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

REMBRANDT WIRELESS TECHNOLOGIES, LP,	*	Civil Docket No. 2:13-CV-213
	*	Marshall, Texas
Plaintiff,	*	
VS.	*	
	*	
SAMSUNG ELECTRONICS CO. LTD,; SAMSUNG ELECTRONICS AMERICA, LLC; SAMSUNG TELECOMMUNICATIONS AMERICA, LLC; SAMSUNG AUSTIN SEMICONDUCTOR, LLC,	*	
	*	February 9, 2015
Defendants.	*	1:16 p.m.

TRANSCRIPT OF JURY TRIAL
BEFORE THE HONORABLE RODNEY GILSTRAP
UNITED STATES DISTRICT COURT

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P R O C E E D I N G S

(Jury out.)

COURT SECURITY OFFICER: All rise.

THE COURT: Be seated, please.

All right. Counsel, before we bring the jury in, I understand there's an issue about several boxes of exhibits. Let me hear briefly, very briefly, from both sides about that.

MR. ALAVI: Your Honor --

THE COURT: From the podium, please.

MR. ALAVI: Your Honor, may it please the Court.

The issue relates to documents that are called PICS. These are documents that show that the accused products follow the EDR 2.0 specification, or greater, from the Bluetooth SIG.

There are roughly 400 products accused. We're trying to figure out the Court's procedures on what constitutes use of a document with a witness.

We have an expert who has reviewed each of

those PICS and will include all of the products, the 400 products, practice the EDR 2.0+EDR -- 2.0+EDR standard.

We -- we don't have enough time in 10 hours to go document-by-document. Here's the PIC for this product; here's the product number; and here's where it shows that it practices this standard.

So what we thought we would do is provide all 400 of the PICS to the expert. He would go through -- in detail through one to explain how the product work -- works and how this shows it and then testify that these other 400 are -- and give the exhibit numbers -- are the PICS for the other products in this case and they all show the same thing.

So there's a question for the Court, because I think Samsung has indicated that would be insufficient use for purposes of having the documents go back as part of the record.

And then the second piece is we understand -- we completely understand that the Court does not want seven boxes of documents in front of the witness stand for fire code and other types of reasons, but we'd probably have to get past this threshold issue first to see how we deal with the seven boxes.

THE COURT: And this is with your second witness?

MR. ALAVI: With our second witness, Your Honor.

THE COURT: What's Samsung's response?

MR. SMITH: Your Honor, the only problem is we didn't -- we didn't know what the Court's threshold was for use. My -- my -- if the Court intends it to be the witness takes it out and uses it on his testimony, that's what I've been familiar with.

I don't know what the Court wants to do about an expert pointing to boxes and saying, basically, I reviewed that.

Of course, he can offer his opinions on them, and there's not a substantive objection to the PICS. We -- I just wanted to defer to whatever the Court's practice is so that we knew going into it what was sufficient to get exhibits into the record.

THE COURT: Well, the Court's usual standard on these things is, are they published to the jury, and that does not require that each page of each document be physically flipped to and shown and discussed.

If the Plaintiffs follow the kind of procedure that they've outlined where he goes through a portion of these in great detail and then identifies the others -- and I'm happy to let you take seven different boxes one at a time and let him look through him; we'll work with

the CSO -- and he identifies what's in there and that he has examined each part of it, and he testifies to it on a more or less global basis, in my view, that's adequate publication to be a part of the record.

MR. SMITH: If that's the case, Your Honor, then we -- we don't believe that the individual boxes need to go up. If the Court's going to receive a reference to the contents of a box to be sufficient, it would save time if --

THE COURT: Well, in light of the fact that you've raised the issue, I think it's better if the witness actually takes the box, looks in it, and identifies what's in it so we don't have any question about, well, those were the wrong boxes or this, that, or the other.

And it's not going to take a lot of time to carry six additional boxes back and forth. Plaintiffs can start out with the box they intend to use in greater detail at the witness stand with the witness.

And if you will marshal those other boxes at a place in the courtroom at that time that's not disruptive, then you simply need to ask leave to approach, come by to pick up the next box, hand it to Mr. Wolverton, he'll carry it to the witness and bring you back the prior box.

And then you can go through what's in those additional boxes. Did he look at them; did he consider them; what are they; or whatever questions you want to ask.

And that may take a little more time, but it's not going to take a substantial amount of time. And that way there shouldn't be any question in anybody's mind the witness has identified them and published them to the jury.

Anybody -- any questions about that procedure?

MR. SMITH: No, Your Honor.

THE COURT: Okay. Do we have any other wishes before we bring the jury in?

MR. ALAVI: Not from the Plaintiffs, Your Honor.

THE COURT: Okay.

MR. SMITH: Not from the Defendants, Your Honor.

THE COURT: As local counsel is probably aware, it's the Court's practice to give my preliminary instructions, including opening arguments, and then I'll ask if anyone wants to invoke the Rule, and we'll swear the witnesses that are present as a group.

Anybody has any problem with that, speak now or forever hold your peace.

All right. Then in that case, Mr. Wolverton, bring in the jury.

COURT SECURITY OFFICER: All rise for the jury.

(Jury in.)

THE COURT: Welcome back, ladies and gentlemen. Please be seated.

Thank you for being on time. We're going to proceed along the lines I discussed in jury selection with you. Going forward, it will be my attempt to start each day around 8:30 in the morning. It will be my attempt to stop each day around 5:30, give or take.

Those aren't exact. I don't cut people off in the middle of a sentence because it happens to be exactly 5:30 p.m., but I will be looking for a convenient time to break at that time of the day.

And I'll be looking to get us started as close to 8:30 each morning as I can so that we can get through the material that we have in hopes of being able to allow you to return a verdict this week and then not carry over into the next week.

Now, I have some preliminary instructions that I want to give you 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 such, you are the sole judges of the facts. You'll decide what all the facts are in this case.

As the Judge, I will give you instruction on the law. I will handle questions of evidence and procedure, and I will oversee the flow of the trial and maintain the decorum of the courtroom.

At the end of the evidence, I'll give you detailed instructions on the law to apply in deciding the 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. Your answers to those questions will need to be unanimous, and those unanimous answers will constitute the verdict in this case.

Now, I want to tell you briefly what this case is about. This case involves a dispute regarding certain United States patents. I know that you've seen the patent film. I know you have those instructions, but I want to discuss with you 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, often called the PTO. And many times I will refer simply to the PTO,

meaning the U.S. Patent and Trademark Office.

A valid United States patent gives the patent-holder the right for up to 20 years from the date of the patent application, the date the patent application is filed, to prevent others from making, using, offering to sell, or selling the patented invention within the United States or importing it into the United States without the patent-holder's permission.

A patent is a form of property called intellectual property. Like other forms of property, a patent can be bought or sold. A violation of the patent-holder's rights is called infringement.

The patent-holder may try to enforce a patent against persons it believes to be infringers by a lawsuit filed in federal court. That's what we have 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 PTO. The PTO is an agency of the United States Government that employs trained Examiners to review patents and -- or to review applications for patents.

The -- the application includes what is called a specification. 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 concludes or ends with one or more numbered sentences. These numbered sentences are the patent claims. When a patent is granted by the Patent and Trademark Office, the claims define the boundaries of its protection and give notice to the public of those boundaries.

After the applicant files the application, an 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 claimed.

In examining a patent application, the Examiner reviews certain information about the state of the technology at the time the application was filed.

The PTO searches for and reviews this type of information that is publicly available or that is submitted by the applicant. This type of information is called prior art.

The Examiner reviews this prior art to determine whether or not the invention is truly an advance over the state of the art at the time. Prior

art is defined by law, and I will give you, at a later time, specific instructions on what constitutes prior art.

However, 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 the patent was filed.

A patent contains a list of certain prior art that the Examiner has considered. The items on this list are called the cited references.

After the prior art search and examination of the application, the Examiner informs the applicant in writing of what the Examiner has found and whether the Examiner considers any claim to be patentable, thus would be allowed. This writing from the Examiner is called an Office Action.

If the Examiner rejects the claims, the applicant has the opportunity to respond to the Examiner and try to persuade the Examiner to allow the claims. The applicant also has a chance to change or amend the claims or submit new claims.

This process between the applicant and the Examiner goes back and forth for some time until the Examiner is satisfied that the application meets the requirements for a valid patent. And in that case, the

application issues as a United States patent.

Or in the alternative, if the Examiner ultimately concludes that the application should be rejected, in which case no patent is issued.

Sometimes patents are issued after appeals within the Patent and Trademark Office or to a court. The papers generated by these communications back and forth between the Examiner and the applicant are called the prosecution history.

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 the issued patent is presumed valid under the law, a person accused of infringement has the right to argue here in federal court that the claimed invention in a patent is invalid.

It's your job as the jury to consider the evidence presented by the parties and determine independently and for yourselves whether or not the Defendant has proven by clear and convincing evidence that the patent is invalid.

To help you follow the evidence, I'll give you a brief summary of the positions of the parties.

The Plaintiff, Rembrandt Wireless Technology, and patent owner in this case -- I'll often refer to

simply as Rembrandt -- has brought this action.

The Defendants are Samsung Electronics Company, Limited; Samsung Electronics America, Inc.; and Samsung Austin Semiconductor, LLC, which I'll refer to these parties collectively as simply Samsung. They are the Defendants.

The Plaintiff, Rembrandt, contends that certain claims of the following patents have been infringed.

The case involves United States Patent No. 8,023,580, referred to often as simply the '580 patent, and United States Patent No. 8,457,228, referred to, in shorthand, as simply the '228 patent.

These patents may refer -- may be referred to jointly as the patents-in-suit. The named inventor of the patents-in-suit is Mr. Gordon Bremer.

The claims that Rembrandt contends have been infringed have been referred to as the asserted claims. Over the course of the trial, you're -- you will learn more about which claims are asserted against Samsung.

Rembrandt filed suit in this court seeking money damages from Samsung for allegedly infringing the patents-in-suit by making, selling, or offering to sell in the United States products that Rembrandt argues are covered by the asserted claims.

The products that are alleged to infringe are Samsung products that comply with Bluetooth specifications and that include enhanced -- include an enhanced data rate or EDR. I may refer to these simply as the accused products.

Rembrandt argues that Samsung has infringed the patents-in-suit. Rembrandt seeks damages in the form of a reasonable royalty to compensate it for the alleged infringement.

Samsung denies that they are infringing any of the asserted claims of the patents-in-suit. Samsung further denies that Rembrandt is entitled to any damages.

Additionally, Samsung contends that the asserted claims are invalid in one or -- or more grounds.

Invalidity is a defense to infringement. Therefore, even though the U.S. Patent and Trademark Office or PTO has allowed the asserted claims, you, the jury, must decide whether or not those claims are invalid.

Your job is to decide whether the asserted claims have been infringed and whether the asserted claims of the patents-in-suit are invalid.

If you decide that any claim of the

patents-in-suit have -- has been infringed and is not invalid, you'll then need to decide what amount of money damages are to be awarded to Rembrandt as compensation for such infringement.

Now, my job in this case is to tell you what the law is, handle the rulings on evidence and procedure, and conduct the trial as efficiently and effectively as possible.

In determining the law, it is specifically my job to determine the meaning of any of the claim language from within the asserted -- the asserted patents that needs interpretation.

I've already determined the meaning of the claims in the patent -- of the patents-in-suit, and you must accept those meanings that I give you and use those meanings when you decide whether any particular claim has or has not been infringed and whether or not any claim is invalid.

You'll be given a document in a moment which reflects those meanings that I have arrived at.

For any claim term for which I have not provided you with a definition or a construction, you should apply the plain and ordinary meaning.

If I provided you with a definition, however, you are to apply my definition to those terms throughout

the case.

However, my interpretation of the language of the claims should not be taken as an indication by you that I have a personal opinion or any opinion at all regarding issues such as infringement and invalidity. Those issues are yours alone to decide as the jury in this case.

I'll provide you with more detailed instruction on the meaning of the claims before you retire to deliberate and reach your verdict.

In the -- 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 -- at the -- at the conclusion of the case, I'll give you much more detailed instructions.

The first issue you'll be asked to decide is whether Samsung has infringed any of the asserted claims of the asserted patents. Infringement is assessed on a claim-by-claim basis, and Rembrandt must show by a preponderance of the evidence that a claim has been infringed.

Accordingly, 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. I'll explain -- explain the requirements for

each of these types of infringement to you in detail at the conclusion of the trial.

In general, though, Samsung 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 of the asserted patent.

I'll provide you with more detailed instructions on the requirements of infringement at the conclusion of the case.

Another issue that you'll be asked to decide is whether the asserted patent or patents is invalid. A patent is presumed to be valid, but may be found to be invalid for a number of reasons, including because it claims subject matter that is not new or is obvious.

For a patent claim to be invalid because it is not new, Samsung must show by clear and convincing evidence that all of the elements of the claim are sufficiently described in a single previous printed publication or patent. We call these items prior art. If a claim is not new, it is said to be anticipated.

Another way that a claim can be found to be invalid is that it may have been obvious. Even though a claim is not anticipated because every element of a claim is not shown or sufficiently described in a single

piece of prior art, the claim may still be invalid if it would have been obvious to a person of ordinary skill in the field of technology of the patent at the relevant time.

You'll need to consider a number of questions in deciding whether the inventions claimed in the asserted patents are obvious. And I'll provide you with more detailed instructions on these questions at the conclusion of the trial.

A patent may also be invalid if its description in the specification does not meet certain requirements. To be valid, a patent must meet the written description requirement.

In order to meet this written description requirement, the description of the invention in the specification portion of the patent must be detailed enough to demonstrate that the applicant actually possessed the invention as broadly as claimed in the claims of the issued patent.

If you decide that any claim of the patents-in-suit has been infringed and is not invalid, that is, the presumption of validity has survived, then you will need to decide what amount of money damages are to be awarded to Rembrandt to compensate it for the infringement.

A damage award must be adequate to compensate the patent-holder for the infringement, but in no event may the damage award be less than what the patent-holder would have received had it been paid a reasonable royalty for the use of its patent.

I'll instruct you later on the meaning of a reasonable royalty.

The damages you award are meant to compensate the patent-holder and not to punish the Defendant. You may not include in your award any additional amount as a fine or penalty above what is necessary to fully compensate the patent-holder for the infringement.

I'll give you more detailed instructions on the calculation of damages at the conclusion of the trial.

Now, ladies and gentlemen, through the process of this trial, you're going to be hearing 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 facts until you have heard all of the evidence.

While the witnesses are testifying, remember that you will have to decide the degree of credibility and believability to allocate to each witness and to the evidence.

So while the witnesses are testifying, you

should be thinking about and 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?

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 the opportunity and ability to observe accurately the things that they testified about?

Did the witness appear to understand the questions clearly and answer them directly?

And, of course, does the witness's testimony differ from the testimony of other witnesses, and if it does, how does it differ?

These are some of the kinds of thing that you should be thinking about while you're listening to each of the witnesses during the trial.

I also want to talk to you briefly about expert witnesses.

When knowledge of a technical subject may be helpful to you as the jury, a person who has special training and experience in that particular field -- we refer to them as an expert witness -- is permitted to

testify to you about his or her opinions on technical matters.

However, you're not required to accept an expert's or any other witness's opinions at all. It's up to you to decide whether to believe that an expert witness or any witness, for that matter, is correct or incorrect or whether or not you want to believe what they say.

I anticipate that there will be expert witnesses testifying in support of each side in this case, but it will be up to you to listen to their qualifications, and when they give an opinion and explain the basis for it, you'll have to evaluate what they say and whether you believe it and what degree you want to give it any weight.

During the trial, I'll also -- I also anticipate that there will be testimony of witnesses that will be presented to you in what we call depositions.

In trials like this, it's difficult to get everyone present physically at the same time. So lawyers from each side, prior to the trial, take the depositions of witnesses.

In a deposition, they have a court reporter present. The witness is there and is sworn in under

oath just as if he or she were in open court, and the parties ask them questions through their counsel, and that process is recorded.

Portions of those recordings, video recordings, of the questions and answers may be played to you as part of the trial so that you can see the witness and hear the testimony even though they're not physically present in the courtroom.

That deposition testimony is entitled to the same consideration insofar as possible and is to be judged as to the credibility and believability and otherwise considered by you, the jury, in the same way as if the witness had been present and given the testimony from the witness stand in open court.

Now, ladies and gentlemen, during the trial, it's possible that the lawyers from time to time will make objections, and when they do, I will make rulings on those objections.

It's the duty of an attorney on each side to object when the other side offers testimony or other evidence the attorney believes is not proper under the rules or orders of the Court and the rules of evidence and procedure.

Upon allowing testimony or other evidence to be introduced over an objection, the Court does not,

unless expressly stated, indicate an opinion as to the weight or effect of such evidence. Again, determining the weight and effect of evidence is solely your responsibility as the jury.

You are the sole judges of the credibility of all the witnesses and the weight and the effect to be given to all of the evidence in this case.

I do want to compliment counsel and the parties on both sides, because through pretrial procedures that you have not been a part of, many, many documents and proposed exhibits have been gone through, taken up, ruled on by the Court, and that has saved you a lot of time, and, hopefully, that will minimize the number of objections that we hear during the trial.

Even so, it is possible that we will get objections during the trial, and in that case, I will rule on them.

So if a party shows you an exhibit -- shows you an exhibit in this case, it means that it's already been ruled on as to its admissibility by the Court, and they may ask you such questions and put it in context as they believe is proper.

Both sides have worked hard to streamline this process, and they're entitled to our thanks. You may not understand fully how much time they have saved you,

but they have saved you, with the Court's work with them, a considerable amount of time.

However, as I say, we may still get objections during the trial.

If I sustain an objection to a question addressed to a witness, then you must disregard the question entirely and draw no inference from the wording of it or speculate about what the witness would have said, if I had permitted the witness to answer the question.

On the other hand, if I overrule an objection, you should consider the question and the answer just as if no objection had been made.

You should know that the law of the United States allows a judge in my position to comment to the jury on the evidence in a case.

But such comments from the Court on the evidence are only an expression of the judge's opinion as to the evidence, and the jury is free to disregard such comments in their entirety, because, as I've stated before, you, the jury, are the sole judges of the facts, the credibility of the witnesses, and how much weight, if any, you want to give to their testimony.

However, even though I may have that right, as I've indicated to you earlier, I intend to try very hard

to make sure not to comment on the evidence in the case or to give you any idea about what I think of the evidence presented throughout the trial.

Now, in front of me our court reporter, Ms. Holmes, is taking down everything that is said in the courtroom, and it will be reduced to writing in the form of a transcript.

But that transcript will not be available to you at the time you retire to deliberate on your verdict. The transcript is prepared in the event there is an appeal to an appellate court after this trial is over.

That being the case, each of you will have to rely on your own memories of the evidence. In a moment, we're going to give each of you a juror notebook.

One of the things you'll find in the back of that notebook is a legal pad with blank pages on it on which you may take notes, if you choose. It's up to you to decide whether or not you want to take notes during the trial, and if you do, how detailed you want your notes to be.

Remember, though, if you do that, the notes are for your own personal use. You'll have to rely on your memory of the evidence, and that's why you should pay close attention to the testimony of each and every

witness.

You should not abandon your own recollection simply because someone else's notes indicate something differently. Your notes are to refresh your recollection, and that's the only reason you should be keeping them.

At this time, I'm going to ask our court security officer to hand out the juror notebooks to the members of the jury.

In these notebooks, ladies and gentlemen, you'll see that you each have a copy of the two asserted patents that we've talked about, the '228 patent and the '580 patent.

Also in your notebooks, you'll see something listing the claim terms. Those are the words that are found in the numbered claims at the back of the patents-in-suit that I told you about before. Along with each claim term are the definitions that the Court has given you to work with in regard to those terms.

Also you'll find in there witness photographs for each of the witnesses that we anticipate will testify in the case. And below their photographs are spaces where you may also take additional notes, if you choose to.

When you leave for the day during the trial

this week, be sure that you take your notebooks with you and leave them on the table in the jury room. They should either be with you in the courtroom or they should be on the table in the jury room and not anywhere else.

There may be times when we take a brief recess where I know that it will be short, and I will tell you that you may simply leave your notebooks in your chairs. But when you leave for the day, make sure that you carry them into the jury room and leave them on the table in the jury room.

We're going to have opening statements in just a few minutes, so I want to give you a brief roadmap of where the trial is going and how it's structured. You'll have plenty of time to look through those notebooks during the course of the trial.

After the opening statements, each side will present an opening statement. Then when both opening statements are complete, the Plaintiff, Rembrandt, will present its evidence in support of its contentions that the claims of its patents-in-suit have been and continue to be infringed by the Defendant, Samsung.

To prove infringement of any claim, Rembrandt must persuade you that it is more likely than not that Samsung has infringed that claim; that is, by a

preponderance of the evidence.

After Rembrandt puts on its testimony and rests, then Samsung, the Defendants, will present their evidence as to the asserted claims of the patents and their assertion that those -- that the patents-in-suit are invalid.

To prove invalidity of any claim, Samsung must persuade you by clear and convincing evidence that the claim is invalid. In addition to presenting evidence of invalidity, Samsung will also put on evidence responding to Rembrandt's proof of infringement and damages. Then Samsung will rest.

After Samsung has rested, then the Plaintiff, Rembrandt, may put on additional evidence, if they choose to, responding to Samsung's evidence that the claims of the patents are invalid or unenforceable and offer any other rebuttal evidence to the charges of infringement and damages. This is called the rebuttal case.

During the rebuttal evidence, the Plaintiff may respond to any evidence offered by the Defendants.

After all the evidence is completed -- the Plaintiff puts on its case-in-chief, the Defendants put on their case-in-chief, and then the Plaintiffs put on their rebuttal case, if they choose to.

When all the evidence has been presented, I'll give you final instructions on the law that applies to this case. Those final instructions are called the Court's charge to the jury.

The lawyers will then present their closing arguments to you. And then after that, you will retire to the jury room to deliberate and reach your verdict.

Also I'll repeat my earlier instruction to you not to discuss the case at all among yourselves during the trial. Only when all the evidence is complete and you retire to the jury room to deliberate and reach your verdict, only then is it proper for you to discuss the case among yourselves.

Also I'll remind you again, as I did before lunch, that the attorneys and the witnesses and the corporate representatives have been instructed by the Court not to talk to you.

So as you pass them in and around the courthouse coming and going, if they walk by you and don't speak, don't think they're rude and unfriendly. They're simply doing what I've instructed them to do.

All right. With those instructions, we're now going to hear the Plaintiff's opening statement followed by the Defendants' opening statement.

Plaintiff may now present its opening

statement to the jury.

MR. ANAIPAKOS: May I proceed, Your Honor?

THE COURT: You may.

MR. ANAIPAKOS: Thank you.

THE COURT: Would you like a warning on your time, Counsel?

MR. ANAIPAKOS: Please, Your Honor, at five minutes left.

THE COURT: All right. You may proceed.

MR. ANAIPAKOS: May it please the Court.

Good afternoon, everybody. My name is Demetrios Anaipakos, and together with my colleagues, we are proud to represent Rembrandt Wireless.

You have been asked to resolve a patent dispute between two companies. My client, Rembrandt Wireless, is the owner of two patents issued by the United States Patent and Trademark Office.

And the evidence we will present to you throughout this trial will show you that Samsung has infringed on those patents by selling millions and millions of products that use the inventions claimed in those patents without our permission and without paying for them. That is why we are here.

In this -- in this morning's opening remarks, I'm going to cover five topics with you. First, we're

going to review very briefly what a patent is.

Then we're going to talk specifically about the Rembrandt patents at issue in this case; our view of why Samsung infringes these patents; why, since Samsung attacks the patents, the patents are, in fact, valid; and then lastly, we will talk to you about the damages we believe are owed to Rembrandt.

Let's begin by reviewing some of what you've already learned this morning about our patents and the patent system.

The founding fathers of this country thought that patents were so important that they established the patent system in the Constitution itself. Article 1, Section 8 on the screen before you gives inventors the exclusive right to their discoveries.

The patent system has come a long way in the more than 200 years since the Constitution was signed, but one thing has remained the same all that time. Patents are a form of property. You can often think of them like a deed to a piece of property.

So let's take an example of a landowner who owns a piece of real property. The yellow border marks the boundaries of the property. The property owner, of course, can keep trespassers off the property.

And to pick up on a hypothetical Mr. Ward

talked about this morning, if Exxon were to drill on the landowner's property and discover oil, it would not matter that Exxon did not know it was trespassing. It still -- you would owe the landowner a royalty. Why? Because it used the landowner's property.

Patents work the same way. A patent owner like Rembrandt has the right to seek damages from an infringer, and we expect the Court will instruct you that an infringer does not need to know that there was a patent and certainly does not need to know that Rembrandt was the owner of the patent to be held accountable for patent infringement.

What matters is whether the infringer is using the patented invention without permission. If so, they infringe the patent. And here, the evidence will show that Samsung did just that.

We know that patents are property rights that owners can enforce. So let's start discussing the Rembrandt patents at issue in this case.

At the outset, I want to make something very clear. We think the evidence in this case will show that the Rembrandt patents are extraordinarily important. They contain powerful inventions in them that Samsung has put into millions and millions of Bluetooth devices, including since this lawsuit was

filed.

Every important invention has at least one thing in common, and that is a clever inventor. And this case is no different.

The very first witness you're going to hear from is Mr. Gordon Bremer, the inventor on these patents. Mr. Bremer is now retired and -- and living in Florida. He spent 32 years working as an engineer for an AT&T company called Paradyne that later became known as Zhone.

He had a very successful career there. You'll hear that he was the head of his patent committee. He has personally been awarded 100 issued and U.S. -- pending U.S. patents.

So what was the problem that Mr. Bremer wanted to solve? He was thinking about the need of multiple electronic devices to communicate with each other. They do this through different types of modulation methods.

You're going to hear that term a lot in this case. And there are several different types of modulation methods.

For now, I want you to think of them like languages. And if you see the illustration on the screen in front of you, we've illustrated what's called a master device.

That's what engineers refer to as a master device, and the other devices are, unfortunately enough, referred to as slave devices. The master controls the communication between the devices.

And here we've shown the Chinese flag and the letters CHN to indicate that the way these devices communicate, their modulation method is in Chinese, the one exception being the TV on the left there. That one can speak in both English and Chinese.

So what's the net effect of this? At this time, all the devices can speak together because they all speak a common language, Chinese. But what happens when you go out and decide to buy a new device, a more powerful device, a faster device? That's when problems start.

The new device uses a different modulation method, a different language. So what happens now? It can no longer communicate with the older devices.

New devices and old devices do not use the same modulation method. They do not speak the same language. That causes large interruptions and leaves you with very unattractive options. You can either throw away your old devices or have these massive network interruptions.

But what you can't do is you can't have all of

these devices talk to each other and work seamlessly with each other. That was until Gordon Bremer came around and solved that problem.

So what was Mr. Bremer's solution? Here we have the old situation where all of the devices spoke the same modulation method. In Mr. Bremer's solution, different types of modulation methods, different languages, are embedded in a signal that goes from the master to the various other devices.

In other words, they can all speak each other's languages now. They can choose which language to speak. They can change languages on the fly. They can decide to use one language or another language, depending on the circumstances. All the devices can speak simultaneously.

So we've solved the problem that you'll hear about in this case called backwards compatibility, meaning that now, because they can switch languages on the fly, new devices and old devices can work in unison with each other, in harmony. There can be complete backwards compatibility.

So Mr. Bremer's invention is known as embedded modulation. And Mr. Ward, who now wins the award for least technical member of the team this morning -- this morning incorrectly said that Mr. Bremer had invented

different types of modulations. What he invented was actually embedded modulations.

And that invention is first contained in an application filed with the Patent and Trademark Office in 1997. You see right there, the title of the invention is Embedded Modulations.

The date that's highlighted is December 5th, 1997. That's known as the priority date because it sets the date for Mr. Bremer's invention. So when we talk about Mr. Bremer's invention, we're talking about the invention on December 5th of 1997.

Mr. Bremer's invention was awarded a patent by the Patent and Trademark Office. So let's take a quick look at the process that Mr. Bremer and other inventors have to go through.

As you heard on the video this morning and again from the Court this afternoon, one of the first things that happens is someone -- a trained professional, known as a Patent Examiner, is assigned to the application.

And as the name implies, the job of the Patent Examiner is to examine the application. Lots of applications get rejected. The process is not quick or easy.

You'll hear from Mr. Bremer, for example, that

some of his patent applications were examined for four years, five years, longer.

So if and when the good news arrives that a patent has issued, what does it look like? You saw the ribbon copy this morning, and on the screen before you now are copies of the two patents that are being asserted in this case. Again, we refer to them by the last three numbers: The '580 patent and the '228 patent.

I'm going to take you on a quick tour of the information you will see in these patents, although they are in your juror notebooks, and you'll be able to look in them in as much detail as you'd like.

They're structured the same way, so for the purposes of our tour, we will look at the '580 patent. The first page lists the title of the patent, the inventor, and the priority date that we discussed a moment ago.

And importantly, ladies and gentlemen, Samsung is not contesting the priority date. Both of the patents before you, the '580 and the '228, have the same priority date.

And why is that date important? Well, for one reason, it sets the date by which the Examiner will consider what's been called prior art.

And as you see on the screen in front of you, the references cited section starts to list the prior art that the Examiner considered. That starts on the first page here, but in this instance, it was extraordinarily extensive. It goes on for several pages in the patent.

What is prior art? It includes things disclosed to the public before the priority date; hence, the name prior art, things like patents and other scientific articles.

Here, the -- the search was extensive. I've counted all of the prior art references in these patents. There are 260 of them.

And what was the point of the prior art search? From our perspective, it was to make sure that the patent was valid and that, in fact, no one had invented Mr. Bremer's embedded modulation technique before he did.

After the prior art listing, there are some figures and drawings that I have not included, but they're in your juror notebook.

And then we get to the part of the patent known as the specification. The specification provides a written description of the invention, the scope, background, the summary of the invention, and some of

the ways that it can be implemented.

After the specification, you get to the numbered claims. Those ought to jump out at you -- the -- the numbered paragraphs. Those are called the claims. These are very important because they define the particular invention.

We're going to come back and look at the details of the claim in a minute, but for now, let's consider how these patents we're looking at became Rembrandt's property in the first place.

Rembrandt bought these patents in 2007 from a company called Zhone, and the first page of the patent sale agreement, which is in evidence, is on the screen in front of you. Again, you'll be able to look at this in as much detail as you want.

Rembrandt paid $5 million to Zhone under this agreement. For what? For some 74 patents and patent applications, and those patent applications included the patents that eventually issued here, the -- the '580 and the '226 (sic) patents.

So Rembrandt made the business decision to invest its money to buy these patents.

So exactly what kind of business is Rembrandt in? Who is Rembrandt? Well, we're joined at counsel table by Dr. Paul Schneck. He was the co-founder and is

the chairman of Rembrandt.

You'll learn that Rembrandt is a team of people with a lot of expertise in intellectual property, scientists, engineers, finance people, lawyers. They invest in inventions. They put their own money at risk looking for patents and other intellectual property opportunities.

They run a business, and it should be no surprise that they try to make money on their investments. They seek patents that are valuable or might become valuable in the future.

They, in effect, look for a Rembrandt in the attic. And some of you may be familiar with that book, but the idea is that some folks have Rembrandts in their attic, and they don't know it. So the premise of -- of Rembrandt is that they look for value where others do not see it.

And how do they do that? Well, they have a process at Rembrandt, and you're going to see these documents as well. These are taken from the very early days of Rembrandt.

And they have a catch phrase that they use to describe their process. They call it the, quote, unquote, secret sauce. And you can see there that it walks you through how they operate.

I want to talk to you about a specific part of this schematic. If you look, there's a diamond box that says: Need new claims, and a rectangular box needs -- next to it that says: Apply for new claims.

What exactly is that referencing? That's describing the process of applying for new claims before the Patent Office. That happens all the time in the patent world. Rembrandt does it. Samsung does it. Inventors do it every day. That process is called a continuation.

And what is a continuation? It's a new patent application, based on an earlier disclosure. Here is the December 1997 one we saw earlier.

So you see, sometimes an invention is entitled to more than one patent, and that's why -- why there are continuations. Both of the patents here are continuations.

So let's think back to that example of the real property I showed you with the yellow border. A continuation would be like if you went to a previously unfenced part of that property, and you put up a fence around it.

It's your property. You didn't have a fence there before, but now you do. Now you've blocked off that piece of property. That's a lot like a

continuation.

Now that we've reviewed briefly two -- Rembrandt's two patents, let's discuss how we believe Samsung infringes them.

First, we'll talk about the accused products. And His Honor defined them earlier. It's all of the Samsung Bluetooth EDR devices.

And what does EDR mean? You see on the screen in front of you underlined in red, 2.0+EDR. EDR stands for enhanced data rates.

And we're going to get into the details of that, but the most important thing that I want you to remember for now about enhanced data rates is this: Mr. Bremer's invention is at the heart of it. Without embedded modulation, enhanced data rates does not work.

What we're looking at is the official specification for Bluetooth 2.0+EDR. That's issued by an entity called the Bluetooth SIG, special interest group. And they get to set the rules for anyone who wants to label their products Bluetooth, like Samsung does.

So if you are proud of the fact that you have a Bluetooth product and you think consumers like it, you can actually put that label on your products, like Samsung does. You're going to see evidence that even on

their boxes, they put Bluetooth labels next to other important features of -- to consumers.

So the evidence will be that Samsung cannot make a Bluetooth EDR device without infringing Mr. Bremer's patent. Why? Because embedded modulation is the heart of enhanced data rate.

The patents in this case have many claims in them, but there are only three that are being asserted here. In the '580 patent, those are Claims 2 and 59; and in the '228 patent, it's Claim 21.

At the end of the case, we expect the Judge will ask you to determine whether Samsung has violated or infringed these specific claims, and we believe the answer to that question is yes.

Let's take a look at one of these claims that we can see kind of what they look like. This is Claim 59 of the '580 patent. It is what's called a dependent claim.

In other words, it references another claim here, Claim 58. And that's why I have the language from both on the screen in front of you.

Now, when you look at patent claims, they're really an English teacher's worst nightmare. It's like a run-on sentence that never ends. And so rather than try now to go through every one of these limitations,

I'm going to focus where I believe the dispute will be.

Trust me, we're going to walk through every one of these limitations as we go through the trial and show you how Samsung, in fact -- in fact, practices every piece of -- of this claim.

But for now, all of this dispute, I believe, at the end of the day is going to come down to one word, and that word is the word "indicate." And the question is going to be whether Samsung's Bluetooth EDR devices meet that term in this claim, "indicate."

So how are we going to resolve that dispute? Well, in part, you're going to hear from expert witnesses who will show you why this "indicate" issue is really not an issue at all.

One of the people you're going to hear from likely today is Dr. Bob Morrow. Dr. Morrow is one of the world's premiere experts on Bluetooth. He literally wrote the book on Bluetooth.

He's going to walk you through the claims and the technology, and ultimately, he's going to tell you that the way these patents work meets that limitation, the indicates limitation in the patents.

You're also going to hear from another expert, this one Dr. Chris Jones. Dr. Jones has reviewed certain very confidential source code.

What is source code? It's software. It's instructions that are used, in this case, to create the microchips that go into Samsung Bluetooth devices. And he's going to testify the same way, that after looking at this source code and what the microchips do, that claim limitation, that "indicate" language is satisfied.

Now, if you look at the quote attributed to Dr. Jones, there are some terms that we have not discussed today.

For example, there's the term packet header, and then there's another term, payload. So to illustrate what we're talking about, let's -- let's consider a very simple example.

The two boxes on the screen in front of you are what's called a packet. The blue box on the left is the header, what I'm calling here the first sequence. And the red box on the right is the payload, or what we're calling here the second sequence.

And what's all of this "indicate" debate about. Well, the key point here is that the first sequence on the left is going to indicate to the second sequence on the right what type of modulation we're using, what language are we going to speak, English or Chinese? And how does this work in this example?

Well, the first thing that happens is the

first sequence is going to communicate this using English letters. No matter whether we're going to modulate in English or Chinese, whether we're going to speak English or Chinese, we're going to communicate that in English letters. We're going to indicate that. And so here we indicate that through ENG for English.

And so if you look to the second sequence, the data is, in fact, in English. What happens if we're going to switch and we're going to modulate in Chinese? Well, remember, it's always going to be transmitted in English letters.

So CHN indicates what? We're going to modulate in Chinese. And that's what happens in the second sequence.

Now, these concepts are probably still a little fuzzy, and they're going to be a little fuzzy for a while, but it will get better as we walk through them and you start to hear from the experts and look at exactly what these patent claims talk about.

But for now, when we think about this "indicate" issue, I want you to consider a very simple example. His Honor told us earlier that when claims are not construed and they're not in your binder, and "indicate" is one of those, that we're going to use plain and ordinary meaning. And when you think about

the plain and ordinary meaning of "indicate," I think it's illustrative.

So, for example, what does this (indicating) indicate?

I have a question. I don't have to spell it out for you.

What does this indicate (indicating)?

Sh-h-h, please be quiet. Again, I don't have to spell it out for you.

When I was driving to the courthouse today and I turned on my signal indicator in my car and the right light started blinking in the back of my car, what did that indicate?

I'm going to turn right. Again, I didn't have to spell it out for you.

But we believe that that's actually going to be Samsung's interpretation of "indicate." They're going to tell you, I believe, that "indicate" means you have to spell it out, and you have to be a hundred percent right. You can't be off by even one letter.

So we'll see if at the end of the day that makes sense in the way we experience the word "indicate."

Let's talk briefly about the validity of the patents. Samsung is arguing that Mr. Bremer should have

never been awarded these patents in the first place, and they're going to try to invalidate the patents.

The Court has instructed you already that patents are presumed valid.

And what does that mean in this case? That means that there's a burden to have to overcome, because the Patent and Trademark Office has already examined the patents and determined that they were justified and proper inventions. And what does that burden look like?

His Honor did a better job than I could at describing the differences between the burdens of proof. Suffice it to say, I'll just review it now.

There are two burdens of proof in this case. There's the burden on Rembrandt, which we gladly accept, to show infringement of the patents. That burden is done by a preponderance of the evidence. Remember, the slightest tipping of the scale in one direction.

Samsung's burden, when trying to take away Mr. Bremer's patents and hold them invalid, is through clear and convincing evidence. It's a heavier burden. And we don't think they come close to meeting it here.

The prior art that they're going to try to rely on to invalidate the patents is a patent known as Boer. We don't believe that's going to invalidate Mr. Bremer's patents, because, remember, it's going to

have to disclose to you every element that Mr. Bremer invented.

It doesn't disclose the master slave concept that I discussed with you earlier, and it doesn't even disclose different types of modulation methods. So it's not going to get there.

Finally, let's discuss the topic of damages. If you conclude that Samsung infringes Rembrandt's patents, then we expect that the Court will instruct you that the law requires that Rembrandt be compensated for that patent infringement.

You heard this morning -- or this afternoon, rather, that those damages are in the form of a reasonable royalty under the law in this country.

And what's a reasonable royalty?

Well, one way to think about it is it's kind of like rent being paid to a landlord, because, remember, patents are kind of like real property. So the owner of a patent is entitled to a reasonable royalty from someone who uses the invention without permission.

Now, the calculation of a reasonable royalty is also governed by the law in this country, and it asks that we imagine a hypothetical negotiation. And on the screen in front of us, we're here in 2015 trying this

case. The lawsuit was filed in 2013.

But everyone agrees -- Samsung agrees and we agree -- that the date of the hypothetical negotiation where you would calculate this reasonable royalty is back in 2011.

Why? That's the date that the first patent issued, the '580 patent.

THE COURT: You have five minutes remaining, Counsel.

MR. ANAIPAKOS: Thank you, Your Honor.

So if you imagine the hypothetical negotiation table, what's -- who's at the table?

Well, at the one side, you have Rembrandt. On the other side, you have representations of Samsung. And we're back in September of 2011, the date of the patent being issued. But there are two important things that the law says about this hypothetical negotiation.

Number one, the parties at the table agree that the patents are valid; and number two, that Samsung is going to infringe the patents. They agree on both of those things.

So the only question is the price. When considering what the appropriate price is, one of the things that you should do is consider the benefits of the invention; here the benefits of the enhanced data

rate, which cannot work -- again, cannot work without the embedded modulation that Gordon Bremer developed.

Well, what are the benefits of EDR? The documents on the screen are taken from Samsung's own files.

First, backwards-compatibility. That's the problem we discussed earlier, that without this embedded modulation, when you bring in a new device and that old device doesn't use the same kind of modulation, they're antiquated; you've got to throw them out. Mr. Bremer solved that problem.

Second, improved battery life. Enhanced data rate lets you send a lot more data faster to the batteries don't have to work as long. You save power, and it prolongs battery life.

When you're talking about something like a phone, that matters to people like Samsung, again, taken from Samsung's own documents, longer battery life for existing Bluetooth applications.

And then we found this study in Samsung's file that talked about battery life management being important to users of the phone.

Makes perfect sense. People use their phones now for all kinds of applications. Burns up battery. If you have something like EDR that can prolong battery

life, it's very valuable for a company like Samsung.

And then finally, improved performance, a lot of the things we've been talking about; faster, can move more data.

The expert who will talk to you about the reasonable royalty in this case is Roy Weinstein. He has a lot of experience and impeccable credentials, and he's done a lot of work that he will walk you through to talk about what the reasonable royalty should be.

At the end of the day, his calculation will be that for every Bluetooth EDR device, the reasonable royalty is in a range of 5 cents to 11 cents per unit. That starts in September of 2011.

And when you look at the millions of units that Samsung has sold, that number turns out to be 14-and-a-half million to $31.9 million.

So we expect, at the end of this case, to ask you to award a reasonable royalty to Rembrandt of $31.9 million. And we don't ask that lightly. We do so because we think the evidence is going to justify it at the end of the case.

And as I'm finishing, it strikes me, one more example of "indicate." My phone tells me that I spent 29 minutes talking. I had 30. That tells me, without spelling it out, that I should sit down.

And so with that, I thank you on behalf of the people at Rembrandt for your service and your time. We look forward to presenting our case to you.

THE COURT: All right. The Defendants may now present their opening statement to the jury.

MR. SHERWOOD: May I proceed, Your Honor?

THE COURT: You may.

MR. SHERWOOD: Good afternoon, ladies and gentlemen. My name is Jeff Sherwood, and I'm one of the lawyers representing Samsung in this case.

I want to thank you on behalf of Samsung for your service on this jury. This is my opportunity to talk to you now at the beginning of the trial about the evidence.

Because Rembrandt presents its evidence first, I must ask you to keep an open mind and give Samsung an equal opportunity to present its evidence. That is why we specifically asked about keeping an open mind during voir dire. It's very important to Samsung.

You just heard an explanation as to why Samsung infringes these patents and owes Rembrandt money. Samsung does not infringe these patents.

That is because every one of claims that's at issue here requires that specific information be placed in specific part of the messages that go between

Bluetooth devices. The Bluetooth chips in Samsung's products do not do that.

May I have the ELMO, please?

Here is one of those messages. And what you will learn from the evidence is that this Bluetooth message does not contain the information that is required by the Rembrandt patents for the simple reason that when the Bluetooth Group designed this message for a version of Bluetooth called 1.2 that you didn't hear about during Rembrandt's opening, there was no need for any information about a change in modulation method, because there was only one modulation method.

This message has never changed, even though EDR did introduce a second modulation method that was optional. It has stayed the same from the beginning of Bluetooth until today. And, therefore, it does not meet the requirement of indicating any change in modulation.

I want to tell you two other things that are important about keeping an open mind at the beginning of this trial.

First, Mr. Bremer was not involved -- Rembrandt's inventor was not involved in developing any part of Bluetooth, including EDR.

In fact, he testified he'd never even heard of Bluetooth until 2007, long after the Bluetooth Group had

published the 2.0 update with EDR. By the time that Mr. Bremer first heard of Bluetooth, they'd -- Bluetooth had actually already updated that standard with 2.1.

Similarly, the evidence -- and Mr. Ward, by the way, did misspeak when he said that Mr. Bremer did invent two modulation methods. He also said another part of the invention that was important was longer battery life.

The evidence will show that these patents do not discuss battery life at all. In fact, they don't even talk about mobile devices, which are the things that need batteries.

Bluetooth -- the core feature of Bluetooth, which is what is in all of Samsung's products, is the ability for all of those devices to communicate with each other. EDR is a small feature in Bluetooth.

There are many other more important features, much more important features besides EDR, such as new data transmission, energy savings, better communication connections between the devices and so forth.

So what is Bluetooth? Bluetooth came from an industry group called the Bluetooth Special Interest Group, and I'm going to call it the Bluetooth Group. And it created a standard in the late '90s.

Let me have the first slide, please. Can you

switch back over?

This is a timeline I'm going to take you through. Created in the late '90s. Samsung's products comply with the Bluetooth standard, which, as I've already told you, is different from what is required in these patents.

You heard a little bit about Rembrandt. Rembrandt has a different business model than Samsung. As you saw, according to its own documents, Rembrandt searches for and buys patent rights that it then tries to expand. It markets this approach to patent owners as its secret sauce.

In this case, you're going to hear that Rembrandt bought Mr. Bremer's patent rights and saw an opportunity to take those rights and use its secret sauce to expand them. This was what Mr. Ward was talking about when he asked if anybody would object to that procedure during voir dire.

So now I want to take you through this timeline, and I want to show you there are two separate stories here.

On the top of the timeline, we see what's going on with respect to Rembrandt's patent claims and Mr. Bremer's patent rights.

And below, you will see what happened with

respect to the Bluetooth Group. The important point here is that until this lawsuit was filed, these two stories had absolutely nothing to do with each other.

So starting on the bottom, first, you can see that in the late 1990s, the Bluetooth Group was formed.

By 2002, the Bluetooth Group was working on an update for its existing wireless standard, which became 2.0. The Bluetooth Group wanted to improve that original standard, but unlike Mr. Bremer, it wanted to ensure that all Bluetooth devices would remain compatible, able to communicate with each other.

In 2004, the Bluetooth Group published that update called Bluetooth 2.0. Bluetooth 2.0, as I've said, included an option feature called EDR that could increase data transmission speeds between Bluetooth devices. That's a tongue-twister, Bluetooth 2.0.

This EDR feature is what Rembrandt believes infringes their patents. Importantly, EDR -- 2.0, rather, preserved all Bluetooth devices' ability to communicate with each other.

Since 2004, we have -- the next couple of entries, please. Yeah.

There have been additional updates: 3.0, 4.0, and 4.1 most recently.

The next slide, please.

Here is an illustration of all the features of Bluetooth as they have developed over time. And, again, I remind you, the really core feature, as you'll learn from the evidence, is the one where the devices are able to actually communicate with each other.

That is not what's at issue in this case. EDR is just one of the features, one of the many features in Bluetooth.

So going back to the timeline now, you start with Mr. -- Mr. Bremer telling the Patent Office he had an invention. And his invention arose in the context of devices on a network that could not communicate with each other.

Mr. Bremer was looking for a way to have those devices communicate to operate on the same network without having to replace them. He called those devices incompatible.

The next entry on our timeline is 2007.

Let me go on to 2007. I guess I'm talking a little bit ahead of you.

And in 2007, as you heard, Rembrandt bought the rights to Mr. Bremer's 1997 filing.

And by the way, this was not a Rembrandt in the attic upon closer inspection. It's a Rembrandt that has been created. It's an attempt to make a Rembrandt

out of something that is not a Rembrandt to use Mr. Anaipakos's analogy.

Anyway, after buying these patent rights, Rembrandt went to work. In 2009, two years after buying them, Rembrandt applied for new patent claims. The new claims are the secret sauce that you already heard about that Rembrandt planned to use in this case.

In its 2009 application, Rembrandt even changed Mr. Bremer's original words of tributary transceiver to slave, matching the earlier Bluetooth 2.0 standard.

Two years later, as you can see on our timeline, the Patent Office issued the '580 patent that Rembrandt sued on in this court in 2013.

These two stories show different problems and different solutions. The difference is important, because it means there's no infringement here and no obligation to pay Rembrandt. The evidence will show that the facts, a healthy sense of fairness, and the law all indicate that these claims must fail.

Now, as you probably knew before you came here, Bluetooth is a wireless technology that allows different devices to communicate with each other.

It was always meant to be a low-cost technology, because all it was doing was replacing the

cheap wires, low-cost wires, that go between, for example, a computer and a keyboard. It's all done through the use of a Bluetooth chip that is in all of Samsung's products.

At the -- Bluetooth has no incompatibility issue like Mr. Bremer described. That has been the hallmark of Bluetooth all along, to make sure that all devices could always communicate.

At the risk of revealing my age, you may remember the battle over video cassette formats, VHS versus Sony. You couldn't play a Betamax tape in a VHS player and vice versa, because there were competing standards and not a universal one.

And that was the problem. But it wasn't an issue for Bluetooth, because in the late '90s, the company, Ericsson, developed Bluetooth and named it after the Danish king Bluetooth and donated it to the public. The donation avoided the VHS/Betamax problem.

A small group of electronics companies then formed the Bluetooth Group to create a common standard. Thousands of companies, including Samsung and its competitors like Apple and Motorola, joined the organization that now has 24,000 members.

It's remarkable that all these companies came together and contributed their very substantial

expertise to Bluetooth.

And money never got in their way, because while the Bluetooth Group does charge a fee for products to be certified, there is no fee to use it, and the members exchange their patents -- their Bluetooth patents for each other's use without charging a fee, including Samsung.

It's so big I can hardly handle it. This is the Bluetooth 2.0 standard. The evidence will show it's over 1,200 pages long. EDR is a very small part of this standard. It's not at the heart of Bluetooth.

Now, rather than use its R&D facilities in Korea and Texas and elsewhere in the world, Samsung actually buys Bluetooth chips from one of a few companies who specialize in making these chips.

One of those companies is Broadcom. Broadcom is a major supplier of wireless chips to Samsung.

Samsung is a Defendant in this case because it puts Broadcom and other company's chips in its products. What's really accused here, ladies and gentlemen -- and you saw that in the slides that Mr. Anaipakos showed us -- is Bluetooth itself, a technology that's used by thousands of companies to create seamless communication between their devices.

So at the beginning of my opening, I told you

that the Bluetooth data messages in Samsung's products do not have the information that Rembrandt's patent claims require.

Rembrandt argues that that information is there, if it helps to determine a change is coming. But the problem here is that the patent language requires that it must indicate that there is a change.

Mr. Anaipakos told you that the whole dispute resolved around one word, "indicate." I'll submit to you that there's more language in the claim than that, and we have to look at that in the context of all of that language, not just isolate the one word.

And when you look at all of that language, you see that the Bluetooth message does not indicate, like his turn signal does, whether you're turning right or not.

As I said in Bluetooth 1.2, Bluetooth devices could only communicate using one modulation method or one language.

And just to explain what that means, a modulation method uses radio waves to send information in packets between devices. Packets are small parts of a larger message. You can think of a packet as a postcard.

In this slide -- can we have the next slide,

please?

In this slide, the simulator is quite apparent. On the right of the postcard is what we're referring to as a header, and on the left is the payload of the data message.

When we reverse them, just for illustration purposes, we can now line up the header in the postcard with the header in the Bluetooth data message.

Packets come in a stream. You can think of it as a long string of postcards that tell a story when they're all assembled. And to be understood, all those packets have to have the same format.

In Bluetooth 1.2 and all prior versions, the devices could only use the basic rate modulation method. There was no choice. There was no alternative. As a result, the part of the packet in the header never indicated a change in modulation method because there was no change to indicate.

As I told you before -- and if I could have the ELMO again, please.

Here is -- there is the 1.2 message. And -- and you can see, ladies and gentlemen, up at the top, that's 1.2.

Now, if we take the 2.0 -- take the 2.0 header and we put this on top, and let me just show you 2.0.

Now let's compare them. You can see they are the same. There's no difference between them.

In 1.2, there was no change in modulation method. When an optional method was added in 2.0, the header didn't change. It stayed the same, as I said. As a result, the header does not indicate a change.

Simple logic tells us, because it is the same as the 1.2 header, the 2.0 header also does not indicate a change.

This is very important because every one of Rembrandt's patent claims requires that that header indicate a change in the modulation method, and none of Samsung products using the Bluetooth 2.0 and later versions of chips, none of them do it.

Mr. Anaipakos said the concepts here are fuzzy. Well, this is not the fuzzy concept, ladies and gentlemen. Every one of these patent claims requires this header to tell you whether the car's turning left or not. And that header doesn't do it. And that means there's no infringement in this case.

I know this is technical. You'll hear more testimony about it during the trial. When you listen to that evidence, remember, Rembrandt has the burden of proof on this issue.

And so when you get ready to decide this

issue, if Rembrandt has not proved more likely than not that Bluetooth is literally the same, then there is no infringement, and there can be no liability.

Now, one other thing I want to mention to you, with respect to infringement, I suspect Judge Gilstrap will instruct you, after the evidence is finished, that Rembrandt can only meet its burden of proof on literal infringement by showing that every requirement is actually met.

In fact, he's already told you that. In other words, close enough is not going to satisfy their burden of proof. If Rembrandt doesn't satisfy that burden of proof that the header, the only one Bluetooth has ever used, shows a change in modulation method, then your verdict must be for Samsung.

May I have the slides again, please?

It's like a spelling bee. You cannot get any letter wrong and still win. And that is exactly what is at issue in this case.

Now, let me turn to a second issue, whether these three patent claims are valid. In deciding this issue, please understand your decision in this case will only affect the three claims at issue.

Rembrandt has many other claims in these two patents, as you've heard, and your decision will not

affect any of them. You might ask yourself why you're being asked to decide this issue.

Judge Gilstrap has already told you that the way that our legal system is designed, it is ultimately your responsibility to make the determination with respect to validity. And Samsung has the right to test all aspects of the claims that have been made against it here in this case.

If you as jurors just assumed that these claims were valid simply because the Patent Office had issued them, then the system wouldn't work as it's designed to work.

So for all these reasons, you must fully and carefully consider the issue of patent validity. You will get instructions on the law of validity.

And, you know, there would be no need for those instructions and there'd be no need for evidence on validity if your role was simply to adopt the Patent Office's prior decision.

There are two validity issues at issue in this case, and you've heard Judge Gilstrap introduce both of them: Written description and obviousness.

The first issue is whether the patents fully describe the invention in Rembrandt's three patent claims, as Rembrandt has -- I'm sorry; I misstated

that -- whether the patents fully describe the invention, as Rembrandt has asserted them in these three patent claims; and second, whether the invention in these three patent claims is obvious.

You're asked to decide these issues because if that written description is missing or is incomplete or the invention is obvious, then the patent claims here are not valid.

So turning first to the written description issue -- if we could have the next slide -- I told you Mr. Bremer submitted his invention to the Patent Office in 1997 and that by 2002, the Bluetooth Group was already working on the 2.0 update.

In 2003 -- next -- Mr. Bremer submitted new information to the Patent Office for which he wanted additional patent protection.

And in this, he submitted five new paragraphs and a new drawing that actually describes what Rembrandt is accusing here. But as a result of that, the date for that part of the invention moved from 1997 to 2003.

The next thing that happened, as you've already heard, is Rembrandt bought the Bremer patent rights four years later, in 2007.

Two years after that, in 2009, Rembrandt applied for new claims based in part on the information

that Mr. Bremer had given to the Patent Office back in 2003.

On July 22nd, 2011, the Patent Office told Rembrandt that it would allow the new claims. But the evidence will show that those claims only gave Rembrandt rights dating back to 2003.

So before the claims actually issued, Rembrandt made another filing, which was the last one you see over on the right. And in that filing, Rembrandt deleted the information from the 2003 submission.

Next slide, please.

Here is what Rembrandt submitted to the Patent Office. And in it, it said that it was deleting that 2003 disclosure because it thought that the descriptive subject matter that would remain would be in harmony with the claims.

In fact, the evidence will show the deletion had exactly the opposite effect. It created a disconnect between the inventor's description of the invention and the patent claims, because after that deletion, the scope of the claims, as they've asserted here, was no longer supported by Mr. Bremer's 1997 description of the invention.

With respect to obviousness, let me start with

this simple example. Suppose you made pens and pencils. Lead pencils were well known in your industry for purposes of writing in a non-permanent manner. Erasers were also well known for removing lead pencil writing.

As a skilled person in the field, you would know -- it would be obvious to you to combine these two well-known things into one product. And the same logic is why the patent claims here in this case are obvious.

And here's why: In 1996, before Mr. Bremer's first patent filing, the evidence will show that a company called Lucent had already submitted a patent application to the Patent Office.

Your Honor, how much time do I have left?

THE COURT: You have about six minutes.

MR. SHERWOOD: Thank you, Your Honor.

In fact, Mr. Bremer's company, Paradyne, was a part of Lucent. Samsung will show that the Lucent patent, filed a year earlier, made the Rembrandt patent claims at issue here obvious, because the Lucent patent, taken with other public documents, already described all elements of Rembrandt's claims, and it was obvious to combine all of those elements.

Briefly -- and I'm not going to go into a lot of detail here -- the Lucent patent described a network with devices or tributaries, as Mr. Bremer originally

called them, operating at multiple modulation methods and using different speeds, just like Mr. Bremer's later patent.

And just like Mr. Bremer's patent, except a year earlier, this Lucent system included information in the header that actually did show a change in the modulation method.

And by the way, unlike Mr. Bremer's patents at issue here, Lucent did, in fact, invent new modulation methods.

Here is the Lucent header on your screen, and these fields that are in yellow, signal and service, indicate -- they tell you what the upcoming modulation method is.

Now, you heard reference also to something called a master/slave network, which is what Rembrandt claimed in these two patents. Let me show you Figure 1 from the Lucent patent.

Next slide, please.

On the left is the Lucent patent disclosure, which I told you came a year earlier. And on the right is the Bremer '580 disclosure, which you heard about --

THE COURT: You now have five minutes.

MR. SHERWOOD: Thank you, Your Honor.

In both documents, there is a controlling

device. It is colored in green on both of these drawings, so you can see that -- that they both have that.

Both patents also have tributaries or slaves, and those are colored in -- I guess that's some sort of periwinkle/blue-type color. These are the same features here. These green and blue or periwinkle features of a master/slave network.

But even if that wasn't clear, in Mr. Bremer's original patent filings, he admitted that in 1997, a master/slave network was well known in the prior art. You will see other documents during this trial that also prove that point.

So for a skilled person in this field, it would have been obvious to combine the Lucent patent with these pre-existing master/slave networks.

And following this same approach, you will see that all of the claims that Rembrandt has asserted here are obvious.

You won't have to take my word for it, though, because Dr. David Goodman, who is a very distinguished professor and expert in this field, will come here and testify and explain to you why these claims are obvious.

I want to just say in closing, you heard testimony about -- or not testimony -- argument about

damages and Rembrandt's request for you to award $30 million.

As I said, the evidence will show that Rembrandt's claims are not infringed and are invalid. If you agree that they're not infringed and are invalid, then Rembrandt has no proper demand here, and the only award that you could make is zero.

So Rembrandt will go first with its evidence, before you hear from Samsung. I ask only that you keep an open mind and wait until you've heard all of the evidence before coming to a conclusion.

When all the evidence is in, it will show you that these patents are not infringed and that these claims are invalid.

And I thank you for your attention.

THE COURT: All right. Ladies and gentlemen, we've heard opening statements from both sides. We've been back from lunch close to two hours -- about an hour and 45 minutes.

We're going to take a brief recess for about 5 to 10 minutes, and then we will begin with the evidence from the Plaintiff's case.

You may leave your notebooks in your chairs since this is a short recess.

Don't discuss the case or anything you've

heard so far among yourselves. Take an opportunity to stretch your legs, get a drink of water, and we'll have you back in here shortly and continue. But you're excused for recess at this time.

COURT SECURITY OFFICER: All rise for the jury.

(Jury out.)

THE COURT: The Court stands in recess.

(Recess.)

(Jury out.)

COURT SECURITY OFFICER: All rise.

THE COURT: Be seated, please.

Mr. Wolverton, please bring in the jury.

COURT SECURITY OFFICER: All rise for the jury.

(Jury in.)

THE COURT: Please be seated.

All right. Having heard opening statements from both sides, the Court will call for announcements on the record.

What says the Plaintiff?

MR. WARD: The Plaintiff is ready, Your Honor.

THE COURT: What says the Defendants?

MR. SMITH: Defendants are ready, Your Honor.

THE COURT: All right. If you are in the

courtroom and you anticipate being a witness in this trial, then I'm going to ask all witnesses to come forward at this time and take the oath from the courtroom deputy.

And, counsel, if during the course of the trial we have witnesses who are not sworn, then we'll swear them at that time. But this will save us a lot of time by swearing in everybody at once.

All right. If all you witnesses will come forward, please.

Whenever you're ready, Ms. Lockhart.

(Witnesses sworn.)

THE COURT: All right. You may return to your places.

Does either side wish to invoke the Rule?

MR. WARD: We do, Your Honor.

THE COURT: Excluding experts?

MR. WARD: Excluding experts.

THE COURT: If you are fact witness, then you must remain outside the courtroom until such time as you are called to testify.

So unless you're an expert witness or a corporate representative, if you are going to otherwise testify, you should exit the courtroom and remain outside until you're called.

(Excluded witnesses leave the courtroom.)

THE COURT: All right. Then is the Plaintiff prepared to call their first witness?

MR. ALAVI: We are, Your Honor.

THE COURT: Proceed.

MR. ALAVI: Your Honor, the Plaintiffs call Gordon Bremer.

THE COURT: All right. If you'll come forward, Mr. Bremer. You've just been sworn. Please have a seat at the witness stand.

All right. Counsel, you may proceed.

MR. ALAVI: Thank you, Your Honor.

Your Honor, we have a copy of the exhibits for the Court. May I approach Ms. Lockhart and provide you both with a copy?

THE COURT: You may have leave to approach.

MR. ALAVI: May it please the Court.

GORDON BREMER, PLAINTIFF'S WITNESS, PREVIOUSLY SWORN

DIRECT EXAMINATION

BY MR. ALAVI:

Q. Mr. Bremer, can you introduce yourself to the jury, please.

A Yes. Excuse me. My name is Gordon Bremer. I'm the inventor of the patents in this suit.

Q. And, Mr. Bremer, there's a pitcher of water in

front of you and glasses, if you need some water, that you can always fill up.
A Thank you.
Q. Where do you live?
A I live in Clearwater, Florida.
Q. Have you ever testified in trial before?
A No. I've never even been in a trial before, much less be a witness.
Q. How are you feeling today?
A I'm kind of nervous.
Q. Well, it will be over before you know it.
Can you tell us briefly about your family.
A Yes. I said -- like I said, I live in Clearwater, Florida, with my wife of 31 years, and I have twin daughters that are 31 that live nearby.
Q. What do you do for a living today?
A I'm a retired electrical engineer, and I consult from time to time.
Q. Can you tell us how you ended up becoming an electrical engineer?
A Yes. When I graduated from high school in Sarasota, Florida, I really didn't know what I wanted to do, and that summer some of my friends said they were going to enter the local junior college and take up electrical engineering.

So I thought, well, I'll join them, so that's what I did.
Q. How did those classes turn out for you?
A Well, I really liked them. I think I fell in love with engineering, and I completed the first two years of the junior college.
Q. Did you go on to a four-year college?
A Yes. I was fortunate to receive a scholarship which helped me pay for the University of Florida, so I went up to the University of Florida.
Q. Did you get a degree from the University of Florida?
A Yes, I did. I received a Bachelor of Science in engineering.
Q. How did you do in your classes?
A I was number one in my class.
Q. Did you get any further degrees after you graduated from Florida?
A. Yes, I did. Again, I was fortunate. I received a University of Florida fellowship, which allowed me to go into the graduate school and complete graduate school.
Q. What did you do after you finished your master's degree?
A. Immediately upon graduating, I was hired by Honeywell Corporation in Clearwater, Florida.

Q. Tell us a little bit about that first job at Honeywell.
A. Well, I was fortunate. I was hired into a -- a research and development group that was developing a -- a new type of modem technology.
After I got there, I found out that they had -- technology had really come to a stop because they had a -- found a fatal flaw, and they didn't know how to fix it.
Q. Did you have involvement in the project after that flaw was discovered?
A. Yes. They asked me to look into it with the other engineers, and I did. And I found the flaw, and I found a corrective action. I fixed it, basically.
Q. And what ended up happening with that product?
A. Well, I was really proud of that, because that product became a modem used in our military throughout the world, and also the United Nations communication arm standardized that technology.
Q. How did that initial experience at Honeywell affect the rest of your career?
A. Well, I learned that I was good at generating ideas and solving problems. And I guess after that, that's -- that would seem to be what I really liked to do, solve problems.

Q. How long did you work at Honeywell?
A. I was there four years.
Q. And when -- where did you go after you left Honeywell?
A. I went to Paradyne Corporation, again, in Clearwater, Florida.
Q. What year was that?
A. That was 1974.
Q. How old were you at the time?
A. I guess I was 29.
Q. I hate to ask this. How old are you now?
A. 69.
Q. Tell us about your initial work when you joined Paradyne in 1974.
A. Well, it was -- it was very similar to what happened at -- at Honeywell. I joined -- again, it was a small high-tech group.

And once again, they had a major modem development that had been stopped because of a fatal flaw. It was a -- a problem. They could not resolve it. The modem was not reliable, and they didn't know what to do.

Q. Did you work on that project?
A. Yes, I did. And like at Honeywell, I analyzed the problem, I found the problem, and I designed a -- a fix for it.

Q. And what happened with that product after the fix was discovered?
A. Well, that product went on to ship. In fact, I can still remember when -- we had a break room. We were a small company, about 200 people. And I remember in the break room one Saturday, I went in, and there was a big sign. We had shipped our first 20 modems.
But Paradyne then grew rapidly. It was a very successful product. And within about the next six years, we grew to 4,000 people, and we were one of the largest employers in the Tampa Bay area.
Q. Now, my understanding is Paradyne has gone through different name changes while you were employed at the company. Can you walk us through those different name changes, please?
A. Yes. I apologize for my voice breaking up. In -- when I joined in 1974, we were Paradyne Corporation. In 1989, we were purchased by AT&T, and AT&T renamed us AT&T Paradyne. We remained AT&T Paradyne through 1996, at which time AT&T spun us off to become a private company again.
And then in 2005, we were purchased by a competitor by the name of Zhone. And, you know, today, what's left of the company is Zhone.
Q. When did you end up leaving Paradyne?

A. I left -- it was actually Zhone by that time. I left in 2006.
Q. How many years had you worked for the company when you left?
A. About 33.
Q. Now, in addition to your responsibilities as an engineer, did you have any responsibility -- other responsibilities at Paradyne, AT&T Paradyne, Zhone?
A. Yeah, it's a mouthful.
Yes. In -- in 1980, I realized that Paradyne could benefit from more innovation and wanted to encourage innovation, so I developed an innovation program at Paradyne.
Q. What types of formal processes were part of that innovation program that you developed?
A. Well, the key process was a -- was a patenting program, a process that encouraged patents and would take inventions, if they were appropriate, and go through the patenting process.
Q. What was your role in that patent process?
A. I was chairman.
Q. At Paradyne, after you rolled out this innovation program, what was -- what results did that have on invention in the company?
A. Over the next 25 years, until about 2005, Paradyne

had over 400 U.S. patents issued.
Q. Now, you testified that you were the chairman of the program. How long did you hold that position?
A. Until I left Zhone in 2006.
Q. I'd like to show you on the screen, and if you'd like to look at the book at the same time, if you can't see it, Plaintiff's Exhibit 15.
A. I see it on the screen. Thank you.
Q. Mr. Bremer, can you tell us what this first page of Exhibit 15 is?
A. Yeah. This is a paragraph of an award that I won. I believe it was in 1994.
Q. And what was the award for?
A. Well, it was issued by AT&T. It was the Harold S. Black trophy. It was awarded to the most valuable commercial patent in 1994.
Q. Now, I'm going to skip the second page and go to the third page. Can you tell us what these awards are on the third page?
A. Yes. The -- the center framed picture, that's Popular Science magazine, and I believe, again, it was for that year.
And Popular Science every year awards -- or makes awards to the 100 top innovations in -- in technology, and a product based on the patents that I invented won

that award.
Q. Can you tell us what the other two awards on either side of that are?
A. Yes. The -- on the right side, PC Magazine be -- bestowed its Editors' Choice Award on that same product line.
Q. And how about on the left side?
A. At -- in Las Vegas, actually, the largest consumer electronics show in the world, COMDEX, the -- the product won Best of Show.
Q. Have you received any other awards for your work at Paradyne?
A. Yes. Before we left AT&T, I was nominated to be a Bell Labs fellow, but we were spun off before that came to fruition.
Also, these products that won those awards, they were demonstrated in the pavilion at Epcot for a year.
Q. Now, just to be clear, were any of these awards that we've gone over for the patents that are in this lawsuit?
A. No, they're not.
Q. Okay. Can you tell us generally what your typical day was like as an engineer at Paradyne? What type of work did you do?
A. Sorry. Sure. I led a group of anywhere from 12 to

20 engineers in -- in research development and product development, also. Most of my -- my efforts were technical. I was a technical leader, more than just a -- a manager, if you will.

So I spent a lot of my time developing my ideas and helping other engineers develop their ideas. We -- we would document those. I spent a lot of time in our laboratories testing out ideas, debugging products, and so forth.

I also went out to customer sites to help install products and, again, find problems and fix problems.

At times, I even worked at night and -- and weekends in our manufacturing plant. I remember one time actually placing components on boards in the assembly line by hand.

Q. Did you enjoy your 33 years at the company?

A. Very much so.

Q. What did you enjoy the most about the work you did?

A. Well, looking back, obviously, to me, the number one was I worked with a great team of engineers. We had -- there were -- they tended to be very smart, industrious, self-driven. That was really a pleasure. In fact, I still meet with many of them once in a while.

The other thing, I was very appreciative of our executive management at Paradyne. So for 33 years,

they kept funding projects that -- that we worked on, so I was very thankful for that.

Q. Mr. Bremer, how many patents and patent applications have you been awarded?

A I have approximately 100 patents and applications today.

Q. Was that typical for engineers at Paradyne?

A No. Even though we had a lot of very sharp engineers, some of whom had patents, the number of 100 was -- was unusually high.

Q. I'm going to show you what's been introduced as Plaintiff's Exhibit No. 1. I'm going to put some of this up for you.

Do you recognize this document?

A Yes, I do.

Q. What is it?

A It's a patent.

Q. And what patent is it?

A The -- the number on this, let's call -- let's shorten it to the '580 patent.

Q. And who's the inventor on this patent?

A I am.

Q. And do you understand this is one of the patents-in-suit in this case?

A Yes, I do.

Q. And I'm going to show you Exhibit 2. Do you recognize this document?
A Yes. It's another patent.
Q. And what patent is this?
A Let's refer to it as the '228.
Q. And who's the inventor on this patent?
A I am.
Q. And do you understand this is one of the patents-in-suit?
A Yes, I do.
Q. Before I get into the patents, I'd like to ask you to help us understand a few terms.
Can you tell us what the term "modem" stands for?
A Yes. It means it's a contraction of two words: Modulator and demodulator.
Q. Can you tell us generally what a modem is?
A Yeah. Maybe there's some examples that we could look at.
Q. Okay.
A Generally, though, a -- a modem takes information and converts a signal based on that information so that the information can be sent.
Q. Okay. Do you have a demonstrative that would help you explain what a modem is?
A Yes, please.

Q. Let me get to that.

Okay. This is a slide we put up. Will this help you describe what a modem is?

A Yes, it will.

But before I draw your attention to the slide, many of us remember modems as being, you know, relatively large boxes that connect, for example, to a PC and maybe connect to a cable or to a telephone plug. But modems are -- are much more than that and can be much smaller than that.

In fact, really, any -- any electronic device that communicates data has to have a modem in it. That's -- a modem is essential for data communication over some type of channel.

Q. So why don't you tell us what this slide at this point, this demonstrative is showing.

A Okay.

THE WITNESS: Thank you.

A We see here two -- two cell phones, and every cell phone has a modem in it, every one. And that modem is -- is necessary, and I'll show you why in a minute.

THE WITNESS: So maybe you could click to the next --

A So we know that with a cellular modem -- or with a cellular phone, rather, that we need to -- we want to

talk into it or text into it, and we want to be able to send that information over the airwaves through a cellular network probably to another cell phone.

THE WITNESS: So if you could click.

A So what happens, the voice or text goes into the modem -- goes into the phone first and then into the modem, which is part of the cell phone. The modem converts that voice or text into a signal. The signal is suitable for going over the airwaves and through the network.

THE WITNESS: So maybe you can click and --

A So we see the signal going through the -- the network, and the signal is received by a remote cell phone, the one on the right, and it goes into the modem that's inside that cell phone.

And what that modem does, it now demodulates the signal. It converts it back into either the text or the voice. And then the cell phone outputs that to the -- the other person.

Q. (By Mr. Alavi) Was this concept of modems existing in phones and not just these big boxes, was that true in 1997?

A Oh, yes, uh-huh.

Q. And what other types of devices, other than cell phones and the boxes we connect in our computers,

contain modems inside them?
A Well, as I mentioned before, basically, any -- any electronic device that needs to communicate through the air, through a wire, through a cable has to have a modem in it.

And, for example, here we have cell phones, and like I said, every cell phone has a modem device in it. Every WiFi, whether it be a router or whether it be a WiFi device in your home, has to have a modem in it. Every Bluetooth device in your car, in your phone has to have a modem in it.

So those are some of the -- some of the common examples today.
Q. You used a term when you were describing modems, modulation. Can you tell us or help describe for us what modulation is?
A Like I said, modulation is the concept of converting information into a signal that can be sent. Probably two examples that we'd all recognize with radios are frequency modulation and amplitude modulation.
Q. And what are the differences between, for example, frequency modulation, FM and AM?
A Well, first of all, they're not compatible. If you have a radio that's only FM, you're not going to receive

AM. And vice versa, if you have a radio that's AM only, you're not going to receive FM.

And so why -- why have it? Why not have just one?

And the reason is, is that each has its own advantages but then also disadvantages.

With FM, if we're near a station, we get good quality sound, top quality sound, but as we move away, the range is limited and the signal drops off; whereas with AM, we -- the sound quality isn't as good but the range is much, much greater. So there's a tradeoff.

Q. Now, I'd like to talk about the invention that you worked on at Paradyne. What were you actually working on? What type of project when you came up with the invention?

A Well, in early 1997, my team was developing a new technology that I'll -- I'll call burst technology. It was a communication technology. We're bursting right now back and forth. That -- it was a -- perhaps a poor way to describe it, but it was a burst technology.

And it was intended for Internet access. So this is technology that was at highest speed and complex as possible.

Q. And what type of actual physical product were you working on?

A It was a modem.

Q. And while you were working on this modem, what was it that led you to come up with your invention?
A Well, during the time of that -- that development that I just mentioned, I was reading in magazines and hearing something on the TV about a new type of communication service where an individual away from the home could communicate into the -- into the home into devices, such as power-monitoring power control, controlling your TV, light switches, refrigerators, things like that. So I -- I realized that was an opportunity.
Q. And how did this opportunity about -- these devices that might be going into the home, how did that lead you to come up with your invention?
A Well, first, I realized that the communication that -- that we had under development and the communication required for the power monitoring and control required different types of modulation and different modems.
Q. Why -- why was it an issue that they needed different types of modulations in these modems? Why was that a problem?
A Well, they had -- they had very different performance and size and power requirements.
Q. And so what would happen if you'd have these modems

that required different modulations trying to work together?
A They were incompatible. So you basically could -- could not, at the same time, communicate with -- with both the high-speed Internet modems and these other power-monitoring modems.
Q. In addition to incompatibility, were there any other issues that arose from using different types of modulations?
A Well, because they were incompatible, you couldn't -- you couldn't communicate at all and you couldn't communicate seamlessly.
I think I provided a -- a slide for this.
Q. Well, before we get to that, I want to go through a few documents with you --
A Okay.
Q. -- if that's okay.
A Sure.
Q. If we can take a look and I'll show you what's Plaintiff's Exhibit 7 and blow this up.
Do you recognize this document, Mr. Bremer?
A Yes. This is what we referred to as a broadband tech note. In this case, it was Broadband Tech Note No. 137.
Q. And what were tech notes used for at Paradyne?

A. Well, it was a policy in Paradyne that when a -- an engineer or other individual either had a new idea or had a -- needed to explain an existing idea or explain something in detail technically, they would document their idea in -- in a tech note.
Q. And who's the author of this particular tech note?
A. Myself.
Q. And what topic does it deal with?
A. It's embedded modulations.
Q. And what is that?
A. That's the subject of the patents in front of us.
Q. And what's the date that this document -- I'm going to actually highlight the significance. What's the significance of this June 8th, 1997 date?
A. June 8th, 1997, that was the date that I -- I formally entered this -- this tech note into the system at Paradyne, and -- and that -- that's when everyone had access to it.
Q. Is this the first date you came up with your invention?
A. No. I came up with the concept in early 1997.
Q. And I want to show you what's been marked as Plaintiff's Exhibit 5. I'll blow it up again. Do you know what this document is?
A. Yes. This is a provisional patent application.

Q. Can you tell us what a provisional application is?
A. Well, it's the -- when you have an invention that you wish to -- to patent and it's -- you've documented it, this is the -- the provisional application is the first formal submittal to the U.S. Patent Office.
Q. And who's the inventor on this provisional application?
A. I am.
Q. And what's the date of this application?
A. This was December 5th, 1997.
Q. And what's the relationship between the tech note we saw, which was Exhibit 7, and this 1997 provisional application?
A. All of the information that was in the tech note is in this provisional application.
Q. And I'd like to take a look at Page 7851. It's at the bottom of the page numbers, and I'll pull it up for you, the provisional application. And I'm pulling up Paragraph 3. Do you see that highlighted -- highlighted language?
A. Yes, I do.
Q. What were you discussing in this highlighted -- highlighted language in the provisional application?
A. Well, I was -- I was pointing out in this document the -- the need for an application of power monitoring

and control.
Q. And what does that mean?
A. Well, it's what I discussed earlier. It's -- it's being able to, from a remote location, communicate into your home and be able to turn power on and off, adjust it, and monitor it.
Q. Now, you talked earlier about this concept of incompatibility. Do we have a demonstrative that you can use to describe that problem?
A. Yes, I do. Thank you.
Q. Let me pull it up here.
Would you describe the issue of incompatibility that you were dealing with and walk us through this -- this exhibit, please?
A. Yes. First, let me kind of describe what -- what's on this -- on this graph.
We have a master. That's a master modem. That's basically the controlling-communicating modem. We have four devices that that master wishes to communicate with. We have a television, an alarm system, a light switch, and a thermostat.
And we're going to talk about modulations, and -- and rather than use some complicated term for different modulations, I've chosen to relate a modulation to a -- a language. And in this case, I've chosen the Chinese

language. So --
Q. So what does CHN mean, for example, on the master?
A. That means Chinese.
Q. And what -- if you look at the TV where it says ENG, backslash, Chinese, what does that mean?
A. Well, what I intend there is that the TV, it can communicate in Chinese, for example, very low speeds -- speeds comparable to the -- the light switch, but it can also have the capability inside -- the modem inside can speak in English. And we'll get to English in a minute.
Q. Okay. So let's go to the next slide. And tell us what's happening here.
A. Okay. So I'm suggesting we want to be able to communicate in English. Perhaps the -- English or actually the -- the modulation is perhaps much higher speed, and now we can actually send a video signal to the TV if we communicate in English.

So we've introduced a master that speaks English; however, English is not compatible with Chinese. So now we've lost communication with the other devices.
Q. So what does the -- the fact that there are Xs on these flags mean?
A. Well, that means that that communication is not possible.
Q. Is that what you just meant by incompatibility?

A. Yes, it is.
Q. Okay. I'm going to take a look at your provisional application again. And, again, we're at Page 7850. And I'm pulling out the second and third paragraphs, and I'm highlighting some language there.
What were you discussing in your provisional application when you -- in this language that's highlighted in these paragraphs?
A. I was discussing what I just mentioned, the fact that these -- these tribs, these lower speed tribs are -- are not compatible with the higher speed. So lack of compatibility.
Q. Now, you talked a little bit about losing the communication on the network, the seamless communication.
Do you remember that?
A. Yes, I do.
Q. Do you have a demonstrative that helps you explain that concept?
A. Yes, I do.
Q. So let's pull that up.
So walk us through this concept of no seamless operation, and tell us what's going on in the slide here.
A. Okay. So we're back to where we started earlier.

We have a -- a modem -- a master modem talking Chinese and is successfully talking to the -- the other products, although the TV, you're just getting maybe power control, for example.

Q. Okay.

A. Could you click?

Q. Sure.

A. Okay. Now, this is prior -- we're still prior to the invention that I came up with.

Now we've introduced a master that speaks English and Chinese -- speaks both. And what we've done here, we've set it up in the English mode -- the English modulation, and it's able to speak with the TV in English, but it still can't speak with the Chinese devices.

Could you click?

Q. Sure.

And what's -- what's going on here now?

A. Now, let's say we want to speak with the Chinese, well, we can change -- we can swap over. The trouble is that in doing so, the communication goes down for quite a -- often -- quite a period of time.

Maybe you can remember dial modems and fax modems where you'd make a -- a connection and -- and you'd hear this beep, beep, and the communication -- you couldn't

communicate for a half a minute or even more. So that would be -- that would be disruptive. And that is what -- what I refer to as not seamless.

So in this case, lo and behold, we can speech English to the TV and get video, but the other devices are out of service, which means that if you're trying to control them remotely, you couldn't do so.

Q. So now we've got another slide. What's happening here? Is this just showing going back and forth?

A. Yeah. It's just simply going back. So now -- now we're speaking -- we're speaking English.

I think we missed a slide in between there.

Q. I think we've got it.

There's the English, the Chinese, and then back --

A. Yes. Right. Right.

So now we're speaking English again. And so you can see the key problem here is lack of seam -- seamless.

We've -- we've kind of solved the compatibility problem perhaps in a way, but you've got this -- this large disruption, so the devices can communicate at the same time.

Q. Let's look at your provisional application again. And I'm at still Page 7850, and I'm at Paragraph 1, and I've highlighted this language.

Can you tell us, in 1997, what you're discussing in this language of your provisional application?
A. Yes. The highlighted section is what I just discussed. The -- the -- in order to work in two different modulations or two different languages, it requires data disruption.
So what I was doing here was acknowledging the compatibility, and in this case, the lack of seamless operation in the provisional application.
Q. Now, what was your solution? How did you solve this problem of incompatibility and lack of seamless communication?
A. I did solve it. The -- you know, it occurred to me that you see the two problems here. The -- the two languages and the two modulations weren't compatible. And if you tried to make them work, you had this large disruption.
So what -- what was needed was a seamless way, a non-disruptive way, where you could communicate two modulations or two languages really at the same time, so you -- it appeared to be seamless.
Q. And what's the solution to the problem?
A Well, I kind of had an ah-ha moment, and I came up with what I believe is a pretty elegant solution to that.

And based on our burst technology that we were developing, I realized that if -- to oversimplify perhaps, but if I put an indicator at beginning of each burst, each communication that said change the -- the modulations, this -- this change could happen basically instantly, and you could communicate with the different types of devices without -- without major communication disruption.

Q. So do you have another demonstrative that shows how the -- the solution works?

A Yes, I do.

Q. Okay. Tell us -- I think we've seen this slide before.

A Yeah, we've seen it before.

So we're back to the original slide where the -- the modem is speaking only Chinese, in this case, slow -- slow speed.

THE COURT: Gentlemen, let's make sure you both talk one at a time.

Continue, Counsel.

MR. ALAVI: Apologize, Your Honor.

THE WITNESS: Sorry.

Q. (By Mr. Alavi) Let's go to the next slide. And tell us what this represents.

A Okay. Now what we're doing, this slide represents

the invention, and the invention overcomes the compatibility problem and overcomes the seamless problem.

So the result is that the -- the master can communicate in -- can -- yes -- can communicate video in English, in this case to the TV, and at the same time, without any interruption, be communicating with the other devices.

Q. Now, Mr. Bremer, to be clear, we've been talking about -- you talked about an example of communicating video. Were -- you're not suggesting that in 1997, that houses were streaming video to TVs, were you, through these devices?

A Not yet, no.

Q. Are you talking about what you anticipated coming in the future based on reading articles and understanding what was going on in the industry?

A My -- my recollection, it was -- we were on the verge of being able to do that.

Q. Now, once you had your idea, what kind of work did you put into it to get to -- get the invention finalized?

A Well, I did a couple of things. One is I -- I put the -- the invention into our patenting system for review and consideration.

Q. Okay. Let's take a look at Exhibit 9. And I'm pulling this up. Can you tell us what Exhibit 9 is, please?
A Yes. This is a patent disclosure.
Q. And what is this for?
A This is for the -- the invention, the embedded modulations.
Q. And how is this part of the Paradyne patent process?
A Well, this was really the -- the first step of the formal process. So the inventor, in this case, myself -- the inventor's required to document the -- the -- the invention and answer certain questions so that those -- those questions can be reviewed by others.
Q. And what happens with the patent disclosure form, how is it used in the process?
A Well, we had -- the patent process had a group of individuals that was -- that were referred to as the patent review board. It consisted of engineers in different departments throughout the company, a patent attorney, and certain business people.
Q. And what would they do with these patent disclosure forms?
A Well, the disclosure form was circulated to the patent review board and a date was set for that review

board to meet and consider the invention.
Q. And what's your understanding of what the patent committee mentioned?
A The board approved proceeding, which is attempting to receive a patent.
Q. In addition to going through this patent review process, what other kind of work did you do to your invention until you came up with the idea?
A Let the record reflect, of course, the real goal of the invention is not necessarily the -- the patent. So we -- we wanted to get the invention in -- into our product line.
So, you know, I worked with my time to incorporate the -- the key parts of this into our burst technology that I mentioned, and the remainder of that year, I worked both on the patent -- the patent system, as well as working with that team to implement the invention and test it in our laboratory.
Q. Now, did Paradyne ever sell a product that had your invention in it?
A No, it did not.
Q. So let me ask you about the '580 patent, which is Exhibit No. 1, do you know how that patent is related to the 1997 provisional application?
A Yes, I do.

Q. And how is it related?
A It's what's called a continuation of the original patent.
Q. Now, how about the '228 patent, which is Exhibit 2? Do you know how that patent is related to your 1997 provisional application?
A Yes, it is also a continuation of the original.
Q. Now, as an inventor, what's your understanding of what a continuation patent is?
A Okay. I'm not an attorney, but my understanding of what a continuation is, it's a formal term in the Patent Office.

And when -- when an application -- a patent application is submitted, the inventor, along with the patent attorneys, are -- you have to describe your invention, and you have to describe at least one implementation of it so that someone could build it.

So you describe it as well as possible. However, at the end of the patent, you need to write a number of single-sentence -- single sentences that are called claims. And each claim is intended to describe a part of your invention that you want to be able to protect.

So in the first patent, you know, you have your description, and now you submit a number of claims with it, and you describe those parts of the invention that

you think are most important to protect.
Q. Have any of your other patents had continuations involved in them?
A Excuse me. I really didn't finish about a continuation.
So what happens -- the Patent Office recognizes that in that first patent, you may not have claimed everything that was -- was important to you.
So the idea of a continuation is that it gives you -- or gives the inventor an opportunity -- without adding any new information, but it gives you the opportunity to list new claims and actually get a new patent, which is called a continuation.
Q. Sorry for interrupting you earlier, Mr. Bremer.
On these continuations, have you had other patents that have had continuations?
A Yes. In fact, about -- about 25 percent of my patents are actually continuations.
Q. Can you tell us what a trib is?
A Yes. A trib, it's a terminology common in modem communication. It's also called a slave. They're interchangeable. And there's another modem called -- another terminology called a master.
And a master in communication is the -- the modem that's really controlling communication between two or

more -- or one or more other -- other modems. And the trib or the slave are those other modems.

Q. Do you know what a bilingual trib is?

A Yes, I do.

Q. What is a bilingual trib?

A A bilingual would refer to a -- a trib modem that can participate in -- in two modulations, two different modulations.

Q. Now, I'd like to look at your provisional application again, which is Exhibit 5. And we're again at Paragraph 2 in the first paragraph, and I've highlighted some language.

Do you see that, Mr. Bremer?

A Yes.

Q. It says: Although the modem equipment may contain several selectable modulations...

Can you tell us what you were describing in the provisional application in 1997?

A Yes. This was what I just described, bilingual tribs for one.

Q. I'd like to show you Exhibit 6. Do you know what this document is?

A Yes, I do.

Q. And what is it?

A It's the file history for the original patent.

Maybe I should describe what a file history is.
Q. Let me get -- find out first what this is.
A All right.
Q. Which original patent is that, Mr. Bremer?
A This was the -- the first patent that resulted from the provisional application.
Q. Okay. And what's the number of that patent?
A It's the '838.
Q. And generally speaking, what is a file history?
A. Once the -- once the inventor submits the provisional application and then a -- a final application to the Patent Office, there's correspondence that goes back and forth between the -- the inventor and the Patent Office to iron out details and define things that perhaps were not clear. And the file history is a record of that correspondence.
Q. Now, what I've pulled up as Page 7462 -- and I'm going to blow up the bottom of that. Can you see that, Mr. Bremer?
A. Yes, I -- yes, I do.
Q. Can you tell us what this language in the file history of the very first patent discloses?
A. Yes. Well, this was Claim 23 in the application. And what this claim is describing is a bilingual master and a bilingual trib.

Q. Now, I want to talk to you a little bit about the Plaintiff in this case, Rembrandt. Can you tell us how you first came to meet the people at Rembrandt?
A. Yes. In -- I believe it was 2004, Rembrandt visited Paradyne Corporation and expressed an interest in purchasing some patents.
Q. And did you start to do some work for Rembrandt at some point?
A. Yes, I did. I left Paradyne or Zhone, actually, at that time in -- in 2006, and entered into a contract -- or better way is I -- I started consulting with -- with Rembrandt.
Q. And did you do that consulting through a contract, or how did that work?
A. There was a company -- a small company set up, and I actually consulted with Rembrandt through that company.
Q. Let me pull up what's Defendants' Exhibit 11 -- I mean, 1011, and blow this up. Do you know what this document is?
A. Yes. This -- this is the consulting agreement with a company that I -- I worked with Rembrandt through.
Q. And what was the name of that company?
A. It was called Attic -- Attic IP.
Q. Are you still performing consulting services for

Rembrandt under this agreement?
A. No, I am not.
Q. When did you stop performing services under this agreement?
A. I believe it was September of 2009.
Q. Can you tell us, excluding expense reimbursements, rent reimbursements, how much you were directly or indirectly paid by Rembrandt under this agreement?
A. About -- over a three-year period, it was about $500,000.
Q. And over that three-year period, how much were you working? How many hours a week were you working on these projects?
A. It was 40 hours a week, all week.
Q. Now, after this agreement expired, did you enter into any other agreements with Rembrandt?
A. Yes, I did.
Q. So what I've pulled up for you is -- and before we get into that, what I'd like to ask you is, under those agreements, including the Attic agreement, can you tell us in total, excluding expense reimbursements from -- that type of thing, how much you've been paid directly and indirectly by Rembrandt?
A. Over the last nine years, it's about $670,000.
Q. Now, I've pulled up Defendants' Exhibit 1012. Do

you know what this document is?
A. Yes. This is another consulting agreement, this time between myself, as -- as an individual, and Rembrandt.
Q. And what -- what type of work were you doing under this agreement?
A. I was consulting on an hourly basis.
Q. Now, what kind of consulting work were you doing?
A. I was -- patent work, re -- reviewing patents.
Q. Now, is this -- does this agreement cover your current working relationship with Rembrandt?
A. No, it does not.
Q. Okay. Do you have a current working relationship with Rembrandt?
A. Yes, I do.
Q. And are there contracts that cover that relationship?
A. Yes, there are.
Q. Okay. And tell us generally what types of agreements you have with Rembrandt today.
A. I have two. I don't know if you can show them.
Q. Sure. Let's pull up the first one. And this is Defendants' Exhibit -- Exhibit 1013. Do you know what this document is?
A. Yes, I do.

Q. And what is it?
A. Well, it's an agreement between myself and Rembrandt where the objective is for me to continue to come up with ideas and -- and make inventions and receive patents.
Q. Okay. And have you actually performed work under this agreement?
A. Yes. Recently, I -- we -- I'll say "we" -- filed a new patent.
Q. And when you say "we," who are the inventors on that patent?
A. Besides myself, Dr. Paul Schneck.
Q. Now, how are you compensated under this agreement, the inventor services agreement?
A. I believe I receive 2-1/2 percent of the -- the revenue that Rembrandt receives from the various patents that I've invented.
Q. Does that include the patents in this case?
A. Yes, it does.
Q. Now, do you have another agreement with Rembrandt?
A. Yes, I do.
Q. Okay. Pull that up. And this is Exhibit 1014.
Can you tell us what this agreement is?
A. Yes. This is a -- referred to as a consulting agreement.

Q. And what types of services do you provide under this agreement?
A. Under this agreement, I'm asked to assist Rembrandt in the enforcement of patents.
Q. What types of work does that include?
A. I'm here today.
Q. Does this cover the work you're doing, such as being here to testify today?
A. Yes, yes.
Q. And let's go to Page 36409, and I'm going to pull that up.

Can you tell us how you're paid under this agreement? And I'd like to walk -- walk through it.

Section 4.1.1 -- 4.1.2, I've highlighted it for you. Can you tell us how you're getting paid for the work you do, including your time testifying?
A. Yes. The -- I was paid basically at signing $50,000, and then later, by March 31st, or at the filing of the patent infringement suit, I was paid another $50,000. And then basically a year later, I was paid the final $50,000.
Q. And I didn't highlight Section 4.1.4, but can you tell us what that covers?
A. Yeah. After all -- all this is said and done, if -- if I continue to consult after two years, I'll be

paid $300 an hour.
Q. Now, at some time did you come to believe or suspect that Bluetooth products that had EDR in them might infringe your patents?
A. Yes, I did.
Q. And how did you find that out?
A. In 2007 -- or it might have been 2008, when I was consulting for Rembrandt, I -- I came across the -- the Bluetooth specification. And in reading through that, it appeared to me that my patents -- some of my patents may read on that -- that Bluetooth standard.
Q. And what did do you when you discovered that?
A. I brought it to the attention of Rembrandt.
Q. How do you feel about your relationship with Rembrandt today?
A. I'm very proud of working with them.
Q. Why is that?
A. Well, a couple of reasons. Like I mentioned, they give me an opportunity for -- for nine years now to -- to work with them and to pursue additional patents and analyze patents.
And, you know, frankly -- you know, I -- I invented these patents, and I'm -- I'm very proud of the patents. And I'm not an owner of the patents, but it doesn't matter that I'm -- I'm still very proud.

So I want to see those patent rights, which the Patent Office bestows on patents, I want to see those properly defended.

And I can -- I could never do that myself, and I -- I really appreciate the fact that -- that Rembrandt has -- has taken that on and that I can help and team with them to do that.

MR. ALAVI: Your Honor, we pass the witness.

THE COURT: All right. Cross-examination by the Defendants.

MR. SMITH: Your Honor, may I approach the witness with a notebook?

THE COURT: You may. If you'll hand it to the CSO.

All right. Counsel, you may proceed.

MR. HADDAD: Thank you, Your Honor.

May it please the Court. I need a step stool here.

CROSS-EXAMINATION

BY MR. HADDAD:

Q. Good morning, Mr. Bremer. My name is Gerard Haddad. I'm an attorney for Samsung. I haven't met you today. Very nice to meet you.

A I'm sorry. I didn't catch your last name.

Q. Gerard Haddad. I'm with the attorneys for Samsung.

Mr. Bremer, you understand that Rembrandt in this case is accusing Bluetooth, correct?
A Yes, I do.
Q. And you understand specifically that this case is about a particular feature of Bluetooth, isn't that right, called EDR?
A I'm not sure of that.
Q. Did you -- well, did you -- do you understand that there's an organization called the Bluetooth Special Interest Group that came up with the Bluetooth standard?
A I believe I've heard of that, but I can't be sure of the name.
Q. So you didn't make any contributions yourself to the standards body known as the Bluetooth Special Interest Group?
A No, I did not.
Q. So are you aware that the Bluetooth Special Interest Group is the organization that developed the standard for Bluetooth?
A No, I'm not aware of that.
Q. And you are aware, aren't you, that the Bluetooth standards body is the organization that actually developed the particular feature of Bluetooth called EDR that's asserted -- that Rembrandt asserts is covered by the patents in this case?

A No, I'm not aware of -- I'm not aware of that -- that particular group.
Q. So --
A So I can't be sure.
Q. So you didn't participate in the Bluetooth standards body group; is that correct?
A Yes.
Q. And you didn't attend their meetings when they were developing the standard; is that right?
A Yes.
Q. And -- sorry. And, in fact, Mr. Bremer, you didn't contribute anything to the -- to the development of the Bluetooth standard when those -- when that group was meeting to develop that standard. That's right, correct?
A I made no contributions to the standards body.
Q. Okay. And not even to be the EDR portion of -- that the standards body was developing; is that right?
A I made -- I made no contributions to the standards body.
Q. And I believe you just mentioned that the first time you ever -- well, I take that back.
Is -- the first time you ever heard of Bluetooth was around 2007; is that right?
A Yes.

Q. And is -- and it's true that that's the first time you ever even heard of the feature of Bluetooth called EDR, correct?
A I don't know.
MR. HADDAD: Can I bring up on the screen a transcript cite?
Q. (By Mr. Haddad) Mr. Bremer, did you have your deposition taken in this case back in October?
A Yes, I did.
Q. And do you remember -- do you have a copy of the transcript, sir? I believe we handed one up.
A Yes.
Q. Okay. I believe it's in two volumes. If you can turn to the one that's dated October 16th, please.
And if you turn to Page 61 of that transcript, sir, do you see at Line 17 of Page 61, you were asked the question: When did you first learn of that -- that enhanced data rate aspect of Bluetooth?
And you answered: I believe -- I believe it was 2007.
Do you remember giving -- being asked that question and giving that answer?
A I'm sure I did.
Q. So you believe that it was 2007 when you first learned of Bluetooth EDR, correct?

A I presume you mean EDR means enhanced data rate?
Q. Yes.
A Okay. Anyway, I stand by what I said in the deposition.
Q. And do you understand that Bluetooth with EDR came out three years earlier, in 2004?
A I don't know that.
Q. Do you understand that the application for the patent that's in suit here today, the '580 patent, was filed in 2009?
A I'll -- I'll have to -- I'll have to look at it.
THE COURT: You'll need to speak up, Mr. Bremer.
A I'll have to look at that. I don't recall.
Q. (By Mr. Haddad) If you turn to DX-1001, the first exhibit.
A Yes, I see it.
Q. So do you see the -- the part -- I don't know if you can see on the monitor.
A I can see it better on the monitor. Thank you.
Q. Okay. Now that you have seen DX-1001, the '580 patent, would you agree that that patent was filed in 2009?
A Yes, I would.
Q. And that was Rembrandt that filed that application;

is that correct? That wasn't you, correct?
A Yes. It must have been -- I presume it was Rem -- it was not me.
Q. Okay. Well, you never owned these patents; is that right?
A That's right.
Q. So the people that were working on Bluetooth back in 2 -- earlier than 2004, when they were working on the EDR feature that came out in 2004, they couldn't have seen this patent, the '580 patent; is that right?
A I don't know.
Q. Would you agree that if EDR came out in 2004 and the '580 patent was filed in 2009 that the people who had worked on EDR before 2004 couldn't have seen the '580 patent?
A Yes.
Q. I'd like to turn now, sir, to your relationship with Rembrandt.
So you've been hired as a consultant for Rembrandt in this case; isn't that right?
A Yes, it is.
Q. And you've done consulting for Rembrandt before this case, isn't that right, in other matters?
A Yes. Yes.
Q. Yes. Mr. Bremer, Rembrandt didn't buy the patents

in this case from you; is that right?
A. Yes, that's right.
Q. They bought them from a company called Zhone, correctly -- correct?
A. I don't know.
Q. But was Zhone your former employer?
A. As -- as I testified earlier, I worked for a company called Paradyne and successors and other names, and I can't be sure who or which of those companies sold the patents.
Q. Okay. So you -- you weren't in -- you weren't an inventor who owned a patent who then came to Rembrandt looking for someone to help you assert your patent rights; is that correct?
A. I was not an owner.
Q. And, in fact, Rembrandt acquired the patents first, and then you -- you began the consulting arrangement that you have with Rembrandt today for this case; isn't that true?
A. Would you repeat that, please?
Q. Rembrandt acquired patents first, and then you began your consulting arrangement for this case with Rembrandt after that; isn't that right?
A. Are you referring to the -- what -- what -- what consulting agreement are you referring to?

Q. Well, you have had several consulting agreements. I'm talking about the consulting agreement in this case that relates to your work that's being done in this case?
A. Okay. I understand. Would you now repeat the question, please?
Q. So Rembrandt acquired the patents before the arrangement with you was worked out for your consulting arrangement in this case; isn't that true?
A. Yes.
Q. And so far in this case, you've received some upfront payments with respect to your consulting work on this case; is that right?
A. Yes.
Q. Okay. We saw several payments. I think it totaled $150,000; is that right?
A. Yes.
Q. And in total, your work with Rembrandt -- you had mentioned in all of your consulting work, you've made about $675,000; is that correct?
A. Yes.
Q. And in addition to the $150,000 that you received with respect to your consulting work in this case so far, you also have an arrangement where you get 2-1/2 percent of whatever Rembrandt collects from this

litigation; isn't that right?
A. Yes, it is.
Q. And the reason you wanted a 2-1/2 percent interest in the outcome of this case, that was because at the time you were negotiating this, you didn't think your billing rate was enough to get you to work with Rembrandt; is that right?
A. No.
Q. You needed something more than just your hourly rate to work on this case; isn't that true?
A. I --
Q. And you wouldn't cooperate with Rembrandt. I didn't mean to interrupt you. I'm sorry.
A. No.
THE COURT: Let's move along. Ask your next question.
MR. HADDAD: Yes, Your Honor.
Q. (By Mr. Haddad) Can you turn to Column -- Page 216 in Volume -- let me see what volume it is. That's Page 216 in Volume 1 of your transcript.
A. Is that the volume --
Q. The thicker one.
A. -- dated 2014/10/16?
Q. Yes, Mr. Bremer.
A. Okay. What was the page, please?

Q. Page 216.

MR. ALAVI: Your Honor, I'm going to object to improper impeachment and ask that counsel not show the transcript until he's laid the foundation for showing the transcript to the witness on the ELMO which he's just put up.

THE COURT: Overruled.

Let's proceed.

Q. (By Mr. Haddad) Mr. Bremer, were you asked at your deposition at Page 216 -- Page 216, Line 11, the question was: So Rembrandt -- so Rembrandt paid you at the beginning of this lawsuit because it wanted your cooperation?

And you answered: Yeah. I mean, you know, I'm basically retired, whereas I used to consult, as I explained. I don't have a lot of interest in just getting consulting money anymore on an hourly basis. So, you know, for me to dig in and to help, I needed something more than that.

Do you remember that answer?

A. Yes, I do.

Q. So is that why you negotiated a percentage of the outcome of this litigation in order to work with Rembrandt?

A. I had an attorney that negotiated.

Q. And did you ask that attorney to negotiate the best deal he could -- he could negotiate, strike the best deal he could negotiate?
A. Yes.
MR. ALAVI: Objection, Your Honor, privilege.
MR. HADDAD: Your Honor, it was the question that was asked at a deposition. No -- no -- no objection was made. I have the next question on the same page, Your Honor.
THE COURT: Well, you're not going to go into their discussions.
MR. HADDAD: No, Your Honor. That's just the question.
THE COURT: All right. Then I'll overrule the objection. Restate the question, and the witness will answer it.
Q. (By Mr. Haddad) Mr. Bremer, you hired an attorney to negotiate with Rembrandt; is that correct?
A. Yes, I did.
Q. And you asked him to strike the best deal he could get; isn't that true?
A. Yes.
Q. And, Mr. Bremer, you don't know whether the '580 patent covers Bluetooth; is that correct?
A. I -- that's right. I don't. I don't know.

Q. And you don't know whether the '228 patent, the other patent in this case, covers Bluetooth; is that correct?
A. That's right.
Q. And you also -- you don't know whether either the '580 or the '228 patents -- you don't know whether they cover the EDR feature of Bluetooth. Isn't that a fact?
A. I'm not a patent attorney to answer -- answer those questions positively.
Q. Okay. So the answer is you don't know, correct?
A. I don't know.
Q. Okay. And the earlier patents that were issued in the chain of patents in this -- that relates to the two patents in this case, the parent applications, you don't know whether those ones -- the '838 patent and the '262 patent and the '965 patent, you don't know whether they cover Bluetooth either, do you?
A. No.
Q. All right. You started in the area of selling patents when you were working for Paradyne; is that true?
A. I analyzed Paradyne's patents and made recommendations.
Q. And then you would, on -- on Paradyne's behalf, you would contact potential buyers of Paradyne's patents;

isn't that true?
A. I don't recall.
Q. At some point, the company you were working for, Paradyne, it was acquired by Zhone, correct?
A. Yes.
Q. And eventually, you decided to -- to leave Zhone; is that right?
A. Yes.
Q. And at that point, your work wasn't really in technology anymore; your work was more involved with patents; is that correct?
A. Partially.
Q. And --
A. Perhaps you could -- could you divide that into two questions, please? I believe there were two questions there.
THE COURT: Mr. Bremer, if you don't understand the question, say you don't understand the question. But you're there to answer questions, not to ask Counsel questions.
THE WITNESS: Okay. Thank you. Thank you.
A. Yes, I don't understand the question.
THE COURT: Let's move forward.
Q. (By Mr. Haddad) And after you left Paradyne, you worked for Rembrandt for several years, correct?

A. Yes.
Q. And during those years you were consulting with Rembrandt, you were investigating whether there were possible targets to assert patents against; is that right?
A. Yes.
Q. I'd like you to turn to in the -- in the binder, this -- this thicker white binder, Mr. Bremer, the document marked DX-1104.
MR. HADDAD: I don't know if we can bring that up on the screen, or should I use the ELMO?
Q. (By Mr. Haddad) Okay. Figure 8 of that patent, which is several pages in.
A I see it. Yes.
Q. Thank you, Mr. Bremer.
You're aware -- have you seen this patent before?
A Yes, I have.
Q. And this was the continuation-in-part patent where this figure, Figure 8, was added to this -- to this patent application, wasn't it?
A Yes. Yes, that's true.
Q. And this figure was not in your original patent; isn't that right?
A I believe so.
Q. Do you need to check?

The '838 patent, the first patent that issues, Figure 8 was not in there?
A Let me take a minute.
Q. Sure.
A I want to make sure that I'm correct.
Q. That's in your binder, DX-1103.
A Yes. It's not in the original patent, you're right.
Q. So Figure 8 was added to this 2003 application, right?
A Yes.
Q. And Figure 8 shows a system -- if you look at the top of Figure 8, it shows a system with a master that speaks both Type A and Type B modulation methods, correct?
A Yes, I see that.
Q. And shows a -- what's labeled as a trib that speaks both Type A and Type B, correct?
A Yes.
Q. And you understand that this figure, Figure 8, was deleted from the '580 patent, the patent that's at issue in this case.
You understand that, right?
A I believe so. My recollection was that it was deleted.

Q. Do you need -- if you'd like to check it, it's in your book.
A That's not necessary. I remember.
Q. Figure 8 was deleted, correct?
A Yes.
Q. Figure 8 was deleted, correct?
A Yes.
Q. Yes. And -- and it was a surprise to you to learn that Figure 8 was -- was added to your patent application back when the application was filed for the '626 patent; isn't that right?
A Would you repeat that question, please?
Q. It was surprising for you to learn that Figure 8 was added to your 2003 patent application; isn't that true?
A I don't recall.
Q. If you could turn to -- in your transcript from the same date that we were looking at before, October 16th, 2014, Page 242.
A Please -- would you repeat?
Q. I'm sorry. The bigger transcript. There are two transcripts, I know. It's the bigger of the two. October 16, 2014.
A Okay.
Q. I'm sorry. I got the wrong transcript. We'll move

on.

Now, Mr. Bremer, earlier today, we heard Mr. Ward say and tell the jury that battery life is an important part of your invention. There's absolutely nothing in your patents about battery life, isn't that correct?

The '580 patent or the '228 patent, they don't talk about battery life, correct?

A I would have to read -- reread the patents. I -- I don't recall.

Q. You don't remember, as you sit here today, whether battery life is mentioned at all in the '580 patent or the '228 patent?

A I don't recall if the exact term "battery life" is in those patents.

Q. And in the slide that you used a little while ago with the attorneys for Rembrandt, you were showing two mobile devices communicating with each other when you were describing modems.

Do you remember that?

A Yes, I do.

Q. And in your patents, the '580 patent or the -- and the '228 patent, there's no disclosure of mobile devices in there.

That's true, isn't it?

A I don't recall.

Q. You don't remember.

Were there any -- any disclosure of mobile phones, any kind of mobile device in either of your two patents?

A I don't recall.

Q. I'd like to just go back to when I asked you the question about Figure 8 being a surprise.

THE COURT: Mr. Haddad, don't tell him what you want to talk about.

MR. HADDAD: Okay.

THE COURT: Just ask the question.

Q. (By Mr. Haddad) Sir, I'd like you to turn to Page 242 of your transcript from the October 17th transcript of your deposition.

A Please repeat the page.

Q. Page 242.

A I see the page.

Q. Okay. It's up on your screen now also. You see the question?

It says: Would it surprise you to learn that Figure 8 was first added -- Figure 8 we've been looking at was first added in 2003?

And your answer on October 17th was that: Yes, I guess it would.

A Well, I need to read the whole thing in context here.

Q. Please go ahead.
A Yeah. So...
THE COURT: Gentlemen, we need to move on. We're not going to wait here all afternoon while you reread the deposition. Ask your question again and let's give the -- the best answer you can give and let's move on.
Counsel, reask your question.
Q. (By Mr. Haddad) Mr. Bremer, were you surprised that Figure 8 was added to your patent application in 2003?
A Well, I'll go from what I said in the deposition was that, yes, I guess it would.
Q. Thank you.
I want to go back to some of the testimony you gave a little earlier when counsel for Rembrandt was asking you a few questions.
You mentioned --
THE COURT: Mr. Haddad, I just told you don't tell him what you're going to ask him. Just ask the questions. You're making sidebar comments in the presence of the jury, and that's not permissible.
MR. HADDAD: I'm sorry, Your Honor.
THE COURT: Okay. Ask your question.
Q. (By Mr. Haddad) The -- the work that you mentioned earlier today that you did at Honeywell that resulted in

a product that was used in the Army, I believe you said, that has nothing to do with the -- with the patents that are at suit today; is that correct?
A Yes.
Q. And the work you did at Paradyne in 1974 that you mentioned in your testimony earlier today, that has nothing to do with the patents-in-suit today; is that correct?
A Yes.
Q. And --
THE COURT: Yes, it does, or yes, it doesn't. What's --
MR. HADDAD: I'm sorry?
THE COURT: What's the answer, Mr. Bremer?
A Please ask the question.
Q. (By Mr. Haddad) Okay. It's -- isn't it true that the work you did at Paradyne in 1974 that you mentioned earlier today, that work has nothing to do with the patents-in-suit in this case?
A It has nothing to do with the patents-in-suit.
Q. And that patent -- that -- that product that you worked on at Paradyne in 1974, that turned into a product, didn't it?
A Yes, it did.
Q. And the work you did at Honeywell, that turned into

a product, didn't it?
A Yes, it did.
Q. But the work you did at Paradyne that led to the patents-in-suit here today, that never led to an actual product that Paradyne put into production; isn't that true?
A Yes, that's true.
Q. So I just want to point out -- if you can turn to the binder at Exhibit PX-007, the binder that your attorneys gave you.
This was your tech note that you mentioned earlier today, correct?
A Yes, it is.
Q. All right. And I highlighted a sentence, you can see in yellow on the screen. It says: If patentable, this may offer Paradyne a strong competitive advantage.
Do you see that?
A Yes, I do.
Q. And this patent never resulted in a product, so it never resulted in a strong competitive advantage to Paradyne; isn't that true?
A Yes, that's true.
Q. And earlier today, there were a whole list of awards that were put up on the screen that you've received. Those awards have nothing to do with the

patents-in-suit; isn't that right?
A That's right.
Q. And you had mentioned -- you were describing modems to the jury. You did not invent modems, correct?
A Yes, that's correct.
Q. And there were a few pieces of technology that are mentioned in your patent that you didn't invent.
For example, you didn't invent master/slave communications; isn't that true?
A I believe that's true.
Q. And you didn't invent polling, correct?
A That's true.
Q. And you didn't invent multipoint communications; isn't that true?
A That's true.
Q. And you didn't invent any of the modulation methods that are mentioned in your patents, correct?
A I --
Q. I can --
A I guess I'd have to --
Q. I can list them for you. I'll make it easier. Just to be clear, you didn't invent the QAM modulation method, Q-A-M, correct?
A That's right.
Q. And you didn't invent the FSK modulation method,

correct?
A Correct.
Q. And you didn't invent DMT modulation; is that correct?
A Yes.
Q. And you didn't invent the other modulations, like PAM modulation, PSK, or PPM; isn't that true?
A Yes.
MR. HADDAD: Thank you, Mr. Bremer.
THE COURT: Do you pass the witness, Counsel?
MR. HADDAD: (No response.)
MR. HADDAD: Do you pass the witness, Counsel?
MR. HADDAD: Yes, Your Honor.
THE COURT: Redirect by the Plaintiff?
MR. ALAVI: No redirect, Your Honor.
THE COURT: All right. Mr. Bremer, you may step down.
THE WITNESS: Thank you.
MR. ALAVI: And, Your Honor, I believe the witness should leave the exhibits; is that correct? Some of them may be confidential.
THE COURT: He didn't bring them with him, did he?
MR. ALAVI: No, he didn't, Your Honor.
THE COURT: Okay. Turn them back over to your

counsel.

THE WITNESS: I have to leave now, right?

THE COURT: Does this witness wish to be excused, or is he to be retained?

MR. ALAVI: He may be retained in the event that the other side wants to call him in their case.

THE COURT: All right. Then -- then he has not been excused.

MR. ALAVI: Thank you, Your Honor.

MR. SHERWOOD: Your Honor, we're not going to call him.

MR. ALAVI: Okay. Then he can be excused, Your Honor.

THE COURT: Does Defendant object to this witness being excused?

MR. SHERWOOD: No, Your Honor.

THE COURT: Okay. Mr. Bremer, you have been excused. You may stay and observe or you may leave. It's up to you.

THE WITNESS: Thank you.

THE COURT: All right. Counsel, we're going to take a short recess.

Ladies and gentlemen, you may leave your notebooks in your chairs.

Don't discuss anything about the case. Take a

minute to stretch your legs and get a drink of water, and then we'll have you back in here and continue with the next witness.

You're excused for recess at this time.

COURT SECURITY OFFICER: All rise for the jury.

(Jury out.)

THE COURT: All right. We stand in recess.

I want to see Mr. Smith and Mr. Ward in chambers, please.

COURT SECURITY OFFICER: All rise.

(Recess.)

COURT SECURITY OFFICER: All rise.

THE COURT: Be seated, please.

MR. SHERWOOD: Your Honor, may I ask one question?

THE COURT: What's that, Mr. Sherwood?

MR. SHERWOOD: Is it the rule of the Court that while a witness's testimony is pending, nobody speaks to the witness with respect to the testimony? Is that the rule of this Court, is what I'm asking.

THE COURT: No, that's not the rule of the Court.

MR. SHERWOOD: I see. Okay.

THE COURT: Can you give me a specific context

you're concerned about?

MR. SHERWOOD: Well, I'm not concerned about anything. I just want to understand the practice. So if the witness's testimony starts on day one but doesn't conclude and --

THE COURT: He's not sequestered overnight.

MR. SHERWOOD: I see. Thank you, Your Honor.

THE COURT: All right. All right. Let's bring in the jury, please.

COURT SECURITY OFFICER: All rise for the jury.

(Jury in.)

THE COURT: Please be seated.

Plaintiffs, call your next witness.

MR. ENGER: Your Honor, the Plaintiffs call Dr. Robert Morrow.

THE COURT: All right. Dr. Morrow, you've been sworn?

THE WITNESS: Yes, sir, I have.

THE COURT: Please come around and have a seat.

All right. Counsel, you may proceed.

ROBERT "BOB" MORROW, JR., Ph.D., PLAINTIFF'S WITNESS, PREVIOUSLY SWORN

DIRECT EXAMINATION

BY MR. ENGER:

Q. Good afternoon.

Could you please tell the jury your name?

A. My name is Dr. Robert Kendall Morrow, Jr., but I go by Bob.

Q. Dr. Morrow, have you been hired by Rembrandt to be an expert in this case?

A. I have.

Q. And have you prepared a presentation to assist you with your testimony today?

A. Yes, I have. I've prepared a number of slides to help me testify.

Q. Dr. Morrow, what technologies does this -- does this case involve?

A. This case involves Bluetooth technology.

Q. And what experience do you have with Bluetooth?

A. Well, as you can see on the slide, I've got over 15 years' experience with it. I was actually working with it just after it came out in 1999.

I've written two books. One is called Bluetooth: Operation and Use, so it's devoted exclusively to Bluetooth. And then a second book, Wireless Network Coexistence, which has major sections of Bluetooth in it.

Q. Dr. Morrow --

MR. ENGER: Permission to approach the -- the witness, Your Honor?

THE COURT: Yes.

Q. (By Mr. Enger) Are those the two books that you've written on Bluetooth, Dr. Morrow?

A. Yes, they are. These are the two books.

Q. And what's the title of the first one?

A. The title of the first one is Bluetooth: Operation and Use.

Q. And how many pages are in that book?

A. There's 567 pages in this one.

Q. And your other book also deals with Bluetooth?

A. The other book has Bluetooth in it -- it's called Wireless Network Coexistence.

Q. Dr. Morrow, tell us about some of the other Bluetooth experience that you have.

A. Well, some of the other experience I have, I've taught courses on Bluetooth to commercial and government clients over the years.

You know, engineers really need to understand the latest technology, so I have some classes that are two to five days in length and teach these people the newest and latest and greatest that's out there.

I also consult for companies like Broadcom, IBM, Ford, Motorola, and Toyota.

Q. Dr. Morrow, with that background in mind, tell us a little bit about where you're from.
A. Well, I -- I grew up in Southern California right near Disneyland. I actually watched it being built. During the years, I've lived all over the United States, including Lubbock and San Antonio, and I've lived in Indiana, back to California, Colorado, and Mississippi.
Q. And where do you live now, sir?
A. I live now on a small farm in East Central Indiana.
Q. Are you married?
A. I am.
Q. How long have you been married?
A. Almost 35 years.
Q. Do you have any children?
A. I have one daughter, who's now grown.
Q. What education have you had since high school?
A. Well, since high school, I -- I graduated with a bachelor's in electrical engineering from the U.S. Air Force Academy with honors in 1974.

1982, I graduated from Stanford University with a master's degree in electrical engineering.

And in 1988, I graduated from Purdue University with a Ph.D. degree in electrical engineering.
Q. What was the technical focus of your studies?
A. My studies focused technically on wireless

communications.
Q. And when did you first express interest in these wireless communications?
A. Oh, just about as long as I can remember. I think my interest really started to solidify when I was in Boy Scouts. We used to use those little walkie-talkies. You probably remember those. Oh, I loved those things.
Q. Dr. Morrow, what do we see here?
A. Oh, in the upper left, that gray box you see with that big telephone hanging out of it, that's a wireless transceiver, a transmitter/receiver that I built when I was about 15.

In the box on the lower right, that's a little thing. You can see the pencil and put it in perspective. That thing has two wireless transmitters in it. I also built that when I was about 15.
Q. Dr. Morrow, what did you do after college?
A. Well, after I graduated from the United States Air Force Academy, I entered the Air Force as an officer, and I was an instructor pilot and an electrical engineering professor and administrator.
Q. And what do we see here?
A. Yeah. That -- that brings back some memories. That is one of the Air Force airplanes I flew at the Air Force Academy.

I had the best of both worlds there. I could fly that airplane -- that happy guy was me, by the way. I could fly that airplane in the morning, and then in the afternoon, I could go up and teach electrical engineering at the university level.

Q. Well, tell us about that work that you did as an electrical engineering professor.

A. Well, as an electrical engineering professor, I first started at the U.S. Air Force Academy in 1982, shortly after getting a master's degree.

I was promoted to chief of the Computer Engineering Division in the Department of Electrical Engineering at the academy in 1988.

I was promoted again to be the Director of Research in 1990. As Director of Research, I managed the research programs of about 700 students and faculty at the Air Force Academy.

And then I was promoted to be the Deputy Head of the Electrical Engineering Department at the Air Force Institute of Technology in 1992. That was the largest department at the Air Force graduate school at the time.

Q. Have you been awarded any patents for the work that you did while in the military?

A. Well, I have. I've been awarded a patent in spread-spectrum packet radio, which is similar to the

technology in Bluetooth.
Q. Have you received any other awards for your service?
A. Well, one award I received -- I guess it's multiple -- is three meritorious service medals, specialized Air Force medal for performance of duty, and two commendations medals at the United States Air Force. And finally, I was -- I was selected as officer of the year.
Q. Dr. Morrow, are you still in the military today?
A. I'm not. I actually retired in 1994.
Q. And what was your rank at the time?
A. My rank was lieutenant colonel.
Q. What do you do now?
A. Well, now I'm president of a company called Morrow Technical Services that I started right after I retired from the Air Force.
Q. Give us a preview of some of the work that you do at Morrow Technical Services.
A. Well, I would say probably the most prominent work I do is I teach those wireless courses I talked about in the past, those two- to five-day courses that bring engineers up to speed on the latest technology.
I also write books, papers, and articles. A little bit of an odd thing, I'm a manufacturer, designer, and

seller of optical collimation tools for astronomy telescopes. Sort of been a hobby of mine for years.

And then finally, I also participate as an expert witness in cases like this today.

Q. Dr. Morrow, back to the first point, the teacher of the wireless courses. You mentioned that some of those relate to Bluetooth. Do any of them relate to Bluetooth EDR?

A. Well, absolutely. Ever since Bluetooth EDR came out in 2004, I've put that important technology into my classes.

Q. And how many papers and articles have you written?

A. About 40 altogether. Some of them have been published in the Institute of Electrical and Electronics Engineers, which is a -- a rather prestigious society. They're called IEEE, for short, IEEE.

Q. Are you a member of any professional organizations?

A. Well, I am. I'm a senior member of the IEEE.

I'm also life members of the Armed Forces Communications and Electronics Association. Military always has abbreviations for everything. That's called AFCEA.

And I'm also a lifetime member of Air Force Association.

Q. Dr. Morrow, are you an expert in electrical

engineering field of communication networks, and in particular, Bluetooth?

A. Yes, I am.

MR. ENGER: Your Honor, I offer Dr. Morrow as an expert in the areas of communication networks and Bluetooth.

THE COURT: Is there objection?

MR. SHERWOOD: No, Your Honor.

THE COURT: All right. He'll be accepted as an expert witness.

Proceed, Counsel.

Q. (By Mr. Enger) Dr. Morrow, what has been the scope of your activities as an expert in this case?

A. Well, I was asked to analyze the asserted patent claims and then take Samsung products and analyze the products with respect to the claims and then determine whether or not I thought there was infringement.

Q. And what conclusion did you reach about infringement?

A. The conclusion I reached is that Samsung, indeed, infringes upon the patents-in-suit.

Q. What are the asserted claims for Mr. Bremer's patents in this lawsuit?

A. Well, the '580 patent, which we've already seen, the asserted claims are Claims 2 and 59. In the '228

patent, the asserted claim is Claim 21.
Q. And what are the model numbers of Samsung's infringing products?
A. I apologize for how busy this slide is. There are a lot of products on the slide, over 400 altogether. They range from computers to televisions to tablets to cell phones to wireless speakers, cameras, and headsets.
Q. Dr. Morrow, where did you get this listing of infringing products?
A. This list was actually provided by Samsung in response to questions asked by the attorneys.
Q. And that was Plaintiff's Exhibit 69?
A Yes, it is.
Q. What evidence did you look at to determine that Samsung's products infringe?
A I looked at quite a bit of evidence. The first on the list is I looked at the Bluetooth specification.
Q. Dr. Morrow, what is a Bluetooth specification?
A A Bluetooth specification is a big document. I think someone's already held one up. It's a big thick thing, over 1200 pages in one of the specifications, and that explains precisely how Bluetooth works.
Q. Dr. Morrow --
MR. ENGER: I'm sorry. Your Honor, permission to approach the witness with the first exhibits, the

Bluetooth specifications?

THE COURT: You may approach the witness.

MR. ENGER: Mr. Larson, please, Box 1.

MR. LARSON: Your Honor, may I approach?

THE COURT: You may.

Q. (By Mr. Enger) Dr. Morrow, could you please look in that first box and tell us if you see any of the Bluetooth specifications that you just discussed?

A Sure.

Yes. In this box, I see four of the Bluetooth specifications that we just discussed.

Q. And with respect to your infringement analysis, do any of those Bluetooth specifications differ in any material way?

A With respect to infringement analysis, no, they don't.

Q. All right.

MR. ENGER: Permission to approach and bring up the second box, Your Honor?

MR. SHERWOOD: Your Honor, may we know what exhibit numbers these are?

MR. ENGER: Plaintiff's Exhibits 1 through 2, 23 through 24, I believe.

THE COURT: All right. Bring the second box forward.

Counsel, approach the bench.

(Bench conference.)

MR. ENGER: Yes, Your Honor.

THE COURT: Wait until both sides get here.

All right. Do y'all have questions about what we're doing? We don't need to be asking questions in front of the jury. Can you identify what's in each box with specificity?

MR. ENGER: I will, yes, Your Honor. Is this the approach you want me to follow getting these into evidence?

THE COURT: Well, I wanted to -- I don't want Mr. Sherwood to stand up and ask.

MR. SHERWOOD: He said they were all the same, and I don't know what he's talking about.

THE COURT: The purpose of this exercise is to get the record clear, so try to be as specific as you can.

MR. ENGER: I understand. Thank you, Your Honor.

THE COURT: All right. Let's proceed.

(Bench conference concluded.)

THE COURT: All right. Mr. Enger, you may proceed.

MR. ENGER: Do we have the second box

available?
Q. (By Mr. Enger) Dr. Morrow, what do you see in the second box of documents?
A The second box are additional Bluetooth specifications, plus some of the documents called PICS.
Q. And what are the Plaintiff's exhibits of that box, please?
A Looks like we have Plaintiff's Exhibit 26, Parts --
Q. Part 2, and in Plaintiff's Exhibit 27, Part 1 and 2?
A That's correct.
Q. Okay. Thank you, Dr. Morrow.
I'd like to ask you now about the next piece -- pieces of evidence that you considered in forming your opinions. What other evidence did you consider?
A Well, another piece of evidence I considered were called Bluetooth Protocol Implementation Conformance Statements, long word. We just call it PICS for short. You've heard that term before as well.
Those are documents that Samsung fills out on every product they make that conforms to Bluetooth, and they assert that various parts of the Bluetooth specifications have been upheld by the products.
Q. Dr. Morrow, do you see any of the Bluetooth Protocol Implementation Conformance Statements in Box 2?

A I do.
Q. And what are those Plaintiff's Exhibits? 350 through 357, correct?
A Let's see. We have some interrogatories here. Let me just check.
We start with Plaintiff's Exhibit 42.
Q. Dr. Morrow, do you see Plaintiff's Exhibit 350 to 357?
A Here we go. Yes. Yes, I do.
Q. All right. Are there any other -- besides 350 to 357, are there Bluetooth PICS that you looked at?
A Yes. In fact, the Plaintiff's exhibits go all the way up to 664. That's a lot of documentation.
Q. You looked at all the Bluetooth Protocol Implementation Conformance Statements, PICS, from Plaintiff's Exhibit 350 to 664?
A I did.
Q. And was there any material differences with respect to your infringement opinions with respect to those exhibits?
A No.
Q. All right. Dr. Morrow, what other evidence did you consider?
A I also considered the evidence from my Bluetooth test results.

Q. Explain to us what your Bluetooth test results are.
A Well, this is something I always enjoyed where you actually get to get in the lab and make things happen.
I worked with a Bluetooth test facility, and we set up testing to see if the Samsung products actually did by turning them on and making them work, if they actually did what they were supposed to do regarding Bluetooth.
Q. What other categories of evidence did you consider, Dr. Morrow?
A I also looked at something called source code.
Q. What is source code?
A Source code is the computer instructions that actually run that little Bluetooth chip inside the Samsung product.
Q. And tell us about other evidence that you considered.
A Well, I looked at product documentation. This documentation comes from various -- various products that have instruction manuals, how they work, and I looked at several of those as well.
Q. And is the source code and product documentation that you considered Plaintiff's Exhibits 665 through 751, 756 through -77, 779 through 806, 809 through 813, 815 through 819, and 822 through 825?

A That is correct.
Q. What other kind of evidence did you consider?
A I also considered deposition testimony. You've heard some of that testimony already, but I read deposition testimony from some Samsung employees that were asked questions about how their products implemented Bluetooth.
Q. What other evidence did you consider?
A I also looked at Samsung's discovery responses. Those are responses to written questions that the attorneys provided to Samsung. Samsung responds to those also in writing, and I read those.
And I also looked at Samsung's internal documents. Those are documents within the company that they generate lots and lots of documentation about these products.
Q. And was the discovery responses you reviewed and -- and relied upon Plaintiff's Exhibits 42 through 43, 45, 63, 68 through 69, and 72?
A That's correct.
Q. And the internal documents you relied upon are Plaintiff's Exhibits 73, 78 through 79, and 238?
A Correct.
Q. Dr. Morrow, was -- this evidence that you considered, was it enough to show you that Samsung's

products infringe?
A It was more than enough. Actually, I had everything I needed to -- to come to that conclusion.
Q. Do you have any unanswered questions today about whether Samsung's products infringe?
A Not at all.
Q. Generally speaking, what are Mr. Bremer's patents about?
A Well, Mr. Bremer's patents, the '580 and the '228, are there to make communication devices work better, faster, and cheaper.
Q. And how do Mr. Bremer's patents do that?
A They do it by seamless communication using different types of modulation.
Q. Now, you just used some words that I expect are foreign to us. What are communication devices?
A Well, communication devices are just devices that send or receive information. That's all it is.
Q. What do we see here, Dr. Morrow?
A So what we see here is the phone on the left is sending information across some kind of communication path to the headset on the right.
Q. How do communication devices send and receive information?
A Well, you've heard the term "modem" before.

Remember, that was modulator/demodulator. So these communication devices all have these little modems inside that perform that communication that make it happen.

Q. And tell us what we see here, Dr. Morrow.

A Well, what I see is some information coming from the cell phone on the left, entering a modem. The modem turns that into a modulated wave that then goes into the modem on the right. The modem on the right demodulates that information and in it goes to the headset.

Q. Is there just one type of modulation?

A No. There are actually several different types of modulation.

Q. Do you have any analogies that would help us better understand the types of modulation?

A. Well, you've seen this before, and that's the language analogy. Types of modulation are like speaking different types of language.

For example, here are two people speaking English. How are you? I am fine.

So what we do is we take a type of language and kind of match it. It's sort of a matching game, just for an analogy, to a type of modulation.

So in this case, if you look underneath, you'll see there are some blue squiggly lines. That's one type of

modulation that we'll just call English by analogy.
Q. What do we see here, Dr. Morrow?
A. Well, here we see two people speaking Chinese, a different type of language, which we represent by the Chinese flag. At the bottom, you'll see a different type of modulation represented also by the Chinese flag, holding up our language analogy.
Q. And what are some examples of different types of modulation that we may be familiar with?
A. You've heard this before, the AM and FM radio. Well, an AM radio, for example, takes a wave, and depending upon the information, it changes the amplitude of the wave, which is just the height.

So, for example, if the information is low, which is 000, the wave is sort of short. And if the information is high, 111, the wave is tall. So the wave changes with respect to the information.

FM works differently. If you notice here, the waves all stay the same height, but instead, we're changing the frequency, which is the distance between the peaks of the signal.

So we see when the information is low, the peaks kind of spread out, the frequency drops. As the information is high, the wave gets squished together, so the frequency is higher.

Q. Well, why do we have different types of modulation?
A. Well, the different types of modulation give an engineer a chance to pick a type that works best in the application that that engineer is working on. So, for example, using our AM/FM analogy, you can see the balance going.

An engineer might pick AM because it's cheap, but you probably remember, if you turn your AM radio on, it's sort of noisy sometimes. So that's why you hear voice on AM radio a lot more than music.

On the other hand, FM is a little more expensive, but FM is much clearer when it comes to music and why most of the music is on the FM band.

THE COURT: Dr. Morrow, could you slow down just a little bit?

THE WITNESS: Yes, Your Honor.

THE COURT: You're speaking a little bit fast.

THE WITNESS: I'm excited.

THE COURT: Well, try to slow down.

Go ahead, Counsel.

THE WITNESS: I will.

Q. (By Mr. Enger) Before Mr. Bremer'S patents, how did communication devices use modulation to send and receive information on a network?
A. Before Mr. Bremer's patents came along, devices

used only one type of modulation, as shown in the slide.
Q. And what do we see here, Dr. Morrow? Is this Figure 1 from the patents?
A. Yes. This is Figure 1 prior art. This is how things had been done. We see a master transceiver on the left connected to three tributary transceivers on the network.
Q. What types of modulation did they use?
A. Well, here, by analogy, we're showing only AM, amplitude modulation, on this network, which we pick as our one type of modulation.
Q. What were the drawbacks to these early communication systems that could only use one type of modulation?
A. There were three major drawbacks here. The first is that one type of modulation is inefficient.

For example, if a new modulation type came along that was better and the device could talk in that modulation type, it couldn't enter this network because this network only used one type of modulation.

The second problem is that the network is costly to upgrade. So if a device had a new type of modulation that worked better, all of the devices on the network had to be replaced in order to make the network operate properly.

And then third, this network was not backwards compatible, and that meant that a new device with a new type of modulation couldn't just enter the network and begin speaking the language that the network had to use.

MR. SHERWOOD: Your Honor, I -- I just would like to say I think this witness is testifying on to the validity issues of the case, and it's fine up to this point, but we need to focus on infringement.

THE COURT: Well, Counsel, if you have an objection to make, make an objection, but observations from counsel table aren't appropriate or welcome. If you're -- if you're objecting to his testimony, give me a legal basis. If not --

MR. SHERWOOD: I am objecting to the witness testifying about prior art because he's been proffered as an infringement expert, not as a validity expert.

MR. ENGER: Your Honor, he's an infringement expert. We're just talking about the backgrounds of the invention. We're moving on.

THE COURT: All right. I'll overrule the objection. Let's move on.

Counsel, lodge your objections in the form of -- of an objection based on a legal theory, not a statement from counsel table.

MR. SHERWOOD: Thank you, Your Honor.

THE COURT: All right. Proceed, counsel.
Q. (By Mr. Enger) How did Mr. Bremer's patents improve on those early communication systems that used only a single common type of modulation?
A. Well, Mr. Bremer's patents, as you can see on the screen --
MR. SHERWOOD: Your Honor, I object. It's the same question. It's the same subject matter that I just objected to, an improvement over the prior art. That's what the question is.
MR. ENGER: Your Honor, I respectfully disagree. This is setting the context of the invention, and we're about to explain exactly what the invention is.
THE COURT: Well, I'm going to overrule the objection. The witness can answer the question.
A. Okay. Would you please repeat the question?
Q. (By Mr. Enger) The question was how do Mr. Bremer's patents improve on the early communication systems that used only a single common type of modulation?
A. Mr. Bremer's invention improves upon that single common type of modulation by providing seamless communications using different types of modulation.
Q. And what does Figure 4 of Mr. Bremer's patent show?
A. Figure 4 looks a lot like Figure 1. It shows a

master transceiver on the left and three tributary transceivers connected to a network.

Q. Why are some of the figures labeled Type A and others Type B?

A. This is the difference. Some tributary transceivers, the two at the top with a blue highlighting, speak primarily Type A modulation. The tributary transceiver at the bottom with the red highlighting speaks primarily Type B modulation.

Q. What do we see here, Dr. Morrow?

A. What we see is our different types of modulations shown here as AM and FM, both existing together on this network.

Q. And what are the advantages to Mr. Bremer's invention?

A. Well, the advantages actually address each one of the disadvantages we saw earlier. For example, this is an efficient way of connecting devices.

Now, if a new modulation method or a new modulation type comes along that's better and more efficient, a device can begin using that right away.

It's less costly because the new device can enter the network and begin operating on the network without having to upgrade all the old devices. And likewise, it's backwards compatible because the new device can

talk with all the old devices immediately.
Q. How did Dr. -- did Mr. Bremer's patents teach to achieve this seamless communication using different types of modulation?
A. Well, Mr. Bremer's patents teach that there are two types of messages on this network, and we label those Message 170 and Message 172.
Q. Dr. Morrow, what figure is this from?
A. This is Figure 8 from Mr. Bremer's patents.
Q. What are messages?
A. Messages are just pieces of information that are sent from one device to another. For example, here we see Message 170 proceeding from the phone to the headphones, and we see Message 172 proceeding from the phone to the headset.
Q. Returning back to Figure 8, why are there lines drawn within these messages?
A. Those lines designate different parts of a message.
For example, the green box is around something called a first sequence. We just name it something, the first sequence. The blue box is around the second sequence of the message. And then something called the trailing sequence is surrounded by the red box.
Q. And why are some of the different parts of the sequences labeled Type A modulation and Type B

modulation?
A. You can see at the top, Message 170 uses only Type A modulation throughout, but at the bottom, Message 172 begins with Type A modulation and then proceeds with Type B modulation.
Q. And are these the same types of modulations we discussed earlier like, for example, with AM and FM radio?
A. Yes. In fact, I show AM at the top and FM at the bottom as examples of different types.
Q. Now, Dr. Morrow, whenever a device receives one of these messages, how does it know whether it's a message like the top one or a message like the bottom one?
A. That's an important problem because if a receiver makes a wrong choice, then it won't receive the second sequence.

So what happens is something in the first sequence has to indicate a modulation change from Type A to Type B in the second sequence.
Q. And what do we see here in Figure 8?
A. Well, we see in Figure 8 a notification of change to Type B modulation exists in the first sequence of Message 172.
Q. Dr. Morrow, what do we see here?
A We see a lot of words on the left. This is

actually Claim 59. It says 58 at the top, but we'll talk about that later. This is Claim 59 of the '580 patent.

And then on the right, we see our figure we just examined, and one thing we can do is play a matching game. We can match the words in the claim with the pieces of the figure.

Q. What do we see here?

A So, for example, a communication device is aimed at the master transceiver. That's the one we focus on.

Second, the master transceiver is capable of transmitting at least two types of modulation methods, and those are labeled Type A and Type B in the figure.

Third, the messages can be transmitted, and there's our messages again, 170 and 172. And each message has, like the words say, a first sequence and a second sequence.

And then there's -- there is at least an indication of which of the first modulation method and the second modulation method is used for modulating the second sequence.

A lot of words, but the picture shows something in the first sequence indicates a notification of a change to Type B modulation.

Q. Dr. Morrow, what does a person of ordinary skill in

the art look like in 1997 at the time of Mr. Bremer's invention?
A Well, in 1997, I felt a person of ordinary skill in the art had a bachelor's degree in electrical engineering, including communication and networking classes, and had two years of work experience in communication.
Q. 1997, were you such a person of ordinary skill?
A Yes. In 1997, I had a doctorate degree in electrical engineering and several years' experience in communications.
Q. Dr. Morrow, let's talk about Samsung's products. What is it about them that makes them infringe?
A The thing about Samsung's products that makes them infringe is they have Bluetooth inside them, specifically Bluetooth Enhanced Data Rate, or EDR.
Q. And what is Bluetooth?
A Bluetooth is just a short-range wireless communication technology in which two devices, two communicating devices, can talk to each other.
Q. What is Bluetooth used for? What are some common applications?
A Probably the most common application that many of you are familiar with, you've probably seen someone walking along that looked like he was talking to

himself. Well, it turns out that person probably had a Bluetooth headset on and was actually on the phone. It shocked me the first time I saw it.

Anyway, that's -- a major application of Bluetooth is connecting a cell phone to something called a headset or earpiece.

Another application is hands-free. Many states are passing hands-free laws now. Connecting your cell phone into your car audio system is also done over Bluetooth.

Q. Well, how does Bluetooth communicate data?

A Well, Bluetooth devices have inside tiny modems, modulator/demodulators.

Q. Dr. Morrow, when was Bluetooth first introduced?

A As seen on this chart, Bluetooth was first introduced with specification 1.0 in 1999.

Q. Were there subsequent versions of Bluetooth after Version 1.0?

A There were actually. Subsequent versions were released every couple of years all the way up to 4.2, which came out just last year.

Q. And which have these Bluetooth versions relate to Mr. Bremer's invention?

A Mr. Bremer's invention is Version 2.0 and later.

Q. And remind us of when Mr. Bremer invented his invention.

A His invention was invented in 1997.
Q. Now, how has EDR changed between when it was first introduced in 2004 until the present?
A There are no changes. EDR's implemented the same way all the way throughout.
Q. And how does EDR change, if it's used by different products, for example, cell phones or tablets or computers?
A EDR is used the same way or implemented the same way in all the products.
Q. Well, tell us what is enhanced data rate?
A Well, at the top, we have a Bluetooth device with no EDR. That little B in the -- in the circle, that's equivalent to the family sedan. It's sort of a slow vehicle.

But when EDR came along, which is our lower diagram, that's equivalent to a race car. So EDR simply increased the speed in which Bluetooth could communicate.

Q. And why does EDR transfer data so much faster?
A It does so by using two different types of modulations.
Q. What are those two types?
A The two types of modulations are called GFSK. The F stands for frequency, so that's a frequency

modulation. And there's a DPSK modulation method, and that is -- with a P in it that stands for phase; that's phase modulation. We'll sort of talk about what those are later.

Q. Dr. Morrow, let me show you Defendants' Exhibit 1043. What is this document?

A This document was released by the Bluetooth Special Interest Group, and it's called the Bluetooth Technology Roadmap.

Q. What are the advantages of Bluetooth EDR?

A Well, according to this document, devices implementing the EDR features take advantage of several things.

First is the data rate is increased up to three times the previous level. Reduced power consumption resulting in increased battery life is another example. Improved Bluetooth experience by running multiple Bluetooth devices simultaneously and transferring large files a lot quicker.

And then there are improved use cases. That's you and I that use -- or you and me that use these Bluetooth devices, including streaming audio, digital image transfer, laser printing -- a lot more convenient for us.

And then very important is Bluetooth 2.0+EDR allows

the devices to be backwards-compatible. They'll still work with the older Bluetooth devices.

Q. Let me show you Plaintiff's Exhibit 238, Dr. Morrow. What is this exhibit?

A This is one of the Samsung internal documents that's called Enhanced Data Rate Applications.

Q. What did Samsung say were the three key advantages of EDR?

A Well, these actually mirror a little bit what we saw before. They say there's a 3X increase, 3 times increase in usable payload data rate. They said for a given amount of data transfer, the radio needs to be on for less time. There's your key for using less power.

And then additional bandwidth enables multiple-use scenarios. So there's more flexibility here.

Q. Samsung did not implement EDR. Would its customers get all those same key advantages?

A No. Those are EDR advantages as listed.

Q. Dr. Morrow, let me show you Plaintiff's Exhibit 23. What do we see here?

A Now, this is the specification of the Bluetooth system, at least the cover page. The specification itself is 1200 pages. This is the core version for 2.0+EDR.

Q. What do we see here on the page labeled SAM 99669?

A These are the two main packets used in Bluetooth.
Q. And let me blow them up for you.
Dr. Morrow, tell us about these two messages.
A There are two messages that you can see. At the top, there's a message called the basic rate packet. And at the bottom, we see a message called the enhanced data rate, or EDR, packet.
Q. Tell us about the structures of these messages.
A Well, we can see in each of the two messages there's a first sequence that contains the access code and the header followed by a payload, which is called the second sequence.
Q. And what types of modulation methods do the first sequences use?
A The first sequence in both packets, both messages, use GFSK. That's frequency modulation, and we designated that with -- with the English flag.
Q. What types of modulation do the second sequences use?
A Well, that depends upon the message. At the top, the second sequence also uses GFSK, our English analogy. So both modulation methods are the same there.
At the bottom, we have a change in modulation to DPSK, or phase modulation, for the second sequence.
Q. Well, how do these Bluetooth messages compare to

the messages from Mr. Bremer's patents?
A Well, they're -- they're very similar as you can see on the screen. What I've done is I've put message 170 for Mr. Bremer's patent alongside the Bluetooth basic rate packet, and message 172 from Mr. Bremer's patent alongside the Bluetooth EDR packet.
Q. And how do the structures and modulation methods compare?
A Well, we can see, for example, that each of the messages has a first sequence and a second sequence. At the top, all the messages use only one type of modulation.

And at the bottom, we find out that in Mr. Bremer's packet -- patent, the second sequence is modulated using a different type, Type B modulation.

And likewise in the Bluetooth EDR packet, we also see the second sequence as modulated using a different type of modulation.

So here's our flag analogy. We've got English, the GFSK, frequency modulation, shown; and we have Chinese, the DPSK, phase modulation, shown in the various places.
Q. Dr. Morrow, let's return to the slide with the accused Samsung products. How many of these products include Bluetooth EDR?
A Now all of these products do.

Q. And what do you call these products?
A These products I call the Samsung Bluetooth EDR products.
Q. For purposes of your infringement analysis, do all of the accused Samsung Bluetooth EDR products infringe in the same way?
A In the same way, yes.
Q. Are there any material differences with respect to these products for your infringement analysis?
A No.
Q. Dr. Morrow, what claim of the '580 -- claims of the '580 patent did you conclude that Samsung infringed?
A. Well, I believed that Samsung products infringed at least Claims 2 and 59.
Q. Well, we'll address each of those individually. Let's start a little bit out of order with Claim 59.
THE COURT: Let's break right here, Counsel. Approach the bench, please.
(Bench conference.)
THE COURT: I assume you're going to get into the specifics of your claims --
MR. ENGER: We're ready to --
THE COURT: -- and this is a good place to break for the evening?
MR. ENGER: This is a good spot.

MR. SHERWOOD: Thank you, Your Honor.

(Bench conference concluded.)

THE COURT: Ladies and gentlemen, based on what counsel have told me, they're about to begin a segment of testimony that will take some time, so we're going to use this as a juncture to break for the evening.

I'm going to ask you to take your notebooks and leave them on the table in the jury room as you exit the courthouse for the evening.

I'm going to ask you to be in the jury room by about 8:20 so that we can start as close to 8:30 as we can in the morning.

And I'm going to remind you again not to discuss the case among yourselves and particularly not to discuss the case with anyone else, especially when you get home tonight.

This is that first real point of temptation where somebody's going to ask you what you've done all day. And just make sure you don't answer that question and tell them that I've told you not to.

I've instructed you not to. Blame it on me. But it's critical that you not talk about your jury service or anything that you've heard or anything that's been presented to you.

So don't discuss the case with anyone. Don't attempt to do any research about any of the concepts or ideas you've heard about. Follow all the same instructions that I gave you earlier today.

With that, I wish you travels safely to your homes, and I'll see you in the morning at 8:30. You're excused until that time.

COURT SECURITY OFFICER: All rise for the jury.

(Jury out.)

THE COURT: All right. Counsel, I'll be in chambers by 7:30 in the morning.

Also, I remind you that before we bring the jury in, I want a representative of each side to read into the record the exhibits that were used during today's portion of the evidence.

With that, we stand in recess.

COURT SECURITY OFFICER: All rise.

(Court adjourned.)

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CERTIFICATION

I HEREBY CERTIFY that the foregoing is a correct transcript from the stenographic notes of the proceedings in the above-entitled matter to the best of my ability.

/s/Shelly Holmes — 2/9/15
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