IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

GENERAL ACCESS SOLUTIONS, LTD.,	(	CAUSE NO. 2:22-CV-394-JRG
	)	
Plaintiff,	(	
	)	
vs.	(	
	)	
CELLCO PARTNERSHIP, d/b/a VERIZON WIRELESS, et al.,	(	MARSHALL, TEXAS
	(	JUNE 24, 2024
Defendants.	)	9:00 A.M.

VOLUME 1

TRIAL ON THE MERITS

BEFORE THE HONORABLE RODNEY GILSTRAP
UNITED STATES CHIEF DISTRICT JUDGE
and a jury

SHAWN McROBERTS, RMR, CRR
100 E. HOUSTON STREET
MARSHALL, TEXAS 75670
(903) 923-8546
shawn_mcroberts@txed.uscourts.gov

Verizon Exhibit 1027
Verizon v. GAS IPR2023-00978

A P P E A R A N C E S

FOR THE PLAINTIFF:	BARTLIT BECK, LLP - DENVER 1801 WEWATTA ST., SUITE 1200 DENVER, COLORADO 80202 (303) 592-3100 BY: MR. GLEN SUMMERS MR. GIOVANNI SANCHEZ MR. NOSSON KNOBLOCH WARD, SMITH & HILL, PLLC 1507 BILL OWENS PARKWAY LONGVIEW, TEXAS 75604 (903) 757-6400 BY: MS. ANDREA FAIR
FOR THE DEFENDANTS:	GIBSON DUNN & CRUTCHER, LLP - NYC 200 PARK AVE., 48TH FLOOR NEW YORK, NEW YORK 10166-0193 (212) 351-2338 BY: MS. KATHERINE DOMINGUEZ MR. BRIAN ROSENTHAL MR. JOSH KREVITT
FOR THE INTERVENOR:	BAKER BOTTS, LLP - DALLAS 2001 ROSS AVENUE, SUITE 900 DALLAS, TEXAS 75201-2980 (214) 953-6500 BY: MR. DOUG KUBEHL
oFFICIAL REPORTER:	SHAWN M. McROBERTS, RMR, CRR 100 E. HOUSTON STREET MARSHALL, TEXAS 75670 (903) 923-8546

INDEX

EXAMINATION

Witness Name	**Page**
PAUL STRUHSAKER	
Direct By MR. KNOBLOCH	188
Cross By MR. ROSENTHAL	222
Redirect By MR. KNOBLOCH	306
FRANK JAGER	
Direct By BY VIDEO DEPOSITION	316

Defendant Exhibits

DTX 25 Admitted into Evidence	234

THE COURT: Thank you. Be seated, please.

Good morning, ladies and gentlemen. Thank you for being here.

My name is Rodney Gilstrap, and I am the chief United States district judge for the Marshall Division or in the Marshall Division of the Eastern District of Texas.

I have lived in Marshall since 1981. I practiced law here for about 30 years before I was nominated by the President for this position and then confirmed by the Senate. And they say that confession is good for the soul so I'll start out with a confession--I was not born in Texas, but I got here as quick as I could.

I came to Texas at the ripe old age of 18 to attend Baylor University. I finished my undergraduate degree there, and then I stayed and went to law school at Baylor University School of Law. I am married; my wife and I had two children. We now have four wonderful grandchildren, and she is retired from a local floral business, which she ran for many years.

Now, I tell you all this about myself because in a few minutes I'm going to ask each of you to give me the same kind of information about each of you, and I think you're entitled to know as much about me as I'm about to find out from each of you.

Now, we are about to engage in the selection of a jury in a civil case involving allegations of patent infringement.

But if you'll indulge me for just a minute, I want to briefly review with you how we came to have our American civil jury trial system.

If you go back in ancient history, if you begin with the Pentateuch, the first five books in the Old Testament, you'll find that the ancient Jewish nation impaneled juries to determine issues of property ownership and property value.

The ancient Greeks began using a jury system about 1500 BC. The ancient Romans, as they did with many other things, copied the jury system from the Greeks, and it was the Romans that brought the jury system to what we now know to be England when they crossed the English Channel and conquered that island in the 4th century AD.

And the jury system took root in England and flourished there for 800 years until we got to the 12th century AD and a rather tyrannical king came to the throne of England named King John. And King John became embroiled in many disputes with his nobles and his subjects, and led that country to the bridge or brink, rather, the brink of civil war. One of the disputes that King John was involved in with his people was his efforts to curtail the right to trial by jury.

Thankfully, there wasn't a civil war at that time, and the disputes between the king and his subjects were settled in a written document that was signed at a place in England called Runnymede and which restored the right to trial by

jury. That document many of you may have heard of; it's called the Magna Carta.

And so you can see that this right to trial by jury was deeply engrained in our American forefathers who came from England and were part of the British colonial presence in North America. And the jury system flourished in colonial America for over a hundred years until another rather tyrannical king came to the throne of Great Britain, and this time his name was King George III.

And as you should know from American history, King George III became embroiled in many disputes with his American colonists. Among them was King George III's efforts to curtail the right to trial by jury.

As a matter of fact, ladies and gentlemen, if you will read the Declaration of Independence written by Thomas Jefferson, you will see in there that it is specifically called out that one of the reasons necessitating that we separate from Great Britain and form our own independent nation was the king's efforts to curtail the right to trial by jury. And in this case, unlike the earlier case, there was a civil war -- not a civil war, a revolutionary war, and we did separate from Great Britain and form our own independent nation.

And after we secured our independence, we developed shortly thereafter the governing document for our country, the

supreme law of the land, the Constitution of the United States. And the Constitution immediately, almost immediately, had 10 amendments added to it, which you know to be the Bill of Rights.

As a matter of fact, many of the original 13 states indicated that they would not vote to ratify the Constitution unless there was a commitment made to immediately add these 10 additional rights in the Bill of Rights.

And within the Bill of Rights, the first 10 amendments to the Constitution, you will find the Seventh Amendment. The Seventh Amendment guarantees the right to trial by jury for every American citizen in a civil dispute.

So all of the Bill of Rights, all 10 of those amendments in the Bill of Rights were ratified and added to our Constitution in 1791. So since 1791, ladies and gentlemen, every American has had a constitutionally-guaranteed right to resolve their civil disputes through a trial by jury.

So you can see that the trial by jury concept is an integral part of our American judicial system, and by being here this morning and presenting yourselves for jury duty, each of you are doing your part to preserve, protect, and defend those constitutionally-guaranteed rights, including the right to trial by jury.

I always tell citizens who appear for jury duty, as you have this morning, that in my personal opinion jury service is

the second highest form of public service that any American citizen can render for our country. In my personal opinion, the highest form of public service are those young men and women that serve in our Armed Forces.

Now, the lawyers are going to address the members of the jury panel later this morning as we go through the process of selecting the jury, and they're going to ask the members of the panel various questions. I want you to understand that the lawyers are not seeking to inquire into your personal affairs unduly or, said another way, they're not intentionally trying to be nosy. They are simply trying to gather relevant information to work with the Court in securing a jury of fair and impartial jurors to hear the evidence in this case.

These are certainly well-experienced trial lawyers. They know the rules of the Court. I do not expect them to ask any questions that are improper or outside of what the rules would allow, but certainly if that should happen, I won't hesitate to jump in and stop them. But, ladies and gentlemen, you need to understand the questions you will be asked as a part of this process are simply targeted towards seeing that the jury that is ultimately selected and impaneled is fair and impartial. That's the goal that we're striving for.

It's important for each of you to understand if you are asked a question as a part of this process that as long as the response that you give is full, complete, and truthful, then

there are no wrong answers. As long as your answer is full, complete, and truthful, that's the right answer to the question.

Now, I doubt that it will happen today, but it's possible today that you could be asked a question that you think in your own personal opinion is so personal and so private that you're not comfortable answering that in the presence of everybody else on the panel.

That doesn't happen very often, ladies and gentlemen. I've been on the bench 12-and-a-half years, I think it's happened two or three times, and I've tried over a hundred jury trials to a verdict. So it's a small possibility, but it's a possibility.

If you are asked a question that you are uncomfortable answering in front of the entire group, you simply have the right to say, I'd like to talk about that with Judge Gilstrap. And if that's your response, I'll provide an opportunity where you can answer that question outside the presence of everybody else on the panel. But like I say, I doubt that will come up today. It is a very rare occurrence, but I wanted to put you on notice that it was at least a possibility.

Now, the trial in this case is going to begin today immediately after the jury is sworn in, and I expect that it's going continue throughout the rest of this week. It is possible--I don't know how likely it is--it is possible it

could extend into Monday of next week. I'm very confident it's not going to go beyond that and could very well finish before that, but I wanted to give you those dates as outside limits on what this trial could involve.

And as the calendar shows, today is the 24th, and Monday of next week is July the 1st. If there are any of you on the panel who could not be present for that period of time -- and, again, it may not take all that time, but I'm giving you my best estimate. If there are any of you on the panel who would find it very, very challenging to be here for that entire period of time, then I need to know about it.

And when I say very, very challenging, I don't mean that it will be inconvenient because, ladies and gentlemen, jury service by its nature is inconvenient. Every one of you who are going to end up on this jury have other things to do in your lives that are important, and you'll have to put that aside while you serve on the jury. And it will be inconvenient, but that's part of the price we pay as citizens to preserve our democracy.

But what I mean by saying it would be very, very challenging for you to be here is, for example, if any of you have a surgical procedure scheduled for yourself or an immediate family member who is dependent upon you; if you have pre-paid, non-refundable airline tickets for a vacation with your family and you can't get your money back. If there's

something of that nature that's more than inconvenient that would keep you from being able to be here throughout the trial as I've indicated, then that's something I need to know about.

And if there's anybody on the panel who falls in that category, would you raise your hands and let me make a note of it? No. 10 and No. 13 in the jury box.

And, ma'am, what is your number? I can't see that far back?

UNIDENTIFIED PANEL MEMBER: 31.

THE COURT: 31. All right. Thank you.

So 10, 13, and 31. Anybody else? All right. Thank you.

And, ladies and gentlemen, let me just tell you, last weekend I caught the classic summer cold. So if you hear me sniffle or cough or clear my throat up here, I apologize. I'm doing the best I can.

I'm going to call for announcements at this time in the case of General Access Solutions versus Economic Partnership, doing business as Verizon Wireless. This is Civil Case No. 2:22-CV-394.

And, counsel, as you give your announcements, will you identify the members of your trial team that are present and any corporate representatives that you have.

We'll begin with the plaintiff. What says the Plaintiff?

MS. FAIR: Good morning, Your Honor.

Ladies and gentlemen, my name is Andrea Fair. I

represent the Plaintiff in this case. I'm joined today by Mr. Glen Summers; Mr. John Hughes, who will be presenting the case with us; and our corporate representative is Mr. Skip Hynek.

We're ready to proceed, Your Honor.

THE COURT: All right. Thank you.

What says the Defendant Verizon?

MR. DACUS: Good morning, Your Honor.

Deron Dacus here on behalf of Verizon. And here with me are Josh Krevitt, Brian Rosenthal, Kate Dominguez. And from Verizon, Your Honor, is Mr. Steven Rice, and he's the vice president of network planning, Your Honor.

And we're ready to proceed.

THE COURT: All right. Thank you.

And ladies and gentlemen, there's a third party in this case, Ericsson, Inc., which is technically an intervenor, which means they joined the case on the side of the Defendant Verizon after the case was filed. So we don't call them a Defendant; we call them an intervenor. But for all intents and purposes, they'll be working with Verizon on the Defense side.

What's the announcement for intervenor Ericsson?

MR. KUBEHL: Good morning, Your Honor.

Doug Kubehl for intervenor Ericsson, Incorporated. With me here is Mr. Sebastian Faxer. He will be the corporate representative for Ericsson. He is a strategic product

manager for 5G products.

THE COURT: And Ericsson is ready to proceed?

MR. KUBEHL: We are ready to proceed, Your Honor.

THE COURT: All right. Thank you.

All right. Ladies and gentlemen, as I've told you, this is a case arising under the patent laws of the United States. And what the Plaintiff is claiming is that certain claims from its patents have been infringed by the Defendants. And just for clarity, I'm going to say Defendants, plural, going forward. You should consider that means Verizon and Ericsson. Okay? And the Plaintiff is seeking money damages because of that alleged infringement.

Now, the Defendants deny that they infringe any of the claims of the asserted patents, and they deny that they owe any money damages to the Plaintiff. And the Defendants contend that the Plaintiff's patents are invalid.

Now, what I've just told you is a very shorthand, informal way of letting you know what the case is about in layman's terms. I know you've seen the patent video this morning prepared by the Federal Judicial Center. And having seen that, you already know a lot more about patent cases than most people do in our area.

Now, as I've told you, the lawyers on both sides are about to question the members of the panel to gather relevant information to exercise their rights and to work with the

Court to complete the process of selecting fair and impartial jurors to hear the evidence in this case. Again, ladies and gentlemen, there are no wrong answers to any question you may be asked as long as the answers you give are full, complete, and truthful.

And as I've told you, these are very experienced trial lawyers. They are well-familiar with the rules of the Court and the Rules of Civil Procedure. I do not expect any improper questions to be asked. If there are, I'll certainly jump in, but I don't expect that to happen.

One thing I do want to call your attention to before the lawyers begin with their questioning, because they may ask you as a part of their questioning about your ability to apply this if you're selected to serve on this jury, is the burden of proof.

In a patent case, a jury may be called upon to apply two different burdens of proof. The jury may apply a burden of proof known as the preponderance of the evidence, and the jury may apply a second burden of proof known as clear and convincing evidence.

Now, when responding to any possible questions you may get about the burden of proof in this case, I need to instruct you that when a party has the burden of proof on any claim or defense by a preponderance of the evidence, that first burden of proof I mentioned, it means that you, the jury, must be

persuaded by the credible or believable evidence that that claim or defense is more probably true than not true. I'll say that again--more probably true than not true. Sometimes this is talked about as being the greater weight and degree of credible testimony.

Let me give you an example that I hope will be helpful to you. Seated in front of me is Mr. McRoberts, our court reporter, and in front of him is a statue, the statue of the Lady of Justice.

You'll notice a couple of things about her. First of all, she's blindfolded. Second of all, she holds in her right hand lowered at her right side the sword of justice. Third, she holds in her left hand raised above her the balanced and equal scales of justice. It's those scales I want you to focus on.

Think of the preponderance of the evidence burden of proof like this. During the course of this trial, those scales start out exactly equal. There's nothing on either side. Plaintiff and Defendant are in the same position. Over the course of the trial, the Plaintiff is going to put on their evidence, and the Plaintiff's evidence is going to go on one side of those scales. Then the Defendants will put on their evidence, and their evidence will go on the other side of those scales.

And then when all the evidence has been presented, if a

party has the burden of proof by a preponderance of the evidence and if those scales then tip in that party's favor, even if they tip ever so slightly, then that party has met its burden of proof of the preponderance of the evidence.

Now, there is this second burden of proof that I've mentioned to you--clear and convincing evidence. And when the party -- when a party has the burden of proof on any defensive matter by clear and convincing evidence, it means that you, the jury, must have an abiding conviction that the truth of the party's factual contentions are highly probable. I'll say that again for emphasis--an abiding conviction that the truth of the party's factual contentions are highly probable. This is a higher standard than the preponderance of the evidence.

Let me ask you to go back to the same example I gave you. The trial starts out with both parties in an equal position. The scales of justice are empty, they have nothing on either side. The Plaintiff puts on all of its evidence, and its evidence goes on one side of those scales. Then the Defendants put on their evidence, and it goes on the other side of those scales.

And then when all the evidence is presented, if a party has the burden of proof of clear and convincing evidence on any defensive matter, then if those scales tip in that party's favor, and they definitely tip, it's not adequate that they tip ever so slightly, but if they definitely tip in that

party's favor, then that party has met its burden of proof of clear and convincing evidence.

Now, these two burdens of proof that I've talked to you about are absolutely different and have no relation to a third and different burden of proof that you have probably heard about in the movies and on television called beyond a reasonable doubt. Beyond a reasonable doubt is the burden of proof applied in a criminal case, and it has no application whatsoever in a civil case like this.

Clear and convincing evidence is not as high a burden as beyond a reasonable doubt, but it is a higher burden than the preponderance of the evidence.

I give you these instructions, ladies and gentlemen, in case some of the lawyers ask you about your ability to apply these two burdens of proof to the evidence if you're selected to serve on this jury.

Now, before the lawyers address you, I'm going to ask each of you to give me the same information about yourselves that I started out by giving you about myself before I came onto the bench this morning.

Let me explain how we're going to do this. Each of you have, both in printed copies and in the monitors in front of you, nine standard questions, and I'm going to ask each member of the panel to answer those questions one at a time. And this is how we're going to do it.

We have two Court Security Officers in the courtroom, one in the front, one in the back. They both have a handheld microphone. And one of them is going to come to you one at a time and bring you that handheld microphone. When you get that microphone, please stand up and then answer those nine questions. Then either pass the microphone to the next member of the panel or hand it back to the Court Security Officer.

Now, when you get that handheld microphone, ladies and gentlemen, and you stand up, do a couple of things. Hold the microphone near your mouth. If you don't hold it near your mouth, it's not going to amplify your voice and we're not going to hear your answers.

And this is a big room, there are a lot of people in here, and you'd be surprised how many jurors or venire members such as yourselves get that handheld microphone and they -- first thing they do is hold it down at their waist. You hold it down as their waist, it's not going to do any good.

The second thing, if you're like me and you sometimes talk with your hands and you've got that microphone and you start talking like this, the microphone's out here and it doesn't amplify your voice and we don't hear your answers.

So try as best you can to hold it near your mouth, speak into it, keep it in place so that we can hear the answers because it's important that everybody hears your answers to these nine questions. And as I say, when one member of the

panel is finished, then either pass it to the next member or, depending on where you are, the Court Security Officer will come and get it from you.

Also, ladies and gentlemen, later in the process the lawyers are going to ask questions of you from the podium. And when they do that, if you're asked a specific question, if they call you out and say, Juror No. 4, what's your answer to this question, then if you stand up, the Court Security Officer will bring you a handheld microphone. And if you hold it near your mouth and use it in the same way then as you're using it now, the Court will appreciate it.

All right. With that, we'll begin with Panel Member No. 1, Mrs. Meador.

If you'll take the microphone, stand up, and answer these nine questions for us, please, ma'am?

THE PANEL MEMBER: Are you going to ask the questions?

THE COURT: No, ma'am. If you'll just look at them and give me your answers.

THE PANEL MEMBER: Okay. That's all I needed to know.

My name is Kathy Meador, and I'm from Atlanta, Texas. I have six children.

My place of employment is right at home, and I'm a caregiver. I've been there for about 15 months. I have a

high school education.

Mark Meador is my spouse. He is disabled. He's been disabled for about five years.

And I have not been on a jury ever.

THE COURT: All right. Thank you very much. If you'll pass that to Mr. Landals, he'll answer his questions next.

THE PANEL MEMBER: My name is David Landals. I have four children.

I currently work at LSU Medical Center. I am retired military 21 years. I have worked at LSU for 19 years and 11 months. My education is a college degree, four-year degree.

My wife's name is Carla Landals. She currently does not work. She stays at home. So she's been there for 12 years or actually 19 years, 11 months.

And prior jury service, this is my third time, and all other three were criminal cases.

THE COURT: All right. Which branch of the military did you serve in?

THE PANEL MEMBER: U.S. Army.

THE COURT: And give us some idea about what you did during that period of service.

THE PANEL MEMBER: Started out as a veterinary technician, ended up as a first sergeant.

THE COURT: All right. Thank you for your service

and thank you for your answers.

THE PANEL MEMBER: Thank you.

THE COURT: Next is Panel Member No. 3, Mrs. Johnson.

THE PANEL MEMBER: My name is Lee Ann Johnson, and I live in Hughes Springs, Texas. I have three total children, one biological child and two bonus.

I work at Putnam Excavating. That's mine and my husband's company. I've been there for 11 years, graduated high school and some college.

My husband owns Putnam Excavating, and I have been in one civil jury.

THE COURT: What is your husband's name?

THE PANEL MEMBER: Randy Putnam.

THE COURT: All right. And the civil jury you were in, when was that and where was that?

THE PANEL MEMBER: About 25 years ago in Morris County.

THE COURT: Okay. Thank you very much.

Next is Panel Member No. 4, Mrs. Chalk.

THE PANEL MEMBER: Hi. My name is Christine Chalk. I live in Big Sandy, Texas. I have three children.

I work at Mother Frances hospital in Tyler, Texas. I've been there for eight years. And I have high school and college degrees.

My spouse's name is Larry Chalk, Sr. He is now retired. I think he worked there 10 years.

And I just finished a criminal case I think in Gilmer, Texas, this past February.

THE COURT: Is that your only prior jury service, ma'am?

THE PANEL MEMBER: No.

THE COURT: Tell me about the others.

THE PANEL MEMBER: It was another one in Gilmer.

THE COURT: Let me ask it this way. Have you ever served on a civil jury before?

THE PANEL MEMBER: I don't think so.

THE COURT: All right. Thank you, Mrs. Chalk.

Next is No. 5, Mrs. Luckert?

THE PANEL MEMBER: My name is Kathy Luckert. It's like *Cool Hand Luke.* I am currently living in Hallsville. We just moved from Marshall. I have two grown children who are very independent and on their own, and I don't pay for them.

I am currently retired from teaching 24 years in education. I am currently the worship leader at First Methodist, Marshall. That's why I know how to hold this microphone. And I've like 24 years of teaching and two years of leading worship at Marshall First Methodist, and I have a college degree.

My spouse's name is David, and he is the pastor of First

Methodist-Marshall here, and he has been employed here for four years but in the ministry for 38 years.

And I have served on a criminal case in Henderson County and have also been in grand jury duty. So I've never served on a civil court.

THE COURT: All right. What did you teach during your period of education?

THE PANEL MEMBER: I have taught everything from kindergarten through sixth grade social studies, seventh grade writing, and I ended here in Marshall fourth grade math so...

THE COURT: All right. Thank you very much, Mrs. Luckert.

No. 6, Ms. Rosborough.

THE PANEL MEMBER: My name is Kimberly Rosborough. I live in Marshall. I have one child. She's 28.

I work at Walmart. I've been there for 21 years. I graduated from high school, 12th grade. I did a year-and-a-half of college.

I'm divorced, so no longer married. And I served three months ago, but I don't know if it's civil or criminal.

THE COURT: Where was it, ma'am?

THE PANEL MEMBER: Over -- it's that building.

THE COURT: Harrison County Courthouse?

THE PANEL MEMBER: Yes.

THE COURT: Was it on the first floor or the second

floor?

THE PANEL MEMBER: It was on the first floor.

THE COURT: County court at law. Do you remember what it was about?

THE PANEL MEMBER: Yes. The guy pointed a gun at the police. He got seven years.

THE COURT: Okay. That's a criminal case, not a civil case.

THE PANEL MEMBER: Thank you.

THE COURT: Thank you, ma'am.

THE PANEL MEMBER: You're welcome.

THE COURT: No. 7 is next, Mrs. Roberts.

THE PANEL MEMBER: My name is Racheal Roberts. I live in Gilmer, Texas. I do not have any children.

I work for McKesson Corporation as customer support. I've been there 30 years. I have a Bachelor's degree.

My husband's name is Robert. He is a retired fireman from the city of Gilmer. He worked there for 25 years.

And I've been on one criminal case about 20-something years ago.

THE COURT: And never a civil case?

THE PANEL MEMBER: No, sir.

THE COURT: Thank you very much, Mrs. Roberts.

Next is No. 8, Mrs. Cook. If you'll get the microphone when they bring it to you.

THE PANEL MEMBER: My name is Kaleigh Cook. I live in Longview, Texas. I don't have any children.

And I'm currently not employed, although I start a job on July 1st. I have two associate degrees and a high school education.

My spouse's name is Santos Gonzales. He is a transformer technician, and he's been there about two years, I think.

And I've never served on a jury, but I have been called.

THE COURT: Now, you told me you're starting a new job on the 1st, but you didn't raise your hand that you had a scheduling issue. Your first day at work going to be on jury duty?

THE PANEL MEMBER: I can always go talk to the lab director.

THE COURT: All right. If it's not a problem for you; it's not a problem for me. Thank you.

Next is No. 9 on the panel, Ms. Josey.

THE PANEL MEMBER: My name is Angelin Josey. I have two children, adults.

I work at Krogers in Longview. I've been there almost 40 years. I have a high school education.

My husband's name is Travis Josey, and he has been in his employment about 37 years. He works on copy machines and fax machines, used to be called Rico, but they got bought out by UPO. I know he comes to Marshall a lot.

And I served on a criminal case probably about 27 years ago because my son was small.

THE COURT: Never served on a civil case before?

THE PANEL MEMBER: No.

THE COURT: All right. Thank you, ma'am.

THE PANEL MEMBER: Uh-huh.

THE COURT: Next is No. 10, Mr. McKinley?

THE PANEL MEMBER: My name is John McKinley. I live in Pritchart, Texas. I have one child.

My place of employment, I own a small business of restoring classic cars. As you can tell, I'm nervous. I've worked there almost six years. I do not have an education in high school. I dropped out after 11th grade.

My spouse's name is Marquita McKinley. She worked in home healthcare. She's been there about three years.

And I have not been on a jury.

THE COURT: Thank you, sir.

No. 11 is next, Mr. Hatfield?

THE PANEL MEMBER: Hello. My name is William Hatfield. I live in Omaha, Texas. I have five children, one deceased.

Place of employment is Priefert Ranch Equipment, Mt. Pleasant, Texas. I been there for 21 years. I've got a high school education.

I'm not married anymore, and this is the first time I've

ever been on a jury.

THE COURT: All right. Thank you very much, sir. No. 12 is next, Mr. Parsons.

THE PANEL MEMBER: My name is Peyton Parsons. I live in Bloomburg, Texas. I do not have any children yet. I am recently unemployed because of medical reasons. I have a high school diploma. I'm not married yet, and I have never served on a jury.

THE COURT: All right. Thank you. No. 13 is next, Ms. Toon.

THE PANEL MEMBER: Hi, I'm Melissa Toon, and I live in Ore City. I have two kids, five stepkids. I'm a licensed cosmetologist, but I'm not currently working. I stay at home. I have one on the way. And I have a high school diploma. I graduated from college at NTCC. And my husband's name is Christopher Toon. He works at Accurate Inspection, and he's been there for about 20 years. And I've never been on a jury.

THE COURT: All right. Thank you, Mrs. Toon. Next is No. 14, Mr. Burney.

THE PANEL MEMBER: My name is Artis Burney. I live in Gilmer, Texas. I've got five children grown and about 24 grandchildren. Place of employment, I work for myself. I'm self-employed, do vinyl siding and window installation and

carpenter work. I've worked there probably -- for myself probably 24, 25 years, after working at Curtis Mathis for quite a while. And, anyway, I've got -- left high school in ninth grade.

My spouse's name is Letitia Burney, and she's a housewife. She worked there like 49 years. That's how long we've been married.

And I've never served on a jury before.

THE COURT: All right, sir. Thank you very much.

Next, we'll go to No. 15, Mr. Jacobs.

THE PANEL MEMBER: If it pleases Your Honor, my name is Daniel Jacobs. I live in Linden, Texas. I have three children.

I have four years employment with the United States Navy, 20 years at Domino's Pizza. High school education. I'm divorced, and I have served on a criminal case a year ago.

THE COURT: All right. Never on a civil case. Correct?

THE PANEL MEMBER: That's correct.

THE COURT: Thank you.

No. 16 is next, Mrs. Cantrell.

THE PANEL MEMBER: My name is Misty Cantrell. I live in Jefferson. I have four children, two of them bonus. One of them was killed two years ago.

I'm an owner/operator of a pilot car business. My

husband -- or I've done that for 10 years.

My husband is oversize load -- he hauls oversize loads. He's a truck driver, and he's been doing that for 20 years. His name is Billy.

And I have served on one criminal case 15 years ago.

THE COURT: So he follows you wherever you go. Is that right?

THE PANEL MEMBER: I follow him wherever he goes. Right now he's in Wyoming, and I'm here.

THE COURT: Thank you, ma'am.

THE PANEL MEMBER: You're welcome.

THE COURT: No. 17 is next, Mr. Elliott.

THE PANEL MEMBER: My name is Brad Elliott. I'm from Atlanta, Texas. I've got two kids.

I work at Graphic Packaging, Texarkana mill. I've worked there eight-and-a-half years. I've got a high school diploma, associate's degree.

My wife's name is Julie. She works at Calvary Tabernacle. She's been there about five years.

And I've never been on a jury.

THE COURT: All right. Thank you, Mr. Elliott.

No. 18 is next.

THE PANEL MEMBER: My name is Jarrett Clemens. I'm from Gilmer. No kids.

ABC Auto Parts delivery driver. High school education

and TSTC truck driving school.

And a civil -- I've been on a civil and criminal case.

THE COURT: All right. Tell me about the civil case. Where was that?

THE PANEL MEMBER: It was right here in this courtroom in 2006. Microchip infringement.

THE COURT: All right. And do you remember what the verdict was, either for the plaintiff or the defendant, or do you remember?

THE PANEL MEMBER: I don't remember. It's been too long.

THE COURT: All right. Thank you, sir.

No. 19 is next?

THE PANEL MEMBER: My name is Caleb Vigneau. I am from Jefferson. I have three kids.

I work for Wilhoit Properties Timber Village 1 here in Marshall. I've been there more than a year but less than two. I have a high school diploma, and I have AC and heating training from the United States Marine Corps.

My spouse is Teresa Warren. She currently works at Ryan Crossing for the same company but a different property. She's been there over two years, less than three.

And I've never been on a jury.

THE COURT: All right. Thank you, Mr. Vigneau.

No. 20 is next, Mr. Jackson.

THE PANEL MEMBER: My name is Gary Jackson. I live in Gilmer, Texas. I have two kids.

I work at Upshur County road and bridge, foreman, Precinct 1. I worked there for five years. I have -- do not have an education, a high school education.

My spouse's name Nancy Jackson. She works at city hall. She's an associate judge, been there for five years -- well, been there for 12 years, associate judge for five.

And I've never been on a jury.

THE COURT: All right, sir. Thank you very much.

No. 21 is next, Mr. Baird?

THE PANEL MEMBER: My name is Justin Baird from Hughes Springs. I've got two kids.

Work at Independent Air Brake Service for about 10 years. High school diploma. Currently single. And first time on jury.

THE COURT: All right. Thank you.

No. 22, Mrs. Morris.

THE PANEL MEMBER: My name is Megan Morris. I'm from Woodlawn, Texas. I've had three children. I've got a cat who's much like a child.

My place of employment, I work at Bulldog Pizza in Jefferson, Texas. I've worked there since December. I graduated high school. I'm a college dropout.

My spouse's name, Daniel Glover. He's an entrepreneur.

He works on cabinetry, carpenter, for about two years.

And I was on a -- I had jury duty once before, but I don't remember any details. It was about 10 years ago.

THE COURT: All right. Do you remember where it was?

THE PANEL MEMBER: Here. It was in the courthouse.

THE COURT: Was it in this courthouse or county courthouse?

THE PANEL MEMBER: County.

THE COURT: Okay. Thank you.

No. 23 is next, Mr. Derrick?

THE PANEL MEMBER: My name is Casey Derrick. I live in Omaha, Texas. I have no children.

Work at Vanguard Ford in Hughes Springs, worked there 13 years. I have a high school education. I have no wife.

THE COURT: Any prior jury duty?

THE PANEL MEMBER: Yeah. A criminal case in Morris County.

THE COURT: Never a civil case?

THE PANEL MEMBER: No, sir.

THE COURT: All right. Thank you very much, Mr. Derrick.

No. 24 is next, Mrs. Suarez.

THE PANEL MEMBER: My name is Lucia Suarez, and I live in Marshall. I have three children.

I work at B&D Healthcare Solutions as a medical assistant. I've been there for 11 years.

My husband's name is Nehu Suarez, and he works for Eastman Chemicals. He's been there for four years.

I've been in both jury cases. I mean -- anyways. One was in 2010, it was a criminal case, and the last one was last year in June, another criminal case.

THE COURT: All right. Thank you very much, ma'am.

No. 25 is next, Mr. Fyffe.

THE PANEL MEMBER: My name is Chris Fyffe. I live in Marshall, Texas. I have five stepchildren.

I own my own CPA practice here in Marshall, been a solo practice for nine years, practiced a total of 25 years. I have a Bachelor's degree.

My wife is Misty Fyffe. She owns her own or co-owner of Marshall Dental Associates, a practice here in Marshall, for over 20 years.

And I have no prior jury service.

THE COURT: All right. Thank you, Mr. Fyffe.

No. 26 is next, Mrs. Duran.

THE PANEL MEMBER: My name is Megan Duran. I'm from Queen City, Texas. I have one daughter.

I am a child care director at Atlanta Methodist Day School. I have worked there ten years. I was a preschool -- I was a preschool teacher before I was a director. I have

high school education and some college credits from Texarkana A&M.

My husband is Kevin Duran. He is a Walmart manager. He's worked there for nine years.

And I have a previous history of criminal jury service.

THE COURT: Okay. I thought you were going to say you have a previous criminal history.

Let's go to No. 27, Mr. Isonhood.

THE PANEL MEMBER: My name is Justin Isonhood. I live in Gilmer, Texas. I have a dog that thinks he's a kid.

Actually, I run the network at Etex, and Verizon is a very valued partner of them. I've been at Etex about 15 years now. I have a high school education.

My wife's name is Lindy. She works at Rob Roy, been there pretty close to five years, I think.

I had a criminal case back in I think 2014 or 2015.

THE COURT: And where was that?

THE PANEL MEMBER: Gilmer, Texas.

THE COURT: No other jury service.

THE PANEL MEMBER: No, sir.

THE COURT: All right. Thank you, sir.

Next is No. 28, Mrs. Lorenz?

THE PANEL MEMBER: My name is Mary Lorenz. I live in Ore City. I have four children, one deceased, and one adopted.

I'm a retired cosmetologist and retired teacher of cosmetology. I have a GED and technical colleges.

My spouse's name is Michael, and he retired from the Navy and also Raytheon.

And I did sit on a jury in Dallas County, and I don't remember.

THE COURT: How long ago was that, ma'am?

THE PANEL MEMBER: Oh, probably 20 years.

THE COURT: That was your only prior jury duty?

THE PANEL MEMBER: Yes.

THE COURT: Okay. Thank you very much.

All right. No. 29 is next, Ms. Kennedy.

THE PANEL MEMBER: My name is Fabia Kennedy. I live in Bloomburg, Texas. I have three grown children.

I am an elementary school counselor in Queen City ISD. I've worked there 19 years. I have a Master's degree in counseling and development.

I'm married to Wade Kennedy. He is a construction superintendent for Sunland Construction for seven years.

And I have no prior jury service.

THE COURT: All right. Thank you very much.

No. 30 is next, Ms. Hughes.

THE PANEL MEMBER: My name is Melanie Hughes. I live here in Marshall, Texas, and I have two children.

I work at St. Joseph's Catholic Church, and I've been

there for 34 years. My education, I have a high school education and some college.

My spouse's name was William Hughes, recently deceased, and I've had no prior jury service.

THE COURT: Thank you very much, Mrs. Hughes.

No. 31 is next, Mrs. Lynn.

THE PANEL MEMBER: I'm Deborah Lynn. I have three children.

I am currently a freelance editor for upper education. I've been an editor for four years. I have a Bachelor's degree and some on my grad degree. My Bachelor's degree was in English.

I am currently separated. My husband's name is Dave Lynn. He owns an auto parts company. He has been there for over 40 years.

And I don't have any prior jury service.

THE COURT: All right. Thank you very much.

No. 32 is next, Mr. Bell.

THE PANEL MEMBER: Hello. My name is Dennis Bell. I live in Longview, Texas, and I have three children.

And I work for a plumbing outfit in Longview.

THE COURT: Mr. Bell, can you hold that microphone a little closer or speak up?

THE PANEL MEMBER: Yes. I've been there for 25 years. I'm planning on retiring this Friday. So I have a

high school education.

My spouse is recently passed. And I have been summoned a lot for jury duty but never served.

THE COURT: All right, sir. Thank you very much.

THE PANEL MEMBER: Thank you.

THE COURT: And No. 33, Mrs. Clifton?

THE PANEL MEMBER: My name is Patricia Clifton. I have two biological children and two stepchildren and seven precious grandchildren.

I work at Searle & Searle, PLLC, which is a local law firm here. I am a paralegal and the office manager. I've been there for 25 years. I have a Master's degree in human resource development.

My spouse's name is Todd. He is now retired. He was an oil and gas land surveyor for about 14 years before he retired.

I've served on one criminal jury. And although I've never served on a civil jury, I have been a witness in two civil trials.

THE COURT: All right. Thank you very much.

Thank you, ladies and gentlemen. I appreciate those answers. Now, I need to say a couple of more things to you before I turn the questioning over to the lawyers.

Those of you that are actually selected to serve as jurors in this case will serve in the role as the judges of

the facts, and the jurors selected in this case will make the sole determination about what the facts are in this case.

Now, my job as the judge is to rule on questions of law, evidence, and procedure that might arise during the course of the trial, to maintain the decorum of the courtroom, and to oversee an efficient flow of the evidence. Additionally, I'd like to say just a couple of things to you about our judicial system that hopefully will put things in a proper perspective for all of you.

In any jury trial, besides the parties themselves, there are always three participants--the jury, the judge, and the lawyers.

Now, with regard to the lawyers, it's important for each of you to understand that our judicial system is an adversary system, which simply means that during the trial the parties through their counsel will seek to present their respective cases to the jury in the very best light possible.

Now, it's no surprise to any of you that lawyers are sometimes criticized in the media, but the Court's observed that some of that is a misunderstanding, a basic misunderstanding of our adversary system in which the lawyers act as advocates for the competing parties.

And as an advocate, a lawyer is ethically and legally obligated to zealously assert his or her client's position under the rules of our adversary system. And by presenting

the best case possible on behalf of their clients, the lawyers will hopefully enable the jury to better weigh the relevant evidence and to determine the truth and arrive at a just verdict based on that evidence.

This adversary system of justice has served our nation well for over 200 years, and America's lawyers have always been, they continue to be today, and they will in the future be an indispensable part of the process.

So as we go forward, even though it's possible that I might from time to time roll my eyes or growl a little bit at the lawyers, it's simply I'm trying to keep their advocacy within the bounds of our adversary system. But they are simply doing their jobs and doing it to the best of their ability, ladies and gentlemen, and you need to keep that in mind as we go forward.

Also, for those of you selected to serve on this jury, over the course of the trial I am going to do my very best so that the jury has no idea about what I think about the evidence in the case, because determining the facts from the evidence in this case is the jury's job; it is not my job as the judge. So those of you that are selected for this jury should not take any expressions or comments or indications of any kind coming from me as something to consider in making your decision about what the ultimate facts are in this case.

All right. At this time the lawyers for the competing

parties will address the panel.

Plaintiff may address the panel at this time. Ms. Fair, would you like a warning on your time?

MS. FAIR: Yes, Your Honor. May I have a three-minute warning?

THE COURT: I'll warn you when you have three minutes remaining. You may proceed.

MS. FAIR: Thank you, Your Honor.

Good morning. I'm the first lawyer who gets to talk to you-all this morning, and I want to start by thanking you for your time. We know that you-all had better places to be than this courtroom this morning, you had other things that you needed to do, and we know that this is an imposition on your time whether you make it on the jury or not, and we don't take that lightly. So thank you for your time.

You heard me introduce myself. My name is Andrea Fair. I was born in Mesquite. I grew up just outside of Houston on the Gulf Coast, went to school at UT, and then I started working in a skyscraper in downtown Houston.

And when my husband and I were ready to start our family, you can imagine we were ready to get out of the city, so we had the opportunity to come up here and we've been in Longview since then.

I practice with a firm, Ward Smith & Hill, over in Longview, and I'm proud to be able to stand in this court and

talk to you this morning.

You already know by now this is a patent case. There's two patents at issue. These are those patents, the '931 and the '794. We call them by their last three numbers. And, broadly speaking, at a high level they relate to something called beamforming which has to do with how Verizon's 5G network communicates with the phones on its network, and one relates to hotspotting.

That's as technical as I'm going to get right now during voir dire. Those of you who make it on this jury are going to learn a lot more. But for now, just know that General Access, the Plaintiff in this case, our position is that Verizon is on that property without permission, it's intellectual property, and we're here to pursue a royalty for them being on our property.

Now, Verizon says it doesn't infringe. They say we're not on the property. They say, if we are, the patents aren't valid. These deeds -- you heard the patent video, it's like a deed. Those deeds are no good. And if we are on the property and if your deeds are any good, well, we don't owe nearly as much as you say we do.

We say that the royalty owed for them being on our property is $850 million. They say it's no more than $23 million.

You can tell just from that, that this is an

important dispute, that it's important that we have a jury here to help decide it. And you might be thinking, well, Ms. Fair, that's not very convincing. And I'm not here to convince you right now.

You heard a little bit that voir dire is our chance -- jury selection is our chance to hear from you. Can we all agree that when we came to this courtroom, we all have different life experiences? Right? We all have different backgrounds. We all have different things that we may have experienced, different people that have influenced us, and that can affect how you view things.

I want to thank you-all for your questionnaires. We did take a look at those, and it helps us know things that we might not otherwise know about you. You heard the Court refer to the box, so we'll call you-all in the box and then the gallery over here.

And I'll tell you-all in the last couple of rows, don't take offense if I don't talk to you. You're probably safe for today, and we've got limited time, so I'll be focusing mostly with talking to you-all in the box and maybe the first couple of rows of the gallery.

And you might be thinking, well, I don't really want to say anything, maybe -- maybe I'm going to give a wrong answer. There is no wrong answers. The truth is all we want. And you may be thinking, well, maybe I won't get picked if I don't say

anything. But if you don't tell me, I'm going to assume that you agree with me. So speak up.

You can probably tell by now that I'm the talker in my marriage. My husband is the quiet one. When we're in a group of people, he's more reserved. Our daughter, our youngest, you don't have to ask her what she's thinking. If you want to know, she's going to tell you whether you wanted to know or not.

So what I want to know first is, I'm going to ask for just a show of hands, I'm not going to call on anyone, who is it who's more like my husband, in a group setting you're going to be a little more reserved, and then I'm going to ask for a show of hands who is more like my daughter. And maybe you can tell which parent she gets that from.

So who's more like my husband? In a group setting, a little quieter, more reserve. I promise I won't call on you, I promise. All right. 1, 2, 3, 4 -- a lot -- 14, 13, 10, 11, and then Mrs. Cantrell--right?--16, 17, 18, and 15. Right? And I'll spare you-all in the back over there.

Now, who is it who's more like my daughter? Where are my folks, I'm going to share what I've got? Nothing wrong with that. I'd be raising my hand, too. Right --

I'm sorry. Hold them back up. No. 5, No. 6, 7, 12, 9, and then 19, 20, and 22. Thank you-all for sharing that.

Who came this morning saying, I want to be fair? I want

to be fair to the parties? Right?

Most people raising their hands. Some not -- I see some hesitation. I see some hesitation. Is that Mrs. Chalk?

THE PANEL MEMBER: Yes.

MS. FAIR: May I call on you?

THE PANEL MEMBER: Yes.

MS. FAIR: There's no wrong answers.

THE PANEL MEMBER: Well, I try to be fair in everything.

MS. FAIR: Sure.

THE PANEL MEMBER: But the bottom line is I just really don't want to be here.

MS. FAIR: You-all laugh, but I thank you for sharing that with us. That's what we want to hear. Tell us --

THE PANEL MEMBER: I was chosen in February in Gilmer. I didn't want to get picked then and I did. And then I thought the same thing here, I don't want to be picked, I'm ready to get back to work, but you said that was not an excuse, so -- but that's my answer.

MS. FAIR: Yes, ma'am.

Is there anybody like Mrs. Chalk who -- let's see. Mr. Parsons. Right?

Thank you for sharing that, Mrs. Chalk.

THE PANEL MEMBER: You're welcome.

MS. FAIR: Mr. Parsons.

THE PANEL MEMBER: This is my first time being on a jury. I'm 20 years old. I've got a doctor's appointment Wednesday to see if I'll be able to ever work in a blue-collar background, to see if my lungs are completely fried or if I'll be able to do it. So I'd really like to be able to get on to doing what I need to do and figure that out instead of be here.

But I would like to be fair to both of you if I do get picked. But either way it doesn't really matter to me.

MS. FAIR: While I've got you, can I ask you, I saw in your questionnaire, Mr. Parsons, you checked that you had a negative view about the justice system and lawyers. I can't say I blame you for it. I know a lot of people feel that way. I don't feel that way as a lawyer. But can you tell me a little bit more about that?

THE PANEL MEMBER: I had an uncle who his lawyer wasn't the greatest. She had all the time in the world to write out his appeal, all the evidence was there, and the judge of that case had told her to write out the appeal and she still didn't. So that's kind of just given me a bad outlook on it. Other than that, I mean, I really don't have any experience.

MS. FAIR: Were you close with your uncle?

THE PANEL MEMBER: I was. And so the sentence --

MS. FAIR: And so do you think, having had that experience, that's going to influence -- I mean, there are lawyers on both sides of this, but do you think that will influence your leaning maybe one way or the other before you hear any of the evidence?

THE PANEL MEMBER: I can't really say.

MS. FAIR: All right. That's fair. That's fair. Thank you, Mr. Parsons.

So I want to talk a little bit about leaning. We all agreed I think that we have different experiences that bring us to court and that can affect -- we might lean one way or the other, and that's really kind of what we're interested in learning.

So the example that I like to give is you heard where I went to school. I went to UT; Mr. Dacus went to A&M. And there are going to be people who are going to be leaning -- do I have anyone that went to A&M? Your daughter goes to A&M? That's Mrs. Johnson? Is that right?

THE PANEL MEMBER: Yes.

MS. FAIR: Can I pick on you a minute, Mrs. Johnson?

THE PANEL MEMBER: Absolutely.

MS. FAIR: I'll be candid. My brother went to A&M, and he might be leaning, too, against me just for that very reason. And I don't know if that affects you that much with your daughter being at A&M. Does that start you leaning one

way or the other?

THE PANEL MEMBER: As long as I'm home for the college world series, this is fine.

MS. FAIR: Fair enough. Fair enough. I think Mr. Dacus who played baseball back for A&M probably agrees with that. Now, if I can talk to you for just a minute, I noticed on your questionnaire you said that you think a lot of lawsuits are unnecessary.

THE PANEL MEMBER: Yes.

MS. FAIR: Right? Can you explain to me a little bit more about what you were meaning when you said that?

THE PANEL MEMBER: I think a lot of time that there are lawsuits that should not be brought.

MS. FAIR: What kind of cases come to mind when you think about that? Are you thinking mostly personal injury type or are you thinking just generally?

THE PANEL MEMBER: Yes, more personal injury type.

MS. FAIR: Who agrees with Mrs. Johnson, there's just too many lawsuits out there? There's a lot of lawsuits. Right?

Who -- can I get people to leave their hands up if you think that there being so many lawsuits out there might start you leaning just a little bit in this case? I mean, I'm the Plaintiff. Mrs. Chalk, may I -- oh, Mrs. Johnson, yeah. Tell me about that. So, you know, I'm standing here representing

the Plaintiff. We obviously brought this lawsuit?

THE PANEL MEMBER: Right.

MS. FAIR: Does that start you leaning a little bit in Verizon's favor, in the Defendants' favor, knowing that we brought this case to court?

THE PANEL MEMBER: Okay. My first thought, and this is just being honest, is that our whole business, all of our phone service, internet, and everything is with Verizon. And so I feel like if they have to pay $850 million to you guys, what's that going to do to us as consumers?

MS. FAIR: Yeah, I appreciate you sharing that, Mrs. Johnson. I can appreciate that would affect your business. And I think -- was it Mr. Isonhood? I'm not going to call on you because you're back there a little bit, but I think you said they were a valued customer or you were a valued customer of theirs.

Who is it that has that sort of relationship or customer relationship with Verizon where you react like Ms. Johnson maybe and you think, you know, I think I'd have a hard time considering an award that large, I don't care what the evidence shows, I'd have a hard time considering an award that large with Verizon?

Mrs. Johnson, is it yes for you?

THE PANEL MEMBER: Yes.

MS. FAIR: Ms. Chalk, may I ask Ms. Johnson to pass

the mic to you just real quick? That would start you leaning -- do you think, no matter what the evidence shows, would you be able to consider an award that large against Verizon?

THE PANEL MEMBER: Yes. I mean, some people lawsuits and stuff, it's just too much money.

MS. FAIR: It's a lot. It is a lot of money. And I'll tell you we believe that we have the evidence that backs it up. I wouldn't be standing here today if we didn't. But I want to hear from you whether you think you could consider that evidence and consider the full range of damages in this case.

THE PANEL MEMBER: I mean, I would listen to them, of course, and then base my decision on that, on the evidence, true enough. But, yeah, I mean, I use Verizon myself. But I will listen to all the evidence if needed. I just hope I don't have to, but, you know --

MS. FAIR: I appreciate that. If I could ask you to pass the microphone back, I believe, Mr. McKinley, No. 10, did I see your hand go up? It's a lot of money?

THE PANEL MEMBER: Yes. I feel like her. Most lawsuits that are in that amount of money, it's just ridiculous. The money could be spent elsewhere to improvise and to do better with stuff. I'm an Etex customer myself, so I guess we use Verizon, and not always the best out where I

live so a lot of that money could be used to go towards that, and I mean, it's just -- I don't know. It's ridiculous.

MS. FAIR: I appreciate you sharing that with me.

The Court you heard instruct on the burdens of proof, that our burden of proof is preponderance of the evidence, to just tip the scales ever so slightly.

And so my question to you is, having heard that -- well, I'll tell you, that burden is the same whether we were seeking $850 or $850 million?

THE PANEL MEMBER: Right.

MS. FAIR: Okay. So my question to you is, having heard that, you say that might be the law, but I just don't think that's fair.

THE PANEL MEMBER: Right.

MS. FAIR: If you're going to seek that amount of money, I'm going to need a little more from you.

THE PANEL MEMBER: Right. Yeah. I mean, I just don't understand how you would need to -- need that much money, I guess. I mean, you know why.

MS. FAIR: I understand. I thank you for sharing that.

Mr. Parsons, did I see you nodding your head to that? Can I talk to you a little bit more, please, sir?

THE PANEL MEMBER: Yes, ma'am.

MS. FAIR: Tell me your thoughts on that.

THE PANEL MEMBER: I kind of go along with her about --

MS. FAIR: With Mrs. Johnson?

THE PANEL MEMBER: Yes, ma'am. I cover my family's phone plan, it's about seven people, which switches from Cricket to Verizon. And I know this doesn't really apply to you-all, but, I mean, I got to say they are really helpful. So that kind of helps along with it. I'm not saying that it would just blow you out of the water, but --

MS. FAIR: But it starts you leaning.

THE PANEL MEMBER: It would help to know that Verizon has helped me and my family. But other than that, I got nothing else to say.

MS. FAIR: Mrs. Luckert, did I say it right, right in front of you, Mr. Parsons?

THE PANEL MEMBER: Yes, ma'am.

MS. FAIR: Can you share with me -- I heard you saying something, but I couldn't hear what it was so I'm picking on you a little bit. Can you share with me your views about the amount of money we're seeking, the burden of proof in this case, and then Verizon generally? I'm not sure what it was you were --

THE PANEL MEMBER: We were talking about lawsuits in general, and my thought is our society has entitlement. I'm entitled to this, I'm -- you know, it basically is greed. But

at the same time, fairness, I could be on the other side of that. I could be, you know, whether it was a medical suit or whatever, I could be on the other side of that going, wait a minute, it may not be entitlement but it could be something that could enhance my life later on, you know, if it was a medical suit.

In this case here, I'm very interested to know what is worth $850 million, you know, that much money. That's a lot of vacations, you know?

MS. FAIR: A lot of vacations for a lot of a people.

THE PANEL MEMBER: For a lot of people. And so, you know, I have no leaning in either direction towards -- because I want facts first.

MS. FAIR: Understood.

THE PANEL MEMBER: You know, you got grandkids. Give me the facts first before I decide who's going to time out.

MS. FAIR: Yes, ma'am.

THE PANEL MEMBER: I would do that to my grandkids a little bit. But I want to know what's going on --

MS. FAIR: Sure.

THE PANEL MEMBER: -- because, like I say, I could be in that same suit, I could be in that same -- I could be sitting right here.

MS. FAIR: You could be, yes.

So who agrees with Mr. McKinley, Mr. Parsons, Mrs. Chalk maybe, Ms. Morris -- thanks for helping me out on that.

Mrs. Morris, tell me about your views.

THE PANEL MEMBER: Okay. So just from AT&T having so many issues this past year, you know, you know so many people that, oh, my service doesn't work, let me use your Verizon phone. Whenever your Verizon phone goes out of order, what's going to happen? Because I know so many people are reliant on Verizon. I don't understand how they can owe millions of dollars for being in the wrong part of wherever they're at whenever they're supposed to be nationwide.

So I guess I'm just -- I don't know all the facts, I don't know everything about the case. But I know that a lot of people would be upset if Verizon went down.

MS. FAIR: I'm glad you brought that up. Thank you for sharing that. So this is a patent infringement case. Right? We equate it often to oil and gas rights.

So if somebody comes on your property and they're taking your minerals and you have the mineral rights, it's not about stopping them from doing it, it's about making them pay the royalty for being on your property without permission. Okay? So when somebody's on your property without permission, we call the sheriff. Right? You call the police. You call someone to come get them off their property.

And so let me pick on, if I can, Mr. Burney. Can I talk

to you a minute?

THE PANEL MEMBER: Yes.

MS. FAIR: All right. Would you call the sheriff if somebody was on your property?

THE PANEL MEMBER: Sure.

MS. FAIR: Did you know before today, and I believe it's in the video that you-all watched, that there are no -- there are no patent police to call when somebody's on your intellectual property without permission. Right?

THE PANEL MEMBER: Right.

MS. FAIR: It's the jury -- did you know before today that it's the jury that can come in and say, yes, in fact, they are on your property without permission and they need to pay for their use of being on your property without permission. Did you know that before today?

THE PANEL MEMBER: No.

MS. FAIR: And while I have you standing, you have your own business. Is that right, Mr. Burney?

THE PANEL MEMBER: Yes, ma'am.

MS. FAIR: Can you tell us how long you've owned that business? I may have missed it. You may have said that earlier.

THE PANEL MEMBER: Actually it's kind of a partnership. I work doing installation myself, and my son-in-law helps me, and I work along with Richard Guinn, but

we call it kind of a helping each other, not just actually an ownership of business. But I do work on other projects myself that that's mine, you know, not partnership part. But...

MS. FAIR: Well, can I ask you, I believe in your questionnaire you indicated you had some familiarity with -- I don't know if it was wireless communications, 5G, hotspots. It says -- I believe you indicated cell phone only and that you were still learning.

THE PANEL MEMBER: Right.

MS. FAIR: Can you tell me what you meant by that?

THE PANEL MEMBER: Right. Technology blows me away. I'm probably like a whole bunch of you. And this patent thing, it's more information than I can put together in my brain. It just -- it just blows me away. But I would love to be fair. If I'm chosen to serve, I would be fair on my decision through the evidence, whatever that would be.

I know if someone was using my things, I would want to -- the money for it, you know, kind of like you. But, anyway, it would be fair on my decision and my part.

MS. FAIR: Thank you for sharing that, Mr. Burney.

If I may, Mrs. Roberts, while the microphone is over there.

Thank you, Mr. Bennett.

Can you tell us -- well, Mrs. Roberts, I think you said that your husband's name is Robert.

THE PANEL MEMBER: Yes. He was the last child; they just gave up.

MS. FAIR: I have a son who wears my maiden name, but Robert Roberts, I'm sure he hears a lot about that.

THE PANEL MEMBER: Yes.

MS. FAIR: You work at McKesson. Is that right?

THE PANEL MEMBER: Correct.

MS. FAIR: And I believe you indicate on your questionnaire you've been in IT for 20 years?

THE PANEL MEMBER: Correct.

MS. FAIR: Can you tell more about what you do in IT? Is it with McKesson or tell us a little more about that.

THE PANEL MEMBER: Yes. Well, you know, like all corporations start out at one company, you get bought, bought, bought. But my current role is I'm like the liaison between the customer, which is our oncology clinics, and the software developer, stating their problem and communicating it back to the way the developer can fix it.

And before that, I used to do computer work, routers and switches, but now --

MS. FAIR: Are you setting this stuff up or --

THE PANEL MEMBER: I used to.

MS. FAIR: Okay.

THE PANEL MEMBER: But, yeah, I've been there a long time. So now I just like support turning the voice of the

customer into the voice of the developer.

MS. FAIR: Okay. And so do you consider yourself to be pretty tech savvy with that kind of background?

THE PANEL MEMBER: Yes.

MS. FAIR: Have you worked in the wireless arena, all wired connections, routers, switches, that sort of thing?

THE PANEL MEMBER: Yes.

MS. FAIR: Okay. Thank you for sharing, Mrs. Roberts.

Mr. Hatfield, if I can pick on you. If you don't mind too much?

THE PANEL MEMBER: Not at all.

MS. FAIR: You, I think, indicated on your questionnaire that you also have strong views about lawsuits. Do you remember that? Can you -- it said, I think some people are not honest and lie. Can you explain more about what you meant? I'm not trying to disagree with you. Some people --

THE PANEL MEMBER: I'm not talking about the lawyers.

MS. FAIR: I'm not trying to disagree with you. Some people --

THE PANEL MEMBER: It's not the lawyers. It's the people that's sitting on the stand. They can or cannot tell stories. They are under oath. If they choose to, they can. And, I mean, nobody knows but them and the Lord. So we just

leave it at that, but...

THE COURT: Let me interrupt for just a minute. Our court reporter is writing down everything that's said in the courtroom. And when the lawyer and the prospective juror are talking at the same time, there's no way he can write that down.

So please wait until Ms. Fair finishes and then give a complete answer. And I'm sure she will wait until you give a complete answer before she asks the next question.

All right? Go ahead.

MS. FAIR: Mr. Hatfield, can you tell us are there any particular experiences or any, you know, if it's been a family experience like I believe Mr. Parsons had or you've been on a jury that starts you having that view of lawsuits?

THE PANEL MEMBER: No, ma'am.

MS. FAIR: Just kind of in general?

THE COURT: You have to answer out loud.

THE PANEL MEMBER: Self-feeling, I guess.

MS. FAIR: Understood. I do thank you for sharing that. So having that view coming in here about lawsuits, is there anything about that that starts you leaning in favor of Verizon, maybe against the Plaintiff having brought this lawsuit, before you've heard any of the evidence?

THE PANEL MEMBER: No, ma'am.

MS. FAIR: All right. Thank you for sharing, Mr.

Hatfield.

Mr. Landals, can I pick on you a moment, please, sir? First, thank you for your service.

THE PANEL MEMBER: Thank you.

MS. FAIR: You've served on three juries, all criminal?

THE PANEL MEMBER: Correct.

MS. FAIR: Is that right? Can you tell me, is there anything about those experiences that gives you either a good or a bad taste in your mouth about the justice system?

THE PANEL MEMBER: No. I think it's a difficult system to deal with. That's the way I put it, because the evidence that, you know, given to the jurors to have to consider is considered differently by every juror, and then being able to put that in a small room with, you know, people you don't really know trying to make a decision that's uniform, it's difficult.

MS. FAIR: Were you able to reach a verdict in each of those instances?

THE PANEL MEMBER: We did.

MS. FAIR: Were you the foreperson?

THE PANEL MEMBER: No.

MS. FAIR: In none of those?

THE PANEL MEMBER: No.

MS. FAIR: I also noticed that you indicated you're

unsure about how much trust you have in government agencies?

THE PANEL MEMBER: True.

MS. FAIR: Can you explain a little bit more about that, having served so long in the military? Tell me what you were thinking when you checked that answer.

THE PANEL MEMBER: I've experienced a lot of government agencies in my lifetime. My dad did 23 years in the Army as well. I've lived in a lot of places, a lot of countries, and I've seen a lot of different viewpoints or, how should I say, interpretations of a certain rule or law. And it can be deemed and seen differently by different people and used to their benefit sometimes.

MS. FAIR: All right. And I'm going to ask you what I kind of was talking about with Mr. McKinley, Mrs. Johnson, Mr. Parsons, Ms. Luckert. Coming in here today, do you have any leanings in favor of Verizon hearing how much money we're seeking or any past experience you have with Verizon?

THE PANEL MEMBER: No, because I haven't heard any of the evidence yet. I do agree with some, though, that the amount of money is a bit beyond my rationale. But, you know, I'm not a million, billion dollar corporation, so...

MS. FAIR: Sure. All right. Thank you for sharing that.

Mr. Jacobs, No. 15? I saw in your questionnaire that you thought there were too frivolous reasons for a lawsuit. So

you might imagine, as the Plaintiff here, I might want to ask you about that. Can you tell me what this strong view of lawsuits, does that start you leaning in favor of Verizon knowing that we -- and let me first -- I should have said this right out of the gate. Thank you for your service as well.

But is there anything about that that starts you leaning in favor of Verizon with me standing here representing the Plaintiff in this case?

THE PANEL MEMBER: No, ma'am. I think what you covered earlier about personal injury, you know, people abusing the system basically.

MS. FAIR: Understood. Understood. And you said that you -- I may have had a bad copy of the questionnaire. You're a junior software engineer for a company that's developing software? Did I read that right?

THE PANEL MEMBER: When I was 21, yes, ma'am.

MS. FAIR: Okay. Can you tell me about that experience, what it was you were doing and what the company did?

THE PANEL MEMBER: My dad was an A&M graduate, aerospace engineering, and had computers around the house when I was young. And so a lot of the -- I self-taught a lot of things like the C language. And so I took that position as a junior software engineer when I was 21, and it was a company that was developing 3D model software. And I finished the job

and had to go back to work in pizza, so I joined the Navy.

THE COURT: You have three minutes remaining, counsel.

MS. FAIR: Thank you, Your Honor.

Thank you for sharing with us.

One more broad question. Mr. Dacus is from Gilmer. His mom taught school out there for a long time. I know some of you-all are from Gilmer. Does anybody know Mr. Dacus?

Mrs. Roberts? May I talk to you a moment?

And, Mr. Burney, you know him as well? I'll talk to Mrs. Roberts first, but was that a yes?

THE PANEL MEMBER: Not personally.

MS. FAIR: Mrs. Roberts, can you tell me what -- the nature of your, you know --

THE PANEL MEMBER: He graduated with my brother.

MS. FAIR: And did you know him well?

THE PANEL MEMBER: Yes.

MS. FAIR: And so as somebody standing here opposite Mr. Dacus, you can imagine I might be asking you --

THE PANEL MEMBER: My head popped up when you said his name. I didn't recognize him, but I recognized that name. I said, I wonder.

MS. FAIR: Does that start you leaning in favor of Verizon, that somebody that graduated with your brother, you know, known a long time, is going to be representing Verizon

in this case, you might trust him a little bit more with Mr. Dacus standing up?

THE PANEL MEMBER: I would think I would hold him up a little bit. He would have a bigger burden than --

MS. FAIR: I might say that about some of my brother's friends, too. Thank you, Mrs. Roberts.

Mr. Burney, can you share -- you said you don't know him personally. What is it that you know about Mr. Dacus?

THE PANEL MEMBER: I've just -- I've just heard of him through my family and all.

MS. FAIR: Okay.

THE PANEL MEMBER: Nothing bad, nothing bad.

MS. FAIR: What about anything good?

THE PANEL MEMBER: It's all been good.

MS. FAIR: All right. And is there -- having heard these good things from your family about Mr. Dacus, does that start you leaning in favor of Verizon? If he's going to be standing up here presenting their case, you might lean a little in their favor?

THE PANEL MEMBER: No, not at all.

MS. FAIR: Is there anybody else who knows Mr. Dacus? No one else?

I'll spare you, Mrs. Clifton, and I imagine where it might be from, but I'll spare you at the back over there.

I will wrap up with one last thing, and that is, I can't

ask all the questions, I can't know what to ask, I can't know everything that's in your background, and I know you haven't heard any of the evidence yet.

But knowing what you know at this point, is there anyone who's sitting here thinking, you know, Ms. Fair, if you had just asked, I have something I need to share about whether or not I might be the right juror for this case, whether or not I can be fair. Is there anybody sitting there thinking that? Anybody in the box? No? Anybody in the gallery?

Mr. Isonhood, I'll spare you just because I don't think you're going to be in the zone today.

I do appreciate all of you-all's time, and we look forward to presenting our case to you.

THE COURT: All right. Defendants may now address the panel. Mr. Dacus, would you like a warning on your time?

MR. DACUS: Yes, Your Honor. If you'd let me know when I have five minutes left.

THE COURT: I'll warn you with five minutes remaining.

MR. DACUS: Thank you.

THE COURT: You may proceed.

MR. DACUS: Thank you, Your Honor.

Good morning. As I said earlier, I'm Deron Dacus, and I represent the men and women who work at Verizon. I know the first thing that Mr. Rice and those other folks would want me

to say to you is a very sincere thank you. Not lost on us at all that you've got places to be, kids to attend to, grandkids to tend to, jobs to be at, and I know the very first thing they'd want me to say to you is we wouldn't be here if this was not important. It's very important to Verizon.

We're here because Verizon does not use these patents. Let's be clear. And this morning is not the time to talk about the evidence. I'm not going to talk about the evidence. But if you serve on this jury, it's their burden of proof over there to show that we use these patents, but we're going to prove to you that we do not. That's the bottom line.

And I think I heard Ms. Fair say something about Verizon thinks they owe $23 million. Let's be real clear: Verizon doesn't owe these folks a penny, and that's what we'll prove to you.

Before I start asking you questions, probably only fair that you know who's asking you questions, so I'll tell you a little bit about myself. I wish I could tell you it was interesting enough that someone was going to write a book or make a movie, but it ain't so.

As you heard, I grew up in Gilmer. I live in Tyler now, have for 30 years. That's where I have my law practice. Grew up in Gilmer, graduated from Gilmer. As Ms. Fair said, I was fortunate enough to get a baseball scholarship to Texas A&M, so went there and played baseball. I hope to get home before

6:00 today and watch them play for the national championship, but I'm not in charge of when I get home.

THE COURT: I didn't go to A&M.

MR. DACUS: I understand. I understand.

After A&M, like his Honor, I went to Baylor, graduated from Baylor, met my wife at Baylor Law School to whom I've been married for 30 years now. We have two kids. It's hard to say, but two adult kids out making their way in the world. It's kind of odd if you're a parent, you know, when you actually say that, but they are.

So let me ask this. I'm going to ask a question. I usually get a lot of hands on this. And I'll tell you up front I'm not going to ask any personal questions about this scenario, but who here has been just in your life, not in a courtroom, but in your life, just been falsely accused of doing something? Just lots of folks. Right? Lots of folks.

So let me ask you, Ms. Josey, and I'm not going to ask you any details. I promise you I'm not, but I am going to ask you a question about that, if I could.

So has it been your experience, Ms. Josey, that it's pretty easy for folks to just point the finger at someone and accuse them of something?

THE PANEL MEMBER: Yes.

MR. DACUS: Right. It doesn't take a whole lot of back-up to just point your finger. Right?

THE PANEL MEMBER: Yes.

MR. DACUS: Kind of the same way in a lawsuit. You understand that?

THE PANEL MEMBER: Yes.

MR. DACUS: We didn't choose to be here. Anybody can bring a lawsuit for anything. You understand that?

THE DEFENDANT: Yes.

MR. DACUS: Now, in your situation, did you feel like you had the right to defend yourself?

THE PANEL MEMBER: Yes.

MR. DACUS: Okay. Did you defend yourself?

THE PANEL MEMBER: Yes.

MR. DACUS: Okay. You understand that's where Verizon is. We've had these folks point the finger at us, accused us of wrongdoing, and we've come to the Court to say let's let eight people hear the evidence and we're going to defend ourselves. Do you have any problem with that?

THE PANEL MEMBER: No.

MR. DACUS: Okay.

THE PANEL MEMBER: I do not.

MR. DACUS: Let me just ask a general question to everybody. Does anybody feel any differently than Ms. Josey? In other words, do you think that Verizon doesn't have the right to be here and defend itself? Anybody in that camp at all? Okay. Good.

Thank you, Ms. Josey. Appreciate it.

Now, let me expand on defending ourselves a little bit. How many people think that Verizon is a big company? Lots of folks work there. Right? Everybody. Okay.

Let me ask you a question, Mr. Hatfield. So what happens sometimes in these lawsuits is that people who sit at the Plaintiff's table, and you'll hear that the company that sits at the Plaintiff's table, General Access, is a small company. Really it's only Mr. Hynek. They don't make a product or service. Verizon, of course, as you and everybody has said, is a big company.

So what happens sometimes is plaintiffs try to curry favor with jurors because Verizon's big and the Plaintiff's not nearly as big. Is there anything about the fact that Verizon is a larger company that would have you lean in favor, even slightly, towards the Plaintiff?

THE PANEL MEMBER: No, not without facts.

MR. DACUS: And I'm glad you said that because that's what I should have said as a lawyer. What we want are folks who are going to listen to the evidence and make a decision based on the evidence, not based on who's big or who's small. Does that sound right to you?

THE PANEL MEMBER: Yes, sir.

MR. DACUS: Okay. Would you hand the microphone to Mr. Parsons?

Same question to you, sir. Is there anything about the fact that these folks are smaller than the Verizon that would have you lean in their favor?

THE PANEL MEMBER: No, sir.

MR. DACUS: Okay. Thank you.

Anybody in that camp? Let's see.

Ms. Rosborough, did I pronounce that correctly?

THE PANEL MEMBER: Yes.

MR. DACUS: Okay. Anything about that that would have you lean towards them in any way?

THE PANEL MEMBER: No.

MR. DACUS: Okay. You said you are 21-year Walmart employee?

THE PANEL MEMBER: Yes.

MR. DACUS: Is that a good company?

THE PANEL MEMBER: It's pretty good.

MR. DACUS: Yeah. I thought when you said 21 years, I was thinking it must be.

THE PANEL MEMBER: It's pretty good. I get good benefits.

MR. DACUS: Have you enjoyed working there?

THE PANEL MEMBER: Huh?

MR. DACUS: Have you enjoyed working there?

THE PANEL MEMBER: I have.

MR. DACUS: Okay. And what have you done there?

THE PANEL MEMBER: I'm a cashier.

MR. DACUS: You've been a cashier the whole time?

THE PANEL MEMBER: The whole time.

MR. DACUS: So you talk to a lot of folks.

THE PANEL MEMBER: I do.

MR. DACUS: You're probably a better talker than I am.

THE PANEL MEMBER: I am. I hate to say it, but I am.

MR. DACUS: When I heard you talk, I thought you might be. Thank you very much, ma'am.

THE PANEL MEMBER: You're welcome.

MR. DACUS: Anybody out here -- and think about this now. A lot of us have a leaning towards a small guy or the underdog, whatever you want to call it. Is there anybody here who says, look, I think I might lean just a little bit towards the Plaintiff's table just because they're a smaller company than Verizon. Anybody in that camp? Okay. That's Mrs. Lynn. Right? Okay.

And as Ms. Fair said, Mrs. Lynn, you're probably pretty safe. So I won't ask you the details, but I very much appreciate you telling us that.

Anyone other than Mrs. Lynn? Mr. McKinley, tell me what your thoughts are.

THE PANEL MEMBER: As being a small business owner

myself, I feel like sometimes the bigger companies can come in and kind of push their way around because they have the money to do so and to be able to afford the attorneys and stuff like that. And, I mean, I still would want to hear all the facts, of course, but I mean, it's kind of easier for me to go towards the smaller business because I am a small business myself.

MR. DACUS: Perfect. That's what I wanted to know, and I actually should have asked you because I knew you were a small business owner. So here's what I need to know about this case.

Would you be able to sort of set those personal leanings and feelings aside and just decide the case based on the facts and evidence that you hear, or are your feelings so strong that you think it may taint the way you hear the evidence?

THE PANEL MEMBER: I mean, it's kind of hard to say because I'm a sole owner and operator of my business. So for me being here it's costing me money that I may not even be able to afford my bills if I miss a week. So it's kind of hard to go one way or the other without the facts, and the only way to really get the facts is to be on the jury, and then at that point, like I said --

MR. DACUS: Understood.

THE PANEL MEMBER: -- I'm losing money.

MR. DACUS: I understand. As the Judge said, this

is all a sacrifice, and as I said, Verizon wouldn't be here if this wasn't important. But we very much understand that. Thank you, sir.

THE PANEL MEMBER: Yes.

MR. DACUS: Now, let me ask a question. Mrs. Luckert, did I pronounce that correct? Luckert. Yes, ma'am. You help me out. I want to get it right.

THE PANEL MEMBER: Yes, sir.

MR. DACUS: I heard you say that you had grandkids?

THE PANEL MEMBER: I do.

MR. DACUS: I heard you say you put them in time out?

THE PANEL MEMBER: I do.

MR. DACUS: That's better than my grandparents did. They'd just tear us up. But here's my question to you, and it relates to the case even though it's going to sound like it doesn't. You got multiple grandkids?

THE PANEL MEMBER: I have five.

MR. DACUS: Do they ever get in little scuffles or fights?

THE PANEL MEMBER: Oh, I have one. They're five, six, and seven in the same house.

MR. DACUS: Do you ever notice that when they get caught fighting, that they don't walk to Grandma to tell their story, that they run to Grandma to tell their story?

THE PANEL MEMBER: Yes, they do.

MR. DACUS: And do you know why we do that? As a kid, when we get caught, we run to tell our story first?

THE PANEL MEMBER: The first story seems like it's going to be the truth. They want to get it in there.

MR. DACUS: That's my question. That's what we think. Right?

THE PANEL MEMBER: Uh-huh.

MR. DACUS: Now, being the good grandma that you are --

THE PANEL MEMBER: Uh-huh.

MR. DACUS: -- do you accept that first kid's story?

THE PANEL MEMBER: No, because the first one is not always the most honest one.

MR. DACUS: Okay. Do you know why I'm asking these questions? No?

THE PANEL MEMBER: No.

MR. DACUS: Let me tell you.

THE PANEL MEMBER: Go ahead.

MR. DACUS: Let me tell you why. These folks right here who brought the lawsuit, they get to go first. So I've got to sit at this table for a couple of days and not get up and tell my story. Okay? I'm like that second kid. Being the good grandma that you are, will you wait until it's our turn to listen to all the evidence?

THE PANEL MEMBER: I will because being the grandma that I am and knowing the personalities of those three, I know who is going to come with the most sincerity. And so --

MR. DACUS: Okay.

THE PANEL MEMBER: -- you know, I have prejudged my grandkids, but I also know, you know, I know. I know. So yes.

MR. DACUS: Understood. So here's -- thank you very much.

So here's my question to everybody. Look, the story's a little funny, but the principle here and the idea is not. Right? I mean, they literally get to go first, they're going to put on evidence for a couple of days, and it may be Wednesday before you get to hear our side of the story.

So that I can sleep a little better at night, would you just raise your hand and let me know that you will wait and hear both sides of the story before you make up your mind on a decision in this case? Can you just raise your hand and let me know? Okay. All right. Thank you very much.

Who -- let's -- you've heard that this lawsuit is about telephone systems, telecom systems, the networks. Who believes that they have some special expertise related to telecom and telecom networks? I know Mr. Isonhood probably does. Anybody else? Mr. Jacobs, that's 19. Oh, I'm sorry. I called the wrong name.

Did you raise your hand, Mr. Jacobs? Did you raise your hand on whether or not you have any telecom or telephone experience?

THE PANEL MEMBER: No, sir.

MR. DACUS: Okay. I apologize. I was trying to call on -- is it Mr. Vigneau?

THE PANEL MEMBER: Vigneau.

MR. DACUS: Vigneau. Thank you. What's your experience, sir?

THE PANEL MEMBER: I follow a lot of the telecom, how 5G works, 4G. I mean, I do a lot of hotspot stuff. I mean, my kids call me the high-tech red neck.

MR. DACUS: Okay.

THE PANEL MEMBER: My house is all a Lexus, smart light, smart switches, hotspot stuff. I mean, I pay Verizon a lot of money, but that's my preference. I mean, I have three mobile hotspots.

MR. DACUS: Do you have a hotspot on your phone?

THE PANEL MEMBER: Well, yeah. We all do.

MR. DACUS: Do you use the hotspot on your phone? That's a bad question.

THE PANEL MEMBER: No, I --

MR. DACUS: I shouldn't have asked do you have it. I should have asked if you use it.

THE PANEL MEMBER: I don't use it on my phone due to

the fact that I actually pay for three mobile hotspots at home because I have security cameras, everything's automated. So I have all that at the house. I mean, I do use my hotspot periodically. I mean, I ended up buying my daughter a tablet that has service so she'd quit hotspotting off everybody.

MR. DACUS: Yes, sir.

THE PANEL MEMBER: So, I mean, I've done a lot of that.

MR. DACUS: Perfect. That's what I need to know. Thank you very much.

THE PANEL MEMBER: Yes, sir.

MR. DACUS: So let me follow up. So we're talking about a hotspot on our phone. Some people are probably going, what in the world is he talking about? Some people probably know. So how many people here have used a hotspot on your phone, a WiFi hotspot? A fair number. Okay.

How many of you have actually, when you're using your WiFi hotspot, how many of you have connected multiple people to that hotspot at one time? A few. Okay.

So, Mr. Landals, can I ask you about that? Did I pronounce your name correctly?

THE PANEL MEMBER: That's fine.

MR. DACUS: So you've used WiFi hotspot on your phone?

THE PANEL MEMBER: Yes.

MR. DACUS: And you've had multiple users connect to it?

THE PANEL MEMBER: Correct.

MR. DACUS: I'm not asking details. Just generally, is that a work issue, something you do at work, something at home?

THE PANEL MEMBER: I've done it at home because I don't have internet.

MR. DACUS: I see. So you've used your phone as the WiFi hotspot since you don't have a router and internet service?

THE PANEL MEMBER: My wife and I don't do -- she uses her iPad with cellular data. I don't use mine at home at all because I do it all at work. So when the family visits or whatever, just create a hotspot so we have WiFi.

MR. DACUS: Okay. Perfect. That's what I needed to know. Did you say you worked at LSU Shreveport?

THE PANEL MEMBER: I do.

MR. DACUS: And tell us what you do there.

THE PANEL MEMBER: I'm an administrator for general terminology.

MR. DACUS: For general terminology?

THE PANEL MEMBER: I'm an assistant director for a department.

MR. DACUS: Okay. Which department?

THE PANEL MEMBER: Animal resources.

MR. DACUS: Okay. And so help me out. What does that department --

THE PANEL MEMBER: I supervise a 40,000 square foot animal research facility with over 20 employees.

MR. DACUS: Oh, I gotcha. Big duties, it sounds like it would be. Tough job?

THE PANEL MEMBER: It takes my time.

MR. DACUS: Overseeing 20 people would be a lot for me. All right. Thank you, sir.

THE PANEL MEMBER: Thank you.

MR. DACUS: Who else raised their hand to say that you've used the hotspot? So you did that time. Mr. Jacobs, let me ask you about that. And you've used your phone as a WiFi hotspot?

THE PANEL MEMBER: I have.

MR. DACUS: Okay. And have you had multiple people connect to that?

THE PANEL MEMBER: Yes.

MR. DACUS: And in a work setting or home?

THE PANEL MEMBER: Home. In Linden we didn't have -- I think we had an ISDN line that we were at the very end of, so it was like one meg, so I had an AT&T hotspot for probably about two years and I had everything in the house connected to that, and then switched to Starlink.

MR. DACUS: So Starlink?

THE PANEL MEMBER: Yes, sir.

MR. DACUS: That's what I needed to know. Thank you, sir.

Anybody else who used a WiFi hotspot on your phone? Multiple links?

All right. Let's see. Mrs. Johnson, hopefully we can get the WiFi hotspot to watch that game at 6:00.

THE PANEL MEMBER: My situation is just about the same as his. When we didn't have great internet service, then we all had to kind of connect to that. Some personal, and when I work mobile, I use it as well.

MR. DACUS: Okay. Great. Thank you very much.

Let me ask a related question--not to you, Mrs. Johnson, thank you--but just in general. Who has 5G service? Who uses 5G service on your phone? Anybody? A number of people.

Okay. And let's see. Ms. Rosborough, let me ask you about that. Who is your phone service provider?

THE PANEL MEMBER: It's actually Straight Talk.

MR. DACUS: Straight Talk. Okay.

THE PANEL MEMBER: But it uses Verizon's towers.

MR. DACUS: And you believe you have 5G service?

THE PANEL MEMBER: Uh-huh.

MR. DACUS: Okay. Great. And do you know how long you've had that?

THE PANEL MEMBER: Probably about a year.

MR. DACUS: Okay. Perfect.

Who else raised their hand to say that they have 5G?

Let's see. Mrs. Cantrell, I haven't had a chance to talk to you. Who's your phone provider?

THE PANEL MEMBER: AT&T. I just swapped from Verizon.

MR. DACUS: Okay. And, I mean, before I go too far, are you mad at Verizon?

THE PANEL MEMBER: I am pretty mad, yeah.

MR. DACUS: You are?

THE PANEL MEMBER: Uh-huh.

MR. DACUS: I need to talk to you about that.

THE PANEL MEMBER: We can talk about it.

MR. DACUS: Not the details, but you can guess what my question is. If you're going to be sitting on a jury where Verizon is saying they don't do something, and you're not real happy with them, does that put these folks at this table a little bit ahead or maybe a lot ahead?

THE PANEL MEMBER: I wouldn't say either way. I'd want to hear the facts first, but I am still mad at them.

MR. DACUS: Okay. But even though you're mad, you're going to be fair?

THE PANEL MEMBER: I will try to be.

MR. DACUS: That makes me nervous.

THE PANEL MEMBER: I'm just being honest. You said be honest. I'm going to try to be.

MR. DACUS: Okay.

THE PANEL MEMBER: Okay.

MR. DACUS: All right. That's what I needed to know.

But you have 5G now?

THE PANEL MEMBER: Yes, I do.

MR. DACUS: And how long have you had that?

THE DEFENDANT: It was terrible with Verizon and it's terrible now.

MR. DACUS: The 5G is?

THE PANEL MEMBER: Yes.

MR. DACUS: Okay. That's what I needed to know. Thank you.

THE PANEL MEMBER: You're welcome.

MR. DACUS: Who else raised their hand that said they have 5G? All right. I think I've talked to everybody that has 5G.

Who here has, I'll say, expertise in computers or computer language? I'm talking about something more than just using a computer; I mean, you have some expertise to know how they work or you know how to code.

I know, Mr. Jacobs, you do. Anybody else?

And I'll ask -- let me ask Mr. Jacobs -- that's No. 15.

I know you said that you were a software engineer at times. I know you put on your questionnaire that you had some Lynux experience. Right?

THE PANEL MEMBER: Yes, sir.

MR. DACUS: Is any of that recent; let's say in the last five, six, seven, eight years?

THE PANEL MEMBER: No.

MR. DACUS: So that's all in the, I'll say, distant past?

THE PANEL MEMBER: Mid-'90s to mid-2000s, yes.

MR. DACUS: You don't write any code today or anything like that?

THE PANEL MEMBER: No, sir.

MR. DACUS: Okay. Perfect. Thank you, sir.

Let me ask sort of the general question of the panel. You know this is a patent case. I'll be honest with you--patent cases are detailed. They just are. I wish I could tell you differently, but I can't. And we want you to pay attention to the details.

So I have two questions for you in that regard. Some people think they are detailed people. Right? Some people say, That's not me.

So who on the panel considers themselves to be a detail person? Okay.

Who on the panel says, Details, man, that's not me?

Okay.

Thank you very much.

The second thing is in these patent cases, and I date myself a little bit when I say this, but some people are what I call tinkerers; they want to know how things work and they want to figure things out.

Mr. Burney, I already know you are in this category.

And some people just don't care how things work, they just want them to work.

So who is it that says, I'm a tinkerer; if there's something, I want to know how it works? Who's in that category? Okay.

Who says, I'm not really a tinkerer; I just want the thing to work and I don't really care how it works? All right.

Now, Mr. Burney, you raised your hand on the second. I know you've built a lot of things in your life that required a whole lot of detail. Right?

THE PANEL MEMBER: Right.

MR. DACUS: So at least in that regard you know that you are a detail guy. Is that true?

THE PANEL MEMBER: I would say so.

MR. DACUS: Okay. Let me switch gears. And this is something that you heard both on the video this morning that the Court showed to you and then Ms. Fair mentioned it to you.

When Verizon got sued on these two patents, we took a look closely at these patents and we believe that, in addition to the fact that we don't use them, we believe that these patents never should have been issued. We don't believe the Patent Office should have ever preliminarily issued them.

Who, before you came today, before you came to this courthouse, who knew that a jury makes the ultimate determination whether or not a patent's valid? Almost nobody. Right? Including me, until I started doing these cases 20 years ago.

So here's what I need to know. Let me -- Mrs. Cook, I haven't had a chance to talk with you so let me ask you about this.

So in this case -- well, let me ask a few questions. Did you understand from the video this morning that that process between the people -- the person applying for the patent and the Patent Office, that's a secret process where only those two people are participating? Do you remember that from the video?

THE PANEL MEMBER: Vaguely.

MR. DACUS: Okay. Understood. This is not a test. Did you know that before today?

THE PANEL MEMBER: No.

MR. DACUS: Okay. So what will happen in this trial is that you, or anyone who sits on this jury, will hear

evidence and testimony and see documents that the Patent Office never had. Okay? Do you understand that?

THE PANEL MEMBER: I think so.

MR. DACUS: It said it on the video, and I understand you probably don't recall at all.

THE PANEL MEMBER: It's early.

MR. DACUS: Understood. And so my question to you is, even though the Patent Office has preliminarily granted this patent, Ms. Fair held them up, would you be willing to consider the evidence and potentially find that these patents are, in fact, invalid?

THE PANEL MEMBER: I mean, I'm a pretty firm believer in like, you know, I want to see the evidence before I make a decision. I've always kind of been that kind of person.

MR. DACUS: That's perfect. But if there is evidence that we prove to you that these patents are invalid, would you be able to find that?

THE PANEL MEMBER: I don't know. I don't know much about patents.

MR. DACUS: Understood. Understood. That's why I'm asking these questions, because all this is new to you and new to everybody else. Right?

THE PANEL MEMBER: Yeah. A lot of it just goes over my head.

MR. DACUS: Okay. Let me -- let's see. Hand the mic down to Mrs. Toon, if you could.

So, Mrs. Toon, I really have the same question for you. I mean, I'm assuming all this patent stuff is pretty new to you, too. Right?

THE PANEL MEMBER: Yes, sir.

MR. DACUS: Understood. And so you understand that we're going to say, hey, these patents should have never been issued?

THE PANEL MEMBER: Yes, sir.

MR. DACUS: And if we prove that to you, is that something that you're willing to consider?

THE PANEL MEMBER: Absolutely.

MR. DACUS: Okay. You wouldn't have any reservation about that at all.

THE PANEL MEMBER: No.

MR. DACUS: Some say, if it's good enough for the government, it's good enough for me, but you're not in that camp. Right?

THE PANEL MEMBER: Yeah.

THE COURT: You have five minutes remaining.

MR. DACUS: Thank you, Your Honor.

So here's what I need to know. It's an important question so think about it before you raise your hand. Is there anybody who's sitting there thinking, you know what?

That Patent Office, they granted that patent, and I'm just not sure, given that, if I could find that patent invalid? Anybody having those kinds of thoughts at all?

Mr. Hatfield, you're shaking your head. What's your thought, sir?

THE PANEL MEMBER: On the fence.

MR. DACUS: Okay. And why?

THE PANEL MEMBER: Like you said, if the government granted it to them, they give them the proper information to get the patent, you would think that it would be good enough to receive the patent.

MR. DACUS: Do you remember on that video this morning that it said that in the courtroom the jury's going to get more evidence and in this case much more evidence than the Patent Office had. Do you remember that?

THE PANEL MEMBER: That was the second half of my statement that I was fixing to -- I didn't want to speak over you.

MR. DACUS: No, no. That's my fault.

THE PANEL MEMBER: But, yes, if you have facts pertaining to the case that say it shouldn't exist, then that's where the facts go and that's where I'll -- I mean, I'm a facts guy. So we'll just see if the government had more facts or if you did, and then we'll go from there.

MR. DACUS: Perfect. Priefert, what do you do at

Priefert?

THE PANEL MEMBER: I'm a freight agent now.

MR. DACUS: You've been there a long time?

THE PANEL MEMBER: 21 years, yes, sir.

MR. DACUS: That's another good place to work.

THE PANEL MEMBER: Yes, sir.

MR. DACUS: Do you think so?

THE PANEL MEMBER: I do.

MR. DACUS: That's a good company. Thank you, sir.

THE PANEL MEMBER: Yes, sir.

MR. DACUS: Just a couple of topics since I only have a few minutes.

You heard these folks say they're going to ask you to award $850 million. We don't think we owe them anything. Even if there was some infringement, we certainly don't think that's a reasonable number.

All I would ask is if you will agree that you will listen to the facts and the evidence on this damages and the way they come up with that and just fairly evaluate it? If you even get to that question, can you just raise your hand and agree and let me know that, yeah, I'll have to listen to the facts before I make any decision on the money? Okay.

Let me close with this. So I've been doing this job a while, and what I've learned is I don't know very much and I don't always ask the right questions.

So what I want you to think about, are you sitting there saying, you know what, this lawyer should have asked me this question. He'd want to know that. He's representing Verizon and he'd want to know this, but he wasn't smart enough to ask.

Is there anybody sitting there thinking that? Because I want you to tell me so that I can ask the right question. Is there anybody in that camp at all?

Yes, sir. Mr. Jackson, I think. Yes, sir?

THE PANEL MEMBER: Now, she said you -- did you-all offer them $20 million?

MR. DACUS: No, sir.

THE PANEL MEMBER: You said you -- there might be some infringement.

MR. DACUS: No, sir, I did not. If I said that, I misspoke. We don't think we owe them anything. But here's the deal: I don't get to decide that.

THE PANEL MEMBER: Right.

MR. DACUS: The eight people who sit in the jury box do.

THE PANEL MEMBER: Yes, sir.

MR. DACUS: And I hope that they find that we don't infringe because we think that's what the proof is.

THE PANEL MEMBER: All right.

MR. DACUS: But if those eight people say, well, we think Verizon infringed one of these patents, then they're

going to have to decide, what's the reasonable amount of money to be paid for that. Does that make sense?

THE PANEL MEMBER: Yes, sir.

MR. DACUS: And all I'm asking you to do, and I apologize my question wasn't clear. All I'm saying is if you get to that point, will you just look at the evidence and consider whether or not $850 million is really a reasonable amount of money?

THE PANEL MEMBER: Right.

MR. DACUS: Will you do that?

THE PANEL MEMBER: Yes, sir.

MR. DACUS: Does that make sense to you?

THE PANEL MEMBER: Yes, sir.

MR. DACUS: I apologize I wasn't very clear on that?

THE PANEL MEMBER: It's all good.

MR. DACUS: Thank you, sir. I appreciate you asking me that.

Anybody else sitting there with any questions? Okay. Great. That's all I have.

Again, on behalf of Verizon for the eight people that end up sitting on the jury, we thank you very much. Appreciate everybody being here today.

Your Honor, that's all I have. Thank you.

THE COURT: All right. Counsel, approach the bench, please.

(The following was had outside the hearing of the jury panel.)

THE COURT: Does Plaintiff have any challenges for cause?

MS. FAIR: Yes, Your Honor. No. 3, No. 10, and No. 12.

THE COURT: 3, 10, and 12.

MS. FAIR: Yes, sir.

THE COURT: All right. And Defendants have any challenges for cause?

MR. DACUS: We do not, Your Honor.

THE COURT: Okay. In addition to those three challenges for cause, 10 and 12 both indicated scheduling issues, and -- well, actually 12 didn't, but in answering a question he said he had a doctor's appointment Thursday to see if his lungs were totally fried. So I assume that's a scheduling conflict. No. 13 did mention a scheduling problem. So I intend to bring up 3, 10, 12, and 13. Is there anybody else either side thinks I need to bring up and talk to at the bench?

MR. DACUS: No, Your Honor.

MS. FAIR: No, Your Honor.

THE COURT: Okay. If you-all will take a seat, please.

(The following was had in the presence and hearing

of the jury panel.)

THE COURT: Ladies and gentlemen, I'm going to let most of you have a short recess. Those of you that are going to be having a recess in just a few minutes, when I excuse you, I'm going to ask you to exit through the double doors at the back of the courtroom. As you go through those doors, if you go to the left and go around the corner, you'll find two important things--the water fountain and the restrooms.

Also, I'm going to ask those of you on recess not to leave the building, and I'm going to ask you not to leave this floor but to stay on this floor inside the building.

While you're on recess, ladies and gentlemen, you don't have to talk to anybody if you don't want to. If you'd like to have a conversation with somebody, you're free to have a conversation, but talk about anything you'd like to, including the baseball game at 6:00 tonight which we may or may not get to listen to. But don't talk about anything that happened in the courtroom.

You have heard no evidence whatsoever in this case, so visit about your grandkids, this wonderful summer weather we're having or anything you'd like to, but don't discuss anything about what's happened in the courtroom this morning.

Now, there are a few of you that I'm going to ask to stay behind so that I can visit with you one-on-one here at the bench, and those members of the panel I'm going to ask to stay

behind are No. 3, Mrs. Johnson; No. 10, Mr. McKinley; No. 12, Mr. Parsons; and No. 13, Mrs. Toon.

If you four folks will just let those around you slip past you and stay in your same seats while they leave for recess, I will visit with you here one at a time at the bench, and then after that, you'll be able to join the rest of the panel on recess outside the courtroom.

With that, those that I've not asked to stay behind are excused for recess at this time.

(Whereupon, the jury panel left the courtroom.)

THE COURT: All right. Be seated, please.

And, counsel, approach the bench.

(The following was had at the bench.)

THE COURT: And, Mrs. Johnson, would you come up and join us, please?

(The Panel Member approached the bench.)

THE COURT: Good morning.

THE PANEL MEMBER: I get the front row.

THE COURT: This is the microphone, Mrs. Johnson. We're just going to talk quietly into it.

THE PANEL MEMBER: Okay.

THE COURT: Ms. Fair, do you have some questions for Mrs. Johnson?

MS. FAIR: Yes, I do.

Mrs. Johnson, I understand you expressed that you had

some leaning towards Verizon given the amount of money that we're seeking and that you're a customer of theirs and concerned that it might increase costs for the everyday consumer like yourself. Do I understand that correctly?

THE PANEL MEMBER: Yes.

MS. FAIR: And so having this leaning and this that maybe could potentially impact, you know, your life, do you think you would be able to put that aside as you listen to the evidence and consider the amount of money that we're seeking in this case, or would you have a hard time setting that aside? We just want the truth.

THE PANEL MEMBER: It's going to be a little difficult because, like I said, because of our experience, and so I already have that kind of thought in my -- I mean, that thought's already there. It's not intentional.

MS. FAIR: I understand.

THE PANEL MEMBER: The first thing I'm thinking about is, My gosh, what's my phone bill going to be now.

MS. FAIR: I understand. And you'll have a hard time setting that aside as you listen to the evidence?

THE PANEL MEMBER: Just -- it's there. I mean, the thought's already there so... I'm just being honest.

MS. FAIR: Yes, I appreciate that.

THE COURT: Mr. Dacus, any questions?

MR. DACUS: Yes. So, Mrs. Johnson, I understood you

to say it's hard to set aside, but I think the real question is, would you be able to set it aside and follow the Court's instructions, listen to the evidence, and make a decision? Would you be able to do that?

THE PANEL MEMBER: Yes. I -- yes, but I just -- like I said, it has to do with not only Verizon's bill but the amount.

MS. FAIR: I understand.

THE PANEL MEMBER: Because, I mean, a lawyer's on my TV all of the time saying, I can get that many millions if somebody runs over me. So sometimes I think it's just an excess.

MS. FAIR: And so you think you'd have a hard time considering a full range of damages that we're asking for?

THE PANEL MEMBER: It's, yes, difficult.

MS. FAIR: Yes. You wouldn't be able to do that?

THE PANEL MEMBER: It's not that I wouldn't; it's just a difficult time because of the sum of money that is involved in that.

THE COURT: Let me ask this question, Mrs. Johnson. I understand your answers. Can you tell me with reasonable certainty that your feelings about Verizon and your feelings about the amount of money the Plaintiff has asked for will not interfere with you making a fair decision based on just the evidence, or do you have any doubt that that's, as you say,

going to be there?

THE PANEL MEMBER: Well, I do have doubts. I mean, I guess this things -- because we -- like I said, we own a business, and so --

THE COURT: Your business is dependent on Verizon.

THE PANEL MEMBER: Well, not necessarily, but my -- we have a lot that -- I have strong feelings on lawsuits.

THE COURT: Okay.

THE PANEL MEMBER: That's where it all kind of stems from.

THE COURT: So it's more about your own personal feelings than it is about the relationship between your business and Verizon?

THE PANEL MEMBER: Yes, but at the same time I understand it could potentially affect us as consumers as well because it's a domino effect.

THE COURT: All right. Anything further, Ms. Fair?

MS. FAIR: And so these strong feelings that you have about lawsuits would be in your mind as you --

THE PANEL MEMBER: Yes. Yes.

THE COURT: Anything further, Mr. Dacus?

MR. DACUS: No, Your Honor.

THE COURT: All right. Thank you, Mrs. Johnson. I'm going to let you join the rest of the group outside. Just do not discuss anything we talked about in here.

THE PANEL MEMBER: Okay.

(The Panel Member left the courtroom.)

THE COURT: All right. I'm going to sustain the challenge for cause on Mrs. Johnson.

Mr. McKinley, would you join us, please?

(The Panel Member approached the bench.)

THE COURT: Good morning, sir.

THE PANEL MEMBER: Good morning.

THE COURT: This is the microphone, Mr. McKinley. We're just going to try to talk quietly up here.

Ms. Fair, let me ask if you have any questions of Mr. McKinley.

MS. FAIR: Yes, Your Honor.

And I don't mean to intrude on your space; I just want to make sure I'm close enough to the microphone.

I understand that you -- I believe I heard you say a couple of times that it's ridiculous the amount of money we're seeking. And I'm not being critical about that at all.

My question is, having this view coming in, hearing this amount of damages, and being -- I believe you said that may be the law but it's not fair, is that something that would be in your mind as you're listening to the evidence and hearing what it is that we're asking for? Would it be a constant in your mind?

THE PANEL MEMBER: Sure. I just feel like it's just

a huge amount of money to be asking for something. And, I mean, if it's needed, then I understand that, but, I mean, it's hard to judge.

MS. FAIR: And you also I believe mentioned that being here is going to, of course, cost you money --

THE PANEL MEMBER: Yes.

MS. FAIR: -- and may be keeping you from paying your bills?

THE PANEL MEMBER: Yes.

MS. FAIR: Are these views that you have and this impact that it may have on your life going to make it difficult for you to listen to the evidence and consider the full range of what we're asking for because that would just be present in your mind?

THE PANEL MEMBER: Yes, ma'am. Yeah, because in two weeks I'm already taking off a week for vacation that I've planned for the past year, so taking off an unexpected week, you know, would just -- would be a burden on my bills and my overhead of my business.

MS. FAIR: And I think you also mentioned that you had some scheduling concerns. Is that what you were talking about as being unavailable to work for a week?

THE PANEL MEMBER: Yes, ma'am.

MS. FAIR: Okay.

THE COURT: Mr. Dacus, any follow-up questions?

MR. DACUS: I don't have any, Your Honor. Thank you.

THE COURT: Mr. McKinley, I'm going to let you join the rest of the group outside the courtroom. Just don't discuss anything that we talked about in here. Thank you, sir.

And, Mr. McKinley, I have a 1967 Mustang. If I need some work done, can you help me out?

THE PANEL MEMBER: If I'm still in business. It's McKinley's Restoration.

THE COURT: Thank you.

(The Panel Member left the courtroom.)

THE COURT: All right. I'm going to sustain the challenge on Mr. McKinley.

Mr. Parsons, if you'd join us up here, please.

(The Panel Member approached the bench.)

THE COURT: Good morning, sir. This is our microphone. We're going to try to talk quietly while we're up here.

You said a couple of times during questioning that $850 million is basically just too much, no matter what. Is that how you feel about this?

THE PANEL MEMBER: Yes, sir.

THE COURT: Do you think you'd be able to listen to the evidence and fairly consider it, and if the evidence

supported $850 million, could you find $850 million, or is it just impossible, in your view?

THE PANEL MEMBER: That would just be really hard to find $850 million. It doesn't matter how big a company is; that's a lot.

THE COURT: All right. You also indicated you were a Verizon customer and I heard you say some positive things about Verizon. Are your feelings about them going to influence the way you listen to the evidence in this case?

THE PANEL MEMBER: No, sir.

THE COURT: Okay. And then, thirdly, I didn't see you raise your hand about a scheduling problem, but I heard you tell the lawyers that you have a doctor's appointment Thursday about your lungs. Is that correct?

THE PANEL MEMBER: So I have a rare hereditary disease. I have granulomas in my lungs, and I'm supposed to be going to a pulmonary specialist to have X-rays done on my chest to see how bad and if I will be able to resume work in the only field that I have experience in.

THE COURT: And when is that scheduled?

THE PANEL MEMBER: Wednesday. I don't know what time. I'd have to get with my mother. She made the appointment.

THE COURT: Okay. And is it -- where is it?

THE PANEL MEMBER: In Atlanta. I go to Atlanta

first, and then she'll send me to wherever that same day.

THE COURT: Ms. Fair, do you have any questions of Mr. Parsons?

MS. FAIR: No, Your Honor.

THE COURT: Mr. Dacus, do you have any questions?

MR. DACUS: I do not, Your Honor.

THE COURT: Okay. Mr. Parsons, I'm going to let you join the rest of the panel outside the courtroom. Just don't talk about anything we talked about in here. Thank you very much.

(The Panel Member left the courtroom.)

THE COURT: I'm going to excuse, Mr. Parsons.

Mrs. Toon, would you join us up here, please?

(The Panel Member approached the bench.)

THE COURT: Good morning.

THE PANEL MEMBER: Good morning.

THE COURT: This is the microphone right here, Mrs. Toon, and we're going to try to talk quietly into the microphone.

THE PANEL MEMBER: Yes, sir.

THE COURT: When we started, I asked if there was anybody that would have a serious challenge about being able to be here throughout the trial if they were selected, and you raised your hand. Can you tell me about that?

THE PANEL MEMBER: Yes, sir. The first part would

be my two toddlers. My oldest daughter has work today, but we're going to just chance it and see if she can watch them, but that's the only person I have.

And I have health reasons with my pregnancy. I'm diabetic. I'm at risk of preeclampsia. And I'm a diabetic and I'm on insulin and Metformin, and I get sick if I don't eat small meals throughout the day. So basically that.

Oh, and the drive all the way from Lone Star.

THE COURT: Okay. All right. So childcare problems, pregnancy-related problems, and a long drive.

THE PANEL MEMBER: Yes, sir.

THE COURT: Is there anything else?

THE PANEL MEMBER: No, sir.

THE COURT: All right. Mrs. Toon, I'm going to let you join the rest of the panel outside the courtroom. Just don't discuss what we talked about in here.

THE PANEL MEMBER: Yes, sir.

THE COURT: Thank you.

THE PANEL MEMBER: Thank you.

(The Panel Member left the courtroom.)

THE COURT: We've got plenty of people on this panel. I'm going to excuse Mrs. Toon, primarily because of her diabetes and pregnancy issues. I can't have her eating small meals in the jury box during trial.

All right. That's four that I've excused, so that means

you should strike through 20. Is that right?

MR. DACUS: Yes, sir.

MS. FAIR: I have the same.

THE COURT: All right. Try to have your strike list back to Ms. Brunson by 11:30. All right?

MR. DACUS: Thank you, Your Honor.

(The following was had in open court.)

THE COURT: While counsel exercise their peremptory challenges, the Court will stand in recess.

(Brief recess.)

THE COURT: Be seated, please.

Ladies and gentlemen, if you will listen carefully, when your name is called come forward and take your seat in the jury box.

Let me explain -- before I ask Ms. Brunson, our Courtroom Deputy, to call the names of the eight who have been selected as the jury in this case, let me explain that we're going to seat eight jurors from the panel. I'd like the first four to be placed on the front row of the jury box, the second four on the back row of the jury box, and I'd like the jury placed in the box so that there is an empty chair between each member of the jury.

So whoever is called as Juror No. 1, if you'll come forward, enter the front row of the jury box, walk all the way down to the end, and stand in front of the last chair. Then

whoever's called as Juror No. 2, if you'll enter the front row of the jury box, walk down and stand in front of the third chair and leave a chair between you; and No. 3 do that and No. 4 do that.

Then No. 5 will go to the second row of the jury box, go all the way down, stand in front of the last chair, and we'll follow the same process. That way we should have eight folks in the box, four on the front row, four on the back row, and a vacant or empty chair between each member of the jury. And that will be the position that you'll be in throughout the trial.

So with that instruction, I'll ask the courtroom deputy to call the eight members of the panel who have been selected to serve on this jury.

THE CLERK: Kathy Meador, Kimberly Rosborough, Kaleigh Cook, Angelin Josey, William Hatfield III, Artis Burney, Daniel Jacobs, Richard Elliott.

THE COURT: All right. Members of the jury, if you will raise your right hands, I'll ask Ms. Brunson to administer the oath to you.

(Whereupon, the oath was administered by the Clerk.)

THE COURT: Please have a seat.

Those of you on the panel who were not selected to serve on this jury, I'm about to excuse you. Let me give you just a couple of instructions before I actually excuse you and you

leave the courtroom.

As you leave the courtroom and exit through the double doors in the back, you'll turn to your right to go toward the front entrance and you'll pass the Clerk's Office. If you will make sure that Ms. Clendening and her staff have these plastic numbers you're all wearing. Those are not souvenirs; we'll use them with the next jury. So please drop them off with the Clerk's Office.

Also, if you need any kind of written verification for an employer or anybody else as to where you were this morning, she has that material and will be happy to furnish it to you. And if you have any questions about your service being here this morning that I haven't answered, she'll be happy to answer any questions from you.

I do want to tell each member of the panel not selected to serve on the jury that the Court and the parties and the Court staff all appreciate you being here this morning. We are well-aware that everybody here had other places to be and other things to do that were important in their respective lives, and you set that aside and you appeared and presented yourselves for jury duty. And even though you weren't selected, you have each rendered very real and important public service by being here, and we recognize that and we value it and we want you to know how much we appreciate it.

With that, ladies and gentlemen, those of you not

selected to serve on the jury are now excused.

(Whereupon, the jury panel left the courtroom.)

THE COURT: All right. Be seated, please.

Ladies and gentlemen of the jury, I have a few things to say to you, and then I'm going to excuse you for lunch.

The first thing I'm going to tell you is that lunch is provided to you by the Court during your service on this jury, and it should be waiting for you in the jury room in just a few minutes. So you do not need to plan to secure your own lunch while you are here on jury duty; it will be provided to you by the Court. That will mean you won't have to go out into the community and find a place to eat and stand in line. It will save us time, and it will be easier on you. So the Court has ordered that your lunches be provided to you while you're serving on this jury.

Also, ladies and gentlemen, if you haven't already done so, sometime before you leave today please make sure that Ms. Clendening has a good accurate cell phone number for you. It is possible, not likely, but it is possible the Court might need to reach you after hours and before you would appear the next morning one day, and we need a good cell phone number for that purpose. If you haven't already done that, please take care of that sometime today.

Also, ladies and gentlemen, do not discuss the case with anyone. And I'll say that again for emphasis: Do not discuss

the case with anyone. One of the foundational principles of the jury trial system is that the jury be guided in its decision solely by the evidence presented in open court by the witnesses from the witness stand under oath and subject to cross examination as well as the exhibits admitted into evidence by the Court under the rules of evidence.

The exhibits admitted by the Court and the sworn testimony of the witnesses must be the sole universe of the information that you have to draw upon in deciding the issues you're going to be asked to decide in this case.

As a matter of fact, ladies and gentlemen, that is such a foundational principle, you are probably going to hear me say it more times than you care to. As a matter of fact, my habit is pretty much any time the jury gets out of their seats and leaves the jury box, I'll remind them do not discuss the case with anyone.

And when I say that, I mean don't communicate about the case in the broadest sense of the term with anyone. Not only should you not talk about it with anybody, but you shouldn't email or text message or instant message or any kind of electronic communication. If any of you are users of social media, do not post anything on any social media account about the case. It is absolutely essential that you not communicate with anybody about the case.

And let me just say this from my own experience as other

jurors have told me. When you get home this evening, unless you live alone, whoever is there when you walk through the door, the first thing they're going to say is, Tell me what happened in federal court in Marshall today. Well, when you get that question, do not answer it. Blame it on me and just say, That very stern federal judge told me I couldn't answer that question right now. When this case is over and he's excused me and I'm no longer a juror, then I can talk about it with you, but I cannot answer that question.

Also, ladies and gentlemen, back to this same fundamental principle, you are not to do any outside research of any kind. You are not to go online or in any other way and research anything about the case, any of the issues or the allegations or the evidence. Don't look up any of the lawyers or the parties. Don't do any online research or any research, for that matter.

Additionally, ladies and gentlemen, I don't think it's likely, but I have to tell you it's within the realm of possibility because there are no unimportant cases that get to a jury trial in a United States District Court, it is possible, although I think it's unlikely, that some outside party during the course of this trial might attempt to contact you and influence your decision in this case.

If that should happen, if you have any outreach towards you from anybody in any way that you think is out of place or

awkward or unusual, then you should let Ms. Clendening know immediately, she'll advise the Court, and the Court will deal with it. But I don't think it's likely, but I want to let you know it's within the realm of possibility.

Also, ladies and gentlemen, over the course of this trial it is going to be almost unavoidable that either coming or going or at some time while you are here you will become -- or you will be in close physical approximation to one or more of the lawyers in this case or the support staff or the corporate representatives or one of the witnesses. There are a lot of people involved in a trial like this. As a matter of fact, it will not surprise me if once we start the trial itself most of the gallery will be filled with people and probably 99 percent of them, if not a hundred percent of them, will be connected with this case on one side or the other.

So because you're going to unavoidably probably come in close proximity to some of these folks during the trial, I want you to know that when that happens they're not going to speak to you, they're not going to say, Good morning, how are you, did you have a good evening, what did you think about such-and-such. They're not going to visit or have conversation or be outgoing or gregarious with you, as we typically are in East Texas, and that's because I've instructed them not to be.

And that comes back to the same fundamental principle

that you must have no input from any source that could influence your decision except the sworn testimony of the witnesses that's under oath, subject to cross examination, and the exhibits which the Court has admitted and found admissible under the Federal Rules of Evidence. That's it. So most of the instructions I give you are going to come back to that original foundational principle.

One other thing, ladies and gentlemen. When I say don't communicate about the case, don't discuss the case with anyone, that means with the eight of yourselves. Until all the evidence is presented and I instruct you to retire to the jury room and to deliberate on your verdict, until then you must not communicate with each other about the case in any way.

So that means if we take a recess during the middle of the trial and you walk back in the jury room, there shouldn't be, Well, what did you think about that last witness. You're not to discuss the evidence or anything about the trial with each other until all the evidence has been presented, until I've given you my final instructions on the law that you must apply, and until counsel for the parties have presented their closing arguments to you.

And at that point you've heard all the evidence, I've given you my final instructions, and the lawyers have presented their closing arguments, and at that point I will

say, "Ladies and gentlemen of the jury, you may now retire to the jury room to deliberate on your verdict." And those words are almost like a light switch, because you go from being prohibited to discussing the evidence among the eight of yourselves to at that point becoming required to discuss the evidence among the eight of yourselves.

Because when you are deliberating, after you've heard all the evidence, after you've received my final instructions on the law, and after counsel have presented their closing argument, then you must discuss the evidence in an effort to come to a unanimous decision about your verdict in this case. But until that point, you must not have any communications among the eight of yourselves or with anybody else about the case. So it really becomes like a light switch from off to on when I say, "Ladies and gentlemen, you may now retire to the jury room to deliberate on your verdict." So please keep that in mind as we go through this trial.

And let me just say this. Because this is a fundamental premise of the trial -- of the jury trial system, if this instruction were violated--and it can be violated in many different ways--but if there were other sources of information presented to the jury or made available to the jury or that got in the door to the process, and if the sole universe of the information you had is not limited to the witnesses' sworn testimony and exhibits in the trial, then that could

jeopardize the entire process and potentially could require the Court to declare a mistrial, select a new jury, start over again at a new time and date in the future, and repeat everything that's happened so far today, and that would be a tremendous waste of time, effort, money, and resources. Nobody wants that.

So when I say don't discuss the case with anyone, I want you to understand there's a very broad definition of what that means. And just keep it in mind that you should not hear anything about this case before you retire to deliberate that comes from any other source than the witnesses from the witness stand and the exhibits that the Court has found admissible under the rules of evidence. That's it. Please keep that in your minds.

And again, you're probably going to hear me remind you of that periodically from time to time because it is so fundamental.

With that, ladies and gentlemen, I'm going to excuse you for lunch. It is just a couple of minutes before noon. If I know Ms. Clendening, your lunch is in the jury room and waiting for you. We'll take about 45 minutes, and I'll have you back in here about a quarter until 1:00 and I'll proceed with my preliminary instructions at that time.

Once I give you my preliminary instructions -- just quickly so you'll have an idea where we're headed, after I

give you my preliminary instructions, then counsel for the parties will present what's called their opening statements. Opening statements are an effort by the attorneys to give you a roadmap of what they expect the evidence is going to show. It's not opening argument, it's opening statement, and it should be informative to you about what you can expect to see over the course of the trial.

Once both sides have given their opening statements, then the Plaintiff will start with its case and call its witnesses. And the Plaintiff's witnesses will testify, they'll be cross examined by Defense counsel. And when all the Plaintiff's witnesses have been presented, then the Plaintiffs will rest their case in chief, it's called, and we'll proceed with the Defendants case in chief.

And the Defendants will call their witnesses, and they'll question them under oath and Plaintiff's counsel will cross examine them. And when all the Defendants' witnesses have been presented, then the Defendants will rest their case in chief.

Now, in a case like this, the Plaintiff has an option after that to call what are known as rebuttal witnesses to rebut the evidence of the Defendants. That's primarily because the Plaintiff has the burden of proof on infringement and damages and other issues in the case. Now, the Plaintiff does not have to call rebuttal witnesses and may choose not to

call rebuttal witnesses, but if the Plaintiff chooses to call rebuttal witnesses, they'll be presented after the Defendants rest their case in chief.

And if there are no rebuttal witnesses at the end of the Defendants' case in chief, or if there are rebuttal witnesses, once they've been presented, then the Court will give you its final instructions on the law that you are to apply, you'll then hear closing arguments from the Plaintiff and the Defendants through their attorneys, and then I will say, "Ladies and gentlemen of the jury, you may now retire to the jury room to deliberate on your verdict."

And again, that's when the light switch goes from off to on; That's when you go from being prohibited from discussing the case with anyone, including the eight of yourselves, to being required to discuss the case among the eight of yourselves, because the answers to the questions that will be in the verdict form that you'll be asked to answer, you have to reach a unanimous decision as to how to answer those questions. So you'll have to discuss the evidence among the eight of yourselves in an effort to reach a unanimous decision about the questions in the verdict form.

So keep those things in mind. I'll give you further instructions as we go through the process.

But at this point I'm going to recess for lunch, and we will be back in about 45 minutes to begin with my preliminary

instructions followed by counsel's opening statements.

Ladies and gentlemen, the jury's excused for lunch.

(Whereupon, the jury left the courtroom.)

THE COURT: Be seated, please.

Counsel, I met with you in chambers this morning early on in the day, well before we selected the jury, and as a part of those discussions that were outside of the record, I talked with you about the Plaintiff's motion to strike unauthorized new opinions of Doctor Andrews which was filed in this case, and I indicated to you that the Court was going to deny that motion.

Now that we are on the record in the courtroom and to memorialize what I talked with you about in chambers, I am denying the motion by the Plaintiff to strike portions of Doctor Andrews' report. During the supplemental reporting allowed by the Court regarding the experts here, Doctor Madisetti, the Plaintiff's expert, generated approximately 70 additional pages covering the materials that the Court authorized to be discussed during supplemental reporting. Doctor Andrews generated about six pages responsive to that. The Plaintiffs moved to strike Doctor Andrews' supplemental pages.

And as I told you in chambers, could both sides' experts have done a better job and done certain things sooner rather than later? Yes. But given the totality of the circumstances

and in light of Doctor Madisetti's supplemental reporting, the Court is persuaded that to strike the six pages generated by Doctor Andrews would be overly prejudicial, and it's on that basis that I'm going to deny the Plaintiff's motion. And this is primarily to memorialize what I told you in chambers and to get it on the record.

All right. Are there any things that counsel need to raise with me before we recess for lunch?

MR. SUMMERS: Nothing from Plaintiff, Your Honor.

THE COURT: All right.

Mr. Dacus?

MR. DACUS: Two topics, Your Honor. They're ministerial, procedural issues.

One is also just to memorialize with respect to the two issues that we're going to submit to the bench for a bench trial, that being the § 101 issue and the obvious type double patenting issue. Our understanding is the Court is not going to take that up this week, but will give us further direction after the verdict as to when to conduct those bench trials.

THE COURT: Well, what I told you in chambers was let's see what the jury's verdict is. It may make that unnecessary.

MR. DACUS: Yes, sir.

THE COURT: I will let you know as we get toward the end of the trial what my feelings are. I don't expect to take

it up immediately after the verdict's returned. I won't tell you 100 percent that's not possible, but it's not my intention at this point.

MR. DACUS: Fair enough.

THE COURT: I'll try to give you a narrowing guidance as we get further along in the process.

MR. DACUS: Fair enough, Your Honor.

The second thing, quickly, is Mr. Struhsaker who is the inventor will be the first witness. We have a document that was excluded. It's DTX 59. It was excluded in the pretrial process. We will want to make an offer of proof on that. We do not have to do it even today. We can do it whenever the Court wants us to do it. I just want the Court to know that we plan to make an offer of proof in that regard so we don't have a waiver issue because it is the first witness.

THE COURT: All right. Well, then you need to plan to do that once I return from lunch and before I bring the jury back in.

MR. DACUS: Thank you, Your Honor.

THE COURT: Also, just for completeness about our chambers discussion this morning, it's clear that claims 1 and 19 of the '931 Patent are no longer valid. The Court's made it clear that the parties are permitted to tell the jury that those two claims are now in the public domain. They're not entitled to characterize them as canceled, invalidated, wiped

out, or any other language they may want to use. The only language permissible is that those claims are now in the public domain. Those two claims relate to asserted claims 28 and 29 which depend from claims 1 and 19.

Also I've instructed Plaintiffs not to raise the issue about the Sprint 4G evidence until we get to the damages case. Plaintiff's counsel has made it clear that they will give the Court a notice before they make that transition. I'll reserve the decision as to whether I need to give the jury instruction about that evidence as only relating to damages and not relating to any portion of the case when we get there.

All right. With that, counsel, we will recess until 12:45 for lunch.

Court stands in recess.

(Lunch recess.)

THE COURT: Be seated, please.

Counsel, does either party have anything to raise with the Court before I bring in the jury and begin with my preliminary instructions?

MR. SUMMERS: Nothing from Plaintiff, Your Honor.

MR. DACUS: Only if you want us to do the offer of proof now. We can do --

THE COURT: Why don't you do that.

MR. DACUS: Your Honor, may I approach?

THE COURT: You may.

MR. DACUS: Your Honor, what I've tendered to the Court was previously marked as DTX 59 in the pretrial proceedings. This is and I've marked it as Offer of Proof Exhibit 1 for purposes of the trial record. This is a June 21st, 2012 email from the inventor to -- who will be the first witness in the case to Mr. Skip Hynek, who is the principal of the Plaintiff.

And on the second page of that document, it references Patent 1179459, which is actually an application that led to the '931 Patent that is at issue. And specifically Mr. Struhsaker, the inventor, said, "Do not pursue for commercial reasons. This is not at all important." We believe this is relevant to the damages issue.

Then he went on to say in that same paragraph, "The Japanese patent cited is excellent and there are parallels to what my team had intended to do." Again, we think this is relevant to damages, particularly in this case where our -- part of our contention is that the Plaintiff's damages expert did not apportion and certainly did not portion out the value of the prior art. So this is a reference directly by the inventor related to those issues.

And on that basis we would ask the Court to reconsider the admission of this document but also make this as an offer of proof.

That's all I have, Your Honor.

THE COURT: All right. You have your offer of proof. Your motion for reconsideration is denied. The Court stands on its prior ruling as reflected in the record.

All right. Let's bring in the jury.

(Whereupon, the jury entered the courtroom.)

THE COURT: Welcome back from lunch, ladies and gentlemen.

I have some preliminary instructions that I now need to give you on the record before we start with the opening statements from the lawyers and then get on to the evidence.

You've now been sworn as the jurors in this case and, as the jury, you are the sole judges of the facts, and as such, you will determine and decide all of the facts in this case.

As the judge, I will give you instructions on the law, I will decide any questions of law that arise during the trial and handle all matters related to evidence and procedure. I'm also responsible for maintaining an efficient flow of the evidence throughout the trial and maintaining the decorum of the courtroom.

At the end of the evidence, I'll give you detailed instructions about the law to apply in deciding this case, and I'll give you a list of questions that you are then to answer. This list of questions is called the verdict form. And your answers to those questions will need to be unanimous, and those unanimous answers to those questions will constitute

your verdict in this case.

Now, let me briefly tell you what the case is about. As you know, this case involves a dispute regarding certain United States patents. I know that you've all seen the video prepared by the Federal Judicial Center, but I need to give you some instructions here and on the record about a patent and how one is obtained.

Patents are either granted or denied by the United States Patent and Trademark Office, sometimes called simply the PTO, sometimes simply called the Patent Office. A valid United States patent gives the patent holder the right for up to 20 years from the date of the patent application to prevent others from making, using, offering for sale, or selling the patented invention within the United States or from importing it into the United States without the patent holder's permission.

A patent is a form of property called intellectual property, and like all other forms of property, a patent can be bought or sold. A violation of the patent holder's rights is called infringement, and a patent holder may try to enforce a patent against persons it believes to be infringers by filing a lawsuit in a United States District Court, and that's what we have before us in this case.

The process of obtaining a patent is called patent prosecution. To obtain a patent, one must first file an

application with the United States Patent and Trademark Office, the PTO. The PTO, ladies and gentlemen, is an agency of the United States government, and it employs trained examiners who review applications for patents. The PTO is a subdivision of the United States Department of Commerce.

The application filed with the PTO includes within it what is called a specification. A specification, or the specification, contains a written description of the claimed invention telling what the invention is, how it works, how to make it, and how to use it.

The specification ends or concludes with one or more numbered sentences. These numbered sentences at the end of the patent are called the patent claims. And when a patent is granted and issued by the PTO, it is the claims from within the patent that define the boundaries of its protection and give notice to the public of those boundaries.

Patent claims may exist in two forms referred to as independent claims and dependent claims. An independent patent claim does not refer to any other claim within the patent--it is independent. And it's not necessary to look at any other claim to determine what an independent claim covers.

On the other hand, a dependent claim refers to at least one other claim within the patent. A dependent claim includes each of the elements or limitations of that other claim or claims within the patent as well as the additional limitation

or elements recited in the dependent claim itself.

And, therefore, to determine what a dependent patent claim covers, it's necessary to look at both the dependent claim itself and the independent claim or claims from which it refers or on which it depends. And we often say that both ways--that the dependent claim refers to an independent claim or the dependent claim depends upon the independent claim. You'll hear that both ways.

Now, the claims of the patents in this suit use the word 'comprising'. 'Comprising' means including or containing. And a claim that includes the word 'comprising' is not limited to the methods or devices having only the elements that are recited in the claim, but it also covers methods or devices that add additional elements.

Let me give you an example. Take, for example, a claim that covers a table. If the claim recites a table comprising a table top, legs, and glue, that claim will cover any table as long as it contains these structures, even if the table contains other additional structures such as leaves that would expand the size of the tabletop or wheels that might go on the ends of the legs.

Now, that's a very simple example about the word 'comprising' and what it means. In other words, ladies and gentlemen, it can have other features in addition to those that are covered by the patent.

Now, after the applicant files his or her application with the PTO, an examiner is assigned to that application by the PTO and the examiner reviews the application to determine whether or not the claims are patentable--that is to say, appropriate for patent protection--and whether or not the specification adequately describes the invention that is claimed.

In examining a patent application, the examiner reviews certain information about the state of the technology at the time the application is filed. The PTO searches for and reviews this type of information that is publicly available or that might have been submitted by the applicant. And this type of information is called prior art. The examiner reviews this prior art to determine whether or not the claimed invention is truly an advance over the state of the art at the time.

Prior art is defined by law, and I'll give you specific instructions at a later time as to what constitutes prior art. But, in general, prior art includes information that demonstrates the state of the technology that existed before the claimed invention was made or before the application for a patent was filed.

A patent contains within it, once it's issued by the PTO, a list of certain prior art that the examiner has considered, and the items on this list are referred to or called the cited

references.

Now, after the prior art search and the examination of the application by the examiner, the examiner informs the applicant in writing of what the examiner has found and whether the examiner considers any claim to be patentable and, thus, would be allowed. Now, this writing from the examiner to the applicant is called an office action.

If the examiner rejects the claims, the applicant has an opportunity to respond to the examiner to try and persuade the examiner to allow the claims. The applicant also has a chance to change or amend the claims or to submit altogether new claims, and the papers generated in these back-and-forth communications between the examiner and the applicant are called the prosecution history.

And this process may go back and forth between the applicant and the examiner for some time, until ultimately the examiner is satisfied that the application meets the requirements for a patent, and in that case, a patent issues. Or, in the alternative, if the examiner ultimately decides that the application should be rejected, then no patent is issued. And sometimes patents are issued after appeals within the PTO or to a court.

Now, the fact that the PTO grants a patent does not necessarily mean that any invention claimed in the patent, in fact, deserves the protection of a patent. While an issued

United States patent is presumed to be valid under the law, a person accused of infringement has the right to argue in federal court that the claimed invention in a patent is invalid.

It's your job, ladies and gentlemen, as the jury to consider the evidence presented to you by the parties and determine independently and for yourselves whether or not the Defendant has proven that a patent is invalid.

Now, to help you follow the evidence, I'm going to give you a brief summary of the positions of the parties.

As you know, the party that initiates or brings a lawsuit is called the plaintiff. The Plaintiff in this case is General Access Solutions who you'll hear referred to throughout the trial either as simply the Plaintiff or as General Access.

And as you know, the party against whom a lawsuit is brought is called the defendant. And in this case the Defendant is sell Cellco Partnership, doing business as Verizon Wireless. In addition to Verizon, Ericsson intervened in this case on the side of the Defendant after the case was filed. Technically this means that Ericsson is what is known as an intervenor.

Practically speaking, Ericsson will be working cooperatively with Verizon to defend the allegations brought by General Access. And as I told you during jury selection,

you may hear the lawyers, you may hear the Court refer to the Defendants, in which case we're talking about both Verizon and Ericsson.

As you've been told, this is a case that involves allegations of patent infringement brought by General Access against Verizon, and there are two United States patents that are at issue in this case. The first is United States Patent No. 7,230,931. And patents are commonly referred to by their last three digits in the patent number. So this particular patent you'll probably hear referred to throughout the trial as the '931 Patent. And the second United States patent at issue in this case is United States Patent No. 9,426,794, which you'll hear referred to as the '794 Patent.

And these two patents, the '931 and the '794, will be referred to collectively at various times during the trial as the patents-in-suit. You may hear them referred to together as the asserted patents. Those mean the same thing. And these asserted patents generally relate to wireless communication systems.

Now, the Plaintiff, General Access, contends that the Defendants are infringing certain claims of the patents-in-suit by making, using, importing, selling, or offering to sell in the United States certain products that include its patented technology.

General Access contends that it's entitled to money

damages as a result of that infringement.

General Access also alleges that the infringement by Defendants is willful.

Now, the Defendants deny that they are infringing the Plaintiff's patents-in-suit or that any infringement was willful.

Defendants also contend that certain asserted patents are invalid because the patent specification does not contain a sufficient written description of the invention.

Now, ladies and gentlemen, I know that there are a lot of new words and new concepts that have been thrown at you since you arrived at the courthouse this morning. I am going to define a lot of those words and discuss those concepts with you as we go through these instructions.

The attorneys are going to discuss them as a part of their opening statements in a few minutes, and the witnesses are going to help you as they go through their testimony to understand these words and concepts. So please do not feel overwhelmed at this stage. I promise you, it will all come together as we go through the trial.

Now, one of your jobs in this case is to decide whether or not the asserted claims of the patents-in-suit have been infringed. You'll also be asked to decide whether or not the asserted claims are invalid. If you decide that any claim from the patents-in-suit has been infringed by the Defendants

and is not invalid, then you'll need to decide whether or not the infringement by the Defendants has been willful. You'll also then need to decide what amount of money damages should be awarded to Plaintiff to compensate it for that infringement.

Now, my job in this case is to tell you what the law is, handle rulings on the evidence and procedure, and to oversee the conduct of the trial, and to maintain the decorum of the courtroom.

In determining the law, ladies and gentlemen, it is specifically my job to determine the meaning of any claim language from within the asserted patents that needs to be interpreted. And I have already determined the meanings of certain language from the asserted claims from the patents-in-suit, and you must accept these meanings or definitions that I give you and use them when you decide whether any particular claim has or has not been infringed, or whether any claim is or is not invalid. And you'll be given a document in a few minutes that includes and sets forth these particular definitions or meanings that I've already determined.

Now, for any language in the asserted claims where the Court has not provided you with an instruction or a definition, you should apply the plain and ordinary meaning of that language as understood by a person of ordinary skill in

the art. If I provided you with a definition, however, you must apply my definition to that language from the claims throughout the case.

However, my interpretation of any claim language should not be taken by you as an indication that the Court has any personal opinion or opinion at all regarding the issues of infringement, validity, or any other issue in this case. As I've told you, those issues are yours alone to decide as the jury.

And I'll provide you with more detailed instructions on the meanings of the claims before you retire to deliberate on your verdict.

Now, in deciding the issues that are before you, you'll be asked to consider specific legal rules, and I'll give you an overview of those rules now, and then at the conclusion of the case I'll give you much more detailed instructions.

The first issue that you'll be asked to decide is whether Verizon has infringed any of the asserted claims of the patents-in-suit. Infringement, ladies and gentlemen, is assessed on a claim-by-claim basis. And General Access, the Plaintiff, must show by a preponderance of the evidence that a claim has been infringed. Therefore, there may be infringement as to one claim but no infringement as to another claim.

There are also a few different ways that a patent can be

infringed, and I'll explain the requirements for each of these types of infringement to you in detail at the conclusion of the case. But in general, a defendant may infringe the asserted patents by making, using, selling, or offering for sale in the United States or importing into the United States a product meeting all the requirements of a claim from the asserted patents or that practices all the required steps of a claim. As I say, I'll provide you with more detailed instructions on the requirements for infringement at the conclusion of the case.

The second issue that you'll be asked to decide is whether certain claims of the asserted patents are invalid. Invalidity, ladies and gentlemen, is a defense to infringement. Therefore, even though the United States Patent and Trademark Office has allowed the asserted claims, and even though a patent as issued by the PTO is presumed to be valid, you, the jury, must decide whether those claims are or are not invalid after hearing all the evidence presented during this trial.

Also, a claim can be found to be invalid in that there may be a lack of an adequate written description. A patent may be invalid if its specification does not describe the claimed invention in sufficient detail so that one skilled in the art can reasonably conclude that the inventor actually had possession of the invention that they are claiming.

You'll need to consider a number of questions in deciding whether the patents-in-suit contain a sufficient written description, and I'll provide you with more detailed instructions on these issues at the conclusion of the trial.

If you decide that any claim from the patents-in-suit has been infringed and is not invalid, then you'll need to decide whether Defendants' infringement has or has not been willful. The Plaintiff has the burden of proving willful infringement by a preponderance of the evidence.

Now, if you decide that any infringement was willful, that should not affect or impact any damages that you might award. The Court will take the issue of willfulness into account later, if you find it.

Also, if you decide that any claims from the patents-in-suit have been infringed and are not invalid, you'll also need to decide the amount of money damages that should be awarded to the Plaintiff to compensate General Access for the infringement that you have found.

A damages award in a patent case must be adequate to compensate the patent holder for the infringement, and in no event may a damages award be less than what the patent holder would have received if it had been paid a reasonable royalty for the use of its patents. However, ladies and gentlemen, the damages that you award, if any, are meant to compensate the patent holder, and they are not meant to punish the

Defendant.

You may not include in any damages award an additional amount as a fine or a penalty above what is necessary to fully compensate the patent holder for the infringement. Damages cannot be speculative, and General Access must prove the amount of its damages for the alleged infringement by a preponderance of the evidence.

And the fact that I'm instructing you on damages at this time does not mean that General Access is or is not entitled to recover damages. That is yet to be determined by you.

Now, you're going to be hearing over the course of the trial from a number of witnesses, and I want you to keep an open mind while you're listening to the evidence and not decide any of the facts until you have heard all of the evidence.

And this is important, ladies and gentlemen. While the witnesses are testifying, remember you, the jury, will have to decide the degree of credibility and believability to allocate to each of the witnesses, and the testimony and evidence that they give.

So while the witnesses are testifying, you should be asking yourselves things like this: Does the witness impress you as being truthful? Does he or she have a reason not to tell the truth? Did he or she have -- does he or she have any personal interest in the outcome of the case? Does the

witness seem to have a good memory? Did he or she have an opportunity and ability to observe accurately the things that they've testified about? Did the witness appear to understand the questions and answer them directly? And, of course, does the witness' testimony differ from the testimony of other witnesses? And if it does, how does it differ?

These are some of the kinds of things you should be thinking about while you're listening to the testimony of each witness over the course of the trial.

I also want to talk to you briefly about expert witnesses. When knowledge of a technical subject may be helpful to you, the jury, a person who has special training and experience in that particular field--we call them an expert witness--is permitted to testify to you about his or her opinions on those technical matters.

However, ladies and gentlemen, you're not required to accept an expert's or any witness' opinions at all. It's up to you to decide who to believe and who not to believe, and whether their testimony is correct or incorrect, and what amount of weight, if any, that you want to give to the testimony of each and every witness.

Now, I expect that there are going to be expert witnesses testifying in support of both sides in this case. But when they are called to testify, it will be up to you to listen to their qualifications, and when they give you an opinion and

explain the basis for that opinion, you'll have to evaluate what they say, whether you believe it, and to what degree, if any, that you want to give it weight.

Remember, ladies and gentlemen, judging and evaluating the credibility and the believability of each and every witness is an important part of your job as jurors.

Now, during the trial it's possible that there will be testimony from one or more witnesses that's going to be presented to you through what's called a deposition. In trials like this, it's difficult to get every witness here at the same time. So before the trial begins, the lawyers on each side take the depositions of the witnesses.

In a deposition, the witness is present, they are sworn and placed under oath, a court reporter is present, and then counsel for both sides ask questions of the witness, and those questions and their sworn answers are recorded and taken down. Often they are not only taken down in writing but they're often recorded by video recordings. And if that witness is not available to testify in person at trial, then that recorded deposition can be presented to the jury to supply that information which, again, is given under oath and is subject to cross examination.

Also, ladies and gentlemen, let me explain this to you. During a typical deposition, questions and answers may be taken from a witness for up to seven hours. Now, let's say

that there is a witness who can't testify in person during the trial and they've been deposed by the parties previously for seven hours, and the lawyers at the time of trial determine that there's 20 minutes' worth of important testimony that that witness gave that should be presented to the jury.

We all don't have to listen to seven hours of testimony to get 20 minutes' worth of relevant testimony. What will happen is the recordings, the videotapes of that deposition, will be spliced and put back together to cut out and segregate just that 20 minutes that the lawyers agree should be presented to the jury, and that will save us six hours and 40 minutes of other information we don't need to listen to.

However, because of that process, when you see selected portions of witnesses who are testifying to you by deposition, there are going to be little glitches and little splices and little irregularities that are an unavoidable part of taking out the relevant portions and putting them back together.

When you see deposition testimony from a witness who's not testifying in person, don't focus on the little irregularities. If you hear a different sounding voice, if you see a little glitch, don't focus on those things. Focus on the questions asked and the answers given by the witness. But that process saves the jury and the Court a lot of time during the trial, and it's important that you understand how that process works.

Also, ladies and gentlemen, deposition testimony is entitled to the same consideration by the jury and is to be judged as to its credibility, weight, and otherwise considered insofar as possible by the jury just as in the same way as if the witness had appeared in person and testified live from the witness stand in open court.

Also, it is possible during the trial that you'll be presented with various documents, and some of those documents, ladies and gentlemen, may have portions of them redacted or blacked out. That happens because there are decisions made by the Court in advance of the trial that those portions of the document should not be shown to the jury for various reasons. You should not concern yourself with those blacked out or redacted portions. You should not try to guess what has been blacked out. You need to focus on what is legible and what is presented to you that you can read, and do not be distracted by any redactions that you might see.

Simply know that the Court has ordered them, found them necessary, and that's why they're there. But don't give them other attention beyond that.

Now, over the course of the trial, it's possible that the lawyers will raise certain objections from time to time, and when they do, the Court will issue rulings on those objections. It's the duty of an attorney to object when the other side offers testimony or other evidence that the

attorney believes is not proper under the rules of the Court.

Now, upon allowing the testimony or other evidence to be introduced over the objection of an attorney, the Court does not, unless expressly stated, indicate any opinion as to the weight or effect of that evidence.

Also, ladies and gentlemen, you should know that the Court has already made certain rulings prohibiting reference to certain matters in this case, and these may be referred to as orders in limine or motions in limine. Sometimes they will be abbreviated as M-I-Ls, or MILs. If you hear a lawyer during the trial refer to a limine or a MIL, just know that that's a reference to this mechanism where the Court has already determined that certain material should not be presented to the jury.

If a question or response violates one of these prior rulings, then I may ask you to disregard that question or that response entirely, but I'm giving you these instructions now about orders in limine or MILs just so if it comes up in the language you hear during the trial, you'll know what it means.

And as I've said before, you, the jury, are the sole judges of the credibility and the believability of all the witnesses and the weight and effect to give to all the evidence.

Now, I want to compliment the parties in this case and their lawyers, because up until today, they have worked very

diligently with the Court to cover a lot of matters that otherwise would take a lot of time during the trial. And through these various pretrial provisions or procedures, the Court has already made rulings about the admissibility of all the exhibits that you'll see during the trial.

You may not understand it, but that has saved you many hours of sitting there listening to procedural exchanges about documents and whether they should be admitted and what are the objections to them under the rules of evidence and what are the responses to the objections. All that's been heard by the Court well in advance of the trial, and I've already ruled on the admissibility of the exhibits that will be shown to you.

And that means if an exhibit is already pre-admitted by the Court, it can be shown to you during the trial without all that preliminary back and forth, and the lawyers can simply present it and ask questions to put it in a proper context. But both sides have worked hard with the Court to streamline the trial by doing that, and even though you might fully not understand it, many, many hours have been saved by those pretrial efforts in advance of the trial.

Even though that's the case, there still may be objections raised during the trial. If I should sustain an objection to a question addressed to a witness, then you must disregard the question entirely and you may draw no inference from its wording or speculate about what the witness would

have said if the Court would have allowed them to answer the question. On the other hand, if I overrule an objection regarding a question addressed to a witness, then you should just consider the question and the answer as if no objection had been made in the first place.

Now, you should understand, ladies and gentlemen, that the laws of the United States permit a United States district judge to comment to the jury regarding the evidence in a case, but such comments from the judge to the jury on the evidence are only an expression of the judge's opinion as to that evidence and the jury is free to disregard those comments in their entirety because, as I've told you, you, the jury, are the sole judges of the facts, you are the sole judges of the credibility of the witnesses, and you are the sole judges as to how much weight, if any, to be given to all the evidence in the case.

I will also tell you that even though the law permits me to make such comments to you on the evidence, and as I told you during jury selection, I intend to work very hard over the course of this trial not to comment on any of the evidence to the jury.

Also, ladies and gentlemen, the court reporter in our trial, Mr. McRoberts, takes down everything that is said during the course of the trial. That's why it's important for people to talk one at a time. But the written transcript of

everything that's been said is not going to be available to you to review when you retire to the jury room to deliberate on your verdict, and that means you are all going to have to rely on your memories of the evidence presented over the course of the trial.

Now, in a minute you're each going to be given a juror notebook, and in the back of that notebook you'll find a legal pad that you can take notes on during the course of the trial, if you wish to take notes. It's up to each one of you to decide whether or not you want to take notes, and if you do, how detailed you want those notes to be.

Any notes you take are for your personal use only, and they are simply to refresh your recollection about the evidence. But you have to pay close attention to the evidence throughout the trial and rely on your own memory of that evidence during your deliberations.

And you should not abandon your own recollection because some other juror's notes indicate something different than you remember. Notes are simply to refresh recollection. That's the only reason they should be taken.

I'm now going to ask our Court Security Officer to pass out these juror notebooks to each member of the jury.

(Pause in proceedings.)

THE COURT: In these notebooks, ladies and gentlemen, you'll see that you each have a complete copy of

the two patents-in-suit. Also, after the two patents-in-suit, you'll find a ledger regarding certain language from the asserted claims where the Court has given you a definition of that language and what it means. You'll have the language from the claim on one side, and then you'll have the interpretation or the construction that the Court has already reached corresponding to it on the other side of the ledger. And you're to apply those definitions to that language throughout the case.

Now, behind that ledger containing language from the claims that the Court has construed, you'll find a section of tabbed witness pages. For every person who might testify in this case, there is a page in there for that witness, and they should have their names tabbed so you can find them easily throughout the trial. And each of those witness pages should have a head-and-shoulders photograph of the witness superimposed at the top of the page with their name underneath and then blank lines below that for additional note-taking.

The Court's found it very helpful over the course of several years for the jury to go back when you're deliberating after a lengthy trial and many witnesses who testified and refresh your recollection by seeing a picture of the witness and any particular notes that you took about that witness on that page. So that's why those witness pages are there. They're for your benefit.

And then behind those witness pages, as I mentioned, you should find a new legal pad that's been three-hole punched to stay in your binder and there should be, if you need it, a pen in the front pocket of each notebook to use for note-taking. And, again, it's up to each of you whether you want to take notes, and if you decide to take notes, how extensively or not that you want those notes to be.

But remember the notes are to refresh your recollection. You still have to rely on your own recollection of the evidence presented over the course of the trial.

Now, these notebooks, ladies and gentlemen, should be in your possession most of the time. They're not to be left laying around where somebody who shouldn't has an opportunity to look through them. So while you're in the jury box, you'll have them with you. During a recess or a break for lunch or when you leave at the end of the day, I'll probably ask you to take them to the jury room and leave them closed on the table in there so you can pick them back up either after lunch or the next morning.

Now, there will also probably be short breaks during the day where you're only going to be to be out of the jury box 10 or 12 minutes for a short recess, and in those cases I will probably say, ladies and gentlemen, you can simply close your notebooks and leave them in your chairs.

When you're not going to be gone very long, you can

simply leave them where you're seated and pick them back up when you come back into the courtroom. But if you're going to be out of the jury box for any length of time, I'm probably going to ask you to take them with you and have them in your possession.

Now, in a moment we're going to proceed with the opening statements from the lawyers in the case. And as I've told you, these opening statements are designed to give you, the jury, a roadmap of what each side expects to offer by way of its evidence.

And you should remember throughout the trial, ladies and gentlemen, that what the lawyers tell you is not evidence--the evidence is the sworn testimony of the witnesses given under oath from the witness stand subject to cross examination, either by live witnesses or by deposition witnesses that are presented to you as I've already described, as well as any exhibits which the Court has already deemed admissible and admitted into evidence under the rules of evidence. Those are the evidence in this case, and what the lawyers tell you is not evidence in this case.

What the lawyers tell you is their impression of the evidence, and they have a duty to try and point out to you what they believe the evidence will show. And that's what opening statements are about. But remember, what they tell you is not itself evidence.

Now, after the opening statements from Plaintiff and Defendant, we'll proceed with the Plaintiff's case in chief. And as I described before lunch, the Plaintiff will call its witnesses, examine them, and then they'll be cross-examined by Defendants' counsel.

When all the Plaintiff's witnesses are presented, then we'll go to the Defendants' case in chief, and the Defendants' witnesses will be called, examined by Defense counsel, cross-examined by Plaintiff's counsel.

Then when we finish the Defendants' case in chief, we'll determine at that point whether the Plaintiff will or will not call rebuttal witnesses, and we'll go through the same process with the Plaintiff's rebuttal witnesses if the Plaintiff opts to call rebuttal witnesses, which is their option.

After that, you will have heard all the evidence, and after all the evidence is presented, then I will give you detailed instructions on the law that you must apply in deciding the case. These instructions from me to you at that point are generally called the Court's final instructions to the jury, and they're often called the Court's charge to the jury.

After I give you my final instructions on the law, then counsel for the competing parties will present their closing arguments. And after both sides have presented their closing arguments, then I will instruct you to retire to the jury room

and to deliberate on the verdict, and I will send a verdict form with you that contains the questions that you are to answer.

And that, as I will remind you, that's the point in time which you go from being prohibited from discussing anything about the case with each other to being required to discuss the evidence in this case with each other as you work together to reach unanimous decisions about how to answer those questions in the verdict form.

And let me just remind you one more time, as I told you earlier, over the course of this trial none of the people associated with any side of this case are going to engage you in any way. They're not going speak, they're not going to say good morning, they're not going to interact with you. And when that happens, don't feel offended, don't think they're being rude; just simply understand that they are following the Court's instructions, and that's why they're not engaging with you in any way.

All right. We'll now proceed at this juncture, ladies and gentlemen, to hear opening statements from the parties. The Plaintiff may now present its opening statement to the jury.

Counsel, would you like a warning on your time?

MR. SUMMERS: Yes, Your Honor. Five minutes and two minutes, please.

THE COURT: All right. You may proceed with Plaintiff's opening statement.

MR. SUMMERS: Men and women of the jury, good afternoon. On behalf of my team and General Access, I want to start by reiterating how much we appreciate your time here this week. We know that it's a big imposition on your lives, and we really do mean it when we say that we appreciate it.

You know, the right to trial by jury is one of the most fundamental rights afforded to us under the Constitution, and it doesn't just protect criminal defendants. The right to trial by jury ensures that anyone who comes to court, anyone who has to come to court for any reason, can have their case heard on a level playing field.

And, again, just on behalf of General Access and my team, thank you.

Now, like the right to trial by jury, the right -- the patent system is also enshrined in the Constitution, and there's an important reason why it's been part of our system since the country was first founded. You see, the patent system fuels innovation, it creates a powerful incentive for companies to develop new technology, and it also gives companies an incentive to disclose their technology to the world.

You see, when you file for a patent, the patent becomes public, and all the patents that have ever been filed are on

record at the Patent Office and you can search them online. It's one of the greatest repositories of knowledge on earth. And without the patent system, none of that would exist. People would keep their invention secret.

Now, I just want to start by telling you why we're here today. We're here today because Verizon has been infringing two very important patents owned by General Access. They have been using the technology without permission and they've been using the technology without paying for it.

You heard this morning you're going to hear some big numbers. These are not your run-of-the-mill patents. These are fundamental patents that go to the very heart of 5G and mobile hotspots, our smartphones. And we're simply asking you to award a reasonable royalty to General Access for their use of the patented technology.

Now, the first patent at issue in this case is the '931 Patent. It involves beamforming. Beamforming is what allows base stations, cell towers, and 5G networks to send focused beams of energy toward your phone. These base stations don't broadcast the information widely anymore. They send focused beams of energy to your phone. It's absolutely essential to 5G, and it's one of the main things that allows 5G to have the speed that it has. And without it, the coverage of our 5G networks would be much, much smaller.

Now, the evidence will show that Verizon has been using

our technology in over 75,000 base stations across the country. We're talking about every single 5G TDD base station they have basically.

And you've heard that Ericsson is also involved in this case. Ericsson is the principal supplier of equipment for this infringement and this part of Verizon's network, and so they're also on the hook in a way. And you'll hear about that as the trial unfolds.

Now, Verizon is always trying to increase the speed and the coverage and the quality of its 5G network. If you see the commercials, you know that. And there's a reason--because the demand for data is constantly increasing. It's a never-ending race to keep up with the demand for data.

And what the evidence will show is that without the use of the '931 Patent, Verizon would have had to spend $1.7 billion more to have the same network it has today with the '931 Patent.

Now, the second patent-at-issue in this case is the '794. As you heard this morning, it involves mobile hotspots. And I'll go kind of quickly here because it sounds like most of you are familiar with them. But basically a mobile hotspot allows your phone or other device to share its cellular internet connection with other devices like a laptop or a tablet. And the evidence will show that Verizon has sold 94.6 million infringing devices.

Now, these products, the smartphones Verizon sells and its 5G network, these are the lifeblood of its business. Without a first rate 5G network and without first rate smartphones, Verizon's entire business would be in jeopardy. So these are, again, critical patents, not run-of-the-mill patents.

Now, I'd like to tell you a little bit about how these inventions and these patents came to be. Way back in 1999, almost a quarter of a century ago, our inventor, Mr. Paul Struhsaker, had an idea. At the time it was very hard in many places to get internet service. The internet was starting to take off, but if you lived in rural places, oftentimes you couldn't get internet access because it was expensive for the phone companies and the cable companies to put all those wires in the ground, the cable wires or the copper wire to get internet to people's homes.

And Mr. Struhsaker had the idea that we will send the data over the air, we will beam it to people's homes.

Now, he also had another idea. He said, well, once we beam that internet service, once we beam data to people's homes, we can -- with the same basic equipment we can add a WiFi hotspot and we can make sure they have wireless access throughout their homes or their businesses.

You can see that -- these are slides from the time period at issue. And if you look on the bench right over there,

you'll see these weren't just ideas; they built the equipment, they tested the equipment, and you're going to see some of it during the trial. But that is one of the antennas that they developed that would go on the house to receive the beamformed signals.

Now, it's important to remember just how long ago this was. The inventions that Mr. Struhsaker made were complete and the patent applications were filed in 2001--23 years ago. We're talking about the days of the flip phone.

Now, Mr. Struhsaker and his team, he had an entire group of engineers, and he will testify it was one of the most talented groups of people he's ever worked with. And what you'll hear is that they were way ahead of their time. And they developed several groundbreaking inventions, including the two we're talking about here, and they went to the Patent Office and they secured patents, including the two that are at issue in this case, and many more.

Now, let's talk a little bit about how that works. So the process begins with an inventor taking a disclosure of everything he or she has invented and taking that to the Patent Office. That becomes what Chief Judge Gilstrap referred to as the specification of the patent.

So the inventor comes up with his ideas or her ideas, writes them down, figures, drawings. You know, engineers aren't always the best with words. Sometimes they're better

with math and pictures. But they put everything together, and they submit that to the Patent Office.

And after that, the inventor's lawyer typically works with the Patent Office to secure the claims. As Chief Judge Gilstrap explained, at the end of the patent there are the claims that define exactly how we know whether there's infringement or not. You'll be looking at the claims later today. But because those are the legal metes and bounds of the invention, the lawyers work with the Patent Office on that part of the patent.

And this process can take years. The patent examiners oftentimes push back and challenge the patent lawyer to show that what they're asking for in terms of their claims is new, and the inventor's lawyer has an obligation to try to get all the claims that the inventor is entitled to. There can be many inventions or different ideas in what the inventor wrote down, and it's up to the patent lawyer to get those in claims. And that can take years and it's very normal.

Now, when that happens, the patent examiner is in charge of making sure that all of the requirements for a patent have been met. That includes the requirement that the claims be adequately supported by the original disclosure of the inventor. So they look at the claims that are being presented, look at the written disclosure, and confirm that they believe that the inventor had these claims in his mind at

the time of the invention.

And that, of course, happened in this case. You'll hear that three different examiners were involved in issuing these two patents.

Now, after Raze filed for these patents and developed its technology, much of it, they went to the big telecoms and they tried to see if the big telecoms would want to buy this equipment and deploy these types of systems. And the big telecoms were very interested in the technology. Make no mistake.

But as you'll recall, September 11, 2001, occurred, and the trade -- the World Trade Centers came collapsing down. And when that happened, the big telecoms like a lot of other companies just got defensive. Everybody was a little bit nervous about the world, and they stopped spending on new technologies. And Raze didn't have the sort of money it would ever take to go up against the big telecom companies.

So in late 2002 they decided to shut down the business operations of the company. They realized it would be years before the big telecoms would be ready for their technology. They were just too far ahead. They were just ahead of their time and the world wasn't quite ready for their technology.

Now, let's dig deeper -- well, I just want to say one more time. Mr. Hynek is here. He was mentioned in Mr. Dacus' jury selection discussion. Mr. Hynek saw the great potential

of this technology. He believed in it. And from the very first days of Raze, he invested a significant amount of money along with a bunch of other investors. And he never quit, he never gave up, he always believed in this technology. And even when they shut down the business operations, he continued to work to make sure that the technology was protected with the patents you have -- you see here and others.

Now, Mr. Struhsaker realized very early on that to do what he wanted to do, way back in '99, the day of the flip phone, to beam internet to people's homes he would need to use two technologies that had never been used before together in cellular wireless networks. The first technology, you've heard a little bit about it, is beamforming. As I discussed where beamforming, rather than sending a relatively wide transmission covering the whole area that an antenna is directed to, we send a focused beam of energy toward the phone or other device. And what that does is it creates a stronger signal that goes further.

Now, to do that, you need to have a special kind of antenna. We've shown it here. I'm sorry. At the time of Mr. Struhsaker's invention, these antennas weren't even available. He and his team had to go to the antenna manufacturers, present specifications to them, and help them to design these antennas.

And when you drive around now and see these base stations

and the 5G antennas on them, they are everywhere. But they did not exist when Mr. Struhsaker started his work, just to keep things in perspective.

Now, the other technology that he knew they needed to use involved how you communicate in both directions. So with cellular technology, the base station needs to be able to send signals to the phone. Right? If we're talking the base station has to send -- it might be my mom or one of my kids, send this to my phone.

When I speak, the phone has to be able to communicate back up to the base station. And the way it was being done was like this. Generally the carriers at the time were using two separate frequencies, one for the downlink communications from the base station to the phone, and a separate frequency for the uplink communications from the phone to the base station. And that worked great for voice.

But what Mr. Struhsaker realized is that it was not very good for data. To do data properly, to support high data transmission speeds, he realized that we would need to use something called time division duplexing.

Now, let me explain how time division duplexing works. In time division duplexing, we use one frequency. As you'll see on the screen, one frequency is used for the downlink and it's used for the uplink as well.

But it creates a timing issue because if the phone tries

to transmit on the same frequency as the base station at the same time, the signals will interfere with one another. The same antenna that's transmitting is what listens. The same transmitter in your phone that's transmitting listens. And they can't speak and be heard at the same time -- or can't speak and hear at the same time.

So Mr. Struhsaker realized that this problem was even bigger. Now what I'm showing you is what's called a cell. In cellular wireless communications, we have these cell towers you see. They're often referred to as base stations. And they typically transmit into several sectors.

So if you ever looked up, you'll see there's a triangle sometimes and three different antennas or maybe three different pairs of antennas. Maybe somebody else uses a square up there and four antennas. What they do is they take the cell and they divide it into sectors, and each sector gets its own antenna or set of antennas.

Well, obviously, as we'll show here, if one of those antennas tries to transmit down to a phone and the phone tries to transmit up, we will have interference. The power -- what will happen, that base station antenna is very, very, very powerful. Our phones are very, very weak. Any time that base station antenna is transmitting, think of it like a boom box, when it's blasting, it cannot hear the very weak transmissions from our phone.

That's pretty simple, though, what I have on the screen now. Mr. Struhsaker realized the problem was much bigger when we start getting into these complex networks.

If you look at the screen, what he realized is that even if an antenna -- and I'm going to show you the antenna going to sector 3 here -- if an antenna going to one sector transmits in the downlink, while a phone from any other sector is transmitting in the uplink to that same tower, the power of the base station antenna will drown out the weak uplink communications from the phone.

So what Mr. Struhsaker realized is that we needed a timing architecture, a way to orchestrate all of these transmissions. And keep in mind I'm just showing a couple. These base stations are handling, you know, all sorts of devices, lots and lots of devices. It gets very complicated.

So the idea Mr. Struhsaker had, this is the specification of the patent. This is where he was explaining the invention. And this is just one portion. This comes after pages and pages of discussion of these technologies and how they work.

He explains that to prevent interference between different -- I'm sorry, between antennas of different sectors of the same cell site, the present invention uses a highly accurate distributed timing architecture to align the start points of the downlink transmissions and to ensure that none of the uplink transmissions begin until the downlinks have

been completed.

Let me explain. This -- what I'm trying to depict here is the basic -- the concept of the timing architecture of the '931 Patent. And what he decided to do, what his invention was, was to organize all the transmissions by reference to something called a TDD frame. I mentioned time division duplexing? A frame is basically a timetable. It tells everything when certain transmissions can be sent.

And if we look at the frames we've depicted at the top, you'll see that there's a start of the frame and a downlink portion and an uplink portion. And what Mr. Struhsaker came up with was the idea that at the start of the frame, the base station would transmit a broadcast beam signal, it would transmit widely to the whole cell, and that would synchronize all the devices. Think of it as the conductor. He's saying to the orchestra, here we go, boom.

Then in the downlink portion of the frame, all the antennas can transmit to their sectors and they can send data to you or to me, the data going to you is different to the data going to me. There might be separate beams if we're not close together. But the key thing, if you look, is that they're all sent in the same period of time. The downlink portion of the frame is a specified slice of time when all of those transmissions can occur.

And then when the downlink portion of the frame is over,

when it runs out of time, the uplink signals can be sent from the phones to the base station without interference.

And then the cycle repeats. Just to give you some perspective, a typical TDD frame is one/one hundredth of a second. That's how fast this all occurs.

Now, let's turn and talk about how we're going to find out that the Verizon systems infringe the '931 Patent.

During the trial of this case, you'll hear from Dr. Vijay Madisetti.

Doctor Madisetti, could you please stand up?

Doctor Madisetti is a professor at Georgia Tech, and he's an excellent teacher. He's an expert in wireless communication. And Doctor Madisetti is going to go through the claims of the '931 Patent and explain how Verizon infringes. It looks like a lot on the screen. The good news is that there's no dispute as to many of these elements. But he's going to check every box and show you they're all met by their systems. We're going to prove infringement to you.

And when you look at the claims, again, they may look -- they may look complicated. But the question of infringement is really going to turn down to three fairly simple issues. The claims require transmitting that broadcast beam signal to more than one sector and at the start of the frame, and then they require that those beams be sent, those downlink beams, to different sectors in the same downlink portion of the same

TDD frame.

And I've kind of just summarized the claims. He will go through them in much closer detail --

And when we go through the evidence, what you're going to see is that Verizon does all three of those things. First, you're going to see that in Verizon's system, those three antennas are not independent when you see three antennas up there. At the bottom of the tower, there is something called the baseband unit. It's a computer, and it controls all of them.

And what it does is, at the start of the frame it transmits from all of them a synchronization signal block, and it does exactly what the '931 Patent requires. It is the broadcast beam signal of the '931 Patent that synchronizes everything on the network.

And you'll see that Verizon witnesses -- this is Mr. Jager. He will testify by videotaped deposition. He admits that it's transmitted at the start of the frame, and you'll see that he admits that, after that, they use beamform signals to transmit user data. And you'll see that Verizon's witnesses admit that when those beamform signals are sent later, they are sent using what's called the same system frame number.

Let me explain. Verizon assigns a system frame number to every frame. And when transmissions occur, they're all

organized around that system frame number. The broadcast beam goes out in system frame number 0, and then all the downlinks go out in system frame number 0--again, in the same downlink portion of the same TDD frame. And then we have the uplinks. And this process repeats, and the system frame number goes up one at a time until it resets.

Now, let's talk a little bit about how Verizon infringes the '794 Patent. Again, mobile hotspots. And what I want you to understand is that before the '794 Patent, wireless routers existed. The difference is you had to plug them into the cable line or to the telephone system. Recall that you had to get a DSL line or maybe a cable modem, but WiFi routers existed. But there was only one wireless transceiver in the device. It created a WiFi signal around the house, but otherwise it was connected by cables to the internet.

Mr. Struhsaker's idea was to eliminate the wires, to make the device wireless on both sides. And the way he did that was to include two transceivers in the device. A transceiver is something that sends and receives. They're often called radios. So according to the '794 Patent, there is a first transceiver that communicates with the base station, the cellular base station, and there is a second transceiver that communicates to the other devices using WiFi.

And, again, Doctor Madisetti will go through the claims of the '794 Patent and explain how they are all satisfied.

Now, I want to pause for a minute and tell you what you should expect to hear from the Defendants when they stand up. There's one thing you won't hear. You will not hear that anyone else came up with these ideas, with these inventions, before Mr. Struhsaker. There's no -- that's not an issue in this case, period.

But you will hear a lot of other arguments, and Mr. Dacus previewed some of them for you. First, they are going to deny that they infringe. Mr. Krevitt will stand up after me and he will say that they do not infringe with all the conviction in the world just like Mr. Dacus did earlier. But when you see the evidence, the actual evidence, it is going to prove infringement.

Now, the only thing -- we've already talked about infringement. There's only one thing I want to add. When you come through that door to serve as jurors, you do not leave your common sense behind. When you sit here and listen to the evidence and the Defendants are trying to argue that they don't infringe, apply your common sense and ask, are they really showing me that their system works differently or is something else going on?

And look at the language of the claims, look at the Court's claim constructions, but make sure they're doing the right analysis and not sending you somewhere else.

Now, after they deny that they infringe, the Defendants

are going to say, well, even if we infringe, the patents are invalid. You heard about that this morning. And they're basically going to say the Patent Office just got it wrong when it approved these two patents. And they're not going to say that one of them is invalid. They're going to say both, that both of these patents were invalid, and that all three of the examiners that were involved in approving them got it wrong.

THE COURT: You have five minutes remaining.

MR. SUMMERS: Thank you, Your Honor.

Now, when you hear that evidence, please remember Judge Gilstrap's instruction to you this morning about the burden of proof. There is a presumption of validity, as he explained. The reason there is a presumption of validity is because the Patent Office already determined that the written description and enablement requirements and all the other requirements for patentability had been satisfied. That's why they have the burden of proving invalidity now by clear and convincing evidence.

And Mr. Dacus said that you're going to hear evidence that wasn't before the examiners. To be clear, when you're instructed at the end of this trial, I believe Judge Gilstrap is going to tell you that in determining whether the written description requirement is met, you compare the specification of the patent to the claims, not to timelines of events that

occurred years ago and other strange things. So when you hear the evidence, please be on the lookout for diversions.

Now, I don't know exactly what the Defendants are going to try to argue, but I do think they're going to make a big deal of the timing, and they're going to go back and try to make some hay out of the fact that it took years for these patents to issue. But, again, as I explained before, it's normal for there to be back and forth, examiners to push back, and the inventor's lawyers to present new claims or amended claims, and that's just part of the process.

So if you hear them talking about the timing of this and that and the prosecution, a big red flag should go up and ask yourself, what's this all about? Am I really being shown the specification and told whether or not the claims are supported or is something else going on here?

Now, I also want you to keep in mind, please, that in deciding this question of written description enablement, what Mr. Struhsaker had to disclose were his -- were his inventions. If you start hearing about other problems, things other than the timing architecture of the '931 Patent, a second red flag should go up and ask yourself, what's going on here?

And I think you'll see that when these base stations are transmitting, it doesn't matter whether they're sending the transmission to a big antenna on the side of a house or your

phone. The base stations work in exactly the same way, the communications are organized the same way, the base station doesn't even know that it's this or that.

Now, I'd like to turn to the question of damages. Again, you're going to hear some big numbers, but the numbers are big only because of the magnitude of Verizon's infringement.

THE COURT: You have two minutes remaining.

MR. SUMMERS: Thank you, Your Honor.

The law of patent damages, the statute that governs, makes clear that if you find infringement, you're to award a reasonable royalty no less than -- I'm sorry, no less than a reasonable royalty for the use made of the invention by the infringer. So the focus of the law is on their use of our invention and how much it benefits them.

And what you'll see, as I discussed before from Doctor Madisetti, you will see that beamforming in accordance with this invention increases the speed, coverage, and quality of their 5G network and that it basically improves the throughput of their network by 32 percent. Imagine an invention that made their 5G network a third better, a third more powerful.

Now, Mr. Kennedy is here. He is an expert in patent licensing.

Please stand up, Mr. Kennedy.

He's a certified public accountant. Mr. Kennedy is going to explain to you that Verizon's infringement of the '931

Patent, if it weren't for that infringement, they'd have to build out 32 percent more base stations across the country at a cost of roughly $1.7 billion. And he'll explain that the reasonable royalty for that is about $583 million, about 35 percent.

And he'll also tell you and explain in detail that their infringement of the '794 Patent has benefited Verizon to the tune of about $3 billion, and that a reasonable royalty for that infringement is $264 million, 2.79 per device.

Men and women of the jury, I thank you for your time and attention. Chief Judge Gilstrap runs a tight ship here, and I am about out of time. I just want to say in conclusion, at the end of this case the Court will require you to render a verdict on three issues--infringement, validity, and damages.

As this trial unfolds, keep your eye on the ball. If you start hearing about the company failing and Mr. Struhsaker not being part of it anymore, or mobile versus fixed, ask yourself --

THE COURT: Counsel, time has expired.

MR. SUMMERS: Thank you, Your Honor.

Ask yourself, what's going on? Are you being asked to decide -- to focus on evidence that matters or not?

Thank you, Your Honor.

THE COURT: All right. Defendants may now present their opening statement to the jury.

Would you like a warning on your time, Mr. Krevitt?

MR. KREVITT: Yes, Your Honor. Five minutes, please.

THE COURT: All right. I'll warn you at five minutes remaining. You may proceed with your opening statement.

MR. KREVITT: Thank you, Your Honor.

Good afternoon, ladies and gentlemen. It's a pleasure to be here. My name is Josh Krevitt, and I am proud to be here along with all of my colleagues. You already met Mr. Dacus, of course, representing Verizon.

As you heard, General Access is asserting two patents in this case. Told you that those patents are used in Verizon's 5G network. As you'll see, as the actual evidence will show, as the documents, as the testimony, as the evidence will show, that isn't true. Verizon hasn't used either one of these patents, not in its 5G network, not anywhere else, and General Access knows it.

These patents are from 25 years ago, years before iPhones, Facebook, YouTube, before you could send an email to a mobile phone, let alone stream a movie racing down the highway. These patents weren't designed for a mobile network, and they have absolutely nothing to do with how 5G, the most powerful sophisticated mobile technology ever, works.

You'll see that, the evidence will show it, and I'm going

to address in a moment some of what you heard from Mr. Summers. I do want to start as everyone has by thanking you for your service and your attention.

It's -- what we want you to do more than anything is focus on the evidence. I've said that now probably three times because the evidence, when you look at it, when you compare it to the claims, when you look at what our product does, our network does, you will see there is no infringement.

This case is important to Verizon, not just because the damages ask is high, but because Verizon, the men and women of that company, have been accused of infringing patents in connection with a network that they have spent decades, decades, developing. Verizon is very proud of its 5G network, very proud of its people who spent years working so hard to develop it. It is a massive, incredibly sophisticated collection of literally millions of components all working seamlessly, all designed to improve mobile communications, all cutting edge and different and new, and bears no resemblance to what existed 25 years ago.

You'll have an opportunity to hear from people from Verizon. You'll have an opportunity to meet Steven Rice. He's the head of network planning for the whole network. David Wolff is sitting there, hopefully standing soon.

Thank you.

You'll have an opportunity to meet David Wolff as well.

They're going to tell you under oath what the network does, how the network actually works. And when they do, and when you hear them, you will see that it is different from what you just heard from Mr. Summers; it is different from what is claimed in these patents.

You'll also have an opportunity to hear from Ericsson. Sebastian Faxer is here. Ericsson supplies equipment to Verizon that's used in its 5G network. You see some of that here on the screen. And it is that equipment that General Access has accused of using its patents.

It's not true, Sebastian Faxer knows its products inside and out, he's going to testify under oath and tell you what those products really do.

You'll also hear Mr. Struhsaker about whom you heard a lot already, the inventor on these patents. And let me be clear: Mr. Struhsaker, the inventor, is not saying that Verizon infringes. He's not saying that Verizon has ever used these patents. He's not part of Raze, hasn't been part of Raze for a quarter of a century. Raze went out of business, and he didn't decide to bring this case, and he wouldn't get anything from it. No one from Raze would get anything from this case. This -- there's only one entity that is saying that Verizon infringes. That is General Access, controlled by one man--Skip Hynek.

General Access is the only one that has ever accused

Verizon of infringing these patents. And what you will hear is Skip Hynek invested some money. When Raze went under, Mr. Hynek got everything including the patents.

But just because you have a patent doesn't mean somebody is using it, doesn't mean it's fair or right or appropriate to go after a big company with deep pockets just because you have a patent, a patent that -- that company has never used.

It's not fair as I said, it's not right, but it's exactly what's happening here. And let me explain why. As you will see, as the evidence will show, these patents weren't designed for a mobile network and they have nothing to do with a mobile network. These patents were designed for and teach how to operate in what's called a fixed network, a fixed wireless network.

If you go to the next slide.

That is where you would have big antennas like this bolted to buildings. You see that right here in figure 1, antennas at the top of houses. This is right out of the '931 Patent. This is what the patent teaches. Big antennas that don't move, bolted to houses.

If you go to the next slide, you see this is in the other patent, this is in the '794, same thing, big antennas bolted to houses. That's all Raze was doing. That's what the patents disclose. You see that here.

And that, as I said, is all that Raze worked on. Raze

never touched mobile, never worked on mobile. In fact, its own documents, if we go through this quickly, show that it was -- its mission was to be the dominant supplier of fixed broadband.

If you go to the next slide to where -- it's a few down, Mr. Eaton. The next one, please.

It's the SkyFire system. This is the Raze system, is purely a fixed broadband wireless access system, purely fixed. It does not support mobility. Raze never did a single thing with mobility. And this was the basis of the patents. No dispute about that.

A mobile network is entirely different. In Verizon's 5G network developed over the last two decades, you can do things that weren't dreamed of just five years ago. In a mobile network, in Verizon's 5G mobile network, we send beams now to you as you walk down the street, go in and out of buildings, as you race down a highway, as you duck around corners. The system, this is amazing to me anyway, the system bounces beams off buildings so when you duck around a corner it bounces beams off buildings to connect to you.

The notion, as Mr. Summers said, and held this up and said, well, this is no different than this, that's what he said, and your common sense which you bring with you obviously here tells you that's not true; entirely different technology. It was so difficult, it was so incredibly complex that it took

hundreds of companies to figure out how to do beamforming in mobile in 5G. Hundreds of companies spent over a decade developing beamforming in 5G. These are some of the companies, Verizon, Ericsson, many others, all came together for years to figure out how to do beamforming in mobile.

And what you will see is there is over a hundred thousand patents on 5G alone. Verizon has 5G patents, Ericsson has 5G patents. Raze didn't participate in any of that, and that's the problem with this case.

General Access is here now in this courtroom to you trying to take credit for all the work by all these companies for all those years. It's actually telling you General Access -- Mr. Hynek is actually telling you that Raze invented how to do beamforming in a mobile network. Even though Raze only worked in a fixed network, even though Raze couldn't get a product to work in a fixed network as you'll hear, even though Raze never did a single thing in mobile ever and its own documents say that it didn't support mobility, even though hundreds of companies spent years figuring out actually how to do beamforming in mobile, General Access now comes out of the woodwork and says, well, actually Raze figured that all out decades ago. Don't worry about it, Raze invented beamforming in mobile. There is no evidence of that because it is not true.

And keep this in mind. Raze never said that. Raze never

said at the time when it was in business, oh, boy, we invented beamforming in mobile. The first time was from General Access when General Access is the party that is trying to say that Raze deserves credit for doing what Raze at the time never even said it did. There is no evidence whatsoever that Raze invented beamforming in mobile. That will be clear to you.

And that's what's going on in this case. General Access is seeking to take credit for that so that it can ask you for hundreds of millions of dollars.

Mr. Summers said that a Mr. Hynek and a group of other investors invested in Raze. Do you remember when he said that? That's actually not true. There is only one group that has ever invested in Raze ever, and that is the group that Mr. Hynek controls. And it is that group that Mr. Hynek controls that would get every single penny of the 800-and-something million dollars that is being requested in this case.

And there's something else that counsel didn't mention, something critical about these patents. Counsel stood at this podium and told you that Raze has groundbreaking ideas. Remember? And it was ahead of its time and they got patents and they held up the patents.

But that's not true. That's not what happened. Raze thought it had ideas, Raze may have thought it had ideas that it could patent and it did try to get patents, but the ideas that Raze had were not new. They couldn't get patents on

that. They applied for patents on the way they were doing beamforming, the way they were doing hotspots.

But guess what? The Patent Office said, sorry, you can't have these patents. They're not new. Everything you've put in these patents is old. Mr. Summers didn't mention that. It's incredible. Because what happened next is critical, not because of a long period of time. I don't know what he was talking about with that.

What happened next, if you go, is they applied for a patent in September 2001. The patents were rejected in 2006. The point is not that that was five years or five months or 50 years. The point is what happened in between that time. Raze went under. Mr. Struhsaker left. He was gone, not involved anymore.

General Access had the patents. Mr. Hynek had the patent applications that had been rejected, and Mr. Hynek wanted patents. So Mr. Hynek hired some patent lawyers, and they went to the Patent Office and tried to make changes. Mr. Summers told you that all you do is supply some information.

That's not true. When you apply for a patent, you propose claims. Mr. Struhsaker proposed claims. They were all rejected. And then Mr. Hynek hired some lawyers and the lawyers, not Raze, not Mr. Struhsaker, the lawyers changed the claims. They added all sorts of new requirements. They even added brand new claims. Those are the claims at issue in this

case.

Now, you're allowed to do that. You can come along later and try to change the claims, but there are consequences. You're stuck with the claims that you ultimately get. This is absolutely critical, and Mr. Summers mentioned none of it. Because while General Access is here asking for hundreds of millions of dollars and telling you that Raze came up with new ways to do beamforming and hotspots and got patents on that, that's not true.

The truth is what Raze actually thought of, what it actually put in its patents, the Patent Office said was old, can't get patents on that. And the patents that General Access did get --

If we could go to the amendments.

-- if you look, these show the changes that General Access' lawyers made. Mr. Hynek's lawyers made these changes. These are now requirements -- if you go to the claims, these are now requirements in the claims. And as you will see, these requirements that I have put in yellow on the right, that's the actual claim, and on the left is the amendment. Everything underlined is what the lawyers submitted. It shows what's changed.

What you will see is Verizon doesn't do these -- these requirements. These requirements that not Raze put in the patent, not Mr. Struhsaker, but Mr. Hynek's lawyers years

later, requirements in the patent that Verizon doesn't do.

Now, we're going to look at the patents in a second, and I just want to introduce someone because you'll have an opportunity to hear from him. He's going to talk to you all about the patents and why Verizon does not infringe and the patents are invalid. His name is Dr. Jeffrey Andrews who's here.

Dr. Jeffrey Andrews is from the University of Texas at Austin. At the risk of making him blush, he is a world renowned scholar in mobile communications and networking. That's all he does. He is true rock star in the field. He is the leading scholar in mobile communications and networks. I'm as proud of him as -- as his mother would be.

He wrote this paper on 5G. This paper has been cited 10,000 times. It is the most widely cited, that means other people are saying, oh, wow, that's cool, let me cite that, the most widely cited paper on 5G ever written by anyone at any time. He's in the courtroom. You'll have an opportunity to hear from him. He will explain why Verizon doesn't infringe and the patents are invalid.

So now let's look at that because I've been doing this a long time and I don't think I have ever seen a Plaintiff --

MR. SUMMERS: Your Honor, objection; vouching.

THE COURT: Approach the bench, counsel.

(The following was had outside the hearing of the

jury.)

THE COURT: What's your objection?

MR. SUMMERS: He's vouching for the evidence. He said he's been practicing a long time, and he's never seen such evidence. That's vouching. It's improper.

MR. KREVITT: That's not what I said, Your Honor, and that's not what I intended to say.

THE COURT: Well, this is pretty close to opening argument instead of opening statement. And also, I mean, you did everything but call the Plaintiff a troll. I mean, they snapped up these patent applications that were dead on the vine and this one guy is trying to milk us for money. I mean --

MR. KREVITT: Your Honor, that's certainly not my intention.

THE COURT: That's the way it came across.

MR. KREVITT: Okay. That was not my intention.

THE COURT: We need to cool the temperature in front of the jury a little bit.

MR. KREVITT: Yes. Thank you, Your Honor.

THE COURT: Let's proceed.

(The following was had in the presence and hearing of the jury.)

THE COURT: Let's continue, please.

MR. KREVITT: Thank you, Your Honor.

So as I was saying, let's look at the patents and what you will see is, rather than actual evidence, Mr. Summers did not show you any actual evidence, he showed you a slide presentation.

Verizon produced in this case 2 million pages of documents, everything about our network, everything about Ericsson's network. They deposed Steven Rice. They deposed David Wolff. They deposed everyone, everything about our network they know, they have in documents and they have in testimony, and the reason is we do not do what these claims require.

So let's look at the '931. Very quickly, the '931, if we go to the elements, I'm going to focus on the elements that Mr. Summers focused on.

If you'll go to the next slide. Go to the slide with the elements, please.

There are two elements, and they are these: Broadcast beam signal must go to multiple sectors. In order to infringe, they must show you a broadcast beam signal that goes to multiple sectors. They also must show you one TDD frame, and we'll talk about what that is, that goes to multiple sectors.

The point is you're going to hear lots about what an SSB is, that's what they allege is the broadcast beam signal, you're going to hear a lot about what a TDD frame is, but the

thing for you to understand, and it's actually pretty straightforward, is they need to show that in our system, the broadcast beam signal doesn't go to one sector, it goes to more than one sector, and that the TDD frame, whatever that is, doesn't go to just one sector, it goes to more than one sector. They can't prove it because it's not true.

If we go on, you'll see that sectors -- this is a cell tower, and cell towers are divided into sectors. You heard that. And in the Verizon network --

No, I'd like to just show right here the -- in the Verizon network. Sorry about that, Mr. Eaton.

In the Verizon network, sectors are independent. This is the key take-away from what I am saying on the '931 Patent. Sectors are independent. Nothing sent in one sector is sent in another sector, and that's by design. You'll hear Mr. Rice, Mr. Wolff, and others talk about that. Nothing sent by an antenna to devices in one sector is ever sent to devices in another sector. They are completely independent.

And so the requirement is that you have a broadcast beam signal that goes to more than one sector. General Access told you that the broadcast beam signal is an SSB. So, again, you'll hear more about that. But the thing to take away from this is in order to prove infringement, they need to show that an SSB, one SSB, whatever that is, and we'll talk about what that is, goes to more than one sector. They will not be able

to show that because it doesn't happen. Our sectors are independent.

The SSB is actually the thing that tells the devices at each sector what sector they're in. So an SSB in sector 1 says, hey, you're in sector 1, and an SSB in sector 2 says, you're in sector 2. They never go to devices in different sectors ever. Two million pages of documents we have produced, and they will not be able to show you--think about this--a single document that says we have an SSB that goes to more than one sector. If they had it, they'd show it because they're trying to prove infringement. So this is what we mean when I say pay attention to the evidence.

Doctor Madisetti is going to testify today. He's going to talk for a long time, I suspect. It's going to be very complicated. There's going to be lots of documents. But what will he not show you? I predict that he will not show you a single document that ever states or ever shows one SSB going to more than one sector. So we don't infringe.

It's the same thing with the TDD frame. The TDD frames are the things that take information back and forth between the cell tower and the devices. Again, you'll hear lots more about it, but for now what you need to know is the claim requires one TDD frame take beams to more than one sector. It's actually a straightforward requirement: One TDD frame takes information to more than one sector.

Doctor Madisetti will testify. He's going to tell you we do that in our system. What will you not see? You will not see a single document, nothing, Doctor Madisetti will be able to show you that actually shows a TDD frame that goes to multiple sectors. They are asking for almost a billion dollars. If they had a document that actually showed that we do what the claims say, you could be sure they would show you. You could be sure that Doctor Madisetti -- would be the first thing he showed you or at least somewhere in the presentation. It won't be. It doesn't exist. We don't send an SSB to more than one sector. That's one claim requirement. We don't do that. We don't send a TDD frame to more than one sector ever.

In fact, you'll hear from Mr. Rice, you'll hear from Mr. Wolff, that our system is designed explicitly not to do that. Our system wouldn't work if we tried to do that. Our system would break. So they need to prove, as you know, that we'd send these things to the multiple sectors. Please pay attention to that.

And if I could suggest what maybe you can be thinking while you listen to the evidence is show me. They have to prove that an SSB goes to more than one sector. So show me. Show me a document. Show me something. You're asking for hundreds of millions of dollars. They have to show that a TDD frame goes to more than one sector. Show me. Where is that?

They can't, it never happens, we don't infringe. That's

the '931 Patent. And that's why the issues are going to sound very complicated but are actually rather straightforward.

I now want to talk about validity briefly. The '931 Patent is invalid for two reasons. It's called written description and enablement. Very quickly on those.

What written description, and you heard Chief Judge Gilstrap discuss it, is essentially it's the requirement that everything that winds up in the final claims, the inventor actually invented, the inventor, Mr. Struhsaker in this case, actually thought of.

So in a situation like this where the claims were changed later, the question for you-all is, were the changes that were made that General Access' lawyers made, are those in the original application? That's the question.

And this shows -- if we go to -- these are the -- if you go back, Mr. Eaton.

These are the limitations that General Access added. These are the two requirements that we just discussed--a broadcast beam signal going to more than one sector, a TDD frame going to more than one sector. These are the requirements. And so the question for you will be, are these requirements anywhere in that patent? If they were, Doctor Madisetti would be able to say, yes, look at column -- excuse me, column X and line Y; sure, it's there.

You can read. He'd be able to show you. Every other

requirement in this claim is in plain English in black and white, easy to see. So he's going to sit there. And I would suggest you think, show me where are these elements in the specification, in the patent. He can't. It's not his fault they are not there.

So pay close attention to what he points to, because he'll point to some stuff and ask yourself, is what he is pointing to a broadcast beam signal going to more than one sector? That's the requirement, a broadcast beam signal going to more than one sector? Is it a TDD frame going to more than one sector? Hundreds of millions of dollars. If it were there, they would show you. They can't. Those requirements are not in the patent.

And the -- and that makes the patent invalid. It's the flip side of what General Access did. They added requirements after Mr. Struhsaker left, and we don't do those requirements. And they added requirements that Mr. Struhsaker didn't include in his patent, so the patent is invalid. You're not allowed to do that. You're not allowed to add material that wasn't in the original application the inventor didn't think of himself. So that's why the patent is invalid for lack of written description.

The patent is also invalid for something called enablement. So what enablement means is that a patent is a bargain. In exchange for getting a patent, you have to teach

the world how to do the patent. You have to teach the world how to practice what's in the claims. And here, as you know, they are alleging that our mobile network infringes. The patent -- the claims and the patent must teach someone how to do beamforming in a mobile network.

That's the question for you-all. Does this patent written 25 years ago regarding a fixed network that doesn't say a word about mobile actually teach someone to do beamforming in a mobile network? Here I respectfully submit that will be easy for you. Again, Raze wasn't working in fixed. The patent doesn't say a single word about mobility, not a word. It is 30 columns, 15,000 words, and not a word about mobile, let alone how to do beamforming in a mobile network.

And, again, that was so difficult, so complicated that, as I said, hundreds of companies spent years trying to figure that out, decades trying to figure out how to do beamforming in a mobile network.

This is what the rudimentary look of what beamforming in a mobile network looks like. If you go back to figure 1, this is what was disclosed in the patent. And by the way, on the right are fixed beams. That's right out of the patent. You are shooting and aiming a beam at this thing that does not move. The notion that this which you see on your screen could possibly teach someone to do this we submit is -- is -- we

submit that it would not teach that at all.

THE COURT: You have five minutes remaining, counsel.

MR. KREVITT: Thank you, Your Honor.

And, again, show me. There is so much involved in beamforming in a mobile network. There is so many complications. Doctor Andrews is going to discuss them. He could spend the rest of our lives talking about the complications. So show me where in the patent does it teach about doing beamforming in mobile. Where? It doesn't, so the patent is invalid for that reason.

It's much the same for the '794 patent. General Access added requirements. Those requirements were not in the original application. Those requirements make the patent invalid for that same reason, and Verizon does not do what these requirements say. You'll hear Doctor Andrews talk about that, and he'll explain why that patent also is not infringed and it's invalid.

Now, I want to just say one word now that we've talked about the patents about damages and the request for a ton of money in this case. Normally in a case like this I wouldn't because when the patents are not infringed and the claims are invalid, you never get there, and that's what we hope and -- well, hope that we'll be in this situation, that you'll never get there.

But this case is different because what General Access is saying to you is so contrary to the actual evidence, that I want to point that out, and that's how they get to numbers along the lines they do.

And I want to just address one thing. Mr. Summers said that this patent increased our ability by 32 percent. That argument is based on a single factual claim. It's knowable, it's factual, it's up to you to decide, and that claim is that Verizon's network 5G network is at capacity or close to capacity.

There is no dispute in this case that if Verizon's 5G network is not at capacity or close to capacity as General Access alleges, their entire theory of damages for the '931 Patent goes away. Hundreds of millions of dollars, hundreds of millions of dollars turns on that one factual claim--is Verizon's 5G mobile network at capacity or close to capacity?

And it isn't, and you're going to hear from the people who know, the people whose job it is to know. You won't see a single document in this case, not one document, Mr. Summers didn't show you any and I'm telling you you will not see one that says that Verizon's 5G network is at capacity because it isn't and has never been at capacity, not close.

And the reason that General Access has to rely on a single factual premise that is not true is because there's no other way possibly to concoct a claim that gets you to the

numbers that they are asking you to award for these old patents.

So that's it for me for now. What I would ask you is to focus on the evidence throughout, as I said, and rely on your common sense. More than anything, rely on your common sense. And when you do, you will see that Verizon does not infringe either one of these patents, both patents are invalid, Verizon doesn't owe anything, and we appreciate your time and your service very, very much.

Thank you.

Thank you, Your Honor.

THE COURT: Counsel, does either party wish to invoke the Rule?

MR. KREVITT: Yes, Your Honor.

THE COURT: Then do I understand the Rule to be invoked in this case would exclude expert witnesses?

MR. KREVITT: No, Your Honor.

MR. DACUS: It will exclude expert witnesses. They are allowed to stay.

THE COURT: Okay.

MR. KREVITT: I misunderstood the framing of the question, Your Honor. Yes.

THE COURT: All right. The Rule has been invoked excluding expert witnesses. That means if you are a fact witness in this case, not an expert witness but a fact

witness, then you're required to remain outside the courtroom until you're called to testify and otherwise you're to be outside of the courtroom.

So I will count on both sides to monitor those persons in the gallery. If there's anybody that's not in compliance with this, please let me know.

But if you are a fact witness in this trial, you should excuse yourself until you are called to testify.

All right. Plaintiff, are you prepared to call your first witness?

MR. KNOBLOCH: Yes, Your Honor.

THE COURT: Call your first witness.

MR. KNOBLOCH: The Plaintiff calls Paul Struhsaker.

THE COURT: All right. Bring in the witness; we'll have him sworn.

If you'll come forward, sir, and be sworn.

(Whereupon, the oath was administered by the Clerk.)

THE COURT: Please come around, Mr. Struhsaker, and have a seat here on the witness stand.

MS. FAIR: Your Honor, may I approach the witness?

THE COURT: You may distribute binders.

All right, counsel. You may proceed with direct examination.

MR. KNOBLOCH: Thank you, Your Honor.

PAUL STRUHSAKER,

having been duly sworn, testified under oath as follows:

DIRECT EXAMINATION

BY MR. KNOBLOCH:

Q. Good afternoon, Mr. Struhsaker.

A. Good afternoon.

Q. Can you please introduce yourself to the jury?

A. I am Paul Struhsaker.

Q. Mr. Struhsaker, what is your connection to this case?

A. I am the inventor of the patents in question.

Q. Before we talk about the patents, I'd like to talk a little bit about you. Where do you live?

A. I live in Lago Vista. It's northwest of Austin in the hill country.

Q. How long have you lived in Texas?

A. Thirty years.

Q. Can you tell the jury a little bit about your family?

A. I have a wife I've been married to for 30 years since I've been in Texas, and two grown children who also live in Texas.

Q. Now, Mr. Struhsaker, as the inventor, are you planning to testify about Verizon's infringement in this case?

A. No.

Q. Why not?

A. Infringement is a very complicated subject, and it involves having access to quite a bit of data that I have not

been privy to.

Q. Mr. Struhsaker, have you had access to the Verizon and Ericsson confidential documents that the experts in this case are going to testify about later?

A. No, I've had no access to that.

Q. Can you tell the jury a little bit more about your background? Where did you go to school?

A. I went to undergraduate at the University of Akron in Ohio.

Q. What did you study there?

A. Electrical engineering.

Q. Did you graduate from the University of Akron?

A. I did, sum cum laude.

Q. What did you do after you graduated from the University of Akron?

A. I went to work for the National Security Agency of the United States, premier electronic intelligence agency of the world.

Q. Why did you decide to work for the NSA?

A. I didn't decide; the NSA recruited me while I was in college.

THE COURT: Let me stop. Mr. Struhsaker, pull the microphone just a little bit closer to you.

THE WITNESS: Okay. Sorry.

THE COURT: Thank you, sir.

Go ahead, counsel.

Q. (BY MR. KNOBLOCH) Mr. Struhsaker, what year were you recruited to work for the NSA?

A. 1981.

Q. Was there a particular focus for the NSA's work at that time?

A. Yes. It was the height of the Cold War, and we were fighting a pitched battle in electronic intelligence with the Soviet Union.

Q. Mr. Struhsaker, did you pursue any advanced degrees besides the Bachelor's degree you mentioned from the University of Akron?

A. I did.

Q. Can you tell the jury a little bit about that?

A. I pursued a Master's of electrical engineering at Johns Hopkins.

Q. Did you graduate with a Master's degree from Johns Hopkins?

A. I did, with honors.

Q. Did you also work towards a Ph.D.?

A. I did work towards a Ph.D.

Q. Did you obtain a Ph.D.?

A. I did not.

Q. Why not?

A. Because I worked at the NSA, my Ph.D. thesis had to be

reviewed by what's security group. They deemed it classified, and so it was pulled.

Q. So now I understand obviously you can't discuss all the details of your Ph.D. project here today, but can you tell the jury just at a very high level what sort of technology your Ph.D. project related to?

A. It involved beamforming.

Q. We've heard a little bit about beamforming already. Can you in your own words describe what beamforming is?

A. I think that one of the great analogies used for the jury and for everyone here is that beamforming is a lot like doing -- using different light bulbs. Imagine you have a floodlight, it would cover everybody in this sector of the room. But if you had a flashlight, especially one of the new LED ones, I could point it directly at you or you or you.

So the idea is you're focusing energy. It's very complex, all the math and the electronics involved with it, but the idea is really to focus energy and to beam it to the person or residence that you'd like it to be at.

Q. Mr. Struhsaker, was there a particular teacher that you worked with towards your Ph.D.?

A. Yes. I worked with Dr. Merrill Skolnik. He was the director of research at the Naval Research Lab in Washington, D.C.

Q. Is Doctor Skolnik most well known for developing any

particular technology?
A. Doctor Skolnik is known as the father of the adaptive beamforming radar.
Q. Was the adaptive beamforming radar that Doctor Skolnik was the father of used in any actual products in the field?
A. Yes. The SPY-1 radar was the original fire control radar that has been deployed on every major United States warship, and variations of it are deployed today in the Aegis defense system.
Q. Mr. Struhsaker, did you prepare some slides to help illustrate this system you just mentioned?
A. Yes, I did.
Q. And what do we see here?
A. That's a Ticonderoga class guided missile cruiser.
Q. Does this Ticonderoga cruiser -- I'm sorry if I mispronounced it; it's a mouthful -- did it use beamforming?
A. Yes, it did.
Q. And what do you have highlighted here?
A. That's an array of hundreds to thousands of antenna elements to create a beamforming signal for radar.
Q. And what do you illustrate here?
A. Just that it can form a beam that scans in real time. Obviously it would lock onto a target, use identify friend-foe, and determine whether a missile should be launched to destroy the target.

Q. On the red beamforming antenna here, you drew some white objects. What are those?
A. Those are the antenna elements that you combined together to form the beam.
Q. Now, Mr. Struhsaker, how long did you work at the NSA?
A. I worked with the NSA for about a decade.
Q. And what did you do after that?
A. With the Cold War ending, I got an opportunity to work for a start-up.
Q. And what was your role at the start-up?
A. I was the chief scientist -- what you would call chief technology officer today.
Q. What was the name of this company that you helped start?
A. AeroNet Wireless Communications.
Q. What did you build there?
A. AeroNet was a WiFi company, one of the very early WiFi companies, and it built not just access points but it built networks of WiFi access points, and it had mobility between access points. Mobile WiFi.
Q. Was the mobile WiFi that you helped develop at AeroNet actually deployed anywhere?
A. Yes. It was deployed in a number of locations.
Q. Can you describe some of those locations?
A. Every Walmart has an AeroNet system in it. Hertz Rent-a-Cars and Avis Rent-a-Cars would have them. The company

expanded into the UK and Europe, Tesco, a large grocery store. And then we went on to supply products around the world.

Q. How do companies like Walmart and Hertz use the mobile WiFi system that you helped develop at AeroNet?

A. At the time they did a lot of inventory control, and so they would use laser scanners. You've seen them at the store. You use them today. Those used to just store information for a day, and if the battery died, they lost all their information for the day. So it was kind of a game changer as a -- as a technology, and then it went on from there.

Q. While you worked at AeroNet, did you also have any role in establishing how WiFi generally was going to work?

A. Yes. I was co-chair of the international standards body that created the WiFi standards.

Q. What are standards?

A. Standards are agreements between industry members, a set of rules and procedures that allow all their products to work together.

Q. How did you become the co-chair of the WiFi standards?

A. You're voted as the co-chair and nominated by your peers, so it's by popular vote of the technology community.

Q. What happened with AeroNet?

A. AeroNet was very successful. We went public, and within months of going public, we were acquired by Cisco Systems for roughly a billion dollars.

Q. Did you continue working for AeroNet after it was acquired by Cisco?
A. No, I didn't. I had a new opportunity I wanted to pursue, and I went to a company called Airspan.
Q. And what did you do at Airspan?
A. Airspan was developing a very early version of broadband wireless. You probably wouldn't called it broadband wireless today, but it was one of the first cellular broadband wireless companies to be formed.
Q. Was Airspan successful in developing high speed cellular broadband systems?
A. It was. And it deployed through British telecom, all throughout Scotland, and rural Wales and the Midlands, and it really was the first kind of product to serve the underserved, people who didn't have good connections.
Q. Do you still work at Airspan?
A. I do not.
Q. Why not?
A. Since all of our products were going for sale in Europe, they decided to consolidate the company into -- out of London. And my family was very happy in Texas, and we just didn't want to move. And, in fact, my wife insisted.
Q. So what did you do after you left Airspan?
A. That's when I went on to form a company called Westend Broadband.

Q. Who did you start that company with?
A. I started Westend Broadband with Kirk Griffin. He is an associate that worked with me at the National Security Agency, and Michael Eckert who was a very gifted radio engineer at Motorola.
Q. Why did you want to start a new company?
A. Well, the roll-out of DSL and cable were happening about that time. But there was a persistent lack of coverage in at least 40 percent of the United States, and it was mostly in small towns and rural areas that weren't being covered. So my thought was, as we did with AeroNet, and with the experience at Airspan, that there really was an opportunity here to serve the underserved if we could put together a team and the people necessary to make that happen.
Q. How did you fund the work that you initially did at west end broadband?
A. It was out of my garage, and it was with the savings I had made at founding AeroNet.
Q. And how long were you -- did you self-fund Westend Broadband's operation?
A. Roughly a year.
Q. And what happened after that?
A. Well, by the time we'd gotten through a year, we had been able to put together detailed product plans, business cases and the kind of documentation that was necessary to raise

money, so we were then able to raise funds to actually start the company.

Q. Who were the people who actually came and helped support the work you were doing at Westend Broadband?

A. Skip Hynek, who is here, and a group of his associates. Some of them are small businesses, some of them are larger businesses, but they were really individual investors that created a fund that funded our operation. So they were not big corporations. They were individuals.

Q. Did things change at your company after Mr. Hynek and his associates provided additional support?

A. Absolutely. It takes money to start a company and grow and to hire, to put lab equipment together, to begin building prototypes, and then to run field trials. You have to build out all that inventory, have to have people to support it. So what it allowed us to do was to move from an idea to expanding and creating the actual products.

Q. Was that also when the company's name changed from Westend Broadband?

A. Yes, it did. What happens is normally when you start having products, you have to have trade names and you look for trademarks. And, unfortunately, that's when we found that Westend Broadband was taken by a company in Canada. So we decided to change the name, and we came up with Raze.

Q. How did you come up with the name Raze?

A. I had a little tag line, burning down the barriers of broadband, and it just seemed to have a good ring. So it was a great name to use.

Q. Can you tell the jury a little bit about the team you assembled at Raze after Mr. Hynek and his associates provided that support?

A. Well, they are very skilled, and that was one of the great things about a start-up. You can hire and attract the people that just have the right skills for all the right jobs. And our team had backgrounds in the NSA and specialized electronics. They had backgrounds in communications, telecommunications, networking, network management.

So we really had the right skilled people. They had fantastic teamwork. You know, a team -- teamwork is so important, I just can't explain it.

And the other thing they were great at is they really knew how to execute, so like a really good football team. Since we're in Texas, I can make that analogy, but like a really good football team. That's really what helped the company perform so well.

Q. Now I want to turn to talking a little bit about the system that Raze was developing. Did that system have a name?

A. Yes, it did.

Q. What was --

A. It was SkyFire.

Q. And what was the focus of the technology the SkyFire system was -- was trying to provide?
A. It was fixed broadband wireless.
Q. Now, I'm going to pull up Joint Exhibit 12, which has been admitted, and what do we see here on the first page of Joint Exhibit 12?
A. You just see our trademark and our tag line, burning down the barriers of broadband.
Q. Now, turning to page 12 of this exhibit, what do we see here?
A. This is a view of the end-to-end architecture of the system, so kind of the idea about how you go from the cloud all the way to the home.
Q. Now, focusing on this portion here in the middle, what do we see above where it says SkyFire?
A. All of that is our base station and antennas that you'd have at any regular cell tower.
Q. Now, are the antennas -- well, why don't you tell the jury, where are the antennas in this system here?
A. They are the little gray bars that you see at the very top of the tower.
Q. And why are there six of them?
A. Because we're dividing this cell into six sectors. So a sector -- each antenna only physically covers or can send signals in that sector. Think of it as like slicing a pie.

So it's like an antenna can talk to a slice of pie in which you, the user, might sit.

Q. And now I'd like to call your attention to the part here labeled SIAD. What is that?

A. That's the subscriber integrated access device.

Q. And what was the purpose of the subscriber integrated access device?

A. So it was the interface from the broadband wireless to convert to the types of equipment that people had in their homes, you know, in early 2000 which you'd have telephones, so it would actually power your telephone lines. And you would -- at the time if you had computers and you had a network, it was a solid connect. WiFi was still a little too expensive at that period of time. It was coming, but most people had never even heard of WiFi. So it was a wired connection so it powered them all.

Q. At the time that you built this system, did phones and laptops that -- like the ones that you see or computers like the ones you see here in the picture, did they have radios or antennas that could receive high speed internet transmissions from a cellular base station?

A. No, they did not. As you've heard from the Plaintiffs, it would take a little time for the technology to move for that to happen.

Q. Did Raze ever deploy the SkyFire system in a live

network?
A. Yes, we did.
Q. Where did that happen?
A. In North Texas.
Q. And who did you work with in North Texas to deploy the Raze system?
A. A small ISP called North Texas Web Systems. It was out of Sherman, very lightly populated. People could barely get their phone lines, let alone the internet. It seemed like a perfect spot to run a trial.
Q. I'm going to pull up Joint Exhibit 14 and turn to page 3. What do we see here on page 3 of Joint Exhibit 14?
A. That's the diagram of the equipment that we were going to set up on North Texas Web Systems cell site, and then it also shows how we would get a link back to -- they have an operating -- a network operating center. So we use a microwave link to get the data back and forth to this tower.
Q. What is shown here on the right of the NTWS cell tower?
A. That's one of the sector antennas that we had talked about in the big diagram with the pie. So that's an antenna serving a slice of that pie.
Q. And turning to the next page, what do we see here, Mr. Struhsaker?
A. That was one of my field technicians up about 200 feet in the air installing that antenna, and the cable that you see

there is called coax. So he's tying up the coax, and then he'll run it down the tower so that connects that antenna to the base station at the bottom.

Q. And, finally, I'm going to turn to page 2 which the jury has already seen in opening. What is shown here?

A. That's a subscriber integrated access device, then the connections that put it down into your house.

Q. And what do we see in the -- where it says tower in the middle? What is that?

A. That's the tower you saw our technician climbing in the last slide. It's roughly a mile-and-a-quarter, maybe a mile-and-a-half away.

Q. Would you describe the field trial that Raze did with NTWS as a success?

A. Yes. We were able to support 10 to 12 subscribers, continuous 12-by-7 operation. They had data and two phone lines to their house. And we were working through some kinks. Obviously when you have a prototype, there are times when you have an outage that you have to fix, but we were working through everything that we needed to convert that system to a sale to NTWS.

Q. Did Raze also ever conduct any tests using a car?

A. We would take a car and drive around our Plano, Texas office where we had two sectors.

Q. And what would you do with that test? Can you describe

that test to the jury?
A. We were taking sounding measurements and interference measurements and trying to do things, and we also obviously could drive from one sector to another and the system would, of course, do a handoff. Kind of slow, not as fast as one you might do in mobile, but it could do a handoff.
Q. Did Raze ever pitch any of its products to any other cellular operators?
A. Yes, we did.
Q. Which ones?
A. CLEAR Wire, Sprint, and AT&T to name a couple.
Q. Sprint and AT&T are maybe probably familiar, but what about CLEAR Wire? Can you tell the jury about them?
A. CLEAR Wire was a new company who'd been funded to create some of these new broadband fixed-access networks in order to serve all those underserved people. So they had the money to buy the equipment and the spectrum to go ahead and send signals.
Q. I'm going to pull up Defense Exhibit 4. Mr. Struhsaker, what is Defense Exhibit 4?
A. That's a request for proposal from CLEAR Wire. It's a request for us to answer a set of structured questions about our system in order to see if it would be viable for purchase for use in their network.
Q. Turning to page 6, did you provide CLEAR Wire, as part of

this response, some information about the background of Raze?
A. Yes.
Q. And what did you tell CLEAR Wire about Raze in this document?
A. Of course, we told them it was a fixed broadband wireless access system because they were asking us to bid for a fixed wireless access system. But we also told them that our focus and the way we were building everything was designed to really -- to serve the underserved residences, small and medium enterprises, small offices and home offices. Those were the -- those were the kind of customers that were being bypassed by cable and DSL at the time.
Q. Now, turning to page 55, what sort of information -- well, can you tell the jury first what -- there's at the top here some blue italicized text. What is that text?
A. The RFP had a series of questions. Those are always the part of the text that's in blue. So it's a question from CLEAR Wire, the operator, to us as to, you know, one thing or another, and then we would answer the text in black was our answer.
Q. And in this section, what information was CLEAR Wire asking you to provide?
A. They were asking us to talk about how were we performing sectorization of our antennas.

Q. And what did you tell CLEAR Wire about the Raze SkyFire antennas?

A. SkyFire was using standard passive sectorized antennas, not the adaptive arrays that we'll talk about later.

Q. Why did you use a sectorized antenna?

A. Sectorization is a well-known property in cell planning and in frequency planning, and what it allows you to do is have better use of your spectrum. It also reduces interference, and it can increase the gain that you have and the throughput that you have in a system.

THE COURT: Let me interrupt at this point.

This witness is going to be on the witness stand for some additional length, ladies and gentlemen, and it's been two hours since you came back from lunch. We're going to take a short recess.

If you would simply close your notebooks and leave them in your chairs. Please remember to follow all the instructions I've given you not to discuss the case among yourselves or in any other way, and we'll be back shortly to continue with the examination of this gentleman by Plaintiff's counsel.

The jury's excused for recess.

(Whereupon, the jury left the courtroom.)

THE COURT: We'll try too keep this to 10 or 12 minutes. But, anyway, the Court stands in recess.

(Brief recess.)

THE COURT: Be seated, please.

All right. Let's bring the jury back in.

(Whereupon, the jury entered the courtroom.)

THE COURT: Welcome back, ladies and gentlemen. Please have a seat.

All right. We'll continue with the direct examination of Mr. Paul Struhsaker.

Counsel, you may continue.

MR. KNOBLOCH: Thank you, Your Honor.

Q. (BY MR. KNOBLOCH) Mr. Struhsaker, before our break we were talking about the CLEAR Wire RFI response. Do you recall that?

A. Yes, I do.

Q. All right. So I'm going to go back to that document and pull up page 14.

In this section, what information was CLEAR Wire seeking from Raze?

A. They were trying to understand what sort of duplexing, how we would transmit data up and down in our system.

Q. And what sort of duplexing did the Raze system use?

A. It used TDD, and that's where you have a single frequency and you split transmissions from the uplink and the downlink by time.

Q. Why did you use TDD in the Raze system?

A. At this time people were already beginning to stream music, and you could already see that data was asymmetric. Right? What does that mean? It means that there's a lot more data going down to the user than coming back up. And since TDD can optimize the amount of downlink you can have, it was kind of a game changer in really improving the use of the spectrum. So that is why we used it.

Q. Did other cellular base stations at the time use time division duplexing?

A. They did not.

Q. Why not?

A. They were optimized for voice, and because of that they used a frequency division duplex. And voice in general has about equal amounts of uplink and downlink when you're talking. So they were voice centric.

Q. Other than the data asymmetry issue you mentioned, were there any other reasons that you wanted to use TDD in the Raze system?

A. Yes, because as you moved forward, TDD makes it much easier to implement beamforming and interference reduction.

Q. Did the SkyFire system include beamforming?

A. No. SkyFire did not include beamforming.

Q. Were you planning and working to add beamforming as a feature to the SkyFire system?

A. Yes, we were.

Q. Did that project, the beamforming project, have a name?
A. Yes, it did--SkyBeam.
Q. Why did you want to add beamforming to the SkyBeam system?
A. To increase the range that a base station can go. Remember we were serving rural customers. And for those closer, we could improve throughput. And together that really just talks about we could improve the capacity of the system if we could make the beamforming work.
Q. You mentioned throughput. Why did you think that adding beamforming would help increase the throughput of the SkyFire system?
A. Well, because you're able to increase the amount of energy that you send to each person. Right? Amazingly, it's a simple formula--more energy, more bits. So the more energy I'm able to focus at you, the higher the data rate I can send to you. So I can do 10 times more energy -- just round figures, I can do 10 times more data, of course that would be very useful for anybody who is using the system.
Q. Mr. Struhsaker, did you have a plan at Raze for how you would incorporate beamforming into the SkyFire system?
A. Yes, we did.
Q. What was that plan?
A. We could modify our current modem cards to put an interface to an antenna at the top of the tower to control it,

and then there would be a software upgrade that went with it.
Q. You mentioned modem card. Did you actually build a modem card that could manage beamforming transmissions?
A. We did.
MR. KNOBLOCH: Your Honor, may I approach the witness to provide this demonstrative?
THE COURT: You may. Hand it to the Court Security Officer.
MR. KNOBLOCH: Thank you, Your Honor.
THE COURT: He'll give it to the witness.
Q. (BY MR. KNOBLOCH) Mr. Struhsaker, what is in the box that I just handed you? And I'm sorry. I'll give you a moment to open it up.
A. This is a modem card that could serve one sector. You plug it into -- you saw the base stations. Plug it in. This is the modem card you would have. You see in the front, RF antenna jacks. And then you'll see down here -- you can't see it, it says SkyBeam. And this is the digital control that you would have to go up to the antenna at the top of the cell tower.
So do I need to carry it around so they can look at it or is it okay from here?
THE COURT: You're not going to carry it around. You'll have to talk about it from there.
THE WITNESS: Okay. Well, you can see. This was

what we put into it. This was the modification, and what you can't see is this is just a modified board, not a production board, so there are some wires underneath to make that interface happen from one of our controller chips.

But the point is the interface that could control the antenna was put in this, and we were testing it and testing it in the lab to make sure the signals would work. And we'd take a long piece of cable that could go up to the top of the tower and make sure the signal integrity would work to the top of the tower.

Q. (BY MR. KNOBLOCH) Thank you, Mr. Struhsaker. Why don't you put that away, and then we'll continue.

You also mentioned antennas. Were there commercially available antennas that you could use for beamforming in the SkyFire system at the time?

A. No. There were no commercial beamforming antennas available in the year 2001, 2002.

Q. Did you and the team at Raze do any work to help build beamforming antennas at the time?

A. We did. We wrote a specification for a type of antenna that the technology at the time could actually, you know, you could actually build, and we were working with two antenna vendors to have one built for us.

Q. In the process of developing the SkyBeam system, did you face any particular challenges when trying to figure out how

to incorporate beamforming?
A. The fundamental problem of synchronizing and coordinating the subscribers and the beams, I mean, is a fundamental problem. It had to be addressed.
Q. Why was that such a problem?
A. It hadn't been done before that point.
Q. And what happens if you don't synchronize and coordinate transmissions between a base station and the users?
A. Just like the pictures that were shown in the opening statement, the signals would interfere with each other and basically you'd either get partial signals or no signals at all. So if you didn't have the synchronization, basically the system wouldn't work.
Q. Did you eventually come up with a way to make beamforming work in a cellular network?
A. I did.
Q. And before your invention, did any commercial wireless cellular networks use TDD and beamforming?
A. They did not.
Q. Did you file a patent for -- on your solution for getting beamforming and TDD to work in a network?
A. Yes, I did.
Q. Why?
A. Because having it -- because it was a unique solution. It did not exist, and I had not seen any implementation of

something like that to exist. And so something that unique is worth the time and trouble to produce a patent on.

Q. Now, Mr. Struhsaker, I'm going to pull up Joint Exhibit 1. Can you tell the jury what Joint Exhibit 1 is?

A. This is the patent for the beamforming TDD system that we are talking about.

Q. Are you the inventor of this patent?

A. Yes, I'm the inventor.

Q. And is this the patent that has been referred to in court today as the '931 Patent?

A. Yes, it's the '931. You can see at the top right.

Q. When did you file for patent protection on the invention disclosed here?

A. We filed most of our patents in 2001. It looks like September 5th, 2001, according to the patent here.

Q. When did the patent actually issue from the Patent Office?

A. June 12th, 2007.

Q. So it took almost, what is that, five-and-a-half, six years to get through the Patent Office?

A. Yeah, it looks that way.

Q. In your experience, is that sort of timeline unusual?

A. No.

Q. Now, do you have other experience besides the '931 Patent with the patent application process?

A. Yeah. I hold 60 patents.
Q. And what process have you generally followed when applying for patents?
A. So when I applied for patents, we write a description -- I write a description up of the invention, and I provide it to our patent attorney. Then our patent attorney drafts the patent that you see here along with the claims.

We do have conversations back and forth during that process, and there's, you know, obviously editing and changing. And then when we have a final draft, it's sent to the Patent Office.

And from there, I think you've heard a couple of explanations. There's office actions, things go back and forth. It's just normal processing of the patent at that point.
Q. Now, turning specifically to the '931 Patent, did you have any role in discussing the invention with the lawyers who prosecuted the patent in the Patent Office?
A. My recollection is I had one or two conversations with them about the patent, but nothing more than that. I don't recall specific details or anything else.
Q. When you first submitted the -- when the lawyers first submitted the application for the '931 Patent, did you have any communications with them then?
A. Yes.

Q. And was the -- did you have any communications with the lawyers involved in submitting amendments to this patent, to the Patent Office?
A. I received calls. I don't know if they were specific to the final two amendments or not. I had several calls in which just questions were asked of me.
Q. Were the lawyers who reached out to you -- well, let me back up for a second. I'm sorry.
Did those calls that you mentioned take place before or after you left Raze?
A. They took place multiple years after I left Raze.
Q. Were the lawyers that you spoke with after you left Raze, as far as you recall, the same people who you had worked with while you were still at Raze on this patent?
A. Yes. Certainly the lead attorney who called me was the same one I had worked with on this draft.
Q. Mr. Struhsaker, are you proud of the work that you did on the '931 Patent?
A. Yes.
Q. Why?
A. It's a fundamental patent about how to do cellular broadband that at the time didn't exist.
Q. Did you have any other inventions coming out of the work you did at Raze that resulted in patents?
A. Yes.

Q. What other inventions did you patent out of your work at Raze?
A. We had a number related to how beamforming and signals would work, but we also had the hotspot patent that we've mentioned here.
Q. I'm going to pull up Joint Exhibit 2. Is this the hotspot patent?
A. Yes. That's what everyone's referring it to, but, yes, that's what it is.
Q. Is it also what is sometimes referred to as the '794 Patent?
A. Correct.
Q. Are you the inventor of this patent as well? Oops, it looks like my screen shifted here.
A. I didn't lay the keel of that ship if that's what you're asking.
Q. My apologies, Mr. Struhsaker.
Are you the inventor of the '794 Patent?
A. Yes, I am.
Q. Can you briefly explain to the jury how you came up with the invention in this patent?
A. We've already talked about our SAID and the fact it was fixed and that it provided a wired service to telephones in your computers in your house. But having been one of the founders of Airspan, one of the first mobile wireless WiFi

companies, I knew that WiFi was coming to the home and that computers, and probably PDAs at the time, they would all have WiFi in them. And it was going to be a number of years until you could make a cellular phone that had the ability to do a broadband cellular interface, just technology.

So the thought was the 947's bridging the gap, why don't I take a broadband cellular system, attach it to access points, so a second transceiver that would be like a WiFi router. Right? And then you could have nomadic mobility, you know, across as far as your network -- your broadband wireless network would happen.

And given that the numbers were at 40 percent of the United States might need wireless broadband, it seemed like this could be an early way to get to a form of mobility long before any handset or all that other technology could happen. So that was the impetus to make this happen.

Q. Now, Mr. Struhsaker, did Raze ultimately commercialize any of the products that use the inventions of the '794 or '931 Patents?

A. No, we did not.

Q. Why not?

A. You're very well aware of 9/11 and, of course, the change in the environment for funding. We would need three or four times the amount of money we had already raised. You simply could not find that investment at the time. And so

unfortunately we worked as long as we could, but we had to shut our doors. Tough thing, but it happens.

Q. Before you shut your doors, how did Raze respond initially to the challenging funding situation?

A. We focused all of our effort on NTWS and making sure that that one product line would work because that actually had a contract tied to it, that if we could get through all the work, we could at least raise revenue.

Q. So now we've talked a lot about Raze, but the Plaintiff here, as you know, is a company called General Access. Right?

A. Yes.

Q. What is the connection between General Access and Raze?

A. General Access is the entity that bought up or assumed all of Raze's patents.

Q. Are you employed by General Access?

A. No.

Q. Do you have any personal financial interest in the outcome of this case?

A. I have none.

Q. Are you compensated for time that you spend on this case?

A. Absolutely.

Q. How are you compensated for that time?

A. I'm -- I go by the hour. It's $850 an hour.

Q. Is that your standard rate for matters like this?

A. Yes, it's my standard rate for legal matters.

Q. Now, where did you work after Raze closed?
A. I went on to work at Texas Instruments.
Q. And what did you work on at Texas Instruments?
A. Texas Instruments, I was a CTO of broadband, and I worked on the next generation WiFi chipsets that were coming out. And, of course, these would be the ones that made it into every laptop in all the computers. And for five years Intel didn't have its own chipset so every Intel portable computer would use that TI chipset. So the revolution that we kind of missed was starting to happen.
Q. Did you also work for any phone manufacturers?
A. I did.
Q. Which one?
A. Motorola.
Q. And what did you work on at Motorola?
A. At Motorola after TI, I had the opportunity to start a chipset group to build the first LTE 4G chipset and to pull that group together.
Q. Was the LTE 4G chipset that you developed at Motorola capable of receiving high speed broadband internet from a cellular base station?
A. Yes.
Q. Was that chipset actually used in any commercial products?
A. Absolutely.

Q. Any examples come to mind?
A. The Droid X deployed by Verizon used my team's chipset, and of course my company's phone was the very first phone they launched when they launched LTE and broke away from 3G.
Q. Mr. Struhsaker, have you stayed in touch with your former colleagues at Raze?
A. Yes, I have.
Q. What sorts of careers have they gone on to?
A. They've had very successful careers based on working at Raze. It was a catalyst. There was a lot of learnings that happened for everybody, so it was a good catalyst to their careers.
Q. Can you share with the jury any examples of stories of folks that you've worked with at Raze?
A. Sure. We had a software manager. His name was Nivi Thadasina. He went on to go to Samsung and headed up their 4G and 5G base station development.

My partner, Michael Eckert, did two start-ups, and his last one out of New Zealand was purchased by Apple for $400 million.

Kirk Griffin, my NSA cohort, went back into the defense industries and created a boutique defense contractor company, WGS Systems, and they used adaptive beamforming and tracking to create a weapon that basically fries the circuits in drones. So it's an antidrone attack system, detection and

attack. He's a smart guy.

Q. How do you look back at your time at Raze?

A. Fondly.

Q. Why?

A. It was a great team doing great work. And not everything works out, but I can earnestly say I worked with some of the best engineers I've ever worked with, and they're very hard working, so -- and very skilled.

Q. How do you feel about the fact that General Access would receive any award the jury chooses to provide here and not Raze?

A. Well, I'd be happy for them to receive an award for this.

Q. Why?

A. Well, when I was a younger man and all I had was pieces of paper and an idea, Mr. Hynek and his associates took a bet on me and supported me. And I think it's only just that I'm here today to support him.

Q. As the inventor of the '931 and '794 Patents, how does it feel to be in a courtroom here today talking to a jury about your inventions?

A. Well, I'm glad you-all just get to hear about what we did and can learn a little bit about the inventions that went on and it's good to see the recognition. So it's a long journey, but I -- it's a great thing to be here today.

MR. KNOBLOCH: I pass the witness, Your Honor.

THE COURT: All right. Cross examination by the Defense.

Do you have binders to distribute, counsel?

MR. ROSENTHAL: I do, Your Honor.

THE COURT: Let's get that done.

MR. ROSENTHAL: Thank you.

May I approach?

THE COURT: You may approach.

MR. ROSENTHAL: Thank you, Your Honor.

I have one for the Court. Thank you.

May I proceed, Your Honor?

THE COURT: You may proceed with cross examination.

MR. ROSENTHAL: Thank you, Your Honor.

CROSS EXAMINATION

BY MR. ROSENTHAL:

Q. Mr. Struhsaker, it's so good to see you again. I know we met a few months ago.

My name is Brian Rosenthal, for the record, and I represent Verizon.

Now, we talked -- you testified a moment ago that you are the named inventor on the two patents that are at issue in this case. Correct?

A. Correct.

Q. And you just testified a moment ago you are not affiliated with General Access.

A. I am not.
Q. And you are not accusing Verizon of infringement. Correct?
A. I am not.
Q. You don't have an opinion about whether Verizon's 5G network or Verizon's WiFi hotspots infringe either of your patents.
A. I don't. I don't have that information.
Q. Okay. And you did not decide to sue Verizon. Correct?
A. I did not.
Q. You were not involved in that decision. They didn't consult you. That was a decision General Access made. Correct?
A. It is their decision. Correct.
Q. Now, you testified a moment ago that you have worked in the industry, including for Motorola, and during that time you had an opportunity to work with Verizon. Correct?
A. I have.
Q. And you were impressed by Verizon. Correct?
A. Verizon is an excellent company.
Q. And they are an impressive company. Correct?
A. They are an impressive company; especially their network acceptance and testing; probably the best in the world at testing cell phones in their network.
Q. Is it fair to say that at least the people you worked

with at Verizon are very impressive, very technical, very detail-oriented people?

A. Yes.

Q. All right. Now, you also have had the experience of working with and around people from Ericsson over the years. Correct?

A. Just a little bit. I didn't spend as much time with Ericsson at all.

Q. But you agree that Ericsson is also a very reputable company. Correct?

A. Yes, it is.

Q. Okay. Now, we talked a moment ago that you are not an employee of General Access. In fact, you have no formal relationship at all with General Access. Correct?

A. No, I do not.

Q. Now, you left Raze when Raze closed its doors in 2002, and you didn't even know General Access existed for many years after that. Correct?

A. No, that's not true. As a board we had to vote to dissolve the company, and at that point I was aware that an entity was being -- I didn't know the name of it, but I was aware an entity was being made to at least protect the assets of the company.

Q. The first time that you ever heard of General Access Solutions was in approximately 2016, sir. Isn't that correct?

A. That's true; the final name of it, yes.
Q. Okay. And that is about 15 years --
A. 15 years -- well, 14.
Q. Okay. I'm sorry. Fourteen years after the company closed, that's when you first heard of General Access?
A. General Access, that name; yes.
Q. Now, you are being paid for your time to testify here. Correct? At the $850 an hour rate. Correct?
A. That's correct.
Q. Okay. Now, I do want to make sure that this is very clear.

In this case General Access, led by Mr. Hynek, is asking for approximately $850 million. You heard that in opening. If that is awarded, how much of that do you see?
A. I don't receive a penny.
Q. All right. And does anybody at Raze that worked on these systems that you've just testified about get any of that award, if there is one?
A. No.
Q. Do you know who gets that money?
A. Obviously General Access, the Plaintiff.
Q. I want to ask a question. You were sitting here during the opening and you saw Doctor Madisetti stand up and you saw Doctor Andrews stand up. Do you remember that?
A. Yes, I do.

Q. Now, you have been in the wireless technology industry for a long time--since '83. Right?
A. Yes, I have.
Q. And you have been around. You know a lot of people in the industry. Fair?
A. Yes.
Q. All right. And you are very well-regarded in the industry. Fair?
A. Thank you.
Q. Now, prior to your work with General Access with respect to the assertion of these patents, you had never actually heard of Doctor Madisetti. Correct?
A. I hadn't worked with him. No, I hadn't heard of him.
Q. Now, on the other hand, Doctor Andrews is a very well-respected and well-known expert in the area of wireless communications. Correct?
A. Correct.
Q. And you had heard of him and you had seen him on a number of occasions prior to this case. Correct?
A. Doctor Andrews and I know each other and I recommend -- I wrote a recommendation on one of his books for broadband, so he and I actually know each other professionally.
Q. And you respect him. Right?
A. Yes.
Q. And he knows what he's doing. Correct?

A. Yes.
Q. And this is the book that Doctor Andrews wrote on WiMAX, which is a -- is a wireless standard. Right?
A. Yes.
Q. And he wrote the book *Fundamentals of WiMAX*, and you wrote one of these recommendations right on the front of that book. Correct?
A. Correct.
Q. Okay. Fair to say you have respect for Mr.--I'm sorry--Doctor Andrews and his experience? Fair?
A. Fair.
Q. All right. Now, I would like to talk to you about your work at Raze.
A. Okay.
Q. Now, we testified -- you testified earlier I believe that Raze was working on a fixed wireless broadband access system. Correct?
A. That is correct.
Q. Okay. And this device right here that I'm holding up, this is what you identified earlier as the subscriber integrated access device that you and your colleagues at Raze were working on. Correct?
A. Yes.
Q. And I see that there is some screw holes here. Right? Is this where it would attach to like the chimney of the

house? Is that the idea?
A. The chimney of the house, wall of the house. Just like if you had a satellite TV, you would place the antenna where it's -- makes the most sense.
Q. Okay. So the idea is this is bolted to the house, this is what receives the signal; instead of having a wire coming into the house, you get the signal through this, and then this connects to the rest of the network in the house. Fair?
A. Yes.
Q. All right. Let me put this down.
Okay. So you testified a moment ago that originally your company was called West End Broadband. Correct?
A. Correct.
Q. And at some point it also had the name Last Mile.
A. Last Mile Systems.
Q. And the idea behind that name is -- the idea is rather than having a cable going for that last part of the connection to the house, you have a wireless connection that goes to one of these devices to connect the house to the internet. Right?
A. Yes, that was the idea.
Q. Okay. And the idea there is in some rural areas it's difficult and expensive to build wired connections out to each and every one of those farmhouses out there, so this is a solution that might replace that. Fair?
A. Yes, and other markets, too; denser markets.

Q. I understand.

Now, Raze's mission was to be the dominant supplier of fixed wireless access equipment. Correct?

A. Correct.

Q. Okay. And we saw a moment ago you put up -- or your -- the General Access lawyer put up a document that showed that mission statement. Right?

A. Yes.

MR. ROSENTHAL: Okay. And if we could, could you please bring up JX 14. Which is a pre-admitted document that you were asked about?

Q. (BY MR. ROSENTHAL) These are photos of some of the work that you did at Raze.

MR. ROSENTHAL: And if you could go to page 2.

Q. (BY MR. ROSENTHAL) You talked earlier about this photograph. Correct?

A. Correct.

Q. I don't know what I'm pointing to. I'm used to having something right here. Sorry about that.

You talked earlier about this antenna, and that's the subscriber integrated access device bolted to a house. Correct.

A. Yes.

Q. And that's not designed to move around and go in people's cars and in people's pockets; that's a fixed device. Right?

A. Yes. That's what it was designed for.
Q. Now, your -- General Access' lawyer in the opening statement, Mr. Summers, said that the idea was to beam the internet to people's houses. Do you remember him saying that phrase?
A. Yes, I recall that.
Q. And that's what we're talking about here. There's a tower that's beaming information to a person's house. That's what you-all were working on. Right?
A. Correct.
MR. ROSENTHAL: Okay. Now, if we could, could you bring up DTX 4, please.
Q. (BY MR. ROSENTHAL) Now, you testified about this document when General Access' lawyer put it up. This was the proposal from Clearwire where you, Raze, responded and told them all about the system you were working on. Right?
A. Yes.
Q. And General Access' lawyer asked you about the first page of the document and asked you about the 14th page of the document and some other pages. I'd like to go to a page that he didn't go to.
A. Okay.
MR. ROSENTHAL: Let's go to page 12. And on page 12, if we go down to the third black paragraph.
Q. (BY MR. ROSENTHAL) Now, General Access' counsel didn't

put this document up -- or didn't put this page up of this document, but this is something that Mr. Krevitt addressed, you saw, in opening--right?--where you, Raze, told Clearwire that the SkyFire system is purely a fixed broadband wireless access system. That's what you said. Right?

A. That is true of the SkyFire system.

Q. Of the SkyFire -- that's what you were working on.

A. Yes, but we were also working on SkyBeam, too.

Q. And I promise I'm going to ask you about SkyBeam in a moment.

The other thing that you told Clearwire about SkyFire is it does not support mobility and it does not support handoffs. Correct.

A. That is true of the SkyFire system.

Q. Those are things that are unique to mobile environments. Right? You don't need to worry about handoffs if you are in a fixed cellular system. Correct?

A. Understood.

Q. And so -- and this document that you provided to Clearwire, this was an accurate statement of the SkyFire system that you were working on at the time. Right?

A. Yes.

Q. All right. Now, in the middle of 2001, I think one of the things you testified to is that there was an attempt to get funding. Do you remember that?

A. Yes.
Q. Okay. And so in August of 2001 when you were working on SkyFire, you went out -- Raze went out and tried to get people to invest in your technology. Fair?
A. Yes.
Q. All right. Let's take a look at an exhibit.
MR. ROSENTHAL: And I'm sorry. What's the exhibit number?
I'm sorry, Your Honor. There is an exhibit that we have asked the other side and there is no objection to add as one of our four additions to our exhibit list. We are going to label it as DX 25. And I believe there is no objection.
THE COURT: Well, this is the first I'm hearing about it, so...
MR. KNOBLOCH: No objection, Your Honor.
MR. ROSENTHAL: Your Honor, we would ask the witness to take a look at the exhibit and then I'll move it into admission, if that's all right.
THE COURT: All right. Let's proceed.
Q. (BY MR. ROSENTHAL) Okay. If you could, could you please look in the binder that you have and please take a look at the tab that is labeled D at the back.
A. Oh, at the very back?
Q. Yep.
A. Let me see. Yes, I got it.

Q. And before we publish the document, this is a document that was written in August of 2001. It's entitled "Confidential Private Placement Memorandum." This is one of these documents that Raze prepared to try to raise money--sorry--to try to get people to invest in Raze. I used 'raise' twice. Correct?

A. Correct.

Q. Okay.

MR. ROSENTHAL: I would move the admission of DTX 25.

THE COURT: Where do I have a hard copy of this, counsel?

MR. ROSENTHAL: It is in the binder that we prepared for the Court, and it is the tab that is labeled D near the back of the binder, Your Honor.

THE COURT: And Plaintiff has no objection to the admission of this document?

MR. KNOBLOCH: Correct, Your Honor; no objection.

THE COURT: And Defendant is representing to the Court pursuant to its standing order that this was inadvertently omitted during the pretrial process?

MR. ROSENTHAL: Yes, Your Honor, it was.

THE COURT: All right. Then -- and we're calling this DTX --

MR. ROSENTHAL: DTX 25.

THE COURT: DTX 25 will be admitted.

MR. ROSENTHAL: Thank you, Your Honor.

Q. (BY MR. ROSENTHAL) So this is called "Confidential private Placement Memorandum" dated August of 2001.

MR. ROSENTHAL: And if we could, please, go to the page with the -- that ends in 120.

Q. (BY MR. ROSENTHAL) Do you see at the bottom right there's those numbers that says 120?

A. I see it.

Q. Okay. And this is an executive summary provided to potential investors describing Raze the company. Correct?

A. Correct.

Q. And the first thing it says is that it's headquartered in Plano, and it has developed a proprietary, carrier-class fixed broadband wireless access system called SkyFire.

Do you see that?

A. Yes.

Q. Okay. And if we could go to the next page, there is a section that's entitled "The Raze solution." And in the Raze solution, it says, "SkyFire is a compete replacement for wireline delivery of voice and data services," and it continues.

And that's the idea that we were talking about a moment ago where, instead of having a wired connection to a house, you have this wireless connection to a house. Right?

A. Correct.
Q. Now, I want to focus your attention, please, to page 41 of the document, and it's the page that ends in the Bates number 166, those document production numbers 166 at the bottom. And this is a section of the document -- and if you go back to the page that ends 163, maybe I can orient you.
There is a list of risk factors. This is telling investors, Hey, there are some things that could make this company not successful. These are some of those things. Fair?
A. Yes. It's standard in a placement note to have risk factors.
Q. Of course; because you want to tell the investors, These are some reasons your money might be lost if you invest. And you want to be up front about that. Right?
So let's go to the page that ends 166.
And what does it say in the second title?
A. I can read it for you, but it says, "The company will not succeed if the market does not accept fixed wireless access technology."
Q. And in that section, the second sentence says, "All of Raze's products are based on this technology." Right?
A. Yes, it says that.
Q. So the idea that you're telling these potential investors is, Hey, we are a fixed company. We are making a fixed

wireless system. There is a chance that if you invest money with us that you will not get that money back because the market might not be interested in this type of technology. Is that a fair assessment of what you're saying?

A. It's partially true.

Q. Okay. The document says that all of Raze's products are based on fixed wireless, and if the market doesn't accept fixed wireless, we may not succeed. Fair?

A. It says that, but there is a reason for that.

Q. All right. Now, what I'd like to do --

MR. ROSENTHAL: You can take this document down.

Q. (BY MR. ROSENTHAL) -- is move on now to SkyBeam, which I promised I would.

So SkyBeam was an add-on to SkyFire. Right? SkyFire was this idea of this fixed wireless network. SkyBeam was going to add to it beamforming. Correct?

A. Correct; and other software modifications. So it had three elements that we had said previously--the modem card you saw, the antenna element, and an upgrade of the software; not only to do beamforming, but other capabilities.

Q. Fair enough.

The name SkyBeam was a reference to beamforming. Correct?

A. Correct.

Q. And so you actually wrote a white paper that captured

this idea of SkyBeam. Fair?
A. Yes, I did.
Q. Now, General Access's lawyer did not show that white paper. I'd like to show the jury a white paper.
MR. ROSENTHAL: If we could please put up JX 3.
Q. (BY MR. ROSENTHAL) This is the white paper that you wrote to describe the beamforming solution that you had come up with. Right?
A. It is a partial description.
Q. But this is the description the '931 Patent was based on. Right?
A. No, this is six months before the submissions to the lawyers for the '931 Patent.
Q. Sir, isn't it true that this is the white paper from which the '931 Patent was built?
A. It's the white paper that started that patent process, but, as you're aware, in a patent process there are additional information and improvements that go along the way. So this also is a sales document that we used. It is the foundation of '931, but it certainly does not capture every element that we put in the '931 Patent.
Q. All right. This is the beamforming paper that formed the basis of the '931 Patent. Correct?
A. It's the start of that. Correct.
Q. It is the basis of the '931. Correct?

A. I wouldn't fully characterize it that way.
Q. All right. Now, you remember in this case that I took your deposition. Right?
A. Yes, I do.
Q. Okay. And during that deposition you testified there was a court reporter there, you took an oath to tell the truth. Right? Okay. And there was a transcript of everything that you testified to. Right?
A. Correct.
Q. And you had an opportunity to look at that transcript and make any corrections that you felt you needed to make. Correct?
A. Correct.
Q. All right. I would like you to look in your binder, please, at the deposition that is dated 2024. It's the very last tab of your binder.
A. What's the number?
Q. It's the very last tab. I think it has the full -- it says "2024, January 26," and your last name. Do you see that?
A. Yeah. Yes.
Q. Okay. And if you could, please, turn to page 138 of that transcript.
A. May I ask a question?
Q. Yes, you may.
A. So this -- it's -- is it where the pages -- the double

page number is, you want me to go to 138 on the double page number?

Q. Yeah. So the way that this transcript is organized is that there is four pages on every page and, what I'm referring to is the page number of transcript itself, which is page 138. It is page 36 of the document, if that helps.

A. Thank you.

Q. Are you there?

A. Yes.

Q. All right. Now, I want to direct you to page 138 of the transcript and line number 19.

Take a look at that question and answer. Does that refresh your memory that I asked you "That's a reference, again, to the beamforming white paper that formed the basis of the '931?"

And your answer was --

THE COURT: Just a minute, counsel. Refresh his recollection then ask him your question. If he answers inconsistently with his deposition, then seek leave to publish the answer. Don't just start with publishing the answer to the jury.

MR. ROSENTHAL: Thank you, Your Honor.

Q. (BY MR. ROSENTHAL) You remember that I asked you that question, sir?

A. Now I do.

Q. Okay. And it is correct that the white paper formed the basis of the '931 Patent. Correct?
A. Correct.
Q. Thank you.
Let's go back to the white paper, then.
So if we look at the white paper --
MR. ROSENTHAL: Let's look at page No. 6 of Exhibit JX 3.
Q. (BY MR. ROSENTHAL) And here you have a diagram of an antenna, or a group of antennas, that are sending beams to houses within what's called a cell sector. Do you see that?
A. Yes.
Q. And those -- if you look at the houses, you see there's little things on top of the houses? Those are these fixed antennas on the top of the house. Right?
A. Correct.
Q. And so the idea that you expressed in this SkyBeam white paper that formed the basis of the '931 Patent was that you were going to be sending beams to fixed antennas on the top of a house. Right?
A. Correct.
Q. Now I'd like to ask you about your conception of this idea.
You conceived of the idea --
MR. ROSENTHAL: And you can take the white paper

down. Thank you, Mr. Eaton.

Q. (BY MR. ROSENTHAL) -- in late 2000. Fair?

A. Correct.

Q. Around Christmas time, if I recall?

A. That's right.

Q. All right. Now, you conceived of this idea of beamforming in late 2000. Raze closed its doors a year and a half later in the middle of 2002. Correct?

A. Correct.

Q. That's about a year and a half. Right?

A. Correct.

Q. And you and Raze employees were working continuously from the beginning of '01 through the middle of '02 to try to make SkyBeam work. Correct?

A. We were -- yes.

Q. Okay.

A. There was somebody working on parts of it at all times.

Q. At all times. So for a year and half.

Now, it's not just you; you had 60 engineers at the height of Raze. Right?

A. But they were working on SkyFire, the principal project. So yes, there were people working on SkyBeam, but you have to allocate your resources. I can't have commercial contracts on one thing and just stop and put all my 60 engineers on something else, so I allocated some engineering resources to

continue that project forward.

MR. ROSENTHAL: Your Honor, I move to strike and object to that answer as non-responsive.

THE COURT: Restate the question.

Q. (BY MR. ROSENTHAL) At the height of Raze you had 60 engineers. Correct?

A. Yes.

Q. Thank you.

And the engineers that were working at Raze were working devilishly hard, including yourself. Correct?

A. Correct.

Q. And this was one of the best teams you had ever assembled. Correct?

A. Correct.

Q. And despite all of this work from you and the best and brightest team that you had ever assembled, you never completed a working version of SkyBeam. Correct?

A. We did not.

Q. All right. And, in fact, for that year and a half that you were continuously working on trying to get this thing to work, you never completed an end-to-end fully working system of SkyBeam. Correct?

A. We did not.

Q. All right. In fact, you never even had a field trial for SkyBeam. Right?

A. We did not.
Q. Now, you testified earlier in your direct testimony about SkyFire and that you had some field trials and some work with I think it was called North Texas -- I'm sorry. I don't remember the acronym.
A. North Texas Web Services--NTWS.
Q. I'm so sorry. I forgot about the W.
A. That's okay.
Q. So you did have some field trials, but even SkyFire wasn't really stable enough to ever provide for customer field trials. Isn't that true?
A. It was attached to customers and it did have a stability problem, but it was in a live field trial to customers.
Q. Is it true that even by the end, by the middle of 2002, Raze had not even been able to get its SkyFire system stable enough to provide to a customer for customer trials?
A. We were in the middle of customer trials. It had enough stability for that.
Q. It did.
Okay. Let's take a look at your testimony. If you could, go back to that transcript that we talked about earlier. And this time please go to page 221. And again, that's 221 of the transcript, which is on page 56 of the document.
Do you recall, sir -- on line 12 does it refresh your

memory that I asked you, "And is it true that in March 2002 Raze had not been able to get the SkyFire system stable enough to provide a customer?"

Do you see that I asked you that question?

A. Yes.

Q. And did -- is it true that by March of 2002 Raze had not been able to get the SkyFire system stable enough to provide a customer?

A. The short answer is true. The larger answer is that customers were connected. So yes, I will agree with your statement.

Q. All right. So you had Raze engineers, 60 of them, working long hours, devilishly hard for a year and a half trying to get SkyFire working, trying to get SkyBeam working. You weren't able to get an end-to-end working prototype of SkyBeam, and you weren't able to get a stable enough working version of SkyFire. Is that a fair --

THE COURT: Is there a question in this? You've given about a 16-sentence preface here.

MR. ROSENTHAL: Maybe I ought to move on. I will. Thank you, Your Honor.

Q. (BY MR. ROSENTHAL) Ultimately, is it fair to say that Raze was not a commercial success?

A. That's true. Raze was not a commercial success.

Q. Now, I heard you testify about some of the other

companies, AeroNet and Airspan, and your work after -- you've had commercial successes in your career and, honestly, it's very impressive. There are other companies that you have worked with that have been very commercially successful. Correct?

A. Correct.

Q. Raze is not one of them.

A. When you run out of money, it's hard to be successful.

Q. Let's talk about that. Raze ran out of money in the middle of 2002. And you testified the reason for that was the World Trade Center attack.

A. No, it was a general market. Remember there are multiple factors going on.

Q. I recall you testifying that at 9/11 there was an attack on the World Trade Center and nobody could get any funding. Isn't that what you testified?

A. Yes, but it's the funding part of it in the end, there's also stock market issues involved, so it's a wider issue.

Q. And I wrote this down because I wanted to make sure I got it right. You said you simply could not find that funding at that time.

A. That's absolutely correct.

Q. But there were other companies that were doing very similar things to you at that time that got plenty of funding. Isn't that right?

A. I don't know when they were funded. Was it before or was it after?
Q. Let's talk about it. In 2001 you were aware of a company called Navini. Correct?
A. Correct.
Q. Now, Navini was a company that was also working on a beamforming system at the very same time. Correct?
A. Correct.
Q. And they were working on a beamforming system with sectors. Correct?
A. I actually thought they had an omnidirectional beamformer, but again, I don't have the documentation in front of me.
Q. Well, I think I'll skip the deposition. Let me just say this. You understood that they were working on a beamforming system. You understand that they were located in the Dallas area just down the road from you. Right?
A. Yes.
MR. ROSENTHAL: In fact, if we could, please, could we bring up my demonstrative?
Q. (BY MR. ROSENTHAL) This is a map of the Dallas suburb where Raze was located. Do you recognize that general area?
A. Yes.
Q. And Navini was 1.4 miles down the road. Does that sound about right?

A. Yeah. From that map, yes.
Q. And that's consistent with your memory. They were in the same area at the same time working on a beamforming system. Right?
A. Correct.
Q. Okay. Now, you are aware, sir, that there are these trade shows that sometimes people, companies go to. Right?
A. Correct.
Q. One of those trade shows is a trade show called SuperComm. Right?
A. Yes.
Q. The very famous, very well-attended telecom trade show that was going on at that time. Right?
A. Correct.
Q. Once a year, if I recall. Right?
A. Correct.
Q. Okay. And there was a trade show in June of 2001 called SuperComm. Right?
A. Correct.
Q. And it was at, if I recall, the Superdome, is it called -- the Georgia dome in Atlanta. Right? That's where the trade show was. Right?
A. Actually there's -- it's not in the Superdome; it's -- there's a conference center they have in Atlanta.
Q. A conference center in Atlanta. Right?

A. Yes.
Q. Now, Raze had a booth at that SuperComm show. Right?
A. That's correct.
Q. And this company that was building a similar system down the road, Navini, had a booth at SuperComm that year. Correct?
A. Correct.
Q. Now, that's 2001. That's the year that you're doing all this work on SkyBeam. Right?
A. Correct.
Q. All right. Now, you saw Navini's booth and their equipment. Right?
A. Yes, I did.
Q. You visited the show, you went to their booth, you checked out what they were working on. Right?
A. Yep. And they went to our booth.
Q. Sure. That's what you do at these trade shows. Right?
A. Correct.
MR. ROSENTHAL: So let's take a look at my next demonstrative.
Q. (BY MR. ROSENTHAL) This is a picture of the Navini booth from that SuperComm trade show. Right? Does this look generally what it looked like?
A. It does.
Q. Okay. And you can see in the Navini booth there is sort

of this base station over on the right with all those lights.

MR. ROSENTHAL: And if you zoom back out Mr. Eaton.

Q. (BY MR. ROSENTHAL) You see there is a little red device sitting on a table right in the middle. Do you see that?

A. Yes.

Q. Okay. So what Navini was doing was demonstrating the product, the beamforming product that they were launching at that time. Correct?

A. I believe so, yes.

Q. Okay. Now, Raze was not yet ready for a launch. You were going to launch at this show but weren't quite ready for your launch. Fair?

A. We were announcing that we would be ready for launch at a certain period of time so we were showing off our equipment and talking about when it would be generally available--GA.

Q. Now, fair to say, Navini was just a tad ahead of you. They were launching at this moment. Right? This was their product launch.

A. I don't know if it was or it wasn't, but, I mean, of course, I think they were announcing their product.

Q. Let's take a look.

You wrote reports after this trip to write down what you saw --

A. Okay.

Q. -- from all the various demonstrators. Right?

A. Okay.

MR. ROSENTHAL: Let's take a look at DTX 5, which is pre-admitted.

Q. (BY MR. ROSENTHAL) Okay. Now, this is something that you wrote, and it's entitled "SuperComm trip report, June 7, 2001."

Do you see that?

A. Yes, I do.

Q. And that's your name. Right?

A. Yep.

Q. And so this basically -- when you got back from SuperComm, you sat down and you wrote out what you had seen and what you had -- your conclusions from the SuperComm show. Right?

A. Correct.

Q. All right. Now, if you could, please, turn to page 2 and there is a section called "Navini." And this is what you saw when you looked at Navini, this company down the road from you. Right?

A. Correct.

Q. And you -- first words, you say, "This was their product launch." Right?

A. Yeah. That was -- everyone was launching their products at SuperComm, yes.

Q. Okay. And so it says, "As usual, the boys at Navini were

acting strange. They would not let me stand in their area. I'm sending Skip tomorrow."

Do you see that?

A. Correct.

Q. So you were trying to find out what Navini was doing and they were being a little standoff-ish. Fair?

A. Correct.

Q. They didn't wand you standing near their booth. Right?

A. Correct.

Q. And so you were curious to know what was going on, so you decided you were going to send Skip Hynek to go and do a little reconnaissance. Fair?

A. Correct, yes. Business intelligence.

Q. Business intelligence.

A. Correct.

Q. In fact, you sort of referred to it as spy mode. Correct?

MR. KNOBLOCH: Objection, Your Honor. This is subject to a motion in limine.

MR. ROSENTHAL: Your Honor, I'm happy to address here or --

THE COURT: Approach the bench.

(The following was had outside the hearing of the jury.)

MR. ROSENTHAL: Your Honor --

THE COURT: Just a moment.

MR. KNOBLOCH: Your Honor, this --

THE COURT: Talk into the microphone.

MR. KNOBLOCH: This document was redacted by the Court. The document which mentioned the word 'spy mode' was specifically -- those words were specifically redacted by the Court and should not be discussed in front of the jury.

MR. ROSENTHAL: Your Honor, we have redacted the document, and Your Honor specifically said--and I have the transcript right there, which I can bring over--said you can ask him about it in cross exam, ask him if he said that, and if he says no, you can impeach him. But I'm not putting the document in evidence. So we redacted the document and we're doing exactly as the Court advised, which is to ask him if he did, in fact, say this. And if he says yes, I am not going to show him the unredacted version.

THE COURT: But the redacted version has been pre-admitted. Correct?

MR. ROSENTHAL: The redacted version has been pre-admitted.

THE COURT: And what you're putting on the monitor now, is that the redacted or --

MR. ROSENTHAL: It is redacted. I'm not showing anything that was redacted.

MR. KNOBLOCH: And Your Honor, I do not believe he

has set up an impeachment where he can ask him whether he said anything about spy mode. That hasn't come up yet. He hasn't asked him anything about Mr. Hynek.

THE COURT: I think he just asked him if he agreed it was spy mode. Now, it's a leading question, but he did ask him that and he did agree with that, so I'm go going to overrule your objection.

MR. KNOBLOCH: Thank you, Your Honor.

(The following was had in the presence and hearing of the jury.)

THE COURT: All right. Let's proceed.

MR. ROSENTHAL: Thank you, Your Honor.

Q. (BY MR. ROSENTHAL) So, you told -- you wrote down that you were going to send Mr. Hynek in spy mode. Correct?

A. I said "I'm sending Skip in tomorrow." That's all I said, just for him to do business intelligence, just like everybody else does. You go and see what your competitors are doing.

Q. Well, in fact, you not only described it that way; you actually described it as Mr. Hynek is going to go there in spy mode, didn't you?

A. I -- that's an interesting characterization. I mean, if I used those words then I can earnestly say they were just glib.

Q. Do you agree you used those words, sir?

A. I don't see it here, but I just -- I don't recall. But if I said it, I did; if I did say it, it was glib.
Q. If you could, please, I would like you to take a look at your binder.
A. Okay.
Q. And I would like for you to look at DTX 005.
So there is a section for JX and then there's a section for DTX.
A. DTX. Yes.
Q. And what I would like for you to do is there is a tab for DTX 005. There is also a tab for DTX 005-B. Could you take a look at that, please?
A. Yes, I see that.
Q. All right. Now, if you could, please, turn to the page that ends in 008.
A. Yes, I see that.
Q. And underneath "Navini" there's a section that is in red.
MR. ROSENTHAL: Please don't publish it.
Q. (BY MR. ROSENTHAL) It says -- well, do you see --
THE COURT: Ask him to read it and then we'll go from there.
MR. ROSENTHAL: Thank you, Your Honor. I almost made a mistake.
Q. (BY MR. ROSENTHAL) Inside "Navini" at the end of the first paragraph I'd like you to read that last sentence to

yourself and then I will ask you again.

A. It's completely blacked out.

Q. Are you looking at the page -- at the DTX 5-B or are you looking at DTX 5?

A. I'm looking at DTX 5. Everything that you say is in red, it's not in red; it's in dark black.

Q. If you could, please, the next tab says DTX 5-B. Do you see that tab?

THE COURT: There's a blue piece of paper separating them.

THE WITNESS: Sorry. My apologies.

MR. ROSENTHAL: No, no it's my fault. I apologize.

THE COURT: It's not a tab; it's a blue sheet of paper.

MR. ROSENTHAL: I see. I have a tab in mine. That's why I was confused. I'm so sorry.

Q. (BY MR. ROSENTHAL) So the page number again is 008?

A. Yes. I'll read it to everybody.

Q. No, no, no, sir. Read it to yourself, the last sentence of the first paragraph under "Navini."

A. Yes.

Q. You read it?

A. Yes.

Q. I'll ask it again. You sent Mr. Hynek to go look at Navini in spy mode. Correct?

A. Yes, I told him to go take a look at it.
Q. Okay. And you also came up with a plan for Skip to be a well-heeled real estate developer that wants to install wireless. That was the cover story. Right?
A. Where are you getting that from? I don't recall.
Q. Why don't you take a look a couple pages earlier where it ends at 653. Again, on the back end of the blue sheet.
A. Oh, on the blue sheet?
Q. Yep. Underneath "other information."
A. Other information.
Q. Please don't read it out loud. Okay?
Let me ask my question. Do you recall that you sent Mr. Hynek to go find out whatever he could about Navini by pretending to be a well-heeled real estate developer that wants to install wireless?
A. Yes, I recall.
Q. Okay. So you were curious, fair to say, about what Navini was doing with their product launch. Right?
A. That's a fair characterization.
Q. Okay. And what you learned is that they had a really cool product. They had an interesting product. Fair?
A. I actually wrote a lot more than that. It was an interesting product aimed at something different than we were.
Q. And, in fact -- yeah, they didn't have the same product as you. Right? They had a different product. Right?

A. Correct.
Q. And this is what their antenna -- what their device looked like. Correct?
A. That's what they showed, yes.
Q. Okay. That's that red device we saw a moment ago on the table. That one's red, this one's gray, but that's basically what it was. Right?
A. Correct.
Q. This is a flip-up antenna. Right?
A. Yes.
Q. And you described that as a very sexy looking package with a flip-up antenna. Correct?
A. Correct.
Q. All right. And so when you learned what you learned, you also did some additional counterintelligence on Navini. Fair?
A. Yes. I was interested to see more about what they were doing.
Q. And you had a conversation with Navini's CEO to try to make him spill his guts about what was going on with his company.
A. I had a conversation and asked him what he was doing. Correct.
Q. And you described that as counterintelligence. Fair?
A. When you're ex-NSA, that's how you view the world.
Q. Fair enough.

Now, I want to get a timeline straight. The trip reports that you wrote, there were two days. One was from June 7; one was from June 9, 2001. Right?

A. Yes.

MR. ROSENTHAL: Could we please put the calendar up that I've created here.

Q. (BY MR. ROSENTHAL) So this is a calendar from way back in 2001, and the trip reports that you have from --

MR. ROSENTHAL: Can you please back up one? Or is it already on there? I guess it's already on there. Go forward one.

Q. (BY MR. ROSENTHAL) The trip reports were from this time frame from June 7 to June 9, and that's when SuperComm was. Right? In Atlanta.

A. Correct.

Q. Now, what counsel did not show you was the white paper that you just described was the basis for the '931 Patent. I would like to look at the date, because the date is actually two days after you learned all that from Mr. -- from Navini. Fair?

A. Yeah, but it is nothing reflected there. That paper is many, many pages long. That's months and months of work.

Q. Well, let's take a look.

MR. ROSENTHAL: Could we bring up JX 3, please? And go to the next -- sorry. Previous. Right here. If you go to

the page that ends in 72.

Q. (BY MR. ROSENTHAL) The white paper that formed the basis of the patent is dated June 11th of 2001. Correct?

A. That's the final date of publish. Correct.

Q. This was your initial pass, wasn't it?

A. I don't -- if you would pull that document up and hand it to the jury, I don't know how anyone would write a 45-page technical document in a day, which is what you are trying to say.

Q. I'm not trying to say anything. I asked whether this was your initial pass of the white paper. That was the question.

A. No. This is more like a final pass of a white paper.

Q. Let's take a look at your transcript. Can you please go to your deposition that I took? And let's go to page 137. Page 137 of your transcript, the 2024 transcript, is located on page 35 of the document.

THE COURT: Identify the lines you want him to refresh his recollection as to, give him an opportunity to read them to himself, and then ask your question.

MR. ROSENTHAL: Yes, Your Honor.

Q. (BY MR. ROSENTHAL) On page 137, please take a look at lines 11 to 13 and read it to yourself.

A. Yeah.

Q. And I will ask, Is it correct that in June of 2001 you completed an initial pass of the advanced antennas white

paper?
A. I did. I said, "Yes, it was -- it was ready to go. It just needed to be cleaned up."
Q. And over the next month and a half you cleaned it up and finalized it so that it was ready to go final in July. Correct?
A. Correct.
Q. All right. And that is the white paper from which you then filed for patent protection. Correct?
A. That was the initial paper used to begin the process, yes.
Q. All right. Now, you testified during your direct that there was just no money out there to fund companies.
Now, this company Navini was out there doing beamforming and they did get funded at this time, didn't they, sir?
A. I don't know.
Q. Well, let's take a look. Could you go to tab H of your binder?
A. Tab H.
Q. I'd like you to take a look at that document, which is a news report, and ask if that refreshes your memory that Navini Networks received $51 million of venture capitalist funding in 2001.
A. They did. I wasn't really paying that much attention to their funding in August the 28th.

Q. Okay. And is it also true that even after 2001 Navini continued to get funding?
A. I don't know. I just did not follow Navini after I left. Right?
Q. Let's take a look at tab C in your binder. This is an article from 2003.
Does this refresh your memory that Navini continued to get millions, in this case $25 million, of additional funding after the World Trade Center attack in 2003?
A. That's what the document says. Again, I don't recall it. That's what your question was.
Q. Now you testified that one of your companies was acquired by Cisco. Navini was also acquired by Cisco, weren't they?
A. I don't know. Were they?
Q. Well, let's take a look at tab A and see if it refreshes your memory.
THE COURT: Mr. Struhsaker, you are here to answer questions, not to ask questions. Please limit your responses to answers.
Q. (BY MR. ROSENTHAL) If you could, please take a look at tab A, and I would ask for you to take a look at that article from 2007.
Does this refresh your memory that Cisco acquired Navini Networks in 2007?
MR. KNOBLOCH: Objection; foundation, Your Honor.

THE WITNESS: I don't have a recollection --

THE COURT: Wait, wait, wait, wait.

What's your response, Mr. Rosenthal?

MR. ROSENTHAL: I'm merely asking whether it refreshes his memory about the fact or not. I don't think there's a foundation issue. I've asked the question, I've shown him something to refresh his memory, and I'm asking whether it does.

MR. KNOBLOCH: Your Honor, there is no foundation that he had any knowledge about this at any time that this -- or that this would refresh any recollection that he ever had.

THE WITNESS: Correct. I wasn't following it.

THE COURT: Wait a minute. Wait a minute. I'll let you know when you can answer, if at all, but once the objection is raised, the witness sits silent until the Court's ruled on it. Okay?

THE WITNESS: Sorry.

THE COURT: I don't know of any foundation that would show this witness had some ongoing interest or following of Navini's financial situation, and without that this is just simply a conduit to publish hearsay information to the jury.

I'm going to sustain the objection on lack of foundation.

MR. ROSENTHAL: Thank you, Your Honor.

Q. (BY MR. ROSENTHAL) Is it possible, sir, that the reason

that Raze didn't get funding wasn't because of 9/11 and the World Trade Center, but was, in fact, because the market wasn't interested in Raze's technology?

A. I can't really say.

Q. Okay. Let's take a look at the '794 Patent.

MR. ROSENTHAL: Could you please bring up JX 2?

Q. (BY MR. ROSENTHAL) This is one of the two patents that are being asserted in this case. Correct?

A. Correct.

Q. And this patent was also based on a white paper that General Access' counsel did show you. Correct?

A. Correct.

MR. ROSENTHAL: Let's take a look at JX 65.

Q. (BY MR. ROSENTHAL) This is the two-tier white paper that you were asked about during your direct that formed the basis of the '794 Patent. Right?

A. Correct.

Q. Now, you testified about something called 'nomadic'. I want to just be clear about something. The device to which the cellular station communicated was fixed. Correct?

A. That is correct.

MR. ROSENTHAL: All right. Let's take a look, please, at page 4 of Exhibit JX 65.

Q. (BY MR. ROSENTHAL) And I think you showed either this picture or something like it. And I want to be clear, the

elements on this page that show what you came up with are -- you've got a cellular base station on the left. Right? Right?

A. Correct.

Q. And it's communicating with a subscriber integrated access device--SIAD. Right?

A. Correct.

Q. That's this fixed device right here. Right?

A. Correct.

Q. Okay. And the idea that you were adding was that you would have this little green unit, which was a WiFi modem. Right?

A. That was the antenna. The modem was integrated into the SAID [sic] device.

Q. Thank you. It's a WiFi modem--sorry--WiFi antenna--I misspoke--that communicates with these mobile units here. Correct?

A. Correct.

Q. Okay. But it's still a fixed system communicating with the cellular. Right?

A. Yes.

Q. Okay. Just wanted to clear that up.

All right. And the idea here was this was going to be an add-on to your fixed SkyFire system. Right?

A. Correct.

Q. Now, I want to talk to you about the patent itself.

You testified that your process for patenting was to talk to the lawyers about your idea, give them a draft, and then collaborate with them to get the final draft to the Patent Office. Fair characterization. Right?

A. I normally take some description I've written and deliver it to the lawyers and then they would work from there.

Q. But you did not write the claims of the '794 Patent. Right?

A. I did not.

Q. All right. Now, let's take a look at those claims because the claims are actually at issue in this case.

MR. ROSENTHAL: If we could please take a look at JX 2, and if we could go all the way back to the claims. Let's look at claim 1.

Q. (BY MR. ROSENTHAL) Now, claim 1 is a long claim that's at issue in this case and there's a lot of language in it. We'll go through this language later. With you I want to ask you about one little piece of this.

All the way at the bottom do you see it talks about the second transceiver?

A. Yes.

Q. And you see at the very bottom it says at the last two lines that it routes information to the first mobile station and the second mobile station, respectively?

Do you see that?
A. I see that.
Q. Now, this claim and this patent was written and filed long after you left Raze. Right?
A. I don't know the exact dates after -- of when this was added. We can go to it, but let's just -- let's assume there is office actions. And that's true. If you could show me a date, that would be helpful to refresh my memory.
Q. Absolutely. Let's just go to the front page of the patent which will answer it.
A. Yes.
Q. The front page of the patent says this patent was actually filed in 2012. So this patent was long after you left. Right?
A. Correct.
Q. Now, it's based on a patent application you filed while you were at Raze a long time earlier. Right?
A. I assume that's correct, yes.
Q. But this particular patent and these claims were long after you left. Right?
A. They must be.
Q. They must be. Okay.
So I want to focus, then, on that last piece of language--"the second transceiver routes information to the first mobile station and the second mobile station,

respectively."

Now, you didn't write that language. Right?

A. No, I did not write that language.

Q. No. And, in fact, there is nothing at all in the body of the patent that actually describes the second transceiver routing information to the first mobile station and the second mobile station, respectively. Isn't that true, sir?

MR. KNOBLOCH: Objection, Your Honor. May I approach?

THE COURT: Approach the bench.

(The following was had outside the hearing of the jury.)

MR. KNOBLOCH: The term that he's asking about, this 'routes information', was the subject of a claim construction by the Court that this witness has not been instructed on. He is not here to talk about infringement or the meaning of the claim terms, and I'm concerned that this line of questioning could potentially get into this issue of, you know, what it means to route information according to this claim.

MR. ROSENTHAL: Your Honor, I'm not getting into claim construction; certainly not talking about infringement at all. The question that I'm leading to is merely that he in writing with his lawyers and in this application did not write anything about a function of this second transceiver. This is a written description case. He's the inventor and he will

admit that there is nothing in the patent that describes any function like this. Now, if you want to take it out of the claim language --

THE COURT: As long as it's limited to this particular claim language and where, if at all, is there supporting language in the specification for that portion of the claim, I'll allow you to proceed, but we are not getting into claim construction.

MR. ROSENTHAL: Not at all, Your Honor. Thank you.

(The following was had in the presence and hearing of the jury.)

THE COURT: All right. Let's proceed.

Q. (BY MR. ROSENTHAL) Let me repeat the question.

You agree that you did not write anywhere in this patent, in the specification, that the second transceiver routes information to the first mobile station and the second mobile station, respectively.

A. No, but I did note that the -- that area is a wireless LAN, and by that -- even at the time I wrote this patent, a wireless LAN includes a router in that point. All of them did. None of them are ever sold without that capability. So I felt that anyone skilled in the art knew that the term wireless LAN, WLAN, throughout that white paper would be easily understood that that routing function that copies the first and second transceiver, which is a routing function,

would be easily understood.
Q. So that was a long answer to a really simple question.
THE COURT: Whoa, counsel. You don't need to characterize this. Those are sidebar comments that are improper. You can ask another question or you can rephrase your prior one, but you're not going to tell the jury what you think about your question compared to his answer. All right?
MR. ROSENTHAL: I apologize, Your Honor.
Q. (BY MR. ROSENTHAL) Sir, very simply, you did not write in this patent anything about the second transceiver performing routing to the first and second mobile stations. Correct?
A. It is not written like that.
Q. And it is not written like that -- it is not written in any words. Correct? In words.
A. The concept is sitting there in the document as WLAN, as any person skilled in the art at that time would know.
Q. Well, let me ask you this. The patent doesn't describe at all the WLAN performing this function. Right?
A. Because all WLANs perform that function. Why would I describe what you could look up in a textbook?
MR. ROSENTHAL: I object to that answer as non-responsive.
THE COURT: Sustained.
Whether it's in a textbook or not, the question was did

it say that it performed that function. That's a simple 'yes' or 'no', Mr. Struhsaker.

THE WITNESS: It is -- no, it did not say that.

Q. (BY MR. ROSENTHAL) Thank you.

Now, I want to ask you about WiFi transceivers in 2001.

In 2001 when you referred to a second transceiver and a WLAN transceiver or a WiFi transceiver, we're talking about the same thing. Right?

A. Correct.

Q. Okay. In 2001 those WLAN or WiFi transceivers communicated information in an omnidirectional manner. Correct?

A. They had omnidirectional coverage.

Q. In other words, when it sends a signal, it sends it out everywhere. Right?

A. It sends a signal everywhere. The signals are directed to each subscriber. So there is a lot more than just sending it; it also has addressing and different parameters, as all WLANs do.

Q. Now, in 2001, WLAN transceivers did not send information along a particular path, did they?

A. They defined a logical radio path to who they were talking to. So again, there is -- they have to -- so when you send a signal from one -- like your computer to your printer--okay?--your computer has one address and may have

some signal parameters with it. Your printer has another. The signal does not go from your computer to the printer; the printer goes to the access point, the access point demodulates it, the access point understands that it's to go to this other item, the access point remodulates it, and that's this concept of a path. Okay? It's a routing path. By the way, that's the functional technical term.

Q. Sir, in 2001 there was no path when a WiFi transceiver sent information to WiFi devices. Isn't that true?

A. That is not true. There was a logical path.

Q. Please take a look at your deposition transcript. I'd like you to turn to page 284 of your transcript.

A. Page -- can you repeat the page?

Q. 284. I'd like you to take a look at 284, line 22, through 284 [sic], line 7, and read it to yourself. Let me know when you're done.

A. It goes down to the very bottom of 285 is the exact explanation I just gave.

Q. And sir, my question, now that you've read that to yourself, is do you recall that you were asked about whether or not the second transceiver specifies a path.

A. It says at the time there's -- okay.

Q. Sir --

A. Hold on.

THE COURT: Just a minute, Mr. Struhsaker.

THE WITNESS: Sure.

THE COURT: Is that the entirety of your question?

MR. ROSENTHAL: Yes. The question is only whether he recalls being asked about that topic.

THE WITNESS: Oh, well yes, of course.

Q. (BY MR. ROSENTHAL) Okay. And having read this, does it refresh your -- let me ask the question again.

In 2001, isn't it true that there is no path; there is retransmission in a small omnidirectional cell?

A. That's one set of words. There is the intent of what I had there. I believe that the answer in toto all the way down to the bottom explains what I just explained to the jury and to you.

Q. Let's take a look, please, at the '931 Patent.

A. Okay.

Q. This is the other patent.

MR. ROSENTHAL: If we could please bring it up, JX 1.

Q. (BY MR. ROSENTHAL) This is the other patent that is asserted in this case. Correct?

A. Okay.

Q. And you brought this patent up -- or your lawyer brought it up. Now, he didn't ask you any questions about what's written down inside the patent. Right? He just showed the cover.

A. Correct.
Q. Okay. I'd like to take a look at what's written down inside the patent, if you could.
A. Okay.
Q. Let's start with the date. It's filed September 1st -- September 5th, 2001.
Do you see that.
A. Correct.
Q. Now, beamforming, which has been the subject of your testimony, was not new in 2001. Correct?
A. The Navy had been using it, as we showed, in the early '70s, and the first prototypes are from the '50s.
Q. Let me try again. Beamforming was not new in 2001. Correct?
A. It was not.
Q. And you did not invent beamforming, sir.
A. I didn't say I did.
Q. And, in fact, you also testified about TDD, time division duplex.
Do you recall that?
A. Yes.
Q. TDD had existed for a very long time before your work on the '931 Patent. Correct?
A. I agree.
Q. And you did not invent TDD.

A. I did not invent TDD.
Q. So one of the things that you looked at is how to use beamforming in a cellular network, which you believe had not been done before. Correct?
A. That's not the full characterization. It hadn't been done yet with beamforming and TDD.
Q. Okay. You were looking at how to adapt beamforming to a cellular network and make it work. Correct?
A. Correct.
Q. And from your perspective, beamforming relative to a cellular system was almost unheard of. Correct?
A. Correct.
Q. All right. So, now, when you filed for your patent that led to the '931, you signed an oath to the Patent Office that what you had written down was your invention. Correct?
A. Correct.
Q. All right. And you did that at the time you filed for the patent. Right?
A. Correct.
Q. Now, you did not write the claims of the '931 Patent; your lawyers did. Right?
A. Correct.
Q. But you worked on the specification and what's written in the figures and all that stuff. Right?
A. I reviewed what the lawyers did who wrote it.

Q. Okay. Now, let's take a look at the claims of the '931 Patent.

At the very end there are claims that are written down. Do you see that? This is claim 1, for example.

Do you see that?

A. Yes.

Q. Okay. Now, I want to go back to the original claims that you submitted as part of your application. Okay?

MR. ROSENTHAL: So if we could please bring up DTX 3.

Q. (BY MR. ROSENTHAL) DTX 3 is what's called the prosecution history. You are familiar with that concept? Right, sir?

A. Yes.

Q. And what this is is a record of all the back-and-forth between the Patent Office and the applicant. Right?

A. And the -- and our patent attorney. Correct.

Q. Exactly.

Now, what I'd like to do is please take a look at page 298 of the document.

Now, page 298 contains the original claims before they were amended that were submitted in 2001. Correct?

A. If that's from the history book, it has to be correct.

Q. Okay. It is.

Let's take a look at claim 1.

And the original claim 1 has no reference at all to sending a broadcast beam to multiple sectors. Right?

A. It does not.

Q. Okay. And let's take a look at claim 19, which is just a couple of pages later.

So, again, this is the original claim, not the one that issued, and in this original claim, again, there's no reference to a broadcast beam that goes to multiple sectors. Right?

A. There is not.

Q. And in these two claims there's actually no reference at all to multiple sectors; everything's within one sector. Right?

A. Yes. Those two are single sector references, 1 and 19. That's what you're referring to?

Q. It is.

A. Yes.

Q. And let's go to the end of the list of claims.

There is no claim 28 and 29 yet at this moment. The last claim there is 27. Right? Nothing further.

A. Yes, there's nothing further.

Q. So the two claims -- the only two claims that are in this case, in this patent, were not in that application that you signed and said, I invented this. Correct?

A. Correct.

Q. Okay. Now, after you left Raze--you left Raze in 2002--years later in 2006 the Patent Office rejected those single sector claims. Correct?

A. Yeah, I assume so, but I'm just aware of the office actions. But yes, they did.

Q. Okay. Well, let's take a look.

So if you could please go to -- well, let's go to the amendment, actually.

After the rejection, after the Patent Office rejected those single sector claims, General Access then made amendments to the claims. Right?

A. Yes.

Q. Let's take a look at the file history, and we're going to go to page 66. And right here we see this is claim 1 and then we have underlined language.

Do you see that underlined language? We're highlighting it in green for you.

A. I'm just reading and keeping up here.

Q. Yep.

A. Do you mind if I take a moment?

Q. Please.

A. Okay.

Q. Now, the underlined language was added by General Access' lawyers. Correct?

A. Yes. It is actually by the same set of attorneys that

were processing this. That I'm aware of because they gave me a telephone call. So yeah.

Q. You did not write these amendments.

A. I did not write those amendments.

Q. Okay. And then if you scroll -- now just before I move, these -- this language that the lawyers added added the requirement for the first time that a broadcast beam has to go to multiple sectors. Right?

MR. KNOBLOCH: Objection, Your Honor; claim construction.

THE COURT: Overruled.

THE WITNESS: So it did, and -- because the office action had struck down, obviously, that if you talked about a single frame then you couldn't have the patent. So as in any go to and fro, as we've talked about, you go back and forth until the patent is approved. The lawyers, obviously--it's written right in front of us--took this as a path to answer the office action. That's it.

Q. (BY MR. ROSENTHAL) So the Patent Office said the single sector stuff is old, can't get a patent, and the lawyers added, Okay, well, this -- we'll add a requirement that the broadcast beam goes to multiple sectors. Right?

A. Which had to be supported by the body of the patent. Right?

Q. We're going to get into that. I'll ask you about that in

a moment.

Let's go down to the bottom of this list of claims.

MR. ROSENTHAL: If we scroll down.

Q. (BY MR. ROSENTHAL) Now, I'll just pause for a moment on claim 19.

They also added the same limitation to claim 19. Just -- we'll take a pit stop there.

Do you see that?

A. Okay.

Q. Okay. So they -- the lawyers added this requirement to claims 1 and 19 that there's a broadcast signal that's got to go to multiple sectors. Right? Correct?

A. Correct.

MR. ROSENTHAL: Okay. And then let's go down.

Q. (BY MR. ROSENTHAL) And what you see now at the end is they added two new claims.

Do you see that? Claims 28 and 29.

A. Yes, I see them.

Q. Now, those -- they say 'newly added' next to them.

Do you see that.

A. Yes.

Q. Okay. So those were -- you didn't write those claims. Right?

A. I did not write those claims. I never write the claims. The lawyers would always write the claims.

Q. But now, in 2001 you signed an oath saying, All of this is my invention. You didn't sign an oath when these claims went in saying, This is my invention. Right?

A. I don't believe so, no.

Q. No. And so these claims had yet another requirement for the first time that say that there's a TDD frame that has to have directed beams that go into multiple sectors within the same frame.

Do you see that?

A. I'm just reading to make sure that --

Q. Please.

A. Yes.

Q. Okay. Let's go back to your white paper, sir.

A. Okay.

Q. Now, what you said a moment ago is what I want to follow up on.

You said a moment ago, if I heard you right, that the claims that are added, they've got to be supported by what's written down in the spec. Right?

A. Correct.

Q. All right. Now, let's take a look at what you wrote in your white paper and in the patent.

MR. ROSENTHAL: In the white paper, let's go, please, to page 6.

Q. (BY MR. ROSENTHAL) Now, you showed this picture, and

I believe I saw it on a slide that Mr. Summers -- do you remember Mr. Summers flashed this slide up in his opening presentation?

A. Something similar.

Q. Something similar. And what this shows is beams going into a single sector.

Do you see that?

A. Yes. It's representative, so yes.

Q. And it says "cell sector."

Do you see that?

A. Yes.

Q. It doesn't say 'send beams into multiple sectors'. That's not written down here. Right?

A. It's not; not in the white paper, no.

Q. In fact, nowhere in the white paper does it say that. Right?

A. Again, the white paper is a basis; it's not the final outcome.

MR. ROSENTHAL: Okay. And if you could turn to page 17 of the white paper and -- actually, sorry, go down to 18, if you could.

Q. (BY MR. ROSENTHAL) You see there's a picture here of something called the broadcast beam.

Do you see that?

A. Yes.

Q. Now, this is a sector view and a beam view of a broadcast beam. Right?
A. Yes.
Q. Now, a broadcast beam is the beam that goes to a wider area. Right?
A. Correct.
Q. Whereas a directed beam is the flashlight. Right?
A. Correct.
Q. In your analogy.
A. In my analogy.
Q. And what you're describing in this white paper is not a broadcast beam that goes to all the sectors; you're describing a broadcast beam that goes to a full sector. Correct?
A. It is the representative, and again, to make a point, you're introducing concepts. Right? So this is a white paper due to customers, and it is absolutely showing what you say. It is showing a beam to one sector.
Q. The white paper is showing a beam to a sector, not to multiple sectors. Correct?
A. In this picture, correct.
Q. All right. And I want you to turn, please, to page 23.

And we've heard this concept of a TDD frame. A TDD frame is like a package of information. Right?
A. Correct.
Q. And there's a section where information goes down,

there's a section when it comes up. They call that downlink and uplink. Right?

A. Correct.

Q. Okay. And you've depicted here an example of a TDD frame. Right?

A. Correct.

Q. And this TDD frame is going to a single sector. Correct?

A. Right. In this simplified description it is. Correct.

Q. Okay. It is not going to multiple sectors. Right?

A. Correct.

Q. Now, if you look at this broadcast beam that's shown here, that is an -- I want to clear up some confusion. There's a semicircle. Do you see that semicircle of the broadcast beam?

A. Correct. I see it.

Q. That's just showing that it goes from minus 45 degrees to plus 45 degrees. In other words, it's a slice of the pie. Right?

A. Right. It's teaching the difference between what a broadcast beam is and a narrow scanning beam.

Q. So a broadcast beam goes to the whole sector; a narrow scanning beam goes to one little part of the sector. Right?

A. Just for this concept, yes.

Q. Now, this broadcast beam ain't going to multiple sectors in this paper. Right?

A. No, it wasn't. In this paper we're trying to describe this concept and not trying to overly complicate it. It's a sales document. It is a white paper for customers.

Q. Okay. Let's go to page 16 of your sales document.

Okay. And this is the technical specification for what you're going to do for the purpose and capabilities of this SkyBeam. Correct?

A. No, it's an overview of what would be. There would be a very specific design document that would come later.

Q. So let's take a look at what you said. It says, "To meet these goals, we will use a combination of the following technologies:" And it says, the first bullet, "Beam scanning within a cell sector."

Do you see that?

A. Correct, because that was all that was possible at that time with the technology.

Q. Sir, it does not say anything about beam scanning to multiple sectors in this white paper at all. Correct?

A. It doesn't.

Q. All right. Let's go to your patent.

MR. ROSENTHAL: Let's take a look at the JX 1, which is the '931 Patent asserted in this case.

Q. (BY MR. ROSENTHAL) And I want to look at what you did not show in your direct, which is what's written down here in the figure 2.

Figure 2 is a picture of an example network of your patent. Right? You've got a bunch of base stations here. Right?

A. Correct.

Q. Now, these base stations are each divided into quarters. Do you see that?

A. Yes.

Q. Those are slices of pie. Those are sectors. Right?

A. 90-degree sectors.

Q. Four sectors; each one's 90 degrees. Right?

A. Correct.

Q. And each one of those sectors has its own modem and has its own antenna. Correct?

A. It may share a modem, but it does have it's own antenna for beamforming.

Q. Let's take a look at the patent.

A. It probably says yes. It probably says there is a card for each one because that's the topology, yes.

Q. Okay. So --

A. I'm agreeing with you. Sorry.

Q. That's okay.

So each one of those sectors has its own modem; has its own antenna. Right?

A. Correct.

Q. Now let's take a look at the figures of the patent as

opposed to the white paper. Let's see if it's different.

MR. ROSENTHAL: Let's go to figure 13A.

Q. (BY MR. ROSENTHAL) This is showing the broadcast beam in the patent. And what is it showing? It's a broadcast beam to a single sector. Correct?

A. It is, yes.

Q. All right. And let's take a look at 13B. Again, this is a different view of the same broadcast beam to a single sector. Right?

A. Correct.

Q. Let's take a look at -- and I'm sorry. Just to be clear, so what's described in this patent is a broadcast beam that goes to a single sector. Correct?

A. That's not correct. Broadcast beam goes to all the frames. When you're -- there's framing information and signaling information, and so I think you are mischaracterizing this as to the difference between the physical issue of sending in a sector and the logical construction of frames in a network.

THE COURT: Mr. Struhsaker, the question was "is that correct," and you said, "That's not correct," and then you started to explain why it's not correct. He never asked you why it's not correct. You need to limit your answers to the questions asked.

Counsel for the Plaintiff is going to get a chance to go

to the podium after Defense counsel is through with his cross examination and ask redirect questions, and he can go back to anything he wants to and ask you to more fully explain it or to give you reasons. But unless the lawyer at the podium asks you why, don't go into an explanation of why you say you're not correct. Okay?

THE WITNESS: Okay.

THE COURT: Let's proceed.

Q. (BY MR. ROSENTHAL) Figures 13A and 13B show a broadcast beam to a single sector. Correct?

A. Correct.

Q. Thank you.

Let's take a look at figure 14. Figure 14 shows a TDD frame. Correct?

A. Correct.

Q. And this TDD frame picture was built from that same TDD frame picture we looked at in the white paper. Correct?

A. Correct.

Q. And it shows a single frame followed by another frame. Correct?

A. Correct.

Q. And within each TDD frame there are beams to only a single sector. Correct?

A. That's not -- again, that's the logical view. I disagree with that statement.

Q. Okay. Isn't it true, sir, that in your patent--okay?--a TDD frame addresses one sector?

A. No, that is not true.

Q. Let's take a look at your deposition, sir. Page 117. Please take a look at line 8 through line 16.

A. 117 or --

Q. 117.

A. Sorry. I had 177.

Q. No problem. And I'm sorry. Start at line 5, please. Line 5 through line 16.

A. Okay.

Q. Do you see, sir, that I asked you --

THE COURT: Wait. Let him read the section.

MR. ROSENTHAL: I'm so sorry.

THE COURT: And then the witness will advise counsel as to when he's read it.

THE WITNESS: Okay.

Q. (BY MR. ROSENTHAL) Okay. Do you recall, sir, that you were asked in your deposition --

THE COURT: Counsel, you're not asking him the same question to get the same answer. Just ask the question you want that's covered by this section. If he answers consistently with his deposition, we'll move on. If he answers inconsistently with his deposition, I'll give you leave to publish the actual answers.

MR. ROSENTHAL: Thank you, Your Honor.
Q. (BY MR. ROSENTHAL) Let's keep it real simple and real direct. At least as you described it in this patent, a TDD frame addresses one sector. Correct?
A. I said fair and in this physical implementation is what it says. That's what -- I'm just telling you what I read.
Q. Sir, I'm asking you the question --
A. Okay.
Q. -- okay? The way that this -- I'm just going to ask you the question.
A. Okay.
Q. Is it true, sir, that in this patent, the '931 Patent, a TDD frame addresses a single sector in the physical implementation?
A. That's one implementation, and the other is that it can address many. And we talk about that in other questions in this deposition.
MR. ROSENTHAL: Your Honor, I seek leave to publish the answer.
THE COURT: Granted.
MR. ROSENTHAL: Are we able to bring this up, Mr. Eaton? Thank you very much.
Q. (BY MR. ROSENTHAL) Okay. Line 8 --
THE COURT: Line 5 is where you started.
MR. ROSENTHAL: That was my throat clearing.

Let's start at line 5. I'm so sorry, Your Honor.

Q. (BY MR. ROSENTHAL) "At least as you described it in this patent --"

And you say "Uh-huh."

"In this patent a TDD frame addresses one sector --" and then I said, "Fair?"

And then you answered, "In this physical implementation?"

I said, "Yes."

And you answer, "It did."

Correct?

A. Correct.

Q. That's what you testified then. Correct, sir?

A. Correct.

Q. All right. Now, is it also true that the broadcast beam that you described in this patent is one that covers the entire sector?

A. Well, yes, it will cover an entire sector or more.

Q. Please take a look at your deposition on page 121. And please take a look at line 3 through 6. And when you're ready I'll ask the question.

A. Okay.

Q. The broadcast beam that you describe in this patent is one that covers the entire sector. Correct?

A. Correct. In the description.

Q. In the description of the patent which is --

A. In the description of the drawing, yes.
Q. All right. Now, I'd like to now show you a demonstrative. Okay?
A. Okay.
MR. ROSENTHAL: Let's please take a look at the demonstrative that I've prepared.
Q. (BY MR. ROSENTHAL) We talked before about figure 2. Figure 2 shows--and I'll bring it up on the screen--a bunch of cell sites.
MR. ROSENTHAL: Let's zoom in on one of those cell sites.
Q. (BY MR. ROSENTHAL) Each of those cell sites has four sectors. I have put numbers on them. Okay?
A. Okay.
Q. All right. Now, figure 14 shows a TDD frame. Correct?
A. Correct.
Q. And we've --
A. Correct.
Q. And we already talked about the fact that in this patent each one of these TDD frames is addressed to a single sector. We talked about that a moment ago. Correct?
A. In the question you asked me, yes.
Q. Okay. So if I depict here I've got four sectors and each one of them has a TDD frame --
MR. ROSENTHAL: And let's bring down figure 14 so

it's not quite as busy. Go to the next slide. Okay.

Q. (BY MR. ROSENTHAL) All right. Now I want to ask you some questions about this. All right?

Now, the way that the '931 Patent explains it is that each of the sectors has a TDD frame. So there's a TDD frame for sector 1 and a TDD frame for sector 2 that have to be tightly coordinated. Correct?

A. Partially correct.

Q. Sir, the TDD frame from sector 1 has to be tightly coordinated with the TDD frame for sector 2. Correct?

A. It does, and --

Q. And each sector sending a TDD frame has to be tightly coordinated with the TDD frame at the other sector. Correct?

A. Correct.

Q. And if I have multiple sectors, like what I'm showing, the TDD frame for one sector has to be the same timing, the same format, the same duration as a TDD frame in another sector. Right?

A. In fact, it has to be the same TDD frame, frame 1 for the network.

Q. Sir, that wasn't my question.

A. Okay.

Q. I'm going to ask the question again.

THE COURT: Counsel, if you think the witness is non-responsive, don't tell him that wasn't your question;

raise it with the Court as an objection as the witness being non-responsive.

MR. ROSENTHAL: I'm so sorry, Your Honor. I'm going to ask another question.

THE COURT: You always have the option to move on, so let's do that.

MR. ROSENTHAL: I appreciate that.

Q. (BY MR. ROSENTHAL) Let me just I think break it down to something much simpler.

You are not sending the same information from the sector 1 TDD frame as you are in the sector 2 TDD frame. Correct.

A. Partially correct.

Q. There will be different informational parts. Correct?

A. That's the part that's different. The information in each frame is different.

Q. Now, within a single TDD frame you can have multiple beams going to that sector. Correct?

A. Correct. Within a single frame in a single sector or multiple sectors you can have multiple beams.

Q. Let me ask this question. In your patent, the way that you described it, you cannot have a single TDD frame that inside of that TDD frame I have one directed beam going to one sector and another directed beam going to a different sector. Correct?

A. No. The TDD frame -- the frame which has the information can have different things. The antennas and modems, those are separate. You're right. A modem on one side can't transmit on the other. So I -- we're adding a complication, but the question that you asked is only -- partially covers what is described.

MR. ROSENTHAL: Move the strike the answer as non-responsive.

THE COURT: After the witness answered "no," which is responsive to the question, the balance of it I'll sustain as non-responsive and strike.

Q. (BY MR. ROSENTHAL) Mr. Struhsaker, I'd like you to turn again to your deposition.

A. Okay.

Q. I'd like you to turn to page 107 of the deposition that I took of you. And please read to yourself lines 10 through 20.

A. Yes.

Q. I'm going to ask you again, in your patent you cannot have a single TDD frame such that within that TDD frame I have one directed beam to one sector and another directed beam to a different sector. Correct?

A. Your question actually frames it as one TDD frame that can be in one sector, and I asked you a question as to is that what you meant. And so you can do two things. You can have a single TDD frame with multiple transmissions or, as I

interpreted your language to say, you've defined the system with one TDD frame, you say the patent -- this was a hypothetical. You define the hypothetical as one TDD frame to the sector, and I answered you in the affirmative of your hypothetical.

MR. ROSENTHAL: Your Honor, I move to strike the answer as non-responsive.

THE COURT: Sustained.

Q. (BY MR. ROSENTHAL) Sir, in your patent you cannot have a single TDD frame that within that TDD frame I have one directed beam that goes to one sector and another directed beam that goes to a different sector. Correct?

A. That's not correct.

MR. ROSENTHAL: I ask permission to publish the answer, sir--Your Honor.

MR. KNOBLOCH: Objection, Your Honor. That's not the same question he was asked.

THE WITNESS: It's not.

THE COURT: Given what I've seen here in the deposition, I'm going to deny the request to publish it. I think the question has been answered and I think the answer given is different than was called for here. Let's move on.

Q. (BY MR. ROSENTHAL) Mr. Struhsaker, if you are squarely in sector 2, looking at this demonstrative, and I want to send a directed beam to you in sector 2, I have to use part of the

TDD frame for sector 2, according to your patent. Correct, sir?

A. Correct.

Q. Okay. I cannot use sector 1's TDD frame to send a directed beam to you in sector 2, according to this patent. Correct?

A. Right. And your picture, then, does not depict what we just spoke.

Q. All right.

MR. ROSENTHAL: Let's take my picture down.

Q. (BY MR. ROSENTHAL) I'd like to ask you about what this patent says about fixed wireless. Okay?

A. Okay.

Q. Let's take a look at the '931 Patent, JX 1 at 3.

We talked earlier about these antennas. These are fixed antennas on top. Correct?

A. Correct.

Q. Let's take a look at column 3 of the patent. This is the technical field of the invention, and it says, The present invention is directed to... and then it continues for a long time, but it talks then about selectively adaptable beamforming in a fixed wireless access network.

Do you see that.

A. Yes.

Q. And do you agree that one of the things your patent

describes is how to perform beamforming in a fixed wireless access network?

A. Yes, it does, and it also provides a general, general view of beamforming.

Q. Okay. Let's talk about that.

Now, you understand that today 5G mobile networks -- 5G cellular networks don't just handle fixed; they handle mobile. Correct.

A. Correct.

Q. I can take my phone, I can go up escalators or elevators and go around buildings and it's constantly beamforming to me even though I'm moving. Correct?

A. Correct.

Q. And you can drive at 75 miles down the highway and it will still beamform. Correct?

A. Correct.

Q. Now, can you tell the jury, what does 5G do to bounce the beams off the buildings and follow and track the devices so that it can accurately send beams to those devices as they're moving all around in all these different speeds?

MR. KNOBLOCH: Objection, Your Honor. Mr. Struhsaker is not here as an expert to testify about how 5G operates.

THE COURT: He's not. Is there some reason he should be able to give an opinion on this?

MR. ROSENTHAL: No. I'm not asking for an opinion; I'm asking whether he -- I'm just going to start with the question whether he knows how it works. I'm not asking for an opinion.

THE COURT: Restate the question that doesn't call for an opinion.

Q. (BY MR. ROSENTHAL) Sir, you have been in the wireless industry for a long time and worked on 5G. Correct?

A. Correct.

Q. Okay. This is a 'yes' or 'no' question. Do you know how 5G does mobile beamforming in the manner I just described?

A. It depends on the implementation. I know how I would implement the beamforming.

Q. And do you know how 5G systems do mobile beamforming in the manner that I just described?

A. A 5G standard tells you what you must do. A standard does not tell you how to do it. Therefore, that is technical know-how that an Ericsson or a Huawei -- it is -- there are many ways to solve a problem given the requirements.

Q. And I guess my question is this. Do you, sir, know -- again, I'm just asking whether you know. Do you, in fact, know how the Ericssons and the Samsungs and the Nokias of the world actually carry that -- pull that off?

A. I don't know how they do it. I know how I would do it, given my experience.

Q. All right. Now, you agree that designing a mobile wireless system is a very different thing than designing a fixed wireless system. Correct?
A. Yes.
Q. All right. And you agree that in 2001 when you wrote this patent, going from fixed to wireless would take a tremendous amount of work. Correct?
A. It would take a significant investment, yes.
Q. It would take years to do that work. Correct?
A. It would take time to do it. Correct.
Q. It would take years to do that work. Correct?
A. Probably, yes.
Q. Okay. Taking a fixed wireless air interface and having it work for users in mobile would mean years of effort. Correct?
A. It would take some level of investment, yes; and years, yes.
Q. And so in 2001, people hadn't even figured out how to do beamforming in a fixed cellular environment, let alone a mobile cellular environment. Right?
A. They understood the concepts. They didn't have the money or the technology to build it.
Q. Well, sir, to the best of your knowledge, in 2001 people had not figured out how to do beamforming in a cellular system. Right?

A. That's correct.
Q. Okay. So they didn't know how to do it in cellular, meaning they didn't know how to do it in fixed and they didn't know how to do it in mobile.
A. Correct.
Q. All right. Now, one of the things you've got to worry about in mobile but you don't have to worry about in fixed is the handoff. Right?
A. I understand handoff, yes.
Q. That's when a phone is moving and it goes from one base station to a different base station. You don't have to deal with that in fixed, do you?
A. No.
Q. Okay. And another issue that you need to worry about is you have to do channel quality measurements, and that's much more complicated in mobile than it is in fixed. Fair?
MR. KNOBLOCH: Objection, Your Honor. Again, he's asking him to testify as an expert about how these things operate in 5G.
MR. ROSENTHAL: Your Honor, I'm not asking anything about 5G; I'm asking about the testimony that he gave in his direct when he talked about his -- the inventions that he was doing. And he testified that he was thinking about mobility, and so I'm asking what challenges he would have faced had he tried to do that.

THE COURT: I'll overrule the objection. I think the door's been opened by the direct. But you're going to need to limit the questions and you're going to need to limit the answers to what you have personal knowledge of. You're not here to speculate about things. Okay?

THE WITNESS: Okay.

Q. (BY MR. ROSENTHAL) Do you agree, sir, that channel feedback technology is much more difficult when you've got cars zipping around at vehicle speeds?

A. It's faster.

Q. It's harder.

A. Faster. Same measurements you make fixed, you make them faster.

Q. Sir, the channel feedback technology gets more difficult when the user is moving around at vehicular speeds. Correct?

A. Correct.

Q. Now, tracking user devices is an important part of mobile. Correct?

A. Correct.

Q. And, in fact, when you do beamforming, the most difficult thing about beamforming is subscriber acquisition and maintaining synchronization. Correct?

MR. KNOBLOCH: Objection, Your Honor. He continues to ask questions about -- not tied to what he knows, but about how this all operates.

THE COURT: I think we've gone about as far as this witness' personal knowledge is going to take us on this counsel. So I'm going to sustain that objection, if there's any question in your mind.

MR. ROSENTHAL: There was not. Thank you, Your Honor.

Q. (BY MR. ROSENTHAL) Beamforming in a cellular system in 2001 was almost unheard of. Correct?

A. Correct.

Q. Now, you're familiar with the WiMAX standard. Correct?

A. Correct.

Q. And you chaired the WiMAX committee at some point, didn't you?

A. I chaired it at its founding, so I ran that international standard.

Q. And at its founding it was a fixed standard. Correct?

A. Correct.

Q. They added mobility sometime later. Correct?

A. Correct.

Q. Now, in 2001, WiMAX was not supporting mobility. Right?

A. Correct.

Q. And at that time people thought that it was way out of that group's league to add mobility. Correct?

A. Some members did; other members were promoting that we should be doing it.

Q. Sir, isn't it true that the idea of taking an existing fixed wireless air interface and using it for mobile was farfetched in 2001?
A. No, it wasn't farfetched. There are -- but you have to do the work.
Q. Sir, isn't it true, in your words, that you thought that if you think that you can take an existing fixed wireless air interface and use it for mobile phones, in your words, you're smoking crack?
A. The existing ones at the time? Yes.
Q. That's in 2001. Now, of course, they've solved that problem. Right?
A. They solved it probably by 2007.
Q. Six years after your patent was filed. Correct?
A. Correct.
Q. All right. Now, I want to talk about 4G and 5G.
You testified on your direct that 4G did mobile beamforming. Correct?
A. Correct.
Q. And 5G does mobile beamforming. Correct?
A. Correct.
Q. Now, 4G was the product of years and years and years of effort by hundreds of companies. Correct?
A. Correct.
Q. And it was a labor-intensive process with lots of

meetings and ideas. Right?
A. Correct.
Q. And you didn't participate in any of that. Correct?
A. I did not.
Q. Okay. And 5G, which was the next standard, yet another decade of work, years and years of work by hundreds or thousands of engineers. Correct?
A. Correct.
Q. In fact, in the 5G meetings, I think there were something like 1500 or 2,000 engineers working diligently over years to try to develop that standard, including beamforming. Right?
A. And Motorola I had 50 engineers who worked for me who --
Q. Okay. So now you've got all these hundreds of companies working together, and these are among the best and brightest in the field of wireless communications. Right?
A. Yes.
Q. And one of the areas that they were working on was figuring out how to do beamforming in the 5G standard. Right?
A. Correct.
Q. And you didn't participate in any of that discussion. Correct?
A. No, I had team members who did.
Q. I know. But you --
A. No, I personally did not.
Q. All right. And at any time did you tell anybody that was

working on all of this work for 10, 20 years working on 4G and 5G, did you ever disclose to them your '931 Patent?

A. It was discussed internally at Motorola.

Q. Sir, that's not my question. Did you identify the '931 Patent in any of your discussions with 5G development?

A. No, I didn't.

Q. All right.

MR. ROSENTHAL: I have no more questions.

THE WITNESS: Because by involvement ended --

MR. ROSENTHAL: Sir --

THE COURT: Just a minute. He didn't ask you why. You answered the question fully.

You pass the witness, counsel?

MR. ROSENTHAL: I do.

THE COURT: Approach the bench, counsel.

(The following was had outside the hearing of the jury.)

THE COURT: Your estimate of an hour for cross examination has gone about double.

I assume you have redirect.

MR. KNOBLOCH: Yes, Your Honor.

THE COURT: How long do you think your redirect is going to run?

MR. KNOBLOCH: It's a little hard to tell, but 15 to 20 minutes, I would estimate.

THE COURT: You don't expect more than that?

MR. KNOBLOCH: It may be a little more than that. I'm not sure, Your Honor.

THE COURT: I just don't want you to have an hour and a half redirect.

MR. KNOBLOCH: It won't be an hour and a half.

THE COURT: Then let's go.

MR. ROSENTHAL: Thank you.

(The following was had in the presence and hearing of the jury.)

THE COURT: All right. Let's proceed with redirect by the Plaintiff.

When you're ready, counsel.

MR. KNOBLOCH: Thank you, Your Honor.

REDIRECT EXAMINATION

BY MR. KNOBLOCH:

Q. Mr. Struhsaker, at the beginning of your cross examination you were asked a series of questions about the SkyFire system. Do you recall that?

A. Correct. I do.

Q. And you were asked questions specifically about whether SkyFire supported handoff. Do you recall that?

A. I did.

Q. And I think you were seeking to clarify. What about SkyBeam? Did SkyBeam support handoff?

A. SkyBeam could have used the same technique that SkyFire did; it hadn't been developed yet, though.
Q. Was it your intention for the SkyFire and the SkyBeam systems to support handoff?
A. The goal was to have them support handoff and become mobile systems with software upgrades.
Q. Was the idea that you put into the '931 Patent limited to the fixed wireless system that you had currently built at Raze at the time?
MR. ROSENTHAL: Objection, Your Honor; leading.
THE COURT: Sustained.
Q. (BY MR. KNOBLOCH) When you wrote the '931 Patent, did you intend that the beamforming solution in that patent could be applied to mobile networks?
MR. ROSENTHAL: Objection, Your Honor; LEADING.
THE COURT: All right, counsel, don't whisper to me.
MR. ROSENTHAL: I'm so sorry, Your Honor.
THE COURT: Make sure it's loud enough that the court reporter and I both hear you.
MR. ROSENTHAL: I apologize. The question is leading, Your Honor.
THE COURT: Sustained.
Rephrase the question in a non-leading fashion, please.
MR. KNOBLOCH: Yes, Your Honor.
Q. (BY MR. KNOBLOCH) When you filed for the '931 Patent,

what sort of systems did you believe the beamforming solution in that patent would support?

A. Fixed or mobile.

Q. Did Raze have a plan to work towards full mobility at the time?

A. We had a plan. We could not execute it.

Q. Why didn't Raze execute a full mobile solution in 2001?

A. We simply did not have the funding to do that.

Q. Now, you were asked questions also about a Navini system. Do you recall that?

A. Yes.

Q. Did you copy any of Navini's ideas into your SkyBeam white paper?

A. None. Navini was based on CDMA, and I felt CDMA was a complete dead-end for broadband.

Q. Did you include any ideas from Navini in the '931 Patent?

A. Absolutely none.

Q. Okay. Now, I'm going to pull up Joint Exhibit 3, which is the SkyFire beamforming white paper. Do you see that?

A. Yes, I do.

Q. And you were asked some questions about the timing of the -- of when you wrote this white paper. Do you recall that?

A. I do.

Q. And when did you actually start writing this white paper?

A. I started writing this white paper right after the

Christmas break of 2000.

Q. What happened during the Christmas break of 2000 that got you started on this white paper?

A. I had some free time to finally think. I'd been working a lot, and I'd come home to be with my mother, and I just had some time to go think through things. And there was an issue we needed to use beamforming because of some changes the FCC had made in spectrum rules, and if we could get beamforming to work we would now be able to open up our product in what was called the 5 gigahertz band. It was a new band that had opened up, and the only way to make it work would be to use beamforming. So I just sat down and started thinking through the problem given the SkyFire system we were building.

Q. Now, the final -- the date at the top of this white paper is June 11th, 2001. Right?

A. Correct. That will be the date when this thing was printed off or moved to another rev, so it would be fixed at this date and then you move off into another copy.

Q. How long before June 11th, 2001, do you recall was the SuperComm trip in which you discussed the Navini system with opposing counsel?

A. Just a handful of days.

Q. Now, Mr. Struhsaker, I'm going to bring up something painful. I'm sorry to bring this up, but -- my daughter has dyslexia. You also have dyslexia. Right?

A. Correct.
Q. And are you -- would you have even been able to write this white paper -- this length of a detailed white paper in the number of days between SuperComm and June 11th, 2001?
A. No, not at all.
Q. In fact, how long did you spend writing this white paper?
A. On and off when time permitted starting in January of that year.
Q. Now, you were also asked during cross about communications in -- with users in multiple sectors.
Do you recall that.
A. I do.
Q. In the system that you developed at Raze, was it your intention that the system would communicate only with users in one sector?
A. No. It was meant to be a multi-sector system.
Q. In the system you were developing at Raze, was it your intention that communications with users in multiple sectors would occur in one TDD frame or multiple TDD frames?
A. So the TDD frame is a logical construct, so frame 1 on the TDD frame is frame 1 for every single sector in every single cell site. And then there's common data and then specific user data. So when you actually look at a network--I'm sure every system does this--the first frame is a first frame because you're setting up a universal time across

your entire network, so you have a frame 1 for everybody, a frame 2. It's logical. There is a difference between the super frame structure and then what finally hits each modem in each sector.

Q. In your view, can a single TDD frame be used to transmit data automatic -- I'm sorry. I want to rephrase the question.

Can users located in multiple sectors receive data during the same TDD frame?

A. Yes.

Q. Is it also possible to set up a system in which separate TDD frames are used to transmit data automatic to users in different sectors?

MR. ROSENTHAL: Again, Your Honor --

THE WITNESS: It is.

THE COURT: Just a moment.

MR. ROSENTHAL: Your Honor, objection. He is now asking him expert testimony untethered to any work that he's done.

THE COURT: Do you have a response, counsel?

MR. KNOBLOCH: Your Honor, these questions along these lines were already asked during cross. I'm just trying to clarify the witness' testimony; giving him a chance to clarify his testimony.

MR. ROSENTHAL: Your Honor, may I respond?

THE COURT: No. I'll sustain the objection.

But if you can rephrase it or if you can move to the area where you're not calling for an opinion, I'll certainly permit it.

Q. (BY MR. KNOBLOCH) At the time that -- of the -- when you designed the Raze system, were there also other systems in which separate TDD frames were used to transmit data to users in different sectors?

MR. ROSENTHAL: Objection.

THE WITNESS: Yes.

THE COURT: Just a minute.

MR. ROSENTHAL: Objection. This calls for expert testimony. This is not what he's --

MR. KNOBLOCH: I'm just asking what he knew about it.

THE COURT: No. Overruled. He'll either know or he doesn't know.

You can answer the question, Mr. Struhsaker.

THE WITNESS: Yes, there were, and, in fact, I used -- yes.

Q. (BY MR. KNOBLOCH) And Mr. Struhsaker, what kind of TDD frame structure did you use in the SkyFire and Raze system?

A. It is a one where there is the upper level frame, a single frame that then has a construct of data for other sub-sectors. So it's a single frame system.

Q. In the system you developed for Raze, were there

transmissions to users in multiple sectors as part of the same TDD frame?

A. There were in the design, yes.

Q. Now, counsel asked you about Defense Exhibit 4, and we had also talked about this. I'm pulling that up again. Do you see that?

A. Yes.

Q. And I'm going to turn to page 12 of that Exhibit. And this is the page that counsel called up on cross, and specifically this portion. Right?

A. Yes.

Q. Now, why didn't you design the SkyFire system to support mobility?

A. Well, first of all, this is a request for fixed mobile service only in this thing, but the other issue at the time is the FCC had not allowed any spectrum -- any TDD spectrum to be used for mobility. It would be five to six years before the FCC of the United States would allow the spectrum available to do mobile TDD. That would happen around 2006, 2007. So you couldn't build a mobile system. It was regulatorily illegal.

Q. If there hadn't been those regulatory hurdles, would it have been difficult for you and the folks at Raze to design SkyFire to support mobility?

A. We would have been able to do it but, consistent with my testimony, it would have taken significant work and

investment.

Q. Now, you were also asked about the -- let's also -- let's turn to the other patent at issue, the '794 Patent.

And did -- when -- before the '794 Patent application was filed, were there devices that had both a WiFi transceiver and a cellular transceiver?

A. Not at that time. Cellular could only provide hand -- you know, less than a hundred kilobits. WiFi couldn't really function with that; at least not to my knowledge.

Q. And was it your understanding that the '794 Patent would support mobile stations?

A. Yes. That was part of the handoff. And if we recall, I worked at AeroNet and we built mobile WiFi with high-speed handoff in some of our implementations, so a pure wired backbone WiFi network had been shown to do that in 1997 at the Ford F150 plant Louisville, Kentucky--70-mile-an-hour handoffs between WiFi access points.

Q. And just to be clear, that system you're talking about from AeroNet, was that before or after you filed for the '794 Patent?

A. That was long before I filed for this patent.

Q. The system you developed at AeroNet, did it have a cellular backhaul, a cellular transceiver like the one described in the '794 Patent?

A. No. AeroNet systems all had wired backbones. There were

no -- other than a mesh from one WiFi to another to do small extensions, AeroNet -- Cisco/AeroNet had all wired backbones between its access points.

Q. And what gave you the idea in 2001 to combine on the one hand a WiFi transceiver and on the other hand a cellular transceiver?

A. Well, as long as it was broadband cellular transceiver, if you can make an F150 truck factory that's a square mile large work, why couldn't you build out an entire cellular network to do the same thing. That was the thought. Okay?

MR. KNOBLOCH: I pass the witness, Your Honor.

THE COURT: Is there additional cross examination?

MR. ROSENTHAL: I have no more questions, Your Honor.

THE COURT: All right. You may step down, Mr. Struhsaker.

THE WITNESS: Thank you.

THE COURT: You're welcome.

Am I correct, Plaintiff, you have deposition witnesses at this point?

MS. FAIR: Yes, Your Honor.

THE COURT: Let's proceed with your first deposition witness.

MS. FAIR: Your Honor, the Plaintiff calls by deposition Mr. Frank Jager. He is a Verizon distinguished

member of technical staff, and his deposition clip is 20 minutes and 10 seconds.

THE COURT: All right. Proceed with this witness by deposition.

FRANK JAGER

BY VIDEO DEPOSITION

Q. Good morning, Mr. Jager. Could you please state your full name and address for the record?

A. My name is Frank Jager, and my address is 911 Electra, Lakeway, Texas.

Q. You're a Verizon employee. Correct?

A. That's correct.

Q. And you understand that you're here testifying as Verizon's representative on certain topics that were set forth in a 30(b)(6) notice?

A. It's my understanding.

Q. Mr. Jager, when did Verizon first offer 5G service to its customers?

A. So Verizon offered the 5G NSA version starting of -- exactly day was 3rd of April, 2019.

Q. So on April 3rd, 2019, Verizon started offering TDD millimeter wave 5G service to its customers. Is that right?

A. That's correct.

Q. So far for the equipment that's already been installed and implemented in Verizon's network, TDD 5G equipment is used

only and consistently to transmit in TDD 5G. Right?
A. Yes, that's correct.
Q. Do Verizon's 5G TDD base stations transmit downlink data using beamforming?
A. 5G TDD, you said?
Q. Yes.
A. Yes, they do.
Q. What percentage of the data -- the downlink data transmitted by Verizon's 5G TDD base stations uses beamforming?
A. All our TDD base station -- 5G base stations are beamforming capable.
Q. Is the -- what percentage of the base station equipment used in Verizon's TDD 5G network is capable of massive MIMO beamforming?
A. I would say 95 percent at least. And 5 percent, there are some older type of radio switch, as I said, they have only 8 by 8.
Q. The base stations in Verizon's 5G TDD network that are capable of massive MIMO beamforming, do they always transmit downlink user data with beamforming?
A. That's correct.
Q. Mr. Jager, do you have Exhibit 2?
A. I see something is "beamforming" with a question mark. Is that --

Q. Right.
A. -- the exhibit?
Okay.
Q. So this is an ad -- or a promotional material from Verizon's website. I downloaded it from the website yesterday or the day before, recently, and it was -- it's an ad with "What is 5G beamforming?"
Do you see that?
A. I do see it.
Q. At the top of page 2 of this document, there's a statement, "Beamforming is a foundational technology that works hand-in-glove with massive MIMO to direct beams of transmission data both horizontally and vertically toward user devices."
Do you see that quote.
A. Yes, I do.
Q. Do you believe that's accurate?
A. If I would understand the full context of what's trying to be said, I mean, in many ways it is accurate, but I not fully understand the context of the whole document since I didn't have an opportunity to study it or review it.
Q. Mr. Jager, in what way does beamforming improve the link budget in 5G?
A. As you suggested earlier, the use of the focused energy towards a particular direction increases the signal at the

particular direction.
Q. In what way does beamforming improve interference management in 5G?
A. The fact that narrow beams are serving different users create the situation where they overlap between the cells served by beamforming cells. Beamforming radios, are not interfering to each other to the extent as if you were to use wide beam.
Q. Well, I'm talking about TDD generally. And give me the range. How many UEs can receive downlink data from a given base station in a given TDD frame?
A. Okay. So we have from one user to eight users.
Q. In a given TDD frame, a maximum of eight users can receive downlink data at the same time from the same base station. Is that right?
A. That's not what I said. I said at any time slot, which is subset of TDD frame. Second time slot can be assigned to a different set of users. That's why I kind of tried to differentiate between connected users and active users.
Q. So each channel in Verizon's 5G TDD network has its own radio?
A. It has its own control, meaning that it's separate PCI, separate frame structure. It might share some of the hardware in the network, including radio and including antenna. And it can be transmitted over the same antenna, but as far as air

interface, it act as a completely independent entity.
Q. The one SSB solution sends the SSB on one wide beam to the entire cell. Right?
A. That's correct.
Q. In the 6 SSB solution, instead of sending the SSB on one wide beam, it is sent on six different beams. Right?
A. It's not six different beams. It says six -- six different directions the beam is targeted towards, I would say.
Q. So you say it's the same SSB beam but it's targeted towards six different locations?
A. No. SSB beam is -- let me rephrase it.
It's a band beam at any point of time with a different SSB.
Q. This study compares --
A. Different SSB location. Sorry. Different SSB location. I need to make sure that you understand. It's a -- in a -- in a frame, different SSB location in a frame. I want to make sure that -- because it's still the same SSB, but it's -- as far as the frame, it appears in a frame. It's in a different location. At different time, it's transmitted different SSB -- or same SSB at different times. That's how...
Q. The 6 SSB solution utilizes beamforming to sweep the SSB across the cell. Correct?
A. That's correct. It's utilizing the beamforming and

utilizing that same SSB, which means that it has the same cell identity, cell -- same physical layer structure, and it sends it throughout the cell in a pretty fine fashion. I want to say the pictures is kind of one of the options which you can select.

Q. The single SSB version is intended to transmit one wide beam to the entire area serviced by the cell. Right?

A. That's correct.

Q. When transmitting 6 SSBs, the slots 0, 1, and 2 of the TDD frame are utilized. Correct?

A. That's how they design it. It seems that way. Correct.

Q. When transmitting 1 SSB, you don't need as much time, so it's all concentrated in slot 0. Right?

A. That's how it appears to be designed. Correct.

Q. Do Verizon's 5G base stations transmit data in accordance with the 5G standards?

A. That's what our vendors are responsible for, but I believe that it is the case.

Q. Mr. Jager, Exhibit 4 is a document from the 3GPP 5G standards.

Do you see that.

A. I do.

Q. Mr. Jager, are you familiar with the broadcast channel used in 5G?

A. Partially, yes.

Q. The PSS and SSS are both transmitted on the broadcast channel. Correct?
A. That's my understanding.
Q. The broadcast channel, as explained in the 5G standards, has a requirement to be broadcast in the entire coverage area of the cell.
Do you see that?
A. That's correct. Yeah, I see that.
Q. So, Mr. Jager, one way to broadcast in the entire coverage area of the cell is to send a single message. Correct?
A. That's what standard says, yep.
Q. Another way to broadcast in the entire coverage area of the cell is to beamform different instances. Correct?
A. That's correct.
Q. We've talked about multi-user MIMO. What does multi-user MIMO per sector mean?
A. I cannot comment on it because I'm not quite sure whether it references -- this particular contract which you are showing me is referencing today. I have to say multiple bands, one band. Sometimes people kind of interchangeably using the word with sector and cell, and this is -- could be the case in this particular -- in this particular document.
Q. So you're not sure here whether "per sector" means "per cell" or "per" --

A. I just didn't look at this sort of the document for me to say what it really means, what the intent was there.
Q. Each wide beam -- each of the other wide beams shown here is similarly associated with a different part of the cell site. Correct?
A. I believe -- yet, again, I -- it is still only one cell that it's -- it's not cell site. Cell site for me means multiple cells. Cell is a single cell -- single frame transmitted single control, which is unique associated with PCI. And that beam represents that PCI beam -- how it's called -- distributed over the coverage area of the -- depicted in this picture.
Q. Each wide beam shown here is associated with a different portion of the cell. Correct?
A. Not cell. Not cell. Different portion of the coverage area associated with beam coverage.
Q. Mr. Jager, do you see Exhibit 11?
A. Yes, I do.
Q. This is a document related to a bi-annual meeting between Verizon and Ericsson. Is that right?
A. That's correct.
Q. Did you attend this meeting?
A. I actually organizing it.
Q. The base stations used in Verizon's 5G network are capable of communicating with fixed wireless devices.

Correct?

You can go ahead and answer.

A. Okay. That's correct. The cellular network is capable of serving mobility devices and fixed valid devices alike.

Q. If you could turn, please, to slide 7. Slide 7 here mentions Ver -- or Ericsson's "superior architecture."

Do you see that?

A. Yes.

Q. The first item touted as part of its superior architecture here is downlink beamforming. Is that right?

A. Yes.

Q. Ericsson here states that the downlink beamforming improves fronthaul efficiency.

Do you see that?

A. Well, that's how it shows. Yeah, I see it.

Q. Do you know what fronthaul efficiency is?

A. The amount of the data which is pushing towards the user.

Q. And so Chapter 5 is going to be Exhibit 16.

Okay. Great.

And if you could turn to page 15 of this PDF.

And it states here in the introduction that the SSB is composed with PSS, SSS, and PBCH. Do you see that?

A. Yes, I do.

Q. One of the things that the SSB provides is the physical layer cell identity, timing, and basic system parameters.

Correct?

A. Yes, it provides physical cell identity. That's correct. What was the second?

Q. Timing.

A. Timing, yeah. Timing. That's what I was talking about synchronization. And second, yes, sir.

Q. Basic system parameters.

A. That's correct. That's the content of the PBCH.

Q. Are you familiar with the system frame number?

A. Yes.

Q. The UE obtains the system frame number from the SSB. Correct?

A. That's my understanding, that it's part of the synchronization of the system frame number. That's correct.

Q. If you could turn to page 19 in this PDF, please.

A. Yes.

Q. And you'll see at the top the various components of the SS block are depicted here?

A. Yes.

Q. The PSS is transmitted in symbol zero in a frame. Correct?

A. Correct.

Q. Typically, a PDSCH beam transmitted in Verizon's 5G network is directed to a sub-portion of the area serviced by the cell. Correct?

A. It is directed towards the user as user indicated in a -- in establishing of the best option of selecting the beam to serve the particular user, it's directed towards that user. That's kind of the whole idea of beamforming. The -- you -- for the time while you're transmitting the data for this particular user, you focus the energy towards the user of this particular beam.

Q. Mr. Jager, I'm introducing Exhibit 17. It's Chapter 8 of the Samsung software specification.

Do you see that?

A. I see Exhibit 17. I see Chapter 8, Radio Transmission. Are you referring to that?

Q. Yes.

A. Okay.

Q. Page 145 of the PDF, which is page 1862 in the document, near the bottom has a feature description.

Do you see that?

A. Yes, I do.

Q. And this is an example of multiple SSB beams being transmitted in the frame. Correct?

A. That's correct.

Q. In this example, the first beam, beam zero, is transmitted to the entire coverage area of the cell. Correct?

A. That appears to be so, based on the picture. I would have to look at it -- the whole description before I can make

judgment, but based on the description, the depiction of it, it looks like whole cell area is going to be beam across the whole cell.

Q. So the frame synchronization enables the UE to know when a given frame starts and when a given frame ends?

A. Correct.

Q. So at the start of the frame, the user will get an SSB, and then later in the frame they'll get SSB with TRS. Right?

A. That's my understanding.

THE COURT: Does that complete this witness by deposition?

MS. FAIR: Yes, Your Honor.

THE COURT: All right. Ladies and gentlemen of the jury, we're going recess for the day at this point.

I didn't tell you when we started this morning just because I didn't get to it, but we're probably going to run on this kind of a schedule throughout most of the trial. I'd like to start tomorrow morning at 8:30. I'd like you to plan your travel. I know some of you have a drive to make from places like Gilmer and Atlanta, Linden, Omaha. I'd like you to plan your travel so you can be here probably about 8:15, 8:20 and be ready to go by 8:30 in the morning.

Ms. Clendening will have a breakfast foods available pastries and things like that, juices for you in the morning.

But please check the weather, please check your car,

please do whatever you need to do to make sure you can be here so we can start on time.

I once was told that a jury is a lot like a convoy of ships. If seven of you are here on time, I can't start; I've got to have all eight of you. So please make sure you're all here so we can start in the morning.

And we may not go as late as today every day; we may; it just depends on how the evidence moves. And it's really difficult to break a witness overnight so that only part of their testimony is in one day and the other part's in the other, but we'll do the best we can.

But I've been told by juries for 12 years now, We'd rather work longer days and be away from our homes and family a fewer number of days. I know judges that start at 10:00 in the morning and stop at 4:00, and what takes me a week to try takes them two weeks to try. So we're going to probably go this kind of a schedule throughout most of the trial.

Let me remind you of all the instructions I've given you, and let me urge you to continue to follow those instructions scrupulously. You're going to get asked about what happened today when you walk through the door at home. Just be sure not to answer that question. Be sure not to communicate with anybody in any way about the case.

And if you will, take your notebooks to the jury room as you leave and leave them closed on the table there so that you

can find them in the morning. And we'll do our best to start promptly at 8:30.

With that, the jury's excused until tomorrow morning.

(Whereupon, the jury left the courtroom.)

THE COURT: Be seated, please.

Counsel, I've been on the phone off and on today with GSA trying to get temperatures lowered in this courtroom. I've seen witnesses fanning, and I can tell you wearing this black wool robe I've been hot. We're doing the best we can. They promise a better result tomorrow. We'll see.

Let me remind you to continue your overnight meet and confer efforts. As I told you in chambers this morning, I was pleased with the pretty limited number of overnight disputes. I would be hopeful that we can follow this kind of course or even less going forward, but be tenacious in your efforts to work those things out overnight.

Also be prepared in the morning before I bring the jury in to have a representative from each side able to go to the podium and read into the record any exhibits from the list of pre-admitted exhibits that were used during today's portion of the trial, and we'll do that each day beginning each morning before the jury comes in so we can keep a running record going forward of which documents have actually been used from the list of pre-admitted exhibits and are considered an admitted part of the evidence in the case and which ones have not.

Speaking of admitted exhibits, I'm well-aware of the provisions in the Court's standing order on the admission of pre-admitted exhibits in patent cases. I'm aware that it provides that each side can seek admission up to and including the trial for as many as four exhibits if they've been inadvertently overlooked and were not intentionally overlooked at the time of the pretrial conference.

That standing order assumes, perhaps improperly, but it assumes that when you realize something was inadvertently overlooked and you come to an agreement with the other side about the admission of a new exhibit that you will let the Court know. I'm not used to finding out about it in the middle of the trial with the jury in the box. You obviously had time to print it, label it, put it in a binder. That means you had plenty of time to tell me about it before I found out about it today.

If you have any other exhibits that fall within that exception within the rule allowing inadvertently overlooked documents to be admitted, I want to know about it as soon as you find out about it, not with the jury in the box and I'm looking at it for the first time. Mr. Dacus and Ms. Fair will tell you of all the things I don't like, surprises is at the top of the list.

Is there anything counsel's aware of that needs to be raised with the Court before we recess for the day?

MR. KNOBLOCH: Just one thing for Plaintiff, Your Honor. I just ask that Mr. Struhsaker be excused now that his testimony is completed.

THE COURT: Is there any objection from the Defendant?

MR. ROSENTHAL: No, Your Honor.

THE COURT: Mr. Struhsaker is excused.

MR. KNOBLOCH: Thank you, Your Honor.

THE COURT: Anything from the Defendants?

MR. KREVITT: Nothing further, Your Honor.

THE COURT: All right. You ought to be able to make your baseball game, Mr. Dacus.

MR. DACUS: Thank you, Judge.

THE COURT: We stand in recess until tomorrow.

(The proceedings were concluded at 6:10 p.m.)

I HEREBY CERTIFY THAT THE FOREGOING IS A CORRECT TRANSCRIPT FROM THE RECORD OF PROCEEDINGS IN THE ABOVE-ENTITLED MATTER. I FURTHER CERTIFY THAT THE TRANSCRIPT FEES FORMAT COMPLY WITH THOSE PRESCRIBED BY THE COURT AND THE JUDICIAL CONFERENCE OF THE UNITED STATES.

S/Shawn McRoberts 06/24/2024

_____DATE_____
SHAWN McROBERTS, RMR, CRR
FEDERAL OFFICIAL COURT REPORTER

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Concordance

< Dates >
06/24/2024 332:9.
April 3rd 316:21.
April, 2019 316:20.
January 26 238:19.
July 1st 25:4.
June 21st, 2012 119:4.
JUNE 24, 2024 1:13.
June 7 258:2, 258:13.
June 7, 2001 250:5.
June 9 258:13.
June 9, 2001 258:3.
March 2002 244:1.
September 11 153:11.
September 1st 273:5.
September 2001 174:10.
September 5th 213:15.
September 5th, 2001 273:6.
"2024 238:19.
$1.7 149:15, 166:3.
$20 89:10.
$23 41:23, 65:13.
$25 261:8.
$264 166:9.
$3 166:8.
$400 220:19.
$51 260:22.
$583 166:4.
$850 41:23, 48:9, 50:9, 52:8, 88:14, 90:7, 99:20, 100:1, 100:4, 218:23, 225:8, 225:13.
'01 241:13.
'02 241:13.
'794 41:4, 127:13, 127:14, 149:18, 161:8, 161:9, 161:20, 161:25, 166:7, 170:22, 185:12, 216:10, 216:18, 217:18, 221:18, 263:5, 263:16, 265:8, 314:3, 314:4, 314:10, 314:19, 314:24.
'83 226:2.
'99 154:9.
--16 43:18.
--a 288:1.
--where 231:3.
--your 270:25.
.
.
< 0 >.
0 161:2, 321:9, 321:13.
0--again 161:3.
005 254:6, 254:11.
005-B 254:11.
008 254:15, 255:17.
.
.
< 1 >.
1.4 246:24.
10 7:3, 7:7, 7:9, 7:13, 11:6, 11:11, 22:2, 26:7, 29:1, 31:14, 32:3, 43:17, 49:19, 91:5, 91:7, 91:13, 91:18, 93:1, 143:21, 203:15, 206:24, 209:17, 209:18, 294:16, 305:1, 316:2.
10,000 176:15.
100 1:44, 2:33, 117:2.
101 116:16.
10166-0193 2:20.
107 294:15.
10:00 328:14.
11 20:11, 20:15, 21:9, 26:18, 33:2, 43:17, 259:22, 323:17.
117 288:4, 288:6, 288:7.
1179459 119:9.
11:30 103:5.
11th 26:13, 259:3, 309:15, 309:19, 310:4.
12 20:14, 27:3, 31:8, 43:23, 91:6, 91:7, 91:13, 91:14, 91:18, 93:1, 143:22, 200:4, 200:6, 200:9, 203:15, 206:24, 230:23, 230:24, 243:25, 313:8, 328:12.
12-and-a-half 9:10.
12-by-7 203:16.
120 234:6, 234:8.
1200 2:4.
121 290:18.
12:45 118:13.
12th 5:15, 23:17, 213:18.
13 7:5, 11:6, 11:11, 27:10, 32:14, 43:17, 91:17, 91:18, 93:2, 259:22.
137 259:14, 259:15, 259:21.
138 238:21, 239:1, 239:5, 239:10.
13A 286:2, 287:9.
13B 286:7, 287:9.
14 27:20, 37:15, 43:17, 202:11, 202:12, 207:16, 225:3, 229:10, 287:13, 291:15, 291:25.
145 326:15.
14th 230:19.
15 19:25, 28:10, 29:5, 34:12, 43:18, 60:24, 81:25, 225:2, 225:3, 305:24, 324:20.
15,000 184:12.
1500 5:8, 304:10.
1507 2:12.
16 28:21, 284:4, 288:5, 288:10, 324:18.
16-sentence 244:19.
163 235:6.
166 235:4, 235:16.
17 29:12, 43:18, 281:20, 326:8, 326:11.
177 288:8.
1791 7:15.
18 4:13, 29:22, 43:18, 281:20.
1801 2:4.
1862 326:15.
188 3:6.
19 20:11, 20:15, 30:13, 35:16, 43:24, 74:24, 117:22, 118:4, 239:11, 276:4, 276:14, 279:5, 279:6, 279:11, 325:15.
1967 99:7.
1981 4:7, 191:4.
1997 314:15.
1999 150:8.
1:00 112:22.
1st 10:6, 25:10.
.
.
< 2 >.
2 1:5, 11:19, 43:17, 104:1, 178:5, 180:5, 180:6, 203:4, 216:6, 229:14, 250:16, 263:6, 265:14, 284:25, 285:1, 291:7, 291:8, 292:6, 292:10, 293:11, 295:24, 295:25, 296:1, 296:5, 311:2, 317:23, 318:10, 321:9.
2,000 304:10.
2.79 166:9.
20 27:17, 28:15, 29:3, 30:25, 33:17, 35:8, 43:24, 45:3, 56:9, 78:5, 78:9, 84:9, 103:1, 121:11, 136:4, 136:7, 136:10, 294:16, 305:1, 305:25, 316:1.

20-something 24:19.
200 2:19, 39:6, 202:24.
2000 201:10, 241:2, 241:7, 309:1, 309:2.
2001--23 151:8.
2002 153:18, 211:17, 224:16, 241:8, 243:14, 244:6, 245:10.
2002--years 277:2.
2003 261:6, 261:9.
2006 30:6, 174:10, 277:2, 313:19.
2007 213:18, 261:22, 261:24, 303:13, 313:19.
2010 33:6.
2012 266:13.
2014 34:16.
2015 34:16.
2016 224:25.
2019 316:21.
2024 238:15, 259:15.
21 20:11, 23:16, 26:23, 31:11, 61:16, 61:24, 69:17, 88:4.
21-year 69:12.
212 2:21.
214 2:29.
22 31:18, 43:24, 271:14.
22-CV-394 11:19.
22-CV-394-JRG 1:5.
221 243:22, 243:23.
222 3:7.
23 32:11, 60:7, 282:21.
234 3:14.
24 22:19, 22:22, 27:22, 28:2, 32:23.
24th 10:5.
25 3:14, 21:17, 24:18, 28:2, 33:9, 33:13, 36:24, 37:12, 167:19, 168:19, 184:7, 232:12, 233:10, 233:25, 234:1.
26 33:20.
27 26:1, 34:8, 276:20.
28 23:15, 34:22, 118:3, 276:19, 279:17.
284 271:12, 271:14, 271:15.
285 271:17.
28th 260:25.
29 35:12, 118:4, 276:19, 279:17.
298 275:20, 275:21.
.
.
< 3 >.
3 21:3, 43:17, 91:5, 91:7, 91:18, 93:1, 104:3, 157:6, 202:11, 202:12, 237:5, 240:8, 258:24, 275:10, 275:11, 290:19, 296:14, 296:18, 308:18.
30 4:8, 24:16, 35:22, 65:22, 66:7, 184:12, 189:17.
30(b)(6 316:15.
303 2:6.
306 3:8.
31 11:9, 11:10, 11:11, 36:6.
316 3:10.
32 36:18, 165:19, 166:2, 186:6.
33 37:6.
34 36:1.
35 166:4, 259:16.
351-2338 2:21.
36 239:6.
37 25:23.
38 23:2.
3D 61:25.
3G 220:4.
3GPP 321:19.
3rd 316:20.
.
.
< 4 >.
4 19:7, 21:20, 43:17, 104:4, 204:19, 204:20, 230:12, 263:23, 313:4, 321:19.
40 25:20, 36:15, 136:11, 197:9, 217:12.
40,000 78:4.
41 235:2.
45 112:21, 114:25, 283:16, 283:17.
45-page 259:7.
48TH 2:19.
49 28:6.
4:00 328:15.
4G 75:11, 118:6, 219:17, 219:19, 220:16, 303:16, 303:17, 303:22, 305:1.
4th 5:13.
.
.
< 5 >.
5 22:14, 43:23, 104:5, 250:2, 255:4, 255:5, 288:9, 288:10, 289:24, 290:1, 309:10, 317:16, 324:18.
5-B 255:3, 255:7.
50 174:11, 304:12.
50s 273:12.
55 205:13.
56 243:23.
59 117:10, 119:2.
592-3100 2:6.
.
.
< 6 >.
6 23:13, 43:23, 204:25, 240:7, 280:24, 290:19, 320:5, 320:23, 321:9.
60 214:1, 241:19, 241:24, 242:5, 244:12.
65 263:13, 263:23.
653 256:7.
66 277:14.
6:00 66:1, 79:8, 92:16.
6:10 331:15.
.
.
< 7 >.
7 24:12, 43:23, 271:15, 324:5.
7,230,931 127:8.
70 115:18.
70s 273:12.
72 259:1.
75 297:14.
75,000 149:1.
75201-2980 2:28.
75604 2:13.
75670 1:45, 2:34.
757-6400 2:14.
.
.
< 8 >.
8 24:24, 288:5, 289:23, 317:18, 326:8, 326:11.
800 5:15.
800-and-something 173:15.
80202 2:5.
8:15 327:21.
8:20 327:22.
8:30 327:18, 327:22, 329:2.
.
.
< 9 >.

9 25:17, 43:23.
9,426,794 127:12.
9/11 217:22, 245:14, 263:1.
90 285:10.
90-degree 285:9.
900 2:27.
903 1:46, 2:14, 2:35.
911 316:9.
923-8546 1:46, 2:35.
94.6 149:24.
947 217:6.
95 317:16.
953-6500 2:29.
99 109:13.
9:00 1:14.
[sic] 264:14, 271:15.

DATE_____ 332:10.
.
.
< A >.
A&M 34:2, 46:15, 46:17, 46:22, 46:25, 47:5, 61:20, 65:24, 66:3, 66:5.
A.M. 1:14.
abandon 141:17.
abbreviated 138:10.
ABC 29:25.
abiding 16:9, 16:11.
ability 14:13, 17:14, 39:14, 134:2, 186:6, 217:4.
above 15:13, 133:3, 200:15.
ABOVE-ENTITLED 332:3.
Absolutely 17:4, 46:21, 86:13, 107:23, 148:21, 167:23, 175:5, 198:12, 218:21, 219:25, 245:22, 266:9, 282:16, 308:17.
abusing 61:11.
AC 30:18.
accept 73:12, 129:15, 134:17, 235:19, 236:7.
acceptance 223:23.
accordance 165:16, 321:15.
according 161:20, 213:15, 267:19, 296:1, 296:5.
account 107:22, 132:13.
accountant 165:24.
Accurate 27:17, 106:18, 157:23, 231:20, 318:17, 318:19.
accurately 134:2, 297:19.
accuse 66:22.
accused 66:15, 67:15, 126:2, 168:11, 169:10, 169:25.
accusing 223:2.
acquired 195:24, 196:2, 261:12, 261:13, 261:23.
acquisition 301:21.
acronym 243:5.
across 149:1, 166:2, 177:16, 217:10, 310:25, 320:24, 327:2.
act 38:22, 320:1.
acting 251:1.
action 125:7, 278:13, 278:18.
actions 214:13, 266:7, 277:5.
active 319:19.
actual 162:12, 167:14, 175:20, 178:2, 178:3, 186:2, 193:5, 198:17, 288:25.
AD 5:13, 5:15, 318:4, 318:6.
adapt 274:7.
adaptable 296:21.
adaptive 193:2, 193:4, 206:4, 220:23.
add 7:7, 123:14, 150:21, 162:15, 183:19, 208:23, 209:3, 232:10, 236:16, 278:21, 302:23.
add-on 236:14, 264:24.
added 7:3, 7:14, 174:24, 174:25, 182:17, 183:15, 183:17, 185:13, 266:6, 277:23, 278:6, 278:21, 279:6, 279:10, 279:16, 279:19, 280:18, 302:18.
adding 209:10, 264:10, 294:4.
addition 84:2, 91:12, 123:24, 126:19.
additional 7:8, 115:18, 122:25, 123:14, 123:19, 133:2, 142:18, 198:11, 206:13, 237:17, 257:15, 261:8, 315:12.
Additionally 38:6, 108:17.
additions 232:11.
address 8:5, 17:17, 40:1, 40:2, 64:14, 168:1, 186:5, 251:20, 270:25, 289:16, 316:8, 316:9.
addressed 139:23, 140:3, 212:4, 231:2, 291:20.
addresses 288:2, 289:4, 289:13, 290:5.
addressing 270:18.
adequate 16:24, 131:21, 132:19.
adequately 124:6, 152:22.
administer 104:20.
administered 104:21, 188:17.
administrator 77:20.
admissibility 139:4, 139:12.
admissible 110:4, 112:13, 144:17.
admission 119:23, 232:18, 233:9, 233:17, 330:2, 330:4, 330:11.
admit 160:21, 268:1.
admits 160:17, 160:19.
Admitted 3:14, 107:5, 107:7, 110:4, 139:8, 144:18, 200:5, 234:1, 329:24, 330:1, 330:19.
adopted 34:25.
adult 66:8.
adults 25:19.
advance 124:15, 137:11, 139:11, 139:20.
advanced 191:10, 259:25.
adversary 38:14, 38:21, 38:25, 39:5, 39:12.
advise 109:2, 288:15.
advised 252:14.
advocacy 39:11.
advocate 38:23.
advocates 38:22.
Aegis 193:8.
Aeronet 194:14, 194:16, 194:20, 194:24, 195:4, 195:11, 195:22, 195:23, 196:1, 197:11, 197:18, 245:1, 314:13, 314:19, 314:22, 314:25, 315:2.
aerospace 61:21.
affairs 8:10.
affect 42:11, 46:11, 48:12, 96:15, 132:11.
affects 46:24.
affiliated 222:25.
affirmative 295:4.
afford 71:3, 71:19.
afforded 147:9.

afternoon 147:4, 167:8, 189:4, 189:5.
again--more 15:3.
age 4:13.
agencies 60:1, 60:7.
Agency 122:2, 190:16, 190:17, 197:3.
agent 88:2.
agree 42:7, 43:2, 60:19, 88:17, 88:20, 136:10, 224:9, 244:10, 253:6, 253:25, 268:14, 273:24, 296:25, 299:1, 299:5, 301:7.
agreed 46:10, 253:4.
agreeing 285:20.
agreement 330:10.
agreements 195:16.
agrees 47:5, 47:18, 53:1.
ahead 58:10, 73:19, 80:19, 151:13, 153:21, 173:20, 191:1, 204:17, 249:16, 324:2.
aimed 256:23.
aiming 184:23.
ain't 65:20, 283:24.
Air 31:14, 150:18, 202:25, 299:13, 303:2, 303:7, 319:25.
airline 10:24.
Airspan 196:4, 196:5, 196:6, 196:10, 196:16, 196:23, 197:12, 216:25, 245:1.
Akron 190:8, 190:12, 190:15, 191:12.
al 1:12.
align 157:23.
alike 324:4.
allegations 4:25, 108:13, 126:24, 127:5.
allege 178:24.
alleged 13:12, 133:6.
alleges 128:2, 186:13.
alleging 184:3.
allocate 133:18, 241:23.
allocated 241:25.
allow 8:17, 125:10, 195:17, 268:7, 313:18.
allowed 115:16, 125:6, 131:15, 140:1, 175:2, 183:18, 183:19, 187:19, 198:16, 313:16.
allowing 138:2, 330:18.
allows 148:17, 148:22, 149:22, 206:7.
Almost 7:2, 25:20, 26:12, 84:8, 109:6, 111:3, 150:9, 181:5, 213:19, 254:22, 274:11, 302:8.
alone 108:2, 130:8, 167:21, 172:7, 184:13, 202:9, 299:19.
alternative 125:19.
although 25:3, 37:17, 108:21.
altogether 125:11.
amazing 171:18.
Amazingly 209:14.
amend 125:11.
amended 164:9, 275:22.
Amendment 7:10, 7:11, 175:20, 277:8.
amendments 7:3, 7:9, 7:13, 175:14, 215:2, 215:5, 277:11, 278:3, 278:4.
America 6:6, 6:7, 39:6.
American 5:2, 6:4, 6:10, 6:11, 7:12, 7:16, 7:19, 8:1.
Among 6:12, 111:4, 111:6, 111:13, 114:15, 114:19, 206:18, 304:14.
amount 49:22, 50:15, 51:20, 60:20, 90:1, 90:8, 94:1, 94:9, 95:7, 95:23, 97:17, 97:20, 98:1, 129:3, 132:16, 133:3, 133:6, 134:20, 154:2, 208:5, 209:13, 217:24, 299:7, 324:17.
amounts 208:14.
amplify 18:11, 18:21.
analogies 192:10.
analogy 199:18, 282:9, 282:10.
analysis 162:24.
ancient 5:4, 5:6, 5:8, 5:9.
Andrea 2:15, 11:25, 40:16.
Andrews 115:9, 115:15, 115:20, 115:21, 116:3, 176:6, 176:8, 185:7, 185:16, 225:24, 226:14, 226:20, 227:2, 227:10.
Angelin 25:18, 104:16.
Animal 78:1, 78:5.
Ann 21:5.
announcement 12:21.
announcements 11:16, 11:20.
announcing 249:13, 249:20.
answered 105:13, 290:7, 294:9, 295:4, 295:21, 305:12.
answering 9:7, 9:15, 91:14.
answers 9:1, 14:3, 14:4, 18:12, 18:21, 18:23, 18:24, 19:19, 21:1, 37:22, 42:24, 44:7, 95:21, 114:16, 120:24, 120:25, 135:16, 135:24, 136:22, 239:18, 261:19, 286:23, 288:22, 288:24, 288:25, 301:4.
antenna--i 264:15.
antidrone 220:25.
anyway 28:3, 55:18, 171:18, 206:25.
anyways 33:5.
apologies 216:17, 255:11.
apologize 11:14, 75:5, 90:5, 90:14, 255:12, 269:8, 307:20.
appeal 45:19, 45:20.
appeals 125:21.
appear 7:24, 106:20, 134:3.
appeared 105:20, 137:5.
appears 320:20, 321:14, 326:24.
Apple 220:19.
applicant 124:1, 124:12, 125:4, 125:7, 125:8, 125:10, 125:13, 125:16, 275:16.
application 17:8, 119:9, 121:12, 122:1, 122:6, 124:1, 124:2, 124:3, 124:8, 124:10, 124:21, 125:3, 125:17, 125:20, 182:14, 183:20, 185:14, 213:25, 214:23, 266:16, 267:23, 275:8, 276:23, 314:4.
applications 122:4, 151:8, 174:16, 177:11.
applied 17:8, 174:1, 174:9, 214:4, 307:14.
apply 14:13, 14:16, 14:17, 14:19, 17:14, 51:6, 110:21, 114:7, 120:21, 129:24, 130:2, 142:8, 145:17, 162:19, 174:20.
applying 84:16, 214:3.
appointment 45:3, 91:15, 100:13, 100:23.
apportion 119:19.
Appreciate 19:11, 37:21, 48:11, 48:12, 49:18, 50:3, 64:12,

68:1, 70:22, 90:16, 90:21, 94:23, 105:17, 105:24, 147:5, 147:7, 187:8, 293:7.
Approach 90:24, 93:12, 118:24, 176:24, 188:20, 210:5, 222:7, 222:8, 251:22, 267:9, 267:10, 305:15.
approached 93:16, 97:6, 99:16, 101:14.
appropriate 124:5, 170:5.
approved 163:4, 278:16.
approving 163:7.
approximately 115:17, 224:25, 225:13.
approximation 109:8.
architecture 157:12, 157:23, 158:3, 164:20, 200:11, 324:10.
architecture. 324:6.
area 13:22, 154:15, 226:15, 246:17, 246:22, 247:3, 251:1, 268:18, 282:5, 312:1, 321:7, 322:5, 322:10, 322:13, 323:11, 323:16, 325:24, 326:23, 327:2.
areas 197:10, 228:21, 304:17.
arena 57:5.
argue 126:2, 162:18, 164:4.
argument 111:10, 113:5, 177:9, 186:7.
arguments 110:22, 110:25, 114:8, 145:24, 145:25, 162:7.
arise 38:4, 120:15.
arising 13:6.
Armed 8:4.
Army 20:20, 60:8.
Around 61:21, 71:2, 92:7, 93:3, 143:13, 154:25, 161:1, 161:14, 171:17, 171:19, 188:18, 195:2, 203:23, 210:21, 210:23, 224:5, 226:4, 229:24, 241:4, 297:11, 297:20, 301:9, 301:15, 313:19.
array 193:19.
arrays 206:4.
arrive 39:3.
arrived 128:12.
art 119:20, 124:13, 124:14, 124:15, 124:17, 124:18, 124:19, 124:24, 125:2, 130:1, 131:24, 268:22, 269:17.
article 261:6, 261:21.
Artis 27:21, 104:16.
aside 10:17, 71:13, 94:8, 94:11, 94:20, 95:1, 95:2, 105:20.
asks 58:9, 287:4.
assembled 199:5, 242:13, 242:16.
assert 38:24.
asserted 13:14, 118:3, 127:17, 127:18, 128:7, 128:22, 128:24, 129:12, 129:14, 129:22, 130:18, 131:4, 131:7, 131:12, 131:15, 142:3, 263:8, 272:20, 284:22.
asserting 167:12.
assertion 226:11.
assessed 130:20.
assessment 236:4.
assets 224:22.
assigned 124:2, 319:17.
assigns 160:24.
assistant 33:2, 77:23.
associate 25:4, 29:17, 31:7, 31:8, 197:3.
associated 146:12, 323:4, 323:9, 323:13, 323:16.
Associates 33:16, 198:5, 198:11, 199:5, 221:15.
assume 43:1, 91:16, 266:6, 266:18, 277:4, 305:20.
assumed 218:13.
assumes 330:8, 330:9.
assuming 86:4.
asymmetric 208:2.
asymmetry 208:16.
AT&T 53:4, 78:23, 80:6, 204:11, 204:12.
Atlanta 19:22, 29:14, 33:23, 100:25, 247:21, 247:24, 247:25, 258:14, 327:20.
attach 217:7, 227:25.
attached 243:12.
attack 220:25, 221:1, 245:11, 245:14, 261:9.
attempt 108:22, 231:24.
attend 4:13, 65:2, 323:22.
attention 14:11, 82:19, 137:20, 141:14, 166:11, 168:3, 180:12, 181:18, 183:6, 201:3, 235:2, 260:24.
attorney 137:24, 138:1, 138:3, 214:6, 215:15, 275:17.
attorneys 71:3, 113:3, 114:9, 128:15, 277:25.
attract 199:8.
August 232:2, 233:2, 234:4, 260:25.
Austin 176:9, 189:12.
authorized 115:19.
Auto 29:25, 36:14.
automated 76:2.
automatic 311:6, 311:11.
available 111:22, 124:11, 135:19, 141:1, 154:21, 211:14, 211:17, 313:18, 327:23.
available--ga 249:15.
AVE. 2:19.
AVENUE 2:27.
Avis 194:25.
award 48:20, 48:21, 49:3, 88:14, 132:12, 132:19, 132:21, 132:24, 133:2, 148:14, 165:10, 187:1, 221:10, 221:12, 225:18.
awarded 129:4, 132:17, 225:14.
aware 217:22, 224:20, 224:22, 237:17, 246:3, 247:6, 277:4, 278:1, 330:3, 330:24.
away 55:11, 55:14, 179:22, 186:14, 203:12, 211:12, 220:4, 328:13.
awkward 109:1.
.
.
< B >.
B&D 33:1.
Bachelor 24:16, 33:14, 36:10, 36:11, 191:11.
back-and-forth 125:12, 275:15.
back-up 66:25.
backbone 314:15.
backbones 314:25, 315:2.
background 45:5, 57:3, 64:2, 190:7, 205:1.
backgrounds 42:9, 199:10, 199:11.
backhaul 314:23.
backs 49:8.

bad 45:21, 59:10, 61:13, 63:12, 75:21, 100:18.
Baird 31:11, 31:12.
BAKER 2:26.
balance 294:10.
balanced 15:13.
ball 166:15.
band 309:10, 320:13, 322:21.
bands 322:21.
barely 202:8.
bargain 183:25.
barriers 199:1, 200:8.
bars 200:20.
BARTLIT 2:3.
baseball 47:5, 65:24, 65:25, 92:16, 331:12.
baseband 160:9.
based 39:4, 68:21, 71:13, 95:24, 186:7, 220:9, 235:22, 236:7, 237:10, 263:10, 266:16, 308:14, 326:24, 327:1.
Basic 38:20, 150:21, 158:3, 324:25, 325:7.
basically 51:25, 61:11, 99:21, 102:7, 149:3, 149:21, 158:7, 163:3, 165:18, 212:11, 212:12, 220:24, 250:11, 257:6.
basis 116:4, 119:22, 130:20, 135:1, 171:10, 237:23, 237:25, 239:14, 240:2, 240:18, 258:17, 259:2, 263:15, 281:17.
Bates 235:3.
battery 195:8.
battle 191:8.
Baylor 4:14, 4:15, 66:5, 66:6.
BC 5:9.
beamform 160:19, 160:21, 297:15, 322:14.
beamformed 151:4.
beamformer 246:12.
beaming 230:8.
beams 148:19, 148:21, 158:20, 159:24, 171:15, 171:18, 171:20, 180:23, 184:22, 212:3, 240:10, 240:19, 280:7, 281:5, 281:12, 287:22, 293:18, 293:20, 297:18, 297:19, 318:12, 319:4, 320:6, 320:7, 323:3, 326:19.
bears 168:18.
became 5:17, 6:11.
BECK 2:3.
become 109:7, 195:19, 307:5.
becomes 111:14, 147:24, 151:21.
becoming 111:5.
began 5:8.
begin 5:4, 9:22, 11:23, 14:12, 19:12, 114:25, 118:18, 157:25, 198:13, 260:10.
beginning 208:1, 241:13, 306:17, 329:21.
begins 135:11, 151:19.
behalf 12:8, 39:1, 90:20, 147:4, 147:14.
behind 92:24, 93:1, 93:8, 142:10, 143:1, 162:17, 228:16.
believability 133:18, 135:5, 138:21.
believable 15:1.
believed 154:1, 154:4.
believer 85:13.
believes 74:22, 121:21, 138:1.
Bell 36:18, 36:19, 36:22.
below 142:18.
bench 9:10, 17:20, 90:24, 91:20, 92:25, 93:5, 93:12, 116:15, 116:19, 150:25, 176:24, 251:22, 267:10, 305:15.
bench. 93:13, 93:16, 97:6, 99:16, 101:14.
benefit 60:12, 142:25.
benefited 166:7.
benefits 69:20, 165:14.
Bennett 55:23.
besides 38:10, 191:11, 213:24.
best 10:9, 11:15, 18:22, 38:17, 39:1, 39:13, 39:17, 49:25, 151:25, 221:7, 223:23, 242:12, 242:15, 299:23, 304:14, 326:2, 328:11, 329:1, 329:9.
bet 221:15.
better 39:2, 40:11, 49:24, 70:6, 72:14, 74:15, 115:24, 151:25, 165:20, 206:8, 329:10.
Beyond 10:2, 17:6, 17:7, 17:11, 60:20, 137:20.
bi-annual 323:19.
bid 205:6.
Big 18:13, 21:22, 68:3, 68:11, 68:13, 68:14, 68:21, 78:6, 100:4, 147:6, 148:10, 153:6, 153:7, 153:8, 153:13, 153:17, 153:20, 164:4, 164:12, 164:25, 165:5, 170:6, 170:16, 170:19, 170:22, 198:9, 202:20.
bigger 63:4, 71:1, 156:8, 157:2.
Bill 2:12, 7:3, 7:8, 7:9, 7:13, 7:14, 94:18, 95:6.
billion 60:21, 149:16, 166:3, 166:8, 181:5, 195:25.
bills 71:19, 98:8, 98:18.
Billy 29:4.
binder 143:3, 232:21, 233:13, 233:15, 238:14, 238:16, 254:4, 260:18, 261:5, 330:14.
binders 188:21, 222:3.
biological 21:7, 37:8.
bits 209:15.
black 183:1, 205:20, 230:24, 255:6, 329:8.
blacked 137:10, 137:13, 137:15, 255:2.
Blame 45:14, 108:5.
blank 142:18.
blasting 156:24.
blindfolded 15:11.
block 160:12, 325:18.
Bloomburg 27:5, 35:14.
blow 51:9.
blows 55:11, 55:14.
blue 205:15, 205:18, 255:9, 255:13, 256:7, 256:8.
blue-collar 45:4.
blush 176:9.
board 211:2, 211:3, 224:19.
body 195:13, 267:4, 278:23.
bolted 170:17, 170:20, 170:22, 228:5, 229:21.
bonus 21:7, 28:23.
book 65:19, 227:2, 227:5, 227:7, 275:23.
books 5:5, 226:21.
boom 156:23, 158:16.
booth 248:2, 248:5, 248:11,

248:14, 248:16, 248:21, 248:25, 251:8.
born 4:11, 40:17.
bottom 44:11, 65:11, 160:8, 203:3, 234:7, 235:5, 265:20, 265:23, 271:17, 272:12, 279:2, 326:16.
BOTTS 2:26.
bought 25:24, 56:14, 56:15, 121:19, 218:13.
bounce 297:17.
bounces 171:18, 171:19.
boundaries 122:15, 122:16.
bounds 39:12, 152:8.
boutique 220:22.
box 11:6, 42:15, 42:20, 64:9, 89:18, 102:24, 103:14, 103:19, 103:20, 103:21, 103:24, 104:2, 104:5, 104:8, 107:15, 143:14, 143:21, 144:3, 156:23, 159:17, 210:11, 330:13, 330:20.
boy 173:1.
boys 250:25.
Brad 29:13.
brain 55:14.
Brake 31:14.
branch 20:18.
brand 174:25.
break 143:15, 181:16, 207:11, 293:8, 309:1, 309:2, 328:9.
breakfast 327:23.
breaks 143:20.
Brian 2:23, 12:9, 222:18.
bridge 5:19, 31:3.
bridging 217:6.
Brief 103:10, 126:10, 207:1.
briefly 5:1, 121:2, 134:10, 182:3, 216:20.
brightest 242:16, 304:14.
Bring 18:4, 19:9, 24:25, 46:10, 67:6, 91:18, 91:19, 117:17, 118:18, 120:4, 169:20, 171:23, 188:14, 207:3, 229:10, 230:12, 246:20, 252:10, 258:24, 263:6, 272:17, 275:9, 289:21, 291:8, 291:25, 309:23, 309:24, 329:17.
brings 126:11.
brink 5:19.
Britain 6:8, 6:18, 6:22.
British 6:5, 196:12.
broad 62:6, 112:8.
broadest 107:18.
broadly 41:5.
broke 220:4.
brother 46:22, 62:15, 62:24, 63:6.
brought 5:11, 47:13, 48:1, 48:5, 53:15, 58:22, 73:21, 126:17, 126:24, 127:5, 272:22.
Brunson 103:5, 103:15, 104:19.
budget 318:23.
build 166:2, 194:15, 198:14, 210:2, 211:18, 211:22, 219:17, 228:22, 299:22, 313:20, 315:9.
building 23:22, 92:10, 92:11, 198:13, 205:8, 248:4, 309:13.
buildings 170:17, 171:16, 171:19, 171:20, 297:11, 297:18.
built 83:17, 151:1, 194:17, 201:17, 211:23, 237:15, 287:16, 307:8, 314:13.
bulbs 192:12.
Bulldog 31:22.
bullet 284:12.
bunch 55:12, 154:3, 285:2, 291:8.
burden 14:14, 14:17, 14:19, 14:22, 14:23, 14:24, 15:16, 16:1, 16:4, 16:5, 16:7, 16:22, 17:1, 17:5, 17:7, 17:10, 17:11, 50:5, 50:8, 51:20, 63:4, 65:9, 98:18, 113:23, 132:8, 163:12, 163:18.
burdens 14:17, 17:3, 17:15, 50:4.
Burney 27:20, 27:21, 28:5, 53:25, 54:18, 55:20, 62:10, 63:7, 83:7, 83:16, 104:17.
burning 199:1, 200:7.
Business 4:18, 11:18, 26:10, 28:25, 48:7, 48:12, 54:18, 54:21, 55:2, 70:25, 71:6, 71:10, 71:17, 96:4, 96:5, 96:13, 98:19, 99:9, 126:18, 150:2, 150:4, 153:18, 154:5, 169:19, 173:1, 197:24, 251:13, 251:14, 253:16.
businesses 150:23, 198:6, 198:7.
busy 292:1.
buy 153:7, 204:17.
buying 76:4.
bypassed 205:12.
.
.
< C >.
cabinetry 32:1.
cable 150:14, 150:15, 161:11, 161:12, 197:7, 202:25, 205:12, 211:8, 228:17.
cables 161:15.
Caleb 30:14.
calendar 10:5, 258:5, 258:7.
calling 233:23, 312:2.
calls 188:13, 215:4, 215:5, 215:9, 312:11, 315:24.
Calvary 29:18.
cameras 76:2.
camp 67:24, 69:6, 70:18, 86:19, 89:7.
Canada 198:23.
canceled 117:25.
candid 46:22.
Cantrell 28:21, 28:22, 80:4.
Cantrell--right 43:18.
capabilities 236:20, 284:6.
capability 268:21.
capable 219:20, 317:12, 317:14, 317:20, 323:25, 324:3.
capacity 186:9, 186:10, 186:12, 186:16, 186:21, 186:22, 209:8.
capitalist 260:22.
capture 237:20.
captured 236:25.
car 28:25, 203:22, 203:23, 327:25.
card 210:2, 210:3, 210:14, 210:16, 236:18, 285:17.
cards 209:24.
care 33:23, 48:20, 83:8, 83:14, 106:23, 107:13.
career 245:2.
careers 220:8, 220:9, 220:12.
carefully 103:12.

caregiver 19:25.
Carla 20:13.
carpenter 28:1, 32:1.
carrier-class 234:14.
carriers 155:12.
carry 210:21, 210:23, 298:23.
cars 26:11, 229:25, 301:9.
Carta 6:2.
cases 13:21, 20:17, 33:5, 38:17, 47:14, 82:17, 83:3, 84:9, 108:19, 143:22, 197:24, 330:3.
Casey 32:12.
cashier 70:1, 70:2.
cat 31:21.
catalyst 220:10, 220:11.
category 11:5, 83:7, 83:12.
Catholic 35:25.
caught 11:13, 72:24, 73:3.
CAUSE 1:5, 91:4, 91:10, 91:13, 97:4.
CDMA 308:14.
Cellco 1:11, 126:18.
cells 319:5, 319:6, 323:8.
Center 13:20, 20:10, 121:5, 202:16, 245:11, 245:15, 247:24, 247:25, 261:9, 263:2.
Centers 153:12.
centric 208:15.
century 5:13, 5:15, 150:9, 169:19.
CEO 257:18.
certain 13:7, 60:10, 115:24, 121:3, 124:9, 124:24, 127:21, 127:23, 128:7, 129:14, 131:12, 137:22, 138:7, 138:8, 138:13, 142:2, 158:8, 249:14, 316:14.
Certainly 8:14, 8:17, 14:9, 88:15, 119:19, 177:14, 215:15, 237:20, 267:21, 312:2.
certainty 95:22.
certified 165:24.
CERTIFY 332:1, 332:4.
chair 103:21, 103:25, 104:3, 104:6, 104:9.
chaired 302:12, 302:14.
chairs 143:24, 206:17.
Chalk 21:20, 21:21, 22:1, 22:13, 44:3, 44:22, 44:24, 47:24, 48:25, 53:1.
challenge 97:4, 99:14, 101:22, 152:12.
challenges 91:3, 91:10, 91:13, 103:9, 211:25, 300:24.
challenging 10:10, 10:12, 10:21, 218:4.
chambers 115:5, 115:13, 115:23, 116:5, 116:20, 117:21, 329:12.
championship 66:1.
chance 42:5, 42:6, 80:4, 84:12, 102:2, 125:10, 236:1, 286:25, 311:22.
change 125:11, 175:3, 198:10, 198:24, 217:22.
changed 174:23, 175:22, 182:11, 198:18.
changer 195:9, 208:6.
changes 174:18, 175:15, 175:16, 182:12, 309:7.
changing 214:10.
Channel 5:12, 300:15, 301:7, 301:14, 319:20, 321:23, 322:2, 322:4.
Chapter 324:18, 326:8, 326:11.
characterization 253:22, 256:19, 265:5, 274:5.
characterize 117:25, 238:1, 269:4.
charge 66:2, 145:20, 152:19.
check 159:17, 327:25.
checked 45:12, 60:5, 248:15.
Chemicals 33:4.
chest 100:18.
Chief 1:25, 4:4, 113:13, 113:14, 113:19, 114:3, 114:5, 145:2, 145:7, 145:10, 151:21, 152:4, 166:11, 182:6, 194:11.
child 21:7, 23:15, 26:9, 31:21, 33:23, 56:1.
childcare 102:9.
children 4:16, 19:23, 20:9, 21:6, 21:22, 22:17, 24:14, 25:2, 25:19, 26:20, 27:5, 27:22, 28:13, 28:23, 31:20, 32:13, 32:25, 34:24, 35:14, 35:24, 36:8, 36:20, 37:8, 189:18.
chimney 227:25, 228:2.
chips 211:4.
chipset 219:8, 219:9, 219:17, 219:19, 219:23, 220:2.
chipsets 219:5.
choose 57:24, 67:5, 113:25.
chooses 114:1, 221:10.
chosen 44:16, 55:15.
Chris 33:10.
Christine 21:21.
Christmas 241:4, 309:1, 309:2.
Christopher 27:16.
Church 35:25.
circuits 220:24.
circumstances 115:25.
Cisco 195:24, 196:2, 261:13, 261:23.
Cisco/aeronet 315:2.
cite 176:16.
cited 119:15, 124:25, 176:14, 176:15, 176:17.
citizen 7:12, 8:2.
citizens 7:24, 10:18.
City 24:18, 27:12, 31:6, 33:22, 34:24, 35:15, 40:21.
Civil 4:25, 5:2, 5:19, 5:22, 6:21, 7:12, 7:17, 11:18, 14:8, 17:9, 21:12, 21:15, 22:11, 23:5, 23:20, 24:8, 24:21, 26:3, 28:17, 30:2, 30:3, 32:19, 37:18, 37:19.
claim--is 186:15.
claim-by-claim 130:20.
claimed 122:8, 124:7, 124:14, 124:21, 125:24, 126:3, 131:23, 169:5.
claiming 13:7, 131:25.
clarify 306:24, 311:22, 311:23.
clarity 13:9.
class 193:14.
classic 11:13, 26:11.
classified 192:1.
cleaned 260:3, 260:4.
clearing 289:25.
Clearwire 230:15, 231:3, 231:11, 231:20.
Clemens 29:23.
Clendening 105:5, 106:18, 109:1, 112:20, 327:23.
Clerk 104:15, 105:4, 105:8.
Clerk. 104:21, 188:17.
client 38:24.

clients 39:1.
Clifton 37:6, 37:7, 63:23.
climbing 203:10.
clinics 56:16.
clip 316:1.
close 34:15, 45:24, 88:23, 97:15, 109:8, 109:17, 141:14, 143:23, 158:21, 177:8, 183:6, 186:9, 186:12, 186:16, 186:22, 206:16.
closed 143:17, 219:1, 224:16, 225:5, 241:7, 328:25.
closely 84:2.
closer 36:23, 160:3, 190:23, 209:7.
closing 110:22, 110:25, 111:9, 114:8, 145:23, 145:24.
cloud 200:12.
co-chair 195:13, 195:19, 195:20.
co-owner 33:15.
Coast 40:18.
coax 203:1.
code 81:23, 82:11.
cohort 220:21.
Cold 11:13, 191:7, 194:8.
collaborate 265:4.
collapsing 153:12.
colleagues 167:10, 220:6, 227:21.
collection 168:16.
collectively 127:15.
college 20:12, 21:10, 21:25, 22:24, 23:18, 27:15, 31:24, 34:1, 36:2, 47:3, 190:21.
colleges 35:2.
colonial 6:5, 6:6.
colonists 6:12.
COLORADO 2:5.
column 182:23, 182:24, 296:18.
columns 184:12.
combination 284:11.
combine 315:4.
combined 194:3.
comes 25:25, 53:18, 109:25, 112:11, 138:18, 147:11, 151:23, 157:18, 172:20, 283:1, 329:22.
comfortable 9:7.
Coming 39:23, 58:20, 60:15, 97:19, 109:6, 201:14, 208:4, 215:23, 217:1, 219:5, 228:6.
comment 140:8, 140:20, 322:18.
comments 39:22, 140:9, 140:11, 140:18, 269:4.
Commerce 122:5.
commercial 119:11, 211:16, 212:17, 219:23, 241:23, 244:23, 244:24, 245:2.
commercialize 217:17.
commercially 211:13, 245:4.
commercials 149:11.
commitment 7:7.
committee 302:12.
common 162:17, 162:19, 171:23, 187:5, 310:22.
commonly 127:8.
communicate 107:17, 107:23, 110:9, 110:13, 155:5, 155:10, 310:14, 328:22.
communicated 263:20, 270:11.
communicates 41:7, 161:21, 161:23, 264:16.
communicating 56:17, 264:5, 264:19, 323:25.
communication 107:21, 127:19, 159:13.
Communications 55:6, 111:12, 125:13, 155:13, 155:15, 156:9, 157:10, 165:2, 168:17, 176:10, 176:12, 194:14, 199:11, 214:24, 215:1, 226:16, 304:15, 310:10, 310:18.
community 106:12, 195:21.
companies 71:1, 147:21, 147:22, 150:14, 153:14, 153:17, 172:1, 172:2, 172:4, 172:11, 172:19, 184:16, 194:17, 195:3, 196:9, 217:1, 245:1, 245:3, 245:23, 247:7, 260:13, 261:12, 303:23, 304:13.
compare 163:24, 168:7.
compared 269:7.
compares 320:15.
compensate 129:4, 132:17, 132:20, 132:24, 133:4.
compensated 218:20, 218:22.
compete 234:20.
competing 38:22, 39:25, 145:23.
competitors 253:17.
complete 8:25, 9:2, 14:1, 14:4, 58:8, 58:9, 141:25, 151:7, 308:15, 327:10.
completed 158:1, 242:17, 242:21, 259:25, 331:3.
completely 45:5, 179:18, 255:2, 320:1.
completeness 117:20.
complex 157:3, 171:25, 192:17.
compliance 188:5.
complicate 284:2.
complicated 157:15, 159:20, 180:15, 182:2, 184:15, 189:24, 300:16.
complication 294:4.
complications 185:7, 185:9.
compliment 138:24.
COMPLY 332:5.
components 168:16, 325:17.
composed 324:22.
Comprising 123:10, 123:11, 123:16, 123:23.
computer 56:19, 81:21, 81:22, 160:9, 219:8, 270:24, 270:25, 271:2.
computers 61:21, 81:20, 201:12, 201:18, 216:24, 217:2, 219:7.
conceived 240:24, 241:6.
concentrated 321:13.
concept 7:18, 158:3, 269:16, 271:5, 275:12, 282:22, 283:23, 284:2.
conception 240:22.
concepts 128:11, 128:13, 128:18, 282:15, 299:21.
concern 137:13.
concerned 94:3, 267:17.
concerns 98:21.
conclude 131:24.
concluded 331:15.
concludes 122:11.
conclusion 130:15, 131:2, 131:10, 132:4, 166:12.
conclusions 250:13.
concoct 186:25.
conduct 116:19, 129:8, 203:22.

conductor 158:15.
conduit 262:22.
confer 329:12.
CONFERENCE 247:24, 247:25, 330:7, 332:6.
confession 4:10.
confession--i 4:11.
confident 10:1.
Confidential 190:3, 233:3, 234:3.
confirm 152:24.
confirmed 4:9.
conflict 91:17.
confused 255:16.
confusion 283:12.
connect 77:1, 78:18, 79:11, 171:20, 201:13, 228:19.
connected 76:18, 78:25, 109:14, 161:15, 244:10, 319:19.
connection 149:23, 168:12, 189:8, 201:16, 218:12, 228:17, 228:18, 234:24, 234:25.
connections 57:6, 196:15, 203:7, 228:22.
connects 203:2, 228:8.
conquered 5:12.
consequences 175:3.
consider 13:10, 39:23, 49:3, 49:10, 49:11, 57:2, 59:14, 85:10, 86:12, 90:7, 94:9, 98:12, 99:25, 126:6, 130:14, 132:1, 140:4.
consideration 137:2.
considered 59:14, 124:24, 137:3, 329:24.
considering 48:20, 48:21, 95:14.
considers 82:23, 125:5.
consistent 247:2, 313:24.
consistently 288:23, 317:1.
consolidate 196:20.
constant 97:23.
constantly 149:12, 297:11.
constitute 120:25.
constitutes 124:18.
Constitution 7:1, 7:2, 7:6, 7:10, 7:15, 147:9, 147:17.
constitutionally-guaranteed 7:16, 7:22.
construct 310:20, 312:23.
Construction 35:18, 35:19, 142:6, 267:14, 267:21, 268:8, 278:10, 286:19.
constructions 162:23.
construed 142:11.
consult 223:12.
consumer 94:4.
consumers 48:10, 96:15.
contact 108:22.
contain 128:8, 132:2.
containing 123:11, 142:10.
contains 122:8, 123:18, 123:19, 124:23, 146:2, 275:21.
contend 13:16, 128:7.
contends 127:20, 127:25.
content 325:8.
contention 119:18.
contentions 16:10, 16:12.
context 139:16, 318:18, 318:20.
continue 9:24, 39:7, 177:24, 196:1, 206:20, 207:7, 207:9, 211:12, 242:1, 328:19, 329:11.
continued 154:5, 261:2, 261:7.
continues 234:22, 296:20, 301:23.
continuous 203:16.
continuously 241:12, 242:20.
contract 218:7, 322:19.
contractor 220:22.
contracts 241:23.
contrary 186:2.
control 193:6, 195:5, 209:25, 210:18, 211:5, 319:22, 323:9.
controlled 169:23.
controller 211:4.
controls 160:9, 173:14.
conversation 92:14, 92:15, 109:22, 257:18, 257:21.
conversations 214:8, 214:19.
convert 201:9, 203:20.
conviction 16:9, 16:11, 162:10.
convince 42:4.
convincing 14:20, 16:6, 16:8, 16:22, 17:2, 17:10, 42:3, 163:18.
convoy 328:3.
Cook 24:24, 25:1, 84:11, 104:16.
Cool 22:16, 176:16, 177:18, 256:21.
cooperatively 126:24.
coordinate 212:7.
coordinated 292:7, 292:10, 292:13.
coordinating 212:2.
copied 5:10.
copies 17:22, 268:24.
copper 150:15.
copy 25:23, 61:13, 141:25, 233:11, 308:12, 309:18.
corner 92:7, 171:19.
corners 171:17.
corporate 11:22, 12:3, 12:24, 109:9.
Corporation 24:15, 60:21.
corporations 56:14, 198:9.
Corps 30:19.
corrections 238:11.
correctly 69:7, 76:21, 94:4.
corresponding 142:7.
cosmetologist 27:13, 35:1.
cosmetology 35:2.
cost 98:5, 166:3.
costing 71:18.
costs 94:3.
cough 11:14.
counseling 35:17.
counselor 35:15.
count 188:4.
counterintelligence 257:15, 257:23.
countries 60:9.
country 5:18, 6:25, 8:2, 147:19, 149:2, 166:2, 189:13.
County 21:18, 23:3, 23:23, 24:3, 31:3, 32:7, 32:9, 32:18, 35:5.
couple 15:10, 18:9, 37:22, 38:7, 42:17, 42:20, 73:22, 74:13, 88:11, 97:17, 99:20, 104:25, 112:19, 157:13, 204:11, 214:12, 256:6, 276:5.
court. 103:7.
Courthouse 23:23, 32:6, 32:7, 32:8, 84:7, 128:12.
Courtroom 18:1, 30:6, 38:5, 40:12, 42:7, 58:4, 66:15, 87:13, 92:6, 92:18, 92:22, 93:7, 99:4, 101:8, 102:15,

103:15, 104:12, 105:1, 105:2, 115:12, 120:19, 129:9, 144:2, 172:10, 176:18, 188:1, 188:3, 221:19, 329:7.
courtroom. 93:10, 97:2, 99:12, 101:11, 102:20, 106:2, 115:3, 120:5, 206:23, 207:4, 329:4.
cover 51:4, 123:17, 139:1, 192:13, 256:4, 272:25, 290:17.
coverage 148:23, 149:10, 165:17, 197:8, 270:13, 322:5, 322:10, 322:13, 323:11, 323:15, 323:16, 326:23.
covered 61:10, 123:25, 197:10, 288:22.
covering 115:18, 154:15.
covers 122:21, 123:3, 123:13, 123:16, 200:24, 290:15, 290:23, 294:5.
CPA 33:12.
crack 303:9.
create 77:15, 193:20, 204:14, 220:24, 319:5.
created 161:14, 195:14, 198:8, 220:22, 258:6.
creates 147:20, 154:17, 155:25.
creating 198:17.
credibility 133:18, 135:5, 137:3, 138:21, 140:14.
credible 15:1, 15:5.
credit 172:11, 173:4, 173:8.
credits 34:1.
Cricket 51:6.
criminal 17:8, 20:17, 22:3, 23:3, 23:20, 24:7, 24:19, 26:1, 28:16, 29:5, 30:2, 32:17, 33:6, 33:7, 34:5, 34:7, 34:16, 37:17, 59:6, 147:10.
critical 97:18, 150:5, 173:18, 174:6, 175:5.
criticized 38:19.
CROSS 3:7, 107:5, 110:3, 113:10, 113:16, 135:22, 144:14, 222:1, 222:12, 222:14, 252:11, 287:1, 305:18, 306:17, 310:9, 311:21, 313:9, 315:12.
cross-examined 145:4, 145:9.
crossed 5:12.
Crossing 30:21.
CRR 1:43, 2:32, 332:11.
cruiser 193:14, 193:15.
CRUTCHER 2:17.
CTO 219:4.
cum 190:13.
curious 251:10, 256:17.
current 56:15, 209:24.
Currently 20:10, 20:13, 22:16, 22:19, 22:20, 25:3, 27:13, 30:20, 31:15, 36:9, 36:13, 307:8.
curry 68:12.
curtail 5:21, 6:13, 6:19.
Curtis 28:2.
customer 24:15, 48:15, 48:17, 49:24, 56:16, 57:1, 94:2, 100:7, 243:10, 243:16, 243:17, 244:3, 244:8.
customers 205:11, 209:6, 243:12, 243:13, 244:10, 282:16, 284:3, 316:18, 316:22.
cut 136:9.
cutting 168:18.
cycle 159:3.
.
.
< D >.
D.C 192:24.
d/b/a 1:11.
dad 60:7, 61:20.
Dallas 2:26, 2:28, 35:5, 246:16, 246:21.
Damages 13:11, 13:15, 49:11, 88:18, 95:14, 97:20, 113:24, 118:6, 118:10, 119:13, 119:17, 119:18, 128:1, 129:3, 132:11, 132:16, 132:19, 132:21, 132:24, 133:2, 133:4, 133:6, 133:8, 133:10, 165:4, 165:9, 166:14, 168:10, 185:20, 186:13.
Daniel 28:12, 31:25, 104:17.
dark 255:6.
date 83:3, 112:3, 121:12, 258:18, 259:4, 266:8, 273:5, 309:14, 309:16, 309:18.
dated 234:4, 238:15, 259:3.
dates 10:3, 266:5.
daughter 33:22, 43:5, 43:13, 43:20, 46:17, 46:25, 76:4, 102:1, 309:24.
Dave 36:13.
David 20:8, 22:25, 168:23, 168:25, 178:8.
Day 25:11, 33:23, 101:1, 102:7, 106:21, 115:6, 143:16, 143:21, 154:9, 195:8, 195:9, 259:8, 316:20, 318:6, 327:14, 328:7, 328:10, 329:21, 330:25.
days 73:22, 74:13, 151:9, 154:2, 258:2, 258:19, 309:22, 310:4, 328:13, 328:14.
dead 177:11.
dead-end 308:15.
deal 59:12, 89:16, 109:2, 164:5, 300:11.
Deborah 36:7.
decade 172:2, 194:6, 304:6.
decades 168:12, 168:13, 171:13, 172:22, 184:17.
deceased 26:21, 34:24, 36:3.
December 31:23.
decided 153:18, 158:4, 196:20, 198:24, 251:11.
decides 125:19.
deciding 107:9, 120:21, 130:13, 132:1, 145:18, 164:17.
decision 39:24, 49:14, 55:16, 55:19, 59:16, 68:21, 74:18, 85:14, 88:22, 95:3, 95:24, 107:3, 108:23, 110:2, 111:11, 114:18, 114:20, 118:9, 223:11, 223:12, 223:14.
decisions 137:10, 146:8.
Declaration 6:15.
declare 112:2.
decorum 38:5, 120:18, 129:8.
deed 41:19.
deeds 41:18, 41:19, 41:20.
deemed 60:11, 144:17, 192:1.
deep 170:6.
deeper 153:23.
deeply 6:4.
defend 7:22, 67:9, 67:11, 67:17, 67:24, 126:24.
Defendant 3:12, 12:6, 12:16, 12:18, 15:19, 30:8, 67:7,

81:10, 126:8, 126:17, 126:18, 126:20, 131:3, 133:1, 145:2, 233:19, 331:5.
defending 68:2.
Defense 12:19, 14:24, 15:2, 113:11, 131:13, 145:8, 193:8, 204:19, 204:20, 220:21, 220:22, 222:2, 287:1, 313:4.
defensive 16:7, 16:23, 153:14.
define 122:15, 128:13, 152:6, 295:3.
defined 124:17, 270:22, 295:1.
definitely 16:24, 16:25.
definition 112:8, 129:24, 130:1, 130:2, 142:3.
definitions 129:16, 129:20, 142:8.
degree 4:14, 15:4, 20:12, 22:24, 24:16, 29:17, 33:14, 35:16, 36:11, 37:12, 133:18, 135:2, 191:11, 191:17.
degrees 21:25, 25:4, 191:10, 283:16, 283:17, 285:10.
deliberate 110:12, 111:2, 111:16, 112:10, 114:11, 130:11, 141:2, 146:1.
deliberating 111:7, 142:20.
deliberations 141:16.
deliver 265:6.
delivery 29:25, 234:21.
demand 149:12, 149:13.
democracy 10:19.
demodulates 271:3.
demonstrates 124:20.
demonstrating 249:6.
demonstrative 210:6, 246:20, 248:20, 291:3, 291:6, 295:24.
demonstrators 249:25.
denied 120:2, 121:8.
Dennis 36:19.
denser 228:25.
Dental 33:16.
DENVER 2:3, 2:5.
deny 13:13, 13:14, 115:10, 116:4, 128:4, 162:8, 162:25, 295:20.
denying 115:14.
Department 77:24, 77:25, 78:3, 122:5.
depend 118:4.
dependent 10:23, 96:5, 122:18, 122:22, 122:23, 123:1, 123:2, 123:3, 123:6, 123:7.
depending 19:2.
depends 123:5, 123:7, 298:12, 328:8.
depict 158:2, 291:23, 296:7.
depicted 158:9, 283:4, 323:12, 325:18.
depiction 327:1.
deploy 153:8, 201:25, 202:5.
deployed 193:7, 193:8, 194:21, 194:22, 196:12, 220:2.
deposed 136:2, 178:7, 178:8.
depositions 135:12.
Deputy 103:16, 104:12.
Deron 12:8, 64:23.
Derrick 32:11, 32:12, 32:22.
describe 131:22, 192:9, 194:23, 203:13, 203:25, 237:7, 269:18, 269:21, 284:1, 290:22.
described 144:16, 145:3, 253:19, 253:20, 257:11, 257:23, 258:17, 286:12, 289:3, 290:2, 290:15, 293:22, 294:6, 298:11, 298:15, 314:24.
describes 124:6, 267:5, 268:1, 297:1.
describing 234:11, 282:11, 282:12.
description 122:8, 128:9, 131:21, 132:3, 163:15, 163:24, 164:17, 182:5, 182:6, 183:22, 214:4, 214:5, 237:9, 237:10, 265:6, 267:25, 283:8, 290:24, 290:25, 291:1, 326:16, 326:25, 327:1.
deserves 125:25, 173:4.
design 154:23, 179:15, 284:9, 313:3, 313:12, 313:22, 321:11.
designed 144:8, 167:22, 168:17, 170:10, 170:12, 181:14, 205:8, 229:24, 230:1, 312:5, 321:14.
designing 299:1, 299:2.
despite 242:15.
destroy 193:25.
detail 82:23, 83:18, 83:21, 131:2, 131:23, 160:3, 166:6.
detail-oriented 224:2.
detailed 82:17, 82:21, 120:20, 130:10, 130:16, 131:8, 132:3, 141:11, 145:17, 197:24, 310:3.
Details 32:3, 66:18, 70:21, 77:4, 80:15, 82:19, 82:25, 192:4, 214:21.
detection 220:25.
determination 38:2, 84:8.
determine 5:7, 39:3, 120:13, 122:21, 123:2, 124:3, 124:14, 126:7, 129:11, 136:3, 145:11, 193:24.
determined 129:13, 129:21, 133:10, 138:13, 163:15.
determining 39:19, 129:10, 163:23.
develop 147:21, 168:15, 194:20, 195:4, 304:11.
developed 6:24, 151:4, 151:14, 153:5, 171:13, 219:19, 234:14, 307:2, 310:13, 312:25, 314:22.
developer 56:17, 56:18, 57:1, 256:3, 256:14.
developing 61:15, 61:25, 168:13, 172:3, 192:25, 196:6, 196:10, 199:22, 211:24, 310:17.
development 35:17, 37:13, 220:17, 305:5.
device 149:22, 154:17, 161:14, 161:17, 161:18, 166:9, 201:5, 201:7, 203:6, 227:19, 227:21, 229:21, 229:25, 249:3, 257:2, 257:5, 263:19, 264:8, 264:14.
device--siad 264:6.
devices 123:12, 123:14, 149:23, 149:25, 157:15, 158:15, 161:23, 179:17, 180:3, 180:6, 180:21, 228:19, 271:9, 297:18, 297:19, 301:17, 314:5, 323:25, 324:4.
devices. 318:14.
devilishly 242:10, 244:13.
diabetes 102:23.
diabetic 102:5.

diagram 202:13, 202:20, 240:9.
did--skybeam 209:2.
did. 290:9.
died 195:8.
differ 134:5, 134:6.
difference 161:10, 283:19, 286:17, 311:2.
differentiate 319:19.
differently 59:14, 60:11, 67:22, 82:18, 162:20.
difficult 59:11, 59:17, 94:13, 95:15, 95:18, 98:12, 135:10, 171:25, 184:15, 228:22, 301:8, 301:14, 301:20, 313:22, 328:9.
dig 153:23.
digital 210:18.
digits 127:9.
diligently 139:1, 304:10.
diploma 27:7, 27:15, 29:16, 30:18, 31:15.
dire 41:10, 42:5.
DIRECT 3:6, 3:10, 188:22, 189:2, 207:7, 239:10, 243:2, 260:12, 263:15, 284:24, 289:3, 300:22, 301:2, 303:17, 318:12.
directed 154:16, 270:16, 280:7, 282:7, 293:23, 293:24, 294:20, 295:11, 295:25, 296:5, 296:20, 325:24, 326:1, 326:3.
direction 52:12, 116:18, 318:25, 319:1.
directions 155:5, 320:8.
directly 119:20, 134:4, 192:15.
director 25:14, 33:23, 33:25, 77:23, 192:23.
disabled 20:2, 20:3.
disagree 57:17, 57:20, 287:24.
disclose 147:22, 164:18, 170:24, 305:2.
disclosed 184:21, 213:13.
disclosure 151:19, 152:22, 152:24.
discuss 92:21, 96:25, 99:5, 102:16, 106:24, 106:25, 107:15, 110:9, 110:18, 111:5, 111:10, 112:7, 114:15, 114:19, 128:13, 128:15, 146:6, 182:7, 185:7, 192:3, 206:18.
discussed 115:19, 154:13, 165:15, 252:7, 305:3, 309:20.
discussed--a 182:18.
discussing 111:4, 114:13, 146:5, 214:17.
discussion 117:21, 153:25, 157:19, 304:20.
discussions 115:7, 305:5.
disease 100:16.
dispute 7:12, 42:1, 121:3, 159:16, 171:11, 186:11.
disputes 5:17, 5:20, 5:23, 6:11, 7:17, 329:13.
disregard 138:16, 139:24, 140:11.
dissolve 224:20.
distant 82:8.
distinguished 315:25.
distracted 137:16.
distribute 188:21, 222:3.
distributed 157:23, 323:11.
District 1:1, 1:2, 1:25, 4:5, 4:6, 108:20, 121:22, 140:7.
diversions 164:2.
divide 156:16.
divided 179:8, 285:5.
dividing 200:23.
Division 1:3, 4:5, 4:6, 155:20, 155:21, 155:22, 158:6, 208:9, 208:13, 273:18.
divorced 23:19, 28:16.
do. 119:16.
documentation 197:25, 246:12.
documents 85:1, 137:8, 139:8, 167:15, 171:2, 172:18, 178:6, 178:9, 180:7, 180:15, 190:3, 233:4, 329:23, 330:19.
dog 34:10.
dollar 60:21.
dollars 53:10, 173:9, 173:16, 175:7, 181:6, 181:23, 183:11, 186:14, 186:15, 195:25.
domain 117:24, 118:3.
dome 247:21.
dominant 171:3, 229:2.
Dominguez 2:22, 12:9.
Domino 28:15, 96:16.
done 29:1, 69:25, 76:7, 77:7, 99:8, 100:17, 106:16, 106:22, 115:24, 155:11, 212:6, 222:5, 271:16, 274:4, 274:6, 311:18.
door 108:3, 111:23, 162:16, 301:2, 328:21.
doors 92:5, 92:6, 105:3, 218:2, 218:3, 224:16, 241:7.
double 92:5, 105:2, 116:16, 238:25, 239:1, 305:19.
doubt 9:4, 9:19, 17:7, 17:11, 95:25.
doubts 96:2.
Doug 2:30, 12:23.
downlink 155:13, 155:23, 157:7, 157:24, 158:10, 158:17, 158:22, 158:25, 159:24, 159:25, 161:3, 207:23, 208:5, 208:14, 283:1, 317:3, 317:8, 317:21, 319:10, 319:14, 324:10, 324:12.
downlinks 157:25, 161:2.
downloaded 318:5.
downtown 40:19.
draft 214:10, 215:16, 265:3, 265:4.
drafts 214:6.
draw 107:9, 139:24.
drawing 291:1.
drawings 151:24.
dreamed 171:14.
drew 194:1.
drive 102:8, 102:10, 154:25, 203:23, 204:4, 297:14, 327:19.
driver 29:3, 29:25.
driving 30:1.
Droid 220:2.
drones 220:25.
drop 105:7.
dropout 31:24.
dropped 26:13.
drown 157:9.
DSL 161:12, 197:7, 205:12.
DTX 3:14, 117:10, 119:2, 230:12, 233:9, 233:24, 233:25, 234:1, 250:2, 254:6, 254:8, 254:9, 254:11, 255:3, 255:4, 255:5, 255:7, 275:10, 275:11.
duck 171:17, 171:19.
due 75:25, 282:16.
duly 189:1.

DUNN 2:17.
duplex 208:13, 273:19.
duplexing 155:20, 155:21, 155:22, 158:7, 207:19, 207:21, 208:9.
Duran 33:20, 33:21, 34:3.
duration 292:17.
duties 78:6.
duty 7:20, 7:24, 23:4, 25:12, 32:2, 32:16, 35:9, 37:3, 105:21, 106:10, 137:24, 144:22.
DX 232:12.
dyslexia 309:25.
.
.
< E >.
E. 1:44, 2:33.
earlier 6:20, 54:22, 61:10, 64:23, 146:11, 162:11, 227:15, 227:20, 229:15, 229:20, 243:2, 243:22, 256:6, 266:17, 296:15, 318:24.
early 85:6, 115:5, 154:8, 194:16, 196:6, 201:10, 217:14, 273:11.
earnestly 221:6, 253:23.
earth 148:2.
easier 71:5, 106:13, 208:20.
easily 142:14, 268:24, 269:1.
East 109:23.
Eastern 1:2, 4:6.
Eastman 33:4.
easy 66:21, 183:2, 184:10.
eat 102:7, 106:12.
eating 102:23.
Eaton 171:6, 179:11, 182:16, 241:1, 249:2, 289:22.
Eckert 197:4, 220:18.
Economic 11:17.
edge 168:18.
editing 214:9.
editor 36:9, 36:10.
education 20:1, 20:12, 22:20, 23:7, 25:5, 25:21, 26:12, 26:24, 28:15, 29:25, 31:5, 32:15, 34:1, 34:13, 36:1, 36:2, 36:9, 37:1.
effect 96:16, 138:5, 138:22.
efficiency 324:13, 324:16.
efficient 38:6, 120:17.
effort 111:10, 112:5, 113:3, 114:20, 218:5, 299:14, 303:23.
efforts 5:21, 6:12, 6:19, 139:20, 329:12, 329:15.
eight 21:24, 67:16, 82:6, 89:18, 89:24, 90:20, 103:16, 103:18, 104:7, 104:13, 110:10, 111:4, 111:6, 111:13, 114:14, 114:15, 114:20, 319:12, 319:13, 328:5.
eight-and-a-half 29:16.
either 15:18, 16:16, 18:6, 19:1, 30:8, 45:10, 52:12, 59:9, 80:20, 91:19, 109:6, 118:17, 121:8, 126:14, 143:18, 144:15, 167:16, 187:7, 187:12, 212:11, 223:6, 263:24, 312:15.
Electra 316:9.
Electrical 190:11, 191:15.
electronic 107:21, 190:17, 191:8.
electronics 192:17, 199:11.
element 236:19, 237:20.
elementary 35:15.
elements 122:24, 123:1, 123:13, 123:14, 159:16, 178:13, 178:16, 178:17, 183:3, 193:20, 194:3, 236:18, 264:1.
elevators 297:10.
eliminate 161:16.
Elliott 29:12, 29:13, 29:21, 104:17.
elsewhere 49:23.
email 107:20, 119:5, 167:20.
embroiled 5:17, 6:11.
emphasis 106:25.
emphasis--an 16:11.
employed 23:1, 25:3, 218:15.
employee 69:13, 224:13, 316:11.
employees 78:5, 241:12.
employer 105:10.
employment 19:24, 25:23, 26:10, 26:22, 27:24, 28:14, 31:22.
employs 122:3.
empty 16:16, 103:21, 104:9.
enable 39:2.
enablement 163:16, 164:17, 182:5, 183:24.
enables 327:4.
End 10:15, 78:23, 90:20, 103:25, 114:4, 116:25, 120:20, 122:12, 143:16, 152:5, 163:22, 166:13, 197:16, 228:12, 243:14, 245:17, 254:24, 256:7, 275:3, 276:18, 279:15.
end-to-end 200:11, 242:21, 244:15.
ended 20:24, 23:10, 76:4, 305:9.
ending 194:8.
ends 122:11, 123:21, 234:6, 235:3, 235:6, 235:16, 254:15, 256:7, 259:1, 327:5.
energy 148:19, 148:21, 154:16, 192:16, 192:18, 209:14, 209:15, 209:17, 318:24, 326:6.
enforce 121:20.
engage 4:24, 146:12.
engaging 146:17.
engineer 61:14, 61:24, 82:1, 197:4.
engineering 61:21, 190:11, 191:15, 241:25.
engineers 151:11, 151:24, 221:7, 241:19, 241:24, 242:6, 242:9, 244:12, 304:7, 304:10, 304:12.
England 5:11, 5:14, 5:16, 5:24, 6:5.
English 5:12, 36:12, 183:1.
engrained 6:4.
enhance 52:5.
enjoyed 69:21, 69:23.
enough 47:4, 49:15, 65:19, 65:24, 86:17, 86:18, 87:10, 89:4, 97:15, 117:4, 117:7, 236:21, 243:10, 243:16, 243:17, 244:2, 244:7, 244:16, 257:25, 307:18.
enshrined 147:17.
ensure 157:24.
ensures 147:11.
enter 103:24, 104:1.
entered 120:5, 207:4.

enterprises 205:10.
entire 9:15, 10:10, 112:1, 150:4, 151:10, 186:13, 290:16, 290:17, 290:23, 311:1, 315:9, 320:3, 321:7, 322:5, 322:9, 322:13, 326:23.
entirely 138:17, 139:24, 171:12, 171:24.
entirety 140:12, 272:2.
entitled 4:21, 51:25, 117:25, 127:25, 133:9, 137:2, 152:15, 233:2, 234:19, 250:5.
entitlement 51:24, 52:4.
entity 169:22, 218:13, 224:21, 224:22, 320:1.
entrance 105:4.
entrepreneur 31:25.
environment 217:23, 299:19, 299:20.
environments 231:15.
equal 15:14, 15:18, 16:15, 208:14.
equate 53:17.
Equipment 26:22, 149:5, 150:21, 151:1, 151:2, 153:8, 169:7, 169:9, 198:13, 201:9, 202:13, 204:17, 229:3, 248:12, 249:14, 316:24, 316:25, 317:13.
Ericsson 12:15, 12:21, 12:23, 12:25, 13:2, 13:10, 126:19, 126:21, 126:23, 127:3, 149:4, 149:5, 169:6, 169:7, 172:4, 172:7, 178:7, 190:3, 224:5, 224:8, 224:9, 298:18, 323:20, 324:6, 324:12.
Ericssons 298:22.
escalators 297:10.
especially 192:14, 223:22.
essential 107:23, 148:21.
essentially 182:7.
establishing 195:12, 326:2.
estate 256:3, 256:14.
estimate 10:9, 305:18, 305:25.
et 1:12.
Etex 34:11, 34:12, 49:24.
ethically 38:23.
Europe 195:1, 196:19.
evaluate 88:19, 135:1.
evaluating 135:4.
evening 108:1, 109:20.
event 132:21.
events 163:25.
eventually 212:14.
Everybody 9:8, 9:18, 18:24, 67:22, 68:4, 68:10, 74:10, 76:5, 81:18, 85:23, 90:22, 105:18, 153:14, 192:13, 220:11, 253:17, 255:18, 311:1.
everyday 94:3.
everyone 168:2, 178:8, 192:11, 216:8, 250:23.
Everything 23:8, 44:9, 48:8, 53:13, 58:3, 64:2, 76:2, 78:24, 112:4, 140:23, 141:1, 151:20, 152:1, 158:8, 160:15, 170:3, 174:4, 175:21, 177:10, 178:6, 178:8, 182:8, 203:20, 205:8, 221:5, 238:7, 255:5, 276:12.
everywhere 155:1, 270:15, 270:16.
evidence--the 144:12.
ex-nsa 257:24.
exact 266:5, 271:17.
Exactly 15:18, 152:6, 160:13, 164:3, 165:1, 170:8, 252:14, 275:18, 316:20.
exam 252:11.
EXAMINATION 3:2, 107:5, 110:3, 125:2, 135:22, 144:14, 188:23, 189:2, 206:20, 207:7, 222:1, 222:12, 222:14, 287:2, 305:19, 306:15, 306:18, 315:12.
examine 113:17, 145:4.
examined 113:11, 145:8.
examiner 124:2, 124:3, 124:8, 124:13, 124:24, 125:3, 125:4, 125:5, 125:6, 125:8, 125:9, 125:10, 125:13, 125:16, 125:17, 125:19, 152:19.
examiners 122:4, 152:11, 153:3, 163:7, 163:21, 164:8.
examining 124:8.
example 10:21, 15:6, 16:14, 46:14, 123:15, 123:22, 275:4, 283:4, 285:1, 326:19, 326:22.
examples 220:1, 220:13.
Excavating 21:8, 21:11.
excellent 119:15, 159:12, 223:20.
except 110:2.
exception 330:18.
excess 95:12.
exchange 183:25.
exchanges 139:7.
exclude 187:16, 187:18.
excluded 117:10.
excluding 187:24.
excuse 44:20, 92:4, 101:12, 102:22, 104:24, 104:25, 106:5, 112:18, 182:23, 188:8.
excused 93:9, 102:25, 106:1, 108:8, 115:2, 206:22, 329:3, 331:2, 331:7.
execute 199:17, 308:6, 308:7.
executive 234:10.
exercise 13:25, 103:8.
Exhibit 119:4, 139:13, 200:4, 200:6, 200:9, 202:11, 202:12, 204:19, 204:20, 213:3, 213:4, 216:6, 232:6, 232:7, 232:9, 232:11, 232:17, 240:7, 263:23, 308:18, 313:4, 313:8, 317:23, 318:2, 321:19, 323:17, 324:18, 326:8, 326:11, 330:11.
Exhibits 3:12, 107:5, 107:7, 110:4, 111:25, 112:12, 139:5, 139:12, 144:17, 329:19, 329:20, 329:24, 330:1, 330:3, 330:5, 330:17.
exist 87:21, 122:17, 148:3, 155:2, 181:10, 212:25, 213:1, 215:22.
existed 124:20, 161:10, 161:13, 168:19, 224:17, 273:22.
existing 303:1, 303:7, 303:10.
exit 92:5, 105:2.
expand 68:2, 123:20.
expanded 195:1.
expanding 198:16.
expect 8:15, 9:23, 14:8, 14:10, 113:4, 113:6, 116:25, 134:22, 162:2, 306:1.
expects 144:9.
expensive 150:13, 201:14, 228:22.
experience 45:23, 46:2, 58:13,

60:17, 61:18, 66:20, 75:3, 75:9, 82:3, 94:13, 100:19, 107:25, 134:13, 197:11, 213:22, 213:24, 224:4, 227:10, 298:25.
experienced 14:6, 42:10, 60:6.
experiences 42:8, 46:10, 58:12, 59:9.
expert 115:17, 119:19, 134:10, 134:14, 134:17, 134:22, 159:12, 165:21, 187:16, 187:18, 187:24, 187:25, 226:15, 297:22, 300:18, 311:17, 312:11.
expertise 74:22, 81:20, 81:22.
experts 115:16, 115:23, 190:3.
expired 166:19.
explain 17:21, 47:10, 57:16, 60:3, 103:15, 103:17, 131:1, 135:1, 135:23, 155:21, 158:2, 159:14, 160:24, 161:25, 165:25, 166:3, 166:6, 170:9, 176:19, 185:17, 199:15, 216:20, 286:22, 287:3.
explained 152:5, 163:13, 164:7, 272:12, 322:4.
explaining 157:17.
explains 157:20, 272:12, 292:4.
explanation 271:18, 287:5.
explanations 214:13.
explicitly 181:14.
expressed 93:25, 240:17.
expression 140:10.
expressions 39:22.
expressly 138:4.
extend 10:1.
extensions 315:2.
extensively 143:6.
extent 319:7.
eye 166:15.
eyes 39:10.
.
.
< F >.
F150 314:16, 315:8.
Fabia 35:13.
face 211:25.
Facebook 167:20.
faced 300:24.
facility 78:5.
factors 235:7, 235:12, 245:13.
factory 315:8.
facts 38:1, 38:2, 39:19, 39:24, 52:13, 52:16, 53:12, 68:17, 71:4, 71:13, 71:20, 71:21, 80:21, 87:20, 87:22, 87:23, 87:24, 88:18, 88:21, 120:12, 120:13, 133:14, 140:13.
factual 16:10, 16:12, 186:7, 186:8, 186:15, 186:24.
failing 166:16.
fairly 88:19, 99:25, 159:21.
fairness 52:1.
fall 330:17.
falls 11:4.
falsely 66:15.
familiar 149:21, 204:12, 275:12, 302:10, 321:23, 325:9.
familiarity 55:5.
family 10:23, 10:25, 40:20, 51:4, 51:12, 58:13, 63:10, 63:16, 77:14, 189:16, 196:21, 328:13.
famous 247:12.
fanning 329:8.
fantastic 199:14.
far 11:7, 80:8, 112:4, 153:21, 215:13, 217:10, 302:1, 316:24, 319:25, 320:20.
farfetched 303:3, 303:4.
farmhouses 228:23.
fashion 307:23, 321:3.
fast 159:5, 204:5.
Faster 301:10, 301:12, 301:13.
father 193:2, 193:5.
fault 87:19, 183:4, 255:12.
favor 16:2, 16:24, 17:1, 48:4, 58:21, 60:16, 61:3, 61:7, 62:23, 63:17, 63:19, 68:13, 68:15, 69:3.
fax 25:23.
Faxer 12:24, 169:7, 169:11.
FCC 309:7, 313:16, 313:18.
feature 208:24, 326:16.
features 123:24.
February 22:4, 44:16.
FEDERAL 13:20, 108:4, 108:6, 110:5, 121:5, 126:3, 332:12.
feedback 301:8, 301:14.
feel 45:14, 45:15, 48:9, 49:21, 67:8, 67:22, 71:1, 97:25, 99:22, 128:18, 146:15, 221:9, 221:19.
feelings 71:13, 71:14, 95:22, 96:7, 96:12, 96:18, 100:8, 116:25.
FEES 332:4.
feet 202:24.
felt 238:11, 268:22, 308:14.
fence 87:6.
few 4:19, 76:19, 84:14, 88:12, 92:4, 92:23, 106:4, 106:9, 128:16, 129:19, 130:25, 171:5, 222:17.
fewer 328:14.
field 100:19, 147:13, 176:11, 193:5, 198:14, 202:24, 203:13, 242:24, 243:3, 243:9, 243:10, 243:13, 296:19, 304:15.
field--we 134:13.
fighting 72:24, 191:8.
fights 72:20.
Figure 45:7, 83:6, 170:17, 172:1, 172:5, 184:16, 184:17, 184:20, 211:25, 284:25, 285:1, 286:2, 287:13, 291:7, 291:8, 291:15, 291:25.
figured 172:21, 299:18, 299:24.
Figures 151:24, 209:18, 274:24, 285:25, 287:9.
figuring 172:19, 304:18.
file 121:25, 147:24, 212:20, 213:12, 277:13.
filed 12:17, 115:9, 122:6, 124:10, 124:22, 126:21, 147:25, 151:8, 153:5, 213:14, 260:9, 266:3, 266:13, 266:16, 273:5, 274:13, 274:17, 303:14, 307:25, 314:5, 314:19, 314:21.
files 124:1.
filing 121:22.
filled 109:13.
final 110:20, 110:24, 111:8, 114:7, 145:19, 145:22, 182:8, 214:10, 215:5, 225:1, 259:4, 259:12, 260:5, 265:4, 281:17, 309:14.
finalized 260:5.

finally 203:4, 309:4, 311:3.
financial 218:17, 262:21.
find 4:22, 5:6, 7:10, 10:10, 85:10, 85:18, 87:2, 89:21, 92:7, 100:1, 100:4, 106:12, 132:13, 141:7, 142:2, 142:11, 142:14, 143:2, 159:6, 165:10, 217:25, 245:20, 251:5, 256:13, 329:1, 330:20.
finding 330:12.
fine 47:3, 76:22, 133:3, 321:3.
finger 66:21, 66:25, 67:14.
finish 10:2, 145:10.
finished 4:14, 19:1, 22:3, 61:25.
finishes 58:7.
fire 193:6.
fireman 24:17.
firm 37:11, 40:24, 85:12.
Five 5:5, 20:3, 26:20, 27:12, 27:22, 29:19, 31:4, 31:7, 31:8, 33:11, 34:15, 64:17, 64:18, 72:18, 72:21, 82:6, 86:21, 146:24, 163:9, 167:2, 167:4, 171:14, 174:11, 185:2, 219:7, 313:17.
five-and-a-half 213:19.
fix 56:18, 203:19.
fixed-access 204:15.
fixing 87:17.
flag 164:12, 164:21.
flashed 281:2.
flashlight 192:14, 282:7.
flip 151:9, 154:9, 183:15.
flip-up 257:9, 257:12.
floodlight 192:13.
FLOOR 2:19, 23:25, 24:1, 24:2, 92:11.
floral 4:18.
flourished 5:14, 6:6.
flow 38:6, 120:17.
Focus 15:15, 136:19, 136:21, 137:15, 165:13, 166:22, 168:5, 178:13, 187:4, 191:5, 192:18, 200:1, 205:7, 209:16, 235:2, 266:23, 326:6.
focused 148:18, 148:20, 154:16, 178:14, 218:5, 318:24.
focusing 42:19, 192:16, 200:14.
folks 43:21, 64:25, 65:14, 66:16, 66:21, 67:14, 68:4, 68:20, 69:2, 70:4, 73:20, 80:18, 88:13, 93:3, 104:7, 109:17, 220:14, 313:22.
follow 29:8, 75:10, 76:12, 95:2, 104:7, 126:9, 206:17, 261:3, 280:15, 297:18, 328:19, 329:14.
follow-up 98:25.
followed 115:1, 214:2, 287:19.
following 91:1, 91:25, 93:13, 103:7, 146:16, 176:25, 177:22, 251:23, 253:9, 262:13, 262:20, 267:11, 268:10, 284:11, 305:16, 306:9.
follows 29:6, 189:1.
Fondly 221:3.
foods 327:23.
foot 78:4.
football 199:17, 199:19.
Forces 8:4.
Ford 32:14, 314:16.
forefathers 6:4.
FOREGOING 332:1.
foreman 31:3.
foreperson 59:21.
forgot 243:7.
form 6:18, 6:22, 8:1, 8:3, 114:17, 114:21, 120:23, 121:17, 146:2, 146:9, 193:22, 194:4, 196:24, 217:14.
formal 224:13.
FORMAT 292:17, 332:5.
formed 196:9, 237:22, 239:14, 240:1, 240:18, 259:2, 263:15.
former 220:5.
forms 121:18, 122:17.
formula--more 209:15.
forth 125:15, 129:19, 139:15, 164:8, 180:20, 202:17, 214:8, 214:14, 278:15, 316:14.
fortunate 65:24.
forward 13:10, 39:9, 39:15, 64:13, 103:13, 103:24, 188:16, 208:19, 242:1, 258:11, 329:15, 329:23.
found 110:4, 112:12, 125:4, 131:20, 132:18, 137:18, 142:19, 198:22, 330:16.
foundation 237:19, 261:25, 262:6, 262:9, 262:19, 262:23.
foundational 107:1, 107:12, 110:7, 318:11.
founded 147:19.
founders 216:25.
founding 197:18, 302:14, 302:16.
fountain 92:8.
Four 4:17, 20:9, 23:2, 28:14, 28:23, 33:4, 34:24, 36:10, 93:3, 102:25, 103:18, 103:19, 104:8, 156:15, 217:23, 232:11, 239:4, 285:10, 291:12, 291:23, 330:5.
four-year 20:12.
Fourteen 225:4.
fourth 23:10.
frames 158:9, 180:19, 286:15, 286:19, 291:20, 294:22, 310:19, 311:11, 312:6.
framing 187:21, 286:15.
Frances 21:23.
Frank 3:9, 315:25, 316:5, 316:9.
free 92:14, 140:11, 309:4.
freelance 36:9.
freight 88:2.
frequencies 155:13.
frequency 155:14, 155:22, 155:23, 156:1, 206:7, 207:22, 208:13.
Friday 36:25.
fried 45:5, 91:16.
friend-foe 193:24.
friends 63:6.
fries 220:24.
frivolous 60:25.
fro 278:15.
front 9:15, 15:7, 15:8, 17:22, 18:2, 51:15, 66:13, 93:18, 103:19, 103:24, 103:25, 104:1, 104:2, 104:6, 104:8, 105:4, 143:4, 177:18, 210:16, 227:6, 235:15, 246:12, 252:7, 266:9, 266:12, 278:17.
fronthaul 324:13, 324:16.
fuels 147:20.
full 8:25, 9:1, 14:4, 49:11, 95:14, 98:13, 238:18, 274:5, 282:13, 308:4, 308:7, 316:8, 318:18.
fully 133:3, 139:18, 238:1,

242:21, 287:3, 305:12, 318:20.
function 267:24, 268:2, 268:24, 268:25, 269:19, 269:20, 270:1, 314:9.
functional 271:7.
fund 197:15, 198:8, 260:13.
fundamental 108:10, 109:25, 111:18, 112:17, 147:9, 148:12, 212:2, 212:3, 215:21.
Fundamentals 227:5.
funded 198:8, 204:14, 246:1, 260:15.
funding 217:23, 218:4, 231:25, 245:15, 245:17, 245:20, 245:24, 260:22, 260:25, 261:2, 261:8, 263:1, 308:8.
funds 198:1.
funny 74:11.
furnish 105:11.
future 39:7, 112:3.
Fyffe 33:9, 33:10, 33:15, 33:19.
.
.
< G >.
gain 206:9.
gallery 42:16, 42:21, 64:9, 109:13, 188:5.
game 79:8, 92:16, 195:9, 208:6, 331:12.
gap 217:6.
garage 197:17.
Gary 31:1.
gas 37:15, 53:17.
gate 61:5.
gather 8:11, 13:24.
gave 16:14, 56:2, 136:5, 154:4, 271:18, 278:1, 300:21, 315:4.
gears 83:23.
GED 35:2.
Generally 47:16, 51:21, 77:4, 127:18, 145:19, 155:12, 195:12, 214:2, 248:23, 249:15, 319:9.
generated 115:17, 115:20, 116:2, 125:12.
generation 219:5.
gentleman 206:20.
George 6:9, 6:10, 6:12.
Georgia 159:11, 247:21.
gets 40:9, 43:14, 107:14, 156:16, 157:15, 186:25, 225:20, 301:14.
getting 157:3, 183:25, 212:20, 256:5, 267:20, 268:7.
GIBSON 2:17.
gifted 197:4.
gigahertz 309:10.
Gilmer 22:3, 22:9, 24:14, 24:18, 27:22, 29:24, 31:2, 34:10, 34:18, 44:17, 62:6, 62:8, 65:21, 65:23, 327:20.
Gilstrap 1:24, 4:4, 9:16, 151:21, 152:5, 163:12, 163:22, 166:11, 182:7.
GIOVANNI 2:8.
Given 45:21, 59:13, 87:2, 94:1, 110:20, 110:24, 113:8, 115:25, 129:18, 135:21, 136:22, 140:15, 141:6, 142:3, 144:13, 206:18, 217:12, 244:19, 295:19, 295:22, 298:19, 298:25, 309:13, 319:10, 319:11, 319:13, 327:5, 328:18.
gives 59:9, 121:11, 147:21.
giving 10:8, 17:19, 138:17, 311:22.
glad 53:15, 68:18, 221:21.
Glen 2:7, 12:2.
glib 253:24, 254:2.
glitch 136:21.
glitches 136:15.
Glover 31:25.
glue 123:17.
goal 8:22, 307:5.
goals 284:11.
Gonzales 25:6.
gosh 94:18.
gotcha 78:6.
gotten 197:23.
governing 6:25.
government 60:1, 60:7, 86:18, 87:8, 87:23, 122:3.
governs 165:9.
grad 36:11.
grade 23:9, 23:10, 23:17, 26:13, 28:4.
graduate 61:20, 190:12, 191:17.
graduated 21:9, 23:17, 27:15, 31:24, 62:15, 62:24, 65:23, 66:5, 190:14.
grand 23:4.
grandchildren 4:17, 27:23, 37:9.
grandkids 52:15, 52:19, 65:2, 72:9, 72:17, 74:6, 92:20.
Grandma 72:24, 72:25, 73:9, 73:24, 74:1.
grandparents 72:14.
Granted 85:8, 87:1, 87:9, 121:8, 122:14, 289:20.
grants 125:23.
granulomas 100:16.
Graphic 29:15.
gray 200:20, 257:6.
Great 6:8, 6:18, 6:22, 79:10, 79:13, 79:24, 90:19, 153:25, 155:16, 192:10, 199:3, 199:8, 199:16, 221:5, 221:24, 324:19.
greater 15:4.
greatest 45:18, 148:2.
greed 51:25.
Greeks 5:8, 5:10.
green 264:11, 277:17.
gregarious 109:22.
Grew 40:17, 65:21, 65:22.
Griffin 197:2, 220:21.
grocery 195:1.
ground 150:15.
groundbreaking 151:14, 173:19.
group 9:15, 43:4, 43:11, 43:15, 96:24, 99:4, 151:10, 173:10, 173:12, 173:13, 173:14, 192:1, 198:5, 219:17, 219:18, 240:10, 302:23.
groups 151:12.
grow 198:12.
growl 39:10.
grown 22:17, 27:22, 35:14, 189:18.
GSA 329:6.
guarantees 7:11.
guess 49:25, 50:19, 53:12, 58:18, 80:15, 96:3, 137:14, 174:3, 258:10, 298:20.
guidance 117:6.
guided 107:2, 193:14.

Guinn 54:25.
Gulf 40:18.
gun 24:5.
guts 257:19.
guy 24:5, 70:14, 83:21, 87:23, 177:12, 221:1.
guys 48:9.
.
.
< H >.
habit 107:13.
half 87:16, 241:8, 241:10, 241:18, 242:19, 244:13, 260:4, 306:5, 306:6.
hall 31:6.
Hallsville 22:16.
Hand 15:12, 15:13, 18:7, 22:16, 25:10, 43:22, 49:20, 68:24, 74:16, 74:18, 75:1, 75:2, 78:12, 80:3, 81:17, 83:16, 86:1, 86:24, 88:20, 100:12, 101:24, 122:22, 140:2, 210:7, 226:14, 259:6, 314:7, 315:5.
hand-in-glove 318:12.
handed 210:12.
handful 309:22.
handheld 18:2, 18:4, 18:8, 18:15, 19:9.
handle 120:16, 129:7, 297:7.
handling 157:14.
handoff 204:5, 204:6, 300:8, 300:9, 306:22, 306:25, 307:4, 307:5, 314:12, 314:14.
handoffs 231:12, 231:16, 314:16.
hands 11:5, 18:19, 43:10, 43:13, 44:2, 47:21, 66:12, 104:19.
handset 217:15.
happen 8:17, 9:4, 9:9, 14:10, 53:8, 84:24, 108:24, 136:8, 156:21, 180:1, 197:14, 201:24, 202:3, 211:4, 217:11, 217:15, 217:16, 219:10, 313:19.
happened 9:11, 92:17, 92:22, 108:4, 112:4, 153:2, 153:13, 173:22, 174:6, 174:9, 174:12, 195:22, 197:22, 220:11, 309:2, 328:20.
happening 170:9, 197:7.
happens 68:5, 68:12, 109:18, 137:10, 146:15, 152:19, 181:25, 198:20, 212:7, 218:2.
happy 80:18, 105:11, 105:13, 196:21, 221:12, 251:20.
hard 48:19, 48:21, 66:7, 71:16, 71:20, 94:10, 94:19, 95:1, 95:13, 98:3, 100:3, 139:17, 140:19, 150:10, 168:14, 221:7, 233:11, 242:10, 244:13, 245:8, 305:24.
harder 301:11.
hardware 319:23.
Harrison 23:23.
hate 70:8.
Hatfield 26:18, 26:20, 57:10, 58:11, 59:1, 68:5, 87:4, 104:16.
hauls 29:2.
hay 164:6.
He'll 20:6, 166:3, 166:6, 183:7, 185:17, 203:2, 210:10, 312:15.
head 50:22, 62:20, 85:25, 87:4, 168:22.
head-and-shoulders 142:16.
headed 112:25, 220:16.
headquartered 234:13.
health 102:4.
Healthcare 26:15, 33:1.
hearing 60:16, 91:1, 91:25, 97:19, 97:22, 131:18, 133:11, 164:19, 166:16, 176:25, 177:22, 232:13, 251:23, 253:9, 267:11, 268:10, 305:16, 306:9.
hears 18:24, 56:4.
hearsay 262:22.
heart 148:12.
heating 30:18.
height 191:7, 241:20, 242:5.
held 85:9, 171:21, 173:21.
Hello 26:19, 36:19.
help 42:2, 51:11, 72:7, 78:2, 99:8, 126:9, 128:17, 154:23, 193:10, 209:11, 211:18.
helped 51:12, 194:13, 194:20, 195:4, 198:3, 199:19.
helpful 15:6, 51:7, 134:12, 142:19, 266:8.
helping 53:2, 55:1.
helps 42:13, 51:8, 54:25, 239:6.
Henderson 23:3.
HEREBY 332:1.
hereditary 100:15.
Hertz 194:24, 195:3.
hesitate 8:17.
hesitation 44:3.
high-speed 314:13.
high-tech 75:12.
higher 16:13, 17:11, 209:16.
highest 8:1, 8:3.
highlighted 193:18.
highlighting 277:16.
highly 16:10, 16:12, 157:22.
highway 167:22, 171:17, 297:14.
Hill 2:11, 40:24, 189:13.
hire 198:13, 199:8.
hired 174:17, 174:22.
history 5:4, 6:10, 34:5, 34:7, 125:14, 275:12, 275:23, 277:13.
hits 311:3.
Hold 18:9, 18:10, 18:16, 18:22, 19:9, 22:21, 36:22, 43:23, 63:3, 214:1, 271:24.
holder 121:11, 121:15, 121:19, 121:20, 132:20, 132:21, 132:25, 133:4.
holding 227:19.
holds 15:11, 15:13.
holes 227:24.
Home 19:24, 20:14, 26:15, 27:14, 47:2, 65:25, 66:2, 76:1, 77:6, 77:7, 77:13, 78:20, 78:21, 108:1, 200:13, 205:10, 217:1, 309:5, 328:21.
homes 150:16, 150:18, 150:21, 150:23, 154:10, 201:10, 328:13.
honest 48:7, 57:16, 73:14, 81:1, 81:2, 82:16, 94:22.
honestly 245:2.
HONORABLE 1:24.
honors 191:19.
hook 149:7.
hope 15:6, 49:16, 65:25, 89:21, 185:23, 185:24.
hopeful 329:14.

hopefully 38:8, 39:2, 79:7, 168:23.
Hopkins 191:16, 191:18.
horizontally 318:13.
hospital 21:23.
hot 329:9.
hotspot 75:11, 75:15, 75:18, 75:20, 76:3, 76:13, 76:15, 76:16, 76:18, 76:19, 76:23, 77:10, 77:15, 78:13, 78:15, 78:23, 79:5, 79:8, 149:21, 150:22, 216:4, 216:7.
hotspots 55:6, 75:17, 76:1, 148:13, 149:19, 161:8, 174:2, 175:8, 223:6.
hotspotting 41:8, 76:5.
hour 218:23, 225:8, 305:18, 306:4, 306:6.
hours 106:20, 135:25, 136:3, 136:6, 136:11, 139:7, 139:19, 206:14, 244:13.
house 61:21, 72:22, 75:14, 76:3, 78:24, 151:4, 161:14, 164:25, 203:7, 203:17, 216:24, 228:1, 228:2, 228:5, 228:7, 228:8, 228:18, 228:19, 229:21, 230:8, 234:24, 234:25, 240:15, 240:20.
houses 170:18, 170:20, 170:23, 230:4, 240:11, 240:13, 240:14.
housewife 28:6.
Houston 1:44, 2:33, 40:17, 40:19.
Huawei 298:18.
huge 98:1.
Hughes 12:2, 21:6, 31:13, 32:14, 35:22, 35:23, 36:3, 36:5.
human 37:12.
hundred 6:7, 9:11, 109:14, 172:6, 314:8.
Hundreds 172:1, 172:2, 172:19, 173:9, 175:6, 181:23, 183:11, 184:16, 186:14, 193:19, 303:23, 304:6, 304:13.
hundredth 159:4.
hurdles 313:21.
husband 21:9, 21:11, 21:13, 24:17, 25:22, 27:16, 29:1, 29:2, 33:3, 34:3, 36:13, 40:20, 43:4, 43:11, 43:15, 55:25.
Hynek 12:3, 68:9, 119:6, 153:24, 153:25, 169:24, 170:2, 170:3, 172:13, 173:10, 173:14, 174:15, 174:16, 174:17, 174:22, 175:16, 175:25, 198:5, 198:10, 199:5, 221:15, 225:12, 251:11, 253:3, 253:14, 253:20, 255:24, 256:13.
hypothetical 295:3, 295:5.
.
.
< I >.
ideas 151:1, 151:23, 152:16, 162:4, 173:19, 173:23, 173:24, 304:1, 308:12, 308:16.
identified 227:20.
Identify 11:21, 193:23, 259:17, 305:4.
identity 321:2, 324:25, 325:2.
Ill 6:9, 6:11, 6:12, 104:16.
illegal 313:20.
illustrate 193:11, 193:21.
Imagine 40:21, 61:1, 62:19, 63:23, 165:19, 192:12.
immediate 10:23.
immediately 7:2, 7:7, 9:23, 109:2, 117:1.
impact 94:7, 98:11, 132:11.
impaneled 5:6, 8:21.
impartial 8:13, 8:22, 14:1.
impeach 252:12.
impeachment 253:1.
impetus 217:16.
implement 208:20, 298:13.
implementation 212:25, 289:5, 289:14, 289:15, 290:7, 298:12.
implementations 314:14.
implemented 316:25.
important 8:23, 10:16, 18:24, 38:13, 42:1, 65:5, 72:2, 86:23, 92:8, 105:19, 105:22, 133:16, 135:6, 136:4, 136:24, 140:24, 147:18, 148:7, 151:6, 168:9, 199:15, 301:17.
important. 119:12.
importing 121:14, 127:22, 131:5.
imposition 40:13, 147:6.
impossible 100:2.
impress 133:22.
impressed 223:19.
impression 144:21.
impressive 223:21, 223:22, 224:1, 245:3.
improper 8:16, 14:9, 177:5, 269:5.
improperly 330:8.
improve 168:17, 209:7, 209:8, 318:22, 319:2.
improvements 237:18.
improves 165:18, 324:13.
improving 208:6.
improvise 49:23.
in. 180:4, 207:3, 210:15.
inadvertently 233:21, 330:6, 330:9, 330:18.
Inc. 12:15.
incentive 147:20, 147:22.
include 127:24, 133:2, 161:18, 183:17, 208:21, 208:22, 308:16.
includes 122:6, 122:23, 123:11, 124:19, 129:19, 152:21, 268:20.
Including 7:22, 84:9, 92:15, 114:14, 123:10, 151:14, 151:16, 170:3, 223:16, 242:10, 304:11, 319:24, 330:4.
inconsistently 239:19, 288:24.
inconvenient 10:13, 10:14, 10:18, 11:1.
incorporate 209:21, 212:1.
Incorporated 12:23.
incorrect 134:19.
increase 94:3, 149:9, 206:9, 209:5, 209:11, 209:13.
increased 186:6.
increases 165:17, 318:25.
increasing 149:12.
incredible 174:6.
incredibly 168:15, 171:25.
Independence 6:15, 6:24.
Independent 6:18, 6:22, 22:18, 31:14, 122:18, 122:20, 122:21, 123:4, 123:6, 123:7,

160:7, 179:12, 179:14, 179:18, 180:2, 320:1.
independently 126:7.
INDEX 3:1.
indicate 56:8, 138:4, 141:18.
indicated 7:6, 11:3, 55:5, 55:7, 57:13, 59:25, 91:13, 100:6, 115:10, 326:1.
indication 130:5.
indications 39:22.
indispensable 39:8.
individual 198:7.
individuals 198:9.
indulge 5:1.
industries 220:22.
industry 195:16, 223:16, 226:1, 226:5, 226:8, 298:8.
inference 139:24.
influence 46:2, 46:4, 100:9, 108:23, 110:2.
influenced 42:10.
informal 13:18.
information. 256:9.
informational 293:14.
informative 113:6.
informs 125:3.
infringe 13:13, 41:16, 89:22, 131:3, 159:7, 162:9, 162:10, 162:19, 162:25, 163:1, 176:5, 176:19, 178:19, 180:18, 181:25, 187:6, 223:6.
infringed 13:8, 89:25, 128:23, 128:25, 129:17, 130:18, 130:22, 131:1, 132:6, 132:15, 185:17, 185:22.
infringer 165:13.
infringers 121:21.
infringes 159:15, 161:7, 169:17, 169:23, 184:3.
infringing 127:21, 128:4, 148:6, 149:25, 168:11, 170:1.
initial 259:5, 259:11, 259:25, 260:10.
initially 197:15, 218:4.
initiates 126:11.
injury 47:15, 47:17, 61:10.
innovation 147:20.
input 110:1.
inquire 8:9.
Inside 92:11, 169:11, 254:24, 272:24, 273:3, 293:23.
insisted 196:22.
insofar 137:4.
Inspection 27:17.
install 256:3, 256:15.
installation 27:25, 54:24.
installed 316:24.
installing 202:25.
instances 59:19, 322:14.
instant 107:20.
instead 45:7, 177:9, 228:6, 234:24, 320:5.
instruct 14:22, 50:4, 110:11, 145:25.
instructed 109:24, 118:5, 163:22, 267:15.
instructing 133:8.
instruction 104:12, 111:20, 118:9, 129:23, 163:12.
Instruments 219:2, 219:3, 219:4.
insulin 102:6.
integral 7:19.
integrated 201:5, 201:6, 203:6, 227:21, 229:21, 264:5, 264:13.
integrity 211:9.
Intel 219:7, 219:8.
intellectual 41:13, 54:9, 121:17.
intelligence 190:17, 191:8, 251:13, 251:14, 253:16.
intend 91:18, 140:19, 307:13.
intended 119:16, 177:7, 321:6.
intent 272:10, 323:2.
intention 117:2, 177:15, 177:17, 307:3, 310:14, 310:18.
intentional 94:15.
intentionally 8:10, 330:6.
intents 12:18.
interact 146:14.
interchangeably 322:21.
interest 133:25, 218:17, 262:20.
interested 46:12, 52:7, 153:9, 236:3, 257:16, 263:3.
interesting 65:19, 253:22, 256:21, 256:23.
interface 201:8, 209:25, 211:4, 211:5, 217:5, 299:13, 303:2, 303:8, 320:1.
interfere 95:24, 156:2, 212:10.
interference 156:20, 157:20, 159:2, 204:2, 206:9, 208:20, 319:2.
interfering 319:7.
internally 305:3.
international 195:13, 302:14.
internet 48:8, 77:8, 77:10, 79:10, 149:23, 150:11, 150:13, 150:16, 150:20, 154:10, 161:15, 201:20, 202:9, 219:20, 228:19, 230:4.
interpretation 130:4, 142:6.
interpretations 60:10.
interpreted 129:13, 295:1.
interrupt 58:2, 206:11.
intervened 126:19.
INTERVENOR 2:26, 12:15, 12:18, 12:21, 12:23, 126:22.
introduce 40:16, 176:3, 189:6.
introduced 138:3.
introducing 282:15, 326:8.
introduction 324:21.
intrude 97:14.
invalidated 117:25.
Invalidity 131:13, 163:18.
invent 273:16, 273:25, 274:1.
invented 151:20, 172:13, 172:22, 173:1, 173:6, 182:9, 276:24.
inventions 150:8, 151:7, 151:14, 152:16, 162:4, 164:19, 215:23, 216:1, 217:18, 221:20, 221:22, 300:22.
inventor 117:9, 119:5, 119:11, 119:21, 131:24, 150:9, 151:19, 151:23, 152:3, 152:14, 152:15, 152:16, 152:23, 152:25, 164:9, 169:15, 169:16, 182:8, 182:9, 183:20, 189:9, 189:20, 213:7, 213:8, 216:13, 216:18, 221:18, 222:21, 267:25.
inventory 195:5, 198:15.
invest 232:4, 233:5, 235:14, 236:1.
invested 154:2, 170:2, 173:11, 173:13.
investment 217:25, 299:8, 299:16, 314:1.
investors 154:3, 173:11, 198:7,

234:11, 235:8, 235:13, 235:24.
invoke 187:13.
invoked 187:16, 187:23.
involve 10:4.
involved 5:20, 95:19, 109:11, 149:4, 153:3, 155:5, 163:7, 174:13, 185:5, 192:7, 192:17, 215:2, 223:11, 245:18.
involvement 305:9.
involves 121:3, 127:4, 148:17, 149:19, 189:25.
involving 4:25.
ipad 77:13.
iphones 167:20.
irregularities 136:16, 136:20.
is--it 9:25.
ISD 35:15.
ISDN 78:22.
island 5:13.
Isonhood 34:8, 34:9, 48:13, 64:10, 74:23.
ISP 202:7.
issued 84:4, 84:5, 86:9, 122:14, 124:23, 125:21, 125:25, 131:16, 276:7.
issues 5:7, 53:5, 91:14, 102:23, 107:9, 108:13, 113:24, 116:13, 116:15, 119:21, 125:18, 130:6, 130:8, 130:13, 132:4, 159:21, 182:1, 245:18.
issues--infringement 166:14.
issuing 153:3.
italicized 205:15.
item 271:5, 324:9.
items 124:25.
itself 67:24, 109:12, 123:1, 123:4, 144:25, 239:5, 265:1.
.
.
< J >.
jacks 210:17.
Jackson 30:25, 31:1, 31:6, 89:8.
Jacobs 28:10, 28:12, 60:24, 74:24, 75:1, 78:13, 81:24, 81:25, 104:17.
Jager 3:9, 160:17, 315:25, 316:5, 316:7, 316:9, 316:17, 317:23, 318:22, 321:19, 321:23, 322:9, 323:17, 326:8.
January 310:7.
Japanese 119:15.
Jarrett 29:23.
Jefferson 6:16, 28:23, 30:15, 31:23.
Jeffrey 176:6, 176:8.
jeopardize 112:1.
jeopardy 150:4.
Jewish 5:6.
job 25:3, 25:10, 38:3, 39:20, 61:25, 78:7, 88:23, 115:24, 126:5, 129:6, 129:11, 135:6, 186:18.
jobs 39:13, 65:3, 128:21, 199:9.
John 5:17, 5:20, 12:2, 26:8.
Johns 191:15, 191:17.
Johnson 21:4, 21:5, 46:18, 46:20, 47:18, 47:24, 48:12, 48:18, 48:23, 48:25, 51:3, 60:14, 79:7, 79:14, 93:1, 93:14, 93:19, 93:23, 93:25, 94:25, 95:20, 96:23, 97:4.
join 93:6, 93:15, 96:24, 97:5, 99:3, 99:15, 101:8, 101:13, 102:15.
joined 12:1, 12:16, 62:1.
Joint 200:4, 200:6, 202:11, 202:12, 213:3, 213:4, 216:6, 308:18.
Joseph 35:25.
Josey 25:17, 25:18, 25:22, 66:17, 66:20, 67:22, 68:1, 104:16.
Josh 2:24, 12:9, 167:9.
journey 221:23.
Judge 1:25, 4:5, 9:16, 31:7, 31:8, 38:3, 38:11, 39:21, 45:20, 71:25, 98:3, 108:6, 120:14, 140:8, 140:9, 140:10, 151:21, 152:4, 163:11, 163:22, 166:11, 182:6, 331:13.
judged 137:3.
judges 37:25, 120:12, 138:21, 140:13, 140:14, 328:14.
judging 135:4.
judgment 327:1.
JUDICIAL 7:19, 13:20, 38:7, 38:14, 121:5, 332:6.
juices 327:24.
Julie 29:18.
July 10:6, 260:5.
jump 8:18, 14:10.
juncture 146:19.
June 33:7, 213:18, 247:17, 259:3, 259:24, 309:15, 309:19, 310:4.
junior 61:14, 61:24.
juries 5:6, 59:5, 328:12.
Juror 19:7, 58:4, 59:14, 64:7, 103:23, 104:1, 108:8, 141:6, 141:18, 141:22.
jurors 8:13, 14:2, 18:14, 37:25, 38:1, 59:13, 68:13, 103:18, 108:1, 120:11, 135:6, 162:16.
jury. 177:1, 177:23, 251:24, 253:10, 267:12, 268:11, 305:17, 306:10.
Justice 15:9, 15:12, 15:14, 16:16, 39:5, 45:13, 59:10.
Justin 31:12, 34:9.
JX 229:10, 237:5, 240:8, 254:7, 258:24, 263:6, 263:13, 263:23, 265:14, 272:18, 284:21, 296:14.
.
.
< K >.
Kaleigh 25:1, 104:16.
Kate 12:9.
KATHERINE 2:22.
Kathy 19:22, 22:15, 104:15.
keel 216:15.
keep 11:2, 18:23, 39:11, 39:14, 111:16, 112:9, 112:14, 114:22, 133:12, 148:4, 149:13, 155:3, 157:13, 164:16, 166:15, 172:25, 206:24, 289:2, 329:22.
keeping 98:7, 277:18.
Kennedy 35:12, 35:13, 35:18, 165:21, 165:23, 165:24.
Kentucky--70-mile-an-hour 314:16.
Kevin 34:3.
key 158:21, 179:13.
kid 34:10, 73:3, 73:12, 73:23.
kids 27:12, 29:14, 29:24, 30:15, 31:2, 31:13, 65:2, 66:7, 66:8, 75:12, 155:8.

killed 28:24 .
kilobits 314:8 .
Kimberly 23:14, 104:15 .
kindergarten 23:9 .
kinds 87:3, 134:7 .
King 5:16, 5:17, 5:20, 5:23, 6:8, 6:9, 6:10, 6:12, 6:19 .
kinks 203:17 .
Kirk 197:2, 220:21 .
know-how 298:18 .
knowable 186:7 .
knowing 48:4, 61:4, 64:4, 74:2 .
knowledge 134:11, 148:2, 262:10, 299:23, 301:4, 302:2, 314:9 .
known 14:18, 14:19, 62:25, 113:21, 126:21, 192:25, 193:2 .
knows 57:25, 63:21, 167:18, 169:11, 226:25, 298:3, 301:24 .
KREVITT 2:24, 12:9, 162:9, 167:1, 167:2, 167:7, 167:9, 177:6, 177:14, 177:17, 177:20, 177:25, 185:4, 187:14, 187:17, 187:21, 231:2, 331:10 .
Krogers 25:20 .
KUBEHL 2:30, 12:22, 12:23, 13:3 .
.
.
< L > .
Lab 25:13, 192:23, 198:13, 211:7 .
label 232:12, 330:14 .
labeled 201:4, 232:22, 233:14 .
labor-intensive 303:25 .
lack 131:21, 183:21, 197:8, 262:23 .
Lady 15:9 .
Lago 189:12 .
Lakeway 316:10 .
LAN 268:19, 268:20, 268:23 .
land 7:1, 37:15 .
Landals 20:6, 20:8, 20:13, 59:2, 76:20 .
language 61:23, 81:21, 118:1, 118:2, 129:12, 129:14, 129:22, 129:25, 130:2, 130:4, 138:19, 142:2, 142:4, 142:8, 142:10, 162:22, 265:17, 265:18, 267:2, 267:3, 268:3, 268:5, 268:6, 277:15, 277:16, 277:23, 278:6, 295:1 .
language--"the 266:24 .
laptop 149:23, 219:7 .
laptops 201:18 .
large 48:20, 48:22, 49:3, 195:1, 315:9 .
larger 68:15, 198:6, 244:9 .
Larry 22:1 .
laser 195:6 .
Last 11:12, 33:6, 41:4, 42:17, 56:1, 63:25, 82:6, 103:25, 104:6, 110:17, 127:9, 171:13, 203:11, 220:19, 228:14, 228:15, 228:17, 238:16, 238:18, 238:19, 254:25, 255:19, 265:23, 266:23, 276:19 .
late 153:18, 241:2, 241:7, 328:7 .
later 8:6, 19:4, 52:5, 115:25, 124:18, 132:13, 152:7, 160:22, 175:2, 176:1, 182:12, 190:4, 206:4, 241:8, 265:18, 276:5, 277:2, 284:9, 302:18, 327:8 .
laude 190:13 .
laugh 44:13 .
launch 249:10, 249:11, 249:12, 249:13, 249:18, 256:18 .
launch. 250:22 .
launched 193:24, 220:4 .
launching 249:7, 249:17, 250:23 .
Law 4:7, 4:15, 4:16, 7:1, 24:3, 37:10, 38:3, 50:12, 60:10, 65:22, 66:6, 97:21, 110:20, 111:9, 114:7, 120:14, 120:15, 120:21, 124:17, 126:1, 129:6, 129:10, 140:17, 145:17, 145:22, 165:9, 165:13 .
laws 13:6, 140:7 .
lawsuit 48:1, 58:23, 60:25, 67:2, 67:6, 73:21, 74:20, 121:22, 126:11, 126:16 .
lawsuits 47:8, 47:13, 47:19, 47:22, 49:6, 49:22, 51:23, 57:14, 58:14, 58:20, 61:3, 68:6, 96:7, 96:19 .
lawyer 38:23, 40:9, 45:15, 45:17, 58:4, 68:19, 89:2, 95:9, 138:10, 152:3, 152:12, 152:14, 152:17, 229:6, 230:2, 230:14, 230:18, 237:3, 272:22, 287:4 .
lay 216:15 .
layer 321:2, 324:25 .
laying 143:13 .
layman 13:19 .
lead 215:15 .
leader 22:20 .
LEADING 22:23, 176:12, 253:5, 267:22, 307:10, 307:15, 307:21 .
league 302:23 .
lean 46:11, 63:18, 68:15, 69:3, 69:10, 70:16 .
leaning 46:4, 46:9, 46:16, 46:23, 46:25, 47:23, 48:3, 49:2, 51:10, 52:12, 58:21, 61:3, 61:6, 62:23, 63:17, 70:14, 94:1, 94:6 .
leanings 60:16, 71:12 .
learn 41:11, 221:22 .
learned 88:24, 256:20, 257:14, 258:19 .
learning 46:13, 55:8 .
learnings 220:10 .
least 9:21, 83:20, 122:22, 181:9, 197:9, 218:8, 223:25, 224:22, 289:3, 290:2, 314:9, 317:16 .
leave 47:21, 58:1, 92:10, 93:4, 104:3, 105:1, 105:2, 106:17, 143:16, 143:17, 143:24, 144:1, 162:16, 206:16, 239:19, 288:25, 289:18, 328:25 .
leaves 107:15, 123:19 .
LED 5:18, 119:9, 192:15, 225:12, 274:14 .
ledger 142:2, 142:7, 142:10 .
Lee 21:5 .
left 15:13, 28:3, 64:17, 92:7, 93:10, 97:2, 99:12, 101:11, 102:20, 106:2, 115:3, 143:12, 174:13, 175:20, 183:16, 196:23, 206:23, 215:10, 215:11, 215:12, 224:16,

261:3, 264:2, 266:4, 266:14, 266:20, 277:1, 329:4.
legal 130:14, 141:7, 143:2, 152:8, 218:25.
legally 38:23.
legible 137:15.
legs 123:17, 123:21.
length 144:3, 206:13, 310:3.
lengthy 142:21.
less 30:17, 30:22, 132:21, 165:11, 314:8, 329:15.
Letitia 28:5.
letting 13:18.
level 41:5, 147:13, 192:5, 299:16, 312:22.
Lexus 75:14.
liaison 56:15.
licensed 27:13.
licensing 165:22.
lie 57:16.
life 42:8, 52:5, 66:14, 66:15, 83:17, 94:7, 98:11.
lifeblood 150:2.
lifetime 60:7.
light 38:17, 75:15, 111:3, 111:14, 114:12, 116:1, 192:12.
lightly 40:15, 202:8.
lights 249:1.
likely 9:25, 106:19, 108:18, 109:3.
limine 138:9, 138:11, 138:18, 251:19.
limit 261:18, 286:23, 301:3.
limitation 122:25, 279:6.
limitations 122:24, 182:17.
limited 42:19, 111:24, 123:12, 268:4, 307:7, 329:13.
limits 10:4.
Linden 28:12, 78:21, 327:20.
Lindy 34:14.
Line 44:11, 65:11, 78:22, 106:12, 161:11, 161:12, 182:24, 199:1, 200:7, 218:6, 239:11, 243:25, 267:17, 271:14, 271:15, 288:5, 288:9, 288:10, 289:23, 289:24, 290:1, 290:19.
lines 142:18, 186:4, 201:11, 202:9, 203:17, 259:17, 259:22, 265:24, 294:16, 311:21.
link 202:15, 202:17, 318:22.
links 79:6.
list 103:4, 120:22, 120:23, 124:24, 124:25, 232:11, 235:7, 276:18, 279:2, 329:19, 329:24, 330:23.
listen 49:13, 49:16, 68:20, 73:25, 88:17, 88:21, 92:17, 94:8, 94:20, 95:3, 98:12, 99:24, 100:9, 103:12, 134:24, 136:6, 136:12, 162:17, 181:20.
listening 97:22, 133:13, 134:8, 139:7.
listens 156:3, 156:4.
literally 74:12, 168:16.
lived 4:7, 60:8, 150:12, 189:14.
lives 10:16, 105:20, 147:6, 185:8.
living 22:16.
LLP 2:3, 2:17, 2:26.
load 29:2.
loads 29:2.
local 4:18, 37:10.
located 246:16, 246:22, 259:15, 311:7.
location 320:16, 320:18, 320:21.
locations 194:22, 194:23, 320:11.
lock 193:23.
logical 270:22, 271:10, 286:18, 287:24, 310:20, 311:2.
London 196:20.
Lone 102:8.
longer 23:19, 108:8, 117:22, 328:13.
Longview 2:13, 25:2, 25:20, 36:20, 36:21, 40:22, 40:25.
looked 156:12, 248:23, 250:18, 257:3, 274:2, 287:17.
looking 152:7, 255:3, 255:4, 255:5, 257:11, 274:7, 295:24, 330:21.
lookout 164:2.
looks 159:15, 184:20, 213:14, 213:21, 216:14, 327:2.
Lord 57:25.
Lorenz 34:22, 34:23.
losing 71:24.
lost 65:1, 195:8, 235:14.
Lots 66:16, 68:3, 157:15, 178:23, 180:15, 180:21, 303:25.
loud 58:17, 256:11, 307:18.
Louisville 314:16.
love 55:14.
lowered 15:12, 329:7.
LSU 20:10, 20:11, 77:17.
LTD 1:5.
LTE 219:17, 219:19, 220:4.
Lucia 32:24.
Luckert 22:14, 22:15, 23:12, 51:14, 60:15, 72:6.
Luke 22:16.
Lunch 106:5, 106:6, 106:10, 112:19, 112:20, 114:24, 115:2, 116:8, 117:17, 118:13, 118:15, 120:6, 143:15, 143:18, 145:3, 206:14.
lunches 106:14.
lungs 45:5, 91:16, 100:14, 100:16.
Lynn 36:6, 36:7, 36:14, 70:18, 70:20, 70:23.
Lynux 82:2.
.
.
< M >.
M-i-ls 138:10.
M. 2:32.
ma'am 11:7, 19:15, 19:18, 22:6, 23:21, 24:10, 26:5, 29:10, 33:8, 35:7, 44:21, 50:24, 51:4, 51:16, 52:18, 54:19, 58:15, 58:24, 61:9, 61:16, 70:11, 72:6, 98:15, 98:23.
machines 25:23, 25:24.
mad 80:9, 80:10, 80:21, 80:22.
Madisetti 115:17, 116:1, 159:9, 159:10, 159:11, 159:13, 161:24, 165:16, 180:13, 181:1, 181:3, 181:8, 182:23, 225:23, 226:12.
Magna 6:2.
magnitude 165:6.
maiden 56:3.
main 148:22.
maintain 38:5, 129:8.
maintaining 120:17, 120:18, 301:22.

major 193:7.
man 82:25, 221:14.
man--skip 169:24.
manage 210:3.
management 199:12, 319:3.
manager 13:1, 34:3, 37:11, 220:15.
manner 270:11, 298:11, 298:15.
manufacturers 154:22, 219:11.
map 246:21, 247:1.
March 244:6.
Marine 30:19.
Mark 20:2, 317:24.
marked 119:2, 119:3.
market 235:19, 236:3, 236:7, 245:12, 245:18, 263:2.
markets 228:25.
Marquita 26:14.
marriage 43:4.
married 4:16, 23:19, 26:25, 27:7, 28:7, 35:18, 66:7, 189:17.
Marshall 1:3, 1:12, 1:45, 2:34, 4:5, 4:6, 4:7, 22:17, 22:21, 22:23, 23:10, 23:15, 25:25, 30:17, 32:25, 33:11, 33:12, 33:16, 35:24, 108:4.
Mary 34:23.
massive 168:15, 317:14, 317:20, 318:12.
Master 35:16, 37:12, 191:15, 191:17.
material 105:11, 138:13, 183:19, 318:4.
materials 115:18.
math 23:10, 152:1, 192:17.
Mathis 28:2.
MATTER 6:14, 7:5, 16:8, 16:23, 45:10, 49:2, 99:21, 100:4, 107:11, 107:13, 108:16, 109:11, 164:24, 332:3.
matters 120:16, 134:15, 138:8, 139:1, 166:22, 218:24, 218:25.
maximum 319:13.
Mckesson 24:15, 56:6, 56:12.
Mckinley 26:7, 26:8, 26:14, 49:19, 53:1, 60:14, 70:23, 93:1, 97:5, 97:9, 97:12, 99:3, 99:7, 99:10, 99:14.
Mcroberts 1:43, 2:32, 15:7, 140:23, 332:9, 332:11.
Meador 19:13, 19:22, 20:2, 104:15.
meals 102:7, 102:24.
meaning 47:11, 129:11, 129:24, 267:16, 300:3, 319:22.
meanings 129:13, 129:15, 129:20, 130:11.
means 12:16, 13:10, 14:25, 16:8, 38:15, 102:25, 110:10, 110:15, 112:9, 123:10, 123:23, 126:21, 138:19, 139:13, 141:3, 142:4, 176:15, 183:24, 187:24, 208:3, 267:19, 321:1, 322:24, 323:2, 323:7, 330:15.
meant 55:10, 57:17, 132:24, 132:25, 294:24, 310:16.
measurements 204:2, 204:3, 300:15, 301:12.
mechanism 138:12.
media 38:19, 107:22.
Medical 20:10, 27:6, 33:1, 52:2, 52:6.
medium 205:10.
meet 168:21, 168:25, 284:10, 329:11.
meeting 131:6, 323:19, 323:22.
meetings 304:1, 304:9.
meets 125:17.
meg 78:23.
Megan 31:19, 33:21.
Melanie 35:23.
Melissa 27:11.
Members 8:5, 8:7, 11:21, 13:24, 18:14, 92:25, 104:13, 104:18, 195:16, 302:24, 304:22.
Memorandum 234:4.
Memorandum. 233:3.
memorialize 115:13, 116:5, 116:14.
memories 141:4.
memory 134:1, 141:15, 239:13, 244:1, 247:2, 260:21, 261:7, 261:16, 261:23, 262:5, 262:7, 266:8.
Men 8:3, 64:24, 147:3, 166:10, 168:10.
mention 91:17, 173:17, 174:5.
mentioned 14:25, 16:6, 83:25, 98:4, 98:20, 143:1, 153:24, 158:6, 175:5, 191:11, 193:11, 208:16, 209:10, 210:2, 211:13, 215:9, 216:5, 252:5.
mentions 324:6.
merely 262:4, 267:22.
MERITS 1:22.
Merrill 192:22.
mesh 315:1.
Mesquite 40:17.
message 107:20, 322:10.
met 16:3, 17:1, 66:6, 115:5, 152:21, 159:17, 163:24, 167:10, 222:17.
metes 152:8.
Metformin 102:6.
Methodist 22:21, 22:23, 33:23.
Methodist-marshall 23:1.
methods 123:12, 123:14.
mic 49:1, 86:2.
Michael 35:3, 197:4, 220:18.
Microchip 30:6.
microphone 18:3, 18:4, 18:5, 18:6, 18:8, 18:10, 18:15, 18:19, 18:20, 19:9, 19:14, 22:22, 24:24, 36:22, 49:19, 55:21, 68:24, 93:19, 97:9, 97:15, 99:18, 101:17, 101:19, 190:23, 252:3.
microwave 202:17.
Mid-'90s 82:10.
mid-2000s 82:10.
middle 110:15, 200:14, 203:9, 231:23, 241:8, 241:13, 243:14, 243:17, 245:10, 249:4, 330:13.
Midlands 196:13.
MIL 138:11.
Mile 228:14, 228:15, 315:8.
mile-and-a-half 203:12.
mile-and-a-quarter 203:11.
miles 246:24, 297:14.
military 20:11, 20:18, 60:4.
milk 177:12.
mill 29:15.
millimeter 316:22.
million 41:23, 41:24, 48:9, 50:9, 52:8, 60:21, 65:13, 88:14, 89:10, 90:7, 99:21, 100:1, 100:4, 149:25, 166:4, 166:9, 173:16, 178:5, 180:7, 220:20,

225:13, 260:22, 261:8 .
millions 53:10, 95:10, 168:16, 173:9, 175:7, 181:23, 183:11, 186:14, 186:15, 261:8 .
Mils 138:10, 138:18 .
MIMO 317:14, 317:20, 318:12, 322:16, 322:17 .
mind 39:15, 47:14, 57:10, 74:17, 96:19, 97:22, 97:24, 98:14, 111:17, 112:9, 114:22, 133:13, 152:25, 157:13, 164:16, 172:25, 220:1, 277:20, 302:4 .
minds 112:14 .
mine 21:8, 55:3, 77:13, 255:15 .
mineral 53:19 .
minerals 53:19 .
ministerial 116:13 .
ministry 23:2 .
minus 283:16 .
minute 5:1, 46:20, 47:6, 52:4, 54:1, 58:2, 141:6, 162:1, 239:17, 262:14, 271:25, 305:11, 312:10 .
minutes 4:20, 40:7, 62:2, 64:17, 64:18, 86:21, 88:12, 92:4, 106:9, 112:19, 112:21, 114:25, 128:16, 129:19, 136:4, 136:7, 136:10, 136:12, 143:22, 146:24, 146:25, 163:9, 165:7, 167:2, 167:5, 185:2, 206:25, 305:25, 316:2 .
mischaracterizing 286:17 .
mispronounced 193:16 .
missed 54:21, 219:10 .
missile 193:14, 193:24 .
mission 171:3, 229:2, 229:7 .
misspoke 89:15 .
misspoke--that 264:16 .
mistake 153:10, 254:23 .
mistrial 112:2 .
Misty 28:22, 33:15 .
misunderstanding 38:20, 38:21 .
misunderstood 187:21 .
mobility 171:9, 171:10, 172:18, 184:11, 194:18, 217:9, 217:14, 231:12, 300:23, 302:18, 302:20, 302:23, 308:4, 313:13, 313:17, 313:23, 324:4 .
mode 251:16, 252:5, 253:2, 253:5, 253:14, 253:21, 255:25 .
model 61:25 .
modem 161:12, 209:24, 210:2, 210:14, 210:16, 236:18, 264:11, 264:13, 285:12, 285:14, 285:22, 294:3, 311:3 .
modem--sorry--wifi 264:15 .
modems 294:2 .
modification 211:1 .
modifications 236:17 .
modified 211:2 .
modify 209:24 .
mom 62:7, 155:8 .
moment 59:2, 62:9, 144:6, 168:1, 210:13, 222:20, 222:24, 223:15, 224:12, 228:11, 229:5, 231:10, 234:23, 249:17, 252:1, 257:5, 276:19, 277:20, 279:1, 279:4, 280:15, 280:17, 291:21, 311:15 .
Monday 10:1, 10:5 .
money--sorry--to 233:5 .
monitor 188:4, 252:21 .
monitors 17:22 .
month 260:4 .
months 19:25, 20:12, 20:15, 23:20, 174:11, 195:24, 222:17, 237:12, 258:22 .
Morris 21:17, 31:18, 31:19, 32:17, 53:2, 53:3 .
mostly 42:19, 47:15, 197:9 .
Mother 21:23, 100:22, 176:13, 309:5 .
motion 115:8, 115:11, 115:14, 116:4, 120:2, 251:19 .
motions 138:9 .
Motorola 197:5, 219:14, 219:15, 219:16, 219:19, 223:16, 304:12, 305:3 .
mouth 18:10, 18:11, 18:22, 19:10, 59:10 .
mouthful 193:16 .
Move 170:20, 184:24, 196:22, 198:16, 201:23, 229:24, 232:17, 233:9, 236:12, 242:2, 244:20, 278:5, 288:23, 293:5, 294:7, 295:6, 295:22, 309:18, 312:1 .
moved 22:17, 115:21, 208:19, 309:17 .
moves 328:8 .
movie 65:20, 167:21 .
movies 17:6 .
moving 297:12, 297:20, 300:10, 301:15 .
Mr.--i'm 227:9 .
Mt 26:23 .
multi-sector 310:16 .
multi-user 322:16 .
music 208:2 .
Mustang 99:7 .
myself 4:19, 17:19, 27:24, 28:1, 40:16, 49:15, 49:24, 54:24, 55:2, 65:18, 71:1, 71:7, 83:4 .
.
.
< N > .
named 5:16, 222:21 .
names 103:16, 142:14, 198:21 .
Nancy 31:6 .
narrow 283:20, 283:21, 319:4 .
narrowing 117:5 .
nation 5:6, 6:19, 6:23, 39:5 .
National 66:1, 190:16, 197:3 .
nationwide 53:11 .
nature 10:14, 11:1, 62:14 .
Naval 192:23 .
Navini. 250:17, 255:20 .
Navy 28:14, 35:3, 62:1, 273:11 .
near 18:10, 18:22, 19:10, 233:14, 251:8, 326:16 .
nearly 41:20, 68:14 .
necessarily 96:6, 125:24 .
necessary 122:20, 123:3, 133:3, 137:19, 197:14, 197:25 .
necessitating 6:17 .
neck 75:12 .
needed 19:20, 40:13, 49:16, 77:16, 79:3, 81:5, 81:14, 98:2, 155:4, 157:11, 203:20, 238:11, 260:3, 309:7 .
needs 129:12, 155:6, 330:24 .
negative 45:13 .
Nehu 33:3 .
nervous 26:11, 80:25, 153:15 .
network--i'm 310:24 .
networking 176:10, 199:12 .

Networks 74:21, 74:23, 148:18, 148:24, 154:12, 157:3, 176:12, 194:18, 204:15, 212:18, 260:22, 261:24, 297:6, 297:7, 307:14 .
never-ending 149:13 .
newly 279:19 .
news 159:15, 260:21 .
night 74:15 .
nine 17:23, 18:5, 18:25, 19:15, 33:13, 34:4 .
ninth 28:4 .
Nivi 220:15 .
nobles 5:18 .
Nobody 57:25, 84:8, 112:6, 245:15 .
nodding 50:22 .
Nokias 298:22 .
nomadic 217:9, 263:18 .
nominated 4:8, 195:20 .
non-leading 307:23 .
non-refundable 10:24 .
non-responsive 242:3, 269:23, 292:25, 293:2, 294:8, 294:11, 295:7 .
None 59:23, 146:11, 148:3, 157:24, 175:5, 218:19, 268:21, 308:14, 308:17 .
noon 112:19 .
normal 152:18, 164:8, 214:14 .
Normally 185:21, 198:20, 265:6 .
North 6:6, 202:4, 202:5, 202:7, 202:14, 243:4, 243:6 .
northwest 189:12 .
NOSSON 2:9 .
nosy 8:11 .
note 11:5, 235:11, 268:18 .
note-taking 142:18, 143:4 .
notebook 141:7, 143:4 .
notebooks 141:22, 141:24, 143:11, 143:24, 206:16, 328:24 .
Notes 141:8, 141:9, 141:10, 141:11, 141:12, 141:18, 141:19, 142:23, 143:6, 143:7, 143:8 .
Nothing 15:18, 16:16, 43:21, 51:13, 63:12, 116:9, 118:20, 167:23, 170:11, 179:14, 179:16, 181:3, 214:20, 258:21, 267:4, 268:1, 276:20, 276:21, 331:10 .
notice 9:21, 15:10, 72:23, 118:8, 122:16, 316:15 .
noticed 47:6, 59:25 .
notion 171:21, 184:24 .
nowhere 281:15 .
NSA 190:19, 190:20, 191:3, 191:5, 191:25, 194:5, 194:6, 199:10, 220:21, 316:19 .
NTCC 27:15 .
NTWS 202:18, 203:14, 203:21, 218:5 .
numbered 122:12 .
numbers 41:4, 105:6, 148:11, 165:5, 186:3, 187:1, 217:12, 234:8, 235:4, 291:13 .
NYC 2:18 .
.
.
< O > .
oath 57:24, 104:20, 104:21, 107:4, 110:3, 113:16, 135:14, 135:21, 144:14, 169:1, 169:12, 188:17, 189:1, 238:6, 274:14, 280:1, 280:2 .
object 137:24, 242:3, 269:22 .
objections 137:22, 137:24, 139:9, 139:10, 139:22 .
objects 194:2 .
obligated 38:24 .
obligation 152:14 .
observe 134:2 .
observed 38:19 .
obtain 121:25, 191:22 .
obtained 121:7 .
obtaining 121:24 .
obtains 325:11 .
obvious 116:16 .
Obviously 48:1, 156:18, 171:23, 192:3, 193:23, 203:18, 204:3, 214:9, 225:21, 278:13, 330:13 .
obviously--it 278:16 .
occasions 226:19 .
occur 158:24, 160:25, 310:19 .
occurred 153:11, 164:1 .
occurrence 9:20 .
occurs 159:5 .
odd 66:9 .
offended 146:15 .
offense 42:18 .
Offer 89:10, 117:11, 117:14, 118:21, 119:3, 119:23, 120:1, 144:9, 316:17 .
offered 316:19 .
offering 121:13, 127:23, 131:4, 316:21 .
offers 137:25 .
Officer 18:7, 19:2, 19:9, 141:21, 194:12, 210:8 .
Officers 18:1 .
offices 205:10 .
OFFICIAL 2:32, 332:12 .
Often 9:9, 53:17, 123:5, 135:17, 135:18, 145:20, 156:10, 161:19 .
oftentimes 150:12, 152:12 .
Ohio 190:9 .
oil 37:15, 53:17 .
Old 4:13, 5:5, 45:3, 174:5, 175:11, 187:1, 278:20 .
older 317:17 .
oldest 102:1 .
Omaha 26:20, 32:13, 327:20 .
omitted 233:21 .
omnidirectional 246:11, 270:11, 270:13, 272:9 .
Once 32:2, 109:12, 112:24, 113:8, 114:6, 117:17, 124:23, 150:19, 150:20, 247:15, 262:15, 328:3 .
oncology 56:16 .
one-on-one 92:24 .
one/one 159:4 .
ones 192:15, 201:18, 201:19, 204:10, 219:6, 303:10, 329:25 .
ongoing 262:20 .
online 108:12, 108:15, 148:1 .
Oops 216:13 .
open 103:7, 107:3, 133:13, 137:6, 210:13, 309:9 .
opened 301:2, 309:11 .
Opening 113:2, 113:3, 113:5, 113:8, 115:1, 120:9, 128:16, 144:6, 144:8, 144:24, 145:1, 146:20, 146:21, 147:2, 166:25, 167:5, 177:8, 177:9,

203:5, 212:9, 225:13, 225:23, 230:2, 281:2.
opening--right 231:3.
operate 170:13, 300:19.
operates 297:23, 301:25.
operating 202:16.
operation 197:20, 198:8, 203:16.
operations 153:19, 154:5.
operator 71:17, 205:19.
operators 204:8.
opinion 7:25, 8:2, 9:6, 130:6, 134:25, 135:1, 138:4, 140:10, 223:5, 297:25, 298:1, 298:4, 298:6, 312:2.
opinions 115:9, 134:15, 134:17.
opportunity 9:17, 40:22, 125:9, 134:2, 143:13, 168:20, 168:21, 168:25, 169:6, 176:4, 176:18, 194:8, 196:3, 197:12, 219:16, 223:17, 238:10, 259:18, 318:21.
opposed 286:1.
opposing 309:21.
opposite 62:18.
optimize 208:5.
optimized 208:12.
option 113:20, 145:14, 293:5, 326:2.
options 321:4.
opts 145:13.
orchestra 158:16.
orchestrate 157:12.
order 53:7, 178:18, 179:23, 204:15, 204:23, 233:20, 330:2, 330:8.
ordered 106:14, 137:18.
orders 138:9, 138:18.
ordinary 129:24, 129:25.
Ore 27:12, 34:24.
organize 158:5.
organized 161:1, 165:2, 239:3.
organizing 323:23.
orient 235:6.
original 7:5, 110:7, 152:22, 182:14, 183:20, 185:14, 193:6, 275:7, 275:21, 276:1, 276:6, 276:7.
originally 228:11.
others 22:8, 121:13, 154:7, 172:4, 179:16.
otherwise 42:14, 137:3, 139:2, 161:15, 188:2.
ought 244:20, 331:11.
ourselves 67:17, 68:2.
outage 203:19.
outcome 133:25, 218:18, 281:18.
outfit 36:21.
outgoing 109:22.
outlook 45:22.
outreach 108:24.
outside 8:16, 9:18, 10:3, 40:17, 91:1, 93:7, 96:24, 99:4, 101:8, 102:15, 108:11, 108:21, 115:7, 176:25, 188:1, 188:3, 251:23, 267:11, 305:16.
over--said 252:10.
overhead 98:19.
overlap 319:5.
overlooked 330:6, 330:10, 330:18.
overly 116:3, 284:2.
overnight 328:9, 329:11, 329:13, 329:16.
overrule 140:2, 253:7, 301:1.
Overruled 278:11, 312:15.
oversee 38:6, 129:7.
Overseeing 78:9.
oversize 29:2.
overview 130:15, 284:8.
overwhelmed 128:19.
owe 13:14, 41:20, 53:9, 65:13, 65:14, 88:14, 89:15, 187:8.
owed 41:22.
OWENS 2:12.
own 6:18, 6:22, 9:6, 22:18, 26:10, 33:12, 33:15, 54:18, 96:3, 96:11, 106:9, 107:25, 141:15, 141:17, 143:9, 156:17, 171:2, 172:18, 192:9, 219:8, 285:12, 285:13, 285:14, 285:22, 285:23, 319:20, 319:22.
owned 54:20, 148:7.
owner 70:25, 71:10, 71:17.
owner/operator 28:25.
ownership 5:7, 55:2.
owns 21:11, 33:15, 36:14.
.
.
< P >.
p.m. 331:15.
package 257:11, 282:23.
Packaging 29:15.
pad 141:8, 143:2.
pages 115:18, 115:20, 115:22, 116:2, 142:12, 142:15, 142:24, 143:1, 157:18, 157:19, 178:5, 180:7, 230:20, 238:25, 239:4, 256:6, 258:22, 276:5.
paid 90:2, 132:22, 225:7.
painful 309:24.
pairs 156:14.
panel. 91:2, 92:1.
papers 125:12.
paragraph 119:14, 230:24, 254:25, 255:20.
paralegal 37:11.
parallels 119:15.
parameters 270:18, 271:1, 324:25, 325:7.
parent 43:14, 66:9.
PARK 2:19.
PARKWAY 2:12.
Parsons 27:3, 27:4, 44:23, 45:1, 45:12, 46:8, 50:22, 51:15, 53:1, 58:13, 60:15, 68:25, 93:2, 99:15, 101:3, 101:7, 101:12.
partial 212:11, 237:9.
Partially 236:5, 292:8, 293:13, 294:5, 321:25.
participants--the 38:11.
participate 172:8, 304:3, 304:20.
participating 84:18.
particular 58:12, 127:9, 129:17, 129:20, 134:13, 142:23, 191:5, 192:20, 193:1, 211:25, 266:19, 268:5, 270:21, 318:25, 319:1, 322:19, 322:23, 326:3, 326:6, 326:7.
particularly 119:17.
parties 16:15, 38:10, 38:15, 38:22, 40:1, 44:1, 105:16, 108:15, 110:21, 113:2, 117:23, 126:6, 126:10, 136:2, 138:24, 145:23, 146:20.

partner 34:12, 220:18 .
Partnership 1:11, 11:17, 54:24, 55:3, 126:18 .
Parts 29:25, 36:14, 241:17, 293:14 .
party 12:14, 14:23, 16:1, 16:2, 16:3, 16:7, 16:10, 16:12, 16:21, 16:23, 17:1, 108:22, 118:17, 126:11, 126:16, 173:3, 187:12 .
pass 18:6, 19:1, 20:6, 48:25, 49:19, 105:4, 141:21, 221:25, 259:5, 259:11, 259:12, 259:25, 305:13, 315:11 .
passed 37:2 .
passive 206:3 .
past 22:4, 53:5, 60:17, 82:9, 93:4, 98:17 .
pastor 22:25 .
pastries 327:23 .
patent--it 122:20 .
patent--okay 288:1 .
patent-at-issue 149:18 .
patentability 163:17 .
patentable 125:5 .
patentable--that 124:4 .
patented 121:14, 127:24, 148:15 .
patenting 116:17, 265:2 .
patents-in-suit 127:16, 127:22, 128:5, 128:22, 128:25, 129:15, 130:19, 132:2, 132:5, 132:15, 142:1 .
path 270:21, 270:22, 271:6, 271:8, 271:10, 271:21, 272:8, 278:17 .
Patricia 37:7 .
Paul 3:5, 150:9, 188:13, 188:25, 189:7, 207:8 .
Pause 141:23, 162:1, 279:4 .
pay 10:18, 22:18, 48:9, 53:20, 54:14, 75:15, 76:1, 82:19, 141:14, 180:12, 181:17, 183:6 .
paying 98:7, 148:9, 260:24 .
PBCH 324:22, 325:8 .
PCI 319:22, 323:10 .
Pdas 217:2 .
PDF 324:20, 325:15, 326:15 .
PDSCH 325:23 .
peers 195:20 .
pen 143:3 .
penalty 133:3 .
penny 65:14, 173:15, 225:15 .
Pentateuch 5:5 .
per 166:9, 322:17, 322:24, 322:25 .
percent 109:13, 109:14, 117:2, 165:19, 166:2, 166:5, 186:6, 197:9, 217:12, 317:16 .
percentage 317:8, 317:13 .
peremptory 103:8 .
Perfect 71:8, 76:9, 77:16, 80:2, 82:14, 85:16, 87:25, 202:10 .
perform 199:20, 269:20, 297:1 .
performed 270:1 .
performing 205:24, 269:11, 269:19 .
perhaps 330:8 .
period 10:7, 10:11, 20:22, 23:7, 150:24, 158:22, 162:6, 174:7, 201:14, 249:14 .
periodically 76:4, 112:16 .
permissible 118:2 .
permission 41:13, 53:21, 53:22, 54:9, 54:13, 54:15, 121:16, 148:8, 295:14 .
permit 140:7, 312:2 .
permits 140:17 .
permitted 117:23, 134:14, 310:7 .
persistent 197:8 .
person 82:24, 84:16, 85:15, 102:3, 126:2, 129:25, 134:12, 135:19, 136:1, 136:19, 137:5, 142:12, 192:19, 209:14, 230:8, 269:17 .
personal 7:25, 8:2, 8:9, 9:6, 47:15, 47:17, 61:10, 66:13, 71:12, 79:11, 96:11, 130:6, 133:25, 141:12, 218:17, 301:4, 302:2 .
personalities 74:2 .
personally 62:12, 63:8, 304:24 .
persons 121:21, 188:4 .
perspective 38:8, 155:3, 159:4, 274:10 .
persuade 125:9 .
persuaded 15:1, 116:2 .
pertaining 87:21 .
Peyton 27:4 .
Ph 191:20, 191:21, 191:22, 191:25, 192:4, 192:6, 192:21 .
phones 41:7, 156:22, 159:2, 201:17, 223:24, 303:8 .
photograph 142:16, 229:16 .
photos 229:12 .
phrase 230:5 .
physical 109:8, 286:18, 289:5, 289:13, 290:7, 321:2, 324:24, 325:2 .
physically 200:24 .
pick 46:20, 53:25, 57:10, 59:2, 143:18, 144:1 .
picked 42:25, 44:17, 44:18, 45:10 .
picking 51:19 .
picture 142:22, 201:19, 248:21, 263:25, 280:25, 281:22, 282:20, 285:1, 287:16, 287:17, 296:7, 296:10, 323:12, 326:24 .
pictures 152:1, 212:9, 321:4 .
pie 200:25, 201:1, 202:20, 202:21, 283:17, 285:8 .
piece 211:8, 255:9, 265:19, 266:23 .
pieces 221:14 .
pilot 28:25 .
pit 279:7 .
pitch 204:7 .
pitched 191:8 .
Pizza 28:15, 31:22, 62:1 .
Place 5:24, 18:23, 19:24, 26:10, 26:22, 27:24, 31:22, 88:5, 106:12, 108:25, 140:5, 215:9, 215:11, 228:3 .
placed 103:19, 103:20, 135:14 .
Placement 233:3, 234:4, 235:11 .
places 40:11, 60:8, 65:2, 105:18, 150:11, 150:12, 327:20 .
plain 129:24, 183:1 .
Plaintiffs 68:12, 113:12, 115:21, 118:5, 201:22 .
plan 51:5, 106:9, 117:14, 117:16, 209:20, 209:23, 256:2, 308:4, 308:6, 327:18, 327:21 .
planned 98:17 .
planning 12:11, 36:25, 168:22,

189:20, 206:6, 206:7, 208:23.
Plano 203:23, 234:14.
plans 197:24.
plant 314:16.
plastic 105:6.
play 66:1.
played 47:5, 65:25.
playing 147:13.
Pleasant 26:23.
pleased 329:13.
pleases 28:11.
pleasure 167:8.
plenty 102:21, 245:24, 330:15.
PLLC 2:11, 37:10.
Plug 161:10, 210:15.
plumbing 36:21.
plural 13:9.
plus 283:17.
pocket 143:4.
pockets 170:6, 229:25.
podium 19:5, 173:19, 287:1, 287:4, 329:19.
pointed 24:5.
pointing 183:8, 229:18.
points 157:24, 183:6, 194:17, 194:18, 194:19, 217:8, 314:17, 315:3.
police 24:6, 53:23, 54:8.
popped 62:20.
popular 195:21.
populated 202:8.
portable 219:8.
portion 118:11, 119:19, 157:18, 158:11, 158:17, 158:23, 158:25, 159:25, 161:4, 200:14, 268:6, 313:10, 323:14, 323:15, 329:20.
portions 115:14, 136:14, 136:17, 137:9, 137:11, 137:14.
position 4:9, 15:19, 16:15, 38:24, 41:12, 61:23, 104:10.
positions 126:10.
positive 100:7.
possession 131:25, 143:12, 144:5.
possibility 9:12, 9:13, 9:21, 108:19, 109:4.
possible 9:4, 9:25, 14:21, 38:17, 39:1, 39:9, 106:19, 108:21, 117:2, 135:7, 137:4, 137:7, 137:21, 262:25, 284:15, 311:10.
possible--i 9:25.
possibly 184:25, 186:25.
post 107:22.
potential 153:25, 234:11, 235:24.
potentially 85:10, 94:7, 96:15, 112:1, 267:18.
power 156:20, 157:8, 201:11.
powered 201:16.
powerful 147:20, 156:22, 165:20, 167:24.
Practically 126:23.
practice 33:12, 33:13, 33:16, 40:24, 65:22, 184:2.
practiced 4:7, 33:13.
practices 131:7.
practicing 177:4.
pre-admitted 139:13, 229:10, 250:3, 252:18, 252:20, 329:20, 329:24, 330:3.
pre-paid 10:24.
Precinct 31:4.
precious 37:9.
predict 180:16.
preeclampsia 102:5.
preface 244:19.
preference 75:16.
pregnancy 102:4, 102:23.
pregnancy-related 102:10.
prejudged 74:5.
prejudicial 116:3.
preliminarily 84:5, 85:8.
preliminary 112:23, 112:24, 113:1, 114:25, 118:19, 120:8, 139:15.
premier 190:17.
premise 111:19, 186:24.
prepare 193:10.
prepared 13:20, 121:5, 188:9, 233:4, 233:13, 291:6, 329:17.
preponderance 14:18, 14:24, 15:16, 16:1, 16:4, 16:13, 17:12, 50:5, 130:21, 132:9, 133:7.
preschool 33:24, 33:25.
PRESCRIBED 332:5.
presence 6:5, 9:7, 9:18, 91:25, 177:22, 253:9, 268:10, 306:9.
present 10:7, 11:21, 38:16, 98:14, 113:2, 135:13, 135:14, 139:16, 145:23, 146:21, 154:23, 157:22, 164:9, 166:24, 296:19.
presentation 178:4, 181:9, 281:3.
presented 15:25, 16:21, 105:20, 107:3, 110:11, 110:19, 110:21, 110:25, 111:9, 111:22, 113:12, 113:18, 114:2, 114:6, 126:6, 131:18, 135:9, 135:20, 136:5, 136:11, 137:8, 137:16, 138:14, 141:4, 143:10, 144:16, 145:6, 145:16, 145:24, 152:24.
presenting 7:20, 12:2, 38:25, 63:18, 64:13.
preserve 7:21, 10:19.
President 4:9, 12:11.
presumed 126:1, 131:16.
presumption 163:13, 163:14.
pretending 256:14.
pretrial 117:10, 119:2, 139:3, 139:20, 233:21, 330:7.
pretty 34:15, 57:3, 66:21, 69:16, 69:19, 70:20, 80:10, 85:12, 86:4, 107:14, 157:1, 177:8, 179:1, 321:3, 329:13.
prevent 121:12, 157:20.
previewed 162:8.
Previous 34:5, 34:7, 258:25.
previously 119:2, 136:2.
previously--the 236:18.
price 10:18.
Priefert 26:22, 87:25, 88:1.
primarily 102:22, 113:22, 116:5.
principal 119:6, 149:5, 241:21.
principle 74:11, 107:12, 108:11, 109:25, 110:7.
principles 107:1.
print 330:14.
printed 17:22, 309:17.
printer 271:1, 271:2, 271:3.
printer--okay 270:25.
Prior 20:16, 22:5, 32:16, 33:18, 35:9, 35:20, 36:4, 36:16, 119:20, 120:3, 124:13, 124:14, 124:17, 124:18, 124:19, 124:24, 125:2,

138:15, 226:10, 226:19, 269:6.
Pritchart 26:9.
Private 9:6, 233:3, 234:4.
privy 190:1.
probable 16:10, 16:12.
problem 25:15, 25:16, 56:17, 67:17, 91:17, 100:12, 156:7, 157:2, 172:9, 212:2, 212:4, 212:5, 243:13, 288:9, 298:19, 303:12, 309:13.
problems 102:10, 164:19.
procedural 116:13, 139:7.
Procedure 10:22, 14:8, 38:4, 120:16, 129:7.
procedures 139:3, 195:17.
Proceed 12:4, 12:12, 13:2, 13:3, 40:7, 64:21, 112:22, 113:13, 144:6, 145:2, 146:19, 147:1, 167:5, 177:21, 188:22, 222:11, 222:12, 232:19, 253:11, 268:7, 268:12, 287:8, 306:11, 315:22, 316:3.
PROCEEDINGS 119:3, 331:15, 332:3.
proceedings. 141:23.
processing 214:14, 278:1.
produce 213:2.
produced 178:5, 180:8.
product 12:25, 68:9, 131:6, 168:7, 172:16, 196:14, 197:24, 218:6, 249:7, 249:18, 249:20, 250:21, 256:18, 256:21, 256:23, 256:24, 256:25, 303:22, 309:9.
production 211:2, 235:4.
products 13:1, 127:23, 150:1, 169:11, 169:13, 193:5, 195:2, 195:17, 196:19, 198:17, 198:21, 204:7, 217:18, 219:24, 235:22, 236:6, 250:23.
professionally 226:22.
professor 159:11.
prohibited 111:4, 114:13, 146:5.
prohibiting 138:7.
project 192:4, 192:6, 209:1, 241:21, 242:1.
projects 55:2.
promise 43:16, 43:17, 66:18, 128:19, 231:9, 329:10.
promised 236:13.
promoting 302:24.
promotional 318:4.
promptly 329:2.
pronounce 69:7, 72:6, 76:21.
proper 38:8, 87:9, 138:1, 139:16.
properly 155:18.
Properties 30:16.
property 5:7, 30:21, 41:13, 41:15, 41:17, 41:19, 41:23, 53:18, 53:21, 53:22, 53:24, 54:4, 54:9, 54:13, 54:14, 121:17, 121:18, 206:6.
proposal 204:21, 230:15.
propose 174:21.
proposed 174:21.
proprietary 234:14.
prosecuted 214:18.
prosecution 121:25, 125:14, 164:12, 275:12.
prospective 58:4.
protect 7:21, 147:10, 224:22.
protected 154:6.
protection 122:15, 125:25, 213:12, 260:9.
protection--and 124:5.
prototype 203:18, 244:15.
prototypes 198:14, 273:12.
proud 40:25, 167:9, 168:13, 168:14, 176:13, 215:17.
prove 65:11, 65:14, 85:17, 86:11, 133:5, 159:18, 162:12, 179:6, 179:23, 180:11, 181:16, 181:21.
proven 126:8.
provide 9:17, 130:10, 131:8, 132:3, 200:2, 204:25, 205:23, 210:6, 214:5, 221:10, 243:10, 243:16, 244:3, 244:7, 314:7.
provided 106:7, 106:10, 106:14, 129:23, 130:1, 198:11, 199:5, 216:23, 231:19, 234:10.
provider 79:18, 80:5.
provides 297:3, 324:24, 325:2, 330:4.
proving 132:8, 163:18.
provisions 139:3, 330:2.
proximity 109:17.
PSS 322:1, 324:22, 325:20.
PTO 121:9, 122:2, 122:4, 122:6, 122:14, 124:2, 124:3, 124:10, 124:23, 125:22, 125:23, 131:16.
public 8:1, 8:3, 105:23, 117:24, 118:3, 122:16, 147:25, 165:24, 195:23, 195:24.
publicly 124:11.
publish 233:1, 239:19, 254:18, 259:4, 262:22, 288:25, 289:18, 295:14, 295:20.
publishing 239:20.
pull 190:22, 200:4, 202:11, 204:19, 207:16, 213:3, 216:6, 219:17, 259:6, 298:23, 308:18.
pulled 192:2.
pulling 313:5.
pulmonary 100:17.
punched 143:2.
punish 132:25.
purchase 204:23.
purchased 220:19.
pure 314:14.
purely 171:8, 231:4.
purpose 106:22, 201:6, 284:6.
purposes 12:19, 119:4.
pursuant 233:20.
pursue 41:14, 119:11, 191:10, 196:4.
pursued 191:15.
push 71:2, 152:12, 164:8.
pushing 324:17.
Putnam 21:8, 21:11, 21:14.
puts 16:17.
putting 136:17, 252:12, 252:21.
.
.
< Q >.
qualifications 134:25.
quality 149:10, 165:17, 300:15.
quarter 112:22, 150:9, 169:19.
quarters 285:5.
Queen 33:22, 35:15.
question--not 79:14.
questioning 14:12, 14:13, 37:23, 99:20, 267:17.
questionnaire 45:12, 47:7, 55:5, 56:9, 57:14, 60:24, 61:13,

82:2 .
questionnaires 42:12 .
quick 4:12, 49:1 .
quickly 112:25, 117:8, 149:20, 171:2, 178:12, 182:5 .
quiet 43:4 .
quieter 43:16 .
quietly 93:20, 97:10, 99:18, 101:18 .
quit 76:5, 154:3 .
quite 28:3, 153:22, 189:25, 249:11, 292:1, 322:18 .
quote 318:15 .
.
.
< R > .
race 149:13, 171:17 .
Racheal 24:13 .
racing 167:21 .
radar 193:3, 193:4, 193:6, 193:20 .
Radio 197:4, 270:22, 317:17, 319:21, 319:24, 326:11 .
radios 161:20, 201:19, 319:6 .
raise 11:5, 25:10, 74:16, 74:18, 75:1, 86:24, 88:20, 100:12, 104:19, 116:8, 118:5, 118:17, 137:22, 197:25, 198:1, 218:8, 233:4, 233:6, 293:1 .
raised 15:13, 78:12, 80:3, 81:17, 83:16, 101:24, 139:22, 217:24, 262:16, 330:25 .
raising 43:22, 44:2 .
ran 4:18, 245:9, 302:14 .
Ranch 26:22 .
Randy 21:14 .
range 49:11, 95:14, 98:13, 209:5, 319:10 .
rare 9:20, 100:15 .
rate 150:3, 209:16, 218:24, 218:25, 225:8 .
rather 5:16, 5:19, 6:7, 115:24, 154:14, 178:2, 182:2, 228:16, 328:13 .
ratified 7:14 .
ratify 7:6 .
rationale 60:20 .
Raytheon 35:4 .
Raze--you 277:1 .
reach 59:18, 106:20, 114:18, 114:20, 146:8 .
reached 142:7, 215:7 .
react 48:18 .
Read 6:15, 61:15, 137:16, 182:25, 235:18, 254:20, 254:25, 255:18, 255:19, 255:22, 256:11, 259:19, 259:22, 271:15, 271:19, 272:6, 288:13, 288:16, 289:6, 294:16, 329:19 .
reading 277:18, 280:10 .
ready 12:4, 12:12, 13:2, 13:3, 40:20, 40:21, 44:19, 153:20, 153:22, 249:10, 249:11, 249:13, 260:2, 260:5, 290:19, 306:13, 327:22 .
real 49:1, 65:13, 80:17, 95:1, 105:22, 193:22, 256:3, 256:14, 289:2 .
realize 330:9 .
realized 153:19, 154:8, 155:17, 155:19, 156:7, 157:2, 157:4, 157:11 .
realm 108:18, 109:4 .
reason 46:24, 133:23, 141:20, 147:12, 147:18, 163:14, 178:10, 185:11, 185:15, 186:23, 236:9, 245:10, 262:25, 297:24 .
reason--because 149:11 .
reasonable 17:7, 17:11, 88:16, 90:1, 90:7, 95:21, 132:22, 148:14, 165:11, 165:12, 166:4, 166:8 .
reasonably 131:24 .
reasons 6:17, 27:6, 60:25, 102:4, 119:12, 137:12, 182:4, 208:17, 235:14, 287:4 .
rebut 113:22 .
rebuttal 113:21, 113:25, 114:1, 114:2, 114:4, 114:5, 145:12, 145:13, 145:14 .
Recall 85:5, 153:11, 161:11, 207:12, 214:21, 215:13, 230:6, 241:4, 243:25, 245:14, 247:15, 247:20, 254:1, 256:5, 256:12, 256:16, 261:10, 271:20, 273:20, 288:18, 306:19, 306:22, 308:10, 308:22, 309:19, 310:11, 314:12 .
recalls 272:4 .
receive 87:11, 151:4, 201:20, 221:10, 221:12, 225:15, 311:7, 319:10, 319:14 .
received 111:8, 132:22, 215:4, 260:22 .
receives 161:19, 228:6 .
receiving 219:20 .
recent 82:5 .
recently 27:6, 36:3, 37:2, 318:6 .
recess 92:3, 92:4, 92:9, 92:12, 93:5, 93:7, 93:9, 103:9, 110:15, 114:24, 116:8, 118:12, 118:14, 143:15, 143:22, 206:15, 206:22, 206:25, 327:14, 330:25, 331:14 .
recess. 103:10, 118:15, 207:1 .
recited 123:1, 123:13 .
recites 123:16 .
recognition 221:23 .
recognize 62:21, 105:23, 246:22 .
recognized 62:21 .
recollection 141:13, 141:17, 141:19, 142:22, 143:8, 143:9, 214:19, 239:18, 259:18, 262:1, 262:11 .
recommend 226:20 .
recommendation 226:21 .
recommendations 227:6 .
reconnaissance 251:12 .
reconsider 119:22 .
reconsideration 120:2 .
RECORD 115:7, 115:12, 116:6, 119:4, 120:3, 120:9, 121:6, 148:1, 222:18, 275:15, 316:8, 329:19, 329:22, 332:2 .
recorded 135:16, 135:18, 135:20 .
recordings 135:18, 136:8 .
recover 133:10 .
recruited 190:20, 191:3 .
red 75:12, 164:12, 164:21, 194:1, 249:3, 254:17, 255:5, 255:6, 257:5, 257:6 .
redacted 137:9, 137:14, 252:4, 252:6, 252:8, 252:13, 252:17, 252:19, 252:22, 252:23, 252:24 .

redactions 137:17.
REDIRECT 3:8, 287:2, 305:20, 305:22, 306:5, 306:11, 306:15.
reduces 206:8.
reduction 208:20.
refer 42:14, 122:19, 127:1, 138:11.
reference 119:20, 138:7, 138:12, 158:5, 236:22, 239:13, 276:1, 276:8, 276:11.
references 119:8, 125:1, 276:14, 322:19.
referencing 322:20.
referred 122:17, 124:25, 126:13, 127:8, 127:10, 127:13, 127:15, 127:16, 138:8, 151:22, 156:10, 213:9, 216:10, 251:16, 270:6.
referring 216:8, 239:4, 276:15, 326:12.
refers 122:22, 123:5, 123:6.
reflected 120:3, 258:21.
Refresh 141:13, 141:19, 142:22, 143:8, 239:13, 239:17, 243:25, 259:18, 261:7, 261:23, 262:7, 262:11, 266:8, 272:7.
refreshes 260:21, 261:15, 262:5.
regard 38:13, 82:20, 83:20, 117:14.
regarding 115:16, 121:3, 130:6, 140:3, 140:8, 142:2, 184:7.
regular 200:17.
regulatorily 313:20.
regulatory 313:21.
reiterating 147:5.
rejected 125:20, 174:10, 174:16, 174:22, 277:2, 277:9.
rejection 277:9.
rejects 125:8.
relate 41:5, 118:3, 127:18.
related 74:22, 79:14, 119:21, 120:16, 192:6, 216:3, 323:19.
relates 41:8, 72:16.
relating 118:10, 118:11.
relation 17:4.
relationship 48:17, 48:18, 96:12, 224:14.
relative 274:10.
relatively 154:14.
relevant 8:11, 13:24, 39:2, 119:13, 119:17, 136:7, 136:17.
reliant 53:9.
rely 141:4, 141:15, 143:9, 186:23, 187:4, 187:5.
remain 188:1.
remaining 40:7, 62:2, 64:19, 86:21, 163:9, 165:7, 167:5, 185:2.
remind 107:15, 112:15, 146:4, 146:10, 328:18, 329:11.
remodulates 271:5.
render 8:2, 166:13.
rendered 105:22.
renowned 176:10.
Rent-a-cars 194:25.
repeat 112:3, 268:13, 271:13.
repeats 159:3, 161:5.
Rephrase 269:5, 307:23, 311:6, 312:1, 320:12.
replace 228:24.
replacement 234:20.
report 115:15, 250:5, 260:21.
REPORTER 2:32, 15:8, 58:3, 135:14, 140:22, 238:6, 307:19, 332:12.
reporting 115:15, 115:19, 116:1.
reports 249:22, 258:1, 258:8, 258:12.
repositories 148:2.
represent 12:1, 64:24, 222:19.
representative 12:3, 12:25, 281:8, 282:14, 316:14, 329:18.
representatives 11:22, 109:10.
representing 47:25, 61:7, 62:25, 89:3, 167:11, 233:19.
represents 323:10.
reputable 224:9.
request 185:20, 204:21, 204:22, 295:20, 313:14.
requested 173:16.
require 112:1, 159:22, 159:24, 166:13, 178:11.
required 83:17, 111:5, 114:15, 131:7, 134:16, 146:6, 188:1.
requirement 152:21, 163:24, 179:19, 180:24, 181:11, 182:7, 183:1, 183:9, 278:7, 278:21, 279:10, 280:5, 322:5.
requirements 125:18, 131:1, 131:6, 131:9, 152:20, 163:16, 174:24, 175:17, 175:18, 175:19, 175:24, 176:1, 182:18, 182:21, 182:22, 183:12, 183:15, 183:16, 183:17, 185:13, 185:14, 185:16, 298:19.
requires 160:13, 180:23.
Research 78:5, 108:11, 108:12, 108:15, 192:23.
resemblance 168:18.
reservation 86:14.
reserve 43:16, 118:8.
reserved 43:5, 43:12.
resets 161:6.
residence 192:19.
residences 205:9.
resolve 7:17.
resource 37:13.
resources 78:1, 112:5, 241:23, 241:25.
respect 116:14, 226:10, 226:23, 227:9.
respectfully 184:9.
respective 38:16, 105:19.
respectively 265:25, 267:7, 268:17.
respectively. 267:1.
respond 125:9, 218:3, 311:24.
responded 230:15.
responding 14:21.
response 8:25, 9:17, 138:15, 138:17, 205:1, 207:12, 262:3, 311:19.
responses 139:10, 261:18.
responsible 120:17, 321:17.
responsive 115:20, 294:10.
rest 9:24, 93:6, 96:24, 99:4, 101:8, 102:15, 113:12, 113:18, 114:3, 185:8, 228:8.
Restate 242:4, 298:5.
Restoration 99:10.
restored 5:25.
restoring 26:11.
restrooms 92:8.
result 128:1, 329:10.

resulted 215:24.
resume 100:18.
retire 110:11, 111:1, 111:15, 112:10, 114:10, 130:11, 141:2, 145:25.
retired 4:17, 20:10, 22:1, 22:19, 24:17, 35:1, 35:3, 37:14, 37:16.
retiring 36:25.
retransmission 272:9.
return 117:17.
returned 117:1.
rev 309:17.
revenue 218:8.
review 5:2, 122:4, 141:2, 318:21.
reviewed 192:1, 274:25.
reviews 124:3, 124:8, 124:11, 124:13.
revolution 219:9.
revolutionary 6:21.
RF 210:16.
RFI 207:12.
RFP 205:17.
Rice 12:10, 64:25, 168:21, 178:7, 179:16, 181:13.
Richard 54:25, 104:17.
Rico 25:24.
ridiculous 49:23, 50:2, 97:17.
Rights 7:4, 7:8, 7:9, 7:13, 7:14, 7:22, 13:25, 53:17, 53:19, 121:19, 147:9.
ring 199:2.
ripe 4:13.
risk 102:5, 176:9, 235:7, 235:11.
RMR 1:43, 2:32, 332:11.
road 31:3, 246:17, 246:24, 248:5, 250:18.
roadmap 113:4, 144:9.
Rob 34:14.
robe 329:9.
Robert 24:17, 55:25, 56:4.
Roberts 24:12, 24:13, 24:23, 55:21, 55:24, 56:4, 57:9, 62:9, 62:11, 62:13, 63:6.
rock 176:11.
Rodney 1:24, 4:4.
role 37:25, 56:15, 194:10, 195:11, 214:17.
roll 39:10.
roll-out 197:7.
Romans 5:9, 5:10.
room 18:13, 59:15, 106:8, 110:12, 110:16, 111:2, 111:16, 112:20, 114:11, 141:2, 143:17, 145:25, 192:14, 328:24.
root 5:14.
Rosborough 23:13, 23:14, 69:7, 79:17, 104:15.
ROSS 2:27.
Roughly 166:3, 195:25, 197:21, 203:11.
round 209:17.
route 267:19.
router 77:10, 217:9, 268:20.
routers 56:19, 57:6, 161:9, 161:12.
routes 265:24, 266:24, 267:14, 268:15.
routing 267:6, 268:24, 268:25, 269:11, 271:6.
row 93:18, 103:19, 103:20, 103:24, 104:1, 104:5, 104:8.
rows 42:17, 42:21.
Roy 34:14.
royalty 41:14, 41:22, 53:21, 132:22, 148:14, 165:11, 165:12, 166:4, 166:8.
rude 146:16.
rudimentary 184:19.
Rule 38:3, 60:10, 187:13, 187:15, 187:23, 330:18.
ruled 139:11, 262:17.
Rules 8:15, 8:16, 14:7, 14:8, 38:25, 107:6, 110:5, 112:13, 130:14, 130:15, 138:1, 139:9, 144:18, 195:17, 309:8.
ruling 120:3.
rulings 129:7, 137:23, 138:7, 138:16, 139:4.
run 34:11, 72:25, 73:3, 198:14, 202:10, 203:2, 245:8, 305:23, 327:16.
run-of-the-mill 148:11, 150:5.
running 329:22.
Runnymede 5:25.
runs 95:11, 159:1, 166:11.
rural 150:12, 196:13, 197:10, 209:6, 228:21.
Ryan 30:20.
.
.
< S >.
S/shawn 332:9.
sacrifice 72:1.
safe 42:18, 70:21.
said--and 252:9.
sale 121:13, 131:5, 196:19, 203:21.
sales 237:19, 284:3, 284:4.
Samsung 220:16, 326:9.
Samsungs 298:22.
SANCHEZ 2:8.
Sandy 21:22.
Santos 25:6.
sat 250:12, 309:12.
satellite 228:3.
satisfied 125:17, 161:25, 163:17.
save 106:13, 136:11.
saved 139:6, 139:19.
saves 136:23.
savings 197:17.
savvy 57:3.
saw 45:11, 60:24, 153:25, 203:10, 210:15, 225:23, 229:5, 231:3, 236:19, 248:11, 249:23, 250:17, 257:5, 281:1.
saying 10:20, 43:25, 51:8, 51:18, 80:17, 89:2, 90:5, 95:10, 158:15, 169:16, 169:17, 169:22, 176:16, 178:1, 179:13, 186:2, 230:4, 236:4, 280:1, 280:3.
scales 15:14, 15:18, 15:22, 15:24, 16:2, 16:16, 16:18, 16:20, 16:23, 50:6.
scanners 195:6.
scanning 283:20, 283:22, 284:12, 284:17.
scans 193:22.
scenario 66:14.
schedule 327:17, 328:17.
scheduled 10:22, 100:20.
scheduling 25:11, 91:13, 91:17, 98:21, 100:12.
scholar 176:10, 176:12.
scholarship 65:24.
scientist 194:11.
Scotland 196:13.

screen 155:23, 157:1, 157:4, 159:15, 169:9, 184:24, 216:14.
screen--a 291:8.
screw 227:24.
scroll 278:5, 279:3.
scrupulously 328:20.
scuffles 72:19.
seamlessly 168:17.
search 125:2, 148:1.
searches 124:10.
Searle 37:10.
seat 91:23, 103:13, 103:18, 104:22, 188:19, 207:6.
Seated 4:1, 15:7, 93:11, 103:11, 106:3, 115:4, 118:16, 144:1, 207:2, 329:5.
seats 93:4, 107:14.
Sebastian 12:24, 169:7, 169:11.
seconds 316:2.
secret 84:17, 148:4.
section 142:11, 205:22, 207:17, 234:19, 235:5, 235:21, 250:17, 254:7, 254:17, 282:25, 283:1, 288:13, 288:22.
sector. 281:9, 284:13.
Sectorization 205:25, 206:6.
sectorized 206:3, 206:5.
secure 106:9, 152:4.
secured 6:24, 151:16.
securing 8:12.
Security 18:1, 18:7, 19:2, 19:8, 76:2, 141:21, 190:16, 192:1, 197:3, 210:7.
seeing 8:20, 142:22.
seek 38:16, 50:15, 239:19, 289:18, 330:4.
seeking 8:9, 13:11, 50:8, 51:20, 60:17, 94:2, 94:9, 97:18, 173:8, 207:17, 306:24.
seem 134:1.
seemed 199:2, 202:9, 217:13.
seems 73:4, 321:11.
seen 13:19, 13:21, 60:9, 60:11, 121:4, 176:22, 177:4, 195:6, 203:5, 212:25, 226:18, 250:12, 295:19, 329:8.
segregate 136:9.
select 112:2, 321:5.
selected 8:21, 14:14, 17:15, 37:24, 38:1, 39:16, 39:21, 101:23, 103:16, 104:13, 104:23, 105:15, 105:22, 106:1, 115:6, 136:13.
selecting 8:7, 14:1, 326:2.
selection 4:24, 42:6, 126:25, 140:19, 153:25.
selectively 296:21.
self-employed 27:25.
Self-feeling 58:18.
self-fund 197:19.
self-taught 61:22.
sell 126:18, 127:23.
selling 121:13, 127:22, 131:4.
sells 150:1.
semicircle 283:13.
Senate 4:9.
send 101:1, 146:1, 148:18, 148:20, 150:17, 154:16, 155:6, 155:8, 155:9, 158:18, 167:20, 171:15, 181:10, 181:12, 181:17, 200:24, 204:17, 209:14, 209:16, 251:11, 253:14, 270:20, 270:24, 281:12, 295:24, 296:4, 297:19, 322:10.
sending 154:14, 162:24, 164:24, 240:10, 240:19, 251:2, 253:15, 270:17, 276:2, 286:18, 292:12, 293:10, 320:5.
sends 161:19, 270:14, 270:16, 320:2, 321:2.
sense 90:2, 90:12, 107:18, 162:17, 162:19, 171:23, 187:5, 228:4.
sent 158:8, 158:22, 159:1, 159:24, 160:21, 160:22, 179:14, 179:16, 179:17, 214:10, 255:24, 256:12, 271:9, 320:6.
sentence 45:25, 235:21, 254:25, 255:19.
sentences 122:12.
separate 6:18, 6:22, 155:13, 155:14, 158:20, 294:3, 311:10, 312:6, 319:22, 319:23.
separated 36:13.
separating 255:9.
sergeant 20:24.
series 47:3, 205:17, 306:18.
serious 101:22.
serve 8:4, 10:17, 14:14, 17:16, 20:19, 37:24, 37:25, 39:16, 55:15, 65:9, 104:14, 104:23, 105:16, 106:1, 162:16, 196:14, 197:12, 204:16, 205:9, 210:14, 326:3.
served 22:11, 23:3, 23:4, 23:19, 25:8, 26:1, 26:3, 27:8, 28:8, 28:16, 29:5, 37:3, 37:17, 37:18, 39:5, 59:5, 60:4, 319:6.
serviced 321:7, 325:24.
services 234:21.
Services--ntws 243:6.
serving 106:15, 202:21, 209:6, 319:4, 324:4.
set 71:12, 95:1, 95:2, 105:20, 156:17, 195:16, 202:14, 204:22, 253:1, 272:10, 277:25, 311:10, 316:14, 319:18.
sets 129:19.
setting 43:11, 43:15, 56:21, 78:20, 94:10, 94:20, 310:25.
settled 5:23.
seven 24:6, 35:19, 37:8, 51:5, 72:22, 82:6, 135:25, 136:3, 136:6, 328:4.
Seventh 7:10, 7:11, 23:9.
several 142:20, 151:14, 156:11, 215:5.
sexy 257:11.
shaking 87:4.
share 43:21, 51:17, 51:19, 63:7, 64:6, 149:22, 220:13, 285:14, 319:23.
sharing 43:24, 44:14, 44:24, 48:11, 50:3, 50:20, 53:16, 55:20, 57:8, 58:19, 58:25, 60:22, 62:5.
SHAWN 1:43, 2:32, 332:11.
shawn_mcroberts@txed.uscourts.gov 1:47.
she'd 76:5.
she'll 101:1, 105:13, 109:2.
sheet 255:13, 256:7, 256:8.

sheriff 53:23, 54:3.
Sherman 202:8.
shifted 216:14.
ship 166:11, 216:15.
ships 328:4.
shooting 184:23.
short 92:3, 143:20, 143:22, 206:15, 244:9.
shorthand 13:17.
shortly 6:25, 206:19.
shouldn't 75:23, 87:21, 107:19, 110:16, 143:13.
showed 83:25, 178:3, 181:6, 181:9, 229:6, 257:4, 263:24, 272:24, 273:11, 280:25.
showing 156:8, 157:13, 162:20, 249:14, 252:23, 282:16, 282:17, 282:18, 283:16, 286:3, 286:4, 292:15, 322:20.
shown 137:12, 139:12, 139:14, 154:20, 164:13, 202:18, 203:5, 212:9, 262:7, 283:11, 314:15, 323:3, 323:13.
shows 10:5, 48:21, 49:2, 175:21, 180:17, 181:4, 182:15, 202:15, 247:7, 247:9, 248:17, 281:5, 287:13, 287:19, 291:15, 324:15.
shows--and 291:8.
Shreveport 77:17.
shut 153:18, 154:5, 218:2, 218:3.
SIAD 201:4.
sick 102:6.
side 12:16, 12:20, 15:12, 15:19, 15:22, 15:23, 16:17, 16:18, 16:20, 52:1, 52:3, 74:14, 91:19, 109:15, 126:20, 135:12, 137:25, 142:5, 142:7, 144:9, 146:12, 164:25, 183:15, 232:10, 294:3, 329:18, 330:4, 330:10.
sidebar 269:4.
sides 13:23, 46:3, 74:17, 113:8, 115:23, 134:23, 135:15, 139:17, 145:24, 161:17, 188:4.
siding 27:25.
sign 280:2.
signal 154:18, 158:13, 159:22, 160:12, 160:14, 161:14, 178:18, 178:19, 178:24, 179:3, 179:20, 179:21, 182:19, 183:8, 183:9, 193:20, 211:9, 228:6, 228:7, 270:14, 270:16, 270:24, 271:1, 271:2, 279:11, 318:25.
signaling 286:16.
signals 151:5, 155:7, 156:2, 159:1, 160:19, 160:21, 200:25, 204:18, 211:7, 212:10, 212:11, 216:3, 270:16.
signed 5:24, 274:14, 276:24, 280:1.
significant 154:2, 299:8, 313:25.
silent 262:16.
similar 245:24, 248:4, 281:4, 281:5.
similarly 323:4.
simple 123:22, 157:1, 159:21, 209:15, 269:2, 270:1, 289:2.
simpler 293:9.
simplified 283:8.
Simply 8:11, 8:20, 9:15, 38:15, 39:11, 39:13, 121:9, 121:10, 126:14, 137:18, 139:15, 141:13, 141:19, 143:23, 144:1, 146:16, 148:13, 206:16, 217:24, 245:20, 262:22, 269:9, 308:8.
sincere 65:1.
sincerity 74:3.
sir--your 295:15.
sit 35:5, 68:6, 73:22, 89:18, 162:17, 183:2, 201:2.
site 157:22, 202:14, 310:22, 323:5, 323:7.
sites 291:9, 291:11, 291:12.
sits 68:7, 84:25, 262:16.
sitting 52:24, 57:23, 64:5, 64:8, 80:16, 86:25, 89:1, 89:5, 90:18, 90:21, 139:7, 168:23, 225:22, 249:4, 269:16.
situation 67:8, 79:9, 182:11, 185:24, 218:4, 262:21, 319:5.
Six 19:23, 26:12, 72:22, 82:6, 115:20, 116:2, 136:11, 200:22, 200:23, 213:19, 237:12, 303:14, 313:17, 320:6, 320:7, 320:11.
sixth 23:9.
size 123:20.
skill 129:25.
skilled 131:23, 199:7, 199:13, 221:8, 268:22, 269:17.
skills 199:9.
Skip 12:3, 119:6, 170:2, 198:5, 246:14, 251:2, 251:11, 253:15, 256:2.
Skolnik 192:22, 192:25, 193:2, 193:4.
Skybeam 209:3, 210:18, 211:24, 231:8, 231:9, 236:12, 236:14, 236:15, 236:22, 237:1, 240:17, 241:14, 241:22, 242:17, 242:22, 242:25, 244:14, 244:16, 248:9, 284:7, 306:25, 307:1, 307:3, 308:12.
skyscraper 40:19.
sleep 74:15.
slice 158:23, 201:1, 202:21, 283:17.
slices 285:8.
slicing 200:25.
Slide 170:15, 170:21, 171:5, 178:3, 178:15, 203:11, 281:1, 281:2, 292:1, 324:5.
slides 150:24, 193:10.
slightly 16:3, 16:25, 50:6, 68:16.
slip 93:3.
slot 319:16, 319:17, 321:13.
slots 321:9.
slow 204:5.
small 9:12, 26:2, 26:10, 59:15, 68:8, 68:22, 70:14, 70:25, 71:6, 71:10, 102:7, 102:24, 197:10, 198:6, 202:7, 205:9, 205:10, 272:9, 315:1.
smaller 69:2, 70:17, 71:6, 148:24.
smart 75:14, 75:15, 89:4, 221:1.
smartphones 148:13, 150:1, 150:4.
Smith 2:11, 40:24.
smoking 303:9.
snapped 177:11.
sniffle 11:14.

social 23:9, 107:21, 107:22.
society 51:24.
software 56:16, 61:14, 61:15, 61:24, 61:25, 82:1, 210:1, 220:15, 236:17, 236:19, 307:6, 326:9.
sold 121:19, 149:24, 268:21.
sole 38:2, 71:17, 107:8, 111:23, 120:12, 138:20, 140:13, 140:14.
solely 107:3.
solid 201:13.
solo 33:12.
solution 212:20, 212:24, 228:24, 234:20, 237:7, 307:13, 308:1, 308:7, 320:2, 320:5, 320:23.
solution. 234:19.
Solutions 1:5, 11:17, 33:1, 126:13, 224:25.
solve 298:19.
solved 303:11, 303:13.
somebody 53:18, 53:22, 54:4, 54:8, 62:18, 62:24, 92:14, 95:11, 143:13, 156:14, 170:4, 241:17.
someone 53:24, 55:17, 65:19, 66:21, 176:3, 184:4, 184:8, 184:25.
sometime 106:17, 106:23, 302:18.
Sometimes 15:3, 18:18, 38:19, 60:12, 68:6, 68:12, 71:1, 95:11, 121:9, 121:10, 125:21, 138:9, 151:25, 156:13, 216:10, 247:7, 322:21.
somewhere 162:24, 181:9.
son 26:2, 56:3.
son-in-law 54:25.
soon 168:23, 330:19.
sooner 115:24.
sophisticated 167:24, 168:15.
sorry--doctor 227:10.
sort 48:17, 57:6, 71:12, 82:15, 153:16, 192:5, 205:13, 207:19, 207:21, 213:22, 248:25, 251:16, 308:1, 323:1.
sorts 157:14, 174:24, 220:8.
soul 4:10.
sound 68:22, 72:16, 182:1, 246:24.
sounding 136:20, 204:2.
sounds 78:6, 149:20.
source 110:1, 112:11.
sources 111:21.
souvenirs 105:6.
Soviet 191:9.
space 97:14.
spare 43:19, 63:23, 63:24, 64:10.
Speaking 41:5, 126:23, 330:1.
spec. 280:19.
special 74:22, 134:12, 154:19.
specialist 100:17.
specialized 199:10.
specific 19:6, 124:17, 130:14, 214:21, 215:4, 284:9, 310:23.
specifically 6:16, 119:10, 129:11, 214:16, 252:6, 252:9, 306:21, 313:10.
specification 122:7, 122:8, 122:11, 124:6, 128:8, 131:22, 151:22, 157:16, 163:24, 164:14, 183:4, 211:20, 268:6, 268:15, 274:23, 284:5, 326:9.
specifications 154:23.
specified 158:23.
specifies 271:21.
spectrum 204:17, 206:8, 208:7, 309:8, 313:16, 313:18.
speculate 139:25, 301:5.
speculative 133:5.
speed 148:23, 149:9, 165:17, 196:10, 201:20, 219:20.
speeds 155:19, 297:20, 301:9, 301:15.
spend 149:15, 185:8, 218:20, 224:7, 310:6.
spending 153:15.
spent 49:23, 168:12, 168:14, 172:2, 172:19, 184:16.
spill 257:19.
spliced 136:9.
splices 136:15.
split 207:23.
spoke 215:12, 296:8.
spot 202:10.
spouse 20:2, 22:1, 22:25, 25:6, 26:14, 28:5, 30:20, 31:6, 31:25, 35:3, 36:3, 37:2, 37:14.
Springs 21:6, 31:13, 32:14.
Sprint 118:6, 204:11, 204:12.
spy 251:16, 252:5, 253:2, 253:5, 253:14, 253:20, 255:25.
SPY-1 193:6.
square 78:4, 156:15, 315:8.
squarely 295:23.
Sr 22:1.
SS 325:18.
SSB 178:23, 179:21, 179:24, 180:3, 180:4, 180:5, 180:9, 180:17, 181:10, 181:21, 320:2, 320:5, 320:10, 320:12, 320:14, 320:16, 320:18, 320:19, 320:22, 320:23, 321:1, 321:6, 321:12, 324:21, 324:24, 325:11, 326:19, 327:7, 327:8.
Ssbs 321:9.
SSS 322:1, 324:22.
St. 2:4, 35:25.
stability 243:12, 243:18.
stable 243:10, 243:15, 244:2, 244:7, 244:16.
staff 105:5, 105:17, 109:9, 316:1.
stage 128:19.
stand 18:5, 18:9, 19:8, 19:14, 40:25, 57:23, 103:9, 103:25, 104:2, 104:6, 106:12, 107:4, 112:12, 137:6, 144:14, 159:10, 162:2, 162:9, 165:23, 188:19, 206:12, 225:23, 225:24, 251:1, 331:14.
standard 16:13, 17:23, 206:3, 218:24, 218:25, 227:3, 235:11, 298:16, 302:10, 302:15, 302:16, 304:5, 304:11, 304:18, 322:12.
Standards 195:13, 195:14, 195:15, 195:16, 195:19, 321:16, 321:20, 322:4.
standing 47:25, 49:9, 54:17, 61:7, 62:18, 63:2, 63:18, 168:23, 233:20, 251:8, 330:2, 330:8.
standoff-ish 251:6.
stands 118:14, 120:3, 206:25.
Star 102:8, 176:11.
Starlink 78:25, 79:1.

start-up 194:9, 194:10, 199:8.
start-ups 220:18.
Started 17:19, 20:23, 40:18, 84:9, 101:21, 155:2, 197:2, 237:16, 286:22, 289:24, 308:25, 309:3, 309:12, 316:21, 327:15.
starting 25:9, 150:11, 219:10, 310:7, 316:19.
starts 16:15, 51:10, 58:14, 58:21, 61:6, 327:5.
state 124:9, 124:15, 124:20, 316:7.
stated 138:4.
statement 87:17, 113:5, 146:21, 147:2, 166:25, 167:6, 177:9, 212:10, 229:7, 230:3, 231:20, 244:11, 287:25, 318:11.
statements 113:2, 113:3, 113:8, 115:1, 120:10, 128:16, 144:7, 144:8, 144:24, 145:1, 146:20.
stating 56:17.
stations 148:18, 148:19, 149:1, 154:25, 156:10, 157:14, 164:23, 165:1, 166:2, 208:8, 210:15, 269:11, 285:2, 285:5, 314:11, 317:3, 317:9, 317:11, 317:19, 321:15, 323:24.
statue 15:8.
statute 165:9.
stay 27:14, 92:11, 92:23, 92:25, 93:4, 93:8, 143:3, 187:19.
stayed 4:15, 220:5.
stays 20:14.
stems 96:9.
step 315:15.
stepchildren 33:11, 37:8.
stepkids 27:12.
steps 131:7.
stern 108:6.
Steven 12:10, 168:21, 178:7.
stock 245:18.
stood 173:18.
stop 8:18, 190:22, 241:24, 279:7, 328:15.
stopped 153:15.
stopping 53:20.
store 195:1, 195:6, 195:7.
stories 57:24, 220:13.
story 72:25, 73:3, 73:4, 73:12, 73:23, 74:10, 74:14, 74:17, 256:4.
Straight 79:19, 79:20, 258:1.
straightforward 179:2, 180:24, 182:2.
strange 164:1, 251:1.
strategic 12:25.
stream 167:21, 208:1.
streamline 139:17.
STREET 1:44, 2:33, 171:16.
strike 103:1, 103:4, 115:8, 115:14, 115:21, 116:2, 242:2, 294:7, 294:11, 295:6.
striving 8:22.
strong 57:14, 61:2, 71:14, 96:7, 96:18.
stronger 154:17.
struck 278:13.
structure 311:3, 312:21, 319:23, 321:2.
structured 204:22.
structures 123:18, 123:19.
stuck 175:4.
studies 23:9.
study 190:10, 318:21, 320:15.
stuff 49:6, 49:24, 56:21, 71:3, 75:11, 75:15, 86:4, 183:7, 274:24, 278:20.
Suarez 32:23, 32:24, 33:3.
sub-portion 325:24.
sub-sectors 312:24.
subdivision 122:5.
subject 107:4, 110:3, 134:11, 135:22, 144:14, 189:24, 251:19, 267:14, 273:9.
subjects 5:18, 5:23.
submissions 237:12.
submit 116:15, 125:11, 152:2, 184:9, 184:25, 185:1.
submitted 124:12, 175:21, 214:22, 214:23, 275:8, 275:22.
submitting 215:2.
subscriber 201:5, 201:6, 203:6, 227:20, 229:21, 264:5, 270:17, 301:21.
subscribers 203:15, 212:3.
subset 319:17.
suburb 246:21.
succeed 235:19, 236:8.
success 203:14, 244:23, 244:24.
successes 245:2.
successful 195:23, 196:10, 220:9, 235:9, 245:4, 245:8.
such-and-such 109:21.
sue 223:9.
sued 84:1.
sufficient 128:9, 131:23, 132:2.
suggest 181:19, 183:3.
suggested 318:24.
suit 52:2, 52:6, 52:23, 123:9.
SUITE 2:4, 2:27.
sum 95:18, 190:13.
summarized 160:2.
summary 126:10, 234:10.
summer 11:13, 92:20.
Summers 2:7, 12:2, 116:9, 118:20, 146:24, 147:3, 163:10, 165:8, 166:20, 168:2, 169:4, 171:21, 173:10, 174:5, 174:19, 175:5, 176:23, 177:3, 178:2, 178:14, 186:5, 186:19, 230:3, 281:1, 281:2.
summoned 37:2.
Sunland 35:19.
super 311:3.
Supercomm 247:10, 247:18, 248:2, 248:5, 248:22, 250:5, 250:12, 250:13, 250:24, 258:13, 309:20, 310:4.
Superdome 247:20, 247:23.
superimposed 142:17.
superintendent 35:19.
superior 324:6, 324:9.
supervise 78:4.
supplemental 115:15, 115:19, 115:21, 116:1.
supplier 149:5, 171:3, 229:2.
supplies 169:7.
supply 135:20, 174:19, 195:2.
support 24:15, 56:25, 109:9, 134:23, 155:18, 171:9, 172:18, 198:3, 198:11, 198:15, 199:6, 203:15, 221:17, 231:12, 306:25, 307:4, 307:5, 308:2, 313:12, 313:23, 314:11.
supported 100:1, 152:22, 164:14, 221:16, 278:23,

280:18, 306:22 .
supporting 268:6, 302:20 .
supposed 53:11, 100:16 .
supreme 7:1 .
surgical 10:22 .
surprise 38:18, 109:12 .
surprised 18:14 .
surprises 330:22 .
surveyor 37:15 .
suspect 180:14 .
sustain 97:3, 99:13, 139:22, 262:23, 294:10, 302:3, 311:25 .
Sustained 269:24, 295:8, 307:11, 307:22 .
swapped 80:6 .
sweep 320:23 .
switch 83:23, 111:3, 111:14, 114:12, 317:17 .
switched 78:25 .
switches 51:5, 56:20, 57:6, 75:15 .
sword 15:12 .
sworn 9:23, 107:7, 110:2, 111:24, 120:11, 135:13, 135:16, 144:13, 188:15, 188:16, 189:1 .
symbol 325:20 .
synchronization 160:12, 212:12, 301:22, 325:6, 325:14, 327:4 .
synchronize 158:14, 212:7 .
synchronizes 160:14 .
synchronizing 212:2 .
Systems 74:21, 127:19, 153:8, 159:7, 159:18, 195:24, 196:11, 202:7, 202:14, 220:23, 225:17, 228:15, 298:14, 307:4, 307:6, 308:1, 312:5, 314:25 .
.
.
< T > .
Tab 232:22, 233:14, 238:16, 238:18, 254:10, 254:11, 255:7, 255:8, 255:13, 255:15, 260:17, 260:19, 261:5, 261:15, 261:21 .
tabbed 142:12, 142:14 .
Tabernacle 29:19 .
table 68:7, 68:8, 70:17, 73:22, 80:18, 123:16, 123:17, 123:18, 143:17, 249:4, 257:6, 328:25 .
tablet 76:4, 149:24 .
tabletop 123:20 .
tad 249:16 .
tag 199:1, 200:7 .
taint 71:15 .
take-away 179:13 .
talented 151:12 .
talked 15:4, 17:3, 81:18, 96:25, 99:5, 101:9, 102:16, 115:7, 115:13, 162:14, 185:19, 202:19, 216:22, 218:9, 222:20, 224:12, 229:15, 229:20, 243:21, 278:13, 278:15, 291:7, 291:19, 291:21, 296:15, 300:22, 313:5, 322:16 .
talker 43:3, 70:6 .
talks 209:8, 265:20, 296:21 .
target 193:23, 193:25 .
targeted 8:20, 320:8, 320:10 .
taste 59:10 .
taught 23:8, 62:7 .
teach 23:6, 170:12, 183:25, 184:1, 184:4, 184:8, 184:25, 185:1, 185:9 .
teacher 33:25, 35:1, 159:12, 192:20 .
teaches 170:19 .
teaching 22:19, 22:22, 283:19 .
team 11:21, 119:16, 147:4, 147:14, 151:10, 154:22, 197:13, 199:4, 199:10, 199:14, 199:17, 199:19, 211:18, 220:2, 221:5, 242:16, 304:22 .
teams 242:12 .
teamwork 199:14 .
tear 72:15 .
Tech 57:3, 159:11 .
technical 35:2, 41:9, 134:11, 134:15, 224:1, 259:8, 271:7, 284:5, 296:19, 298:17, 316:1 .
Technically 12:15, 126:21 .
technician 20:24, 25:7, 203:10 .
technicians 202:24 .
technique 307:1 .
technologies 153:16, 154:11, 157:19, 284:12 .
technology. 235:20, 235:22 .
telecom 74:21, 74:23, 75:2, 75:10, 153:17, 196:12, 247:12 .
telecommunications 199:12 .
telecoms 153:6, 153:7, 153:9, 153:13, 153:20 .
telephone 74:21, 75:2, 161:11, 201:11, 278:2 .
telephones 201:10, 216:23 .
television 17:6 .
tells 158:7, 171:24, 180:3, 298:16 .
temperature 177:18 .
temperatures 329:7 .
ten 33:24 .
tenacious 329:15 .
tend 65:3 .
tendered 119:1 .
Teresa 30:20 .
term 107:18, 267:13, 268:22, 271:7 .
terminology 77:21, 77:22 .
terms 13:19, 152:13, 267:17 .
terrible 81:10, 81:11 .
Tesco 195:1 .
test 84:21, 203:25, 204:1 .
Testament 5:5 .
tested 151:2 .
testified 134:3, 137:5, 142:21, 189:1, 222:20, 222:24, 223:15, 225:17, 227:15, 228:11, 230:13, 231:24, 238:5, 238:8, 243:2, 245:10, 245:16, 260:12, 261:12, 263:18, 265:2, 273:18, 290:12, 300:23, 303:17 .
testify 113:10, 134:14, 134:24, 135:19, 136:1, 142:12, 151:11, 160:17, 169:12, 180:13, 181:1, 188:2, 188:8, 189:21, 190:4, 225:7, 244:25, 297:22, 300:18 .
testifying 133:17, 133:21, 134:23, 136:14, 136:19, 245:14, 316:13 .
testing 211:6, 223:23, 223:24 .
tests 203:22 .
Texarkana 29:15, 34:1 .

text 107:20, 205:15, 205:16, 205:18, 205:20.
textbook 269:21, 269:25.
Thadasina 220:16.
Thankfully 5:22.
thanking 40:10, 168:2.
thanks 53:2.
theirs 48:16, 94:2.
themselves 38:10, 82:23.
theory 186:13.
thereafter 6:25.
thesis 191:25.
they'll 12:19, 113:10, 113:15, 114:2, 145:4, 327:8.
They've 114:6, 134:3, 136:2, 148:8, 220:9, 280:18, 303:11, 330:5.
things--the 92:8.
thinking 42:2, 42:22, 42:25, 43:6, 47:15, 47:16, 60:5, 64:5, 64:8, 69:18, 86:25, 89:5, 94:17, 134:8, 181:19, 300:23, 309:12.
thinks 34:10, 65:13, 91:19.
Third 12:14, 15:12, 17:4, 20:16, 104:2, 165:20, 230:24.
thirdly 100:11.
Thirty 189:15.
this--a 180:9.
this--the 310:24.
Thomas 6:15.
though 39:9, 60:19, 72:16, 80:22, 85:8, 105:21, 131:14, 131:16, 139:18, 139:21, 140:17, 157:1, 172:14, 172:15, 172:17, 172:18, 297:12, 307:2.
thoughts 50:25, 70:24, 87:3.
thousand 172:6.
thousands 193:19, 304:7.
three-hole 143:2.
three-minute 40:5.
throat 11:14, 289:25.
throne 5:16, 6:8.
throughout 9:24, 11:2, 101:23, 102:7, 104:10, 120:18, 126:14, 127:10, 130:3, 141:15, 142:9, 142:15, 144:11, 150:23, 187:4, 196:13, 268:23, 321:3, 327:17, 328:17.
throughput 165:18, 206:10, 209:7, 209:10, 209:11.
thrown 128:11.
Thursday 91:15, 100:14.
TI 219:9, 219:16.
tickets 10:24.
Ticonderoga 193:14, 193:15.
tied 218:7, 301:24.
tight 166:11.
tightly 292:7, 292:9, 292:12.
Timber 30:16.
time--since 226:2.
timeline 213:22, 258:1.
timelines 163:25.
timetable 158:7.
Timing 155:25, 157:12, 157:23, 158:3, 164:5, 164:11, 164:20, 292:16, 308:21, 324:25, 325:4, 325:5.
tinkerer 83:10, 83:13.
tinkerers 83:5.
tip 16:2, 16:3, 16:23, 16:24, 16:25, 50:6.
title 235:17.
Todd 37:14.
toddlers 102:1.
together 55:13, 127:16, 128:20, 136:9, 136:17, 146:7, 152:1, 154:11, 158:21, 172:4, 194:3, 195:18, 197:13, 197:24, 198:13, 209:7, 219:18, 304:14.
tomorrow 327:18, 329:3, 329:10, 331:14.
tomorrow. 251:2, 253:15.
ton 185:20.
tonight 92:16.
took 5:14, 61:23, 84:1, 142:23, 164:6, 171:25, 213:19, 215:11, 221:15, 238:2, 238:6, 259:14, 294:16.
Toon 27:10, 27:11, 27:16, 27:19, 86:2, 86:3, 93:2, 101:13, 101:18, 102:14, 102:22.
top 123:17, 142:17, 158:9, 170:18, 200:21, 205:15, 209:25, 210:19, 211:8, 211:9, 213:11, 240:14, 240:15, 240:19, 296:16, 309:14, 318:10, 325:17, 330:23.
topic 272:4.
topics 88:11, 116:12, 316:14.
topology 285:18.
total 21:6, 33:13.
totality 115:25.
totally 91:16.
toto 272:11.
touch 220:5.
touched 171:1.
Tough 78:7, 218:2.
touted 324:9.
toward 105:3, 116:24, 148:19, 154:16, 318:13.
towards 8:20, 50:1, 52:12, 68:16, 69:10, 70:14, 70:16, 71:6, 94:1, 108:24, 191:20, 191:21, 192:21, 308:4, 318:25, 320:8, 320:11, 324:17, 326:1, 326:3, 326:6.
tower 157:8, 160:8, 179:8, 180:21, 200:17, 200:21, 202:17, 202:18, 203:2, 203:8, 203:10, 209:25, 210:20, 211:8, 211:10, 230:8.
towers 79:21, 148:18, 156:9, 179:8.
towns 197:10.
track 297:18.
tracking 220:23, 301:17.
Trade 153:12, 198:21, 245:11, 245:15, 247:7, 247:9, 247:12, 247:17, 247:22, 248:17, 248:22, 261:9, 263:2.
Trademark 121:9, 122:1, 131:15, 200:7.
trademarks 198:22.
trained 122:3.
training 30:19, 134:12.
transceiver 161:13, 161:18, 161:21, 161:22, 217:8, 265:21, 266:24, 267:5, 267:24, 268:15, 268:25, 269:10, 270:6, 270:7, 271:8, 271:21, 314:5, 314:6, 314:23, 315:5, 315:6, 315:7.
transceivers 161:18, 270:5, 270:10, 270:20.
TRANSCRIPT 140:25, 238:7, 238:10, 238:22, 239:3, 239:5,

239:11, 243:21, 243:23, 252:10, 259:13, 259:15, 271:11, 271:12, 332:2, 332:4.
transformer 25:6.
transition 118:8.
Transmission 154:15, 155:19, 164:25, 318:13, 326:11.
transmissions 156:24, 157:13, 157:24, 157:25, 158:5, 158:8, 158:24, 160:25, 201:20, 207:23, 210:3, 212:8, 294:25, 313:1.
transmit 156:1, 156:11, 156:19, 156:20, 158:13, 158:14, 158:18, 160:20, 207:20, 294:3, 311:5, 311:11, 312:6, 317:1, 317:3, 317:20, 321:6, 321:15.
transmits 157:7, 160:12.
transmitted 160:18, 317:9, 319:25, 320:21, 322:1, 323:9, 325:20, 325:23, 326:20, 326:23.
transmitter 156:4.
transmitting 156:3, 156:4, 156:23, 157:8, 159:22, 164:24, 321:9, 321:12, 326:5.
travel 327:19, 327:21.
Travis 25:22.
tremendous 112:5, 299:7.
trials 9:12, 37:19, 116:19, 135:10, 198:14, 243:3, 243:9, 243:11, 243:16, 243:17.
triangle 156:12.
tried 9:11, 153:7, 174:18, 181:15, 232:3, 300:25, 319:18.
tries 155:25, 156:19.
trip 249:22, 250:5, 258:1, 258:8, 258:12, 309:20.
troll 177:10.
trouble 213:2.
TRS 327:8.
truck 29:3, 30:1, 315:8.
truly 124:15.
trust 60:1, 63:1.
truth 16:9, 16:11, 39:3, 42:24, 73:5, 94:11, 133:24, 175:10, 238:6.
truthful 8:25, 9:2, 14:5, 133:23.
Try 18:22, 44:8, 68:12, 80:24, 81:2, 97:10, 99:18, 101:18, 103:4, 117:5, 121:20, 125:9, 137:14, 144:22, 152:14, 164:4, 164:5, 173:24, 175:3, 206:24, 233:4, 233:5, 241:13, 257:18, 273:13, 304:11, 328:15, 328:16.
trying 8:11, 39:11, 57:17, 57:20, 59:16, 75:5, 149:9, 158:2, 162:18, 172:11, 173:3, 177:12, 180:11, 184:16, 184:17, 200:2, 204:3, 207:19, 211:25, 242:20, 244:14, 251:5, 259:8, 259:10, 284:1, 284:2, 311:21, 318:18, 329:7.
TSTC 30:1.
tune 166:8.
turn 37:23, 73:25, 105:3, 159:6, 159:21, 165:4, 199:21, 202:11, 203:4, 238:21, 250:16, 254:14, 271:12, 281:19, 282:21, 294:12, 294:15, 313:8, 314:3, 324:5, 324:20, 325:15.
Turning 56:25, 200:9, 202:22, 204:25, 205:13, 214:16.
turns 186:15.
TV 95:10, 228:3.
twice 233:6.
two-tier 263:14.
tying 203:1.
Tyler 21:23, 65:21.
type 47:16, 47:17, 116:16, 124:11, 124:13, 211:20, 236:3, 317:17.
types 131:2, 153:8, 201:9.
typical 135:24, 159:4.
Typically 109:23, 152:3, 156:11, 325:23.
tyrannical 5:16, 6:8.
.
.
< U >.
UE 325:11, 327:4.
Ues 319:10.
Uh-huh. 290:4.
UK 195:1.
ultimate 39:24, 84:7.
Ultimately 8:21, 125:16, 125:19, 175:4, 217:17, 244:22.
unanimous 111:11, 114:18, 114:20, 120:24, 120:25, 146:8.
unauthorized 115:8.
unavailable 98:22.
unavoidable 109:6, 136:16.
unavoidably 109:16.
uncle 45:17, 45:24.
uncomfortable 9:14.
underdog 70:15.
undergraduate 4:14, 190:8.
underlined 175:21, 277:15, 277:16, 277:23.
Underneath 142:17, 211:3, 254:17, 256:9.
underserved 196:14, 197:13, 204:16, 205:9.
understanding 116:17, 314:10, 316:16, 322:3, 325:13, 327:9.
understands 271:4.
Understood 52:14, 58:19, 61:12, 71:23, 74:8, 84:21, 85:7, 85:21, 86:7, 94:25, 129:25, 231:18, 246:15, 268:24, 269:1, 299:21.
unduly 8:10.
unemployed 27:6.
unexpected 98:17.
unfolds 149:8, 166:15.
unfortunately 198:22, 218:1.
unheard 274:11, 302:8.
UNIDENTIFIED 11:9.
uniform 59:17.
unimportant 108:19.
Union 191:9.
unique 212:24, 213:1, 231:15, 323:9.
unit 160:9, 264:11.
units 264:16.
universal 310:25.
universe 107:8, 111:23.
University 4:14, 4:15, 176:8, 190:8, 190:12, 190:14, 191:12.
unless 7:7, 108:1, 138:4, 287:4.
unlike 6:20.
unlikely 108:21.
unnecessary 47:8, 116:22.
unredacted 252:16.
unsure 60:1.

untethered 311:17 .
Until 5:15, 6:7, 58:7, 58:8, 73:24, 84:9, 110:10, 110:12, 110:19, 110:21, 111:12, 112:22, 118:6, 118:12, 125:16, 133:14, 138:25, 157:25, 161:6, 188:2, 188:8, 217:3, 262:16, 278:16, 329:3, 331:14 .
unusual 109:1, 213:22 .
up. 260:3 .
upgrade 210:1, 236:19 .
upgrades 307:6 .
uplink 155:15, 155:24, 157:8, 157:9, 157:25, 158:11, 159:1, 207:23, 208:14, 283:2 .
uplinks 161:4 .
UPO 25:25 .
upper 36:9, 312:22 .
upset 53:14 .
Upshur 31:3 .
urge 328:19 .
us--took 278:17 .
useful 209:19 .
user 160:20, 201:2, 208:4, 301:15, 301:17, 310:23, 317:21, 318:13, 319:12, 324:17, 326:1, 326:3, 326:6, 327:7 .
users 77:1, 107:21, 212:8, 299:14, 310:10, 310:14, 310:18, 311:7, 311:11, 312:6, 313:1, 319:4, 319:12, 319:13, 319:18, 319:19 .
uses 77:13, 79:15, 79:21, 156:14, 157:22, 317:9 .
using 5:8, 19:11, 55:17, 76:17, 81:22, 121:13, 127:22, 131:4, 148:8, 148:9, 148:25, 155:12, 160:22, 161:23, 169:10, 170:5, 192:12, 203:22, 206:3, 209:19, 273:11, 303:2, 317:4, 322:22 .
usual 250:25 .
UT 40:18, 46:15 .
utilized 321:10 .
utilizes 320:23 .
utilizing 320:25, 321:1 .
.
.
< V > .
vacant 104:9 .
vacation 10:24, 98:16 .
vacations 52:9, 52:10 .
Vaguely 84:20 .
valid 41:18, 84:8, 117:22, 121:10, 126:1, 131:16, 324:4 .
validity 130:7, 163:13, 163:14, 166:14, 182:3 .
value 5:7, 105:24, 119:20 .
valued 34:12, 48:15 .
Vanguard 32:14 .
variations 193:8 .
various 8:8, 127:15, 137:8, 137:12, 139:3, 249:25, 325:17 .
vehicle 301:9 .
vehicular 301:15 .
vendors 211:23, 321:17 .
venire 18:14 .
venture 260:22 .
Ver 324:6 .
verdict 9:12, 30:8, 39:4, 59:18, 110:12, 111:11, 114:17, 114:21, 116:19, 116:21, 117:1, 120:23, 121:1, 130:12, 141:3, 146:1, 146:9, 166:14 .
verdict. 111:2, 111:16, 114:11 .
verification 105:9 .
version 196:6, 242:17, 244:17, 252:16, 252:17, 252:19, 316:19, 321:6 .
versus 11:17, 166:17 .
vertically 318:13 .
veterinary 20:23 .
viable 204:23 .
vice 12:10 .
VIDEO 3:10, 13:19, 41:18, 54:7, 83:24, 84:15, 84:19, 85:4, 87:12, 121:4, 135:18, 316:6 .
videotaped 160:17 .
videotapes 136:8 .
view 42:11, 45:13, 58:14, 58:20, 61:2, 97:19, 100:2, 200:11, 257:24, 282:1, 286:8, 287:24, 297:4, 311:5 .
viewpoints 60:9 .
views 51:19, 53:3, 57:14, 98:10 .
Vigneau 30:14, 30:24, 75:6, 75:7, 75:8 .
Vijay 159:8 .
Village 30:16 .
vine 177:12 .
vinyl 27:25 .
violated 111:20 .
violated--and 111:20 .
violates 138:15 .
violation 121:19 .
visit 92:20, 92:24, 93:5, 109:21 .
visited 248:14 .
visits 77:14 .
Vista 189:12 .
voice 18:11, 18:21, 56:25, 57:1, 136:20, 155:16, 208:12, 208:13, 208:15, 234:21 .
voir 41:10, 42:5 .
VOLUME 1:18 .
vote 7:6, 195:21, 224:19 .
voted 195:20 .
vouching 176:23, 177:3, 177:5 .
vs 1:9 .
.
.
< W > .
W. 243:7 .
Wade 35:18 .
waist 18:16, 18:17 .
Wait 52:3, 58:7, 58:8, 73:24, 74:16, 262:2, 262:14, 288:13 .
waiting 106:8, 112:21 .
waiver 117:15 .
Wales 196:13 .
walk 72:24, 103:24, 104:2, 108:2, 110:16, 171:16, 328:21 .
wall 228:2 .
Walmart 23:16, 34:3, 69:12, 194:24, 195:3 .
wand 251:8 .
wanted 9:20, 10:3, 43:7, 71:8, 154:9, 174:16, 196:3, 208:17, 245:19, 264:22 .
wants 112:6, 117:13, 256:3, 256:15, 287:3 .
War 5:19, 5:22, 6:21, 191:7, 194:8 .
Ward 2:11, 40:24 .
warn 40:6, 64:18, 167:4 .
warning 40:3, 40:5, 64:15, 146:23, 167:1 .
Warren 30:20 .

warship 193:7.
Washington 192:23.
waste 112:5.
watch 66:1, 79:8, 102:2.
watched 54:7.
water 51:9, 92:8.
wave 316:22.
ways 123:8, 130:25, 175:8, 298:19, 318:19.
ways--but 111:21.
ways--that 123:6.
weak 156:22, 156:24, 157:9.
weapon 220:24.
wearing 105:6, 329:8.
wears 56:3.
weather 92:20, 327:25.
Web 202:7, 202:14, 243:6.
website 318:5.
Wednesday 45:4, 74:14, 100:21.
week 9:24, 10:1, 10:6, 71:19, 98:16, 98:17, 98:22, 116:18, 147:6, 328:15.
weekend 11:13.
weeks 98:16, 328:16.
weigh 39:2.
weight 15:4, 134:20, 135:3, 137:3, 138:5, 138:22, 140:15.
Welcome 24:11, 29:11, 44:25, 70:12, 81:16, 120:6, 207:5, 315:18.
well-attended 247:12.
well-aware 105:18, 330:1.
well-experienced 8:14.
well-familiar 14:7.
well-heeled 256:3, 256:14.
well-known 206:6, 226:15.
well-regarded 226:7.
well-respected 226:15.
West 197:15, 228:12.
Westend 196:24, 197:2, 197:19, 198:4, 198:19, 198:23.
WEWATTA 2:4.
WGS 220:23.
whatever 52:3, 55:16, 70:15, 77:15, 179:4, 179:24, 256:13, 328:1.
whatsoever 17:9, 92:19, 173:5.
wheels 123:20.
Whenever 53:7, 53:11, 117:12.
Whereas 282:7.
Whereupon 93:10, 104:21, 106:2, 115:3, 120:5, 188:17, 206:23, 207:4, 329:4.
wherever 29:6, 29:8, 53:10, 101:1.
whisper 307:16.
who'd 204:14.
Whoa 269:3.
whoever 103:23, 104:1, 108:2.
whole 48:7, 55:12, 66:24, 70:2, 70:3, 83:18, 154:15, 158:14, 168:22, 283:21, 318:20, 326:4, 326:25, 327:2, 327:3.
whom 66:6, 126:16, 169:14.
wide 154:14, 319:8, 320:2, 320:6, 321:6, 323:3, 323:13.
widely 148:20, 158:14, 176:15, 176:17.
wider 245:18, 282:4.
wife 4:16, 20:13, 29:18, 32:15, 33:15, 34:14, 66:6, 77:12, 189:17, 196:22.
Wilhoit 30:16.
willful 128:3, 128:6, 129:2, 132:7, 132:8, 132:10.
willfulness 132:12.
William 26:19, 36:3, 104:16.
willing 85:9, 86:12.
Wimax 227:2, 227:5, 302:10, 302:12, 302:20.
window 27:25.
winds 182:8.
wiped 117:25.
Wire 150:15, 204:11, 204:13, 204:14, 204:21, 204:25, 205:3, 205:19, 205:22, 206:1, 207:12, 207:17, 228:6.
wired 57:6, 201:15, 216:23, 228:22, 234:24, 314:14, 314:25, 315:2.
wireline 234:21.
wires 150:14, 150:15, 161:16, 211:3.
wish 65:18, 82:17, 141:9, 187:12.
Within 7:9, 39:12, 108:18, 109:4, 121:14, 122:6, 122:14, 122:19, 122:23, 122:25, 124:23, 125:21, 129:12, 195:23, 240:11, 276:12, 280:7, 284:13, 287:22, 293:17, 293:19, 294:19, 295:10, 330:17, 330:18.
Without 41:13, 53:21, 53:22, 54:9, 54:13, 54:14, 68:17, 71:20, 121:15, 139:14, 148:3, 148:8, 148:9, 148:23, 149:14, 150:3, 159:2, 262:21, 268:21.
witness--is 134:14.
WLAN 268:23, 269:16, 269:19, 270:7, 270:10, 270:20.
Wlans 269:20, 270:19.
Wolff 168:23, 168:25, 178:8, 179:16, 181:14.
women 8:4, 64:24, 147:3, 166:10, 168:10.
wonder 62:22.
wonderful 4:17, 92:20.
Woodlawn 31:20.
woodwork 172:21.
wool 329:9.
word 123:10, 123:11, 123:23, 184:8, 184:11, 184:12, 185:19, 252:5, 322:22.
wording 139:25.
words 67:23, 111:2, 123:23, 128:11, 128:13, 128:18, 151:25, 184:12, 192:9, 250:21, 252:6, 253:23, 253:25, 269:15, 270:14, 272:10, 283:17, 303:6, 303:8.
works 25:23, 27:16, 29:18, 30:20, 31:6, 32:1, 33:3, 34:14, 75:11, 83:11, 83:14, 122:9, 136:25, 151:18, 152:3, 155:21, 162:20, 167:24, 169:2, 221:6, 298:3, 318:12.
World 45:18, 47:3, 66:8, 76:14, 147:23, 153:12, 153:15, 153:22, 162:11, 176:9, 184:1, 190:18, 195:2, 223:23, 245:11, 245:15, 257:24, 261:9, 263:2, 298:23.
worry 172:22, 231:16, 300:6, 300:7, 300:14.
worship 22:20, 22:23.
worth 52:8, 136:4, 136:7, 213:2.
wow 176:16.
wrap 63:25.

write 45:19, 45:20, 58:5, 65:19, 82:11, 214:4, 214:5, 249:22, 259:7, 265:8, 267:2, 267:3, 267:23, 268:14, 269:9, 274:20, 278:3, 278:4, 279:22, 279:24, 279:25, 310:2 .
writes 151:24 .
writing 23:10, 58:3, 125:4, 125:6, 135:17, 267:23, 308:24, 308:25, 310:6 .
wrongdoing 67:15 .
wrote 152:16, 176:14, 211:20, 226:21, 227:2, 227:5, 227:6, 236:25, 237:7, 245:19, 249:22, 250:5, 250:12, 253:13, 256:22, 258:2, 268:19, 274:25, 280:21, 299:5, 307:12, 308:22 .
Wyoming 29:9 .
.
.
< X > .
X-rays 100:17 .
.
.
< Y > .
year 28:16, 30:17, 33:7, 53:5, 80:1, 98:17, 191:2, 197:21, 197:23, 211:17, 241:7, 241:10, 241:18, 242:19, 244:13, 247:15, 248:5, 248:8, 310:8 .
year-and-a-half 23:18 .
yellow 175:19 .
Yep 232:24, 248:16, 250:10, 256:9, 277:19, 322:12 .
Yes. 290:8 .
yesterday 318:5 .
YORK 2:20 .
you--but 79:15 .
you--clear 16:6 .
you--patent 82:17 .
you--think 180:8 .
You-all 40:10, 40:11, 42:12, 42:15, 42:17, 42:20, 43:19, 43:24, 44:13, 51:7, 54:7, 62:8, 64:12, 89:9, 91:23, 182:12, 184:6, 221:21, 230:9 .
young 8:3, 61:22 .
younger 221:14 .
youngest 43:5 .
yourself 10:22, 57:2, 67:9, 67:11, 94:4, 137:13, 164:13, 164:21, 166:17, 166:21, 183:7, 188:8, 189:6, 242:10, 255:1, 255:19, 259:22, 271:15, 271:20, 294:16 .
yourselves 7:20, 17:18, 18:15, 105:21, 110:10, 111:5, 111:6, 111:13, 114:14, 114:16, 114:20, 126:7, 133:22, 206:19 .
Youtube 167:20 .
.
.
< Z > .
Zealand 220:19 .
zealously 38:24 .
zero 325:20, 326:22 .
zipping 301:9 .
zone 64:11 .
zoom 249:2, 291:10 .