.

17 Q Okay. And so that's -- you said
18 "Channel 38," you mean Reference No. 38 in
19 Figure 1?

20 A Sorry. I apologize. In Figure 1,
21 I'm -- Item 38.

22 Q Management center?

1 A Management center, correct.

2 Q Okay. Is this embodiment covered by the
3 claimed, Claim 1 of the '664 Patent?

4 MS. LEGAARD: Object to form.

5 A So I think when you say "this," the
6 turning on the volume, I think definitely,
7 yes. The total on/off between the ears, I do
8 not recall that there is a clear name that we
9 put to that. I think that we are talking
10 more spatial thing, as I said before.

11 Spatial requires two ears, but turning off/on
12 I don't think is covered by this patent, that
13 I remember, but please correct me if I'm
14 wrong.

15 If you want to, I can take the time and
16 read each one of the claims, it's up to you.
17 I don't remember if we claimed that one or
18 not.

19 Q That's fair enough. I think your answer
20 is sufficient for now.

21 A Thank you.

22 Q Just to clarify, so Claim 1 of the '664

1 Patent covers this example in which at least
2 the volume is increased for the dispatcher
3 sitting at Management Center 38, correct?

4 A Increase, yes.

5 Q Okay.

6 A Only specific channel. Because, again,
7 we cannot talk about volume for the
8 dispatcher. The dispatcher has multiple
9 channels, each one with its own volume. So
10 if we're talking about the specific channel,
11 correct. If we're talking generically, no.

12 Q Right. So in this example I believe the
13 alert, which was that an officer has been
14 shot, came in on the VHF channel, correct?

15 A Exactly, correct.

16 Q And so in this example you have the
17 dispatcher sitting at their dispatch console.
18 The volume would be increased on the VHF
19 channel, correct?

20 A Correct.

21 Q Okay. And that is covered by the claims
22 of the '664 Patent, right?

1 A And that is covered, correct.

2 Q Okay. There's another paragraph right
3 after this that continues the example and
4 refers to another intelligent response. This
5 starts on Column 3, Line 66, through
6 Column 4, Line 9.

7 Why don't you take a minute and read
8 that, and we can discuss.

9 A I'm with you.

10 Q Okay. Now, in this example it
11 identifies the intelligent response is from
12 management center 38, to identify which
13 channel is the primary channel for one or
14 more end users.

15 With me so far?

16 My question to you is going to be what
17 does it mean when it says "identify which
18 channel is the primary channel"?

19 A Excellent question. Thank you.

20 So we're talking about IPICS, correct?

21 Q We're talking about the example in the
22 specification of the '664 Patent.

1 A Exactly, which mentions VTG, correct,
2 and as such, by default, talks about those
3 skills in art should have -- read VTG should
4 have understood that VTG has to do with
5 IPICS. That's basically the way from which I
6 was coming when I was writing it.

7 So within IPICS, I can have the
8 following scenario: I can have Channel 1,
9 UHF, on the screen on Figure 2, okay. I can
10 have one that shows the police, one that
11 shows the fire. And if I elect so, I can put
12 police and fire into a single VTG and have
13 another VTG over there, okay. And the VTG
14 may include the police and the fire or
15 someone else, okay.

16 So now -- so if I'm talking about the
17 main channel on which it came, on which
18 channel is the primary channel for one or
19 more end users, I can -- the system can
20 identify that it is not just that within the
21 VTG. It is basically the whole VTG has to be
22 increased by clutter just the primary

1 channel.

2 So the example that I'll give you is the
3 following: Assume for a second that you have
4 a river, and the river comes from two
5 different creeks that merge into the river.
6 Each one of the creeks, this is the
7 Channel 1, this is the Channel 2. And then
8 we make a VTG out of them that include
9 Channel 1 and Channel 2. So what this is one
10 is saying basically is that within the
11 system, even though you are going to see the
12 river, okay, you are getting the VTG, we can
13 within the VTG make distinction.

14 And while it is to you coming as a
15 single media stream, sometimes this media
16 stream is elevated because it's coming from
17 the -- for example, from the police that got
18 hurt and when the utility guy talks on the
19 same VTG, we don't elevate them. So this is
20 where the primary comes.

21 So, again, view it as you have two
22 rivers making -- sorry, two creeks make into

1 a river. You see the river, but the volume
2 of the river when you receive it keeps
3 changing, depending whether this is water
4 coming from one creek or from another creek,
5 within the same VTG.

6 Q Understood. I have a few follow-up
7 questions if you would humor me.

8 So in this example, as you recall, the
9 officer who sends the alert, who said police
10 officer shot is on a VHF channel, right?

11 A For example.

12 Q For example.

13 And in this example on Column 3,
14 Line 66, through Column 4, Line 9, it's
15 identifying another intelligent response to
16 that, and that would be to take that VHF
17 channel that received the alert and then pipe
18 that to a VTG defined in IPICS, correct?

19 A That's one possibility, correct.

20 Q Okay. And is that possibility covered
21 by Claim 1 of the '664 Patent?

22 A I believe it is.

1 Q Okay. Now, instead of the officer
2 verbally saying that an officer has been
3 shot, I think as we discussed earlier, he
4 could also hit an emergency button on his
5 phone to accomplish that same thing, correct?

6 MS. LEGAARD: Object to form.

7 Q I'm sorry, what was your answer, Doctor?

8 A I said "yes."

9 Q Okay. If we continue down to Column 4,
10 Line 14 through 18.

11 A Bear with me.

12 Q Take a minute and read it.

13 A The out-of-band signaling?

14 Q That's the one.

15 A Up to what line, please?

16 Q Why don't we start with 14 to 18.

17 A I'm with you.

18 Q All right. I'm just going to read it so
19 we're all on the same page here.

20 It says:

21 "In other embodiments, a research
22 management server (capable of

1 processing media services) can
2 coordinate an effective response that
3 includes either an audio tone or a
4 message being sent out-of-band."

5 Do you see that?

6 A I'm sorry, I was supposed to read 15 to
7 18, and you're reading where?

8 Q Column 4, starting on Line 14 through
9 18. It starts with "In other embodiments."

10 A For me, am I in the wrong place.
11 Column 4, Line 14, starts for me "For
12 out-of-band signaling."

13 Q My apologies. I got the line number
14 wrong. So we're actually looking at
15 Column 4, Line 10, starting at Line 10.

16 A Okay. I'm with you now. So please bear
17 with me. I'll read this one.

18 Q Sure.

19 A I'm with you.

20 Q My first question is what does it mean
21 here when it says an effective response
22 includes either an audio tone or message

1 being sent "out-of-band"?

2 A Yeah, so I would like to answer by
3 giving you a broader explanation. Within
4 here the UMS, within here with environment of
5 IPICS now, to understand what I'm going to
6 say, one must understand what IPICS is.

7 IPICS is a system that facilitates
8 communication between plurality of modality
9 of systems, which means if before IPICS,
10 UHF/VHF couldn't talk to each other, wouldn't
11 be able this one. But you can still -- this
12 is simple because this is radio to radio.

13 Okay. I'll give you that. But before that,
14 I could use my mobile phone and talk to a
15 radio because I don't have Channel 5 on my
16 phone. Officer could go between channels but
17 couldn't dial my home number, okay, where I
18 have a plain old rotary phone.

19 IPICS came, and it encompasses numerous
20 different modalities of communication. Plain
21 old telephone is included; IP phone is
22 included; cell phone is included; UHF, VHF,

1 all are included; cell phone is included.

2 Now, these guys have plurality of
3 different protocol, different agreement. And
4 as I explain at the very beginning, yes, some
5 communication system could potentially use,
6 whatchamacallit, in-band, not that this is
7 what I would choose for a new system. And
8 what we are trying to do is we're trying to
9 accommodate all of these systems. And as
10 such, you know, in-band signaling, if the
11 system is old system, not efficient system,
12 not some -- we're trying to provide backward
13 compatibility to it.

14 Q Okay. And so --

15 (Technical difficulties.)

16 A Backward compatibility, which basically
17 means most systems of communications, if they
18 employ -- if you bring a new system with a
19 new feature, the other systems, the old
20 systems, the backward systems, will not be
21 able to talk to the new system because they
22 did not implement this new standard protocol.

1 IPICS come and says you policemen who
2 don't have money don't have to replace your
3 end device with a new device. You can use
4 your old devices, and we will give you new
5 features on the old devices without updating,
6 without changing the old devices.

7 Q Okay. So what the '664 Patent is saying
8 here is that, at least for old devices, it
9 can coordinate an effective response that
10 includes either an audio tone or a message
11 being sent out-of-band, right?

12 A Yeah.

13 Q And then it says, "This server could be
14 UMS 34 or RMS 30," right?

15 A Correct.

16 Q And then it continues, and it says:

17 "For the out-of-band signaling,
18 the identification of the alert is
19 provided in the header of a packet, in
20 the payload of the packet, in control
21 packets, or in any other suitable
22 location."

1 Right?

2 A Correct.

3 Q Am I correct in understanding that the
4 '664 Patent is describing here is that at
5 least for all devices, the system can include
6 the alert in a packet using out-of-band
7 signaling?

8 A No, I think it -- the way to understand
9 it is, again, you know, Motorola came with
10 the strength of understanding radio, and I
11 would like to state something that probably I
12 will be killed for, which is much better than
13 what we ever in Cisco could have understood,
14 okay.

15 However -- and I'll say something very
16 arrogant -- I believe that we in Cisco
17 understood IP networks much better than
18 Motorola would ever understand. And as such,
19 our system IPICS, the infrastructure is IP
20 network infrastructure.

21 And what I'm talking here is by the end
22 of the day, when we move messages, alerts,

1 whatever into the IP network, within the IP
2 network, that's one way for us to deal with
3 there is a communication, you and I are
4 talking so -- for example, now it is voice
5 over IP, okay. So as my packets of voice go
6 to you, there's a certain header in each
7 packet. I can use this header and add other
8 signals, for example, an alert.

9 So if I had now an alert button on my --
10 whatever it is, Skype, Webex, whatever,
11 Zoom -- then a packet that goes from my
12 phone, okay, would be carrying also a header,
13 correct, because each packet has a header.
14 And then in that header there are all kind of
15 fields that we in Cisco know how to use. And
16 one of them we can use as an alert.

17 So we're talking here more about the
18 infrastructure of IPICS, and IPICS is IP.
19 You know, the IP for IPICS is an IP network.

20 Q I see. I have a few follow-up
21 questions.

22 But just generally first, does the '664

1 Patent Claim 1 cover the embodiment described
2 at Column 4, Lines 10 through 18?

3 A Ten through 14?

4 Q Correct.

5 A So I will have to go and read the
6 claims. Would you like me to do that? Or if
7 you think that it does, please point to me
8 where or tell me that it does not, and I'll
9 trust you.

10 Q Again, I'm not the one testifying today.
11 I will say I have no reason to doubt that it
12 claims it. I just want to understand your
13 opinion. And I'll just repeat the question.
14 Take your time. If you want to the read the
15 claims, that's fine too.

16 The question is does Claim 1 of the '664
17 Patent cover the embodiment of Column 4,
18 Lines 10 through 18 regarding out-of-band
19 signaling?

20 A Oh, I'm sorry. You're talking only
21 about Claim 1?

22 Q Correct.

1 A Whether it includes out-of-band
2 signaling, yes. Yeah, it includes
3 out-of-band signaling, yes.

4 Q Okay. Earlier today, I think at the
5 very beginning, you mentioned POTS and AB
6 signaling.

7 Do you recall that?

8 A Yes, of course.

9 Q Do you agree or disagree with the
10 following statement: "Within a media stream
11 there are always at least three things that
12 exist. One thing is metadata associated with
13 it."

14 A Always exist metadata. Metadata, can
15 be -- I'll never go to "always."

16 Q Okay. Let me just read it again, and if
17 you disagree with it, you can let me know,
18 but I want to just be precise in the exact
19 wording.

20 So this is the statement: It's "Within
21 a media stream, there are always at least
22 three things that exist. One thing is the

1 metadata associated with it."

2 A I'm sorry, are you reading from where.

3 Q I'm asking you a question, if you agree
4 with that statement or not.

5 A Do I agree with the statement that -- in
6 communication systems I will say that usually
7 there is metadata, which -- I will say that
8 in the communication system, usually there is
9 metadata, yeah. Like, for example, when I'm
10 sending to you now via the conference call,
11 there's metadata that carries your IP
12 address, carries my IP address. This is
13 metadata, yeah.

14 Q What about with POTS, P-O-T-S?

15 A With POTS, with it is there a metadata
16 send? The question was what is with it. I
17 think that there is data sent before, but in
18 POTS there is usually -- and it depends send
19 from where.

20 So, for example, when I use POTS
21 phone -- and I'm going to my old days in
22 Siemens. So with a POTS phone, when I go off

1 hook, there is a specific wire that goes from
2 my house to the central office. So the
3 central office knows that Shmuel picked up
4 the headset, not necessarily because there
5 was a sent metadata per se, like what I would
6 call send.

7 However, by the virtue of the fact that
8 the signal arrived through the central office
9 PBX by that specific line, that conveys to
10 them the information that it was Shmuel. So
11 now it was not sent, but in some ways they
12 know about it because the action of me
13 picking up the phone on specific wire in the
14 central office, they know that it was me.

15 It's -- you know, what would you define
16 it as "send" or not, I'll leave it to you and
17 to English. But it is not like I'm sending a
18 message. Like in IP phone, for example, if
19 I'm going to dial, there's actually going to
20 be my IP address, sometimes my MAC address,
21 sometimes even what browser, what phone,
22 who's the manufacturer of the phones. That

1 is going to be sent.

2 But since you asked me about AB, I think
3 that I explained what is the level of
4 information.

5 Now, having said that, if the central
6 office makes a phone call, which they could.
7 Digital phone, for example, they may send in
8 the digital link the caller ID, but the
9 person who's calling over AB line will not
10 get it. Also, if the message arrives via
11 that, I'm not so sure that the message
12 actually is going to be -- that something is
13 going to be sent. So that's kind of my --

14 Q Let me ask you a more pointed question:
15 Is AB signaling an example of metadata within
16 a media stream?

17 MS. LEGAARD: Object to form.

18 A No. I would say no.

19 Q Why not?

20 A I would say that it's not -- I'm kind of
21 trying to think. So with a stream -- hmm.
22 It's interesting question.

1 So media is defined as voice or video or
2 both of them in some potential signaling.
3 We'll start with that. So when I'm dialing
4 the digits -- but this is before the --
5 before there is media because there is no
6 media established yet, there is this
7 signaling.

8 Now, was the AB signaling -- I cannot
9 remember whether the media in the AB was
10 actually used and, if yes, for what during a
11 call. And maybe in the old days it was for
12 preemption. I apologize.

13 I don't remember, but I put the
14 distinction as following: I do not remember
15 if the AB signaling was used during the call
16 or just as a call setup. If it was used for
17 call setup, then I would say the answer is no
18 because during call setup there is no media
19 in a way that I understand it, which is
20 voice/video. So this is more call setup.
21 It's pre-media.

22 If it was used for preemption or

1 something like that, which I cannot remember
2 whether it was used for during the call. If
3 it was used during the call, then I would say
4 yes, but I cannot come with an example
5 because where would -- I mean, it could be
6 that during our discussion if I were to play
7 with the rotary phone and the rotary phone
8 was still on some stuff -- I don't recall
9 that protocol. Again, I worked in Siemens
10 maybe 30 years ago, so.

11 Q Yeah. I'm going to ask you a question I
12 believe I asked. I don't think we got a
13 clear answer, from reading the transcript.

14 So the question is do you agree with the
15 following statement: "Within a media stream,
16 there are always at least three things that
17 exist. One thing is the metadata associated
18 with it."

19 MS. LEGAARD: Object to form.

20 A The digital communication, I would say
21 yes.

22 Q Okay.

1 A In POTS, as I said before, I can't
2 recall that the metadata is actually going.
3 And, again, if the metadata is by looking
4 which wire the call came, then I will say
5 yes. If this is the metadata that you mean.
6 But it's not what I would usually call an IP
7 address metadata.

8 MR. KNIERIM: Okay. It is, I believe,
9 12:30. Shall we break for lunch?

10 MS. LEGAARD: Our lunch has not
11 arrived.

12 MR. KNIERIM: I can keep going if you
13 guys are comfortable.

14 MS. LEGAARD: What do you think,
15 Shmuel? It's up to you.

16 THE WITNESS: I'm good.

17 Q Why don't we turn back to the
18 specification. Let's look at Column 6 this
19 time.

20 A I'm in Column 6.

21 Q Line 14 through 23, starting with
22 "Please note."

1 A Please note until where?

2 Q The end of the Paragraph 23.

3 A I'm with you.

4 Q Okay. One of my questions to you is
5 going to be: Is this embodiment covered by
6 Claim 1 of the '664 Patent? Can you answer
7 that question now or would you like to
8 discuss first?

9 A No. I think I can answer that one.

10 Q So let me just ask it for a clean
11 record.

12 Is the embodiment on Column 6, Lines 14
13 through 23 covered by Claim 1 of '664 Patent?

14 MS. LEGAARD: Object to form.

15 A So I believe that the simple answer is
16 not, but if you want I can explain.

17 Q Please explain.

18 A Okay. So what we say is basically here,
19 that the system that we are designing is
20 backward compatible, which at the very
21 beginning we said existing systems allow the
22 dispatcher to provide manual configuration.

1 Manual changes to the system. Now, what we
2 are doing is we're inserting the media server
3 and we're making the media server more
4 intelligent and allowing it to intelligently,
5 automatically make changes. What we are
6 seeing here is, please note that by doing
7 that we are not stripping the dispatcher from
8 what he was able to do before. The
9 dispatcher was able to always do things
10 manually. And he still can do things
11 manually.

12 However, this is not what we are
13 claiming because we said that this is prior
14 art to begin with. What we are claiming and
15 the dispatcher operates on the end point. We
16 are adding some in the middle of the metric.
17 We are adding intelligence into the metric,
18 but we are not taking the intelligence from
19 the end, but this is as we said prior art, so
20 we're definitely going to claim.

21 Q The sentence that starts, "note that the
22 priority".

1 Do you see that?

2 A Help me with the line.

3 Q "Note that the priority of the channel
4 is elevated not only for the tone, but also
5 for the following media stream."

6 Do you see that?

7 A Correct.

8 Q Is that the feature covered by the '664
9 Patent?

10 A Yeah, I think they are still in --
11 whatchamacallit. We still discussing the
12 prior art here, correct, that the dispatcher
13 can change any channel that he wants. And
14 once the change happen, then that channel is
15 going to be either, if we send it level
16 three, it's going to be at level three. If
17 it was sent at level four, it's going to be a
18 level four. The discussion here is not a
19 discussion about the patent.

20 Now I can discuss also how the same
21 feature is effected by the disclosure, but as
22 I said, you know, if you want I can look into

1 it. But I think that some place in Column 1,
2 we discussed prior art so we definitely
3 don't -- the discussion for prior art is
4 basically to say, we are aware of that and
5 we're not claiming that.

6 Q Understood. Help me understand what it
7 means here when it says the following media
8 stream, what does that mean?

9 A Help me here. Oh, for that alert, but
10 also for the following media stream. Yeah, I
11 mean the communication takes place over time
12 and there's a certain channel, there's a
13 certain communication that happens between us
14 today now so, for example, there was a
15 gunshot. I'm the media server and as the UMS
16 I'll automatically identify, it increase the
17 volume so that when you hear the gunshot
18 you're going to hear the gunshot really loud,
19 but then later there's some more discussion,
20 some of the discussion is following the
21 time-wise, the gunshot or whatever alert that
22 may have happened.

1 Q I see. So in that example, let's say
2 the officer hit the emergency alert button,
3 the system will then elevate the priority not
4 just for that button hit, but for the
5 conversation that follows it; is that right?

6 MS. LEGAARD: Object to form.

7 A I think so, but I think that's some
8 place we said for a certain configure time, I
9 think it was said some place, if you want I
10 can look for it. But yes, in general, yes.
11 If someone made a decision -- if the system
12 automatically made a decision, I think that,
13 of course you know, the dispatcher can say
14 that was nothing it was an exhaust, okay.
15 The system was hyper-sensitive or whatever or
16 it's okay, we expect some, you know, one
17 sound or whatever, so the dispatcher can take
18 it down. I think. But if you want I can
19 read it more carefully. I think at some
20 place we talk also about the -- having the
21 smarts of a making it time-wise, basically
22 you open a window and then basically that

1 kind of with time the importance decays,
2 whatever.

3 MR. KNIERIM: I think that's good for
4 now.

5 MS. LEGAARD: We can break when you're
6 ready.

7 MR. KNIERIM: We can break now.

8 (Whereupon, a recess was taken
9 from 3:41 p.m. until 4:26 p.m.)

10 MR. KNIERIM: For the record, I'm
11 joined today by Matthew Thompson who
12 is my colleague at Baker Botts.

13 THE WITNESS: Hey, Matthew.

14 Q Doctor, during the lunch break, did you
15 have any conversations with counsel regarding
16 substance of the testimony that you've
17 already given or the testimony that you're
18 about to give?

19 A Yes.

20 Q What did you talk about?

21 A They reminded me that I'm talking too
22 much. Then they wanted to talk among

1 themselves, keep me out the room, have a
2 private discussion then they called me in.

3 Q After they called you in did you have
4 any further discussion?

5 A No.

6 Q I'd just like to read into the record a
7 portion of the trial practice guide,
8 consolidated November 19th version, Page 129,
9 "Once the cross-examination of a witness has
10 commenced and until cross-examination has
11 concluded, counsel offering the witness on
12 direct examination shall not A, consult or
13 confer with the witness regarding the
14 substance of the witnesses testimony already
15 given or anticipated to be given, except for
16 the purpose of conferring on whether to
17 assert a privilege against testifying or how
18 to comply with a court order or B, suggest to
19 the witness the manner in which any questions
20 should be answered."

21 Let's jump back into the specification
22 Exhibit 1001. Column 6, starting at Line 44.

1 Let me know when you're there?

2 A I'm with you.

3 Q And you can take a moment to read the
4 whole paragraph to yourself if you'd like,
5 but I will preview my question which is what
6 does reference No. 92 refer to?

7 A Let me read it. So reference 92 and I'm
8 also looking at Figure 3, is basically a
9 manual setting that is included in this
10 example management center screen. And with
11 this manual setting a person, i.e.,
12 dispatcher, can basically make a decision
13 about any specific one of the channels there
14 to render it in sterile left ear, right ear,
15 sterile basically means both ears.

16 Q Okay. And it refers to the
17 specification of the '664 Patent refers to
18 the element 92 as spatial position, right?

19 A Correct.

20 Q And it says that it includes a drop down
21 menu in which the user may select from
22 stereo, left, right or another configuration

1 for channels to be heard by an end user,
2 right?

3 A This is correct.

4 Q In this portion of the specification,
5 the patent is referring to spatial position
6 as meaning left ear, right ear, or stereo,
7 correct?

8 A No.

9 Q Why not?

10 A It refers to 92 as a someone facilitates
11 playing the media in sterile left ear. So
12 the playing, but it is someone that makes
13 manually the media appear in one of these
14 three positions.

15 Q Would the right ear be one of the
16 spatial positions?

17 A Right ear is as I said before, spatial
18 is not the right word to use with ears, all
19 right.

20 Q Help me understand why then is the
21 specification referring to element 92, which
22 indicates which ear the user selects as

1 spatial position?

2 A Because this includes also the sterile.
3 Again, you know, it's official for the button
4 says, you know, there's some physics.

5 Q Stereo means both ears, right?

6 A In listening in a single ear does not
7 convey direction, period. It's physics. It
8 has nothing to do with the patent. Nothing
9 to do -- I mean it's like gravity regardless
10 what the patent says. There is gravity,
11 there is spatial and spatial means
12 directional and the directional basically is
13 going to be -- perhaps some spatial or
14 directional must have at least two signals.
15 If someone knows how to do spatial with a
16 single ear, they more than I do. I do not
17 know how to do it.

18 Q I think you said earlier of a spatial
19 position you need to have a phase difference
20 between two signals, did I get that right?

21 A Correct. Which implies two signals.
22 Must have two, cannot be single ear.

1 Q Your testimony in the patent, the word
2 spatial position, does not refer to either
3 the left ear or the right ear alone, correct?

4 A Spatially, that's correct.

5 Q Let's take a look now at Column 7, Line
6 37.

7 A Please bear with me. Column 7.

8 Q Line 37?

9 A 137.

10 Q 37.

11 A Oh 37, Column 7, starting Line 37, 35,
12 for example?

13 Q Correct.

14 A I'm with you.

15 Q All right. It says, "For example,
16 although the present invention has been
17 described with reference to particular
18 communications exchanges involving channels,
19 communication system 10 can also manage
20 alerts and events and other pathways."

21 Do you see that?

22 A I see that.

1 Q What does other pathways refer to here?

2 A I have to read more to remind myself.

3 Q Please.

4 A I think that towards the end so I -- to
5 answer it in the most honest way, I will say
6 I don't recall what you mean there. I'm kind
7 of guessing at this point more than answering
8 it straightforward, towards the end of this
9 paragraph it says this may include simple
10 conversational exchanges in our simple
11 correspondence between two end users
12 operating their end points.

13 But I obviously don't recall what we
14 meant by that.

15 Q Could it be, for example, a POTS
16 communication line into the system?

17 A As I said I really do not recall what we
18 meant at the time. So since it's not
19 specified as such, I will not hypothesize
20 kind of, but my answer is I do not recall.

21 Q As an expert reading this patent and
22 putting yourself in the shoes of person of

1 skill in the art, would you agree that this
2 paragraph is teaching that the '664 Patent
3 should be -- should not be limited to a
4 narrow understanding of what a channel is?

5 MS. LEGAARD: Object to form.

6 A So I thought that the court defined what
7 the channel is and I think so, I agree with
8 the court so, I will go with the definition
9 of the court.

10 Q The court defined the term channel?

11 A I believe so.

12 Q Court said its plain and ordinary
13 meaning, right?

14 A I believe so.

15 Q Okay. So let me rephrase my question.

16 As an expert reading this patent putting
17 yourself in the shoes of a person of skill in
18 the art, you would agree that this paragraph
19 is teaching that the '664 Patent shouldn't be
20 limited to channels, correct?

21 MS. LEGAARD: Object to form.

22 A So I will find it difficult to come up

1 now with anything other than, you know. At
2 the end of the day at least for me when I
3 think about simple definition of channel,
4 it's basically a resource that hasn't been
5 established between point A and point B for
6 the sake of communication, so.

7 Q That's helpful, thank you.

8 In your understanding of the plain and
9 ordinary meaning of the term channel, is a
10 channel limited to the specific frequency or
11 set of frequencies?

12 A No.

13 Q It can include multiple frequencies?

14 A A communication channel include within
15 IPICS, yes, within IPICS you can be on UHF, I
16 can be VHF, we can be mixed into one VTG,
17 there's a communication VTG between the two
18 of us, correct.

19 Q What about in the context of the '664
20 Patent?

21 A '664 Patent mentions VTGs, my frame of
22 mind at the time is IPICS frame of mind, so

1 yes.

2 Q Okay. So when the patent says, media
3 streams associated with channel that's not
4 limited to a single channel, correct?

5 MS. LEGAARD: Object to form.

6 A It's not limited -- please ask again.

7 Q Sure. When the '664 Patent uses the
8 phrase media stream associated with -- let me
9 rephrase it again. Withdrawn.

10

11 When the '664 Patent uses the phrase
12 media streams associated with channels, that
13 can include multiple channels, correct?

14 MS. LEGAARD: Object to form.

15 A So in the example that we gave before I
16 don't want to answer broadly, I'm trying to
17 basically provide specific example in which
18 your statement is correct, in the specific
19 case, which, for example, there is going to
20 be communication over channel five. There's
21 going to be communication over another
22 channel, so yes, we are speaking on the

1 management center multiple channels, correct.

2 But they were -- I'm not sure whether
3 this needs to be on record or not, I let you
4 and the other attorneys decide. The stomach
5 not necessarily agreed with my stomach, so I
6 may need to leave.

7 MR. KNIERIM: If you need a break, we
8 can certainly take a break.

9 THE WITNESS: Let's take a break.

10 (Whereupon, a recess was taken
11 from 4:41 p.m. until 4:46 p.m.)

12 Q Right. Before the break we were talking
13 about the term "media stream." Let me just
14 make sure I got a clear answer to my
15 question.

16 My question is, when the '664 Patent
17 uses the term media stream associated --
18 withdrawn. My apologies.

19 In the '664 Patent, one media stream can
20 be associated with multiple channels,
21 correct?

22 MS. LEGAARD: Object to form.

1 A One media stream can be associated with
2 multiple channels, depends on how you gonna
3 define the word. So if a media stream is the
4 same media stream -- well, that's not the
5 same media stream. But if the media stream,
6 the same voice or the same vocal information,
7 for example, if it's voice or the same
8 picture being presented on multiple channels,
9 you are correct. But there are -- how should
10 I put it?

11 So up to a certain point, you have media
12 stream, then the media stream sometimes gets
13 split into multiple media streams, right?

14 So, for example, when I'm talking -- and
15 let's ignore for a second that Brenna and
16 Clare are in the same room with me -- my
17 media stream goes fully up to the
18 conferencing center, correct? Which is like
19 our management system, and then it's being
20 split. So you can say that my media stream
21 goes to you and goes to Brenna and goes to
22 Clare, and so theoretically-wise it's

1 correct. Technically, that's not correct
2 because my media stream goes only up to the
3 media server, and then the media server may
4 be sending one to the other guys.

5 So while the content is the same, but if
6 you look at IP packets, it's kind of
7 different IP packet, anyway.

8 Q Earlier today you gave an analogy
9 between two, I think you used streams and a
10 river, does that ring a bell, VTG?

11 A Correct.

12 Q So in that analogy, where you have two
13 channels being super imposed into one VTG,
14 you have a media stream, one media stream
15 that's associated with multiple channels,
16 correct?

17 A Well, I want to take you back to that
18 example, because the example was given about
19 the sources coming to a single person. So
20 you're a dispatcher that could be police and
21 fire coming towards you, but when the two of
22 them are coming towards you, if they are in

1 the same VTG, that merged into UMS, into a
2 single media stream that comes to you. Yet,
3 according to our teaching, while it comes as
4 a single media stream to you, we are going to
5 change the level of water, because when a
6 drop of water comes to you from Brenna, it
7 comes at one level, when it comes from Shmuel
8 it comes from a different level, an ongoing
9 basis. So there's automatic modulation of
10 the voice.

11 We did not discuss, until now, what
12 happens on the receiving side, but if the
13 plurality of this receiving side, and I think
14 that's what you're asking now, what happens
15 when that plurality of receiving sides?

16 Did I answer it properly.

17 Q No. So let's take the example, you have
18 the VHF channel, you have a UHF channel.

19 A Correct.

20 Q And they are then combined, mixed, into
21 one VTG.

22 Are you with me so far?

1 A I'm with you so far.

2 Q This VTG media stream is associated with
3 both the UHF and the VHF channel, correct?

4 A It's associated -- well, part of it is,
5 part of it is not.

6 Q Which part of it is not?

7 A When the UHF talks over the VTG, the
8 other guy may not be talking, so it's not
9 associated with it. So if you look into the
10 association, because both of them are on the
11 same VTG, so in this aspect, both of them are
12 on the VTG they may be associated. But
13 that's the extent that it's being associated.

14 It's almost you and I are associated
15 because both of us belong to the mankind, but
16 are we really associated, you know, are we
17 going to be associated tomorrow when I'm no
18 longer, you know, providing a testimony?

19 So the word "association" is not we're
20 associated, period. Okay. Because we are
21 associated for the sake of the discussion, I
22 mean, if you have the time, please come by

1 and we'll have beer together, and we'll be
2 associated, otherwise we're not associated.
3 Until yesterday or until today, in the
4 morning, we're not associated.

5 So, you know, I think that what you're
6 trying to do is -- you're trying to use very
7 broad brush based on pre-assumption or
8 presumption in your question. And so I find
9 it difficult to answer with a bad -- broad
10 brush. I'm trying to explain that, you know,
11 sometimes things are related, sometimes
12 they're not.

13 Q The claim uses the word "associated."

14 A Correct.

15 Q What does the word "associated" in the
16 claim mean?

17 A Association, there's some connection
18 between them.

19 Q Could it be any connection?

20 A No. I mean, technology -- so, I mean,
21 they are cousins of each other, but, you
22 know, they are present at the same time, for

1 example, that's an association. Yeah, I'll
2 stay with that. They're part of each other,
3 they are associated, yes.

4 Q Okay. So management center receives VHF
5 channel. Management center receives UHF
6 channel. Management center consolidates them
7 into VTG.

8 Is there an association between the
9 media stream and the VTG, and both the UHF
10 and a VHF channel?

11 MS. LEGAARD: Object to form.

12 A So, again, please allow me to read for a
13 second.

14 Q Sure. And for the record, what are you
15 reading?

16 A I'm reading Claim 1, because I think the
17 word is -- I'm trying to, basically, take us
18 back to -- from linguistic discussion in
19 which I'm not qualified to associate. Okay.
20 So there is use of association. Into,
21 basically, anchoring our discussion in the
22 patent itself.

1 So you're asking me about if the act of
2 association -- so we are here discussing
3 association as related to media stream, that
4 I associated with channel, right?

5 Q Mm-hmm.

6 A So media streams, you know, that for
7 them to be associated with the channel, they
8 have to be included, they have to be part
9 of -- the media has to be part of the channel
10 to this association. It's part of, I think
11 "part of" is a good word.

12 Q So can one media stream be associated
13 with multiple channels?

14 A Can one media stream be associated with
15 different channels? I have to think about
16 it.

17 Media stream?

18 So in old radio this doesn't happen,
19 because when you talk on one channel, you
20 know, if I'm only two radios and I'm talking
21 on VHF and UHF, but, you know, that's kind
22 of -- we're inventing here on the fly, this

1 is not what this invention is about.

2 It's not how I would read that, you now,
3 the patent is not about one person holding
4 UHF and VHF radio talking to both of them and
5 even then, would call it one media channel.
6 I'd be pressed for that. Because if media,
7 as we discussed before an IP network has
8 caller ID, and caller ID, like, source of
9 targeting, these are going to be two
10 different medias. I'd have to think about
11 it.

12 Q Let's think about it long and hard.
13 I'll give you plenty of time to consider it
14 and I'll repeat the question, so you have it
15 fresh.

16 A Yes.

17 Q The question is: In the '664 Patent,
18 can one media stream be associated with
19 multiple channels?

20 A So if we define the media, the quality
21 of the audio can be present on both channels.
22 So if I put into a VTG, Shmuel is the person

1 and two other people that have VHF and UHF,
2 when I speak my words, are going to flow into
3 all the members of the VTG. And as such, my
4 words, my sound, is going to be embodiment.

5 Is this question that you're asking me?

6 Q Yes. I mean, I think that is a helpful
7 predicate to the question I'm asking you.

8 Once again, the question is: In the
9 '664 Patent, can one media stream be
10 associated with multiple channels?

11 A I would say that the way it was
12 intended, is that numerous media streams in
13 each media stream goes over a specific
14 channel, so that many media streams, it's
15 almost like many cars going forward many
16 highways, but the way that -- I do not see
17 any support here that we claim that one media
18 stream goes over multiple channels.

19 But I'm kind of voice -- video. So
20 again, if I were to go to defining that this
21 is the voice and video and data is optional,
22 what I would say is: If you're only talking

1 about my voice, my voice via VTG can go over
2 UHF and VHF at the same time.

3 Q Uh-huh. Right.

4 So, again, my question is: In the '664
5 Patent, can one media stream be associated
6 with multiple channels?

7 MS. LEGAARD: Object to form.

8 A I think I say, yes. I think I say, yes.

9 Q Okay. I mean, I'm not trying to trick
10 you or put words in your mouth.

11 A No, no, no.

12 Q I just want to -- so it's yes?

13 A Side note, you're a pleasant person. I
14 enjoy talking with you. I always enjoy
15 talking about IPICS. I read nothing even
16 into you tricking me or whatever. I'm trying
17 to explain. Some of the questions I have to
18 think about.

19 Q Okay. And having thought about it now,
20 in the '664 Patent, one media stream can be
21 associated with multiple channels, correct?

22 A Yeah, and the reasoning is because media

1 is defined as voice or data, at least one of
2 them, and as such, if I'm talking, we at VTG
3 can be transmitting into UHF and VHF, that's
4 correct.

5 Q Okay. All right. Let's take a look at
6 your declaration, which is Exhibit 2005.
7 I'll drop it in the chat. I understood you
8 have a copy.

9 A I've got to find the document. I'm with
10 you. I have it on my screen, Mike.

11 (Whereupon, Declaration by Dr.
12 Shmuel Shaffer was previously
13 marked as Exhibit 2005.)

14 MR. KNIERIM: Okay. I'm having
15 technical difficulties dropping it
16 into the chat.

17 A I can follow.

18 Q Okay. Great.

19 So you understand the STA cited this
20 declaration in support of its patent owner
21 response in this IPR proceeding, correct?

22 A I'm sorry. I understand that what?

1 Q STA cited your declaration in support of
2 its patent owner response of this proceeding,
3 correct?

4 A Yes, I did not receive it until maybe
5 last week, but yes.

6 Q You anticipated my next question. So
7 just to confirm, you did not --

8 A I'm sorry.

9 Q No, thank you. Appreciate it. But I
10 just wanted to confirm that: When you
11 affixed your signature to your declaration,
12 you had not seen a copy of STA's patent owner
13 response, correct?

14 A No, I didn't.

15 Q How much time, roughly, did you spend
16 preparing your declaration?

17 A Oh, I don't remember.

18 Q Was it more than 50 hours?

19 A There are many documents there to read.
20 I mean, I'm sure I can go and dig it out, if
21 it's important. I'm sure Brenna can provide
22 it, because, you know, I try to bill

1 five minutes, with five-minute boundaries.

2 So Brenna has the exact number, up to the
3 five-minutes boundary. And I'm sure she will
4 oblige and provided so.

5 Q There's no need for that. I'm just
6 curious to know if you have a very rough
7 estimate?

8 A I cannot recall. As I say, I do
9 consulting for multiple companies and charge
10 them, you know, so each month I submit
11 numerous invoices. I don't remember each one
12 of the invoices. That were not a few months
13 back.

14 Q Does this declaration, Exhibit 2005, set
15 forth your full and complete opinions
16 regarding the '664 Patent in this matter?

17 A It's my opinion about the writeup that I
18 was asked to review by your expert and some
19 references, so that summarizes that one.

20 Q Is there anything in this declaration
21 that you would like to change or alter or
22 supplement at this time?

1 A I think that there may be some place a
2 typo, but, you know -- so I think that and I
3 forgot when this is here cited or not cited.

4 Yeah, so big one is qualifications. I
5 would like to make change.

6 Q Okay. What's the change?

7 A I think some place here there was
8 implication to see if I was head of
9 organization, period. And I would like to
10 declare that with the exception with I was a
11 GM or acting GM of the safety and security
12 systems, I was never the head of the whole
13 organization.

14 I was always the head of the developing
15 organizations. But I was never head of the
16 whole thing, and I forget where it was.

17 Give me a second.

18 Someplace there is a hint to if I was
19 the head of the organization, I was, with the
20 expectation of safety and security when I was
21 acting general manager. The general manager
22 is the head of the organization. I was

1 always reporting to head of the organization,
2 the general manager running the development
3 group. Which in parentheses, is always the
4 largest group within the business unit.

5 Q Okay. Other than typos or clerical
6 errors, is there anything substantive that
7 you'd like to change?

8 A No.

9 Q All right. Is your hourly rate \$450 an
10 hour; is that right?

11 A I would say consultational, I was
12 advised I should charge, but this is what it
13 is and, no, I did not increase it despite
14 inflation, maybe this is a good time to take
15 a break and for me to negotiate with Brenna.

16 Q Is the \$450 your standard hourly rate
17 for all of your clients?

18 A No.

19 Q Do you charge certain clients more based
20 on the type of work?

21 A So I'm a retired person that thankfully
22 God was nice to me and I don't need money

1 anymore; albeit, there's always need for it.
2 I charge by what I believe the customer is
3 able to pay, and there are different rates
4 based on what am I doing. I have customers
5 that I get nothing out of them, I just work
6 because I like them. There are customers --
7 and that's not a 100 percent true.

8 Some customers only take options in
9 stock companies. So there's a company now
10 that I represent the company, which I think
11 is not too bad. And there are other
12 companies that I take a smaller percentage
13 and I get some money. There is a friend of
14 mine for whom I'm doing consulting for the
15 last ten years, never asking for any raise.
16 I know he cannot afford any raise, I'm still
17 charging rates of 10 years ago.

18 Each one there's a different
19 negotiation, and no Brenna you're not getting
20 free work from me.

21 Q Thank you, Doctor.

22 If you take a look at Paragraph 40 --

1 I'm sorry, Paragraph 17, on Page 7.

2 A Seventeen. One second.

3 I'm with you.

4 Q It says here you are an inventor or
5 coinventor or more than 250 patents; is that
6 right?

7 A That's right. It says, "250 plus." I
8 believe I have north of 300, you may be
9 surprised if I say it was 350. I stopped
10 counting at 250.

11 Q Okay. How many of those patents were
12 from your time at Cisco?

13 A Oh, very simple. So at Siemens I had
14 probably, maybe, 100, 150, maybe. At Cisco,
15 I was the first Cisco employee to have 100
16 issued US patents with their name. I got a
17 plaque for that. I think they called it,
18 like -- I forgot now, senior inventor,
19 whatever.

20 So at Cisco I had, you know -- I should
21 have so much more. I definitely had more
22 than 100, because the 100 was commemorated

1 by; A, making the most; and B, by being the
2 first, and at the time, the only employee of
3 Cisco to do this milestone.

4 Q Very impressive.

5 How many of those patents, roughly, were
6 related to IPICS?

7 A I do not remember. But I'm sure that
8 you're in a better place to do search of the
9 whatchamacallit of the patent office. I
10 really do not remember.

11 Q Okay. Are you proud of your patents?

12 A Extremely. Some more than others. And
13 by the way, IPICS, which was developed and I
14 know that Brenna told me not to talk, I still
15 would like to say that it was post-911 and,
16 you know, some people decided to gamble and
17 drop what they believe and join the Army.
18 I'm too old to go take arms to defend this
19 country. I believe what my team and I did
20 was in response to what US Congress asked to
21 do, you know, to, basically, improve safety
22 and security in this country. Yes, I'm

1 extremely proud of that.

2 Q What about the '664 Patent?

3 A All of the patents were older, I think.

4 I'm proud of the team that I put together.

5 I'm proud to be associated with each one of
6 these people. Some of whom I still keep very
7 close relationship now. It's very special
8 group of people who, basically, believe that
9 it takes a village and they want to be part
10 of the people who serve the village.

11 Q Do you have a vested interest in keeping
12 the '664 Patent alive?

13 A One more, one less, I have over 300 by
14 now.

15 Q Do you know if there were other patents
16 that Cisco obtained related to IPICS that you
17 were not an inventor on?

18 A Oh, I'm sure.

19 Q Do you know roughly how many?

20 A I have no idea.

21 Q Okay.

22 A It's a very small group, you know, but

1 very busy group. So how many patents I file,
2 how many patents are there, it's not
3 something that I -- the only reason that I
4 know that I kept track is because Cisco gave
5 me the plaque one day with all the names of
6 all the patents.

7 Q Understood. What about Cisco as an
8 organization beyond just IPICS? Do you have
9 any idea how many patents it obtains every
10 year?

11 A Probably thousands. Maybe a thousand.
12 But, no, I have no the idea.

13 Q Okay. Why don't we turn to Page 55 of
14 your declaration.

15 A Please bear with me. I'm with you.

16 Q The last sentence on the page says:

17 "A person of skill in the art
18 would understand that the console
19 system in Downs is the end point and
20 the manual configurations by the
21 dispatcher are not within the bounds of
22 the claims of the '664 Patent."

1 Do you see that?

2 A Okay. So the three last lines?

3 Q Yes.

4 A Let me just read the Downs quickly so I
5 refresh my memory about Downs.

6 This is my patent. Downs. Okay.

7 Here's Downs. Okay. The dispatcher calls.

8 Okay. I'm with you.

9 Q Sure. So my question is really about
10 the sentence that's on the bottom of Page 55
11 in your declaration where you refer to manual
12 configurations by the dispatcher.

13 Do you see that?

14 A Yeah.

15 Q And is it correct that your opinion is
16 that the claims of the '664 Patent require
17 automatic configuration as opposed to manual
18 configuration?

19 A Yeah. I mean, we are quoting that
20 manual is prior art, and as such, we make no
21 claims for manual.

22 Q Okay. And so if, for example, a system

1 worked where the dispatcher would manually
2 sort the column of events based on priority,
3 since that's manual, that would not be
4 covered by the claims of the '664 Patent,
5 correct?

6 A Whatever manual is not covered, no.

7 Q Okay. So if it was manual setting --

8 A But again, as we discussed before, the
9 architecture that we put does not exclude --
10 it is not like you have to trade in the
11 manual because we were doing everything
12 automatically and you do not have control.
13 You can continue doing your manual stuff, but
14 we handled the media before it arrives to the
15 end point. So we are like power station, if
16 you wish, of the train.

17 So before the train comes to you, we
18 paint it red, okay. Now, if you decide to
19 paint it green or something else, it's up to
20 you. But we paint it red before it arrives
21 to the end point.

22 Q Understood.

1 So the patent doesn't preclude manual
2 input, but manual input alone is not
3 sufficient to meet the claims, correct?

4 MS. LEGAARD: Object to form.

5 A No, no. It totally doesn't preclude it.
6 It doesn't preclude the claims. It also
7 includes. But it clearly says that we are
8 aware of the -- I mean, a patent cannot be
9 written saying I'm aware that there was
10 manual, but I'm not excluding it from my
11 patent. Of course. By saying what exists,
12 obviously, we don't claim they exist. It
13 doesn't make sense to claim they exist. I
14 mean, it's kind of...

15 Q I think I understand you.

16 But just so we're on the same page,
17 manual sorting based on priority alone is not
18 sufficient to meet the claims?

19 A It's not sufficient, but it's not
20 needed, and it's not part of anything that
21 the patent has to do with. The second that
22 you said "manual," you excluded your

1 statement from anything -- and I use the word
2 "associated" in totally different way because
3 we're not talking about the channels in
4 voice, but it is totally not associated with
5 this patent. Manual is only associated with
6 what you do.

7 Q Okay. And by the same token --

8 A And by the way, I'm not sure that in
9 general, you know, manual -- a person doing
10 something expandable. I -- so I would never
11 include anything manual in patents.

12 Q Okay. By the same token, manual
13 filtering based on priority is not sufficient
14 to meet the claims of the '664 Patent,
15 correct?

16 MS. LEGAARD: Object to form.

17 A Manual filtering is not sufficient. So,
18 again, bear with me with my poor English, but
19 I'm used to a terminology kind of necessary
20 but not sufficient or something like that so.
21 So manual is not necessary, is not
22 sufficient. It's orthogonal to anything

1 we're discussing here.

2 Q Okay. Great. Let's flip to

3 Paragraph 18 --

4 A I'm sorry, but orthogonal -- I mean the
5 mathematical "orthogonal," totally unrelated,
6 no connection whatsoever.

7 Q I -- "orthogonal."

8 THE WITNESS: My apology, Kiara. My
9 accent. I cannot do much with it.

10 Q Okay. Paragraph 18 of your declaration.

11 A Okay.

12 Q And this is under your Materials
13 Reviewed section?

14 A Correct. And this is the materials that
15 I read and charged Plaintiff for the time.

16 Q Understood.

17 And the materials here are all materials
18 that were either included in the petition or
19 are related to this IPR proceeding in some
20 way, right?

21 A Related because I thought if I
22 understood properly from Brenna and her guys,

1 this is stuff that you guys were quoting or
2 based on what I read in your experts, that he
3 was quoting some of it.

4 Q You understand that STA has asserted
5 this '664 Patent against Motorola in district
6 court as well, correct?

7 A That's correct. I was going to testify
8 potentially. I was told to spare time for
9 that court. So, yes, in this aspect I
10 understand that there is a trial.

11 Q Okay. And do you know what products STA
12 is accusing Motorola of infringing with
13 respect to the '664 Patent?

14 MS. LEGAARD: Objection. Relevance.

15 A Not relevant. I don't think it was
16 disclosed to me.

17 Q So you don't know which products are
18 being accused of infringement in that case?

19 A Specific Motorola stuff, like that.

20 But, you know, I would assume that this
21 product would do something like what the
22 patent is doing, so.

1 But the model number, the name of the
2 product, I cannot quote. I'm sorry.

3 Q Have you ever seen an expert report from
4 that case regarding Motorola's infringement
5 of the '664 Patent?

6 A Have I seen. I don't recall that was
7 given to me. I'm not sure. So this is a
8 document that Brenna and her team wrote
9 against Motorola. I don't believe I saw that
10 one. I really cannot recall seeing one.

11 Q All right. So sitting here today,
12 you're not in a position to be able to
13 testify as to whether STA's infringement
14 theories are consistent with your opinions
15 here in this IPR proceeding, correct?

16 A No. The only thing that I'm able to say
17 is I read the report by David -- and I forgot
18 his last name. And, you know, David and I
19 don't necessarily agree on technology. I
20 think that he misunderstood a few things or
21 pushed things too far in his
22 generalizations -- we'll put it that way.

1 But -- so the only thing that I was
2 asked in this reference was to read the
3 David -- David Williams? What was his name?
4 I forget his last name, anyhow. But his name
5 is David, correct?

6 Yeah. So I was asked to read David. I
7 was asked to read collection of things and
8 say agree or disagree. That's what I did.

9 Q Okay. And you haven't seen an expert
10 report by Dr. Akl -- Akl, A-K-L, regarding
11 the validity of the '664 Patent; is that
12 right?

13 A Akl? I don't -- does not ring a bell.
14 Did you ever send it to me? I don't remember
15 it.

16 Q I'm not suggesting that you should have
17 or should not have seen it. I just want to
18 know if you have or not.

19 A No. It totally does not ring a bell.

20 Q Okay. Now, you, as the inventor of the
21 '664 Patent and somebody who was so
22 fundamentally involved in IPICS, certainly

1 must be aware of additional prior art beyond
2 that cited in Dr. Williams' -- Mr. Williams',
3 report, right?

4 MS. LEGAARD: Object to form.

5 A So about prior art, to the best of my
6 knowledge at that time, the thing that I knew
7 was that customer had some major needs, and
8 that basically the question was "Shmuel, can
9 you solve it?" We solved some of their
10 needs. That's the prior art that I know,
11 needs of customers.

12 Q Okay. Were you familiar prior to the
13 '664 Patent with the EDACS standard?

14 A EDACS. So, at high level, yes, but in
15 my mind EDACS has really nothing to do with
16 the work that we were doing in IPICS, period,
17 like, zero. Orthogonal to work that we were
18 doing in IPICS. And as such, we -- I have no
19 reason to have studied this protocol at the
20 time.

21 For me, EDACS, it's almost like
22 associating the fact that there is a PC, a

1 personal computer, in front of me, and also
2 it also operates on electricity. Do you
3 understand how this Margarita works? Well, I
4 don't know how it works. It just provides me
5 with electricity, and that's it. EDACS is
6 talking system, provides infrastructure for
7 IPICS, how it does it, let Motorola take care
8 of it. I don't care. It has nothing to do
9 with what we are doing.

10 Q Were you aware of the P25 standard prior
11 to the '664 Patent?

12 A The P25 came later. P25 is a different
13 attempt of the same solution, totally
14 different approach, totally different than
15 what we're doing.

16 Q P25 came after the '664 Patent; is that
17 your testimony?

18 A P24 -- so P25, I'm not sure whether it
19 came before or after. But, again, it's
20 totally different thing.

21 P25 says if everyone had enough money --
22 parentheses, they don't -- and everyone will

1 be willing to get rid of old endpoints --
2 parentheses, even if they want, they don't
3 have money to do it -- then if everyone
4 adopts the new protocol, then everyone will
5 be able to talk each other, and the issues --
6 or some of the communication of issues of
7 9/11 would have been solved. Very noble
8 idea, very wonderful idea.

9 And I bet you today, over ten years
10 after I left Cisco, the majority of policemen
11 and firemen and PG&E and other utilities, do
12 not have P25 devices because they just don't
13 have the money to buy it. However, our
14 solution, which is totally different
15 dimension, totally different approach, is in
16 the IP environment. And as such, we provide
17 connectivity between existing devices that
18 people had. We do not necessitate -- we are
19 backward compatible.

20 P25 obsoletes all systems, obsoleting
21 all systems for organizations that don't have
22 budget is a very interesting theoretically.

1 It's not the practical solution that the
2 field is -- I mean, it's going to come
3 slowly, but it's like -- anyhow, I said too
4 much.

5 Q Do you know if IPICS was commercially
6 successful for Cisco?

7 A Success has to be described in different
8 words. Had we been a start-up company, I
9 think we would be hugely successful within
10 Cisco. So I was part of the -- what was it
11 called -- new technology groups or whatever,
12 emerging technology group.

13 Emerging technology group, we had to
14 come up with business units that will bring
15 Cisco 1 billion, B, with the letter B, not
16 million but billion dollars per year revenue.
17 Did we achieve it, no, we much short of that.
18 As such, by Cisco's standards, we failed. By
19 my standard, it was a great success because
20 we created a whole new paradigm. We created
21 system that were successfully deployed in
22 many places. Had Cisco not gotten in our

1 way, we'd be more successful. That's my --

2 Q Do you know why IPICS exists in the
3 market today?

4 A I have no idea. I am not in touch with
5 anyone who's working there. I'm in touch
6 with people who used to work with me on
7 IPICS, but people who stayed with it -- I
8 know Mike Gonzales who stayed there, but I
9 exchange maybe one or two emails with him
10 since I left Cisco.

11 Q Okay. Paragraph 33 of your declaration.

12 A Please bear with me. I turn to 33.

13 Q This paragraph set forth what you've
14 been informed regarding obviousness, correct?

15 A I can read it, but if you're saying -- I
16 agree with you, but I do not read it totally
17 yet, but, yes, I agree with you.

18 Q Would you say that you personally
19 struggle with the concept of obviousness?

20 MS. LEGAARD: Object to form.

21 A Do I struggle with -- yeah, but, you
22 know, by the end of the day, struggling --

1 struggling for me manifests itself.
2 Sometimes I submit a patent to the patent
3 office, and I am sure that this is
4 innovative. And office action comes, and the
5 examiner does not think it was as great as I
6 thought.

7 So, you know, it's very obvious, I
8 think, to you or anyone else in the room that
9 someone who has so many patents have, you
10 know -- maybe the same number, maybe smaller,
11 maybe larger -- of patents declined. Some of
12 the patents I thought were brilliant, the
13 examiner did not think so. Some patents I
14 thought, who knows, but, you know, just
15 submit it, and the examiner embraced all of
16 the claims without argument.

17 So in this aspect, yes. I mean, had I
18 not struggled, I'll always be spot on with
19 the examiner. Often, I was not spot on with
20 the examiner.

21 Q Do you understand the meaning of
22 "obviousness" as it relates to patents?

1 A There was a certain definition, which I
2 forgot the exact definition, but I can search
3 for it. But I -- I have more of a gut
4 feeling, but it's -- as I said, you know,
5 that times that I feel something is really --
6 definitely not obvious and the examiner
7 thinks otherwise, so, yeah, that's reality,
8 you know.

9 Q I'm sorry, you said you have more of a
10 gut feeling? Is that what you said?

11 A It's more kind of -- I think this is
12 going to be not obvious. And, you know,
13 quite often, as you can see, the examiner
14 agrees with me. So in this aspect, I believe
15 I have a fairly very good understanding. But
16 sometimes the examiner does not agree with
17 me.

18 And when the examiner does not agree
19 with me, I question, you know, did I really
20 understand what "obviousness" mean.
21 Otherwise, I would not have wasted my time
22 and, you know, the demand of the start-up

1 company that I work with, and I would not
2 have submitted it if I thought it was
3 obvious. By the end of the day, as I said,
4 I'm sure helping most of companies I work
5 for, so.

6 Q What about in terms of your process
7 analyzing the '664 Patent for purposes of
8 your declaration? Did you use your gut
9 feeling there as well?

10 MS. LEGAARD: Object to form.

11 A So Cisco has its own patent committee,
12 so it's not my gut feeling. There's a patent
13 committee usually.

14 And some other people that are as smart
15 as I am, smarter than I am, sometimes not as
16 smart as I am, sit there. They will read the
17 proposal and say the patent, we disagree with
18 that. And then Cisco will not waste money
19 and will not move it to the patent office.

20 So within Cisco, it's not only what you
21 think, it's also -- there are checks and
22 bounds, and usually in patent committee there

1 is also an attorney. And, again, Bart
2 Showalter, I think, used to sit on our patent
3 committees. So, you know, sometimes it's not
4 what I think. But, you know, I will bring an
5 idea, and maybe the attorney may say, you
6 know, that's not always that's okay, and, you
7 know, I trust them --

8 Q I'm not talking about Cisco right now.
9 Let me rephrase my question just to recenter.

10 So STA and their counsel asked you to
11 render some opinions on whether or not the
12 '664 Patent is obvious based on the
13 references that you just discussed in your
14 declaration, right?

15 A Correct.

16 Q And my question is, in that analysis,
17 did you use your gut feeling or what did you
18 do to make this determination?

19 A No, no, no, okay. So first, I want to
20 thank you for anchoring me once again in what
21 I'm supposed to be doing. It's very simple.
22 If a certain patent, which was in the

1 reference describes in any remote area in a
2 remote case anything we are trying to patent
3 we are declaring is new, I would have said
4 there's some similarity. In my opinion they
5 were barking at the wrong tree, okay, if I
6 can use the cliché. I was talking about
7 apples they were talking about oranges, yes,
8 both them are fruit, if I claim the apple you
9 cannot bring the orange as a prior art.

10 Q Is it your understanding that in
11 evaluating the obviousness you need to take
12 into consideration the knowledge of one of
13 ordinary skill in the art?

14 A Of course.

15 Q There are some circumstances where a
16 reference may not explicitly disclose
17 something but nevertheless would still be
18 obvious to a person of ordinary skill in the
19 art, correct?

20 A Correct.

21 Q And you applied that understanding in
22 your analysis and your declaration?

1 A Correct. So the way I understand that
2 one is that while cars and airplanes are two
3 different vehicles, if I invented the
4 airplane and you bring the car as prior art,
5 in my opinion, the car cannot to be prior art
6 to the airplane because we are not patenting
7 the taxiing on the runway, but the flying in
8 the airplane and the car. Totally different
9 things.

10 That's my understanding about the prior
11 art. My assertion is that I'm trying to
12 patent the airplane -- the references we're
13 talking about cars.

14 Q Would you agree that some of the
15 greatest inventions might seem obvious today,
16 but were not obvious during the time that
17 they were invented?

18 A Some are obvious today. Oh, today many
19 things are very obvious that were not obvious
20 at the time.

21 Q So what I'd like to understand is, is
22 your process is how you went about putting

1 yourself in the shoes of a person of ordinary
2 skill in the art when you analyzed the '664
3 Patent in your declaration?

4 A What I will say is if I read EDACSS, for
5 example, so let's take one example. And I
6 and myself, Shmuel, if you knew EDACS, would
7 you extrapolate and build on top of it the
8 '644 stuff, would it be sufficient. Is it
9 necessary even to have the EDACS in order for
10 you to invent '644, my answer is irrelevant.
11 And as such I'll say, you know, it's a car
12 that does not give any hint that I need to
13 have wheel and a rotor. So if I present you
14 with a car I will not expect you to say no
15 that reminds me of an airplane. No, it
16 doesn't remind you of an airplane. Airplane
17 is different.

18 So that's kind of the criteria I'm using
19 here.

20 Q So what you're saying is you were in a
21 unique position at the inventor of '664
22 Patent, you applied your own experience, your

1 own lived experience, to this analysis, is
2 that what you're saying?

3 A Well, at the end of day there is a
4 person, I assume that the person with skill
5 in the art would have my knowledge and as
6 such I assume that, you know, that person
7 like myself noted that one thing. Would
8 conclude based on that something different or
9 is it something which is different in many
10 ways so.

11 Q So you're -- in your analysis you assume
12 that the person of skill in the art would
13 have your knowledge, right?

14 MS. LEGAARD: Object to form.

15 A I assume that it has my knowledge.
16 Knowledge yes, innovation, no. I do believe
17 that, and again, I'm sorry if I'm arrogant
18 and call me whatever you want. I will not
19 take offense, I believe I'm more creative
20 than the average person on the street you
21 know, I'm more smarter than the average
22 person on the street. I don't have so much

1 knowledge, but, yeah. I do believe I'm more
2 innovative than the average person on the
3 street if you want proof, there are more
4 than -- there are many things that about them
5 that I heard.

6 Q So if you look at Paragraph 33 in your
7 declaration, you have a reference here to a
8 POSITA?

9 A Yeah.

10 Q What do you understand that to mean?

11 A There's a definition of this some place
12 when I read it, I basically read that person
13 you know, whatever, skilled in the art and
14 this is what I tried to apply. Should I find
15 the reference here.

16 Q I think it's on Page 19, if you want to
17 look at it, if you need to, but I don't think
18 you need to for my next question.

19 What I'm trying to understand is how do
20 you as the inventor of this patent, somebody
21 who is more innovative than the average
22 person. How do you put yourself into the

1 shoes of one of mere ordinary skill in the
2 art?

3 A Yeah, I would say -- I ask myself had I
4 read, these are sufficient material. If I
5 were to read each one of the references and
6 since these are the all the references, would
7 that give me any hint even that there is a
8 problem that needs to be solved, okay, so I
9 mean let's maybe put aside the solution,
10 okay. So the necessities a matter of
11 invention. So begin with me the question is
12 reading all of this references, these are any
13 hint that they are saying that there is a
14 need for invention, they believed that they
15 invented everything. And so if there is no
16 need for invention needless to say, you know,
17 a person who is skilled in the art will not
18 think about inventing something because there
19 is no problems. So they're not describing
20 any items left to be sold. And then the
21 question is okay, so had there been a problem
22 for which there is none. If I were to use --

1 okay, just jump for a second and combine
2 them. I almost view this as Lego pieces and
3 the question is can I take these Lego pieces
4 and build the house that '664 describes, the
5 answer is no. And therefore, you know,
6 that's -- these Lego pieces, okay, they're
7 bulky square pieces, I'm using an oval Lego
8 piece. So there's nothing there that someone
9 is going to come with this idea.

10 Q As of 2008, what was your educational
11 obtainment, you had your Ph.D. by then?

12 A 2008, by 2008, the only piece of
13 education I acquired officially, I was sent
14 by Cisco to Stanford for the executive
15 training, other than executive training, I
16 had all my degrees by that time.

17 Q I see. So as of 2008, you had your
18 Ph.D. in electrical engineering from
19 Stanford?

20 A This is correct.

21 Ph.D. is not described one of the
22 necessities of a person skilled in the art.

1 We can go back and as a matter of fact, it
2 will help me if you point me where the
3 definition where the skill in art is, so I
4 can review it so I can answer your questions
5 better.

6 Q It starts on Page 19 of your declaration
7 if you'd like to look at it, but I actually
8 don't think it will be necessary to answer my
9 question. I'm just asking about your
10 experience. But feel free if you want to
11 look at it go ahead.

12 A No, I want to save up your time, if you
13 think I don't need then I don't need it.

14 Q As of 2008 how many years of experience
15 did you have in the fields of
16 telecommunication systems?

17 A When I graduated in '78 with BS degree,
18 one of the main -- at the university there
19 were like, chains, so I took the chain of
20 communication and chain of classes of
21 control. So in '78, I think I was very
22 familiar with what communication is.

1 Q Okay. So decades you could say?

2 A Yeah, yeah.

3 MR. KNIERIM: Why don't we take
4 another short break and hopefully we
5 can finish this up pretty shortly if
6 that's okay with everybody.

7 MS. LEGAARD: Great.

8 (Whereupon, a recess was taken
9 from 5:45 p.m. until 6:03 p.m.)

10 Q Similar question as I had earlier,
11 Doctor, during the break, did you have any
12 conversation with counsel about the substance
13 of your testimony?

14 A No. The only thing is Clare said,
15 hello, and I said I cannot say hello back
16 because I have to report about it.

17 Q I think hello is okay.

18 During the course of today's deposition
19 did anybody off camera pass you any notes or
20 show you any documents that weren't available
21 to be seen by the camera?

22 A No.

1 Q Just a couple more questions. If we
2 could turn to your declaration Exhibit 2005,
3 Page 10.

4 A 2005, okay, I'm sorry, I'm with you.
5 Page 10, bear with me. I have Page 10.

6 Q Then Paragraph 22, at the top you have a
7 description of a subject matter of the '664
8 Patent, you see that?

9 A Yes.

10 Q And it says, "The '664 Patent describes
11 a method that allows channels to be
12 dynamically and optimally provisioned in a
13 communication environment."

14 Have I read that correctly?

15 A Correct.

16 Q Can you show me where in the claims
17 there's a requirement that channels be
18 dynamically and optimally provisioned, if
19 anywhere?

20 A So what I'm going to do is, I'm going to
21 first search. Oh, let me do a search.

22 Okay. So in -- I'm in the patent, are

1 you with me.

2 Q Yes.

3 A I'm in Column 1, and if you'll be so
4 kind and go to Line 38.

5 And then it says, "When importing
6 information."

7 The battery is running low need to
8 connect to the power supply, please bear with
9 us.

10 (Technical difficulties.)

11 A Okay. I apologize. There was a little
12 bit power shortage here.

13 So it says when importing information
14 needs to be a broadcast channel should be
15 configured optimally, and then we continue
16 later and we describe the various
17 configurations, that the configurations that,
18 so as I said before necessity is the matter
19 of invention. Here we demonstrate that there
20 is a certain necessity or we at least we
21 declare there is a certain necessity. Then
22 we proceed with the rest of the patent and we

1 describe how it's going to be. Kind of done,
2 achieved. Does this answer your question.

3 Q Yeah, I think you might have
4 misunderstood my question.

5 A My apologies.

6 Q My question is about the claims of the
7 patent, right.

8 So my question is where in the claims is
9 there a requirement that the channel be
10 dynamically and optimally provisioned?

11 A Yeah, it is my understanding, maybe
12 misunderstanding that the word optimally does
13 not belong in claims. Whats your optimum is
14 not my optimum and optimum has various -- so
15 the word optimum is described in the body and
16 this word belongs that's where this word is
17 used.

18 Q That in Column 1, Line 38, that's in the
19 background section, right?

20 A Yes. So in background we are
21 demonstrating that there is a need or we are
22 claiming, asserting basically, there is a

1 need to do in an optimum way.

2 Q The word dynamically also doesn't appear
3 in the claims, does it?

4 A I'm sorry?

5 Q The word dynamically also does not
6 appear in the claims?

7 A The word dynamically, let me just see
8 what the patent says about it because I
9 really do not recall. You're right the word
10 dynamically does not appear here, but I think
11 what is described here is obviously done in a
12 dynamic way. We can go and discuss what does
13 it mean. What does the word dynamic mean?
14 But I think when we're talking -- let me just
15 go to Claim 1, bear with me I need to get
16 there.

17 So we are monitoring. Okay. So the
18 monitoring is an ongoing thing, it's not a
19 configuration so the word dynamic, at least
20 in my mind, is the opposite of hard-coded or
21 static. So there's static, there's dynamic.
22 Static means, you do it. You're done, that's

1 it. Dynamic for me means, it's in a
2 continuation. It is live, it's an ongoing
3 and the verbs which are used in the method
4 are talking about monitoring. Monitoring
5 means, not monitored once, but monitoring is
6 continuously, and continuously means for me
7 dynamic. Okay. Then I think in my mind at
8 least, in my opinion, the ING shows the
9 ongoing continuation, and as such,
10 dynamically happening.

11 Did I answer the question?

12 Q You did, thank you.

13 Sir, if you look back at your
14 declaration, same Paragraph at Page 10,
15 Paragraph 22.

16 A I apologize, give me one second. So
17 go to 2005, now.

18 Q Correct?

19 A I'm with you and which page, please?

20 Q Page 10.

21 A Page -- I'm with you.

22 Q Paragraph 22.

1 A 22, I'm with you.

2 Q Last sentence says, "To accomplish that,
3 a media stream in a communication environment
4 is monitored and when an alert is detected on
5 one of the media streams the system
6 automatically elevates the media stream to
7 change how it is received by an end point."

8 Do you see that?

9 A Correct.

10 Q Does the word automatically appear in
11 the claims?

12 A Let me read. I believe that we don't
13 have to do it. I think it's obvious. I mean,
14 that there is again, you know, you guys are
15 the attorneys understand it better than I do.
16 So I will just say what my understanding is,
17 not necessarily what it is, because I think
18 what -- in my mind I'm moving into legalese
19 now. The claim is constructed of sequence of
20 limitations, right. And the secrets of
21 limitation basically describes the method.
22 And it has to happen sequentially, I think

1 the court stated that things have to be done
2 in ordered way. There is monitoring. Okay.
3 It's very obvious although it's not saying
4 that they're monitoring media stream is
5 happening by the system. But it is
6 described, okay, it relies on the body. So
7 the body describes how the monitoring happens
8 I think by UMS, but the media server.

9 Q I'm sorry, when you say the body, what
10 do you mean when you say the body, you mean
11 the specification?

12 A The specification, yeah.

13 Q Okay, continue.

14 A So there's the monitoring that happens
15 by the system and then the receiving is again
16 by the system, in this specific case, the MCU
17 is getting that piece of information and then
18 there is the elevating, which is done by the
19 system having been done, I mean, as I said
20 before it's done and it's either done by the
21 person or it's done by the system and we
22 already said a few times that there's no

1 claim whatsoever to what people do. So this
2 is what the system does.

3 So if the system does it and we do not
4 specify in any limitation that is done by a
5 person, of course, it's not done by a person,
6 otherwise it would be minimal. So obviously,
7 it's done automatically. That's kind of for
8 me it's obvious from the claim.

9 Q Sure. Now, let's break that down a
10 little bit.

11 So as a threshold matter, the word
12 automatically, the word itself, does not
13 appear in the claims, we can agree on that,
14 right?

15 A 100 percent in agreement with you.

16 Q But your opinion is that nevertheless,
17 reading the claim you believe the claim
18 requires that the elevation step be performed
19 automatically; is that right?

20 MS. LEGAARD: Object to form.

21 A So maybe we need to go into what
22 automatically means, correct. Automatically

1 means not happening by human intervention.
2 Happening by the system, by the mechanical,
3 of course, it's not mechanical anymore we
4 have software/hardware. But by the system,
5 the hardware/software system does it. So
6 it's not as if we experience in the body
7 about how it's happening, and you know. The
8 system obviously detects it and so. My
9 understanding of the word automatically that
10 is in my opinion, okay. So had I been asked
11 to be a parrot and I would have just said one
12 what our stuff says and I can just copy and
13 paste Claim 1. But I feel that what Brenna
14 and her team asked me to do was to explain to
15 them. So I'm explaining to them that
16 basically what this one means is it's done
17 automatically by system. Again, in general,
18 okay, if there are words that I'm using in my
19 thing and not quoting one to one in many ways
20 I view it as my value add that I'm explaining
21 what the wording says.
22 Q Right. That's what I'm looking for is

1 your explanation. So I understand you're in
2 agreement that automatically is not in the
3 claims, but you still do agree though, that
4 it's your opinion, that in the claims the
5 system automatically elevates the media
6 stream to change how it is received by an
7 endpoint; is that right?

8 A I agree with that, that I would like,
9 with your permission, that what you're doing
10 with me now, you're asking me to interpret
11 some other words. Basically, you're not
12 asking me to read what it says, but you're
13 asking me to use different words to make it
14 more clear. And this is what I think I did
15 in the declaration, also.

16 Q Good. I was actually reading your
17 declaration. There is on Paragraph 2, it
18 says:

19 "The system automatically
20 elevates the media stream to change how
21 it is received by an endpoint."

22 Do you agree that's a requirement

1 of the claims?

2 A Yeah, that definitely is.

3 Q Okay. And what words in the claims
4 inform your understanding there?

5 A Well, as I said, the monitoring done by
6 the system, the receiving done by the system.
7 The elevating is done by the system. And if
8 the system does something based on the
9 information it concludes from the monitoring
10 and from the receiving, and it does
11 something, it does it automatically because
12 there's no limitations. And as it does so,
13 the dispatcher person, the online person is
14 doing something, then it will be manual. But
15 it's not there, so that person is not doing
16 it.

17 And there's nothing in the writeup that
18 hints that a person is involved. What
19 machine done, based on its own observations,
20 based on its own sensory system, is
21 automatic. So to me, that's the definition
22 of automatic. I'm not sure if your different

1 type of definition that you'd like me to go
2 by, I'd be happy to learn.

3 Q I'm just asking for your opinion here,
4 so this is helpful.

5 But let me confirm.

6 In your opinion, the claims do not say
7 that the monitoring is done by the system or
8 that the receiving is done by the system or
9 that the elevating is done by the system, do
10 they?

11 A In my mind, it does not use the words,
12 but with the words that it uses mean the same
13 thing.

14 Q I'm trying to get an understanding of
15 why you believe the words that the claims
16 use, means that it has to be automatic, and
17 means that it has to be done by the system.

18 What in the claims are you looking at?

19 A The claims are not in a vacuum. The
20 claims are based on writeup. Okay. If I'm
21 understanding legalese, and you understand it
22 better than I do, I cannot make claims

1 without supporting them in the document
2 above, in the body or whatever you call it.

3 There is some string of information.
4 String of knowledge that, call it leaks or
5 whatever, to outlet effects the meaning of
6 what the claims says. So that's the whole
7 purpose. And as a matter of fact, if I was,
8 basically, for example, which I categorically
9 disagree with, if I were to go on the
10 trajectory that maybe you're trying to take
11 me on and say it actually means also human
12 beings doing, then a proper challenge, at
13 least in -- I know for sure in the European
14 patent office would be, show me where you say
15 it's done manually. If you do not say it's
16 done manually, then it's not.

17 But we show above how it's done by a
18 machine. We showed above how it's done so we
19 do have support with architecture, with flow
20 charts, et cetera, how it's done by machine.
21 So since we have the support, this is what it
22 means.

1 Q I see. So even though the claim doesn't
2 say that it's done automatically or that the
3 system does the monitoring or that the system
4 does the receiving, what you're doing is
5 you're looking at the specification and in
6 light of the specification, you're concluding
7 that the claim requires that.

8 Is that a fair statement?

9 A No.

10 Q Okay. What's wrong with that statement?

11 A I think your assumption that it doesn't
12 say it, is not sitting well with me. I would
13 agree with you it does not use the words.
14 There is a difference between, like, for
15 example, if I say now "fire," I did not say
16 the word alarm, but I did send an alarm. So
17 my word "fire" also said in a way the other
18 meanings of that.

19 And in patents, the meaning of what's
20 said here goes and continues along the lines
21 of what was described about.

22 So I would agree with you that I did not

1 use word or that the patent does not use the
2 word. I will not agree with you that it does
3 not say it.

4 Q All right. So I guess my question is:
5 What words in the claims are you using to
6 conclude that it says that it must happen
7 automatically?

8 A As I said, the patent is described
9 monitoring by the system automatically.

10 Q That's the specification, not the
11 claims. I'm asking about --

12 A I'm sorry?

13 Q Again, I'm asking about the language in
14 the claims, but what I hear you saying is
15 you're looking to the specification for that,
16 that it must happen automatically.

17 A Yeah, of course.

18 Q Okay.

19 A Of course. And, again, you know, if I
20 misinterpret how one reads patents, please,
21 you know, I'll be always happy to admit
22 mistake.

1 But my understanding is that the claims
2 heavily are tied together depending on
3 definitions explanation in the body.
4 Anything that is not in the body cannot be
5 claimed. And the claim themselves must be
6 done in the spirit of the body above. If
7 this is not the case, then legally I'm wrong,
8 and it's between you and Brenna to iron it
9 out.

10 Q Have you ever heard the statement that
11 claims should not be construed as being
12 limited to the preferred embodiments in the
13 specification?

14 A Claims should not be construed? Go with
15 me once again, the English construed,
16 understood as?

17 Q Let me rephrase it.

18 It would be improper to limit the claims
19 to what's disclosed as a preferred embodiment
20 in a specification.

21 Have you heard that before?

22 A Yeah.

1 Q Okay. And you think that's consistent
2 with your opinions on the claims here?

3 A Yeah, definitely.

4 Q Okay.

5 A Because we specifically said manual's
6 not included. We specifically highlighted
7 millions prior arts and as such, again, we
8 never said -- and because it's prior art we
9 will not the claim it. It's like A, B, C; if
10 I say it's prior art I'm saying, you know,
11 I'm not claiming it and Mr. Examiner, if
12 you're going to go and bring references, I
13 acknowledge don't bring this reference, you
14 know, it's part of my packet.

15 Q If the claims were construed to include
16 manual operation, you'd agree they'd be
17 invalid, right?

18 MS. LEGAARD: Object to form.

19 A I'm missing -- I'm not sure how to --
20 what if, what's not if. You know, I'm here
21 to -- you know, it's more legal question.
22 I'm here to explain to you what the patent

1 is. Okay. You're asking me whether it's
2 automated, I explain why I believe it's
3 automated. And what if it was like this, if
4 it was like that, I don't know anything about
5 the "if" situations here. I'm just telling
6 you what it is.

7 Q You rendered an opinion on the validity
8 of the patent correct, sir?

9 A Of course.

10 Q And that conclusion is based on the
11 assumption the claim requires elevation to
12 happen automatically, right?

13 MS. LEGAARD: Object to form.

14 A This is based on the fact that the thing
15 is done automatically and it has to be done,
16 like it is saying here, and let me just
17 quote, because it's -- the limitation here --
18 it's "provision to the endpoint," not
19 provision in the endpoint. But provision to
20 the endpoint. That's one of the limitations
21 of.

22 So, I mean, you forgot all the other

1 things, just based on all of the other stuff,
2 the stuff you read about.

3 Q Right. And you, as an inventor of the
4 patent, you had no intention of claiming a
5 manual operation in Claim 1, correct?

6 MS. LEGAARD: Object to form.

7 A You know, we highlighted the knowledge
8 and the awareness that it's prior art doing
9 things manually, and as such, as we
10 definitely shy away from prior art.

11 Q Okay.

12 A It'll would be silly for me to go and
13 say, I know someone invented the wheel, but
14 how about I invent the wheel. That's not
15 what the person does.

16 Q Okay. Great.

17 Moving on, EDACS. You have some
18 discussion in your declaration regarding the
19 control channel of EDACS, do you recall that?

20 A Yeah.

21 Q Would EDACS be able to maintain calls
22 without the control channel?

1 Let me rephrase that, that was poorly
2 phrased.

3 Would EDACS work without a control
4 channel?

5 A Would EDACS work -- well, you know,
6 EDACS describes operation of control channel;
7 and therefore, if you take the -- some
8 elements out of EDACS, then it's not EDACS.
9 It's diluted EDACS, and it's no longer EDACS.

10 So, I mean, what you're asking me is a
11 very convoluted way, if I'm understanding it,
12 that whether EDACS has control channel, yeah,
13 EDACS describes control channel.

14 Q Yeah, and the control channel of EDACS
15 is required in order to initiate a call on
16 the working channels, correct?

17 A That's correct. That's part of
18 initiation of the call, correct.

19 Q Without that control channel, a user of
20 the EDACS system could not initiate a call on
21 a working channel, correct?

22 A I don't see how they do that. But,

1 again, someone may be very creative. I --
2 you know, I would not want to do it.

3 Q If you turn to Paragraph 97 of your
4 declaration, it's Exhibit 2005, on Page 43.

5 A Please bear with me.

6 I'm with you, 43.

7 Q Paragraph 97 says, "In furtherance of
8 the above, the district court has defined the
9 media stream to include 'audio or visual
10 [data] or both.'"

11 Do you see that?

12 A That's correct.

13 Q And that's the district court
14 construction that you applied in your
15 analysis here?

16 A Yeah, I think that that's what I was
17 told, that this is what the Judge decided and
18 who am I to argue with the Judge.

19 Q Okay. If you turn, now, to Page 46,
20 Paragraph 104 of your declaration.

21 A Forty-six. Please give me a second.

22 I am on 46.

1 Q You say here in Paragraph 104, "As
2 stated above, the district court has defined
3 media stream to include 'audio or visual
4 [data] or both."

5 Do you see that?

6 A Yeah.

7 Q And that's the construction that you
8 applied in your analysis here?

9 A Correct.

10 Q All right. Let's turn to Paragraph 130.

11 A One hundred thirty.

12 Q One hundred thirty.

13 A Please bear with me.

14 Q On Page 65?

15 A I'm there, I cannot read it, but I am
16 here.

17 Q Okay. In the first sentence of
18 Paragraph 130 it says, "In furtherance of the
19 above, the district court has defined media
20 stream to include 'audio or visual [data] or
21 both".

22 Do you see that?

1 A Yes.

2 Q And that's the construction that you
3 applied in your analysis here?

4 A Correct. It was all the same, correct.
5 I'm not following. Maybe I'm getting tired,
6 but until now, each one of the quotes is the
7 same, correct?

8 Q The quotes that I just read you from
9 Paragraphs 97, 104, and 130, I believe are
10 all the same.

11 A Yeah, okay. Thank you. Since I agree
12 with one, I agree with all of them.

13 MR. KNIERIM: Okay. I have no further
14 questions. Pass the witness.

15 MS. LEGAARD: Okay. Dr. Shaffer, I
16 have a few things.

17 EXAMINATION BY

18 MS. LEGAARD:

19 Q So let's start with Paragraph 130.

20 You were asked about that first line in
21 Paragraph 130 of your declaration.

22 A Yeah.

1 Q And then you saw -- counsel directed you
2 to the same language in a couple of other
3 paragraphs?

4 A Yes.

5 Q Okay. If the court had defined media
6 stream to include audio or visual data or
7 both and associated data, would that change
8 your analysis of this declaration?

9 A No. I mean, when I did what I did, I
10 took the declaration and that's my frame of
11 mind.

12 Q Okay.

13 A Did I answer the question properly?

14 Q Yeah, you did. That's okay. Okay.

15 So earlier in the day, counsel walked
16 you through some examples in the
17 specification, do you remember that?

18 A Specification, you mean 2001?

19 Q Yeah, sorry, yes.

20 A So 2001, in which line specifically
21 you're referring to?

22 Q So I'm directing your attention to

1 something you said. You talked about a man
2 down button.

3 A Yes.

4 Q Would pressing a man down button result
5 in alert?

6 MR. KNIERIM: Object to form.

7 A Well, since Mike objects I move to the
8 next question. You guys are so confusing for
9 me, you attorneys.

10 So this specific operation of how
11 handheld works is out of the scope of this
12 thing. It's my understanding that one can
13 generate alerts, if there is a button that
14 would send an alert, than alert would be
15 sent. But, gain, there is a big difference
16 between -- as far as the patent's concerned.

17 There's a big difference between alerts
18 sent before media is there, and after media
19 is there. So if you send the alert when
20 there is no media, okay, then you cannot
21 monitor media stream because there's nothing
22 to monitor.

1 So if I'm saying via control channel
2 there is fire, okay, that's the only thing.
3 It does not flow with the monitoring media
4 stream; because if there was no media, then
5 the monitoring media stream limitation cannot
6 be met, and as such, is irrelevant to this
7 patent.

8 Q So you kind of anticipated my question.
9 If you go to Claim 1 of the '644 patent,
10 2001.

11 A Okay.

12 Q Is generating an alert alone enough to
13 satisfy all the requirements of that claim?

14 A No.

15 MR. KNIERIM: Objection to form.

16 Q Okay. And I think --

17 A Again, it could be, but it's not
18 sufficient. It's necessary because if you
19 are monitoring for alarm, there has to be
20 sometimes an alarm. But it is associated
21 with media stream and as such there must be
22 media stream associated, otherwise first

1 limitation not met.

2 Q Okay. And then I think counsel also
3 talked to you about -- let me ask it this
4 way: So is turning up the volume on a
5 channel elevating a priority?

6 MR. KNIERIM: Objection to form.

7 A Would it increase in the volume on a
8 channel is increasing --

9 Q Let me strike that.

10 Is turning up the volume on a channel --
11 I'll change that.

12 Is turning the volume up elevating the
13 priority?

14 A I believe that's one of the means that
15 we describe here. We describe either -- and
16 as I said before, if we all sit in a chair
17 elevating is sitting on the table, so I'm at
18 higher volume, that's elevating. The other
19 thing is all of us sit on the chairs and I
20 put you down on the floor, not personally,
21 and as such, I'm elevated and I'm higher than
22 you. The issue of elevation, which is

1 relative to where the neighbors are.

2 Q Okay. And so the same question: Is
3 that elevation by itself enough to be covered
4 to infringe Claim 1?

5 MR. KNIERIM: Objection to form.

6 A I don't understand the meaning of "by
7 itself," but, you know. Again, you and Mike
8 would have to discuss it later, because it's
9 my understanding of patents that you guys
10 understand better. But the patent is not --
11 does this depend. Patent has claims. Claims
12 has many limitations here, and that seem to be
13 included or not included is, did we meet each
14 one of the limitations? If we did not meet
15 one of the limitations, it's out of scope.

16 Q Okay. And then the last bit of things.
17 So counsel asked you about --

18 A By the way, I have to make comment. The
19 two of you guys are very frustrating for me,
20 because I usually, when I talk to engineers
21 there is feedback and I know when my answer
22 is correct, but with you guys I have no idea,

1 but these are my opinions.

2 Q Fair enough.

3 Okay. A few minutes ago counsel asked
4 you about whether "manual operation" is
5 covered by the claims.

6 Do you know what he meant by "manual
7 operation"?

8 MR. KNIERIM: Objection to form.

9 A Manual operation is what manual means.
10 Manual means man. Okay. Made by man,
11 someone with his hand, with his finger, with
12 his clicking on the mouse, hearts of did
13 something, and as such, the sequence of event
14 followed.

15 In this patent, there's no person
16 pushing on a button. It's all happening.
17 Happening with, as Mike said before, that, at
18 least I believe, automatically, which means
19 without. Autonomous means by itself, and by
20 itself means without someone, that someone
21 being a human being. It's done dynamically,
22 and dynamically means done continuously.

1 It's not done once.

2 Okay. It's not monitor once and then do
3 something. But there is an ongoing process
4 as long as there's a media stream, because
5 there is media stream to monitor. As long as
6 there is media stream going through the
7 system, someone, that someone is the system,
8 is keeping an eye on it and monitoring it.
9 So needless to say, not an eye, but all kinds
10 of DSP and other software.

11 Q Okay. Counsel asked you about the
12 obviousness standard, and I'll direct you to
13 your declaration, Paragraph 40.

14 A Please bear with me. I need to go
15 there.

16 So this is in 2005?

17 Q Yes.

18 A And 40. Give me a second.

19 MR. KNIERIM: Objection. This is
20 outside the scope of my
21 cross -- withdrawn.

22

1 A I'm sorry?

2 MR. KNIERIM: Nothing. Objection
3 withdrawn.

4 A Okay. That's between the two of you.

5 Q Paragraph 40.

6 A Okay. I'm there.

7 Q Okay. And if you want to take a minute
8 to read that paragraph to yourself, go ahead.

9 A Yes.

10 Q And I want you to jump to Paragraph 32
11 on the next page.

12 A Yes. I'm with you.

13 Q Okay. And my question is: Do these
14 paragraphs accurately capture your analysis
15 with respect to obviousness in this
16 declaration?

17 A To the best of my ability, yes.

18 MS. LEGAARD: Okay. And no further
19 questions.

20 MR. KNIERIM: Just one.

21

22 EXAMINATION BY

1 MR. KNIERIM:

2 Q Doctor, would receiving an email or a
3 text message constitute monitoring a media
4 stream?

5 A I'm sorry. Receiving an email?

6 Q Or a text message?

7 A Or a text message --

8 MS. LEGAARD: Objection. Beyond the
9 scope.

10 A So according to the definition of the
11 court, and I'll stay with that, so that I
12 will not be inventing here.

13 Email and text messages were not
14 included, according to the court. So
15 according to the court, there has to be voice
16 or video, correct.

17 So that's kind of our -- I'm staying
18 with what the court said, because that's my
19 understanding of what the court said.

20 MR. KNIERIM: No further questions.

21 MS. LEGAARD: All right. You're done.

22 We'll take a rough.

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(Whereupon, this examination was
concluded at 6:43 p.m.)

DR. SHMUEL SHAFFER

Subscribed and sworn to
before me on this ____ day
of _____, _____.

Notary Public

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I N D E X

WITNESS: DR. SHMUEL SHAFFER

EXAMINATION BY	PAGE
MR. KNIERIM	4
MS. LEGAARD	219
MR. KNIERIM	228

PREVIOIUSLY MARKED	DESCRIPTION	PAGE
Exhibit 1001	U.S. Patent No. 8,831,664 B2	26
Exhibit 2005	Declaration by Dr. Shmuel Shaffer	161

C E R T I F I C A T E

I, KIARA MILLER,
a Shorthand Reporter and Notary Public of the
State of New York, do hereby certify:
That the witness whose examination is
hereinbefore set forth, was duly sworn or
affirmed by me, and the foregoing transcript is
a true record of the testimony given by such
witness.

I further certify that the deposition of
Dr. Shmuel Shaffer, occurred REMOTELY on TUESDAY,
OCTOBER 1, 2024, commencing at 12:18 p.m. and
concluding at 6:43 p.m.

I further certify that I am not related to any
of the parties to this action by blood or
marriage, and that I am in no way interested in
the outcome of this matter.

Kiara Miller

KIARA MILLER

Transcript of Dr. Shmuel Shaffer
Conducted on October 1, 2024

232

A			
a-k-l	153:3, 228:10,	25:18	101:4, 103:13,
178:10	228:14, 228:15	adjust	109:9, 109:14,
a6	accurately	51:2	111:12, 115:6,
36:21	227:14	adjusted	118:21, 125:9,
ab	accused	50:18, 51:14	127:10, 128:16,
16:20, 17:11,	176:18	adjusting	133:9, 134:3,
20:8, 128:5,	accusing	111:8, 111:13	144:3, 149:6,
131:2, 131:9,	176:12	adjustment	149:9, 156:12,
131:15, 132:8,	achieve	79:4, 80:5,	159:8, 159:20,
132:9, 132:15	25:13, 182:17	95:16	160:4, 172:8,
ability	achieved	administration	174:18, 180:19,
7:20, 11:8,	199:2	35:2, 35:14	187:1, 187:20,
27:20, 85:3,	acknowledge	admit	191:17, 202:14,
227:17	20:15, 213:13	211:21	203:15, 205:17,
able	acquired	adopts	211:13, 211:19,
17:7, 17:8,	194:13	181:4	212:15, 213:7,
22:18, 26:22,	act	advised	217:1, 222:17,
30:8, 35:15,	109:12, 157:1	165:12	224:7
56:5, 57:12,	acting	advising	against
62:6, 72:7,	54:20, 54:21,	96:14	1:9, 2:9,
84:14, 89:5,	164:11, 164:21	affirmed	141:17, 176:5,
93:21, 122:11,	action	231:7	177:9
123:21, 136:8,	85:7, 130:12,	affixed	ago
136:9, 166:3,	184:4, 231:15	162:11	42:15, 43:4,
177:12, 177:16,	actually	afford	92:22, 133:10,
181:5, 215:21	38:17, 45:22,	166:16	166:17, 225:3
above	54:20, 109:6,	after	agree
209:2, 209:17,	121:14, 130:19,	4:1, 31:8,	18:5, 18:6,
209:18, 212:6,	131:12, 132:10,	31:11, 41:22,	18:12, 18:13,
217:8, 218:2,	134:2, 195:7,	47:1, 56:14,	19:10, 19:11,
218:19	206:16, 209:11	104:18, 107:3,	19:12, 58:17,
abstract	add	116:3, 141:3,	58:19, 59:1,
55:3, 55:6,	25:22, 53:14,	180:16, 180:19,	101:7, 106:1,
58:9	70:1, 70:7,	181:10, 221:18	112:10, 112:15,
accent	126:7, 205:20	again	112:20, 112:21,
175:9	added	9:17, 9:20,	128:9, 129:3,
access	84:12	21:9, 25:4,	129:5, 133:14,
6:12, 7:12,	adding	25:20, 35:7,	147:1, 147:7,
45:19	136:16, 136:17	41:15, 47:2,	147:18, 177:19,
accessing	additional	47:20, 48:8,	178:8, 183:16,
7:6	179:1	61:14, 67:9,	183:17, 185:16,
accommodate	address	67:13, 69:5,	185:18, 189:14,
12:15, 123:9	4:6, 4:9,	69:10, 71:9,	204:13, 206:3,
accomplish	39:11, 129:12,	77:9, 83:19,	206:8, 206:22,
120:5, 202:2	130:20, 134:7	88:9, 89:17,	210:13, 210:22,
according	addressing	92:8, 92:20,	211:2, 213:16,
94:1, 104:7,	98:10	93:12, 95:12,	219:11, 219:12
	adhere	96:8, 99:19,	agreed
	24:2, 24:3,		36:4, 150:5

agreement 18:4, 59:6, 112:19, 123:3, 204:15, 206:2 agrees 185:14 ahead 35:21, 102:9, 195:11, 227:8 ai 47:5 air 60:3 airplane 189:4, 189:6, 189:8, 189:12, 190:15, 190:16 airplanes 189:2 akl 178:10, 178:13 alarm 27:1, 57:12, 210:16, 222:19, 222:20 albeit 37:9, 46:6, 47:6, 166:1 alert 27:8, 51:21, 52:6, 55:16, 55:21, 58:12, 59:13, 60:15, 60:17, 60:19, 61:10, 61:19, 62:8, 62:13, 87:21, 97:6, 97:10, 97:12, 97:13, 97:16, 97:22, 98:2, 98:7, 98:10, 98:12, 99:3, 99:9, 99:22, 100:6, 100:9, 100:11, 100:19, 101:12, 101:16, 102:18, 103:3, 103:6, 104:11,	107:4, 109:3, 111:1, 112:13, 112:14, 113:5, 115:13, 119:9, 119:17, 124:18, 125:6, 126:8, 126:9, 126:16, 138:9, 138:21, 139:2, 202:4, 221:5, 221:14, 221:19, 222:12 alerts 100:13, 100:17, 125:22, 145:20, 221:13, 221:17 algorithm 12:3 alive 169:12 all 6:16, 8:19, 11:2, 17:21, 17:22, 24:16, 25:16, 26:2, 34:10, 37:9, 39:20, 40:3, 42:5, 43:8, 44:18, 46:4, 46:5, 52:11, 63:15, 66:22, 78:5, 86:4, 91:5, 95:1, 96:22, 104:9, 107:15, 110:7, 111:3, 120:18, 120:19, 123:1, 123:9, 125:5, 126:14, 143:18, 145:15, 159:3, 161:5, 165:9, 165:17, 169:3, 170:5, 170:6, 175:17, 177:11, 181:20, 181:21, 184:15, 193:6, 193:12, 194:16, 211:4, 214:22, 215:1, 218:10,	219:4, 219:10, 219:12, 222:13, 223:16, 223:19, 225:16, 226:9, 228:21 allocate 14:14 allocated 19:22, 20:6 allow 102:5, 135:21, 156:12 allowing 136:4 allows 197:11 almost 31:4, 88:11, 90:11, 92:10, 112:9, 112:10, 154:14, 159:15, 179:21, 194:2 alone 145:3, 173:2, 173:17, 222:12 along 210:20 alphabet 113:6 already 140:17, 141:14, 203:22 also 6:12, 8:7, 8:11, 15:14, 17:2, 27:19, 29:6, 34:17, 45:11, 51:6, 54:19, 55:19, 73:21, 79:2, 80:3, 81:13, 86:11, 86:22, 89:22, 99:19, 101:21, 104:1, 110:12, 120:4, 126:12, 131:10, 137:4, 137:20, 138:10, 139:20,	142:8, 144:2, 145:19, 173:6, 180:1, 180:2, 186:21, 187:1, 200:2, 200:5, 206:15, 209:11, 210:17, 223:2 alter 163:21 alternatively 54:17, 104:11 although 145:16, 203:3 alto 4:10, 4:20 altogether 45:1 always 24:3, 24:8, 37:17, 37:18, 38:1, 61:5, 84:2, 107:17, 112:17, 128:11, 128:14, 128:15, 128:21, 133:16, 136:9, 160:14, 164:14, 165:1, 165:3, 166:1, 184:18, 187:6, 211:21 among 28:6, 36:3, 140:22 analogy 152:8, 152:12 analysis 187:16, 188:22, 191:1, 191:11, 217:15, 218:8, 219:3, 220:8, 227:14 analyze 101:18 analyzed 190:2 analyzing 98:4, 186:7 anchoring 156:21, 187:20
--	---	--	---

angle 86:22, 89:3 another 6:15, 13:3, 13:4, 14:14, 22:2, 31:6, 38:21, 39:5, 41:8, 49:6, 50:1, 53:4, 53:5, 58:2, 60:21, 61:11, 64:18, 87:1, 92:11, 92:12, 92:15, 93:4, 93:5, 93:17, 103:10, 104:17, 109:1, 110:21, 116:2, 116:4, 117:13, 119:4, 119:15, 142:22, 149:21, 196:4 answer 8:8, 9:13, 10:1, 10:4, 10:7, 15:3, 16:18, 18:22, 19:2, 21:11, 23:12, 25:3, 25:22, 29:19, 29:20, 30:14, 30:22, 31:9, 37:13, 38:4, 39:4, 41:16, 45:13, 51:1, 67:11, 70:2, 79:15, 83:19, 83:22, 84:17, 85:20, 94:10, 95:1, 95:2, 95:3, 102:7, 104:5, 105:19, 108:16, 114:19, 120:7, 122:2, 132:17, 133:13, 135:6, 135:9, 135:15, 146:5, 146:20, 149:16, 150:14, 153:16,	155:9, 190:10, 194:5, 195:4, 195:8, 199:2, 201:11, 220:13, 224:21 answered 48:7, 141:20 answering 93:2, 104:2, 146:7 anticipated 141:15, 162:6, 222:8 any 5:2, 6:3, 7:6, 7:18, 8:2, 11:8, 11:9, 11:13, 17:19, 19:13, 19:17, 23:15, 25:5, 30:6, 34:9, 35:17, 35:19, 36:9, 37:15, 40:20, 42:5, 42:6, 42:8, 43:6, 52:12, 65:18, 68:7, 69:6, 70:9, 74:12, 81:18, 100:13, 100:17, 102:14, 102:18, 105:5, 124:21, 137:13, 140:15, 141:4, 141:19, 142:13, 155:19, 159:17, 166:15, 166:16, 170:9, 188:1, 190:12, 193:7, 193:12, 193:20, 196:11, 196:19, 196:20, 204:4, 231:14 anybody 196:19 anyhow 178:4, 182:3 anymore 166:1, 205:3	anyone 11:16, 11:17, 41:4, 58:18, 61:7, 183:5, 184:8 anything 17:20, 19:10, 22:8, 61:8, 62:3, 67:22, 86:1, 148:1, 163:20, 165:6, 173:20, 174:1, 174:11, 174:22, 188:2, 212:4, 214:4 anyway 152:7 anywhere 197:19 apologies 121:13, 150:18, 199:5 apologize 21:14, 50:7, 71:12, 77:16, 85:20, 95:14, 96:9, 102:21, 106:9, 113:20, 132:12, 198:11, 201:16 apology 175:8 appeal 1:2, 2:3 appear 143:13, 200:2, 200:6, 200:10, 202:10, 204:13 apple 31:6, 188:8 apples 188:7 application 30:11, 99:16 applications 30:5 applied 188:21, 190:22,	217:14, 218:8, 219:3 applies 11:10 apply 192:14 appreciate 48:6, 48:10, 162:9 approach 180:14, 181:15 approved 68:22 architecture 74:15, 172:9, 209:19 area 45:4, 45:7, 188:1 areas 78:14 argue 48:2, 103:14, 217:18 argument 184:16 arms 168:18 army 168:17 around 43:19, 54:10 arrival 86:12, 89:3 arrived 130:8, 134:11 arrives 89:2, 131:10, 172:14, 172:20 arriving 88:20 arrogant 125:16, 191:17 art 117:3, 136:14, 136:19, 137:12, 138:2, 138:3, 147:1, 147:18,
--	---	--	--

170:17, 171:20, 179:1, 179:5, 179:10, 188:9, 188:13, 188:19, 189:4, 189:5, 189:11, 190:2, 191:5, 191:12, 192:13, 193:2, 193:17, 194:22, 195:3, 213:8, 213:10, 215:8, 215:10 arts 213:7 asic 37:1, 37:13, 37:14, 37:15, 37:22, 38:5 aside 23:14, 193:9 asked 36:1, 38:14, 105:8, 105:21, 131:2, 133:12, 163:18, 168:20, 178:2, 178:6, 178:7, 187:10, 205:10, 205:14, 219:20, 224:17, 225:3, 226:11 asking 8:16, 19:9, 23:18, 23:20, 24:9, 29:14, 42:18, 54:19, 66:5, 67:10, 67:14, 67:15, 70:6, 70:7, 71:1, 83:18, 87:2, 92:14, 92:15, 94:22, 95:19, 96:2, 129:3, 153:14, 157:1, 159:5, 159:7, 166:15, 195:9, 206:10, 206:12, 206:13, 208:3, 211:11,	211:13, 214:1, 216:10 aspect 52:5, 61:21, 154:11, 176:9, 184:17, 185:14 aspiration 18:4 assert 21:16, 141:17 asserted 21:7, 176:4 asserting 199:22 assertion 189:11 assign 10:22, 12:3 assigning 13:6 assistance 97:5 assistants 74:12 associate 156:19 associated 51:22, 52:8, 102:12, 102:15, 103:19, 103:20, 110:16, 128:12, 129:1, 133:17, 149:3, 149:8, 149:12, 150:17, 150:20, 151:1, 152:15, 154:2, 154:4, 154:9, 154:12, 154:13, 154:14, 154:16, 154:17, 154:20, 154:21, 155:2, 155:4, 155:13, 155:15, 156:3, 157:4, 157:7, 157:12, 157:14, 158:18, 159:10, 160:5, 160:21, 169:5, 174:2,	174:4, 174:5, 220:7, 222:20, 222:22 associating 179:22 association 154:10, 154:19, 155:17, 156:1, 156:8, 156:20, 157:2, 157:3, 157:10 assume 8:4, 56:20, 118:3, 176:20, 191:4, 191:6, 191:11, 191:15 assumption 210:11, 214:11 attempt 180:13 attempting 11:14, 77:7 attempts 10:18 attention 27:9, 68:17, 112:12, 220:22 attorney 26:1, 39:8, 68:4, 71:13, 187:1, 187:5 attorney's 39:6 attorneys 4:16, 5:12, 38:21, 39:15, 48:1, 48:9, 68:16, 103:14, 150:4, 202:15, 221:9 audio 16:22, 18:8, 20:6, 20:12, 23:4, 27:13, 27:15, 28:3, 53:17, 53:18, 74:14, 82:5, 82:8, 86:13,	87:5, 121:3, 121:22, 124:10, 158:21, 217:9, 218:3, 218:20, 220:6 automated 214:2, 214:3 automatic 153:9, 171:17, 207:21, 207:22, 208:16 automatically 86:2, 136:5, 138:16, 139:12, 172:12, 202:6, 202:10, 204:7, 204:12, 204:19, 204:22, 205:9, 205:17, 206:2, 206:5, 206:19, 207:11, 210:2, 211:7, 211:9, 211:16, 214:12, 214:15, 225:18 autonomous 225:19 available 196:20 avenue 3:15 average 82:19, 191:20, 191:21, 192:2, 192:21 aware 22:4, 22:8, 39:13, 49:3, 69:19, 69:20, 93:17, 99:1, 138:4, 173:8, 173:9, 179:1, 180:10 awareness 215:8 away 23:6, 215:10 B b2 1:8, 2:8,
---	---	---	---

26:13, 230:14 baby 112:12 back 20:3, 32:15, 43:8, 57:4, 63:10, 63:14, 80:1, 85:10, 88:9, 90:17, 101:4, 102:3, 106:11, 134:17, 141:21, 152:17, 156:18, 163:13, 195:1, 196:15, 201:13 background 43:16, 199:19, 199:20 backward 123:12, 123:16, 123:20, 135:20, 181:19 bad 19:5, 19:6, 155:9, 166:11 baker 3:4, 140:12 band 9:2, 9:4, 9:5, 9:11, 9:12, 13:12, 14:4, 14:5, 44:22, 89:18 bands 9:3, 84:10 bandwidth 13:12, 13:15, 13:20, 13:22, 17:4, 20:4, 20:6, 20:20, 22:9, 22:11, 22:17, 22:21, 23:3, 23:5, 23:14 barking 188:5 bart 187:1	based 16:21, 38:22, 39:7, 39:19, 69:13, 71:2, 88:8, 112:19, 155:7, 165:19, 166:4, 172:2, 173:17, 174:13, 176:2, 187:12, 191:8, 207:8, 207:19, 207:20, 208:20, 214:10, 214:14, 215:1 basement 19:12 basically 12:2, 13:5, 14:7, 16:21, 17:4, 20:7, 23:6, 24:2, 26:22, 27:17, 30:1, 30:10, 38:21, 44:7, 44:8, 45:2, 45:7, 45:17, 60:5, 61:17, 70:19, 72:3, 80:5, 81:17, 84:5, 86:21, 98:9, 101:18, 105:14, 113:13, 117:5, 117:21, 118:10, 123:16, 135:18, 138:4, 139:21, 139:22, 142:8, 142:12, 142:15, 144:12, 148:4, 149:17, 156:17, 156:21, 168:21, 169:8, 179:8, 192:12, 199:22, 202:21, 205:16, 206:11, 209:8 basis 153:9 battery 198:7	bear 43:13, 55:5, 85:17, 87:17, 106:11, 120:11, 121:16, 145:7, 170:15, 174:18, 183:12, 197:5, 198:8, 200:15, 217:5, 218:13, 226:14 beat 82:1 because 10:20, 12:7, 20:11, 24:11, 26:4, 27:14, 30:13, 32:3, 33:9, 35:9, 36:14, 37:12, 37:22, 46:5, 54:21, 56:19, 59:8, 61:4, 61:15, 62:17, 69:15, 71:9, 72:4, 72:5, 84:1, 88:8, 89:7, 90:7, 90:10, 102:4, 102:11, 112:18, 115:6, 118:16, 122:12, 122:15, 123:21, 126:13, 130:4, 130:12, 132:5, 132:18, 133:5, 136:13, 144:2, 152:2, 152:18, 153:5, 154:10, 154:15, 154:20, 156:16, 157:19, 158:6, 160:22, 162:22, 166:6, 167:22, 170:4, 172:11, 174:2, 175:21, 181:12, 182:19, 189:6, 193:18, 196:16, 200:8, 202:17, 207:11,	213:5, 213:8, 214:17, 221:21, 222:4, 222:18, 224:8, 224:20, 226:4, 228:18 become 24:4 becomes 59:4 been 4:2, 26:7, 28:20, 42:12, 42:19, 43:5, 62:9, 63:7, 66:8, 69:13, 69:16, 70:1, 71:1, 92:6, 92:10, 97:4, 100:1, 110:1, 115:13, 120:2, 145:16, 148:4, 181:7, 182:8, 183:14, 193:21, 203:19, 205:10 beer 155:1 before 1:2, 2:3, 2:18, 5:8, 10:10, 19:21, 20:8, 22:15, 38:9, 42:13, 42:14, 46:22, 47:9, 48:16, 56:19, 57:2, 57:16, 85:6, 110:19, 113:12, 114:10, 122:9, 122:13, 129:17, 132:4, 132:5, 134:1, 136:8, 143:17, 149:15, 150:12, 158:7, 172:8, 172:14, 172:17, 172:20, 180:19, 198:18, 203:20, 212:21, 221:18, 223:16, 225:17,
--	--	--	--

229:10 begin 136:14, 193:11 beginning 22:16, 23:2, 123:4, 128:5, 135:21 behalf 2:16, 3:3, 3:13 behind 61:2 being 7:21, 8:14, 28:15, 86:13, 121:4, 122:1, 124:11, 151:8, 151:19, 152:13, 154:13, 168:1, 176:18, 212:11, 225:21 beings 209:12 believe 6:12, 19:3, 24:11, 26:7, 26:18, 29:10, 32:2, 32:5, 39:15, 50:22, 52:14, 71:21, 72:1, 79:12, 79:14, 79:15, 104:5, 115:12, 119:22, 125:16, 133:12, 134:8, 135:15, 147:11, 147:14, 166:2, 167:8, 168:17, 168:19, 169:8, 177:9, 185:14, 191:16, 191:19, 192:1, 202:12, 204:17, 208:15, 214:2, 219:9, 223:14, 225:18 believed 193:14 bell 152:10, 178:13,	178:19 belong 154:15, 199:13 belongs 199:16 benefit 91:3 benefits 16:8, 16:12 best 7:19, 8:12, 65:8, 179:5, 227:17 bet 181:9 better 15:11, 20:14, 53:2, 60:12, 72:4, 93:14, 125:12, 125:17, 168:8, 195:5, 202:15, 208:22, 224:10 between 10:19, 11:2, 11:22, 13:21, 43:3, 44:17, 45:18, 59:20, 68:3, 79:13, 86:7, 88:19, 93:4, 103:14, 112:19, 114:7, 122:8, 122:16, 138:13, 144:20, 146:11, 148:5, 148:17, 152:9, 155:18, 156:8, 181:17, 210:14, 212:8, 221:16, 221:17, 227:4 beyond 101:10, 170:8, 179:1, 228:8 bidirectional 81:22 big 43:15, 44:8, 164:4, 221:15,	221:17 bill 162:22 billion 182:15, 182:16 bit 6:2, 16:21, 16:22, 17:9, 17:10, 20:9, 20:10, 20:11, 20:16, 20:17, 21:11, 21:12, 34:5, 37:11, 37:19, 81:7, 87:4, 95:13, 198:12, 204:10, 224:16 bizarre 22:7 blame 92:20 blank 5:7, 5:13 blood 231:15 board 1:2, 2:3 boards 36:20 bodies 20:3 body 20:2, 199:15, 203:6, 203:7, 203:9, 203:10, 205:6, 209:2, 212:3, 212:4, 212:6 bold 46:16 book 66:10, 66:15 both 88:21, 132:2, 142:15, 144:5, 154:3, 154:10, 154:11, 154:15, 156:9, 158:4,	158:21, 188:8, 217:10, 218:4, 218:21, 220:7 bottom 171:10 botts 3:4, 140:12 boundaries 163:1 boundary 163:3 bounds 170:21, 186:22 brain 56:5, 56:6, 56:15, 56:18, 88:22, 89:16, 93:6, 93:11, 93:20, 94:3 break 63:10, 104:17, 134:9, 140:5, 140:7, 140:14, 150:7, 150:8, 150:9, 150:12, 165:15, 196:4, 196:11, 204:9 breaks 104:22 brenna 3:18, 3:21, 5:1, 23:19, 40:22, 42:4, 56:9, 56:10, 56:21, 59:21, 88:10, 88:13, 88:22, 89:6, 151:15, 151:21, 153:6, 162:21, 163:2, 165:15, 166:19, 168:14, 175:22, 177:8, 205:13, 212:8 bridge 10:18 briefly 24:21 brilliant 184:12
--	---	--	--

bring 38:17, 123:18, 182:14, 187:4, 188:9, 189:4, 213:12, 213:13 broad 11:16, 16:5, 16:6, 23:18, 25:18, 47:10, 61:16, 155:7, 155:9 broadcast 198:14 broader 69:14, 122:3 broadly 149:16 brother 44:9 brought 42:10 browser 33:14, 76:20, 76:21, 77:13, 130:21 brush 155:7, 155:10 bs 195:17 budget 181:22 build 36:22, 37:4, 190:7, 194:4 bulky 194:7 bunch 5:4 business 29:5, 165:4, 182:14 busy 12:12, 12:17, 170:1 button 98:9, 98:12, 98:16, 98:17, 99:2, 99:9,	100:9, 100:20, 100:21, 120:4, 126:9, 139:2, 139:4, 144:3, 221:2, 221:4, 221:13, 225:16 buttons 98:20 buy 181:13 c c 213:9 c-o-w-p-e-r 4:9 california 4:10 call 11:8, 11:14, 13:3, 13:4, 14:10, 14:12, 20:16, 22:16, 23:9, 51:10, 75:4, 84:3, 112:5, 129:10, 130:6, 131:6, 132:11, 132:15, 132:16, 132:17, 132:18, 132:20, 133:2, 133:3, 134:4, 134:6, 158:5, 191:18, 209:2, 209:4, 216:15, 216:18, 216:20 called 17:10, 20:9, 20:10, 20:11, 29:8, 75:9, 88:17, 141:2, 141:3, 167:17, 182:11 caller 131:8, 158:8 calling 131:9 calls 12:21, 12:22,	53:7, 171:7, 215:21 came 28:21, 31:8, 31:11, 58:2, 62:13, 63:4, 92:21, 97:6, 97:14, 115:14, 117:17, 122:19, 125:9, 134:4, 180:12, 180:16, 180:19 camera 196:19, 196:21 can't 7:19, 95:3, 134:1 cannot 12:15, 31:5, 33:11, 33:15, 47:13, 78:10, 115:7, 132:8, 133:1, 133:4, 144:22, 163:8, 166:16, 173:8, 175:9, 177:2, 177:10, 188:9, 189:5, 196:15, 208:22, 212:4, 218:15, 221:20, 222:5 capabilities 12:19, 13:2, 30:3, 34:8, 34:9, 81:20 capability 34:4, 83:15, 89:11 capable 74:13, 120:22 capacitors 37:3 capture 227:14 car 189:4, 189:5, 189:8, 190:11, 190:14	care 180:7, 180:8 careful 32:5 carefully 8:8, 25:21, 48:7, 69:11, 69:22, 139:19 carried 99:19, 100:22, 101:21 carrier 22:17 carries 129:11, 129:12 carrying 126:12 cars 159:15, 189:2, 189:13 case 1:7, 2:7, 31:18, 32:7, 42:20, 149:19, 176:18, 177:4, 188:2, 203:16, 212:7 catching 50:8 categorically 209:8 cell 33:7, 122:22, 123:1 cellular 74:10 center 30:4, 33:8, 33:9, 34:22, 43:20, 44:6, 44:19, 45:9, 46:22, 47:10, 47:14, 49:19, 51:8, 51:13, 57:18, 73:18, 75:3, 76:3, 76:22, 81:8, 81:13, 81:15,
---	---	---	---

82:3, 85:14, 91:14, 107:20, 108:8, 108:20, 109:10, 110:9, 110:13, 113:22, 114:1, 115:3, 116:12, 142:10, 150:1, 151:18, 156:4, 156:5, 156:6 centers 46:10, 46:13 central 130:2, 130:3, 130:8, 130:14, 131:5 certain 12:2, 12:3, 15:18, 27:8, 28:13, 45:3, 53:14, 56:4, 57:3, 57:15, 60:2, 67:17, 72:1, 126:6, 138:12, 138:13, 139:8, 151:11, 165:19, 185:1, 187:22, 198:20, 198:21 certainly 31:20, 150:8, 178:22 certify 231:4, 231:10, 231:14 cetera 22:2, 83:2, 209:20 chain 195:19, 195:20 chains 195:19 chair 54:18, 223:16 chairs 54:12, 223:19 challenge 61:15, 209:12	change 53:15, 108:18, 137:13, 137:14, 153:5, 163:21, 164:5, 164:6, 165:7, 202:7, 206:6, 206:20, 220:7, 223:11 changes 94:10, 136:1, 136:5 changing 54:16, 55:19, 56:2, 60:9, 60:13, 60:15, 83:11, 87:7, 87:19, 88:2, 88:4, 90:3, 90:4, 119:3, 124:6 channels 14:6, 15:4, 15:14, 27:1, 28:12, 28:14, 43:21, 43:22, 44:1, 45:12, 45:15, 45:20, 48:12, 48:15, 48:19, 48:20, 50:16, 51:3, 51:15, 59:19, 60:8, 79:3, 80:4, 81:10, 82:4, 82:6, 82:9, 82:12, 82:22, 83:6, 83:16, 84:7, 115:9, 122:16, 142:13, 143:1, 145:18, 147:20, 149:12, 149:13, 150:1, 150:20, 151:2, 151:8, 152:13, 152:15, 157:13, 157:15, 158:19, 158:21, 159:10, 159:18, 160:6, 160:21,	174:3, 197:11, 197:17, 216:16 chapter 66:12, 66:14 characteristic 18:11 charge 163:9, 165:12, 165:19, 166:2 charged 175:15 charging 166:17 charts 209:20 chasse 36:19 chat 6:3, 6:11, 6:13, 7:3, 161:7, 161:16 checked 31:17 checks 186:21 chime 6:21 chiseling 23:6 choice 18:18, 56:17 choose 16:13, 123:7 chose 67:16 chunk 14:11, 14:12, 14:14, 15:10 chunks 14:7, 14:8, 15:5, 15:12 circuit 7:10, 36:20 circumstance 100:4 circumstances 188:15 cisco 23:10, 24:2,	25:17, 29:3, 76:19, 77:3, 77:8, 77:9, 77:20, 77:21, 77:22, 79:10, 125:13, 125:16, 126:15, 167:12, 167:14, 167:15, 167:20, 168:3, 169:16, 170:4, 170:7, 181:10, 182:6, 182:10, 182:15, 182:22, 183:10, 186:11, 186:18, 186:20, 187:8, 194:14 cisco's 182:18 cited 161:19, 162:1, 164:3, 179:2 city 4:19 civilized 112:4 claim 66:22, 67:3, 71:9, 71:14, 72:7, 72:17, 72:20, 73:1, 73:22, 87:18, 90:18, 92:7, 92:11, 92:13, 92:15, 94:7, 94:8, 94:12, 94:13, 94:18, 94:20, 95:4, 95:9, 96:2, 102:13, 102:16, 103:1, 103:2, 103:17, 103:18, 103:22, 104:7, 104:9, 104:10, 104:15, 110:3, 114:3, 114:22, 119:21, 127:1, 127:16, 127:21, 135:6, 135:13,
--	--	--	--

136:20, 155:13, 155:16, 156:16, 159:17, 173:12, 173:13, 188:8, 200:15, 202:19, 204:1, 204:8, 204:17, 205:13, 210:1, 210:7, 212:5, 213:9, 214:11, 215:5, 222:9, 222:13, 224:4 claimed 114:3, 114:17, 212:5 claiming 86:1, 95:21, 136:13, 136:14, 138:5, 199:22, 213:11, 215:4 claims 27:10, 64:3, 65:11, 65:20, 67:17, 68:8, 69:6, 70:2, 70:7, 70:8, 70:11, 71:2, 71:4, 71:14, 85:19, 86:3, 92:1, 92:16, 94:11, 104:8, 114:16, 115:21, 127:6, 127:12, 127:15, 170:22, 171:16, 171:21, 172:4, 173:3, 173:6, 173:18, 174:14, 184:16, 197:16, 199:6, 199:8, 199:13, 200:3, 200:6, 202:11, 204:13, 206:3, 206:4, 207:1, 207:3, 208:6, 208:15, 208:18, 208:19, 208:20, 208:22, 209:6, 211:5,	211:11, 211:14, 212:1, 212:11, 212:14, 212:18, 213:2, 213:15, 224:11, 225:5 claire 38:14, 39:9, 41:3, 41:6, 41:15, 41:16, 42:3, 42:4 clare 3:17, 3:20, 5:1, 6:8, 7:2, 151:16, 151:22, 196:14 clarification 8:16, 83:4 clarify 35:22, 81:4, 114:22 classes 195:20 clean 135:10 clear 21:6, 32:3, 32:11, 70:6, 93:1, 97:20, 103:6, 108:15, 114:8, 133:13, 150:14, 206:14 clearly 101:15, 103:18, 173:7 clerical 165:5 cliche 188:6 clicking 225:12 client 78:3 clients 165:17, 165:19 close 169:7 closed 7:4, 7:5	closest 62:2 clouds 23:8 clutter 117:22 coast 44:11 cocktail 88:17, 88:21, 89:20 coinventor 167:5 colleague 7:2, 140:12 collection 11:3, 30:1, 38:13, 71:19, 178:7 column 43:12, 48:18, 63:16, 63:18, 63:19, 65:13, 70:10, 71:6, 71:16, 72:14, 79:8, 80:2, 80:18, 85:10, 87:16, 90:16, 90:17, 90:19, 90:22, 92:18, 94:14, 94:21, 95:5, 96:18, 102:16, 102:21, 103:1, 106:3, 106:9, 106:11, 106:12, 108:17, 113:9, 116:5, 116:6, 119:13, 119:14, 120:9, 121:8, 121:11, 121:15, 127:2, 127:17, 134:18, 134:20, 135:12, 138:1, 141:22, 145:5, 145:7, 145:11, 172:2, 198:3, 199:18 columns 106:15	com 3:7, 3:8, 3:17, 3:18 combine 10:14, 194:1 combined 153:20 come 24:9, 31:11, 56:11, 56:13, 56:14, 62:22, 63:1, 98:13, 99:18, 124:1, 133:4, 147:22, 154:22, 182:2, 182:14, 194:9 comes 12:6, 13:3, 25:10, 37:6, 53:7, 57:5, 61:10, 62:8, 118:4, 118:20, 153:2, 153:3, 153:6, 153:7, 153:8, 172:17, 184:4 comfortable 134:13 coming 34:6, 44:15, 53:13, 53:18, 59:3, 59:4, 86:20, 89:6, 89:9, 117:6, 118:14, 118:16, 119:4, 152:19, 152:21, 152:22 command 84:20 commemorated 167:22 commenced 141:10 commencing 2:17, 231:12 comment 224:18 commercially 182:5
--	---	---	---

committee 186:11, 186:13, 186:22 committees 25:18, 187:3 commonly 80:22 communicate 30:8 communicating 46:6 communication 13:7, 13:13, 13:18, 13:21, 22:19, 23:3, 23:4, 30:7, 45:18, 60:3, 82:2, 85:9, 91:16, 91:20, 107:11, 122:8, 122:20, 123:5, 126:3, 129:6, 129:8, 133:20, 138:11, 138:13, 145:19, 146:16, 148:6, 148:14, 148:17, 149:20, 149:21, 181:6, 195:20, 195:22, 197:13, 202:3 communications 111:20, 123:17, 145:18 companies 11:5, 12:18, 69:18, 163:9, 166:9, 166:12, 186:4 company 11:5, 11:8, 11:11, 11:14, 11:17, 12:1, 12:5, 12:14, 42:15, 44:16, 166:9, 166:10, 182:8, 186:1 compared 36:8, 54:11	compatibility 123:13, 123:16 compatible 135:20, 181:19 complete 163:15 completely 65:12 comply 141:18 components 30:10, 32:17, 32:22, 37:2, 37:10, 51:20, 71:19, 71:20, 72:9 comprises 87:19 computer 6:6, 6:7, 6:8, 6:9, 6:14, 6:15, 6:19, 6:20, 7:3, 180:1 computers 74:11 concept 15:4, 47:13, 96:11, 183:19 concerned 221:16 concerning 26:5 conclude 191:8, 211:6 concluded 141:11, 229:2 concludes 207:9 concluding 210:6, 231:13 conclusion 214:10 concrete 32:7 condition 27:1, 27:9, 28:20 conduct 6:5, 13:13, 13:21, 22:18	confer 141:13 conference 46:3, 46:4, 129:10 conferencing 34:4, 34:8, 151:18 conferring 141:16 configuration 135:22, 142:22, 171:17, 171:18, 200:19 configurations 170:20, 171:12, 198:17 configure 139:8 configured 34:20, 50:17, 91:15, 91:19, 198:15 confirm 162:7, 162:10, 208:5 confuse 96:1 confusing 62:18, 95:13, 96:9, 221:8 congress 168:20 connect 198:8 connecting 14:3 connection 10:18, 11:22, 12:4, 12:16, 13:16, 45:17, 155:17, 155:19, 175:6 connections 11:2 connectivity 181:17	consider 24:13, 158:13 consideration 188:12 considerations 23:14 consistent 50:22, 65:12, 177:14, 213:1 console 35:2, 35:6, 115:17, 170:18 consolidated 141:8 consolidates 156:6 constitute 228:3 constitutes 110:16, 111:8, 111:22, 113:1 constructed 202:19 construction 217:14, 218:7, 219:2 construed 212:11, 212:14, 212:15, 213:15 consult 141:12 consultational 165:11 consulting 163:9, 166:14 content 32:13, 152:5 contents 69:2 context 9:14, 9:15, 9:20, 9:22, 75:17, 91:7, 148:19 contexts 10:3, 10:5 continuation 106:21, 201:2,
---	---	--	--

201:9 continue 39:4, 40:1, 106:4, 120:9, 172:13, 198:15, 203:13 continues 96:19, 108:22, 116:3, 124:16, 210:20 continuous 15:10, 15:11 continuously 201:6, 225:22 control 15:15, 15:19, 20:19, 21:22, 22:6, 22:9, 22:10, 22:14, 22:21, 23:16, 25:7, 44:18, 73:17, 79:3, 79:6, 79:11, 79:21, 80:3, 101:19, 101:21, 102:1, 102:11, 102:19, 103:4, 124:20, 172:12, 195:21, 215:19, 215:22, 216:3, 216:6, 216:12, 216:13, 216:14, 216:19, 222:1 controlled 103:11 controller 84:8 conventional 84:18 conversation 139:5, 196:12 conversational 146:10 conversations 140:15 convey 17:8, 20:4, 144:7	conveyed 9:5, 9:10 conveying 5:18 conveys 130:9 convoluted 216:11 coordinate 44:17, 45:8, 121:2, 124:9 copies 5:7 copper 13:10 cops 103:7 copy 26:9, 29:14, 38:19, 38:20, 64:18, 161:8, 162:12, 205:12 correctly 18:15, 197:14 correspondence 146:11 could 5:9, 19:14, 19:18, 43:12, 46:1, 46:2, 51:2, 60:2, 62:16, 67:16, 72:17, 73:21, 75:12, 75:13, 75:14, 76:15, 76:16, 76:18, 77:2, 82:15, 92:6, 98:7, 100:4, 100:6, 100:8, 101:1, 101:2, 101:8, 103:7, 103:10, 120:4, 122:14, 122:16, 123:5, 124:13, 125:13, 131:6, 133:5, 146:15, 152:20, 155:19, 196:1,	197:2, 216:20, 222:17 couldn't 13:16, 122:10, 122:17 counsel 4:21, 100:15, 102:7, 105:2, 140:15, 141:11, 187:10, 196:12, 220:1, 220:15, 223:2, 224:17, 225:3, 226:11 counting 167:10 country 92:22, 168:19, 168:22 couple 30:16, 33:17, 197:1, 220:2 course 10:11, 12:6, 18:9, 21:14, 29:19, 33:12, 38:18, 47:17, 86:22, 104:19, 128:8, 139:13, 173:11, 188:14, 196:18, 204:5, 205:3, 211:17, 211:19, 214:9 court 4:5, 141:18, 147:6, 147:8, 147:9, 147:10, 147:12, 176:6, 176:9, 203:1, 217:8, 217:13, 218:2, 218:19, 220:5, 228:11, 228:14, 228:15, 228:18, 228:19 cousins 155:21 cover 67:17, 71:15, 71:18, 94:18,	94:20, 99:7, 99:22, 100:4, 127:1, 127:17 covered 65:19, 96:6, 101:2, 114:2, 114:12, 115:21, 116:1, 119:20, 135:5, 135:13, 137:8, 172:4, 172:6, 224:3, 225:5 covers 67:4, 95:4, 95:9, 95:20, 96:2, 115:1 cowper 4:9 cpu 37:6 cpus 37:19, 38:2 create 10:18, 84:2 created 182:20 creating 69:17 creative 191:19, 217:1 creek 119:4 creeks 118:5, 118:6, 118:22 criteria 190:18 cross 226:21 cross-examination 141:9, 141:10 cry 62:21, 112:13 curious 163:6 customer 19:7, 166:2, 179:7
--	--	---	---

customers 166:4, 166:6, 166:8, 179:11	150:4, 172:18 decided 168:16, 217:17 deciding 13:14 decision 139:11, 139:12, 142:12 declaration 26:4, 38:20, 38:22, 39:7, 40:5, 40:8, 51:19, 161:6, 161:11, 161:20, 162:1, 162:11, 162:16, 163:14, 163:20, 170:14, 171:11, 175:10, 183:11, 186:8, 187:14, 188:22, 190:3, 192:7, 195:6, 197:2, 201:14, 206:15, 206:17, 215:18, 217:4, 217:20, 219:21, 220:8, 220:10, 226:13, 227:16, 230:15 declare 164:10, 198:21 declaring 188:3 declined 184:11 decrease 80:16 deems 52:20 default 117:2 defend 168:18 define 21:19, 21:21, 74:3, 130:15, 151:3, 158:20 defined 119:18, 132:1,	147:6, 147:10, 161:1, 217:8, 218:2, 218:19, 220:5 defines 21:19 defining 159:20 definite 79:15 definitely 8:22, 9:8, 21:17, 33:2, 47:15, 78:4, 78:14, 81:6, 95:9, 95:17, 109:17, 110:13, 114:6, 136:20, 138:2, 167:21, 185:6, 207:2, 213:3, 215:10 definition 16:3, 16:6, 147:8, 148:3, 185:1, 185:2, 192:11, 195:3, 207:21, 208:1, 228:10 definitions 212:3 degree 195:17 degrees 194:16 delay 56:14, 57:15, 86:7, 88:12 deliver 71:22, 89:8 delivered 27:22, 28:3, 28:15, 62:1 delivering 24:12, 27:11 demand 185:22 demonstrate 198:19	demonstrating 199:21 depend 224:11 dependent 94:8 depending 59:8, 119:3, 212:2 depends 9:14, 9:17, 9:20, 13:19, 129:18, 151:2 depict 77:8 depicted 34:14, 34:18, 35:7, 35:8, 76:4, 113:14, 113:15 depiction 76:9 deployed 182:21 deposed 42:13, 42:14, 42:19, 43:6 deposition 1:15, 2:15, 6:5, 38:10, 40:10, 40:17, 43:3, 43:5, 79:16, 196:18, 231:10 describe 66:19, 72:3, 72:7, 72:8, 72:9, 86:18, 89:12, 89:13, 89:15, 198:16, 199:1, 223:15 described 95:5, 127:1, 145:17, 182:7, 194:21, 199:15, 200:11, 203:6, 210:21, 211:8 describes 188:1, 194:4,
--	--	--	--

Transcript of Dr. Shmuel Shaffer
Conducted on October 1, 2024

244

197:10, 202:21, 203:7, 216:6, 216:13 describing 65:3, 125:4, 193:19 description 64:12, 65:15, 66:3, 66:4, 66:6, 197:7, 230:10 design 17:13, 18:18, 19:4, 19:6, 37:1, 63:5 designed 23:5 designing 135:19 desk 50:11 desktop 74:11 despite 165:13 detail 88:16 detect 56:5 detected 202:4 detecting 28:13, 57:12 detects 205:8 determination 187:18 determined 62:9 develop 37:13, 37:14, 37:16 developed 33:13, 33:15, 38:2, 47:1, 168:13 developing 164:14	development 29:4, 165:2 device 27:2, 27:12, 27:14, 28:17, 57:18, 57:20, 62:4, 62:5, 74:13, 81:9, 81:14, 81:16, 99:15, 100:20, 100:21, 100:22, 124:3 devices 64:20, 72:15, 74:6, 80:20, 81:4, 82:11, 82:14, 82:18, 83:5, 83:15, 84:18, 98:20, 99:6, 101:7, 124:4, 124:5, 124:6, 124:8, 125:5, 181:12, 181:17 diagram 75:19 dial 122:17, 130:19 dialing 132:3 difference 79:13, 89:3, 93:15, 93:18, 93:22, 94:1, 144:19, 210:14, 221:15, 221:17 different 9:4, 27:20, 39:12, 44:19, 44:22, 51:3, 57:13, 57:20, 57:21, 59:18, 62:7, 64:10, 64:14, 74:2, 76:17, 78:12, 78:13, 78:14, 78:15, 84:7, 84:10, 88:12,	88:20, 89:13, 89:17, 90:12, 90:14, 93:7, 99:18, 99:21, 113:3, 118:5, 122:20, 123:3, 152:7, 153:8, 157:15, 158:10, 166:3, 166:18, 174:2, 180:12, 180:14, 180:20, 181:14, 181:15, 182:7, 189:3, 189:8, 190:17, 191:8, 191:9, 206:13, 207:22 difficult 147:22, 155:9 difficulties 19:16, 123:15, 161:15, 198:10 dig 162:20 digital 74:12, 131:7, 131:8, 133:20 digits 132:4 diluted 216:9 dimension 181:15 direct 141:12, 226:12 directed 220:1 directing 220:22 direction 53:17, 55:20, 56:3, 56:5, 58:2, 58:3, 58:12, 58:15, 59:2, 60:10, 60:13, 60:17, 86:6, 86:20, 86:21, 87:7, 87:20, 88:4,	88:8, 89:5, 89:9, 89:14, 89:16, 90:5, 90:10, 90:13, 93:12, 93:16, 144:7 directional 144:12, 144:14 directions 59:18, 86:12, 94:7 directly 34:15 directory 6:16 disadvantage 17:3 disagree 128:9, 128:17, 178:8, 186:17, 209:9 disclose 188:16 disclosed 67:1, 68:15, 69:7, 70:12, 71:6, 176:16, 212:19 disclosure 137:21 discuss 27:20, 116:8, 135:8, 137:20, 153:11, 200:12, 224:8 discussed 101:15, 105:1, 113:12, 120:3, 138:2, 158:7, 172:8, 187:13 discusses 101:12 discussing 57:19, 106:22, 137:11, 157:2, 175:1 discussion 53:2, 133:6,
--	--	---	--

137:18, 137:19, 138:3, 138:19, 138:20, 141:2, 141:4, 154:21, 156:18, 156:21, 215:18 discussions 105:6 dispatch 49:18, 57:18, 113:13, 115:17 dispatcher 44:7, 49:20, 51:6, 51:9, 53:12, 80:6, 81:18, 82:5, 91:16, 107:18, 113:13, 115:2, 115:8, 115:17, 135:22, 136:7, 136:9, 136:15, 137:12, 139:13, 139:17, 142:12, 152:20, 170:21, 171:7, 171:12, 172:1, 207:13 dispatcher's 49:17 display 75:19, 76:3 displayed 76:12, 76:16, 76:18 dissertation 89:21 distinction 32:3, 118:13, 132:14 distinguish 93:4 distinguishing 88:19 district 176:5, 217:8, 217:13, 218:2, 218:19 dna 112:11	doctor 25:20, 41:18, 48:4, 120:7, 140:14, 166:21, 196:11, 228:2 document 5:14, 38:18, 38:21, 39:1, 39:6, 39:9, 39:13, 59:16, 74:8, 79:17, 161:9, 177:8, 209:1 documents 5:5, 38:13, 38:16, 40:2, 162:19, 196:20 doing 11:19, 25:15, 27:2, 47:15, 60:20, 62:3, 72:10, 136:2, 136:6, 166:4, 166:14, 172:11, 172:13, 174:9, 176:22, 179:16, 179:18, 180:9, 180:15, 187:21, 206:9, 207:14, 207:15, 209:12, 210:4, 215:8 dolby 49:4 dollars 182:16 done 28:1, 37:22, 48:16, 85:22, 86:2, 96:21, 99:13, 99:14, 106:8, 199:1, 200:11, 200:22, 203:1, 203:18, 203:19, 203:20, 203:21, 204:4, 204:5, 204:7, 205:16, 207:5, 207:6, 207:7,	207:19, 208:7, 208:8, 208:9, 208:17, 209:15, 209:16, 209:17, 209:18, 209:20, 210:2, 212:6, 214:15, 225:21, 225:22, 226:1, 228:21 doubt 28:8, 36:5, 127:11 down 34:6, 53:1, 55:6, 81:7, 90:15, 91:6, 96:17, 98:8, 103:8, 120:9, 139:18, 142:20, 204:9, 221:2, 221:4, 223:20 downs 170:19, 171:4, 171:5, 171:6, 171:7 dr 1:16, 2:15, 4:13, 7:1, 7:18, 63:15, 104:22, 161:11, 178:10, 179:2, 219:15, 229:6, 230:2, 230:15, 231:11 draft 67:3, 67:17 drop 142:20, 153:6, 161:7, 168:17 dropping 161:15 dsp 226:10 duly 4:2, 231:6 during 104:22, 132:10, 132:15, 132:18, 133:2, 133:3,	133:6, 140:14, 189:16, 196:11, 196:18 dynamic 200:12, 200:13, 200:19, 200:21, 201:1, 201:7 dynamically 197:12, 197:18, 199:10, 200:2, 200:5, 200:7, 200:10, 201:10, 225:21, 225:22 E each 32:13, 33:7, 50:18, 69:11, 79:3, 80:3, 84:9, 114:16, 115:9, 118:6, 122:10, 126:6, 126:13, 155:21, 156:2, 159:13, 163:10, 163:11, 166:18, 169:5, 181:5, 193:5, 219:6, 224:13 ear 17:6, 44:1, 48:20, 48:21, 49:8, 49:11, 49:12, 49:13, 49:15, 49:17, 56:12, 56:13, 56:15, 56:19, 56:20, 57:1, 57:2, 58:18, 58:20, 86:14, 86:17, 86:18, 86:19, 87:5, 87:6, 87:11, 88:3, 88:14, 88:18, 89:4, 89:8, 89:10, 90:3, 90:4, 90:8, 91:15, 91:19, 93:7,
---	---	---	---

93:8, 93:9, 93:13, 93:16, 93:17, 93:19, 93:20, 94:4, 107:11, 107:12, 107:15, 108:19, 111:20, 111:21, 112:16, 142:14, 143:6, 143:11, 143:15, 143:17, 143:22, 144:6, 144:16, 144:22, 145:3 earlier 36:1, 86:5, 106:22, 120:3, 128:4, 144:18, 152:8, 196:10, 220:15 earphones 49:22 ears 57:21, 88:12, 88:21, 90:11, 90:13, 114:7, 114:11, 142:15, 143:18, 144:5 easier 87:14 easily 96:12 east 44:11 easy 60:10 edacs 179:13, 179:14, 179:15, 179:21, 180:5, 190:6, 190:9, 215:17, 215:19, 215:21, 216:3, 216:5, 216:6, 216:8, 216:9, 216:12, 216:13, 216:14, 216:20 edacss 190:4	education 194:13 educational 194:10 edx 12:19 effect 88:17 effected 137:21 effective 121:2, 121:21, 124:9 effects 209:5 efficient 123:11 either 27:12, 27:16, 86:14, 99:13, 100:19, 121:3, 121:22, 124:10, 137:15, 145:2, 175:18, 203:20, 223:15 elect 117:11 electrical 194:18 electrician 52:21 electricity 45:6, 180:2, 180:5 electrocuted 52:21, 62:20 electronic 7:12 element 34:14, 64:21, 73:16, 73:21, 74:1, 76:13, 78:16, 89:21, 142:18, 143:21 elements 46:9, 64:14, 64:17, 73:14, 78:8, 216:8	elevate 27:17, 52:22, 54:18, 118:19, 139:3 elevated 27:3, 52:1, 52:9, 54:11, 54:14, 112:7, 118:16, 137:4, 223:21 elevates 54:20, 202:6, 206:5, 206:20 elevating 52:12, 55:7, 55:10, 55:14, 58:10, 59:11, 87:18, 95:15, 110:16, 110:18, 111:5, 111:22, 203:18, 207:7, 208:9, 223:5, 223:12, 223:17, 223:18 elevation 54:3, 54:8, 55:1, 112:8, 113:1, 204:18, 214:11, 223:22, 224:3 else 6:19, 14:13, 41:4, 76:16, 105:7, 105:9, 117:15, 172:19, 184:8 email 3:7, 3:17, 228:2, 228:5, 228:13 emails 183:9 embodiment 51:7, 64:3, 67:4, 67:5, 70:12, 71:5, 71:15, 85:18, 86:16, 87:1,	92:1, 92:18, 94:14, 94:18, 94:20, 95:4, 114:2, 127:1, 127:17, 135:5, 135:12, 159:4, 212:19 embodiments 65:18, 66:19, 66:22, 67:18, 68:7, 69:7, 69:12, 70:9, 120:21, 121:9, 212:12 embraced 184:15 emergency 99:3, 99:8, 99:10, 100:9, 100:10, 120:4, 139:2 emerging 182:12, 182:13 emphasize 93:11 employ 123:18 employed 29:3 employee 167:15, 168:2 enabled 71:20 encompasses 122:19 end 10:21, 11:3, 17:21, 19:5, 27:2, 27:11, 27:21, 27:22, 28:2, 28:4, 28:16, 28:17, 28:19, 50:19, 51:5, 53:16, 57:18, 57:19, 61:17, 62:1, 62:4, 71:22, 72:17, 73:3,
---	--	--	---

73:21, 74:3, 75:4, 75:5, 75:6, 75:9, 75:12, 75:13, 75:14, 78:3, 81:5, 82:18, 111:9, 116:14, 117:19, 124:3, 125:21, 135:2, 136:15, 136:19, 143:1, 146:4, 146:8, 146:11, 146:12, 148:2, 170:19, 172:15, 172:21, 183:22, 186:3, 191:3, 202:7 end-user 64:22, 72:15, 73:16, 74:13 endpoint 74:7, 111:14, 113:8, 206:7, 206:21, 214:18, 214:19, 214:20 endpoints 74:19, 113:11, 181:1 engine 35:11 engineer 24:1, 47:22 engineering 56:8, 194:18 engineers 224:20 english 92:21, 109:14, 113:4, 130:17, 174:18, 212:15 enhance 47:15 enjoy 160:14 enough 11:15, 14:19, 22:17, 24:14, 58:5, 114:19,	180:21, 222:12, 224:3, 225:2 enter 45:3 entertain 25:15 entities 19:4, 45:18 environment 54:9, 65:4, 72:3, 73:10, 73:11, 84:10, 84:16, 122:4, 181:16, 197:13, 202:3 environments 81:1 equipment 64:22, 73:15, 73:17, 110:11 equivalent 44:15, 53:11 erase 68:1 error 13:20 errors 165:6 esq 3:10, 3:11, 3:20, 3:21 establish 11:1, 13:16, 13:18 established 132:6, 148:5 estimate 163:7 et 22:2, 83:1, 209:20 european 209:13 evaluating 188:11 even 12:13, 84:12, 118:11, 130:21,	158:5, 160:15, 181:2, 190:9, 193:7, 210:1 event 225:13 events 145:20, 172:2 ever 8:20, 62:15, 125:13, 125:18, 177:3, 178:14, 212:10 every 34:20, 170:9 everybody 196:6 everyone 30:8, 54:9, 180:21, 180:22, 181:3, 181:4 everything 7:22, 30:13, 172:11, 193:15 evolution 47:12 evolving 47:11 exact 128:18, 163:2, 185:2 exactly 33:10, 78:9, 99:4, 110:4, 115:15, 117:1 examination 4:11, 141:12, 219:17, 227:22, 229:1, 230:3, 231:5 examined 4:3 examiner 184:5, 184:13, 184:15, 184:19, 184:20, 185:6, 185:13, 185:16, 185:18, 213:11 example 11:4, 11:6,	12:12, 12:20, 16:19, 20:1, 35:10, 36:8, 44:10, 47:2, 49:19, 49:20, 52:17, 53:7, 54:2, 56:10, 57:4, 61:1, 64:21, 71:8, 72:19, 73:10, 73:16, 75:2, 76:18, 77:3, 77:6, 77:22, 81:9, 87:6, 88:3, 88:10, 90:4, 91:2, 91:9, 91:11, 91:12, 91:13, 93:3, 97:3, 97:11, 98:1, 98:14, 99:7, 101:1, 106:4, 106:22, 107:2, 108:6, 108:17, 110:14, 110:20, 111:5, 111:7, 111:22, 112:8, 113:9, 115:1, 115:12, 115:16, 116:3, 116:10, 116:21, 118:2, 118:17, 119:8, 119:11, 119:12, 119:13, 126:4, 126:8, 129:9, 129:20, 130:18, 131:7, 131:15, 133:4, 138:14, 139:1, 142:10, 145:12, 145:15, 146:15, 149:15, 149:17, 149:19, 151:7, 151:14, 152:18, 153:17, 156:1, 171:22, 190:5, 209:8, 210:15 examples 52:12, 52:16,
---	---	---	---

53:20, 55:1, 55:13, 72:13, 73:15, 81:5, 220:16 excellent 116:19 except 141:15 exception 164:10 exchange 183:9 exchanges 145:18, 146:10 exchanging 74:14 exclude 65:5, 68:7, 69:6, 70:9, 70:12, 71:5, 73:2, 89:4, 92:17, 94:13, 172:9 excluded 64:3, 66:7, 66:8, 85:18, 92:1, 92:4, 92:5, 92:8, 173:22 excludes 71:9 excluding 65:1, 68:12, 68:17, 68:18, 173:10 exclusion 71:10, 72:11, 92:9, 93:1, 94:17, 96:11, 96:15 executive 194:14, 194:15 exhaust 139:14 exhibit 26:8, 26:14, 43:9, 141:22, 161:6, 161:13,	163:14, 197:2, 217:4, 230:13, 230:15 exhibits 7:13 exist 70:8, 92:17, 94:11, 128:12, 128:14, 128:22, 133:17, 173:12, 173:13 existed 31:22, 46:22, 47:8, 48:22 existing 37:18, 38:2, 72:2, 135:21, 181:17 exists 94:12, 173:11, 183:2 expandable 174:10 expect 139:16, 190:14 expectation 164:20 experience 27:4, 27:6, 190:22, 191:1, 195:10, 195:14, 205:6 expert 93:13, 146:21, 147:16, 163:18, 177:3, 178:9 experts 176:2 explain 21:3, 21:12, 52:16, 64:9, 83:20, 93:14, 123:4, 135:16, 135:17, 155:10, 160:17, 205:14, 213:22, 214:2 explained 131:3	explaining 10:13, 205:15, 205:20 explains 107:2 explanation 86:6, 122:3, 206:1, 212:3 explicitly 188:16 extent 20:12, 154:13 extrapolate 101:10, 190:7 extrapolations 101:5 extremely 16:5, 16:6, 18:10, 59:8, 168:12, 169:1 eye 226:8, 226:9	24:14, 51:11, 114:19, 210:8, 225:2 fairly 185:15 familiar 72:12, 99:4, 179:12, 195:22 family 77:10, 77:11 far 53:22, 69:18, 76:7, 87:22, 116:15, 153:22, 154:1, 177:21, 221:16 fcc 20:1, 21:19, 21:20, 21:21 feature 33:5, 123:19, 137:8, 137:21 features 33:3, 33:10, 46:21, 46:22, 47:8, 47:16, 72:1, 124:5 feedback 224:21 feel 60:3, 185:5, 195:10, 205:13 feeling 185:4, 185:10, 186:9, 186:12, 187:17 fema 44:10 few 42:15, 42:22, 55:13, 119:6, 126:20, 163:12, 177:20, 203:22, 219:16, 225:3 fidelity 17:8, 17:15 field 73:15, 82:11,
F			
		f1 21:22 f2 21:22 f3 22:1 f4 22:1 facilitates 45:17, 122:7, 143:10 facilitating 11:22 fact 11:12, 49:3, 56:9, 82:3, 130:7, 179:22, 195:1, 209:7, 214:14 fail 8:17 failed 8:17, 182:18 fair 8:5, 8:6, 8:11,	

82:14, 82:20, 83:5, 83:15, 99:14, 110:11, 182:2 fields 126:15, 195:15 fifty-eight 70:17 fifty-six 106:13, 106:14 fig 75:18 figure 29:22, 30:11, 30:20, 32:15, 32:17, 33:18, 34:14, 34:19, 57:4, 64:12, 64:14, 64:19, 75:21, 75:22, 76:4, 76:6, 77:14, 77:16, 77:17, 78:5, 78:17, 80:2, 80:21, 108:1, 108:2, 113:16, 113:19, 113:20, 117:9, 142:8 file 1:22, 170:1 filed 68:19, 68:21 files 7:5, 7:7 filtering 174:13, 174:17 find 32:6, 147:22, 155:8, 161:9, 192:14 fine 25:4, 34:11, 127:15 finger 225:11 finish 196:5 fire 52:19, 53:1,	53:14, 83:1, 84:5, 84:14, 117:11, 117:12, 117:14, 152:21, 210:15, 210:17, 222:2 firefighter 80:7, 80:8 firefighters 44:14, 44:21 firemen 181:11 first 4:2, 14:21, 30:17, 35:12, 38:1, 54:7, 55:4, 55:17, 56:13, 107:10, 121:20, 126:22, 135:8, 167:15, 168:2, 187:19, 197:21, 218:17, 219:20, 222:22 five 85:3, 149:20, 163:1 five-minute 163:1 five-minutes 163:3 flip 175:2 floor 54:19, 54:22, 81:21, 85:2, 223:20 flow 22:10, 22:12, 159:2, 209:19, 222:3 fly 61:3, 157:22 flying 189:7 focus 31:13 focused 48:5, 68:14	follow 161:17 follow-up 8:11, 14:20, 14:21, 36:9, 102:8, 119:6, 126:20 follow-ups 30:16 followed 225:14 following 93:3, 97:3, 112:2, 117:8, 118:3, 128:10, 132:14, 133:15, 137:5, 138:7, 138:10, 138:20, 219:5 follows 4:4, 139:5 food 44:12 foregoing 231:7 forget 164:16, 178:4 forgot 164:3, 167:18, 177:17, 185:2, 214:22 form 10:2, 18:19, 20:22, 25:9, 26:20, 29:12, 32:1, 32:19, 33:20, 35:4, 35:18, 46:15, 48:14, 49:2, 54:5, 65:21, 68:9, 69:9, 70:14, 71:7, 71:17, 78:7, 82:13, 83:8, 85:1, 87:9, 87:12, 88:6, 92:3, 92:19, 94:15, 101:14,	114:4, 120:6, 131:17, 133:19, 135:14, 139:6, 147:5, 147:21, 149:5, 149:14, 150:22, 156:11, 160:7, 173:4, 174:16, 179:4, 183:20, 186:10, 191:14, 204:20, 213:18, 214:13, 215:6, 221:6, 222:15, 223:6, 224:5, 225:8 forth 163:15, 183:13, 231:6 forty-six 217:21 forward 37:5, 102:6, 159:15 four 41:14, 92:22, 137:17, 137:18 fpga 37:16, 38:6 frame 148:21, 148:22, 220:10 frederick 3:20 frederick's 7:2 frederick@klgates 3:17 free 12:14, 12:15, 12:22, 166:20, 195:10 french 113:3, 113:5 frequencies 148:11, 148:13 frequency 13:12, 14:7, 14:8, 15:5, 15:12, 21:22,
--	--	--	---

84:21, 148:10 fresh 158:15 friday 40:18, 41:1, 41:2, 41:22 friend 166:13 front 6:1, 29:13, 29:15, 30:13, 31:16, 31:19, 32:11, 36:17, 39:2, 53:8, 53:13, 58:21, 59:3, 180:1 fruit 188:8 frustrating 224:19 full 89:19, 91:6, 163:15 fully 151:17 functionality 48:22 fundamentally 178:22 funny 109:15 further 81:7, 96:17, 141:4, 219:13, 227:18, 228:20, 231:10, 231:14 furtherance 217:7, 218:18 futile 22:22	gates 3:14, 4:17 gave 38:17, 38:19, 38:20, 39:5, 53:20, 86:6, 149:15, 152:8, 170:4 general 17:12, 112:3, 139:10, 164:21, 165:2, 174:9, 205:17 generalizations 177:22 generally 80:21, 126:22 generate 221:13 generating 222:12 generically 115:11 getting 90:13, 98:19, 118:12, 166:19, 203:17, 219:5 give 10:4, 12:12, 12:16, 16:19, 17:14, 22:17, 26:10, 41:7, 47:2, 52:2, 52:15, 63:18, 71:8, 88:15, 106:18, 118:2, 122:13, 124:4, 140:18, 158:13, 164:17, 190:12, 193:7, 201:16, 217:21, 226:18 given 6:15, 11:12, 13:20, 38:13, 56:9, 85:2, 85:3, 140:17, 141:15, 152:18, 177:7, 231:8	gives 55:13 giving 62:4, 122:3 gm 164:11 go 5:11, 5:19, 5:22, 24:20, 35:21, 37:5, 41:5, 50:1, 50:2, 55:5, 57:17, 69:10, 69:21, 70:4, 78:22, 80:7, 84:2, 85:7, 85:10, 88:9, 90:20, 102:9, 122:16, 126:5, 127:5, 128:15, 129:22, 147:8, 159:20, 160:1, 162:20, 168:18, 195:1, 195:11, 198:4, 200:12, 200:15, 201:17, 204:21, 208:1, 209:9, 212:14, 213:12, 215:12, 222:9, 226:14, 227:8 god 44:21, 56:16, 165:22 goes 20:3, 57:10, 58:16, 68:13, 101:4, 126:11, 130:1, 151:17, 151:21, 152:2, 159:13, 159:18, 210:20 going 14:8, 14:16, 18:9, 22:10, 22:14, 23:1, 24:12, 28:16, 28:18, 29:19,	41:18, 46:8, 49:19, 52:17, 53:1, 53:4, 53:6, 53:9, 53:12, 56:11, 56:12, 56:14, 57:1, 57:2, 57:4, 57:15, 57:17, 58:1, 58:21, 63:7, 66:13, 66:17, 79:19, 102:6, 106:11, 112:13, 112:17, 113:6, 116:16, 118:11, 120:18, 122:5, 129:21, 130:19, 131:1, 131:12, 131:13, 133:11, 134:2, 134:12, 135:5, 136:20, 137:15, 137:16, 137:17, 138:18, 144:13, 149:19, 149:21, 153:4, 154:17, 158:9, 159:2, 159:4, 159:15, 176:7, 182:2, 185:12, 194:9, 197:20, 199:1, 213:12, 226:6 gonna 151:2 gonzales 183:8 good 4:13, 4:14, 8:1, 12:10, 19:4, 19:6, 24:12, 41:6, 49:20, 58:5, 62:17, 63:3, 82:20, 102:1, 134:16, 140:3, 157:11, 165:14, 185:15, 206:16 gotten 182:22
G			
gain 221:15 gamble 168:16 game 28:4			

graduated 195:17 gravity 144:9, 144:10 great 29:21, 45:10, 47:19, 47:21, 58:7, 86:4, 161:18, 175:2, 182:19, 184:5, 196:7, 215:16 greatest 189:15 green 172:19 group 1:11, 2:11, 80:9, 80:11, 84:5, 84:13, 99:17, 165:3, 165:4, 169:8, 169:22, 170:1, 182:12, 182:13 groups 44:19, 78:13, 81:19, 182:11 guarantee 18:2 guess 6:22, 49:15, 110:7, 211:4 guessing 146:7 guide 141:7 guided 24:8 gun 98:3, 98:5 guns 98:6 gunshot 100:5, 101:17, 138:15, 138:17, 138:18, 138:21 gut 185:3, 185:10, 186:8, 186:12,	187:17 guy 42:10, 118:18, 154:8 guys 42:16, 123:2, 134:13, 152:4, 175:22, 176:1, 202:14, 221:8, 224:9, 224:19, 224:22 H half 55:6 hand 110:3, 225:11 handheld 64:20, 221:11 handled 172:14 hang 12:22 happen 98:11, 137:14, 157:18, 202:22, 211:6, 211:16, 214:12 happened 43:4, 138:22 happening 201:10, 203:5, 205:1, 205:2, 205:7, 225:16, 225:17 happens 22:3, 24:18, 56:18, 91:13, 138:13, 153:12, 153:14, 203:7, 203:14 happy 208:2, 211:21 hard 13:9, 88:19, 100:20, 112:18, 158:12 hard-coded 200:20	hardware 35:17, 35:19, 36:10, 36:14, 36:15, 36:17, 36:18, 36:22, 37:22, 205:4, 205:5 head 29:4, 105:12, 164:8, 164:12, 164:14, 164:15, 164:19, 164:22, 165:1 header 43:15, 104:12, 124:19, 126:6, 126:7, 126:12, 126:13, 126:14 heading 66:16 headset 49:22, 50:10, 130:4 hear 8:13, 9:20, 23:9, 24:17, 53:2, 58:18, 80:6, 80:12, 82:5, 84:14, 88:11, 88:14, 93:6, 93:7, 93:16, 138:17, 138:18, 211:14 heard 8:20, 9:7, 10:9, 56:19, 56:20, 83:13, 96:16, 100:5, 143:1, 192:5, 212:10, 212:21 hearing 88:18, 98:5, 112:18 hears 45:3, 110:6 hearts 225:12 heavily 69:17, 212:2	height 54:17 hello 196:15, 196:17 help 43:11, 62:21, 66:17, 67:13, 137:2, 138:6, 138:9, 143:20, 195:2 helpful 14:18, 30:15, 87:3, 148:7, 159:6, 208:4 helping 186:4 here 4:16, 5:5, 25:5, 26:3, 27:14, 35:8, 35:9, 36:6, 38:14, 39:2, 39:9, 39:14, 41:15, 45:15, 48:3, 49:8, 54:10, 55:13, 57:18, 60:11, 64:11, 72:10, 73:7, 76:9, 83:11, 90:15, 92:7, 93:3, 93:18, 94:11, 95:3, 95:7, 95:13, 97:12, 97:22, 98:13, 101:11, 107:16, 112:15, 113:14, 120:19, 121:21, 122:4, 124:8, 125:4, 125:21, 126:17, 135:18, 136:6, 137:12, 137:18, 138:7, 138:9, 146:1, 157:2, 157:22, 159:17, 164:3, 164:7, 167:4, 175:1, 175:17,
--	--	---	---

177:11, 177:15, 190:19, 192:7, 192:15, 198:12, 198:19, 200:10, 200:11, 208:3, 210:20, 213:2, 213:20, 213:22, 214:5, 214:16, 214:17, 217:15, 218:1, 218:8, 218:16, 219:3, 223:15, 224:12, 228:12 here's 171:7 hereby 231:4 herein 74:6, 74:7 hereinbefore 231:6 hey 140:13 high 17:8, 59:4, 59:9, 93:19, 98:6, 98:18, 98:19, 179:14 higher 17:15, 27:12, 27:18, 112:16, 223:18, 223:21 highest 53:8, 58:19, 58:22 highlighted 213:6, 215:7 highways 159:16 hint 164:18, 190:12, 193:7, 193:13 hints 207:18 hit 120:4, 139:2, 139:4 hmm 131:21	holding 158:3 home 122:17 honest 146:5 honestly 32:13, 78:10 hook 130:1 hope 30:12 hopefully 196:4 hot 41:17 hour 40:19, 63:8, 165:10 hourly 165:9, 165:16 hours 40:15, 162:18 house 130:2, 194:4 however 125:15, 130:7, 136:12, 181:13 hugely 182:9 human 17:6, 205:1, 209:11, 225:21 humor 106:6, 119:7 hundred 218:11, 218:12 hundreds 96:12 hurt 118:18 hyper-sensitive 139:15 hypothetical 99:12 hypothetize 146:19 I i-p-i-c-s 29:9	i6 37:2 id 131:8, 158:8 idea 6:20, 22:22, 28:22, 89:8, 169:20, 170:9, 170:12, 181:8, 183:4, 187:5, 194:9, 224:22 ideas 24:6, 24:10 identification 124:18 identifies 116:11 identify 27:1, 110:15, 116:12, 116:17, 117:20, 138:16 identifying 59:12, 60:6, 60:18, 107:4, 119:15 ignore 151:15 illusion 58:1 immediately 25:11 immigrant 92:21 impact 88:17 implement 123:22 implemented 33:11 implementing 24:10 implication 164:8 implies 144:21 importance 140:1 important 43:22, 44:2,	48:19, 48:21, 162:21 importing 198:5, 198:13 imposed 152:13 impression 93:10 impressive 168:4 improper 212:18 improve 24:4, 168:21 in-band 9:6, 9:8, 16:9, 16:14, 17:14, 17:18, 18:16, 19:14, 19:18, 123:6, 123:10 inc 1:5, 2:5 include 55:8, 55:11, 55:14, 55:19, 74:8, 79:2, 103:22, 117:14, 118:8, 125:5, 146:9, 148:13, 148:14, 149:13, 174:11, 213:15, 217:9, 218:3, 218:20, 220:6 included 79:11, 103:10, 122:21, 122:22, 123:1, 142:9, 157:8, 175:18, 213:6, 224:13, 228:14 includes 30:2, 30:3, 30:4, 30:5, 30:6, 30:9, 35:1, 73:4, 74:1, 75:1, 75:2, 80:3, 95:17, 104:9,
--	---	--	---

121:3, 121:22, 124:10, 128:1, 128:2, 142:20, 144:2, 173:7 including 69:3 incomplete 99:11 increase 53:5, 54:3, 60:10, 80:10, 80:16, 95:22, 115:4, 138:16, 165:13, 223:7 increased 115:2, 115:18, 117:22 increasing 53:21, 55:15, 95:20, 96:5, 111:12, 223:8 indeed 82:14 indicate 99:9 indicated 99:2 indicates 98:12, 143:22 indicating 98:13, 100:9 individual 41:9 individuals 41:13 inferior 24:11 inflation 165:14 inform 207:4 information 15:18, 15:20, 16:4, 16:6, 20:5, 27:12, 68:15, 84:22, 88:16, 97:16, 130:10, 131:4,	151:6, 198:6, 198:13, 203:17, 207:9, 209:3 informed 183:14 informs 74:18 infrastructure 125:19, 125:20, 126:18, 180:6 infringe 224:4 infringement 176:18, 177:4, 177:13 infringing 176:12 ing 201:8 initiate 216:15, 216:20 initiation 216:18 inject 57:15 injured 97:4 innovation 191:16 innovative 47:18, 71:22, 184:4, 192:2, 192:21 input 39:19, 173:2 inserting 136:2 instance 97:6, 97:13, 102:6 instead 120:1 instructed 19:2 intelligence 107:7, 107:8, 136:17, 136:18 intelligent 109:1, 110:22,	116:4, 116:11, 119:15, 136:4 intelligently 136:4 intended 159:12 intention 215:4 intentionally 96:9 interest 169:11 interested 231:16 interesting 131:22, 181:22 interface 78:6 interpret 92:9, 93:12, 206:10 interrupted 100:16 intervention 205:1 invalid 213:17 invent 31:21, 190:10, 215:14 invented 36:10, 72:21, 189:3, 189:17, 193:15, 215:13 inventing 61:3, 157:22, 193:18, 228:12 invention 26:19, 26:21, 28:5, 28:9, 28:22, 30:17, 31:10, 31:14, 35:16, 35:19, 36:2, 36:3, 36:7, 36:14, 37:21, 43:16, 51:20, 52:5, 65:4, 65:16,	107:3, 145:16, 158:1, 193:11, 193:14, 193:16, 198:19 inventions 189:15 inventor 26:15, 68:3, 167:4, 167:18, 169:17, 178:20, 190:21, 192:20, 215:3 invoices 163:11, 163:12 involve 35:17, 94:3 involved 68:11, 69:17, 98:6, 178:22, 207:18 involving 145:18 ip 30:6, 73:11, 74:9, 76:19, 77:3, 77:8, 77:9, 77:10, 77:21, 77:22, 122:21, 125:17, 125:19, 126:1, 126:5, 126:18, 126:19, 129:11, 129:12, 130:18, 130:20, 134:6, 152:6, 152:7, 158:7, 181:16 iphone 31:4, 31:5, 31:7, 47:2, 47:3, 47:5, 47:6, 47:8 ipics 29:8, 29:11, 29:18, 30:1, 30:7, 30:17, 31:3, 31:9, 31:13, 31:21, 32:12, 32:18,
---	---	---	--

Transcript of Dr. Shmuel Shaffer
Conducted on October 1, 2024

254

33:1, 33:19, 34:13, 35:2, 36:8, 60:22, 68:13, 73:9, 78:6, 78:12, 79:10, 79:18, 82:15, 83:10, 83:22, 84:2, 84:10, 84:16, 84:19, 110:11, 116:20, 117:5, 117:7, 119:18, 122:5, 122:6, 122:7, 122:9, 122:19, 124:1, 125:19, 126:18, 126:19, 148:15, 148:22, 160:15, 168:6, 168:13, 169:16, 170:8, 178:22, 179:16, 179:18, 180:7, 182:5, 183:2, 183:7 ipr 1:7, 2:7, 161:21, 175:19, 177:15 iron 212:8 irrelevant 190:10, 222:6 issue 6:22, 7:7, 7:9, 59:5, 223:22 issued 167:16 issues 12:6, 181:5, 181:6 it'll 21:6, 22:7, 62:17, 215:12 item 113:21 items 193:20 itself 38:18, 75:4,	80:2, 99:20, 100:22, 156:22, 184:1, 204:12, 224:3, 224:7, 225:19, 225:20 J jason 42:3 jet-lagged 7:22 job 68:14 join 168:17 joined 140:11 judge 217:17, 217:18 jump 141:21, 194:1, 227:10 junction 59:17 K k&l 3:14, 4:17 keep 48:5, 75:16, 134:12, 141:1, 169:6 keeping 169:11, 226:8 keeps 34:6, 47:11, 119:2 kept 170:4 key 34:16, 47:11, 90:12 keyed 100:1, 100:5 kiara 1:21, 2:18, 175:8, 231:2, 231:21	kick 58:8 killed 125:12 kind 9:18, 23:10, 24:1, 24:4, 24:7, 25:14, 29:21, 37:19, 39:20, 44:8, 45:7, 45:9, 68:3, 95:12, 105:20, 126:14, 131:13, 131:20, 140:1, 146:6, 146:20, 152:6, 157:21, 159:19, 173:14, 174:19, 185:11, 190:18, 198:4, 199:1, 204:7, 222:8, 228:17 kinds 226:9 knew 179:6, 190:6 knierim 3:10, 4:12, 7:9, 7:17, 24:20, 63:9, 63:14, 104:16, 134:8, 134:12, 140:3, 140:7, 140:10, 150:7, 161:14, 196:3, 219:13, 221:6, 222:15, 223:6, 224:5, 225:8, 226:19, 227:2, 227:20, 228:1, 228:20, 230:4, 230:6 knierim@bakerbot- ts 3:7 knowledge 34:13, 179:6, 188:12, 191:5,	191:13, 191:15, 191:16, 192:1, 209:4, 215:7 known 17:2, 29:6, 46:1, 86:19 knows 44:21, 93:6, 98:5, 130:3, 144:15, 184:14 L lady 21:4 land 83:14 language 109:15, 211:13, 220:2 laptops 74:11 large 10:21, 77:12 larger 12:7, 184:11 largest 165:4 last 59:11, 69:16, 162:5, 166:15, 170:16, 171:2, 177:18, 178:4, 202:2, 224:16 later 12:17, 19:8, 28:17, 32:6, 138:19, 180:12, 198:16, 224:8 lawyers 8:10, 40:9 leaks 209:4 learn 208:2 least 22:4, 50:14, 99:1, 115:1, 124:8, 125:5,
---	---	---	---

128:11, 128:21, 133:16, 144:14, 148:2, 161:1, 198:20, 200:19, 201:8, 209:13, 225:18 leave 48:1, 130:16, 150:6 left 56:15, 56:20, 57:1, 58:20, 59:4, 60:1, 77:7, 77:15, 86:15, 86:19, 86:21, 87:6, 88:3, 89:10, 90:3, 91:19, 93:20, 107:11, 108:19, 111:20, 112:16, 142:14, 142:22, 143:6, 143:11, 145:3, 181:10, 183:10, 193:20 legaard 3:21, 6:21, 7:15, 10:2, 18:19, 18:22, 20:22, 25:9, 26:20, 29:2, 29:12, 32:1, 32:19, 33:20, 35:4, 35:18, 36:12, 46:15, 48:14, 49:2, 54:5, 63:7, 65:21, 68:9, 69:9, 70:14, 71:7, 71:17, 78:7, 82:13, 83:8, 85:1, 87:9, 88:6, 92:3, 92:19, 94:15, 99:11, 100:15, 101:14, 114:4, 120:6, 131:17, 133:19,	134:10, 134:14, 135:14, 139:6, 140:5, 147:5, 147:21, 149:5, 149:14, 150:22, 156:11, 160:7, 173:4, 174:16, 176:14, 179:4, 183:20, 186:10, 191:14, 196:7, 204:20, 213:18, 214:13, 215:6, 219:15, 219:18, 227:18, 228:8, 228:21, 230:5 legaard@klgates 3:18 legal 94:22, 213:21 legalese 39:20, 69:19, 71:11, 72:6, 103:13, 202:18, 208:21 legally 212:7 lego 194:2, 194:3, 194:6, 194:7 less 11:20, 20:19, 43:22, 48:19, 169:13 lesson 13:5 let's 24:20, 31:13, 33:17, 43:8, 58:8, 63:9, 70:10, 72:13, 73:7, 74:4, 98:17, 106:3, 134:18, 139:1, 141:21, 145:5, 150:9, 151:15, 153:17, 158:12, 161:5, 175:2, 190:5, 193:9,	204:9, 218:10, 219:19 letter 182:15 level 27:18, 67:16, 131:3, 137:15, 137:16, 137:17, 137:18, 153:5, 153:7, 153:8, 179:14 levels 27:19 lexington 3:15 life 59:8 light 210:6 limations 224:12 limit 17:19, 212:18 limitation 61:5, 202:21, 204:4, 214:17, 222:5, 223:1 limitations 202:20, 207:12, 214:20, 224:14, 224:15 limited 10:20, 11:13, 13:6, 13:11, 48:4, 147:3, 147:20, 148:10, 149:4, 149:6, 212:12 line 13:9, 13:10, 43:19, 50:15, 79:8, 80:18, 81:8, 85:10, 85:12, 85:15, 91:1, 91:5, 91:6, 94:14, 96:18, 102:22, 103:1, 103:2,	106:7, 106:12, 109:5, 109:6, 116:5, 116:6, 119:14, 120:10, 120:15, 121:8, 121:11, 121:13, 121:15, 130:9, 131:9, 134:21, 137:2, 141:22, 145:5, 145:8, 145:11, 146:16, 198:4, 199:18, 219:20, 220:20 lines 23:8, 48:18, 51:6, 65:13, 70:10, 71:6, 71:16, 71:19, 92:18, 94:21, 95:6, 108:17, 113:9, 127:2, 127:18, 135:12, 171:2, 210:20 linguistic 156:18 link 131:8 list 6:1, 40:2, 58:9 listen 8:7, 25:21, 75:6, 83:16, 89:1 listened 48:6 listener 81:19 listening 44:19, 52:18, 83:6, 93:8, 144:6 little 6:2, 14:17, 37:11, 37:19, 81:7, 87:4, 95:13, 198:11, 204:10 live 201:2
---	--	---	---

Transcript of Dr. Shmuel Shaffer
Conducted on October 1, 2024

256

lived 191:1 llc 1:11, 2:11 llp 3:4, 3:14 lmr 83:13, 83:15, 84:18 local 44:15 located 4:15, 110:9 location 2:16, 124:22 log 35:15 long 40:12, 40:14, 48:16, 158:12, 226:4, 226:5 longer 66:15, 154:18, 216:9 look 30:20, 32:15, 38:8, 43:8, 49:10, 50:15, 55:3, 74:4, 76:1, 76:6, 78:5, 78:16, 80:18, 81:7, 87:15, 90:15, 96:17, 134:18, 137:22, 139:10, 145:5, 152:6, 154:9, 161:5, 166:22, 192:6, 192:17, 195:7, 195:11, 201:13 looked 78:11 looking 33:18, 35:9, 77:15, 121:14, 134:3, 142:8, 205:22, 208:18, 210:5, 211:15	looks 44:9, 78:9 lose 88:18, 89:10 loss 37:11 lost 24:19, 37:19, 89:10 loud 138:18 louder 80:7, 80:12, 110:6, 111:11 low 13:19, 22:21, 93:20, 198:7 lower 27:13, 27:19 lunch 42:10, 134:9, 134:10, 140:14 M mac 130:20 machine 207:19, 209:18, 209:20 machine-made 23:11 made 56:16, 95:16, 139:11, 139:12, 225:10 main 117:17, 195:18 mainly 68:14 maintain 215:21 major 179:7 majority 181:10 make 6:18, 10:22, 14:22, 27:16,	27:19, 30:14, 32:3, 39:3, 40:21, 46:16, 87:13, 90:1, 101:8, 108:16, 118:8, 118:13, 118:22, 136:5, 142:12, 150:14, 164:5, 171:20, 173:13, 187:18, 206:13, 208:22, 224:18 makes 131:6, 143:12 making 118:22, 136:3, 139:21, 168:1 man 98:8, 221:1, 221:4, 225:10 manage 33:10, 145:19 management 30:4, 33:8, 33:9, 34:18, 34:21, 43:20, 44:6, 45:9, 46:10, 46:13, 46:21, 47:10, 47:14, 51:8, 51:12, 75:3, 76:3, 76:22, 81:8, 81:13, 81:15, 82:3, 85:14, 91:14, 107:19, 108:8, 108:20, 109:10, 109:13, 110:9, 110:13, 113:22, 114:1, 115:3, 116:12, 120:22, 142:10, 150:1, 151:19, 156:4, 156:5, 156:6 manager 164:21, 165:2 manifests 184:1	mankind 154:15 manner 8:16, 141:19 manual 80:14, 80:15, 85:22, 86:1, 135:22, 136:1, 142:9, 142:11, 170:20, 171:11, 171:17, 171:20, 171:21, 172:3, 172:6, 172:7, 172:11, 172:13, 173:1, 173:2, 173:10, 173:17, 173:22, 174:5, 174:9, 174:11, 174:12, 174:17, 174:21, 207:14, 213:16, 215:5, 225:4, 225:6, 225:9, 225:10 manual's 213:5 manually 50:18, 51:3, 51:14, 136:10, 136:11, 143:13, 172:1, 209:15, 209:16, 215:9 manufacturer 130:22 many 25:17, 41:13, 42:12, 44:9, 159:14, 159:15, 162:19, 167:11, 168:5, 169:19, 170:1, 170:2, 170:9, 182:22, 184:9, 189:18, 191:9, 192:4, 195:14, 205:19, 224:12 margarita 180:3 marked 26:8, 26:14,
---	--	---	---

161:13, 230:11 market 183:3 marriage 231:16 material 5:14, 193:4 materials 5:2, 7:11, 7:12, 175:12, 175:14, 175:17 mathematical 175:5 matter 7:13, 89:9, 163:16, 193:10, 195:1, 197:7, 198:18, 204:11, 209:7, 231:17 matthew 3:8, 3:11, 140:11, 140:13 maybe 7:10, 22:4, 39:11, 46:2, 64:18, 75:5, 83:20, 132:11, 133:10, 162:4, 165:14, 167:14, 170:11, 183:9, 184:10, 184:11, 187:5, 193:9, 199:11, 204:21, 209:10, 219:5 mcu 203:16 mean 5:15, 9:1, 9:3, 9:9, 9:12, 10:3, 17:12, 18:6, 21:8, 27:5, 32:7, 33:22, 36:13, 42:20, 45:15, 48:15, 49:14, 50:5, 50:6, 55:10, 56:3, 62:16, 62:18, 65:1,	65:2, 65:5, 65:15, 66:10, 67:20, 68:3, 71:18, 73:4, 73:8, 77:20, 85:5, 92:7, 100:19, 105:13, 108:9, 109:16, 109:17, 113:18, 116:17, 121:20, 133:5, 134:5, 138:8, 138:11, 144:9, 146:6, 154:22, 155:16, 155:20, 159:6, 160:9, 162:20, 171:19, 173:8, 173:14, 175:4, 182:2, 184:17, 185:20, 192:10, 193:9, 200:13, 202:13, 203:10, 203:19, 208:12, 214:22, 216:10, 220:9, 220:18 meaning 94:16, 105:19, 143:6, 147:13, 148:9, 184:21, 209:5, 210:19, 224:6 meaningless 47:5 meanings 210:18 means 9:10, 20:18, 58:17, 72:20, 81:17, 82:4, 86:13, 103:22, 122:9, 123:17, 138:7, 142:15, 144:5, 144:11, 200:22, 201:1, 201:5, 201:6, 204:22, 205:1, 205:16, 208:16, 208:17, 209:11,	209:22, 223:14, 225:9, 225:10, 225:18, 225:19, 225:20, 225:22 meant 21:10, 146:14, 146:18, 225:6 mechanical 205:2, 205:3 mechanism 109:1 medias 158:10 meet 40:9, 40:12, 40:17, 173:3, 173:18, 174:14, 224:13, 224:14 meeting 40:18, 40:22, 41:1, 41:21, 41:22, 42:1, 42:2 meetings 40:20, 42:6, 42:9 member 77:11, 81:18 members 45:19, 159:3 memory 34:11, 37:6, 171:5 mention 97:19 mentioned 15:3, 19:21, 20:8, 21:10, 22:15, 26:3, 43:2, 84:4, 97:12, 108:3, 110:19, 128:5 mentions 117:1, 148:21 menu 142:21 mere 193:1	merge 118:5 merged 153:1 message 59:13, 60:19, 98:10, 98:12, 98:13, 101:19, 107:4, 121:4, 121:22, 124:10, 130:18, 131:10, 131:11, 228:3, 228:6, 228:7 messages 125:22, 228:13 met 40:13, 222:6, 223:1 metadata 128:12, 128:14, 129:1, 129:7, 129:9, 129:11, 129:13, 129:15, 130:5, 131:15, 133:17, 134:2, 134:3, 134:5, 134:7 method 12:2, 13:6, 26:21, 103:3, 197:11, 201:3, 202:21 metric 45:5, 136:16, 136:17 michael 3:7, 3:10 microphone 57:7, 75:7, 75:14 microphones 50:4, 50:6 middle 11:21, 61:6, 61:13, 136:16 might 16:13, 82:9, 93:17, 189:15,
---	--	---	--

Transcript of Dr. Shmuel Shaffer
Conducted on October 1, 2024

258

199:3 mike 4:14, 7:8, 161:10, 183:8, 221:7, 224:7, 225:17 milestone 168:3 miller 1:21, 2:18, 231:2, 231:21 million 182:16 millions 213:7 mind 7:22, 10:6, 25:11, 28:8, 45:16, 55:2, 63:16, 148:22, 179:15, 200:20, 201:7, 202:18, 208:11, 220:11 mine 166:14 minimal 204:6 minus 80:17 minute 42:17, 63:22, 85:13, 116:7, 120:12, 227:7 minutes 163:1, 225:3 misinterpret 211:20 missed 5:9 missing 213:19 mistake 21:15, 211:22 misunderstanding 199:12 misunderstood 177:20, 199:4 mixed 148:16, 153:20	mm-hmm 157:5 mobile 83:14, 122:14 modalities 122:20 modality 30:7, 122:8 model 33:7, 177:1 modified 27:3, 27:5, 27:7, 28:1 modifying 28:15 modulation 153:9 modules 38:3 moment 142:3 money 124:2, 165:22, 166:13, 180:21, 181:3, 181:13, 186:18 monitor 26:22, 221:21, 221:22, 226:2, 226:5 monitored 201:5, 202:4 monitoring 28:12, 95:15, 200:17, 200:18, 201:4, 201:5, 203:2, 203:4, 203:7, 203:14, 207:5, 207:9, 208:7, 210:3, 211:9, 222:3, 222:5, 222:19, 226:8, 228:3 month 163:10 months 42:15, 43:4, 163:12	more 8:9, 8:12, 20:2, 20:18, 23:22, 28:18, 33:7, 44:1, 48:8, 48:20, 50:13, 57:21, 58:5, 58:16, 69:18, 70:2, 70:7, 71:2, 71:10, 85:21, 88:15, 92:6, 105:20, 108:10, 114:10, 116:14, 117:19, 126:17, 131:14, 132:20, 136:3, 138:19, 139:19, 144:16, 146:2, 146:7, 162:18, 165:19, 167:5, 167:21, 168:12, 169:13, 183:1, 185:3, 185:9, 185:11, 191:19, 191:21, 192:1, 192:3, 192:21, 197:1, 206:14, 213:21 morning 4:13, 4:14, 155:4 most 82:18, 123:17, 146:5, 168:1, 186:4 motorola 1:5, 2:5, 83:21, 84:17, 99:5, 125:9, 125:18, 176:5, 176:12, 176:19, 177:9, 180:7 motorola's 177:4 mouse 225:12 mouth 70:21, 160:10	move 22:6, 22:13, 23:16, 29:21, 45:7, 48:11, 54:21, 61:8, 61:19, 85:7, 125:22, 186:19, 221:7 moved 54:22 moving 14:2, 22:20, 72:6, 87:10, 90:9, 202:18, 215:17 much 9:19, 13:12, 13:20, 14:16, 58:6, 68:17, 69:13, 75:17, 125:12, 125:17, 140:22, 162:15, 167:21, 175:9, 182:4, 182:17, 191:22 multiple 11:7, 82:5, 83:6, 83:16, 115:8, 148:13, 149:13, 150:1, 150:20, 151:2, 151:8, 151:13, 152:15, 157:13, 158:19, 159:10, 159:18, 160:6, 160:21, 163:9 musician 17:7 must 33:1, 63:3, 73:9, 89:16, 90:11, 90:14, 93:14, 94:3, 103:22, 122:6, 144:14, 144:22, 179:1, 211:6, 211:16, 212:5, 222:21
---	--	---	---

myself 54:18, 69:12, 146:2, 190:6, 191:7, 193:3	193:14, 193:16, 195:13, 198:7, 199:21, 200:1, 200:15, 204:21, 226:14	7:14, 28:7, 28:9, 28:11, 35:17, 35:19, 36:3, 36:7, 36:9, 36:14, 36:20, 36:21, 36:22, 37:1, 37:8, 37:13, 37:14, 37:21, 38:2, 47:7, 47:16, 47:17, 72:11, 92:21, 96:11, 99:15, 123:7, 123:18, 123:19, 123:21, 123:22, 124:3, 124:4, 181:4, 182:11, 182:20, 188:3, 231:4	231:3
N	needed 12:4, 13:7, 17:16, 37:17, 173:20	next 48:11, 50:15, 55:10, 58:9, 74:4, 75:18, 96:18, 108:7, 162:6, 192:18, 221:8, 227:11	note 17:5, 41:20, 63:20, 134:22, 135:1, 136:6, 136:21, 137:3, 160:13
name 4:6, 31:4, 39:1, 39:8, 41:11, 47:17, 96:13, 114:8, 167:16, 177:1, 177:18, 178:3, 178:4	needing 14:5	niche 165:22	noted 191:7
names 41:6, 41:7, 41:12, 170:5	needless 17:3, 22:19, 54:6, 57:6, 93:5, 193:16, 226:9	noble 181:7	notes 41:5, 196:19
narrow 147:4	needs 13:20, 35:14, 44:17, 150:3, 179:7, 179:10, 179:11, 193:8, 198:14	nodding 105:12	nothing 7:14, 90:9, 139:14, 144:8, 160:15, 166:5, 179:15, 180:8, 194:8, 207:17, 221:21, 227:2
necessarily 17:5, 34:18, 46:7, 61:18, 101:3, 108:9, 110:1, 130:4, 150:5, 177:19, 202:17	negotiate 165:15	non 97:6, 97:14	notice 17:7
necessary 6:4, 174:19, 174:21, 190:9, 195:8, 222:18	negotiation 166:19	none 193:22	noticed 13:14
necessitate 181:18	neighbors 224:1	non-elevator 112:6	notion 10:17, 25:11, 28:11, 92:22
necessities 193:10, 194:22	nerd 71:13	non-high 112:6	november 141:8
necessity 198:18, 198:20, 198:21	network 11:16, 22:16, 77:4, 125:20, 126:1, 126:2, 126:19, 158:7	nonlawyers 42:5, 42:8	number 10:21, 11:13, 12:7, 42:18, 42:22, 46:5, 78:2, 78:16, 121:13, 122:17, 163:2, 177:1, 184:10
need 10:1, 11:15, 20:4, 50:9, 52:21, 66:22, 72:7, 72:8, 74:2, 84:19, 144:19, 150:6, 150:7, 163:5, 165:22, 166:1, 188:11, 190:12, 192:17, 192:18,	networks 125:17	normally 49:3	numbers 108:2
	neurologist 56:7, 93:13	north 167:8	numeral 107:22
	never 46:16, 128:15, 164:12, 164:15, 166:15, 174:10, 213:8	notary 4:2, 229:14,	numerous 10:3, 33:13, 98:2, 122:19, 159:12, 163:11
	nevertheless 188:17, 204:16		oath 68:19, 68:21
	new 3:6, 3:16, 4:3,		object 10:2, 18:19,
			O

Transcript of Dr. Shmuel Shaffer
Conducted on October 1, 2024

260

20:22, 25:9, 26:20, 29:12, 32:1, 32:19, 33:20, 35:18, 49:2, 54:5, 65:21, 68:9, 69:9, 70:14, 71:7, 71:17, 78:7, 82:13, 83:8, 85:1, 87:9, 88:6, 92:19, 94:15, 101:14, 114:4, 120:6, 131:17, 133:19, 135:14, 139:6, 147:5, 147:21, 149:5, 149:14, 150:22, 156:11, 160:7, 173:4, 174:16, 179:4, 183:20, 186:10, 191:14, 204:20, 213:18, 214:13, 215:6, 221:6 objection 29:2, 35:4, 36:12, 46:15, 48:14, 99:11, 100:15, 176:14, 222:15, 223:6, 224:5, 225:8, 226:19, 227:2, 228:8 objects 221:7 oblige 163:4 observations 207:19 obsoletes 181:20 obsoleting 181:20 obtained 169:16 obtainment 194:11	obtains 170:9 obvious 28:19, 184:7, 185:6, 185:12, 186:3, 187:12, 188:18, 189:15, 189:16, 189:18, 189:19, 202:13, 203:3, 204:8 obviously 146:13, 173:12, 200:11, 204:6, 205:8 obviousness 183:14, 183:19, 184:22, 185:20, 188:11, 226:12, 227:15 occur 109:13 occurred 28:20, 231:11 october 1:17, 2:17, 231:12 off-the-shelf 37:2, 37:6, 37:10 offense 191:19 offering 141:11 office 1:1, 2:2, 4:16, 4:17, 68:2, 69:1, 130:2, 130:3, 130:8, 130:14, 131:6, 168:9, 184:3, 184:4, 186:19, 209:14 officer 82:19, 97:3, 97:17, 99:8, 100:1, 100:5, 100:8, 115:13, 119:9, 119:10,	120:1, 120:2, 122:16, 139:2 official 144:3 officially 194:13 often 38:1, 184:19, 185:13 oh 55:10, 70:18, 77:19, 109:7, 110:19, 127:20, 138:9, 145:11, 162:17, 167:13, 169:18, 189:18, 197:21 old 16:20, 17:1, 84:19, 122:18, 122:21, 123:11, 123:19, 124:4, 124:5, 124:6, 124:8, 129:21, 132:11, 157:18, 168:18, 181:1 older 169:3 once 59:1, 69:10, 90:8, 137:14, 141:9, 159:8, 187:20, 201:5, 212:15, 226:1, 226:2 ones 84:19 ongoing 11:1, 153:8, 200:18, 201:2, 201:9, 226:3 online 207:13 only 8:8, 25:22, 32:4, 48:7, 67:17, 81:19, 88:14, 89:1,	89:4, 89:8, 93:7, 115:6, 127:20, 137:4, 152:2, 157:20, 159:22, 166:8, 168:2, 170:3, 174:5, 177:16, 178:1, 186:20, 194:12, 196:14, 222:2 open 6:10, 139:22 operates 73:12, 136:15, 180:2 operating 146:12 operation 59:9, 89:12, 89:18, 90:9, 94:3, 213:16, 215:5, 216:6, 221:10, 225:4, 225:7, 225:9 operational 18:2, 35:12 operations 44:9 opinion 37:8, 65:11, 75:11, 90:3, 127:13, 163:17, 171:15, 188:4, 189:5, 201:8, 204:16, 205:10, 206:4, 208:3, 208:6, 214:7 opinions 163:15, 177:14, 187:11, 213:2, 225:1 opportunity 8:10, 26:1, 48:9, 102:8 opposed 16:9, 16:14, 19:14, 19:18, 87:6, 171:17
---	--	--	---

opposite 200:20	12:18, 12:22, 13:1, 15:19, 18:8, 20:1,	out 7:22, 12:9, 53:9, 66:17, 67:13, 92:13, 94:6, 118:8, 141:1, 162:20, 166:5, 212:9, 216:8, 221:11, 224:15	own 79:4, 80:4, 115:9, 186:11, 190:22, 191:1, 207:19, 207:20
optics 13:10	20:2, 23:1, 23:15, 25:6, 26:11, 27:13, 28:6, 34:8, 36:3, 37:7, 40:16, 40:20, 42:9, 42:11, 43:6, 44:2, 44:16, 45:4, 46:22, 47:8, 48:21, 50:2, 53:14, 54:16, 56:22, 57:16, 70:20, 73:1, 74:13, 80:12, 84:9, 86:8, 86:15, 86:17, 87:11, 89:2, 93:8, 93:22, 94:4, 99:5, 100:13, 100:17, 110:3, 113:6, 120:21, 121:9, 122:10, 123:19, 124:21, 126:7, 145:20, 146:1, 148:1, 150:4, 152:4, 154:8, 155:21, 156:2, 159:1, 165:5, 166:11, 169:15, 181:5, 181:11, 186:14, 194:15, 206:11, 210:17, 214:22, 215:1, 220:2, 223:18, 226:10	out-of-band 8:21, 8:22, 14:22, 15:17, 16:9, 16:15, 17:14, 18:17, 19:15, 19:19, 120:13, 121:4, 121:12, 122:1, 124:11, 124:17, 125:6, 127:18, 128:1, 128:3	owner 1:12, 2:12, 3:13, 161:20, 162:2, 162:12
optimally 197:12, 197:18, 198:15, 199:10, 199:12			P
optimum 199:13, 199:14, 199:15, 200:1			p-o-t-s 17:2, 129:14
option 103:8, 103:10			package 102:11, 102:12
optional 159:21			packet 101:22, 102:1, 102:14, 102:19, 103:4, 103:11, 104:12, 124:19, 124:20, 125:6, 126:7, 126:11, 126:13, 152:7, 213:14
options 99:21, 166:8			packets 124:21, 126:5, 152:6
orange 188:9			page 48:3, 55:4, 120:19, 141:8, 167:1, 170:13, 170:16, 171:10, 173:16, 192:16, 195:6, 197:3, 197:5, 201:14, 201:19, 201:20, 201:21, 217:4, 217:19, 218:14, 227:11, 230:3, 230:10
oranges 188:7			paid 68:17
order 13:13, 20:4, 29:20, 72:6, 79:17, 84:21, 141:18, 190:9, 216:15			paint 172:18, 172:19, 172:20
ordered 203:2			palo 4:10, 4:20
ordinary 147:12, 148:9, 188:13, 188:18, 190:1, 193:1			panama 48:15
organization 36:18, 164:9, 164:13, 164:19, 164:22, 165:1, 170:8	others 31:10, 67:18, 168:12	outcome 231:17	
organizations 164:15, 181:21	otherwise 24:6, 37:1, 155:2, 185:7, 185:21, 204:6, 222:22	outlet 209:5	
orthogonal 174:22, 175:4, 175:5, 175:7, 179:17		outlook 7:5	
other 5:14, 6:3, 6:4, 7:21, 9:3, 11:9, 11:10, 12:11,		outside 226:20	
		oval 194:7	
		over 13:1, 20:19, 22:6, 22:21, 44:9, 69:16, 87:13, 91:16, 98:15, 112:15, 117:13, 126:5, 131:9, 138:11, 149:20, 149:21, 154:7, 159:13, 159:18, 160:1, 169:13, 181:9	
		over-answer 8:18	
		overall 72:22	
		overlap 82:9	

paper 5:2, 7:11 papers 5:12 paperwork 6:17 paradigm 182:20 paradigms 83:11 paragraph 91:4, 91:9, 96:18, 96:20, 106:7, 116:2, 135:2, 142:4, 146:9, 147:2, 147:18, 166:22, 167:1, 175:3, 175:10, 183:11, 183:13, 192:6, 197:6, 201:14, 201:15, 201:22, 206:17, 217:3, 217:7, 217:20, 218:1, 218:10, 218:18, 219:19, 219:21, 226:13, 227:5, 227:8, 227:10 paragraphs 219:9, 220:3, 227:14 parentheses 165:3, 180:22, 181:2 parrot 205:11 part 6:13, 33:1, 35:11, 65:16, 72:22, 73:5, 76:3, 154:4, 154:5, 154:6, 156:2, 157:8, 157:9, 157:10, 157:11, 169:9, 173:20, 182:10, 213:14, 216:17	particular 16:13, 19:19, 145:17 parties 43:3, 231:15 parts 5:12 party 88:17, 88:21, 89:20 pass 196:19, 219:14 passing 18:7 passive 81:19 paste 205:13 patent's 221:16 patentable 28:6, 47:18, 47:22 patentee 66:21, 67:3 patenting 189:6 patents 68:2, 96:13, 96:14, 103:12, 167:5, 167:11, 167:16, 168:5, 168:11, 169:3, 169:15, 170:1, 170:2, 170:6, 170:9, 174:11, 184:9, 184:11, 184:12, 184:13, 184:22, 210:19, 211:20, 224:9 pathways 145:20, 146:1 pay 166:3 payload 124:20 pays 105:14, 105:16	pbx 11:6, 130:9 pc 90:21, 108:11, 179:22 pcs 30:9 peace 66:11, 66:13, 66:14, 66:15 peer 89:21 peers 41:7 people 11:5, 11:13, 12:7, 12:8, 18:11, 19:10, 19:11, 22:5, 25:17, 41:14, 41:19, 44:11, 44:12, 44:13, 44:14, 49:14, 61:2, 62:19, 80:13, 88:18, 112:18, 113:3, 159:1, 168:16, 169:6, 169:8, 169:10, 181:18, 183:6, 183:7, 186:14, 204:1 percent 166:7, 204:15 percentage 166:12 perception 27:21, 53:11, 53:16, 109:20, 110:5 perfect 77:19, 79:9 performed 204:18 perhaps 144:13 period 144:7, 154:20, 164:9, 179:16	permission 206:9 person 11:8, 11:9, 11:22, 12:1, 12:4, 12:14, 17:20, 27:8, 41:19, 49:15, 49:18, 51:7, 51:12, 51:13, 53:9, 56:6, 57:22, 80:11, 84:12, 93:10, 107:17, 107:19, 108:7, 108:19, 109:20, 109:21, 109:22, 110:8, 113:6, 131:9, 142:11, 146:22, 147:17, 152:19, 158:3, 158:22, 160:13, 165:21, 170:17, 174:9, 188:18, 190:1, 191:4, 191:6, 191:12, 191:20, 191:22, 192:2, 192:12, 192:22, 193:17, 194:22, 203:21, 204:5, 207:13, 207:15, 207:18, 215:15, 225:15 personal 74:12, 180:1 personally 5:18, 183:18, 223:20 petition 39:16, 175:18 petitioner 1:6, 2:6, 2:16, 3:3 pg&e 44:14, 181:11 ph 194:11, 194:18, 194:21
---	--	--	--

phase 53:11, 53:15, 89:17, 90:14, 93:15, 144:19 phenomena 56:4 phone 21:21, 33:7, 33:12, 33:13, 33:14, 73:11, 76:19, 77:3, 77:8, 77:9, 77:10, 77:21, 77:22, 78:2, 120:5, 122:14, 122:16, 122:18, 122:21, 122:22, 123:1, 126:12, 129:21, 129:22, 130:13, 130:18, 130:21, 131:6, 131:7, 133:7 phones 30:6, 74:9, 130:22 phrase 149:8, 149:11 phrased 216:2 physics 144:4, 144:7 pick 63:11, 104:17 picked 130:3 picking 130:13 picture 151:8 piece 194:8, 194:12, 203:17 pieces 194:2, 194:3, 194:6, 194:7 pipe 119:17 piped 86:14, 86:16,	86:17 place 65:5, 110:10, 110:13, 121:10, 138:1, 138:11, 139:8, 139:9, 139:20, 164:1, 164:7, 168:8, 192:11 places 78:1, 99:18, 182:22 plain 17:1, 122:18, 122:20, 147:12, 148:8 plaintiff 175:15 plaque 167:17, 170:5 play 133:6 played 111:10 playing 143:11, 143:12 plaza 3:5 pleasant 160:13 please 4:5, 8:3, 8:13, 8:17, 8:18, 10:6, 10:16, 12:17, 21:3, 26:18, 31:2, 40:1, 43:13, 52:3, 52:15, 55:5, 63:16, 72:5, 85:17, 87:17, 102:9, 102:16, 106:6, 114:13, 120:15, 121:16, 127:7, 134:22, 135:1, 135:17, 136:6, 145:7, 146:3, 149:6, 154:22,	156:12, 170:15, 183:12, 198:8, 201:19, 211:20, 217:5, 217:21, 218:13, 226:14 plenty 158:13 plurality 26:22, 27:15, 28:12, 28:14, 43:21, 52:18, 57:22, 81:10, 82:4, 82:12, 122:8, 123:2, 153:13, 153:15 plus 80:16, 167:7 pnc 78:6, 78:12, 79:10, 79:17 point 10:19, 11:16, 11:17, 28:2, 28:16, 30:20, 32:16, 45:6, 50:9, 73:3, 73:22, 74:3, 75:4, 75:5, 75:6, 75:12, 75:13, 75:14, 78:3, 82:18, 87:15, 94:5, 111:9, 127:7, 136:15, 146:7, 148:5, 151:11, 170:19, 172:15, 172:21, 195:2, 202:7 pointed 131:14 pointing 79:5 points 10:21, 11:3, 72:17, 75:9, 81:5, 146:12 police 44:20, 45:3,	52:19, 52:22, 53:14, 63:1, 84:6, 84:14, 99:8, 117:10, 117:12, 117:14, 118:17, 119:9, 152:20 policeman 82:19, 85:4 policemen 124:1, 181:10 policing 44:13 policy 35:10, 35:11 pooled 14:8 pooling 11:20 poor 18:10, 25:12, 92:20, 174:18 poorly 18:10, 216:1 port 35:6 portfolios 69:18 portion 65:12, 72:14, 86:10, 107:2, 141:7, 143:4 portions 76:17, 92:4 posita 192:8 position 142:18, 143:5, 144:1, 144:19, 145:2, 177:12, 190:21 positions 143:14, 143:16 possibility 50:3, 53:4, 53:6, 60:20, 60:21, 60:22, 61:4, 76:21,
---	--	--	--

119:19, 119:20 possible 11:2, 19:10, 19:11, 67:20 post 168:15 potential 132:2 potentially 92:6, 101:8, 123:5, 176:8 pots 17:2, 128:5, 129:14, 129:15, 129:18, 129:20, 129:22, 134:1, 146:15 power 44:16, 172:15, 198:8, 198:12 practical 182:1 practice 141:7 pre-assumption 155:7 pre-media 132:21 preassigned 49:6 precise 102:10, 128:18 preclude 173:1, 173:5, 173:6 predate 47:7 predated 30:17, 31:5, 31:7, 31:10, 31:14, 46:10, 46:13, 47:3, 48:12 predicate 159:7 preempt 13:4 preemption 13:2, 132:12,	132:22 preferred 212:12, 212:19 prepare 38:9, 38:12, 40:10, 40:17 prepared 5:13, 10:4, 23:21 preparing 162:16 present 4:21, 32:17, 32:20, 32:22, 40:22, 41:1, 41:2, 41:9, 41:13, 42:1, 42:6, 42:8, 57:15, 107:3, 145:16, 155:22, 158:21, 190:13 presentation 57:17 presented 151:8 preserve 63:3 pressed 99:2, 158:6 presses 99:8, 100:9 pressing 221:4 presumption 46:19, 155:8 pretty 196:5 preview 142:5 previoiusly 230:10 previous 68:13, 74:18, 79:16, 83:19 previously 26:7, 26:13, 161:12 primary 59:12, 59:14,	60:7, 60:18, 60:19, 61:12, 116:13, 116:18, 117:18, 117:22, 118:20 printed 5:4, 36:20 prior 15:3, 21:11, 43:2, 49:1, 51:1, 51:13, 84:18, 111:19, 136:13, 136:19, 137:12, 138:2, 138:3, 171:20, 179:1, 179:5, 179:10, 179:12, 180:10, 188:9, 189:4, 189:5, 189:10, 213:7, 213:8, 213:10, 215:8, 215:10 priority 51:22, 52:8, 52:12, 53:8, 54:3, 55:8, 55:11, 55:14, 58:10, 58:12, 58:15, 58:19, 58:22, 59:5, 59:12, 60:17, 61:7, 62:10, 87:19, 93:19, 93:20, 95:15, 97:7, 97:14, 98:19, 110:16, 110:18, 111:5, 112:1, 112:16, 136:22, 137:3, 139:3, 172:2, 173:17, 174:13, 223:5, 223:13 private 141:2 privilege 141:17 probably 6:12, 21:20,	92:12, 110:12, 125:11, 167:14, 170:11 problem 91:10, 193:8, 193:21 problems 193:19 procedural 59:5, 59:9, 112:19, 113:7 procedurally 85:5 procedurals 93:18 procedure 53:6, 59:2 procedures 34:6, 58:17 proceed 198:22 proceeding 43:6, 161:21, 162:2, 175:19, 177:15 process 69:15, 80:14, 80:15, 186:6, 189:22, 226:3 processing 121:1 product 29:7, 176:21, 177:2 products 176:11, 176:17 programmed 101:17 programs 6:3 proof 22:20, 192:3 proper 209:12 properly 20:5, 83:20, 83:21, 153:16, 175:22, 220:13
---	---	--	---

proposal 186:17	purchase 19:8	10:8, 14:21, 21:9, 23:12, 25:4, 25:21, 25:22, 29:17, 30:14, 35:20, 35:22, 36:9, 37:12, 38:4, 45:14, 48:11, 52:4, 64:2, 64:6, 64:8, 64:10, 65:1, 65:7, 66:1, 69:12, 69:22, 70:3, 70:5, 70:21, 71:4, 83:18, 87:4, 87:12, 88:2, 92:14, 94:9, 102:7, 104:3, 104:4, 116:16, 116:19, 121:20, 127:13, 127:16, 129:3, 129:16, 131:14, 131:22, 133:11, 133:14, 135:7, 142:5, 147:15, 150:15, 150:16, 155:8, 158:14, 158:17, 159:5, 159:7, 159:8, 160:4, 162:6, 171:9, 179:8, 185:19, 187:9, 187:16, 192:18, 193:11, 193:21, 194:3, 195:9, 196:10, 199:2, 199:4, 199:6, 199:8, 201:11, 211:4, 213:21, 220:13, 221:8, 222:8, 224:2, 227:13	48:7, 94:22, 95:1, 105:20, 119:7, 126:21, 135:4, 141:19, 160:17, 195:4, 197:1, 219:14, 227:19, 228:20
proposing 67:22	purpose 141:16, 209:7	queue 12:20	queuing 12:11, 12:19
protocol 23:5, 24:2, 24:3, 123:3, 123:22, 133:9, 179:19, 181:4	purposes 186:7	quickly 171:4	quite 14:19, 38:1, 185:13
proud 168:11, 169:1, 169:4, 169:5	push 81:20, 82:18, 98:9, 98:16, 99:5, 99:13	quote 177:2, 214:17	quotes 219:6, 219:8
provide 11:7, 11:15, 12:11, 12:19, 52:11, 71:19, 93:9, 123:12, 135:22, 149:17, 162:21, 181:16	push-to-talk 57:8, 72:20, 72:21, 73:2, 74:10	quoting 171:19, 176:1, 176:3, 205:19	
provided 20:12, 124:19, 163:4	pushes 98:11	R	
provides 18:3, 91:9, 180:4, 180:6	pushing 225:16	radio 9:15, 9:17, 9:21, 10:9, 10:12, 10:14, 13:8, 13:11, 14:3, 14:10, 14:22, 15:13, 15:18, 17:17, 18:17, 44:20, 46:7, 57:5, 57:8, 63:4, 83:14, 91:16, 122:12, 122:15, 125:10, 157:18, 158:4	radios 72:20, 72:21, 73:2, 74:8, 74:9, 157:20
providing 27:20, 154:18	put 19:11, 33:7, 37:7, 46:20, 70:21, 79:18, 83:9, 88:7, 114:9, 117:11, 132:13, 151:10, 158:22, 160:10, 169:4, 172:9, 177:22, 192:22, 193:9, 223:20	raise 166:15, 166:16	raising 112:6
provision 107:11, 111:10, 214:18, 214:19	putting 146:22, 147:16, 189:22		
provisioned 111:9, 111:14, 197:12, 197:18, 199:10	Q		
provisioning 95:17, 95:18	qualifications 164:4		
pstn 74:9	qualified 156:19		
ptt 80:20, 81:4, 81:9, 81:13, 81:15, 82:11, 83:4, 98:20	quality 20:12, 23:7, 24:7, 24:12, 25:12, 158:20		
public 4:2, 229:14, 231:3	quarters 68:1		
pulling 11:19	question 8:5, 10:1,		

ran 30:9 ranges 36:19 rate 13:21, 165:9, 165:16 rates 166:3, 166:17 rather 78:21 reach 65:3 read 21:5, 39:22, 40:3, 40:7, 45:11, 48:18, 49:10, 60:12, 63:22, 64:18, 68:16, 68:21, 69:10, 69:21, 75:16, 85:13, 86:11, 91:4, 95:14, 96:20, 106:6, 109:4, 113:6, 114:16, 116:7, 117:3, 120:12, 120:18, 121:6, 121:17, 127:5, 127:14, 128:16, 139:19, 141:6, 142:3, 142:7, 146:2, 156:12, 158:2, 160:15, 162:19, 171:4, 175:15, 176:2, 177:17, 178:2, 178:6, 178:7, 183:15, 183:16, 186:16, 190:4, 192:12, 193:4, 193:5, 197:14, 202:12, 206:12, 215:2, 218:15, 219:8, 227:8 reading 59:16, 75:16,	106:5, 121:7, 129:2, 133:13, 146:21, 147:16, 156:15, 156:16, 193:12, 204:17, 206:16 reads 211:20 ready 16:17, 55:9, 70:2, 95:1, 140:6 real 13:9 reality 185:7 really 16:17, 22:14, 24:7, 41:19, 48:6, 68:14, 69:16, 83:21, 93:1, 102:6, 138:18, 146:17, 154:16, 168:10, 171:9, 177:10, 179:15, 185:5, 185:19, 200:9 realtime 11:18 reason 7:18, 13:3, 19:13, 19:17, 20:10, 25:6, 127:11, 170:3, 179:19 reasoning 160:22 reasons 16:13, 23:15 recall 33:16, 34:9, 41:11, 41:12, 79:10, 79:12, 86:8, 114:8, 119:8, 128:7, 133:8, 134:2, 146:6, 146:13, 146:17, 146:20,	163:8, 177:6, 177:10, 200:9, 215:19 receive 84:20, 84:21, 91:20, 119:2, 162:4 received 51:21, 52:7, 102:18, 103:4, 104:12, 119:17, 202:7, 206:6, 206:21 receives 156:4, 156:5 receiving 55:16, 55:21, 58:11, 60:14, 60:16, 87:21, 95:15, 153:12, 153:13, 153:15, 203:15, 207:6, 207:10, 208:8, 210:4, 228:2, 228:5 recenter 187:9 recess 24:22, 63:12, 104:20, 140:8, 150:10, 196:8 recognize 62:7 recollection 41:8 record 4:6, 7:1, 38:5, 39:12, 63:14, 97:21, 108:15, 108:16, 135:11, 140:10, 141:6, 150:3, 156:14, 231:8 recorded 24:21 red 172:18, 172:20 reduce 90:8	refer 80:1, 80:8, 142:6, 145:2, 146:1, 171:11 reference 6:18, 30:14, 72:14, 75:22, 79:5, 91:4, 113:18, 142:6, 142:7, 145:17, 178:2, 188:1, 188:16, 192:7, 192:15, 213:13 references 40:4, 78:2, 163:19, 187:13, 189:12, 193:5, 193:6, 193:12, 213:12 referred 20:18, 74:6 referring 143:5, 143:21, 220:21 refers 107:7, 116:4, 142:16, 142:17, 143:10 refresh 171:5 regarding 127:18, 140:15, 141:13, 163:16, 177:4, 178:10, 183:14, 215:18 regardless 89:7, 144:9 regulatory 20:2 reinforced 105:22 reiterated 105:21 related 42:20, 155:11, 157:3, 168:6, 169:16, 175:19, 175:21, 231:14
---	---	--	--

relates 184:22 relationship 169:7 relative 27:17, 54:8, 54:13, 54:15, 224:1 release 32:10, 32:11, 32:12, 33:7 relevance 176:14 relevant 176:15 relies 203:6 remember 32:14, 35:13, 39:1, 42:15, 42:22, 78:10, 114:13, 114:17, 132:9, 132:13, 132:14, 133:1, 162:17, 163:11, 168:7, 168:10, 178:14, 220:17 remind 146:2, 190:16 reminded 140:21 reminds 190:15 remote 1:15, 2:16, 6:5, 188:1, 188:2 remotely 231:11 render 18:11, 28:17, 49:5, 59:22, 61:12, 62:5, 62:11, 91:15, 142:14, 187:11 rendered 43:22, 44:2, 48:19, 48:21,	61:17, 214:7 rendering 27:11, 28:1, 49:11, 55:20, 58:11, 59:13, 60:14, 60:16, 60:18, 87:5, 87:20, 88:4, 89:13, 90:5 renders 27:2, 57:20 repeat 5:10, 64:7, 127:13, 158:14 rephrase 49:9, 65:9, 70:20, 87:4, 94:9, 109:11, 147:15, 149:9, 187:9, 212:17, 216:1 replace 124:2 report 177:3, 177:17, 178:10, 179:3, 196:16 reported 1:21 reporter 4:5, 231:3 reporting 165:1 represent 7:11, 166:10 request 10:7, 12:21 requested 6:16 requests 81:21 require 171:16 required 23:4, 37:21, 94:8, 216:15 requirement 197:17, 199:9,	206:22 requirements 222:13 requires 27:9, 97:5, 114:11, 204:18, 210:7, 214:11 rescuing 44:12 research 120:21 resides 73:17 resistors 37:3 resource 14:5, 14:9, 148:4 resources 10:20, 11:1, 11:15, 11:20, 11:21, 12:3, 12:10, 12:22, 13:6, 45:8 respect 176:13, 227:15 response 39:17, 107:7, 107:8, 109:1, 116:4, 116:11, 119:15, 121:2, 121:21, 124:9, 161:21, 162:2, 162:13, 168:20 rest 58:8, 85:8, 198:22 restate 52:3 restriction 104:1, 104:9, 104:14 restrictions 103:17, 104:7 result 25:12, 80:11, 221:4 retired 165:21	reusable 14:9 revelation 56:16 revenue 182:16 review 38:15, 40:5, 163:18, 195:4 reviewed 40:7, 69:2, 175:13 rid 181:1 ring 152:10, 178:13, 178:19 river 118:4, 118:5, 118:12, 119:1, 119:2, 152:10 rivers 44:13, 118:22 rms 34:14, 124:14 rob 23:2, 23:3 robbed 20:11 robbing 16:21, 16:22, 17:10, 20:8, 20:9, 20:10, 20:11, 20:16, 20:17, 21:11, 21:12 robo 23:10 rockefeller 3:5 roof 19:12 room 4:21, 46:3, 54:10, 141:1, 151:16, 184:8 rotary 122:18, 133:7
--	--	---	--

rotor 190:13 rough 163:6, 228:22 roughly 162:15, 168:5, 169:19 router 33:1, 33:2, 34:15 routing 30:2 run 36:17, 77:2 running 12:9, 30:6, 99:16, 165:2, 198:7 runway 189:7 résumé 36:16	134:1, 135:21, 136:13, 136:19, 137:22, 139:8, 139:9, 143:17, 144:18, 146:17, 147:12, 173:22, 182:3, 185:4, 185:9, 185:10, 186:3, 188:3, 196:14, 196:15, 198:18, 203:19, 203:22, 205:11, 207:5, 210:17, 210:20, 211:8, 213:5, 213:8, 221:1, 223:16, 225:17, 228:18, 228:19 sake 148:6, 154:21 same 11:9, 11:10, 11:18, 13:8, 17:8, 36:12, 43:3, 48:3, 52:20, 57:1, 61:21, 64:19, 78:9, 82:1, 83:1, 83:6, 83:16, 83:18, 84:13, 88:7, 88:11, 89:3, 90:11, 110:12, 118:19, 119:5, 120:5, 120:19, 137:20, 151:4, 151:5, 151:6, 151:7, 151:16, 152:5, 153:1, 154:11, 155:22, 160:2, 173:16, 174:7, 174:12, 180:13, 184:10, 201:14, 208:12, 219:4, 219:7, 219:10, 220:2, 224:2 satisfies 58:10, 59:11	satisfy 222:13 save 195:12 saw 5:20, 22:15, 177:9, 220:1 saying 18:16, 60:6, 61:3, 61:21, 70:19, 77:5, 77:22, 92:10, 96:3, 96:8, 96:10, 98:7, 105:17, 112:17, 118:10, 120:2, 124:7, 173:9, 173:11, 183:15, 190:20, 191:2, 193:13, 203:3, 211:14, 213:10, 214:16, 222:1 says 43:15, 43:19, 48:19, 49:15, 50:16, 55:7, 55:14, 56:18, 64:17, 73:14, 74:5, 79:2, 79:7, 80:2, 80:5, 80:19, 81:8, 87:18, 91:11, 97:5, 97:13, 102:18, 103:7, 103:18, 103:20, 108:22, 110:3, 110:21, 110:22, 111:2, 111:6, 111:18, 111:20, 116:17, 120:20, 121:21, 124:1, 124:13, 124:16, 138:7, 142:20, 144:4, 144:10, 145:15, 146:9, 149:2, 167:4, 167:7, 170:16, 173:7,	180:21, 197:10, 198:5, 198:13, 200:8, 202:2, 205:12, 205:21, 206:12, 206:18, 209:6, 211:6, 217:7, 218:18 scenario 117:8 schematic 75:19 scope 221:11, 224:15, 226:20, 228:9 score 24:1 screen 4:8, 6:10, 6:11, 26:11, 61:1, 75:5, 75:12, 76:10, 76:12, 76:20, 77:1, 77:2, 77:4, 77:12, 78:10, 78:12, 108:10, 117:9, 142:10, 161:10 se 130:5 search 78:22, 168:8, 185:2, 197:21 seat 41:18 second 26:10, 52:2, 55:22, 63:18, 106:19, 110:10, 118:3, 151:15, 156:13, 164:17, 167:2, 173:21, 194:1, 201:16, 217:21, 226:18 secrets 202:20 section 70:13, 175:13, 199:19
s			
s 3:1 s3bu 29:6 sacrifices 25:13 safe 45:7 safety 29:5, 59:7, 80:22, 164:11, 164:20, 168:21 said 14:19, 19:3, 21:2, 21:5, 21:7, 21:16, 21:18, 24:7, 34:17, 37:20, 39:5, 46:17, 53:21, 66:10, 93:19, 100:1, 102:4, 113:17, 114:10, 119:9, 120:8, 131:5,			

security 29:5, 59:7, 80:22, 164:11, 164:20, 168:22 see 5:8, 6:10, 7:7, 13:11, 23:7, 35:10, 43:17, 44:4, 50:20, 58:13, 59:15, 64:20, 73:19, 74:16, 75:20, 76:9, 77:19, 78:18, 81:2, 81:11, 94:9, 97:8, 102:20, 107:8, 107:13, 118:11, 119:1, 121:5, 126:20, 137:1, 137:6, 139:1, 145:21, 145:22, 159:16, 164:8, 171:1, 171:13, 185:13, 194:17, 197:8, 200:7, 202:8, 210:1, 216:22, 217:11, 218:5, 218:22 seeing 92:16, 136:6, 177:10 seem 189:15, 224:12 seen 162:12, 177:3, 177:6, 178:9, 178:17, 196:21 sees 36:16 select 80:7, 82:21, 142:21 selects 143:22 send 19:19, 25:17, 84:11, 100:19,	129:16, 129:18, 130:6, 130:16, 131:7, 137:15, 178:14, 210:16, 221:14, 221:19 sending 129:10, 130:17, 152:4 sends 119:9 senior 167:18 sense 10:22, 173:13 sensory 207:20 sent 121:4, 122:1, 124:11, 129:17, 130:5, 130:11, 131:1, 131:13, 137:17, 194:13, 221:15, 221:18 sentence 45:11, 48:17, 49:10, 51:5, 55:7, 74:4, 75:18, 111:19, 136:21, 170:16, 171:10, 202:2, 218:17 sentences 74:19 sequence 202:19, 225:13 sequentially 202:22 serve 169:10 server 30:4, 33:3, 33:4, 33:5, 33:21, 34:1, 34:4, 34:7, 34:18, 35:1, 35:2, 35:5, 35:10, 53:10, 57:11, 75:2,	75:3, 75:11, 120:22, 124:13, 136:2, 136:3, 138:15, 152:3, 203:8 servers 75:8 services 121:1 set 11:1, 39:20, 72:1, 148:11, 163:14, 183:13, 231:6 setting 142:9, 142:11, 172:7 setup 132:16, 132:17, 132:18, 132:20 seven 40:15, 85:7, 85:9 seventeen 167:2 several 43:4 shaffer 1:16, 2:15, 4:7, 4:13, 7:1, 7:18, 63:15, 104:22, 161:12, 219:15, 229:6, 230:2, 230:16, 231:11 shall 134:9, 141:12 shift 53:15 shmuel 1:16, 2:15, 4:7, 69:22, 130:3, 130:10, 134:15, 153:7, 158:22, 161:12, 179:8, 190:6, 229:6, 230:2, 230:16, 231:11	shoes 146:22, 147:17, 190:1, 193:1 short 7:10, 40:18, 56:13, 67:10, 67:11, 104:17, 105:8, 105:10, 182:17, 196:4 shortage 198:12 shorthand 231:3 shortly 196:5 shot 97:4, 97:17, 98:16, 100:2, 115:14, 119:10, 120:3 should 15:7, 15:9, 50:14, 56:20, 58:5, 66:6, 98:19, 108:10, 117:3, 141:20, 147:3, 151:9, 165:12, 167:20, 178:16, 178:17, 192:14, 198:14, 212:11, 212:14 shouldn't 147:19 show 108:9, 196:20, 197:16, 209:14, 209:17 showalter 187:2 showed 209:18 shown 80:20 shows 77:15, 108:10, 117:10, 117:11, 201:8 shy 215:10
---	--	--	---

side 6:11, 49:6, 49:7, 50:10, 56:21, 56:22, 79:18, 86:7, 89:1, 153:12, 153:13, 160:13 sides 13:22, 153:15 siemens 129:22, 133:9, 167:13 signal 9:2, 17:5, 28:1, 28:13, 57:1, 86:7, 90:14, 93:5, 99:17, 101:16, 103:7, 130:8 signaling 8:21, 8:22, 9:5, 9:6, 9:8, 9:10, 15:1, 15:17, 16:9, 16:10, 16:14, 16:15, 16:20, 16:21, 17:11, 17:14, 17:18, 18:7, 18:17, 19:14, 19:15, 19:18, 19:19, 20:9, 120:13, 121:12, 123:10, 124:17, 125:7, 127:19, 128:2, 128:3, 128:6, 131:15, 132:2, 132:7, 132:8, 132:15 signals 89:17, 93:14, 94:3, 126:8, 144:14, 144:20, 144:21 signature 162:11 signature-plkal 231:19	signify 112:21 silly 215:12 similar 196:10 similarity 46:2, 188:4 simmons 36:18 simple 35:13, 84:8, 99:16, 104:4, 113:4, 122:12, 135:15, 146:9, 146:10, 148:3, 167:13, 187:21 simplified 75:19, 76:22, 77:12 simply 86:13, 100:1, 109:2, 109:7, 110:22, 111:17 simultaneously 11:9 since 43:5, 83:18, 88:15, 103:18, 109:19, 131:2, 146:18, 172:3, 183:10, 193:6, 209:21, 219:11, 221:7 single 57:6, 57:7, 57:13, 82:20, 82:22, 84:11, 93:9, 117:12, 118:15, 144:6, 144:16, 144:22, 149:4, 152:19, 153:2, 153:4 single-media 57:9 sir 102:5, 201:13, 214:8	sit 54:13, 56:22, 186:16, 187:2, 223:16, 223:19 site 12:8, 12:9 sits 38:14, 39:9, 44:18, 45:2, 49:18, 51:8, 51:12, 56:9, 56:21, 59:21, 88:13, 89:7, 108:7 sitting 25:5, 39:13, 54:10, 54:11, 54:12, 60:1, 94:11, 95:3, 101:11, 107:19, 108:20, 115:3, 115:17, 177:11, 210:12, 223:17 situation 99:10, 100:10 situations 214:5 six 24:19 size 60:11 skill 147:1, 147:17, 170:17, 188:13, 188:18, 190:2, 191:4, 191:12, 193:1, 195:3 skilled 192:13, 193:17, 194:22 skills 117:3 sky 17:19 skype 126:10 slightly 57:2	slowly 182:3 small 169:22 smaller 166:12, 184:10 smart 22:22, 186:14, 186:16 smarter 186:15, 191:21 smarts 139:21 soft 100:21 software 30:9, 37:18, 38:3, 205:4, 205:5, 226:10 sold 193:20 solution 20:13, 180:13, 181:14, 182:1, 193:9 solutions 1:5, 2:5 solve 91:10, 179:9 solved 179:9, 181:7, 193:8 somebody 98:11, 178:21, 192:20 somehow 34:21 someone 14:13, 36:16, 44:17, 44:18, 45:2, 56:22, 57:7, 62:20, 85:4, 98:7, 98:9, 112:11, 117:15, 139:11, 143:10, 143:12, 144:15, 184:9, 194:8, 215:13,
---	--	--	--

217:1, 225:11, 225:20, 226:7 someplace 164:18 something 16:17, 17:6, 21:16, 24:18, 25:14, 27:18, 47:4, 47:7, 56:11, 71:9, 86:15, 95:9, 98:18, 125:11, 125:15, 131:12, 133:1, 170:3, 172:19, 174:10, 174:20, 176:21, 185:5, 188:17, 191:8, 191:9, 193:18, 207:8, 207:11, 207:14, 221:1, 225:13, 226:3 sometimes 12:7, 82:8, 118:15, 130:20, 130:21, 151:12, 155:11, 184:2, 185:16, 186:15, 187:3, 222:20 sorry 5:9, 12:13, 15:9, 16:1, 25:20, 30:22, 42:7, 46:12, 49:12, 60:6, 60:12, 65:7, 66:1, 73:8, 76:5, 77:14, 77:16, 84:3, 90:17, 90:21, 94:19, 97:20, 102:3, 102:21, 103:2, 105:12, 108:6, 109:5, 113:20, 118:22, 120:7, 121:6, 127:20, 129:2, 161:22, 162:8,	167:1, 175:4, 177:2, 185:9, 191:17, 197:4, 200:4, 203:9, 211:12, 220:19, 227:1, 228:5 sort 172:2 sorting 173:17 sound 49:4, 53:7, 58:2, 88:19, 89:2, 98:3, 110:6, 139:17, 159:4 sounds 96:3 soup 113:7 source 105:1, 158:8 sources 152:19 spacial 55:19, 56:2 spare 176:8 spatial 58:12, 58:15, 59:2, 59:18, 60:4, 60:8, 60:10, 60:13, 60:17, 86:5, 86:11, 87:7, 87:19, 88:4, 89:11, 89:14, 90:5, 93:9, 93:12, 93:16, 94:1, 94:2, 94:6, 114:10, 114:11, 142:18, 143:5, 143:16, 143:17, 144:1, 144:11, 144:13, 144:15, 144:18, 145:2 spatially 145:4	speak 159:2 speaker 50:10, 50:11, 75:7, 75:13, 108:12 speakers 50:5, 50:7, 57:22, 108:9, 108:13 speaking 149:22 speaks 80:12 special 28:4, 28:19, 169:7 specific 9:17, 10:5, 27:18, 28:4, 31:7, 32:12, 46:21, 53:17, 61:8, 71:21, 80:11, 88:9, 88:12, 98:4, 110:20, 111:2, 115:6, 115:10, 130:1, 130:9, 130:13, 142:13, 148:10, 149:17, 149:18, 159:13, 176:19, 203:16, 221:10 specifically 10:7, 40:15, 73:4, 213:5, 213:6, 220:20 specification 65:13, 65:19, 69:3, 69:8, 86:10, 95:5, 101:12, 116:22, 134:18, 141:21, 142:17, 143:4, 143:21, 203:11, 203:12, 210:5, 210:6, 211:10, 211:15, 212:13,	212:20, 220:17, 220:18 specifics 43:1, 99:5 specified 146:19 specify 204:4 spectrum 14:1, 14:4, 14:11, 14:13, 14:15, 15:11, 15:12, 16:11, 19:22 speed 37:17 spelled 4:8, 47:6 spend 162:15 spirit 212:6 split 57:13, 151:13, 151:20 spot 184:18, 184:19 square 194:7 squares 78:13 squeezed 92:12 sta 1:11, 2:11, 161:19, 162:1, 176:4, 176:11, 187:10 sta's 162:12, 177:13 stand 25:17 standard 20:3, 21:18, 21:21, 123:22, 165:16, 179:13, 180:10, 182:19, 226:12
---	--	---	---

standards 17:22, 18:1, 25:18, 25:19, 182:18 stanford 194:14, 194:19 start 10:13, 20:7, 21:20, 23:6, 43:12, 70:10, 87:13, 120:16, 132:3, 219:19 start-up 182:8, 185:22 started 112:6 starting 43:19, 63:19, 85:14, 91:2, 91:5, 96:18, 106:12, 121:8, 121:15, 134:21, 141:22, 145:11 starts 75:18, 116:5, 121:9, 121:11, 136:21, 195:6 startups 96:14 state 4:3, 4:5, 125:11, 231:4 stated 203:1, 218:2 statement 46:17, 46:19, 46:21, 61:4, 101:9, 128:10, 128:20, 129:4, 129:5, 133:15, 149:18, 174:1, 210:8, 210:10, 212:10 states 1:1, 2:2 static 200:21, 200:22 statically 50:17	stating 90:7 station 172:15 stations 113:14 stay 54:19, 63:5, 156:2, 228:11 stayed 183:7, 183:8 staying 54:18, 228:17 stealing 17:10, 20:7 step 204:18 stereo 142:22, 143:6, 144:5 sterile 142:14, 142:15, 143:11, 144:2 sticky 24:6 still 37:4, 37:8, 60:4, 60:7, 61:20, 66:7, 66:12, 73:12, 122:11, 133:8, 136:10, 137:10, 137:11, 166:16, 168:14, 169:6, 188:17, 206:3 stock 166:9 stomach 150:4, 150:5 stop 8:13 stopped 167:9 stopping 9:19 storm 44:10 straightforward 146:8	strains 51:22 stream 52:1, 52:8, 52:13, 53:9, 55:15, 55:20, 57:5, 57:6, 57:10, 57:14, 58:11, 60:14, 60:16, 84:11, 87:8, 87:20, 88:5, 90:6, 98:4, 102:19, 103:5, 103:11, 104:13, 108:18, 110:17, 111:8, 111:13, 118:15, 118:16, 128:10, 128:21, 131:16, 131:21, 133:15, 137:5, 138:8, 138:10, 149:8, 150:13, 150:17, 150:19, 151:1, 151:3, 151:4, 151:5, 151:12, 151:17, 151:20, 152:2, 152:14, 153:2, 153:4, 154:2, 156:9, 157:3, 157:12, 157:14, 157:17, 158:18, 159:9, 159:13, 159:18, 160:5, 160:20, 202:3, 202:6, 203:4, 206:6, 206:20, 217:9, 218:3, 218:20, 220:6, 221:21, 222:4, 222:5, 222:21, 222:22, 226:4, 226:5, 226:6, 228:4 streams 27:15, 27:16, 52:7, 53:10, 57:14, 57:21, 149:3, 149:12, 151:13, 152:9, 157:6, 159:12, 159:14, 202:5 street 4:10, 191:20, 191:22, 192:3 strength 125:10 strike 18:13, 223:9 string 209:3, 209:4 stripping 136:7 struggle 183:19, 183:21 struggled 184:18 struggling 93:2, 183:22, 184:1 studied 179:19 study 23:22 stuff 39:22, 71:10, 96:15, 133:8, 172:13, 176:1, 176:19, 190:8, 205:12, 215:1, 215:2 subject 197:7 submit 68:2, 163:10, 184:2, 184:15 submitted 26:4, 39:15, 186:2 suboptimal 20:13, 20:15 subscribed 229:9 substance 105:2, 140:16, 141:14, 196:12
---	---	--

substantive	15:2, 24:14,	26:21, 29:4,	164:12, 181:20,
165:6	30:15, 31:11,	29:5, 29:7,	181:21, 195:16
success	33:8, 33:22,	29:8, 30:2,	T
182:7, 182:19	34:2, 34:3,	33:10, 34:20,	table
successful	34:21, 35:8,	35:15, 36:20,	54:13, 223:17
182:6, 182:9,	35:11, 35:20,	37:5, 37:8,	take
183:1	38:3, 39:3,	37:9, 62:10,	13:1, 25:6,
successfully	40:21, 41:6,	62:17, 63:3,	27:17, 27:18,
182:21	42:16, 43:14,	63:5, 65:2,	27:19, 33:17,
sudden	64:5, 65:22,	65:6, 72:7,	38:8, 43:8,
24:16	67:9, 68:10,	72:8, 72:9,	53:19, 55:2,
sufficient	68:16, 70:22,	72:22, 98:5,	63:9, 63:21,
13:15, 114:20,	71:11, 72:11,	99:15, 101:17,	66:10, 66:11,
173:3, 173:18,	77:14, 78:8,	109:13, 117:19,	66:14, 67:21,
173:19, 174:13,	90:2, 95:2,	118:11, 122:7,	67:22, 72:13,
174:17, 174:20,	101:11, 108:16,	123:5, 123:7,	76:1, 76:6,
174:22, 190:8,	121:18, 131:11,	123:11, 123:18,	84:5, 84:9,
193:4, 222:18	149:7, 150:2,	123:21, 125:5,	85:12, 90:15,
suggest	150:14, 156:14,	125:19, 129:8,	102:3, 104:16,
141:18	162:20, 162:21,	135:19, 136:1,	114:15, 116:7,
suggesting	163:3, 168:7,	139:3, 139:11,	119:16, 120:12,
178:16	169:18, 171:9,	139:15, 145:19,	127:14, 139:17,
suitable	174:8, 177:7,	146:16, 151:19,	142:3, 145:5,
74:13, 124:21	180:18, 184:3,	170:19, 171:22,	150:8, 150:9,
summarizes	186:4, 204:9,	180:6, 182:21,	152:17, 153:17,
163:19	207:22, 209:13,	202:5, 203:5,	156:17, 161:5,
super	213:19	203:15, 203:16,	165:14, 166:8,
152:13	surprised	203:19, 203:21,	166:12, 166:22,
supplement	95:12, 167:9	204:2, 204:3,	168:18, 180:7,
163:22	swore	205:2, 205:4,	188:11, 190:5,
supply	32:3, 69:1	205:5, 205:8,	191:19, 194:3,
198:8	sworn	205:17, 206:5,	196:3, 209:10,
supplying	4:2, 229:9,	206:19, 207:6,	216:7, 227:7,
44:12	231:6	207:7, 207:8,	228:22
support	syndrome	207:20, 208:7,	taken
82:11, 82:20,	89:20	208:8, 208:9,	2:15, 14:13,
83:5, 159:17,	system	208:17, 210:3,	24:22, 53:1,
161:20, 162:1,	9:18, 9:21,	211:9, 216:20,	63:12, 104:20,
209:19, 209:21	10:20, 12:10,	226:7	140:8, 150:10,
supporting	12:15, 14:22,	systems	196:8
209:1	15:18, 17:1,	9:16, 10:9,	takes
supports	17:9, 17:13,	10:12, 12:11,	41:20, 65:4,
43:21, 81:9,	18:2, 18:9,	15:13, 17:17,	138:11, 169:9
82:4	18:18, 19:4,	19:5, 33:12,	taking
supposed	19:7, 19:8,	33:13, 122:9,	17:4, 136:18
121:6, 187:21	22:4, 22:7,	123:9, 123:17,	talk
sure	22:15, 24:7,	123:19, 123:20,	11:16, 12:8,
9:19, 10:3,	24:10, 25:12,	129:6, 135:21,	

12:14, 12:15, 15:12, 27:11, 40:4, 46:8, 58:21, 61:2, 78:13, 80:9, 81:20, 81:22, 82:19, 84:5, 84:8, 84:13, 85:3, 89:20, 99:5, 99:13, 99:17, 105:4, 115:7, 122:10, 122:14, 123:21, 139:20, 140:20, 140:22, 157:19, 168:14, 181:5, 224:20 talked 110:15, 221:1, 223:3 talking 27:14, 39:18, 49:8, 49:14, 52:20, 54:7, 60:4, 60:7, 60:9, 64:11, 70:15, 77:11, 86:5, 87:10, 92:8, 94:6, 95:7, 95:21, 98:14, 98:15, 98:17, 107:15, 109:19, 112:3, 112:4, 112:5, 113:12, 114:9, 115:10, 115:11, 116:20, 116:21, 117:16, 125:21, 126:4, 126:17, 127:20, 140:21, 150:12, 151:14, 154:8, 157:20, 158:4, 159:22, 160:14, 160:15, 161:2, 174:3, 180:6, 187:8, 188:6, 188:7, 189:13, 200:14,	201:4 talks 49:11, 56:6, 57:7, 88:10, 117:2, 118:18, 154:7 targeting 158:9 taxiing 189:7 teach 36:13, 105:15, 105:16 teacher 8:15 teaching 147:2, 147:19, 153:3 teachings 106:16 team 81:22, 85:6, 85:8, 168:19, 169:4, 177:8, 205:14 teams 7:4 technical 19:13, 19:16, 19:17, 23:15, 25:6, 39:19, 95:1, 123:15, 161:15, 198:10 technically 152:1 techniques 106:15 technology 155:20, 177:19, 182:11, 182:12, 182:13 telecommunication 195:16 telephone 13:9, 122:21 telephones 74:9, 74:10, 74:11	telephony 17:1 tell 12:17, 26:18, 33:11, 79:1, 89:5, 97:10, 105:7, 105:9, 127:8 telling 12:13, 78:21, 214:5 tells 85:4 ten 69:16, 127:3, 166:15, 181:9 tendency 8:14 term 8:20, 9:7, 9:12, 45:12, 72:11, 83:13, 147:10, 148:9, 150:13, 150:17 terminology 84:4, 96:15, 174:19 terms 86:11, 186:6 terrible 22:14 test 34:12 testified 4:3 testify 7:19, 176:7, 177:13 testifying 79:14, 127:10, 141:17 testimony 60:8, 68:13, 90:2, 105:2, 140:16, 140:17, 141:14, 145:1, 154:18, 180:17, 196:13, 231:8	text 64:19, 228:3, 228:6, 228:7, 228:13 th 141:8 thank 7:9, 7:17, 8:19, 14:18, 23:13, 30:15, 47:21, 50:7, 58:7, 77:19, 83:3, 114:21, 116:19, 148:7, 162:9, 166:21, 187:20, 201:12, 219:11 thankfully 165:21 themselves 141:1, 212:5 theoretical 67:16 theoretically 181:22 theoretically-wi- se 151:22 theories 177:14 therefore 194:5, 216:7 they'd 213:16 thing 13:8, 24:8, 25:10, 34:16, 47:4, 47:12, 54:15, 79:7, 80:10, 93:19, 101:3, 107:10, 109:17, 110:12, 111:2, 112:22, 113:4, 114:10, 120:5, 128:12, 128:22, 133:17, 164:16, 177:16, 178:1, 179:6,
--	--	--	---

180:20, 191:7, 196:14, 200:18, 205:19, 208:13, 214:14, 221:12, 222:2, 223:19 things 25:13, 28:6, 33:8, 33:13, 36:3, 36:19, 37:4, 41:20, 65:2, 68:18, 74:2, 75:1, 98:3, 107:6, 109:17, 113:14, 128:11, 128:22, 133:16, 136:9, 136:10, 155:11, 177:20, 177:21, 178:7, 189:9, 189:19, 192:4, 203:1, 215:1, 215:9, 219:16, 224:16 thinks 185:7 thirdly 100:8 thirty 218:11, 218:12 thirty-eight 108:4, 108:5 thompson 3:11, 140:11 thompson@bakerbo- tts 3:8 thought 21:15, 147:6, 160:19, 175:21, 184:6, 184:12, 184:14, 186:2 thousand 170:11 thousands 170:11 three 41:14, 68:1, 82:21, 106:10,	128:11, 128:22, 133:16, 137:16, 143:14, 171:2 threshold 204:11 through 5:19, 5:22, 33:17, 43:10, 58:8, 65:14, 70:4, 70:11, 70:15, 71:6, 71:16, 91:1, 92:18, 94:14, 94:21, 95:6, 106:7, 106:14, 108:18, 110:15, 113:9, 116:5, 119:14, 120:10, 121:8, 127:2, 127:3, 127:18, 130:8, 134:21, 135:13, 220:16, 226:6 tied 212:2 time 11:10, 11:13, 11:18, 20:13, 29:3, 33:4, 33:6, 33:15, 39:12, 48:4, 52:20, 64:19, 68:10, 68:17, 69:20, 72:2, 78:11, 82:1, 82:21, 83:1, 83:7, 83:17, 88:19, 114:15, 127:14, 134:19, 138:11, 139:8, 140:1, 146:18, 148:22, 154:22, 155:22, 158:13, 160:2, 162:15, 163:22, 165:14, 167:12, 168:2, 175:15, 176:8, 179:6, 179:20,	185:21, 189:16, 189:20, 194:16, 195:12 time-wise 138:21, 139:21 times 21:19, 25:13, 27:13, 36:22, 42:12, 42:18, 185:5, 203:22 tired 219:5 today 4:22, 5:3, 7:20, 8:3, 14:10, 23:20, 25:5, 26:3, 26:9, 38:1, 41:18, 48:4, 69:13, 70:1, 70:6, 71:2, 92:11, 92:16, 94:11, 95:3, 96:16, 101:11, 104:3, 104:22, 127:10, 128:4, 138:14, 140:11, 152:8, 155:3, 177:11, 181:9, 183:3, 189:15, 189:18 today's 38:9, 40:10, 40:17, 196:18 together 155:1, 169:4, 212:2 token 174:7, 174:12 told 5:7, 5:13, 5:17, 5:18, 5:20, 6:17, 23:19, 85:5, 105:5, 105:16, 168:14, 176:8, 217:17 tomorrow 14:12, 154:17	tone 12:12, 12:13, 12:16, 12:17, 101:1, 101:2, 101:6, 101:16, 121:3, 121:22, 124:10, 137:4 tones 101:13 took 39:20, 195:19, 220:10 top 38:2, 190:7, 197:6 total 42:18, 114:7 totality 92:7 totally 47:12, 84:7, 94:16, 173:5, 174:2, 174:4, 175:5, 178:19, 180:13, 180:14, 180:20, 181:14, 181:15, 183:16, 189:8 touch 183:4, 183:5 towards 146:4, 146:8, 152:21, 152:22 track 170:4 trade 172:10 trademark 1:1, 2:2 train 172:16, 172:17 trained 93:21 training 194:15 trajectory 209:10 transcribe 21:5
---	--	--	--

transcript 133:13, 231:7 transmit 20:18, 25:7 transmitted 15:19, 15:20 transmitting 61:19, 161:3 tree 188:5 trial 1:2, 2:3, 141:7, 176:10 trick 57:3, 160:9 tricking 160:16 tried 192:14 true 166:7, 231:8 trunk 15:8 trunked 10:9, 10:12, 10:13, 14:21, 15:13, 15:18, 17:17, 18:17 trunking 10:17, 12:2, 12:10, 12:18, 13:1, 13:5, 14:2, 14:3, 14:14 trust 31:17, 31:18, 127:9, 187:7 truth 32:4 truthfully 7:19 try 12:17, 22:5, 22:13, 65:8, 66:17, 67:13, 87:4, 87:13, 162:22 trying 5:16, 21:9,	21:15, 24:3, 32:5, 36:6, 48:5, 65:10, 70:20, 73:6, 93:11, 96:1, 101:6, 101:9, 110:7, 123:8, 123:12, 131:21, 149:16, 155:6, 155:10, 156:17, 160:9, 160:16, 188:2, 189:11, 192:19, 208:14, 209:10 tuesday 231:11 tune 84:20 tuning 84:20 turkey 12:12, 12:16 turn 63:16, 102:16, 109:2, 109:7, 109:15, 109:16, 110:22, 111:17, 134:17, 170:13, 183:12, 197:2, 217:3, 217:19, 218:10 turned 109:21, 110:1, 110:4 turning 95:8, 109:12, 109:18, 111:3, 111:4, 114:6, 114:11, 223:4, 223:10, 223:12 twenty-four 74:22 two 11:4, 13:22, 19:3, 19:6, 49:22, 50:4, 50:5, 50:6, 50:7, 50:13,	50:14, 53:10, 54:22, 57:13, 57:14, 57:20, 57:21, 57:22, 74:1, 75:1, 84:9, 88:11, 88:20, 89:17, 90:11, 90:13, 93:14, 94:3, 109:16, 109:18, 112:3, 112:20, 114:11, 118:4, 118:21, 118:22, 144:14, 144:20, 144:21, 144:22, 146:11, 148:17, 152:9, 152:12, 152:21, 157:20, 158:9, 159:1, 183:9, 189:2, 224:19, 227:4 type 9:22, 19:20, 82:1, 112:14, 165:20, 208:1 types 100:13, 100:17 typically 43:20, 82:11, 83:5, 98:20 typo 164:2 typos 165:5 U uh-huh 160:3 uhf 74:8, 84:6, 91:16, 117:9, 122:10, 122:22, 148:15, 153:18, 154:3, 154:7, 156:5, 156:9, 157:21, 158:4, 159:1, 160:2, 161:3	um-hmm 55:18 umbrella 31:3, 47:11 ums 33:4, 33:19, 122:4, 124:14, 138:15, 153:1, 203:8 under 58:1, 103:17, 104:6, 104:14, 175:12 understand 8:2, 21:10, 26:8, 28:5, 35:20, 36:6, 43:11, 51:19, 64:5, 65:7, 65:22, 66:2, 66:9, 66:16, 66:18, 66:21, 67:6, 67:15, 67:19, 68:6, 69:2, 70:22, 72:4, 73:7, 83:4, 86:12, 90:2, 94:16, 103:12, 103:16, 108:11, 110:8, 122:5, 122:6, 125:8, 125:18, 127:12, 132:19, 138:6, 143:20, 161:19, 161:22, 170:18, 173:15, 176:4, 176:10, 180:3, 184:21, 185:20, 189:1, 189:21, 192:10, 192:19, 202:15, 206:1, 208:21, 224:6, 224:10 understanding 18:15, 56:8, 69:14, 76:2, 89:18, 89:19, 94:2, 104:8,
--	---	---	--

125:3, 125:10, 147:4, 148:8, 185:15, 188:10, 188:21, 189:10, 199:11, 202:16, 205:9, 207:4, 208:14, 208:21, 212:1, 216:11, 221:12, 224:9, 228:19 understood 8:5, 36:1, 38:5, 40:1, 41:17, 41:21, 55:2, 58:4, 73:13, 75:10, 83:3, 83:12, 84:15, 94:5, 96:10, 108:14, 110:7, 113:8, 117:4, 119:6, 125:13, 125:17, 138:6, 161:7, 170:7, 172:22, 175:16, 175:22, 212:16 unique 190:21 unit 29:5, 165:4 united 1:1, 2:2 units 182:14 universal 33:5, 57:10, 57:11 universally 50:16 university 195:18 unless 17:7, 19:1 unmarked 5:15, 5:17, 5:20, 5:21, 7:16 unrelated 175:5	until 24:13, 25:1, 30:7, 63:13, 83:9, 96:15, 104:21, 135:1, 140:9, 141:10, 150:11, 153:11, 155:3, 162:4, 196:9, 219:6 updating 124:5 urgency 98:18 urgent 27:9 use 11:5, 14:22, 16:5, 16:14, 17:9, 17:17, 17:20, 18:16, 19:14, 19:18, 20:14, 36:21, 37:5, 37:16, 39:21, 46:20, 64:17, 69:3, 80:16, 84:2, 84:3, 85:21, 113:3, 122:14, 123:5, 124:3, 126:7, 126:15, 126:16, 129:20, 143:18, 155:6, 156:20, 174:1, 186:8, 187:17, 188:6, 193:22, 206:13, 208:11, 208:16, 210:13, 211:1 useless 18:11 user 27:21, 27:22, 28:2, 28:18, 28:19, 50:19, 51:5, 53:16, 61:18, 62:1, 62:6, 71:22, 75:6, 75:8,	110:6, 142:21, 143:1, 143:22, 216:19 user's 18:4 users 116:14, 117:19, 146:11 uses 37:9, 45:12, 86:11, 149:7, 149:11, 150:17, 155:13, 208:12 using 6:7, 7:2, 16:8, 37:18, 73:2, 75:6, 75:8, 84:8, 125:6, 190:18, 194:7, 205:18, 211:5 usually 15:9, 17:6, 21:20, 39:21, 51:8, 61:2, 67:7, 67:8, 75:8, 82:15, 83:9, 84:6, 113:11, 129:6, 129:8, 129:18, 134:6, 186:13, 186:22, 224:20 utilities 44:16, 44:22, 45:5, 52:19, 83:1, 181:11 utility 53:3, 53:5, 53:12, 62:19, 63:1, 84:12, 84:14, 118:18 utilize 76:21	value 205:20 various 27:10, 45:18, 66:19, 198:16, 199:14 varying 86:21 vehicles 189:3 vendors 37:7 verbally 120:2 verbs 201:3 versa 23:17, 25:8, 107:12, 111:21 version 31:9, 31:13, 31:21, 76:17, 141:8 versions 31:7 versus 49:6, 58:2, 87:11, 93:21 vested 169:11 vhf 84:6, 91:20, 97:6, 97:14, 115:14, 115:18, 119:10, 119:16, 122:10, 122:22, 148:16, 153:18, 154:3, 156:4, 156:10, 157:21, 158:4, 159:1, 160:2, 161:3 vhs 74:8 via 14:10, 18:7, 18:8, 28:1, 28:17, 60:3, 129:10, 131:10,
		v	
		vacuum 208:19 validity 178:11, 214:7	

160:1, 222:1 vice 23:17, 25:8, 107:12, 111:21 video 20:6, 22:11, 22:12, 22:13, 22:18, 22:20, 23:2, 23:4, 23:7, 27:4, 27:5, 27:16, 28:3, 132:1, 132:20, 159:19, 159:21, 228:16 view 35:12, 37:4, 45:6, 59:18, 118:21, 194:2, 205:20 viewed 46:1, 46:2 village 169:9, 169:10 virtual 80:9, 84:5, 84:13, 99:17 virtue 130:7 visual 18:3, 217:9, 218:3, 218:20, 220:6 vocal 151:6 voice 17:9, 22:6, 22:11, 22:12, 22:13, 22:20, 23:2, 23:9, 23:10, 23:11, 24:16, 24:18, 27:3, 27:5, 49:6, 56:11, 56:12, 57:3, 57:13, 59:22, 88:11, 89:6, 99:20, 103:7, 112:7, 126:4,	126:5, 132:1, 132:20, 151:6, 151:7, 153:10, 159:19, 159:21, 160:1, 161:1, 174:4, 228:15 volume 27:12, 50:17, 51:2, 51:14, 53:5, 53:21, 54:4, 54:16, 55:15, 79:2, 79:4, 79:6, 79:11, 79:21, 80:3, 80:4, 80:10, 86:22, 88:11, 90:8, 90:12, 95:8, 95:18, 95:21, 95:22, 96:5, 109:2, 109:7, 109:9, 109:12, 109:16, 109:19, 109:21, 110:1, 111:1, 111:3, 111:4, 111:11, 111:12, 111:17, 114:6, 115:2, 115:7, 115:9, 115:18, 119:1, 138:17, 223:4, 223:7, 223:10, 223:12, 223:18 volumes 53:1 vtg 80:8, 84:3, 84:4, 117:1, 117:3, 117:4, 117:12, 117:13, 117:21, 118:8, 118:12, 118:13, 118:19, 119:5, 119:18, 148:16, 148:17, 152:10, 152:13, 153:1, 153:21, 154:2, 154:7, 154:11,	154:12, 156:7, 156:9, 158:22, 159:3, 160:1, 161:2 vtgs 148:21 W wait 6:2 walk 43:10 walked 220:15 want 6:8, 6:17, 6:21, 8:13, 9:19, 17:20, 18:6, 18:12, 19:8, 25:4, 25:22, 30:13, 39:3, 40:21, 41:15, 62:20, 67:12, 68:5, 85:21, 89:1, 89:22, 94:5, 102:10, 114:15, 127:12, 127:14, 128:18, 135:16, 137:22, 139:9, 139:18, 149:16, 152:17, 160:12, 169:9, 178:17, 181:2, 187:19, 191:18, 192:3, 192:16, 195:10, 195:12, 217:2, 227:7, 227:10 wanted 39:22, 86:12, 140:22, 162:10 wants 45:3, 105:10, 105:19, 112:12, 137:13 war 66:11, 66:12, 66:14, 66:15	waste 186:18 wasted 185:21 water 119:3, 153:5, 153:6 wave 56:12 way 4:7, 11:10, 19:21, 23:1, 28:16, 28:18, 35:7, 35:8, 46:6, 46:20, 50:12, 55:6, 56:6, 56:17, 59:7, 60:10, 61:17, 62:5, 62:6, 67:11, 69:14, 71:21, 76:14, 83:9, 83:21, 83:22, 85:22, 86:1, 86:18, 88:7, 89:12, 89:19, 91:5, 92:5, 93:4, 96:22, 103:16, 109:19, 112:4, 117:5, 125:8, 126:2, 132:19, 146:5, 159:11, 159:16, 168:13, 174:2, 174:8, 175:20, 177:22, 183:1, 189:1, 200:1, 200:12, 203:2, 210:17, 216:11, 223:4, 224:18, 231:16 ways 11:7, 18:3, 23:1, 27:7, 45:22, 130:11, 191:10, 205:19 we'll 6:2, 10:14,
---	---	---	--

18:5, 42:17, 63:10, 132:3, 155:1, 177:22, 228:22 we're 12:9, 13:14, 24:3, 27:14, 46:3, 47:14, 49:14, 53:4, 53:9, 60:9, 62:4, 70:15, 83:10, 87:10, 95:7, 103:6, 109:19, 112:4, 113:12, 115:10, 115:11, 116:20, 116:21, 120:19, 121:14, 123:8, 123:12, 126:17, 136:2, 136:3, 136:20, 138:5, 154:19, 155:2, 155:4, 157:22, 173:16, 174:3, 175:1, 180:15, 189:12, 200:14 we've 63:7 wearing 49:21 webex 126:10 week 162:5 went 103:2, 189:22 weren't 196:20 what'd 105:4 whatchamacallit 123:6, 137:11, 168:9 whatever 8:15, 13:10, 13:19, 17:10, 18:5, 18:12, 37:3, 37:22,	44:14, 57:12, 64:15, 80:9, 103:19, 112:22, 126:1, 126:10, 138:21, 139:15, 139:17, 140:2, 160:16, 167:19, 172:6, 182:11, 191:18, 192:13, 209:2, 209:5 whats 199:13 whatsoever 175:6, 204:1 wheel 190:13, 215:13, 215:14 whenever 98:6 whereupon 24:22, 26:12, 63:12, 104:20, 140:8, 150:10, 161:11, 196:8, 229:1 whether 18:16, 37:2, 37:21, 64:15, 66:5, 87:12, 95:4, 95:19, 96:2, 101:12, 119:3, 128:1, 132:9, 133:2, 141:16, 150:2, 177:13, 180:18, 187:11, 214:1, 216:12, 225:4 whisper 58:20 whispering 58:18 whole 5:4, 77:10, 85:6, 85:8, 117:21, 142:4, 164:12, 164:16, 182:20, 209:6 williams 178:3, 179:2	willing 181:1 window 139:22 windows 6:4 wire 13:10, 130:1, 130:13, 134:4 wish 75:17, 172:16 withdraw 18:14 withdrawn 109:11, 149:9, 150:18, 226:21, 227:3 within 9:11, 11:3, 13:8, 13:11, 14:4, 16:22, 47:5, 65:3, 112:10, 117:7, 117:20, 118:10, 118:13, 119:5, 122:3, 122:4, 126:1, 128:10, 128:20, 131:15, 133:15, 148:14, 148:15, 165:4, 170:21, 182:9, 186:20 without 61:5, 124:5, 124:6, 184:16, 209:1, 215:22, 216:3, 216:19, 225:19, 225:20 witness 4:7, 18:20, 104:19, 134:16, 140:13, 141:9, 141:11, 141:13, 141:19, 150:9, 175:8, 219:14, 230:2, 231:5, 231:9 witnesses 141:14	wonderful 181:8 word 15:11, 16:4, 61:15, 94:2, 97:12, 113:3, 143:18, 145:1, 151:3, 154:19, 155:13, 155:15, 156:17, 157:11, 174:1, 199:12, 199:15, 199:16, 200:2, 200:5, 200:7, 200:9, 200:13, 200:19, 202:10, 204:11, 204:12, 205:9, 210:16, 210:17, 211:1, 211:2 wording 128:19, 205:21 words 39:21, 52:3, 64:10, 70:21, 73:1, 85:21, 159:2, 159:4, 160:10, 182:8, 205:18, 206:11, 206:13, 207:3, 208:11, 208:12, 208:15, 210:13, 211:5 work 62:15, 68:15, 88:22, 96:13, 112:17, 165:20, 166:5, 166:20, 179:16, 179:17, 183:6, 186:1, 186:4, 216:3, 216:5 worked 29:6, 78:1, 133:9, 172:1 working 14:6, 15:4, 15:14, 15:20, 20:20, 22:1,
--	--	--	---

22:2, 22:20, 23:17, 25:8, 28:21, 31:20, 183:5, 216:16, 216:21 works 57:9, 180:3, 180:4, 221:11 wouldn't 17:6, 24:1, 63:15, 122:10 write 67:7, 71:2, 92:11, 92:15 write-up 84:4 writeup 163:17, 207:17, 208:20 writing 69:13, 70:1, 71:1, 92:10, 117:6 written 68:11, 104:8, 173:9 wrong 114:14, 121:10, 121:14, 188:5, 210:10, 212:7 wrote 38:22, 39:6, 177:8	51:7, 52:5, 54:6, 58:14, 58:16, 59:17, 63:6, 63:9, 71:14, 74:4, 75:1, 76:6, 76:14, 77:6, 78:15, 87:3, 91:11, 91:13, 91:18, 95:16, 95:18, 96:5, 96:6, 98:2, 100:7, 100:12, 100:19, 102:1, 103:5, 109:8, 111:6, 122:2, 124:12, 128:2, 129:9, 129:13, 133:11, 137:10, 138:10, 156:1, 160:22, 164:4, 171:14, 171:19, 178:6, 183:21, 185:7, 192:1, 192:9, 193:3, 196:2, 199:3, 199:11, 203:12, 207:2, 211:17, 212:22, 213:3, 215:20, 216:12, 216:14, 217:16, 218:6, 219:11, 219:22, 220:14, 220:19 year 44:3, 170:10, 182:16 years 69:16, 92:22, 133:10, 166:15, 166:17, 181:9, 195:14 yelling 112:11 yesterday 40:13, 40:16, 40:22, 42:2, 155:3	york 3:6, 3:16, 4:3, 231:4 yourself 42:9, 63:22, 85:13, 91:5, 96:21, 103:15, 142:4, 146:22, 147:17, 190:1, 192:22, 227:8 z zero 90:8, 179:17 zoom 6:13, 126:11 \$ \$450 165:9, 165:16 0 01294 1:7, 2:7 03 196:9 1 1 63:13 1,001 26:8 1.0 31:13, 36:8 10 121:15, 127:2, 127:18, 145:19, 166:17, 197:3, 197:5, 201:14, 201:20 100 166:7, 167:14, 167:15, 167:22, 204:15 1001 26:14, 43:9, 141:22, 230:13 10022 3:16	101 43:9 10112 3:6 104 217:20, 218:1, 219:9 11 181:7 12 2:17, 25:1, 134:9, 231:12 1211 4:9 129 141:8 130 218:10, 218:18, 219:9, 219:19, 219:21 137 145:9 14 35:1, 35:5, 35:10, 120:10, 120:16, 121:8, 121:11, 127:3, 134:21, 135:12 15 80:18, 121:6 150 167:14 161 230:15 17 44:21, 66:12, 66:14, 167:1 18 2:17, 120:10, 120:16, 121:7, 121:9, 127:2, 127:18, 175:3, 175:10, 231:12 19 81:8, 141:8, 192:16, 195:6 2 2 104:21
--	--	---	---

Transcript of Dr. Shmuel Shaffer
Conducted on October 1, 2024

281

2001 220:18, 220:20, 222:10 2005 161:6, 161:13, 163:14, 197:2, 197:4, 201:17, 217:4, 226:16, 230:15 2008 194:10, 194:12, 194:17, 195:14 2023 1:7, 2:7 2024 1:17, 2:17, 231:12 21 85:10, 85:12 219 230:5 22 197:6, 201:15, 201:22, 202:1 228 230:6 23 134:21, 135:2, 135:13 24 64:21, 64:22, 68:14, 73:16, 73:21, 74:1, 74:19, 75:1, 180:18 25 180:10, 180:12, 180:16, 180:18, 180:21, 181:12, 181:20 250 167:5, 167:7, 167:10 26 140:9, 230:13 29 85:12, 85:16, 85:17	2a 75:18, 75:21, 75:22, 76:7, 78:5, 78:17 3 3 140:9 30 3:5, 34:14, 91:5, 92:18, 94:14, 94:21, 95:6, 124:14, 133:10, 134:9 300 167:8, 169:13 32 227:10 33 43:19, 48:18, 183:11, 183:12, 192:6 34 33:19, 63:13, 79:8, 124:14 35 145:11 350 167:9 36 77:6, 77:7, 77:15, 77:18, 78:2 37 50:16, 51:6, 145:6, 145:8, 145:10, 145:11 38 34:19, 51:6, 76:3, 76:5, 76:13, 77:17, 81:13, 91:14, 107:22, 108:5, 108:20, 109:10, 109:13, 110:9, 113:15, 113:18, 113:21, 115:3, 116:12, 198:4,	199:18 39 91:1, 104:21 4 4 140:9, 150:11 40 64:15, 64:17, 64:20, 72:15, 72:19, 73:3, 73:14, 74:19, 74:21, 80:21, 166:22, 226:13, 226:18, 227:5 41 140:9, 150:11 43 217:4, 217:6, 229:2, 231:13 44 25:1, 63:13, 141:22 45 25:1, 91:1, 91:6, 92:18, 94:14, 94:21, 95:6, 196:9 46 96:19, 150:11, 217:19, 217:22 47 63:19, 65:13, 70:10, 70:15, 71:6, 71:16 5 5 196:9 50 63:19, 64:15, 64:17, 72:15, 73:15, 74:19, 74:21, 80:21, 162:18 52 70:16 54 104:21	55 96:22, 108:17, 170:13, 171:10 554829 1:22 56 106:7, 113:9 58 65:14, 70:11, 70:18, 71:6, 71:16 599 3:15 6 6 196:9, 229:2, 231:13 60 75:19 61 103:1 62 78:16, 78:22, 79:3, 79:5, 79:11, 79:21, 80:3 63 109:6, 109:7 644 26:5, 28:10, 28:22, 29:15, 30:18, 31:14, 31:21, 32:16, 35:16, 36:7, 36:10, 46:10, 46:13, 48:12, 49:1, 51:1, 51:13, 52:6, 52:11, 55:3, 190:8, 190:10, 222:9 65 106:7, 106:14, 106:18, 108:18, 113:10, 218:14 66 109:5, 116:5,
---	--	--	---

Transcript of Dr. Shmuel Shaffer
Conducted on October 1, 2024

282

119:14 664 38:19, 63:16, 64:3, 65:18, 68:6, 68:8, 69:6, 70:8, 70:9, 70:11, 71:5, 71:15, 85:19, 92:2, 92:17, 94:12, 94:13, 98:21, 99:7, 99:22, 106:3, 114:3, 114:22, 115:22, 116:22, 119:21, 124:7, 125:4, 126:22, 127:16, 135:6, 135:13, 137:8, 142:17, 147:2, 147:19, 148:19, 148:21, 149:7, 149:11, 150:16, 150:19, 158:17, 159:9, 160:4, 160:20, 163:16, 169:2, 169:12, 170:22, 171:16, 172:4, 174:14, 176:5, 176:13, 177:5, 178:11, 178:21, 179:13, 180:11, 180:16, 186:7, 187:12, 190:2, 190:21, 194:4, 197:7, 197:10 7 78 195:17, 195:21 8 8,831,664 1:8, 2:8, 26:13, 230:14 9 911 168:15	92 142:6, 142:7, 142:18, 143:10, 143:21 94301 4:10 97 217:3, 217:7, 219:9	
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Re: Deposition of **Dr. Shmuel Shaffer**

Date: 10/1/2024

Case: Motorola Solutions, Inc. -v- STA Group, LLC (PTAB)

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Page	Line	Correction/Change and Reason
12	19	EDX should be "EDACS"
13	12	"One is so much bandwidth" should be "one needs so much bandwidth"
17	5	"note" should be "not"
17	6	"wouldn't" should be "Would"
18	3	"Visual" should be "vision"
24	1	"Score" should be "Square"
24	1	"Wouldn't" should be "would"
25	17	"Stand on" should be "Standard"
36	18	"Simmons" should be "Siemens"
36	19	"Chasse" should be "Chassis"
36	21	"A6" should be "ASIC"
37	2	"I6" should be "ASIC"
45	5	"Metric" should be "network"
56	16	should be "It's Evolution or God made us this way, your choice"
59	5	"It's no issue of procedural" should be "It's all issue of Procedural"
64	9	"I'd like to explain the question" should be "I'd like you to explain the question"
78	6	"PNC" Should be "PMC"
78	12	"PNC" Should be "PMC"
79	10	"PNC" Should be "PMC"
82	1	"beat" should be "but"
82	18	"The" should be "do"

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89	18	"Band" should be "Brain"
89	21	"peer" should be "Ph.D"
92	22	"four" should be "forty"
93	17	"or" should be "and"
102	11 & 12	"Package" should be "Packet"
110	10	"on" should be "one"
120	21	"research" should be "resource"
122	14	"I could use my mobile" should be "I couldn't use my mobile"
126	2	"With" should be "If"
130	8	"through" should be "to"
136	16 & 17	"metric" should be "network"
136	20	"Definitely going to claim" should be "defintely not going to claim"
137	15	"send it" should be "set it's"
144	2	"Sterile" should be "stereo"
144	6	"In listening" should be "Listening"
145	4	"Spatially" should be "Exactly"
157	20	"I'm" should be "I have"
158	5	"would" should be "I wouldn't"
158	8	"Caller ID and caller ID" should be "Caller ID, and called ID"
158	8	"Source of targeting" should be "Source and target"

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Date: 10/1/2024

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Page	Line	Correction/Change and Reason
164	10	"With" should be "When"
164	14	"Developing" should be "Development"
165	2	"manager" should be "Manager,"
167	16	"their name" should be "my name"
168	3	"Do his milestone" should be "Reach this milestone"
169	3	"were older" should be "including the Older"
172	16	"of" should be "or"
173	12 & 13	"they" should be "what"
174	10	"expandable" should be "manual"
175	15	"Plaintiff" should be "Brenna"
177	22	"we'll" should be "I'll"
180	3	"Margarita" should be "electric grid"
180	6	"talking" should be "Trunking"
182	9	"successful within Cisco" should be "Successful. Within Cisco"
183	8	"Mike" should be "Mark"
189	7	"runway, but the flying" should be "runway. But the flying"
189	7	"and the car." should be "and the car are totally"
190	10	"My answer is irrelevant" should be "My answer is: irrelevant"
191	21	"more smarter" should be "not smarter"
193	10	"Necessities a matter" should be "necessity is the mother"
193	14	"invention, they" should be "invention? They"

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193	20	"Sold" should be "Solved"
198	5 & 13	"Importing" should be "important"
198	18	"Matter" should be "mother"
199	1	"be. kind" should be "be, kind"
202	20	"secrets" should be "sequence"
204	6	"Would be minimal" should be "wouldn't be patentable"
205	8	"so. My" should be "so, my"
205	9	"outlet effects" should be "outline, affect"
213	12	"References, I acknowledge" should be "References I acknowledged"
213	14	"Packet" should be "Patent"
218	15	"cannot" should be "did not"
221	15	"gain" should be "again"
228	17	"our" should be "out"
168	3	"do" should be "reach"
168	16	"decided to gamble and drop what they believed to join the Army" should be
		"decided to volunteer and stop what they were doing and joined the Army"
205	4	"hardware. But the system, the hardware/software system does it with" should be
		"hardware, but by the system. The"
205	6	"we experience" should be "we explain"

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ACKNOWLEDGMENT OF DEPONENT

I, Dr. Shmuel Shaffer, do hereby acknowledge that I have read and examined the foregoing testimony, and the same is a true, correct and complete transcription of the testimony given by me and any corrections appear on the attached Errata sheet signed by me.

10/12/24

(Date)

Shmuel Shaffer

(Signature)