QTCENG EXHIBIT 1024

PART 4

1   there's no access to devices three, four and five.

2   Q. Okay. And so if we go back to the colorized version of

3   exhibit 552, which computer screen shot were we looking at

4   then?

5   A. We were looking at the left computer the one shown in

6   blue.

7   Q. Now, should we look at the right one?

8   A. Yes.

9   Q. And now I'm showing, again, a screen shot from exhibit

10   110, your Honor, showing right G 06, windows explore er with

11   ones three four and five enabled for right system and what is

12   this showing?

13   A. This is the windows ex er showing what the right system

14   can see for storage devices and three external devices labeled

15   blue, purple and orange.

16   Q. It's a few pages later and it's also on the graphic

17   exhibit in you want to look at them.

18   MR. BAHLER: What graphic exhibit?

19   A. The blue, purple and yellow are -- blue, purple and orange

20   are devices three, four and five.

21   MR. ALCOCK:

22   Q. Okay. And so now let's go back to exhibit 564. What is

23   exhibit 564 showing?

24   A. This is a composite of the three slides we've showed for

25   access control. The Pathlight sun director, the left computer

1   and the right computer.

2   Q.   So what is this showing us, then?

3   A.   Showing the correspondence between the checkmarks on the

4   Pathlight SAN director and the devices that are available to

5   the particular computers.

6   Q.   Now, how does this show access controls?

7   A.   It shows that we have allowed access to certain devices to

8   a particular computer and not to -- and that computer does

9   clot have access to other devices.

10   Q.   Okay.   So by operating the management station, you can

11   control the access of the left and the right computer to the

12   various remote storage devices?

13   A.   Yes, that's true.

14   Q.   And in effect, here it shows that those computers can't

15   even see those storage devices on their computer screen; is

16   that right?

17   A.   That's correct.

18   Q.   How would they get access to them?

19   A.   I was unable to do that.   I tried doing that by running

20   SCSI -- a SCSI commands director to the particular addresses

21   and simply said the device was not recognized.

22   Q.   Lastly, let me show you exhibit 611.   What is exhibit 611?

23   A.   This is an excerpt from the Pathlight from one of the

24   manuals.   It's gateway, I believe.   And it shows the use of

25   the SAN director and the privileges that one might have in

1   terms of using the Pathlight SAN director. There are --

2   Q. Now, hold on one second. Let's just step back for the a

3   moment T SAN director is what?

4   MR. BAHLER: Counsel, I don't have 611 in the book.

5   MR. ALCOCK: I apologize. It was left out. You were

6   given a copy of all the graphics earlier, counsel, every

7   single one of them.

8   MR. ALCOCK:

9   Q. Continue.

10   A. Would you repeat the question?

11   Q. What is exhibit 611 showing?

12   A. It's showing the -- how one uses the SAN director. And in

13   particular, it says that there are two different privilege

14   modes that one might have in using the SAN director. One is a

15   user privilege which simply allows you to look at things that

16   is -- you could look at the access control and the

17   administrator mode which allows you to actually change access

18   control.

19   Both of those actually require a pass word for access

20   before you can do anything. Here is a administrator's pass

21   word screen shot here when you log on to the Pathlight SAN

22   director, it asks you who you are and your pass word.

23   Q. Okay. So does the products that you've tested have the

24   element of the claim including the access control limitation?

25   A. Yes, it does.

1   Q.   Okay. Now, finally we'll move to exhibit 565 and what is

2   that showing, sir?

3   A.   This is showing the final element of claim 1 in which we

4   talk about the native low level block protocol, and the text

5   down there comes from a computer screen where I was actually

6   operating the devices with SCSI commands addressing a

7   particular device.

8   Q.   So the bottom is another one of those screen shots from

9   your computer?

10   A.   Yes, it is.

11   Q.   And what does that show?

12   A.   It shows that I have addressed this device with a

13   particular bus, target and LUN which is the SCSI addressing

14   mechanism that I was actually was able to find that device and

15   I actually execute commands against it.

16   Q.   Okay. Now, let me take us back to exhibit 559. A word

17   that we didn't talk about is virtual local storage. Is that

18   an element of this claim and some of the other claims?

19   A.   Yes, it is.

20   Q.   And do these devices have that?

21   A.   Yes, they do.

22   Q.   Can you explain?

23   A.   Virtual local storage is what you get -- is defined as --

24   I've got blank. I'm sorry. Storage that has the appearance

25   and characteristics of local storage. It's what you get when

1   you combine mapping, virtual -- native low level block

2   protocol and access control.

3   Q. Okay. Let me put before you an exhibit, a number of which

4   I'll give you a in a second and can you explain what that is?

5   A. This is a summary of claim 1.

6   Q. It's exhibit 572 for the record, your Honor.

7   A. A summary of claim 1, a summary of the graphics that you

8   saw as we went through the claimed elements so that you can

9   see that each one of these looks exactly as you saw on the

10   graphics.

11   Q. Okay. Now I'm going to put before you claim 7. There

12   were three independent claims in the patent, sir?

13   A. Yes, that's right.

14   Q. And is this the next independent claim?

15   A. This is the next one.

16   Q. And how does is this different from the other claim that

17   we just looked at?

18   A. The first claim that we looked at was the claim that

19   described the storage router. This one starts off describing

20   a storage network, Pathlight product. It's not a network,

21   it's a router.

22   Q. Okay. But does it go in a network?

23   A. Yes, it does.

24   Q. Does it have any use other than being in a network?

25   A. Nothing substantial.

1   Q. Okay. And so does the products have all the elements of

2   claim 7?

3   A. Yes, it does.

4   Q. Okay. I've put before you exhibit 575. Does that help

5   you explain this quickly?

6   A. Yes, it does. But we have a storage network which has

7   such characteristics which show a photograph of the device of

8   the Pathlight SAN gateway. The block diagram, again. We have

9   a fiber channel transport medium emphasized in red here. We

10   have the SCSI bus transport medium emphasized in blue. We

11   have Fibre Channel transport medium is just the light pipe.

12   The SCSI bus transform medium is the SCSI came.

13   Work stations, shows work stations and there are

14   references all through the documentation to work stations.

15   Plurality of SCSI storage devices connected to the SCSI bus,

16   connected to the fiber channel. So it has all the elements of

17   claim 7. It has all the elements of claim 7, and the storage

18   router itself is in the middle of this network, and it has

19   exactly the same characteristics that are described in claim

20   1.

21   Q. Can you check those off?

22   A. Yes. Mapping, access controls, native low level block

23   protocol.

24   Q. Okay. Now, claim 11 is the last independent claim.

25   What's the basic difference between that and the other claims?

1   A. The other claims claim specific hardware. This claims a

2   method of doing something which looks remarkably familiar to

3   you by now.

4   Q. And just quickly showing you exhibit 578. Does it neat

5   the elements of the method claim 11?

6   A. Yes, it does. We have, again, we have a means describe --

7   that's described by looking at the product itself and at the

8   block diagram. We have a means of connecting to the Fibre

9   Channel, means of connect together the SCSI bus.

10   Q. Can you check the boxes for us?

11   A. Uh-huh. We have another graphic on the rest of that?

12   Q. Exhibit 579?

13   A. Yes, means of maintaining a configuration. We've got

14   through that. Access controls, means of allowing access in

15   accordance with configuration using native low level block

16   protocol. So we've covered all those things before.

17   Q. Now, very quickly Dr. Hodges because we are running out of

18   our allotted time here, exhibit -- I'm going to ask you very

19   briefly about the dependent claims. Right now we've covered

20   three independent claims. What's a dependent claim?

21   A. A dependent claim is one that incorporates all of the

22   elements of the independent claim plus something else.

23   Q. Okay. Let's go through claims 2, 8 and 14 and I've shown

24   you exhibit 580. Did they infringe those claims?

25   A. Yes, they do. Claim 2, 8 and 14 are all similar and they

1   require that one have only one computer that has access to a

2   particular device and the access control that I defined in

3   previously was -- covers that.

4   Q.   Okay.   I'm showing you exhibit 581 and I'll ask your

5   opinion with respect to claims 3 and 13.

6   A.   Claims 3 and 13 indicate that the Fibre Channel devices

7   could have -- could be work stations.   Work stations are

8   mentioned in a lot of different places in the manuals and the

9   web site and various diagrams.

10   Q.   Okay.   Now, exhibit 582 showing claims 4, 9 and 14.   To

11   they infringe those claims?

12   A.   Yes, the SCSI storage devices, the hard disk drives, they

13   show pictures and discussion of that throughout the

14   documentation.

15   Q.   And lastly, claims 5 and 6.   Do they infringe those, sir?

16   A.   Claims 5 and 6, you have a graphic on that?

17   Q.   Exhibit 569 and I'm going to focus you on the bottom two

18   claims.

19   A.   This way I don't leave anything out.   Claim 5 describes

20   the router as in claim 1, but further defines the Fibre

21   Channel controller that has a fiber channel protocol unit,

22   first in, first out cue, direct memory access, technical terms

23   all of which are contained in the Fibre Channel controller

24   found by looking at the data sheets and manuals for the

25   control that is used.

1   The same thing is true on claim 6. The elements are

2   all there looking at the manuals and data sheets for the SCSI

3   controller that's used in the device.

4   Q. Okay. Have a seat, sir. While you're doing that, I'm

5   going to put up a page of exhibit 153. It's page 109 of

6   exhibit 153. It's a page from if Pathlight web site. So far,

7   Dr. Hodges, have all the tests that you've done, the screen

8   shots that we've shown have been used with this VPS software?

9   A. That's correct.

10   Q. Now, earlier you mentioned you tested it with another kind

11   of software. What was that?

12   A. That's called channel zoning.

13   Q. Okay. And showing exhibit 109 and I'm putting a portion

14   of it, Pathlight SAN gateway solve these type of problems with

15   two levels of access control. The first method offered by SAN

16   gateway is channel access control or zoning. Is that the

17   other kind that question haven't talked about yet?

18   A. Yes.

19   MR. BAHLER: Counselor, you just mentioned 109. Are

20   you within Plaintiff's Exhibit 153?

21   MR. ALCOCK: Exhibit 153 point 109 and at the end of

22   your book are a handful of pages and in it is this included.

23   MR. BAHLER: Thank you.

24   MR. ALCOCK:

25   Q. Let me take a look at page 110. Panels Pathlight's

1   channel access control inhibits devices from knowing that the

2   storage channel exists, making it inaccessible. Do you agree

3   with that statement?

4   A. Yes.

5   Q. And what test did you perform the confirm that in fact is

6   the case?

7   A. I reconfigured my test setup so that each of the computers

8   was on a separate fiber channel port and I reconfigured the

9   disk drives to have some of them on two different SCSI ports.

10   Q. Okay. Let me show you exhibit 607. What is exhibit 607?

11   A. This is a screen shot for the Pathlight SAN director

12   again, channel zoning control, and the color is added.

13   Q. And what are you doing here?

14   A. What I'm doing here is setting up the access control for

15   the channel zoning.

16   Q. Okay. Let me show you exhibit 606. What does that show,

17   sir?

18   A. This shows a picture of how things are connected. This is

19   again the Pathlight SAN director. They have an information

20   screen that will show you this kind of thing. You can see

21   that the -- in the upper section, the SCSI devices, there are

22   three devices connected to SCSI channel one and two connected

23   to SCSI channel two and that the two computers are connected

24   to two different Fibre Channels.

25   Q. And what is the right-hand of this thing show -- I mean

1   the left-hand side of it show?

2   A.   That's what I was just talking about.

3   Q.   Oh, I'm sorry. So which are connected to which fiber a

4   channel?

5   A.   The checkmarks in the previous graphic show that Fibre

6   Channel one was connected to SCSI channel one and not to SCSI

7   channel two. So you'll see the Fibre Channel one outlined in

8   red here connected to SCSI channel one should be able to see

9   only devices one, three and five which are connected to the

10   SCSI for that channel. And the same -- similarly for fiber

11   channel two.

12   Q.   Okay. So let me show you exhibit 608. What is that a

13   screen shot of?

14   A.   Screen shot of the windows explore er showing what is

15   available to the left computer. The left computer, you'll

16   recall, was on fiber channel 1 and was allowed access to SCSI

17   kennel 1 which contained devices one, three and five, that is

18   the red, blue and orange devices.

19   Q.   Okay. And let me show you exhibit 609. What is that

20   depict?

21   A.   That is the right computer, windows explore er showing

22   what's accessible to the right computer. Again, it was on --

23   it was on fiber channel two with access to SCSI channel two

24   and we see that SCSI channel two had devices two and four,

25   purple and green.

1   Q.   So is this channel zoning access controls?

2   A.   Yes, it is.

3   Q.   Does it perform the same function as the access controls

4   in the claims?

5   A.   Yes, it does.

6   Q.   Does it do it in a substantially the same way?

7   A.   Yes, it does.

8   Q.   Does it achieve the same result?

9   A.   Yes, it does.

10   Q.   With respect to all the claim elements of all the claims,

11   do they perform the same function as the claims -- with

12   respect to all the functions we've talked about with the

13   devices, are they performing the same function as in the

14   claims?

15   A.   Yes, they are.

16   Q.   And do they do it in substantially the same way?

17   A.   Substantially the same way.

18   Q.   And does it achieve substantially the same result with

19   respect to every claim element?

20   A.   Yes, it does.

21   Q.   And so do you determine every element of every claim being

22   present in those devices?

23   A.   Yes, I did.

24   Q.   Then I think you better check that last box.

25   A.   Which one did I leave off? Oh.

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 1    Q.  Pass the witness, your Honor.

 2                    CROSS-EXAMINATION

 3    BY MR. BAHLER:

 4    Q.  Dr. Hodges, I'd like to talk to you for just a second,

 5    first of all, about this concept of access controls.  It's a

 6    word that although you weren't here, Mr. Alcock wrote in big

 7    letters on a board that's right over there.  And what is --

 8    does access control require any form of security in your mind?

 9    A.  Yes, it does.

10    Q.  Okay.  What security's required?

11    A.  Similar to locally attached storage.

12    Q.  Okay.  What does the security of -- or the security of

13    locally attached storage means for example, at least in your

14    opinion, that no other hosts can access that storage, right?

15    A.  Not exactly.

16    Q.  What is your idea of security with respect to local

17    storage?

18    A.  No unauthorized host can have access to the storage.  The

19    security should be similar to what you would if you had

20    something attached the a local compute.

21    Q.  So in your mind access control does not prohibit access to

22    storage devices by hosts that are prohibited from -- or that

23    are -- that the access control intends to exclude?

24            MR. ALCOCK:  Objection, your Honor.  Vague and

25    ambiguous.
```

1   MR. BAHLER: I'll withdraw it.

2   Q. There your opinion, access control is not -- does not

3   prohibit other hosts from getting access?

4   A. It does not prohibit unauthorized -- excuse me. It does

5   not prohibit authorized hosts from getting access.

6   Q. But does it prohibit unauthorized hosts from getting

7   access?

8   A. Yes.

9   Q. All right. Prohibit --

10   A. To the degree that it would prohibit it with local

11   storage.

12   Q. I'd like to show you what's on the board as exhibit --

13   this is Defendant's Exhibit 1. This is figure 3. Now, the

14   thing in the Pathlight or I'm sorry, the Crossroads patent

15   that governs access control is this thing called the

16   management station, correct?

17   A. No, sir.

18   Q. Well, the management station is required to -- well, the

19   storage router ultimately accomplishes the function of access

20   control, correct?

21   A. Yes.

22   Q. All right. And the settings in the storage router that

23   accomplish that function are done by the management station,

24   correct?

25   A. Yes.

1   Q. All right. And the work stations don't make those

2   settings, right?

3   A. Work stations that do not have management capability or do

4   not do that.

5   Q. Right. Well, take a look at -- column 4 of the patent,

6   right around line 33. Do you see that, sir?

7   A. I see what are you referring to?

8   Q. Well, it talks about the management station 76 and that's

9   the one that we were just looking at in figure 3, right?

10   A. Yes.

11   Q. It says the management station 76 can be connected

12   directly to storage router 56 via connection, direct

13   connection or can interface with the storage router 56 through

14   either Fibre Channel 52 or SCSI bus 54. Do you see that?

15   A. Can I read the rest of that paragraph, sir?

16   Q. Sure. Do you have a copy of the patent?

17   A. Yes, I do. This is which column?

18   Q. Column 4, line 33.

19   A. Column 4?

20   Q. Column 4, line 33.

21   A. I'm sorry. My copy is not very good. I was looking at

22   line 23. Yes, sir.

23   Q. All right. Just after that, it says in the latter case,

24   and that is when the management station is connected to the,

25   for example, Fibre Channel bus, the management station can be

1   a work station. Do you see that?

2   A. Yes.

3   Q. All right. Referring back to figure -- to your 3, that

4   means this management station right here on figure 3 doesn't

5   have to be connected right here, it doesn't have to be

6   connected right here, but it can be connected directly to the

7   SCSI bus, right?

8   A. That's allowed --

9   Q. Right there, right?

10   A. Yes.

11   Q. And in that case, according to that section of column 4,

12   it could be a work station, right? Just like all the other

13   hosts on there, right?

14   A. No, sir.

15   Q. How is it different?

16   A. It's a management station that has special rights.

17   Q. All right, sir. Could that management station be within

18   one of the work stations that already exists?

19   A. I don't know what that means.

20   Q. Well, I've got a management station here that according to

21   the patent can be a work station, right?

22   A. Yes.

23   Q. And then, I've got a whole bunch of work stations over

24   here, too, right?

25   A. Yeah.

1   Q. Well wouldn't it make sense rather than have a management

2   station dedicated to or work station dedicated to the

3   management station wouldn't it just make sense to put the

4   management station, combine it with one of those work

5   stations?

6   A. You could do that.

7   Q. You could actually put it in more than one work station,

8   right?

9   A. One could do that.

10   Q. You could put it in all work stations, right?

11   A. If you wanted to do that.

12   Q. And in that case, all hosts could get access, right?

13   A. All hosts could -- would have the capability -- all hosts

14   would be management stations.

15   Q. Right.

16   A. You would have the capability of changing access.

17   Q. In that case -- all right. Now, if all hosts can get

18   access to storage at any time, what kind of access control is

19   it?

20   A. It's controlled by the management station which has

21   special rights. The management station itself has pass word

22   protection for the administration so that only the authorized

23   people can make the changes.

24   Q. Well, --

25   A. It's no different from having dedicated management

1   station.

2   Q.   Well, the hypothetical I've posed for you, Dr. Hodges, was

3   that each and every work station, A, B, C, D and E has

4   management functions. That means that each one of those work

5   stations can adjust access control, right?

6   A.   Given the appropriate pass word by the administrator.

7   Q.   Is that a yes?

8   A.   The administrator could control access from any work

9   stations.

10   Q.   Right. Okay.

11   A.   It does not mean that any work station will willy-nilly

12   change it.

13   Q.   Well, if any work station can change access control and,

14   therefore, permit that work station to gain access to the

15   storage, then there is, in fact, no access control?

16   A.   I'm sorry. The work stations -- the control software in

17   the work station can -- is what can change the access control

18   and one can choose to -- one can expect to have minimum --

19   have special rights for an administrator. So an administrator

20   can use any work station to change.

21   Q.   Well, I've just given you a hypothetical with the

22   management function is in all work stations and so they all

23   have special rights. That's a possibility, right?

24   A.   One could con figure it that way if one desired.

25   Q.   All right. And in that case, any work station can get

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1   access to any storage at any time, right?

2   A.   If one chose not to provide the protection that is

3   inherent in the patent, yes.

4   Q.   Well, the patent says that the management station can be

5   connected to the Fibre Channel, right?

6   A.   One could choose not to provide any management -- any

7   protection at all in one wanted to.

8   Q.   And that would be access control that would be covered by

9   the patent in your opinion?

10   A.   The access control is provided by the device.   That's if

11   it's available.

12   Q.   Is the way that device -- by the device, you mean the

13   storage router?

14   A.   Access control is provided by the storage router, the

15   administration is available as desired by the administrator,

16   and the function is there.

17   Q.   But -- okay.   Let me make sure I have this right.   The

18   management station just serves to set the configuration that's

19   maintained by the router which ultimately accomplishes access

20   control, right?

21   A.   Yes.

22   Q.   And there's nothing in the claims directed to the

23   management station, is there?   You didn't check any boxes

24   anywhere that said management station, right?

25   A.   That's true.

1   Q. Management station isn't in that claim, is it?

2   A. There's no -- those words are not used in the claim.

3   Q. What is used in the claim is -- this is claim 1.

4   A. Yes.

5   Q. It says to maintain a configuration for SCSI storage

6   diseases connected to the SCSI bus transport medium, right?

7   A. Yes.

8   Q. So it's the maintenance of that configuration, that's

9   what's required, right?

10   A. That's what is required.

11   Q. And that has nothing to do with how those -- that

12   configuration is set by the management station, right?

13   A. That's not addressed in the claim. And the function --

14   what is addressed by the claims is the function that's

15   provided by the router.

16   Q. And, in fact, the claims don't say anything about how that

17   configuration is set, right?

18   A. They do not.

19   Q. Could be set by the SCSI reserve command, right?

20   A. No.

21   Q. Why not?

22   A. The SCSI reserve command being implemented according to

23   the SCSI specification is not sufficient access control.

24   Q. Why not?

25   A. Because it does not provide the kind of access control

1   that is available for local storage. You do not have virtual

2   local storage from that.

3   Q. We'll get to that in just a second. I'm talking about

4   access control right now, all right?

5   A. Access control is illuminated by the virtual local

6   storage. It tells you what kind of access control is

7   required.

8   Q. Well, actually virtual local storage in claim 1 appears up

9   here at the top, right? Providing virtual local storage,

10   right? And access controls's down here, right? Those are the

11   same in your opinion?

12   A. They're not the same, no, sir.

13   Q. Well, so in your opinion, a device that's configured like

14   that shown in figure 3 that uses the SCSI reserve command to

15   set that configuration, that performs access control in your

16   opinion, right?

17   A. No, sir.

18   Q. Okay. Why not?

19   A. It does not meet the requirements for virtual local

20   storage.

21   Q. No, no, no. It doesn't meet the requirements for access

22   control?

23   A. No, sir.

24   Q. So they're the same, the requirements are the same or are

25   they different, Dr. Hodges?

1   A.   Which requirement?

2   Q.   Requirement for virtual local storage on the one hand and

3   access control on the other hand?

4   A.   Virtual local storage describes what is expected of the

5   storage device and illuminates what kinds ever access control

6   is require.

7   Q.   All right.   One of the reasons is because any host

8   connected to the storage router when the configuration has

9   been set up using this reserve command, any of those hosts can

10   change access at any time, right?

11   A.   That's true.

12   Q.   Dr. Hodges, I just posed for you a hypothetical a second

13   ago where all of the work stations have management capability,

14   all of them can set access, and you said that that was access

15   controls still?

16   A.   The access control function in previous case was present

17   in the router.   That's what the patent is about, what is

18   present in the router.

19   Q.   Right.   Reserve and release do not provide within the

20   router the capability for doing the same kind of access

21   control.   Reserve and release.   Well, let's forget about

22   release, let's talk about reserve, reserve makes settings in

23   that router, correct?

24   A.   Its could.

25   Q.   It changes modifiable set information the router, within

1   the router, right?

2   A. Its could.

3   Q. It could, it does, that's the way its works, right?

4   MR. ALCOCK: Objection, your Honor. Beyond the scope

5   of redirect. Reserve release is part of their invalidity

6   case.

7   THE COURT: The objection's overruled.

8   MR. BAHLER: Thank you, your Honor.

9   Q. (BY MR. BAHLER) Do you need the question again, sir?

10   A. I'm not aware there was a question. Please repeat it.

11   Q. Let me withdraw it in case there is one. Dr. Hodges, the

12   claim requires this maintaining a configuration as we said,

13   right?

14   A. Yes.

15   Q. Doesn't require it be set by anything, and indeed, a SCSI

16   reserve command will make -- will change that configuration in

17   a storage router, correct? Can be used that way, right?

18   A. It could.

19   Q. Could. And when it makes that change, requests by

20   subsequent -- by other work stations will be prohibited from

21   accessing storage that is reserved, right?

22   A. No, sir.

23   Q. Well, is one of the reasons because those other work

24   stations can issue a reset?

25   A. According to the SCSI command, according to the SCSI

1   standard, any of those work stations could revoke the reserve

2   at any time. Therefore, the capability for prohibiting access

3   does not exist within the router if you use SCSI reserve.

4   Q. If the capability exists to override, then there is no

5   access control. Is that what you just said?

6   A. If the capability -- if the access control inherently has

7   the capability to be overridden by any work station without

8   any further authority, that is not access control.

9   Q. All right. So if any work station can override the access

10 controls, then there is no access control?

11 A. That's not what I said.

12 Q. All right. I couldn't understand completely and I

13 apologize. Maybe I'm thick this morning.

14   MR. ALCOCK: Your Honor, move to strike. That's not

15 appropriate.

16   THE COURT: Counsel, let's just calm down.

17 Q. (BY MR. BAHLER) Could you explain that again, please?

18 A. What would you like for me to explain?

19 Q. The part about where any -- well, let me just start down

20 the same track, only differently. These work stations shown

21 in figure 3 could be configured to issue reserve commands,

22 right? Any one?

23 A. SCSI reserve commands?

24 Q. Yes, sir.

25 A. Yes, they could.

1   Q. And if the router were so programmed, work station A could

2   reserve for itself storage A and storage B and work station B

3   could reserve storage B, et cetera. In other words, this

4   exact configuration shown in figure 3 could be established

5   using the SCSI reserve commands, correct?

6   A. The configuration as described in the patent would not be

7   the same.

8   Q. Well, work station A could issue a reserve command and it

9   would be stored in the storage router and it would reserve for

10   work station A, work station A storage on storage device 62,

11   right?

12   A. That is not access control.

13   Q. Well, let's say that no other hosts issue a reset or do

14   anything unusual, all right?

15   A. I'm willing to do that because that's part of the SCSI

16   standard.

17   Q. Well, let's say that none of them have done it yet.

18   A. If none of them have done it yet, then nothing has

19   happened.

20   Q. All right. Well, let's say none of them have issued a

21   reset and that setting is sitting there in the storage router,

22   the setting that was made by work station A, all right?

23   A. Whatever setting that was.

24   Q. All right. Now, if work station B tries to get access to

25   the storage of work station A, it will be rejected by that

1   storage router, correct?

2   A.   No, sir.

3   Q.   Why not?

4   A.   This is no different from encountering a locked door that

5   you have a key to it. Doesn't keep you from getting it, it

6   only delays you.

7   Q.   Isn't that the same as a pass word?

8   A.   The same as pass word?

9   Q.   Yeah, before we talked about the management station

10   according to the patent could be actually exist on all of

11   those work stations.

12   A.   Yes, sir.

13   Q.   All those could have management functions, right? That's

14   what you said before, right?

15   A.   In this case, everybody has a key. By definition in the

16   case of reserve release. There's no capability in the storage

17   router to prevent any work station regardless of how it's

18   programmed as long as issues a command according to the SCSI

19   protocol to prevent another work station from getting to that

20   storage.

21   Q.   All right. So in a -- if -- well, the SCSI reserve every

22   work station has a key, right, in your opinion?

23   A.   By definition.

24   Q.   All right. And in the management, every -- in the

25   management station, where the management function distributed

1   across all those work stations, everybody would have a pass

2   word, wouldn't they?

3   A. The capability is there in the latter case for the storage

4   router to create whatever access control is desired by the

5   person who sets this up. The capability is just there for

6   access control with reserve the capability is not there.

7   Q. All right. Now, this management function that's performed

8   by the -- that you say is performed by the SAN gateway and SAN

9   router products, Pathlight products, that's done by this SAN

10   director?

11   A. I'm sorry. Would you repeat that?

12   Q. The management function that you have concluded exists in

13   the SAN gateway and SAN router products, is that done by the

14   SAN director software?

15   A. That's one way of doing it.

16   Q. Are there any other ways of doing it?

17   A. Yes, one can connect by the service port and use a

18   different protocol for doing the same functions.

19   Q. That would still be using the SAN director, right?

20   A. No, sir.

21   Q. How would that be?

22   A. It's using hyper terminal that's built into the windows

23   system. It does not use the SAN director at all.

24   Q. All right. And would that be access control?

25   A. That gives the same function.

1   Q. Okay. Now, --

2   A. As the SAN director.

3   Q. In that situation, don't all hosts have that capability

4   in the latter situation?

5   A. It gives the same function as the SAN director. All hosts

6   who are physically connected to the storage router actually

7   only one could be connected in the case of a serial port.

8   Q. Are you sure about that?

9   A. I've never seen anything that allowed more than one to

10   connect to a serial port.

11   Q. How about Ethernet connection?

12   A. This is not Ethernet.

13   Q. All right. Now, in fact, there are Ethernet connections

14   in the SAN gateway and SAN router product, also, right?

15   A. That's correct.

16   Q. Now, you didn't show those in your drawing, did you?

17   A. Yes, I did.

18   Q. Now, this is the setup that you made?

19   A. Yes.

20   Q. And here it says Ethernet serial.

21   A. Yes.

22   Q. That's actually connected to the work station, right?

23   A. Connected to the left work station which was being used as

24   a management station.

25   Q. And the right work station, right?

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1   A.   Not necessarily. It could have been.

2   Q.   Could be, right? If it is, then there's management

3   function there, too, right?

4   A.   There is an Ethernet connection there.

5   Q.   Well, I'm talking about this Ethernet connection that you

6   just mentioned. Now, is this management station, let me make

7   sure I'm clear about this. Is this management station the

8   same as that one?

9   A.   The left work station is being used as a management

10   station, as well.

11   Q.   Why did you draw it like this?

12   A.   For clarity, sir.

13   Q.   For clarity or to make its look like figure 3, sir?

14   A.   For clarity.

15   Q.   All right. So in fact, there's only -- this isn't even

16   there, right?

17   A.   What isn't there? Yes, it is. It's the left work

18   station.

19   Q.   All right. Well, that's already there, right?

20   A.   It's a different -- yes.

21   Q.   So in your configuration, one of the work stations had

22   management capability right off the bat, right?

23   A.   It had the management software installed in it and I had

24   management capability when I used that proper pass word.

25   Q.   All right. Did you use this Ethernet connection at all,

1   sir?

2   A.   Yes.

3   Q.   Okay. Did you use it from the right work station?

4   A.   I sometimes used it from the right work station.

5   Q.   Did you use it from the right and the left work station?

6   A.   I'm not sure what you mean.

7   Q.   Well, you use it -- okay. You use the Ethernet connection

8   was permitted, modification of the settings and if router from

9   the left work station, correct?

10   A.   Yes.

11   Q.   And you used the Ethernet connection to make the

12   modifications to the settings from the right work station,

13   right?

14   A.   In a very small number of tests I did that, most tests the

15   right work station had only user capability.

16   Q.   All right, sir. And in that situation -- and neither or

17   one of those use the SAN director, correct?

18   A.   Both of those use the SAN director.

19   Q.   I'm talking about the one you said didn't require the SAN

20   director?

21   A.   No, you're not.

22   Q.   Okay. So the SAN director requires Ethernet, right?

23   A.   That's correct.

24   Q.   All right. At least we got that. And in the situation

25   where you had the left work station and the right work station

1   with the SAN director -- that means the SAN director software

2   you had it on both the left work station and right work

3   station?

4   A. Yes, I did.

5   Q. That means the left work station could modify the access

6   control to permit itself access to the storage that was

7   supposed to be dedicated to the right work station, correct?

8   A. Given that I logged on to the SAN director with

9   administrative capability.

10   Q. All right.

11   A. Using the administrative password.

12   Q. All right. And likewise, the right work station could

13   modify the set information the storage router and gain access

14   to the storage that was previously dedicated to the left work

15   station, correct?

16   A. Given that I logged on to the SAN director with

17   administrative capability using the administrator's password.

18   Q. So in the Pathlight product, either host could get access

19   at any time, right?

20   A. The capability of the router allowed -- was -- stop and

21   think a minute. The router's capability was to control access

22   based upon whatever station, whatever work station or

23   management station to have the appropriate administrative

24   control.

25   Q. All right, sir. And in the setup that you had in your

1   basement, both work stations had administrative capabilities,

2   correct?

3   A.   They both had administrative capabilities if I logged on

4   using administrative password.

5   Q.   And that means either work station could adjust the set

6   information the router and gain access to the storage of the

7   other, correct?

8   A.   If the administrator was logged on to it.

9   Q.   That's a yes, right?

10   A.   I was the administrator of both of those.

11   Q.   To that's a yes, right?

12   A.   That's a yes under the conditions of the proper log-on.

13   Q.   In your opinion, if two work stations can gain access or

14   can override the access settings maintained -- that are being

15   maintained for the other work stations, that's still access

16   control?

17   A.   If they are -- if they can override based upon appropriate

18   authority, yes.

19   Q.   Appropriate authority.   Can passwords be hacked?

20   A.   Can passwords be hacked?

21   Q.   Yes.

22   A.   Yes.

23   Q.   That means somebody could right there in the work station

24   or in the setup you had either work station could be used to

25   modify the settings for the other work station and to gain

1   access to the storage that was previously dedicated to the

2   other one, right?

3   A.   I think it would be easy for a hack er to get into the

4   work station and get access to the control -- to the local

5   storage of that work station.

6   Q.   All right. But you need a password in any case, right?

7   A.   In any case for what?

8   Q.   To, in your opinion, have access control, right?

9   A.   No, sir.

10   Q.   You need some sort of administrator somewhere, right?

11   A.   You need security that you could -- that one can -- the

12   appropriate security for that.

13   Q.   Appropriate security. In your case, a password, right?

14   A.   Not necessarily.

15   Q.   And you need a management station, also, to do that,

16   right?

17   A.   Some sort of -- yes, some sort of management station.

18   Q.   Some sort of management station with some sort of secure

19   authority, right?

20   A.   Yes.

21   Q.   All right. Let's look at claim 1, for example.

22   A.   Yes, sir.

23   Q.   Where is the management station with appropriate authority

24   in claim 1, sir?

25   A.   One has -- I believe you have got me. I don't need a

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 1    management station -- but I need some mechanism for securely

 2    changing the configuration of access control.

 3    Q.  Where is that?

 4    A.  In the Pathlight SAN router.

 5    Q.  No, no, no, no.  Where is that in claim 1?

 6    A.  In claim 1, it is not defined.

 7    Q.  It's not in claim 1, is it, sir?

 8    A.  Access control is in claim 1.  The security is in claim 1.

 9    Q.  Where is security?  Find the word security in claim 1.

10    A.  The security is in -- phrased virtual local storage which

11    requires the same security that one would have if storage was

12    attached locally.

13    Q.  All right.  Let me make sure I have this right virtual

14    local storage requires in your opinion security and requires

15    some sort of management with authority, right?

16    A.  Management with authority, yes.

17    Q.  Okay.  Security and management with authority, right?

18    A.  Yes.

19    Q.  And you're squeezing all that into those two words.

20    A.  In which two words, sir?

21    Q.  Those two words right there, access control?

22    A.  There's a lot of words there.

23    Q.  Access control.

24    A.  Access control is a very specific term.

25    Q.  All right.  Now, access controls has already been actually
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1   defined by the Court in this case, right?

2   A. Yes, it is.

3   Q. I would like you to assume a hypothetical for me which the

4   Court can do whatever it wants, of course. But let me assume

5   that when the Court instructs this jury regarding the meaning

6   of the word access control, it will say implements access

7   controls for storage space on the SCSI storage devices means

8   provides controls which limit a computer's access to a

9   specific subset of storage devices or sections of a single

10   storage device. I want you to assume with me that that is

11   what the Court is going to instruct the jury, all right, sir?

12   There's nothing about security there, is there?

13   A. That definition is abstract definition, taken without

14   context and those access control obviously does not appear in

15   those words -- excuse me. The word security obviously does

16   not appear there.

17   Q. It's nowhere in there, right?

18   A. It's an abstract definition.

19   Q. Okay. And there's no requirement in that definition for

20   any sort of management with authority, is there?

21   A. No, sir. I assume the Judge will not instruct the jury

22   only in that definition.

23   Q. Well, let's assume you're wrong about that.

24   A. Well, if you want to take an abstract definition standing

25   alone, those words do not occur in that definition.

1   Q. There's no requirement in the words access control and

2   there's no requirement in the definition that I read to you

3   for any form of security, right?

4   A. Those words do not occur in the definition.

5   Q. That's a yes, right?

6   A. That's a yes for the abstract definition standing alone.

7   Q. All right. And there's no requirement for any sort of

8   management with authority, right?

9   A. That's a yes for the abstract definition standing alone.

10   Q. All right. And, in fact, a storage network like that

11   shown in figure 3 that's set up using the SCSI reserve

12   command, all right, such that the storage of work station A,

13   B, C, D and E is set up exactly as shown in figure 3. That's

14   possible, is it?

15   A. It's possible to set up storage network with -- repeat

16   that for me, please.

17   Q. Well, it's possible to set up a storage network as shown

18   in figure 3 using the SCSI reserve command, correct?

19   A. It's possible to use the SCSI reserve command.

20   Q. To do that, to make a configuration as shown in figure 3,

21   right?

22   A. No, sir.

23   Q. Well, work station A could reserve for itself that storage

24   called 66, right?

25   A. Reserve, assuming that the reserve commands is implemented

1   properly.

2   Q.   And the same for B could reserve its space, right?

3   A.   It could.

4   Q.   C could do the same, right?

5   A.   Same as what?

6   Q.   Reserve its space as shown in figure 3, right?

7   A.   Yes.

8   Q.   And D could reserve its space for as shown in figure 3,

9   right?

10   A.   Yes.

11   Q.   Same for E, right?

12   A.   Yes.

13   Q.   And in that case, after those -- all those reservations

14   are in place, that's what would result, figure 3, right?

15   A.   No, sir.

16   Q.   Why not?

17   A.   Figure 3 shows storage space that is allocated to

18   particular work stations. The reserve does not allocate

19   storage particular work stations.

20   Q.   Well, is that part of access controls, too?

21   A.   What.

22   Q.   Allocation of the --

23   A.   You're asking me about figure 3.

24   Q.   The whole point here is the claims fundamentally.

25   A.   I think we ought the look at the claims.

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 1    Q.   My question to you is this allocation of storage, is that

 2    a requirement of access controls, too?

 3    A.   Allocation of storage?

 4    Q.   Yeah.

 5    A.   It's just what's shown in figure 3.  If you want to go

 6    back to the claims, I'll be glad to interpret the claims for

 7    you.

 8         THE COURT:  Mr. Bahler, I think we'll take a break.

 9    Members of the jury, we'll give you a morning break, 15

10     minutes.  Stretch, be ready to come back in 15 minutes.

11          (Recess.)

12          THE COURT:  Bring them in.

13          (Jury present.)

14          THE COURT:  Mr. Bahler, you may proceed.

15          MR. BAHLER:  Thank you, your Honor.

16    Q.   (BY MR. BAHLER)  Now, Dr. Hodges, just before we leave

17    this, one of the ways in your opinion that the SCSI reserve

18    command does not constitute access control is that other hosts

19    can override that control, right?

20    A.   Yes, a part of the standards requires that.

21    Q.   So other hosts can override the access control then in

22    your opinion there is no access control, right?

23    A.   That's not what I said.

24    Q.   Well, one of the -- in the reserve context, one of the

25    ways a host could override is by issuing a reset, right?
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1   A.   Yes, sir.

2   Q.   Okay.   Take a look at column 6 of that patent, please?

3   A.   Is that shown?

4   Q.   Yes, sir.   Down at the bottom of column 6, this is in the

5   detailed description of the invention part, right?

6   A.   Yes, sir.

7   Q.   And down there, it says in configuration information can

8   be stored in a segment of flash memory and can be retained

9   across resets and power off cycles.   Password protection can

10   also be provided.   That's what it says, right?

11   A.   Yes, sir.

12   Q.   And that's just what -- well, let's see.   It doesn't say

13   first of all that configuration information is required to be

14   maintained across power cycles?

15   A.   That does not say that.

16   Q.   It doesn't say password protection is required, does it?

17   A.   Does not say that.

18   Q.   All right.   So, in fact, the invention as described

19   contemplates the possibility of configuration information

20   being eliminated by a reset, right?

21   A.   No, sir, but this paragraph does not have anything to do

22   with access control.

23   Q.   Well, --

24   A.   It describes functional modes of operation.

25   Q.   Back to the claims.   It says maintaining a configuration,

1   right?

2   A. Yes.

3   Q. The part I just had says the configuration information,

4   right?

5   A. That's right.

6   Q. Doesn't say there configuration information except for

7   access control, does it?

8   A. It doesn't address that, sir.

9   Q. Let's talk for a second about virtual local storage. Is

10   security required for that, sir?

11   A. Security required for virtual local storage?

12   Q. Yes, sir.

13   A. Yes.

14   Q. Okay. Security from what exactly?

15   A. From unauthorized access.

16   Q. By other hosts?

17   A. By anyone.

18   Q. Okay. Remember your friend figure 3?

19   A. (Moving head up and down.)

20   Q. All right?

21   A. Yes.

22   Q. Now, that describes storage device 60, storage device 62

23   and storage device 64, right?

24   A. Yes.

25   Q. And at the top of column 4, it says each work station --

1   and this is in reference to figure 3, right, sir?

2   A.   Uh-huh.

3   Q.   It says each work station 58 can have access to a specific

4   subset of the overall data stored in the storage devices 60,

5   62, 64. The specific subset of data has the appearance and

6   characteristics of local storage and is referred to here in as

7   virtual local storage, right?

8   A.   Yes.

9   Q.   That's what it says right there, right? So that's what

10   virtual local storage means, right?

11   A.   That is a -- yes, well, let me look at that again. The

12   complete sentence says that the storage router has enhanced

13   functionality to implement security controls and routing.

14   Q.   Right.

15   A.   Such that each work station can have access to a specific

16   subset of overall data stored in storage devices.

17   Q.   All right. It says 60, 62, 64?

18   A.   Yes.

19   Q.   Right? And that's virtual local storage. That says it's

20   referred to in this patent as virtual local storage, right?

21   A.   Yes.

22   Q.   Okay. And you just said virtual local storage means that

23   it's other unauthorized computers can't get to it, right?

24   A.   Yes.

25   Q.   Okay. Let's look at the subset of data that is permitted,

1   let's say, work station A, right here. Okay? That includes

2   -- it can get to this, right, global data?

3   A. Yes, that's authorized.

4   Q. And then he can get to this part, too, right?

5   A. Yes.

6   Q. Okay.

7   A. That's shown in the diagram.

8   Q. Okay. So that's the subset, right?

9   A. Yes, sir.

10   Q. That can be had by work station A, right?

11   A. (Moving head up and down.)

12   Q. Okay. Now, later in that same column, Dr. Hodges, right

13   about 51, 52, it says no access from a work station 58 is

14   allowed to the virtual local storage of another workstation

15   58.

16   A. Yes.

17   Q. See that?

18   A. I need to read the entire paragraph, sir.

19   Q. Do you have the patent, sir?

20   A. Yeah. Which column is this?

21   Q. Column 4, the first entry was in line 4 and 5, around the

22   second one I've highlighted is right around line 50.

23   A. Yes, sir.

24   Q. All right, sir. Have you read that paragraph?

25   A. Yes, I have.

1 Q. So that says there that no access from work station 58 so

2 that 58 is allowed to the virtual local storage of another,

3 right?

4 A. That's what it says.

5 Q. Okay. Now, in figure 3, according to the top of column 4,

6 all work stations can have access to this part of work station

7 A's virtual local storage, right?

8 A. Yes. In the subsequent paragraph in column 4, work

9 station 60 is described as global storage and is distinguished

10 from the local -- from the virtual local storage.

11 Q. All right. So that's another place where there's a

12 difference between the top of column 4 and bottom of column 4.

13 Right there, it talks about the specific subset has the

14 appearance -- can have access to a specific subset of overall

15 storage, 60, that's the global storage, right? 62 and 64, and

16 that's called virtual local storage according to the patent,

17 right?

18 A. Which is called virtual local storage?

19 Q. Shown by this figure 3 drawing, right?

20 A. What's your question?

21 Q. Well, let me ask this question: The global data can be

22 accessed by anybody, right?

23 A. The global data can be accessed by anybody.

24 Q. And yet, that is stated in the top of column 4 as being

25 part of the virtual local storage of work station A, right?

1   A. I'd have to read it again but I believe that's true.

2   Q. Okay. And that means that anybody can get access to part

3   of work station A's virtual local storage, right?

4   A. I'm rereading this paragraph at the top and I believe that

5   it does not say that 60 is local storage.

6   Q. All right. I thought we went through this. Well, back to

7   figure 3. When I read that to you, I drew on figure 3 the

8   subset of overall storage that A could get to and top of

9   column 4 calls that a virtual local storage?

10   A. I misread that.

11   Q. Pardon?

12   A. I misread the top of column 4.

13   Q. Was the top of column 4 just wrong?

14   A. No, sir.

15   Q. Specific set of data stored?

16   A. Subset of overall data stored on subset 62 and 64 which is

17   virtual local storage what is me fined further in the

18   following paragraph that 60 is not included in the virtual

19   local storage.

20   Q. Well, the specific subset includes 60, right?

21   A. I cannot tell that from that -- on that paragraph. The

22   reference to figure 3 is in the following paragraph.

23   Q. And the specific subset is the appearance and

24   characteristics of local storage, right?

25   A. A specific subset it says according to the invention

1   storage router 56 has enhanced functionality to implement

2   security controls in routing such as this each work station 58

3   can have access to a specific subset of the overall data

4   stored in storage devices 60, 62 and 64 which are -- and the

5   specific subset has the appearance and characteristics of a

6   local storage. The following paragraph describes what is

7   shown in figure 3. That paragraph does not show the first

8   paragraph does not show that. All it talks about is specific

9   subset.

10   Q. Dr. Hodges, I see in that paragraph we're talking about

11   right there it says workstation 58. That's if figure 3,

12   right?

13   A. That's in figure 3.

14   Q. 60, 62 and 64, they're in figure 3?

15   A. Yes.

16   Q. And then, storage router 56, that's in figure 3, right,

17   sir?

18   A. Pardon?

19   Q. That's in figure 3, also, storage router 56?

20   A. Yes.

21   Q. Are you trying to tell this jury that that paragraph does

22   not talk about figure 3?

23   A. I am not trying to say that. I'm saying that the

24   paragraph describes figure 3 in more detail.

25   Q. So doesn't this one, doesn't it, sir?

1   A.   This does not define that subset of data is that is the

2   subset of storage -- data storage devices 60, 62 and 64.

3   Q.   But it's shown in figure 3, right?

4   A.   Pardon, sir?

5   Q.   It's shown in figure 3, right, the subset?

6   A.   It's shown in figure 3, but it doesn't -- this paragraph

7   does not describe which subset they're speaking of.

8   Q.   That's shown in figure 3, isn't it?

9   A.   Indeed it is but can we look at figure 3? There is a

10   subset of the storage devices 60, 62 and 64 that is described

11   as being accessible by work station A.

12   Q.   That you told me about ten minutes ago. I had drawn

13   correctly and put an A on. That's the subset for work station

14   A, right?

15   A.   We were look at what paragraph and as I said, I misread

16   it.

17   Q.   Oh, okay. So the patent's easy to misread. You could do

18   it on the stand?

19   A.   It's very easy to do things on the stands that you would

20   do in a study.

21   Q.   It's not the first time you've looked at that passage, is

22   it, Dr. Hodges?

23   A.   No, sir, but I have not looked a it that question that you

24   asked.

25   Q.   Dr. Hodges, virtual local storage, the appearance and

1   characteristics of local storage. What are the

2   characteristics of local storage?

3   A. The characteristics of local storage are virtual -- are

4   native low level block protocol and access control.

5   Q. Is that it?

6   A. I think that's what is described in the patent.

7   Q. In fact, there are many characteristics of local storage,

8   right?

9   A. But not described in the patent.

10   Q. And, in fact, it's not possible for you to tell me how

11   many of these characteristics are required to meet that claim

12   limitation virtual local storage, is it?

13   A. That's not so.

14   Q. So you told me in your deposition, wasn't it, sir?

15   A. Yes, sir.

16   Q. Are you going to change your sworn testimony. It did not

17   occur to me the definition that I needed to make that

18   definition expand upon the Court's definition?

19   Q. May I approach, your Honor?

20   THE COURT: Don't need my permission.

21   Q. (BY MR. BAHLER) Please turn to page 96 of your

22   deposition, sir. Do you have it, sir?

23   A. Yes, sir.

24   Q. That was taken April 4th, 2000 of this year?

25   A. I believe so.

1   Q. And that's after rude been working for months and months

2   on this case?

3   A. Yes.

4   Q. After you wrote the 95-page opinion you waved in front of

5   the jury?

6   A. Yes.

7   Q. There your were asked the following question, this is line

8   20: All right. There are many characteristics of local

9   storage, are there not answer yes. Question, and it's not

10   possible for you to tell me how many of those characteristics

11   are required to meet that limitation, is it? Answer, that's

12   true. That was when I asked you those questions, those are

13   the answers you gave under oath at that time, right, sir?

14   A. Yes, those are answers that were given after I had

15   declared that I had no opinion on what aspects of local

16   storage might be required.

17   Q. And you were asked to render --

18   A. Consistent with my having no opinion on that.

19   Q. And that's -- well, we were asking you about can

20   characteristics of local storage. That's required by the

21   claims, right?

22   A. There are characteristics of local storage that are

23   required by the claims.

24   Q. Right. And at that time, you had no idea what that meant?

25   A. It did not occur to me that I needed to have that

1   definition.

2   Q. It's in the claims, Dr. Hodges?

3   MR. ALLCOCK: Objection, your Honor, this is

4   argumentative.

5   THE COURT: It is argumentative. State a question.

6   Q. (BY MR. BAHLER) Well, you were hired to do a claim

7   analysis to determine whether there was infringement, right?

8   A. Yes, sir.

9   Q. And that's part of the definition of virtual local

10   storage, right, characteristics of local storage?

11   A. Virtual local storage was defined by the court as having

12   the appearance and characteristics of local storage and that's

13   the definition I used in assessing the claims.

14   Q. And now, since April, you've thought of some

15   characteristics that are necessary?

16   A. Your question focused my attention on that.

17   Q. And so you're changing your testimony, right?

18   A. I am -- I am changing my testimony but I now have an

19   opinion.

20   Q. Dr. Hodges, I'd like to show you what you showed before as

21   exhibit 565. Please correct me if I'm wrong, sir, but I

22   believe you said that you were using that to show how the

23   Pathlight product used native low level block protocol, right?

24   A. Yes, sir.

25   Q. Okay. Now, this computer program here, looking at this

1   computer program, there's really no way to tell what protocol

2   the commands are formatted in, correct?

3   A.   Looking at the screen shot here, it is not necessarily

4   obvious.   This is a -- this program is a SCSI exercise program

5   and this is a portion, a very small portion of the discussion

6   on the testing that I did.   Merely shown as an example.

7   Q.   All right.   And just for clarity, where was this program

8   being executed in the setup you had in your basement?

9   A.   One of the work stations.

10   Q.   All right.   And then, commands from here were being sent

11   on fiber channel, right?

12   A.   Yes, sir.

13   Q.   All right.   Now, the native low level block protocol is

14   required to happen in the router, right?

15   A.   To happen in the router?

16   Q.   Right.

17   A.   I don't think so.

18   Q.   Well, the claims require that things be done using native

19   low level block protocol, right?

20   A.   I look at the claim.

21   Q.   Pardon?

22   A.   The claim requires that the access be using native low

23   level block protocol.

24   Q.   As we've already discussed, that's done by the router,

25   right, not by the work station?

1   A.   It's not done by the router.

2   Q.   Pardon me?

3   A.   It's not done by the router.   Just look at the claim.

4   Q.   Process data in the buffer, that's done by the router,

5 · isn't it?

6   A.   Yes.

7   Q.   Well, first of all, wait a minute.   It says a supervisor

8   unit, right?

9   A.   Yes.

10   Q.   And then, it has some functions of the supervisor unit?

11   A.   Right?

12   Q.   The supervisor unit is in the router, correct?

13   A.   That is correct.

14   Q.   All right.   And those two functions are done by the

15   router, right?

16   A.   What two functions?

17   Q.   The two functions that are said to be done by the

18   supervisor unit?

19   A.   The two paragraphs shown there?

20   Q.   Yes, sir.

21   A.   Yes, sir.

22   Q.   All right.   And supervisor unit does those two functions

23   and that's in the router, and one of those functions done by

24   the supervisor in the unit is to allow access from the Fibre

25   Channel initiator devices to the SCSI storage devices using

1   native low level block protocol, right?

2   A. Yes.

3   Q. And you never -- looked at what the supervisor unit was

4   doing, did you?

5   A. I did not have to do that. The claim here says that I

6   should be able to access the storage devices from fiber

7   channel devices using native low level block protocol.

8   Q. And what you showed for that proof was a program running

9   on the work station, right?

10   A. That is running on a Fibre Channel device issuing native

11   low level block protocol.

12   Q. All right. Did you ever look at the wire to see whether it

13   was native low level block protocol or did you just assume

14   that?

15   A. Neither, sir.

16   Q. What did you do? You ran a program. Here, on the work

17   station, right?

18   A. I ran a program whose purpose was to exercise the native

19   low level block protocol across whatever interface is there,

20   in this case, the Fibre Channel program which was set up to do

21   the native low level block protocol according to the standard

22   for Fibre Channel carrying SCSI on fiber channel protocol.

23   Q. All right, sir.

24   A. The address here is the address that goes through the

25   Fibre Channel adapt er.

1 Q. How do you know that's not going through the Ethernet?

2 A. Two-way, one is that I addressed it to the Fibre Channel

3 adapt er. The other is in other testing, I found that the

4 performance of the storage through this mechanism was far

5 beyond what could have been done with Ethernet. Thirdly, it

6 doesn't make sense not to do that.

7 Q. Now, sir, what you did to confirm that the Pathlight

8 product use native low level block protocol was to run a

9 program on the work station, right?

10 A. Yes, sir, it's partly what I did.

11 Q. Now, this program does not dictate in any way what sort of

12 protocol is going to be used to communicate, right?

13 A. It does not dictate -- that's not quite true.

14 Q. You could use any protocol, correct?

15 A. For what?

16 Q. To communicate the results of this program from the work

17 station to the router?

18 A. I don't think I understand that. This is a program that's

19 designed to create SCSI protocol and the Fibre Channel adapt

20 er is designed to accept SCSI protocol and transmit it across

21 Fibre Channel.

22 Q. Back to the claim. This is claim 1 again. Claim 1

23 requires that the supervisor unit, once again, that's in the

24 router, right?

25 A. Yes.

1   Q. Maintain a configuration for SCSI storage devices

2   connected to the SCSI bus transport medium, right?

3   A. Uh-huh.

4   Q. That's singular, right, medium?

5   A. Yes.

6   Q. The plural is media, right?

7   A. Yes.

8   Q. Maintaining configuration for SCSI storage devices

9   connected to the transport medium, SCSI bus transport medium,

10   right?

11   A. (Moving head up and down.)

12   Q. Now, that requires that there be a configuration

13   maintained that distinguishes one storage device from another

14   on that SCSI transport medium, correct?

15   A. Yes.

16   Q. All right. That's a requirement of that claim.

17   Maintaining a configuration of SCSI storage devices connected

18   to the medium requires that there be a configuration stored in

19   the router that distinguishes between the storage devices

20   connected to the medium, right?

21   A. As far as I could tell what you're saying.

22   Q. That's a requirement of the claims, right. That's not

23   what channel zoning does, is it?

24   A. Channel zoning does this in a some what different way.

25   Q. Different way? Does it a different way?

1   A.   It does it by -- it does the same by maintaining a

2   configuration between Fibre Channel ports and SCSI ports.

3   Q.   All right. But there's no maintaining a configuration of

4   SCSI device, storage devices connected to the SCSI bus

5   transport medium, is there, sir?

6   A.   The effect is equivalent, the results are substantial.

7   Q.   But it does it in a different way?

8   A.   It does a different thing in terms of what connections,

9   what configuration is maintained.   It does maintain a

10   configuration between the ports.

11   Q.   All right.   Maintains a different configuration, right?

12   A.   That's true.

13   Q.   Doesn't do this, does it?

14   A.   Not specifically.

15   Q.   Pass the witness.

16   RE-DIRECT EXAMINATION

17   BY MR. ALCOCK:

18   Q.   I'll put before you figure 3.   Where are the access

19   controls?

20   A.   Access controls are in the router.

21   Q.   And what is this management station do?

22   A.   The management station, given proper authority, can change

23   the access controls and the mapping.

24   Q.   So you have to have some kind of computer to set the

25   access controls.   Have I got that right?

1   A.   You have to have some mechanism to do that.

2   Q.   Okay. Now, let's take a look at column 4, startling

3   around line 27. I'll try to do this right. And you were

4   asked a lot about the top part there. Storage router 56

5   allows this allocation of storage devices, 60, 62 and 64 to be

6   managed by a management station. Management station can

7   connect directly to router 56 via direct connection, or,

8   alternatively, can interface with storage router 56 through

9   Fibre Channel.

10   So that's the picture that's shown in figure 3 of

11   direct connection.

12   A.   Yes, sir.

13   Q.   And then it goes on to say that it can be a work station

14   or other computing device with special rights such that

15   storage router 56 allows access. What are those special

16   rights?

17   A.   The special rights -- this is reference to the work

18   station being used to do this. The special rights would

19   include an array of special program with password or some

20   other mechanism for making sure that only the authorized

21   person could do the management.

22   Q.   Okay. And so now showing you exhibit 111, what is this,

23   sir?

24   A.   This is the excerpt that we saw before from the manuals,

25   and we have highlighted here that the administrator has access

1   to all of the options that a user can only view data and shows

2   that the administrator is required a password as part of the

3   SAN director.

4   Q. Okay. And so what does this do? What is the function of

5   this?

6   A. This would allow the special rights that would allow

7   changing to the configuration.

8   Q. These special rights, can any host get access?

9   A. No, not without the special rights.

10 Q. So you can turn one of the work stations into a management

11 station, right?

12 A. Yes.

13 Q. But unless you do this, the hosts can't have access?

14 A. That's correct.

15 Q. Now, we heard a lot about something called reserve

16 release, and I'm going to ask you some questions about that

17 tomorrow afternoon, possibly. But does reserve release have

18 anything like what's shown in exhibit 611?

19 A. No, it doesn't.

20 Q. I'm showing you figure 3. Does reserve release allow

21 access controls such as figure 3 has shown?

22 A. No, it does not.

23 Q. Why not?

24 A. Because reserve release does not allow a work station from

25 having access to the work station reserve to a different one

1   -- sorry I phrased that badly. Reserve release does not

2   prevent access by another work station, say, work station B,

3   to storage reserve to the first work station, say, work

4   station A.

5   Q. No control?

6   A. No control.

7   Q. Now, lastly, let me direct your attention to 606. Counsel

8   showed you 607. I want to show you the graphics right around

9   there. What does 606 depict?

10   A. The tests in which the two computers are attached to

11   different Fibre Channels, the two discs are attached to two

12   different SCSI channels.

13   Q. Okay. And which ones can the left one get?

14   A. It doesn't show them here, but in the previous diagram,

15   the checkmarks, the left one has access to the three devices,

16   one, three and five on the SCSI channel one.

17   Q. I'll show you 608. So what happens when with channel

18   zoning you set up this way?

19   A. I was able to from the left computer access devices 1, 3

20   and 5 as shown on this diagram and I was not a able to access

21   devices 2 and 4 which were on the other SCSI channel.

22   Q. I'm showing you exhibit 609. What does that refer to?

23   A. This refers to the right computers access under the same

24   conditions. The right computer had access to a SCSI channel 2

25   and they were able to access only those two devices on SCSI

1 channel 2.

2 Q. Okay. I'm now going to show you page 49. Actually, this

3 is a bad copy. One second. This is exhibit 153, page 110.

4 Is that a discussion of channel zoning?

5 A. Yes, it is.

6 Q. And here, it says the administrator simply indicates with

7 checkmarks on an access control dialogue box that connections

8 are to be enabled?

9 A. Yes, it does.

10 Q. Is that what you did?

11 A. That's what I did. I was logged on to the SAN director as

12 an administrator and to check those boxes off.

13 Q. It says inhibits devices from knowing that the storage

14 channel exists making it inaccessible. Is that what you did?

15 A. That's what I did.

16 Q. And does that satisfy the elements of the claims?

17 A. Yes, sir.

18 Q. No further questions at this time, your Honor. We reserve

19 to call Dr. Hodges back in our case responding to their

20 invalidity case.

21   RE-CROSS EXAMINATION

22 BY MR. BAHLER:

23 Q. Dr. Hodges, you just mentioned checking boxes on the

24 screen. This is the screen that you check boxes on?

25 A. Yes, it is.

1   Q.   There's no distinction in here of any of the individual

2   storage devices connected to the different channels, right?

3   A.   Yeah, there's no distinction between storage devices

4   connected to channel 1 among storage devices connected to

5   channel 1. There's no distinction among storage devices

6   connected to channel 2.

7   Q.   All right. Now, you use a lot of words during redirect

8   examination by Mr. Alcock. Unauthorized, prohibits access by

9   unauthorized hosts, and you've got to have a password and

10   things like that. Do you recall that?

11   A.   Yes.

12   Q.   It's not in the claims, is it, Dr. Hodges?

13   A.   What is in the claims is a requirement for security.

14   Q.   That's not in the claims either?

15   A.   This is a method providing security.

16   Q.   Security does not appear anywhere in those claims, does it

17   not, sir?

18   A.   Securely is clearly implied by the virtual local storage

19   --

20   Q.   Or is it access controls that implies security?

21   A.   Security virtual local storage describes what kind of

22   security is required by access controls.

23   Q.   Okay. Including global access by work station A?

24   A.   Global access is allowed.

25   Q.   Global access is no security, right?

1   A. Global access is a choice of whether you want to restrict

2   access or not. The security is provided by the router.

3   Q. And if global access, which is no security is security,

4   does that make sense to you?

5   A. No, sir, that does not make sense.

6   Q. I withdraw that comment. No further questions.

7   MR. ALCOCK: No further questions.

8   THE COURT: You may step down. You may call your next

9   witness.

10   MR. ALBRIGHT: May I have about ten seconds to get the

11   exhibits I need to go?

12   THE COURT: You may.

13   MR. ALBRIGHT: Thank you, your Honor. I appreciate

14   it.

15   THE COURT: All right, sir. If you'll stand up,

16   please, and have an oath. Just right there is fine.

17   (Witness was sworn.)

18   THE COURT: If you'll tell us your full name and spell

19   your last, please.

20   THE WITNESS: My name is D. Paul Regan, R E G A N

21   DIRECT EXAMINATION

22   BY MR. ALBRIGHT:

23   Q. Mr. Regan, would you introduce yourself to the jury,

24   please, sir?

25   A. My name is Paul Regan. I'm a CPA.

1   Q. What is your educational background, sir?

2   A. I have a undergraduate BS in accounting, as an accounting

3   specialist. I have a masters in accounting.

4   Q. Okay. And my understanding is that you are what is called

5   a forensic accountant;is that correct?

6   A. Yes.

7   Q. Would you explain quickly to the jury what is meant by

8   forensic accounting?

9   A. Forensic accounting is the application of accounting and

10   economic principles in matters which are in dispute in our

11   likely to be resolved in a courtroom or in arbitration or

12   mediation. It's using the same tools that we learned as

13   accountants but applying it in that environment.

14   Q. And do you have any special credits in your professional

15   experience that would enable you to give the jury an expert

16   opinion with respect to the damages in this case?

17   A. Yes, sir.

18   Q. And what would those -- just quickly, what would those be,

19   for example?

20   A. I have -- I am presently chairman of the American

21   institute of certified public accountants, a national economic

22   damages section, and I sit on the A I CPA's nine-person

23   guidance committee in which provides guidance to CPAs that

24   perform forensic accounting services. There's 330,000 CPAs in

25   the United States, some of which practice forensic accounting.

1   Forensic accounting and we provide that kind.

2   Q. Are you currently working in a -- for the government, for

3   the FBI?

4   A. We do work for the FBI. We do work for the SCC. We do

5   work for various federal bank boards, various departments of

6   the government and, for example, on June 26th of this month, I

7   will be -- I am writing and teaching a course at national

8   academy of the FBI in Quantico, Virginia on damages and

9   intellectual property cases.

10   Q. They invited you to do that?

11   A. They asked me to write a curse and print present it on

12   June 26th.

13   Q. Do you have any experience Mr. Regan personally with the

14   area of licensing?

15   A. Yes.

16   Q. And would you briefly give the jury your personal

17   experience in that regard, sir?

18   A. I wrote software was used by over a thousand CPA firms

19   around the world and I participated in creating licenses and

20   negotiating licenses for my firm. I've also worked on a

21   number of cases that involved licensing issues.

22   Q. And by worked on, you worked as a CPA?

23   A. Yes.

24   Q. Yes, sir. How many hours would you say you spent on this

25   case, Mr. Regan?

1   A.   Approximately 100 myself, personally and the people in my

2   firm have invested about another 500 hours.

3   Q.   What rate do you bill at, sir?

4   A. $410 an hour.

5   Q.   Your Honor, I offer Mr. Regan as an expert with respect to

6   the damages in this case.

7   THE COURT: Any questions?

8   MR. BAHLER: No, Judge.

9   Q.   Mr. Regan, would you explain to the Judge what a

10   reasonable royal city is in the context of this allegation of

11   infringement by Pathlight?

12   A.   Reasonable royalty is like a lease on the building, you're

13   allowing somebody to use your property for a period of time

14   and a reasonable royalty is what is the amount of the licensor

15   and licensee will pay for that right of use.

16   Q.   And is this the type of negotiation between, say,

17   Microsoft and someone that wants to use their operating

18   system?

19   A.   Well, I characterize that as a different environment

20   because Microsoft wants people to use their operating systems.

21   They want people to use their application software because

22   Microsoft is in the business of licensing its products and it

23   needs a partner to put it into computers which will enable it

24   to be used and be useful.

25   Q.   Is Crossroads in that business, sir?

1   A.   Crossroads is not in the business of licensing product.

2   Q.   Back in 1999, a hypothetical negotiation was taking place,

3   sir, correct?

4   A.   Yes. The law indicates that in an instance where there's

5   infringement, in a determination of reasonable royalty, you

6   need to assume that a hypothetical negotiation would have

7   taken place immediately before the first sale.

8   Q.   And that negotiation would have taken place between

9   Crossroads and Pathlight?

10   A.   Yes, sir.

11   Q.   To put us back in the 1999 time frame when this would have

12   taken place, how did the market share compare with respect to

13   Crossroads and Pathlight?

14   A.   My understanding is Crossroads maintained about at 98

15   percent market share in the router community.

16   Q.   And let me --

17   A.   Router marketplace.

18   Q.   Let me introduce Plaintiff's Exhibit 52.

19   THE COURT: What's the number?

20   MR. ALBRIGHT: Plaintiff's 52, your Honor.

21   MR. DELLETT: Objection. Hearsay.

22   THE COURT: Let me see it.

23   MR. ALBRIGHT: Your Honor, may we approach the bench

24   for a second?

25   THE COURT: You may.

1   (At the Bench, on the record.)

2   MR. ALBRIGHT: Your Honor, number one, it's something

3 that an expert can consider but number two, what I wanted to

4 bring up outside the presence of the jury was we discussed

5 these matters with each other before the trial began, and we

6 had an agreement that documents were produced by the parties

7 in this matter. They were in the Crossroads documents or if

8 they were Pathlight documents that we would not receive an

9 objection of hearsay so we can move the case more quickly.

10   We provided all of these exhibits over a week ago. We

11 gave them the numbers last night to make certain we wouldn't

12 have to take care of these kind of objections during trial.

13   MR. DELLETT: Your Honor, this is excerpts from the

14 Pathlight document. I'm not contesting that it is a Pathlight

15 document, but it's excerpts from a document without any

16 sponsor at all. The witness has testified about it. I don't

17 have any objection to Mr. Regan to talk about it, but I don't

18 want this document in evidence without a sponsor for it.

19   THE COURT: Well, I don't know what it is, but --

20   MR. DELLETT: It's a Crossroads --

21   MR. ALBRIGHT: Your Honor, it's simply a document --

22   MR. DELLETT: No witness to sponsor it at all.

23   THE COURT: During the recess, you will get a witness

24 to sponsor it and it will run on your time. Members of the

25 jury, I'm going to give you a lunch break. I'd like you to be

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1   ready to come back at 1:15.

2   (Jury not present).

3   THE COURT: Let me look at 52 because my

4   understanding, it is a document that's been circulated by and

5   between the parties and is a document of the plaintiff,

6   Crossroads'?

7   MR. ALBRIGHT: Yes, sir, your Honor.

8   THE COURT: Mr. Regan, I'm going to excuse you, sir.

9   If you'll be in the hall, please. All right. As I understand

10   it, it's represented by Mr. Albright that there was some sort

11   of agreement that documents would be admitted as documents if

12   they were by the parties. Now, this is a document of

13   Crossroads trying to be admitted by Crossroads which if

14   admitted, would, at least, establish a market share of

15   Crossroads, Pathlight, Chaparral, CNT and ATTO, whatever that

16   is.

17   So I'll hear arguments on it. I can't imagine anybody

18   agreeing just to let this get in. I mean, are you going to

19   have any other evidence of market in this case?

20   MR. ALBRIGHT: Your Honor, I believe that's what we're

21   going to put on is the market share.

22   THE COURT: What is your idea of the agreement that

23   you set out? I assume it's not in writing.

24   MR. ALBRIGHT: The agreement was I discussed with Mr.

25   Bahler, I specifically discussed with him in the necessity of

1   having to put on Crossroads people to prove up documents that

2   were produced by Crossroads, and we exchanged exhibits over a

3   week ago so that we would have notice if we had to put

4   something on in our case in chief before the expert were to

5   rely on it.

6   And this was the specific type of document -- let me

7   take that back. We were concerned about all these documents

8   just in terms of getting this case done as quickly as possible

9   and not using up unnecessary time with witnesses to lay the

10   foundation for the expert to render his opinion.

11   I believe the expert could render his opinion, he

12   could consider that. And if Mr. Dellett's problem is simply

13   that it shouldn't be -- that particular document shouldn't be

14   admitted, it's only a demonstrative exhibit, then, you know,

15   perhaps we could handle it that way and Mr. Regan can just

16   testify with regard to what's in it.

17   MR. DELLETT: That's exactly my objection. I'm not

18   saying that Mr. Regan can't rely on this in whatever way he is

19   going to testify to. I'm not acknowledging the relevance of

20   it or anything. But to the extent Mr. Regan wants to rely on

21   that, he's entitled to without the exhibit being admitted into

22   evidence.

23   MR. ALBRIGHT: Your Honor, that's fine with us.

24   THE COURT: All right.

25   MR. ALBRIGHT: And what I'll do, your Honor, is I'll

1   meet with Mr. Dellett during the lunch break and we'll make

2   certain that there are no --

3   THE COURT: Is it the plaintiff's thought that there

4   need not be any independent evidence of market -- on market

5   share put in this record before any damages can be allowed?

6   MR. ALBRIGHT: Your Honor, I believe that Mr. Regan's

7   --

8   THE COURT: Mr. Regan says he was advised. That's

9   what he said. That's what his testimony is, what's in the

10   record. I don't know who advised him.

11   MR. ALCOCK: Your Honor, perhaps I could speak to

12   this. There's no evidence, there's no lost profits theory

13   being articulated.

14   THE COURT: Well, I understand that.

15   MR. ALCOCK: So with no lost profits theory being

16   articulated, the only issue is how many sales they had and

17   what the reasonable royalty is.

18   THE COURT: Well, that's true and if you're going to

19   do that with market share without any substantive evidence

20   what the market share is if there's that trouble with this

21   old, sore back lawyer, you'll have trouble with the records on

22   damages.

23   MR. ALCOCK: My point is there needs not be evidence

24   of market share under reasonable royalty theory.

25   THE COURT: I agree. Is the thought of the

1   plaintiff's counsel going to be to extrapolate from market

2   numbers?

3   MR. ALBRIGHT: No, sir.

4   THE COURT: I'm sorry. I was on the wrong train.

5   MR. ALBRIGHT: Just to let counsel -- all I'm trying

6   to do is have Mr. Regan put in perspective in terms of when

7   the hypothetical negotiations were taking place in 1999, what

8   their respective market shares were. We are not going to

9   extrapolate or rely on that information with respect to our

10   reasonable royalty claim.

11   THE COURT: Y'all worked out this one. Do you

12   anticipate anything else with the witness reading?

13   MR. ALBRIGHT: We gave last night the list of exhibits

14   to them.

15   MR. DELLETT: We've got objections. I'm going to have

16   to go exhibit by exhibit. We've already informed you, but I

17   think we can work that out over the lunch hour.

18   THE COURT: All right. Y'all be back at 1:00.

19   (Lunch recess.)

20   THE COURT: Anything before we bring in the jury?

21   MR. ALBRIGHT: Your Honor, I just want to clear, I am

22   permitted to offer P-52 for demonstrative purposes only. And

23   we've worked out with respect to all the other exhibits.

24   MR. DELLETT: That's right.

25   THE COURT: All right. Bring the jury in.

1   (Jury present.)

2   THE COURT: Members of the jury, the during the noon

3 hour, did anyone attempt to talk to you about this case?

4   THE JUROR: No.

5   THE COURT: Did you talk to anybody about the case?

6   THE JUROR: No.

7   THE COURT: And did you learn anything at all about

8 the case outside the presence of each other and this

9 courtroom?

10   THE JUROR: No.

11   THE COURT: See how together you are? Show negative

12 responses to all questions by all jurors. Mr. Albright, you

13 may continue.

14   MR. ALBRIGHT: Thank you, your Honor.

15   MR. ALBRIGHT: Your Honor, may I remind them where we

16 were before the lunch break?

17   THE COURT: All right with me.

18 Q. (BY MR. ALBRIGHT) Mr. Regan, we were about to discuss the

19 situation back in 1999 with respect to Crossroads and

20 Pathlight in terms of the market share that they had and I'm

21 going to show you a demonstrative exhibit. Could you pull up

22 052001? Mr. Regan, would you explain what that is, please,

23 sir?

24 A. This is a chart which is plotting the market share and

25 it's the market share for the year 1999. It shows Crossroads

1   at 73 percent. Pathlight at 14 percent. And it's

2   demonstrated, also, in a bar graph here, plotted on millions

3   of revenue for 1999.

4   Q. And with respect to your determination of parties's

5   position with respect to the hypothetical negotiation, did you

6   take into consideration, sir?

7   A. Yes, sir. This is for all of 1999 and as I said earlier

8   in the summer of 1999, I've seen documents indicating that

9   Crossroads had approximately 98 percent of the market, the

10   router market.

11   Q. Now, when a person like yourself, forensic accountant,

12   tries to determine what a reasonable royalty rate ought to be,

13   there are Georgia Pacific factors that you take into

14   consideration, correct?

15   A. Yes, sir. That comes from some litigation where Georgia

16   Pacific was a party.

17   Q. Okay. And are these the Georgia Pacific factors that you

18   took into consideration?

19   A. Yes, I did.

20   Q. Okay. Do you take all 15 in consideration?

21   A. I considered all 15, some I think are more important than

22   others.

23   Q. Tell the jury if you would, please, sir, which are the

24   ones that are more important are?

25   A. I particularly think No. 2 and No.

1   Q.   5?

2   A.   5, excuse me.   No. 5.

3   Q.   Let me help the jury out here with a demonstrative exhibit

4   595, and if you would tell the jury what category No. 2

5   represents, please, sir.

6   A.   Category No. 2 is whether of not there are in place

7   royalty rates based upon actual agreements involving the

8   parties, and so I look for are there rates in place based upon

9   real negotiations involving real parties.

10   Q.   And in this case, were there real negotiations that had

11   taken place between real world parties?

12   A.   Yes, there were.

13   Q.   And what did you take in consideration if that regard, Mr.

14   Regan?

15   A.   A 1998 agreement between Crossroads and Hewlett Packard

16   involving similar technology.

17   Q.   Okay.   I'm going to show a demonstrative exhibit 597,

18   which will show the jury No. 5 which you discussed.   Would you

19   let the jury know what's represented there under No. 5,

20   please, sir, and why it was important in your determination of

21   a reasonable royalty?

22   A.   No. 5 shows two boxes.   The first box is where the parties

23   to the hypothetical negotiation are partnering together, like,

24   Microsoft and Dell.   Microsoft wants to place its operating

25   system into a Dell computer.   They want to partner and

1   hopefully profit together.   Also, HP and Crossroads were in a

2   partnering situation when they established the royalty that I

3   was looking at in the 1998 agreement.

4   And this would contrast with the relationship that was

5   in place for this hypothetical negotiation and that Crossroads

6   is a dominant player in the router marketplace as indicated by

7   its market share in the summer of 1999.   And a hypothetical

8   negotiation that we're asked to look at in this matter would

9   take place just before the first infringement, which is

10   basically the end of August, beginning of September.

11   And Crossroads is basically going to go to the table

12   and being asked to give up, provide a tool to a competitor

13   which might take away its revenue and its market share.

14   That's a different circumstance.   It's a different environment

15   and it calls for a different negotiation methodology and

16   results.

17   Q.   When you were coming up with what you believe to be a

18   reasonable royalty rate, did you take into consideration

19   whether or not Crossroads and Pathlight are competitors?

20   A.   I did.

21   Q.   And direct competitors?

22   A.   Yes.

23   Q.   And what information -- give the jury an example of the

24   information that you relied on to form your opinion that they

25   were, in fact, direct competitors?

1   A.   I have seen testimony of the CEO of Pathlight, Mr. Hood,

2   and the CEO of Crossroads, Mr. Smith, they've both taken the

3   position that they were competitors. I've also seen a variety

4   of documents that are Pathlight and Crossroads documentation

5   which address the competitive relationship.

6   Q.   Let me show you, for example, Plaintiff's Exhibit 147, and

7   ask you if you would, please, sir, to tell the jury what 147

8   is, please, sir.

9   A.   Yes, this is a Pathlight document and it's a multi-page

10   document analyzing the competitive analysis of the

11   marketplace, and this is the facing page. It follows a number

12   of pages and there's a discussion within that document of a

13   entity called Chaparral and Crossroads systems. And it

14   focuses on their products and how they compete with those

15   companies, they being Pathlight.

16   Q.   Move for admission of 147, your Honor?

17   MR. DELLETT: No objection.

18   THE COURT: Received.

19   MR. ALBRIGHT:

20   Q.   Mr. Regan, as an accountant, I take it in formulating your

21   damage opinion, you looked at a fair number of documents just

22   to the vanilla nature in terms of sales of both parties's

23   profit margins, cost, the type of things that forensic

24   accountants look at in determining things like profit margin,

25   costs and those type of matters, correct?

1   A.   Yes.

2   Q.   I'm going to-you have in front of you but if you would

3   follow along with me -- exhibit 25, 26, 27, 46, 55, 35, 36,

4   37, 38, 149 and 150. Are those documents documents that

5   contain information that you relied on in coming up with your

6   opinion with respect to the reasonable royalty rate in this

7   case?

8   A.   Yes, sir.

9   Q.   I move for admission of those documents, your Honor?

10   MR. DELLETT: No objection.

11   THE COURT: They're received.

12   MR. ALBRIGHT:

13   Q.   When you were putting together your calculations, Mr.

14   Regan, did you put together a chart that basically showed the

15   impact that the inclusion of the VPS software had with respect

16   to Pathlight sales?

17   A.   Yes.

18   Q.   I'm going to show demonstrative exhibit 549. Would you

19   tell the jury what exhibit 549 represents, Mr. Regan?

20   A.   549 plots the monthly revenues of Pathlight for 1999 and

21   the year 2000. The green line is the amount of revenue

22   recorded by Pathlight. There is a vertical black line which

23   is approximately December of 1999, which is the date on which

24   the VPS software was first enabled in the product. Although

25   with respect to many of the prior sales, the customer that --

1   one of the customers which is a principal customer here was

2   IBM and it asked that VPS be enabled on these prior sales, as

3   well.

4   So this demonstrates that prior to the enabling of

5   VPS, the sales of Pathlight were at modest levels in

6   comparison to the very substantial increase that occurred in

7   the year 2000.

8   Q. And did that very substantial increase in sales include a

9   VPS play any part in your determination of a reasonable

10   royalty rate in this case?

11   A. It's consistent with Pathlight documents which indicate

12   that it is a huge benefit and a competitive necessity in the

13   product.

14   Q. Do you also calculate with respect to the sales numbers

15   that go along with the inclusion of the infringe products?

16   A. I do.

17   Q. I'm going to show exhibit 573, demonstrative exhibit 573

18   to the jury. Would you tell the jury what that represents,

19   please, sir?

20   A. This is a chart that comes from a sales database that we

21   put together, analyzing the -- for the period September 1,

22   1999 through April 27, 2001, Pathlight sales and identified

23   those sales which did not contain infringing product, those

24   sales during that period which did. You can see that the

25   sales that did not contain infringing product were

1   approximately a million 355 and the sales with infringing

2   product were $21,899,000. That's also a total bar on the

3   chart.

4   Q. Okay. With respect to all the information that we've

5   shown the jury up to this point and that you considered with

6   respect to the exhibits that we've admitted, did you come up

7   with what you believe would be a reasonable royalty rate in

8   this case, Mr. Regan?

9   A. Yes, I do.

10   Q. I'm going to demonstrative exhibit 545. Okay. Would you

11   tell the jury what the reasonable royalty rate that you

12   believe is appropriate in this case?

13   A. 30 percent.

14   Q. Okay. Now, you also have at the top of that exhibit

15   calculated royalty rate from the Hewlett Packard C P 4200

16   agreement of 19 percent. Who calculated that figure of 19

17   percent?

18   A. I did.

19   Q. So when the jury is trying to figure out what we're

20   talking about here in that situation, the licensor or licensee

21   agreement was a prospective agreement?

22   A. Yes.

23   Q. Between two parties who are trying to work out a business

24   plan?

25   A. Yes.

1   Q. And you determined that they came together and agreed with

2   19 percent?

3   A. Yes.

4   Q. Now, are there factors that make it appropriate for the

5   royalty rate that Pathlight would be expected to pay higher or

6   lower than what Crossroads is receiving from Hewlett Packard?

7   A. Yes there are and I've listed some of the more important

8   factors on this chart.

9   Q. And I'm certain the jury can figure it out, but if you'd

10   like clear on the record, is it appropriate for Pathlight to

11   be expected to pay more as a result of a hypothetical

12   negotiation than Hewlett Packard or less?

13   A. I believe that they would pay more as a result of these

14   factors.

15   Q. And would you explain to the jury why you have that

16   opinion, Mr. Regan?

17   A. The first factor is that Crossroads and Pathlight are

18   direct competitors, so they're going to be sitting down at a

19   hypothetical negotiation and Pathlight is trying to receive a

20   product from Crossroads which Pathlight has described as

21   providing a huge benefit, a competitive necessity to its

22   product.

23   Crossroads doesn't want to give them this product and

24   take away its market share, lose its revenue. Revenue is king

25   in that time frame, particularly in the high tech world 1999,

1   2000, revenue and market share. They don't want to give that

2   away. So that -- I believe Mr. -- Dr. Flamm agrees with me

3   as to that -- as an item which will cause the reasonable

4   royalty to increase over the friendly royalty, the cooperative

5   royalty that's been established.

6   Q. Okay.

7   A. Now, in addition, Crossroads is trying to negotiate with

8   Pathlight. Pathlight is not a Hewlett Packard. Hewlett

9   Packard is a very respected name, very respected brand. It's

10   very nice to be associated with Hewlett Packard. And Hewlett

11   Packard is also a major shareholder in a major customer of

12   Crossroads. It helped it provide seed money, early money to

13   Crossroads. They had an important relationship.

14   Q. Okay. Was the technology at issue in the negotiation

15   between Hewlett Packard and cross road similar to the

16   negotiation that would take place in this case?

17   A. My understanding is that it was.

18   Q. Okay. Now, I anticipate that we might hear a little bit

19   that 30 percent is a very substantial percentage. I'm going

20   to show you demonstrative exhibit 574, and if you would tell

21   the jury what this represents.

22   A. Well, this represents a summary of an analysis that we did

23   of Pathlight's gross profit margin during the infringement

24   period. The gross profit margin is the net revenues

25   subtracting materials and labor and other costs that are

1   necessary to produce the product. That yields a gross margin

2   of approximately 57 percent.

3   What I did is took the position that with respect to

4   the hypothetical negotiation, with this kind of strong gross

5   margin, Crossroads does not have great incentive to lease this

6   technology. It's not in this business. It's in this business

7   to sell routers. If it is going to give it largest competitor

8   a significant advantage and capability to produce profits, I

9   think it's reasonable that Crossroads would want approximately

10   half of those products.

11   Q. Comparing this -- what you shown here in terms of the

12   profit margin that Pathlight was able to Garner how would that

13   compare to the typical examples say in the computer industry

14   or semi conductor industry?

15   A. Much in the semi conductor industry the profit margins are

16   much, much smaller.

17   Q. Much smaller than the 57 percent they were able to obtain?

18   A.   Yes.

19   Q. Now I anticipate that we will hear testimony from

20   Pathlight's expert that the appropriate royalty ought to be

21   about $116 per product. Are you aware of that, sir?

22   A. I'm aware of that, yes.

23   Q. And could you tell the jury, please, sir, what the average

24   price so they understand and can put the $116 in perspective,

25   can you tell them what the average Pathlight gateway sells

1   for, what the price is?

2   A.   In this time frame, the average was approximately $6,800.

3   Q.   So roughly using your C P A skills here, they're probably

4   better than mine in terms of math, if they sell for $6800 and

5   they're making roughly 57 percent gross profit margin on it,

6   what does that work out in dollars?

7   A.   About $4,000.

8   Q.   Okay. And if Dr. Flamm were to suggest that the

9   appropriate rate were $116, would you think that that would be

10   an appropriate royalty for Pathlight to pay no Crossroads?

11   A.   No. I don't think Crossroads would ever agree to such an

12   agreement.

13   Q.   And have you done a calculation as to what $116 represents

14   as a percentage of the sales price of $6800?

15   A.   Yes.

16   Q.   And what is that amount?

17   A.   1.7 percent.

18   Q.   Given everything you've looked at and in your expert

19   opinion, do you have an opinion, sir, as to whether or not a

20   1.7 percent royalty rate would be an appropriate amount to

21   expect Crossroads to accept for the amount of damage that it's

22   incurred?

23   A.   Yes.

24   Q.   You would expect 1.7 to be adequate?

25   A.   I'm sorry. I thought you said do I have an opinion as to

1   whether it was --

2   Q.   Would you tell the jury what the opinion is?

3   A.   I don't believe that that's near appropriate.

4   Q.   Okay. Let's turn to the subject of IBM. Are you familiar

5   with IBM and its relationship to Pathlight?

6   A.   Yes.

7   Q.   In the -- in terms of customers of Pathlight, where does

8   IBM rank?

9   A.   I think in 1999, it represented something great er than 90

10   percent of Pathlight's revenues and in the year 2000, it was

11   very close to 90 percent of Pathlight's revenues.

12   Q.   Okay. And do you think that it was -- that the VPS

13   function was an important function to IBM?

14   A.   Yes.

15   Q.   I'm going to show you exhibit -- Plaintiff's Exhibit 157.

16   In the middle there, it reads that the VPS option is a must

17   for large enterprise configurations. And this is in October

18   5th, 1999 letter from Mr. Hood to IBM, correct?

19   A.   Yes.

20   Q.   And what is he shown there?

21   A.   That Pathlight is recommending that IBM upgrade the

22   existing SAN gateway to include the VPS option which is

23   characterized as a must for large enterprise configurations.

24   Q.   Move for admission of 157, your Honor?

25   MR. DELLETT: No objection.

1   THE COURT: Received.

2   MR. ALBRIGHT:

3   Q. I'm now going to show you Plaintiff's Exhibit 49. This is

4   November 24th, 1999 letter from Mr. Hood, again, and I'll ask

5   you to look at this particular section which states:

6   Richards, other companies that IBM competes with are design

7   something this option as well as writing special software will

8   integrate path lick's solution with their software. We believe

9   it is a competitive necessity for IBM to adopt this new SAN

10   gateway configuration and that this quotation represents a

11   very special value.

12   Did you take that in consideration when you were

13   determining an appropriate royalty.

14   A. Yes, sir, because it indicates that in order to compete

15   with this product, this capability is necessary.

16   Q. Move for admission of that exhibit, your Honor?

17   MR. DELLETT: No objection.

18   THE COURT: Is it 154?

19   MR. ALBRIGHT: I believe it's 149, your Honor.

20   MR. DELLETT: 49.

21   MR. ALBRIGHT: 49, your Honor.

22   THE COURT: All right, 49.

23   MR. ALBRIGHT:

24   Q. Finally, one more quick IBM document, Plaintiff's Exhibit

25   43.. This is a letter dated May 4th, year 2000 from Mr. Hood,

1   again, CEO of Pathlight to IBM. What does this represent, Mr.

2   Regan?

3   A. This is a letter which is offering IBM a one-year license

4   for VPS, and it's discussing that one-year license will carry

5   a price of $1,875,000 plus $281,250 for maintenance contract

6   on that.

7   Q. So is Pathlight selling this to them for that much money?

8   A. No. It's a one-year license to use.

9   Q. So that's what Pathlight believes it's worth?

10 A. That's what Pathlight is offering it to IBM for a one-year

11 use.

12 Q. Do you take that in consideration with determining what

13 you believe was a reasonable royalty in this case?

14 A. Yes, that's a consideration.

15 Q. Okay. I've just got a couple of more documents and I'll

16 be done, Mr. Regan. I'm going to show you Plaintiff's Exhibit

17 153 and page 92 of that. And actually, your Honor, I'd move

18 for the admission of 43.

19   MR. DELLETT: No objection.

20   THE COURT: Received.

21   MR. ALBRIGHT:

22 Q. And with respect to page 92 of exhibit 153, this states

23 that -- this is page from the Pathlight web site is it not?

24 A. Yes.

25 Q. And it states, this is accomplished by SAN gateway's

1   access control features which include channel control zoning

2   or the channel zoning we've heard about this morning, and

3   optional VPS. Such access control is an absolute necessity for

4   multi-host SAN solutions. Did you take this in consideration

5   in determining what a reasonable royalty rate would be?

6   A.   Yes.   Again, because it's being considered in the mind of

7   Pathlight an absolute necessity toward its customers, it's an

8   indication of its strong importance.

9   Q.   Move for admission of 153, your Honor.

10   MR. DELLETT: Subject to the agreement by the parties

11   as to what pages this includes.

12   THE COURT: Well, he's only offering in 92 as I

13   understand.

14   MR. ALBRIGHT: It be fine to do it at this moment that

15   way, as well, your Honor, page 92. That will be fine.

16   MR. DELLETT: No objection.

17   THE COURT: All right. 92, 153, page 92 is admitted.

18   MR. ALBRIGHT: Finally, your Honor, I'm going to have

19   Mr. Regan look at Plaintiff's Exhibit 51, which is Pathlight

20   document.

21   MR. ALBRIGHT:

22   Q.   I believe this is about the third page down. Mr. Regan,

23   this states -- this is Pathlight document which states that

24   resource sharing enabling sharing of storage resources and

25   network connections while avoiding potential conflicts that

1   cause data or systems corruption and/or interrupt other

2   processes. It provides unique zoning and VPS capabilities.

3   VPS software provides the only LUN masking solution in the SAN

4   market viewed as a huge benefit by many OEMs?

5   Did you take this document of Pathlight's statement in

6   consideration in determining your reasonable royalty rate?

7   A. Yes, particularly the language about unique zoning and

8   virtual private SAN and providing a huge benefit by many OEMs,

9   which is an acronym for original equipment manufacturer which

10   is many of Pathlight's clients were OEMs.

11   Q. To summarize, Mr. Regan, you believe that it would be

12   appropriate for the jury to award a reasonable royalty rate of

13   30 percent, correct?

14   A. Yes.

15   Q. I'm going to show you demonstrative exhibit 543, and would

16   you explain to the jury what that document represents, please,

17   sir?

18   A. This document summarizes the infringing sales, the gateway

19   products, the router products, and totals the infringing

20   sales, applies the 30 percent reasonable royalty rate to

21   arrive at a total of $6,569,597.

22   Q. And in your expert opinion; that the amount of royalty

23   that's appropriate in this case?

24   A. Yes.

25   Q. Your Honor, I failed to move for the admission of 51,

1   which was the exhibit before. I move at this time.

2   MR. DELLETT: No objection.

3   THE COURT: Received.

4   MR. ALBRIGHT: Thank you, sir.

5   MR. ALBRIGHT:

6   Q. Mr. Regan, to summarize, does this demonstrative exhibit

7   reflect your calculation of an appropriate reasonable royalty

8   rate to make Crossroads whole with respect to the damages it

9   suffered through the infringing actions of Pathlight?

10   A. Yes.

11   Q. And do you believe that the calculation that you did there

12   and the results royalties of about six and a half million

13   dollars is an appropriate calculation?

14   A. I do.

15   Q. I pass the witness.

16   CROSS-EXAMINATION

17   BY MR. DELLETT:

18   Q. Good afternoon.

19   A. Good afternoon.

20   Q. Now, Mr. Regan did you do any analysis yourself as to

21   whether or not Pathlight infringes the 972 patent?

22   A. The determination of infringement is something which I

23   looked to for others to testify about.

24   Q. So you have no opinion of whether or not Pathlight

25   infringes, correct?

1   A.   I don't have an opinion. That's not an area of expertise

2   that I have.

3   Q.   Okay. Do you have any opinion as to whether or not the

4   972 patent is valid?

5   A.   Again, I don't consider that in my area of expertise.

6   Q.   That's outside your area of expertise?

7   A.   Yes.

8   Q.   Thank you. Now, did you just assume that the patent was

9   valid and infringed?

10   A.   It's the result of having seen testimony of others,

11   reports of others. I've read the report of Dr. Hodges and

12   based upon those documents, I believe that there was enough

13   information so that it appeared to be a valid presentation.

14   Q.   Did you read the reports of any of Pathlight's experts?

15   A.   Yes.

16   Q.   Did you read the reports of Pathlight's experts that said

17   that the patent was invalid?

18   A.   I believe so, yes.

19   Q.   And did you make any assessment in whether or not they

20   were correct?

21   A.   Again, that's not an area where I consider myself to have

22   expertise, so I look to others to make that determination for

23   me.

24   Q.   So you don't have any --

25   A.   Any calculations are based upon there being a patent and

1   that it's a valid patent and that these are infringing

2   products.

3   Q. So you're not making any judgment here as to whether or

4   not Pathlight's experts are correct or Crossroads's experts as

5   to validity or infringement?

6   A. Not with respect to validity.

7   Q. All right.

8   A. Or infringement.

9   Q. Not with respect to infringement?

10   A. That's correct.

11   Q. All right. Now, I understand you're a forensic

12   accountant. In your career as a forensic accountant, have you

13   ever done a patent license negotiation that resulted in a

14   license of a patent?

15   A. I've never been a percipient in a negotiation on a patent.

16   I have participated in negotiation of other intellectual

17   property but not a patent.

18   Q. So it's correct that you have never participated in a

19   license negotiation for a patent that resulted in a license of

20   that patent, correct?

21   A. That's correct.

22   Q. Okay. Now, you have spent substantially all of your time

23   on litigation since approximately 1990?

24   A. Yes, I have spent substantially all of my client-related

25   time, relates to matters that are involved in litigation.

1   Q.   And in all of that time, is it more than ten years that

2   you've done that?

3   A.   Yes.

4   Q.   And in all of that time, is it correct that not only two

5   occasions, you have provided opinions as to the amount of a

6   reasonable royalty for a patent?

7   A.   I think in terms of actual testimony that is likely to be

8   accurate. I have done -- issued reports and assisted in cases

9   which settled prior to trial.

10   Q.   But in only two occasions, you've testified before a court

11   as to what a reasonable royalty should be for a patent,

12   correct?

13   A.   I believe that's correct, yes.

14   Q.   Okay. And this is the third time, right?

15   A.   Yes.

16   Q.   Okay. Let's go back to the first time, you testified that

17   a patent ownership get a 25 percent royalty; isn't that right?

18   A.   That was in a deposition, I think, and that's consistent

19   with my recollection.

20   Q.   And the second time that you testified as to reasonable

21   royalty for a patent, you said the defendant should pay a

22   three percent royalty, right?

23   A.   Again, I think in that instance, that was in a deposition,

24   and I think that particular royalty -- I don't think that was

25   a patent. Have you got a page in my deposition?

1   Q.   Sure.   It had to do with a company called Hewlett Packard?

2   A.   Which page?

3   Q.   Page 12 -- excuse me, page 11.

4   A.   Maybe I'm looking at the wrong page 11, but I don't see

5   that on my page 11.

6   Q.   Do you recall any other instances where you testified as

7   to what a royalty rate should be for a patent?

8   A.   I recall the Hewlett Packard case and my recollection in

9   that case is that it was a small royalty.   It involved a

10   patent relating to the definition of --

11   Q.   Dr. Regan, just answer the questions, please.   Now, is

12   your opinion that the royalty should be 30 percent, is that

13   based on actual licenses you've negotiated in the computer

14   industry?

15   A.   No.

16   Q.   Is it based on actual royalty rates that you remember

17   seeing in the computer industry?

18   A.   I've seen a variety of rates in the computer industry.

19   Q.   And --

20   A.   Both as to copyright and patents.

21   Q.   Okay.   Now, is it correct, then, that you have no actual

22   experience negotiating royalty rates for patents where an

23   actual license was reached between the parties?

24   A.   That's correct.

25   Q.   Okay.   And so your royalty rate here is based on a

1   hypothetical negotiation?

2   A. Yes, there was no real negotiation here.

3   Q. No real negotiation?

4   A. You had the assume a hypothetical negotiation in

5   accordance with the Georgia Pacific requirement.

6   Q. In that hypothetical negotiation, would somebody from

7   Crossroads be present?

8   A. I would expect that to be the case, yes.

9   Q. Like Mr. Smith?

10   A. He may have attended, yes.

11   Q. And from Pathlight at the hypothetical, would somebody

12   like Mr. Rahmani be present?

13   A. It would be up to the parties as to who to participate in

14   the discussions.

15   Q. And in your opinion, could Mr. Smith or Rahmani ask other

16   people to assist them in the hypothetical negotiation?

17   A. Yes.

18   Q. And would you be able to provide them any useful advice of

19   that hypothetical negotiation?

20   A. If I were asked?

21   Q. If you were asked.

22   A. I believe I could.

23   Q. Okay. Why do you believe you could?

24   A. I have studied in this area, and as I have said, I have

25   participated in licenses for other intellectual property.

1   Q. Do you think Mr. --

2   A. I could analyze factors which are important to a

3   determination of what a reasonable royalty is and what people

4   have used to determine what a reasonable royalty is, and that

5   includes market share, impact on revenues, gross margins,

6   those types of things.

7   Q. Do you think either Mr. Smith or Mr. Rahmani would want

8   you at a hypothetical negotiation?

9   A. Well, nobody can really be at a hypothetical negotiation.

10   That's something that doesn't exist.

11   Q. Okay. So you don't know --

12   A. Really impossible to attend a hypothetical negotiation.

13   Q. Okay. Now, let me ask you about some of the things now.

14   If you were helping Mr. Smith or Mr. Rahmani at a hypothetical

15   negotiation, could you tell them if Pathlight could make

16   storage routers at all without using the 972 patent?

17   A. That would not be a part of my expertise.

18   Q. And that didn't enter your mind in coming to your opinion

19   that a royalty should be 30 percent, did it?

20   A. Well, I have seen that statement made that there could be

21   a work around or there could be costs incurred by Pathlight,

22   but I know that Pathlight didn't do a work around, at least

23   that's my understanding.

24   Q. Now, when you came up --

25   A. And so --

1   Q. Excuse me. When you came up with the 30 percent royalty,

2   did you have any idea whether Pathlight could make storage

3   routers without using the 972 patent?

4   A. My understanding is that they didn't and that was a

5   consideration.

6   Q. Okay. But you don't know whether they could or not?

7   A. I don't know whether they could without infringing.

8   Q. Okay. Do you know if Pathlight would have to reduce it --

9   A. Excuse me. I don't know whether they could do it without

10   infringing and whether they could provide the same level of

11   benefit.

12   Q. You don't know one way or another today?

13   A. No. I don't know whether they could do both of those

14   things.

15   Q. Okay. And you didn't know one way or another when you

16   wrote your opinion that the royalties should be 30 percent?

17   A. That's correct.

18   Q. Now, if you were at the hypothetical negotiation helping

19   Mr. Smith or Mr. Rahmani, would you be able to tell them that

20   Pathlight would have to reduce its prices if it took out

21   access controls?

22   A. That's something you would consider. You would consider

23   not only reduction of price, but whether or not the product

24   would be accepted at all.

25   Q. But you didn't consider --

1   A. If it's essential, if it's an absolute necessity to be

2   competitive and you don't have it in your product, it may

3   require more than a price reduction.

4   Q. But you didn't consider that in coming up with your 30

5   percent royalty, did you?

6   A. I don't believe I did consider it. I considered it a

7   reciprocal that it was a huge benefit, that it is a

8   competitive necessity, it is something which you would want to

9   have in your product in order for your product to successfully

10   compete. And I'm driving towards the resolution of Pathlight

11   and Crossroads having a negotiation where Pathlight leaves the

12   room with an ability to compete and have this license. What

13   would the amount that they would need to pay.

14   Q. Objection. Move to strike. Mr. Regan, I'm going to ask

15   questions that I believe you can answer yes or no. And if you

16   can't answer yes or no, I'd appreciate you just saying you

17   can't answer yes or no. Okay?

18   Now, isn't it true that you were deposed and I took

19   your deposition on April 6th of this year?

20   A. Yes.

21   Q. Okay. And I asked you on page 85, so you would be

22   speculating -- it's line 14 -- you would be speculating if you

23   tried to determine how much Pathlight would have to reduce its

24   price to get the IBM contract without the access control

25   feature in the storage routers. Answer, yes, I'm not able to

1   tell you how much that would need to be.

2   Question, you don't know whether it would be $100 less

3   or a thousand dollars less or more per unit? Answer, that's

4   correct. Or whether IBM perhaps would not have considered

5   Pathlight? I don't know. Is that your answers?

6   A.   That's correct.

7   Q.   Okay. Now, if you were at a hypothetical negotiation, do

8   you know if Pathlight would be able to achieve higher profit

9   margins with the 972 patent?

10   A.   I don't know that I could answer that question yes or no.

11   Q.   Well, you answered it in your deposition, didn't you?

12   A.   You probably have a page and line reference that you can

13   take me to.

14   Q.   You're right. I do. You were under oath when you

15   testified in your deposition, correct?

16   A.   Yes.

17   Q.   And on page 83, line 12, I asked, do you believe that

18   Crossroads would have been able to increase its profit margins

19   if it used the 972 technology in its storage routers, and your

20   answer was I don't know.

21   MR. ALBRIGHT: Your Honor, I believe and I could be

22   wrong, but I believe when he asked the question the first

23   time, he asked about Pathlight in direct and that question

24   asked about Crossroads. And I just want to make sure they're

25   talking about the same.

1   MR. DELLETT:

2   Q. All right. Let me refer you to line 3. Do you have any

3   opinion as to how much additional profits Pathlight made by

4   using technology alleged to infringe the 972 patent? Answer,

5   I haven't attempted to quantify it. I think that's a very

6   difficult thing to do. Is that your answer?

7   A. Oh, yes, I'm agreeing it's a very difficult thing to do.

8   And if you'd like me to explain, I would.

9   Q. Okay. What fraction of Pathlight's selling price is the

10   access control feature?

11   A. Again, I think that's a very difficult thing to determine.

12   Q. And if you were at the hypothetical negotiation, would you

13   be able to advise Mr. Smith or Mr. Rahmani on that?

14   A. That's something that we could discuss. I could certainly

15   have consideration as can you sell the product without it in

16   its competitive marketplace.

17   Q. And you --

18   A. That's very important answer.

19   Q. Is it correct that you have not determined what fraction

20   of Pathlight's selling prices of access controls?

21   A. That's correct. I have not made that determination.

22   Q. Okay. Have you -- if you were at the hypothetical

23   negotiation, could you advise Mr. Smith or Mr. Rahmani if a

24   license to the 972 patent would save Pathlight any engineering

25   costs?

1   A.   That's something we could discuss and depends upon the

2   answers that we get as we brain storm that issue.

3   Q.   That's not something you did when you came up with your 30

4   percent reasonable royalty, is it?

5   A.   Well, depends on what engineering costs you're talking

6   about.

7   Q.   Okay.   Well, I asked you on -- it's on page 48, if you

8   want to follow along there.   At your deposition, I said, line

9   11, Mr. Regan.   Do you have any understanding as to whether or

10   not Pathlight would avoid any engineering expenses by taking a

11   licensed 972 patent?   Answer: That's not a determination that

12   I made.   Question: Has anybody expressed an opinion on that

13   issue to you?   Answer: No?

14   Did I read that right.

15   A.   Yes.

16   Q.   Okay.   Now, do you have any opinion yourself or would you

17   be able to advise Mr. Smith and Mr. Rahmani how much it would

18   cost Pathlight to come up with an alternative and put it in

19   its products to what's alleged to infringe the 972 patent?

20   A.   That's the kind of thing where I've been on teams where

21   we've made that determination, but I won't do that by myself.

22   I'll have input from others.

23   Q.   And you haven't done that here?

24   A.   No.

25   Q.   Okay.   Would you be able to tell Mr. Smith and Mr. Rahmani

1   what Pathlight's net profit margin is on SAN gate ways or SAN

2   routers?

3   A.   I would be able to help them analyze that and assist them

4   in understanding what it is.

5   Q.   They're net profit margin is not 60 percent, is it?

6   A.   No.   It depends on your focus, but your net profit margin

7   which most people think about in terms of net profit margin

8   would not be the incremental profit margin that I've

9   calculated in this case.

10   Q.   When you said gross profit margin, were you meaning

11   incremental profit margin?

12   A.   It's very similar to an incremental.

13   Q.   Similar.   Is it exactly the same thing?

14   A.   Incremental private margin would tend to be a bit higher.

15   Q.   Is Pathlight's net profit margin higher or lower than that

16   figure?

17   A.   If you were to attempt to calculate a net profit margin, I

18   would expect that you might argue for a calculation that would

19   be lower than an incremental profit margin and lower than a

20   gross profit margin.

21   Q.   And that's not something you did here?

22   A.   No.

23   Q.   If you were at the hypothetical negotiation, do you think

24   you could advise Mr. Smith and Mr. Rahmani or anybody else if

25   Pathlight could compete paying a 30 percent royalty?

1   A.   That's something I, again, would participate in

2   discussions and analysis as part of the team.

3   Q.   But you didn't come to any conclusions on that issue in

4   reaching your 30 percent royalty, did you?

5   A.   I would expect that it would have competed and it might

6   give them the ability to compete in the absence of acquiring

7   this capability, their own literature indicates that they

8   would not be able to compete.

9   Q.   All right. Would you please turn to page 120 of your

10   deposition again, line 14, and I asked you, do you recall ever

11   seeing such a company that pays a 30 percent royalty on most,

12   if not all of its sales, continue in business? Answer: I've

13   not done that investigation. Was that your answer?

14   A.   Yes.

15   Q.   Okay. Now, would you be able to advise Mr. Smith and Mr.

16   Rahmani what a reasonable royalty rate would be if instead of

17   the royalty base being all SAN gateways and SAN routers if

18   instead the royalty base were sales just to the VPS feature

19   that's allegedly infringing?

20   A.   Again, that's the kind of question which I would expect to

21   be able to participate in on a team and make that calculation

22   to the extent that we define the scope of the discussion.

23   Q.   But you haven't done that?

24   A.   Let me hear that question again, please.

25   Q.   Have you ever determined what the royalty rate would be if

1   the royalty base instead of all the SAN gateways and SAN

2   routers, if it were the royalty base were the sales, the VPS

3   feature that's alleged to infringe?

4   MR. ALBRIGHT: Your Honor, before he answers, I have

5   an objection. There's no evidence that only the VPS in

6   fringes. In fact, the only evidence indicates to this date is

7   that the entire router infringes the 972 patent. There's no

8   evidence to even support this hypothetical for this witness.

9   THE COURT: The question is did the witness do any of

10   these other things. I'll permit the question. You may answer

11   it.

12   A. I have not done that.

13   MR. DELLETT:

14   Q. Okay. Now, would you be able to advise Mr. Smith or Mr.

15   Rahmani what royalty rates Pathlight has paid for other

16   software to be used in its products?

17   A. I would inquire as to other licenses and identifying those

18   licenses and make calculations. I could do that.

19   Q. What royalty rates has Pathlight paid for other software

20   of its products?

21   MR. ALBRIGHT: Your Honor may we approach the bench?

22   An.

23   (At the Bench, on the record.)

24   THE COURT: Is this information that you wouldn't

25   permit in discovery?

1   MR. ALBRIGHT: This is information we never got from

2   Pathlight.

3   MR. DELLETT: You've got them.

4   MR. ALBRIGHT: We have not gotten this information.

5   MR. DELLETT: It was the subject of our expert report.

6   It was in our documents we produced.

7   MR. ALBRIGHT: Where are they?

8   MR. DELLETT: I am not sure if they're trial exhibits

9   or not, but we produced them.

10   MR. ALBRIGHT: Yeah, our position is that that they

11   have not been produced to us.

12   MR. DELLETT: Well, I can get you a document number.

13   We produced them months ago.

14   THE COURT: I don't know one way or the other.

15   Counsel, be careful with your comments about what you did in

16   your deposition when he didn't.

17   MR. DELLETT: Uh-huh.

18   THE COURT: Now, y'all figure out if he has that

19   information or not, whether it's just voluntary or did y'all

20   ask for it. You're going to have to give me some basis.

21   MR. DELLETT: I'm clearly certain it was near the end

22   of the discovery period, and I can tell you specifically what

23   the agreements are.

24   MR. BAHLER: Do you know the names?

25   MR. DELLETT: Yes, I can give you -- that's something

1   he learned.

2   MR. ALBRIGHT: Our concern is that the question

3   implies that there was more than the license. We were given

4   one license with respect to --

5   MR. DELLETT: There's some more -- well -- I can show

6   you what was --

7   MR. ALBRIGHT: We'll withdraw the objection, let him

8   go ahead.

9   MR. DELLETT:

10   Q. Mr. Regan, did the actual royalty rates that Pathlight

11   pays for software impact your calculation that a royalty

12   should be 30 percent?

13   A. No.

14   Q. Okay. Now, I believe earlier, you had testified about

15   the proposal that Pathlight made to IBM. Do you remember

16   that?

17   A. I do.

18   Q. And did IBM ever agree to that?

19   A. I don't believe so.

20   Q. Would you be able to tell Mr. Smith and Mr. Rahmani at a

21   hypothetical negotiation how much per unit that $2 million is?

22   A. You'd need to know how many units were projected to be

23   received.

24   Q. Have you done that?

25   A. This is a price for a one-year fully paid license of

1    $1,875,000. It would be dependent upon how many years were

2   acquired.

3   Q. You haven't calculated how much that would be per unit,

4   correct?

5   A. I have not.

6   Q. Would you be able to advise Mr. Smith and Mr. Rahmani how

7   many VPS units were put on gateway's instead of routers?

8   A. Again, you could collect the data and make that

9   determination.

10   Q. But you haven't done that?

11   A. As I said here, I don't recall.

12   Q. Would you be able to advise Mr. Smith and Mr. Rahmani if

13   Crossroads uses the 972 patent?

14   A. I would make that determination by someone who possessed

15   those skills. I don't have the skills to make that

16   determination.

17   Q. Okay. Would you be able to advise them why Crossroads has

18   never used or claims it's never used the 972 patent?

19   A. Again, I didn't -- that's not in my area of expertise.

20   Q. Would you be able to advise them whether Crossroads could

21   increase its prices by using the 972 patent?

22   A. I might be able to participate that as a member of the

23   team, but I wouldn't do that with technical assistance.

24   Q. And you haven't done that with coming up with your 30

25   percent royalty?

1   A.   I've explained how I -- where I get the 30 percent

2   royalty, and I believe that it's consistent with Pathlight

3   being able to compete in the marketplace and earn revenue in

4   market share.

5   Q.   You don't have any idea whether Crossroads could do better

6   itself if it used what it says is in the 972 patent?

7   A.   I've not made that study.

8   Q.   Okay. Would you be able to advise Mr. Rahmani or Mr.

9   Smith what the advantages of the 972 patent are?

10   A.   I would look to others to do that.

11   Q.   Would you be able to advise either of them what

12   Crossroads's net profits are on storage routers?

13   A.   I tend to make that determination of incremental profit,

14   gross margin. If you were to try to determine a net profit,

15   I'd determine an incremental profit, incremental net profit.

16   Q.   And that's different than a net profit, correct?

17   A.   Generally.

18   Q.   And do you have any idea what Crossroads's net profit is

19   on storage routers?

20   A.   Again, it depends on how you define net profit. I would

21   look to its gross margin as an indicator.

22   Q.   Well, that's gross margin, not net profit, isn't it?

23   A.   That's right.

24   Q.   And Crossroads produces financial statements?

25   A.   Yes.

1   Q.   You've seen those, haven't you?

2   A.   Yes.

3   Q.   And isn't it correct that Crossroads' financial statement

4   showed a net loss in every quarter of its existence? Did you

5   know that?

6   A.   Yes, I did know that.

7   Q.   Is that an indicator of its net profitability?

8   A.   I think it's something you would need to study in terms

9   of, as well discussed in my deposition, in a company like

10   Crossroads, it's buildings and infrastructure. Building

11   scalability is incurring a tremendous amount of infrastructure

12   expenses which do not relate directly to the profitability of

13   the particular product. They're incurring a lot of expenses

14   to position itself as a market leader to drive market shares

15   and revenues which is extremely important to a start-up

16   company in that stage of its existence.

17   Q.   So is it correct, then, that Crossroads's net profit

18   margins did not enter into your set of factors to determine

19   that the royalties should be 30 percent?

20   A.   Well, I think you need to look at calculations that are

21   more product-specific, and in this instance, you look to, I

22   think, the profitability of the infringer of using that

23   particular technology. And as I said earlier, with respect to

24   the other exhibit, the HP agreement gives me a benchmark from

25   which to move up, and I landed at the 30 percent as I've

1   described.

2   Q. Is it correct, then, that you're relying primarily on the

3   HP agreement here?

4   A. It's certainly an influence.

5   Q. And you investigated that agreement pretty thoroughly?

6   A. I read it, analyzed it.

7   Q. And you spent a lot of time on it?

8   A. Yes.

9   Q. And, in fact, you have charged -- just for your own time,

10   upwards of $40,000 for your testimony here?

11   A. My firm charges for my work. A lot of my work is other

12   than testimony. We're studying reports, analyzing documents,

13   collecting information.

14   Q. And approximately how much in dollars have the other

15   members of your firm charged for their work in this case?

16   A. I would think something in excess of $75,000.

17   Q. Okay. Let's take a look at the HP agreement. That is

18   exhibit 40, and the agreement itself doesn't say the royalty

19   is 19 percent, correct?

20   A. No.

21   Q. That's a calculation that you did, right?

22   A. Yes, sir.

23   Q. And if you would turn, please, to page 14 of the

24   agreement, which I'll put up on the screen, this is the page

25   that shows what actually was -- what HP agreed to pay,

1   correct?

2   A.   Yes.

3   Q.   And it specifies that if payment -- the royalties in the

4   middle of the page here are between $175 and $275 per unit,

5   correct?

6   A.   Yes, that is a part of the total payment package you see

7   right above it.

8   Q.   We'll get to that.   Now, what percentage of the price of a

9   storage router is this $175 to $275?

10   A.   Well, you'd need to determine what the C P 4200 is going

11   to be.   I've not made that calculation.

12   Q.   Okay.   Now, is it a relatively small percentage like on

13   the order of five to ten percent of the total selling price of

14   a storage router?

15   A.   I've not made the calculation.

16   Q.   Okay.   Now, is the $175 to $275, is that part of your 19

17   percent?

18   A.   Yes.

19   Q.   Okay.   And what is the other part of your 19 percent?   I

20   believe you mentioned that just a minute ago.   You referred to

21   the code and hardware fees, correct?

22   A.   Yes.

23   Q.   And does -- is any of that code for access controls?

24   A.   These are the total amounts paid in order for HP to have

25   the product from Crossroads.

1   Q.   Is any of that code for access controls?

2   A.   That's not a determination that I've made.

3   Q.   Is any of that code for the 972 patent?

4   A.   I don't believe so. I think this is similar technology as

5   testified by others, and this lays out the payment schedule

6   which HP will be paying Crossroads for the ability to obtain

7   this product.

8   Q.   So the answer is no, none of that code and hardware fees

9   is for the 972 patent?

10   A.   I don't believe it is, no.

11   Q.   And it's also correct that none of the royalties, the $175

12   to $275 is for the 972 patent, correct?

13   A.   I don't believe it is, no.

14   Q.   Okay. And none of -- any of the royalties on this

15   agreement are for access controls, correct?

16   A.   I don't know the answer to that question.

17   Q.   Okay. Do you think access controls are in the C P 4200

18   product that this agreement is all about?

19   A.   Again, I've not made that determination.

20   Q.   Do you think the parties to this hypothetical negotiation

21   would agree to a license of the 972 patent plus binary code,

22   source code, hardware design?

23   A.   I think what the parties would need to do in the

24   hypothetical negotiation is get to a point where Crossroads

25   provides and Pathlight delivers the ability to sell the

1   product with these benefits and features that are essential.

2   Q. And so it's correct that your 30 percent royalty, you're

3   not sure if it's just for the 972 patent or for the 972 patent

4   plus other code and features that Pathlight would want from

5   Crossroads?

6   A. It's for Pathlight having a license. It puts it in a

7   position to be able to market those facilities, those features

8   and compete in the marketplace.

9   Q. And you're not sure if that license that you say should

10   have a 30 percent royalty is for just the 972 patent or for

11   some other information code and hardware that is outside the

12   972 patent, correct?

13   A. I am talking about the 972 capabilities and features. How

14   they deliver it between the parties, I've not gotten into that

15   level of specificity. I'm merely saying that if Crossroads is

16   going to give Pathlight the entre into its marketplace, with

17   those abilities and features the specifics of whether or not

18   there are manuals and codes, I have not gotten to that level.

19   Q. In reaching your 30 percent royal city, you didn't decide

20   one way or another whether that information should be part of

21   the license or not, correct?

22   A. I don't get into that level of specificity. I look to how

23   much does Pathlight need to pay in order for Crossroads to be

24   willing to allow a competitor to chew into its marketplace.

25   Q. And whether or not that agreement would include just the

1   972 patent or not, you don't know?

2   A.   I'm talking about the 972 features and capabilities.

3   Q.   Okay. Now, do you really think this agreement for the

4   4200 shows what royalty rates are for access controls?

5   MR. ALBRIGHT: Objection. If he is trying to imply

6   that that's what this gentleman said in the past, I object.

7   It mischaracterizes any prior testimony. Mr. Regan has never

8   stated that.

9   THE WITNESS: I have not said that.

10   MR. DELLETT:

11 Q.   Did HP get any access controls from Crossroads?

12 A.   I believe you asked me that and I have not made that

13 determination.

14 Q.   No further questions.

15   MR. ALBRIGHT: May I, your Honor?

16   RE-DIRECT EXAMINATION

17 BY MR. ALBRIGHT:

18 Q.   Mr. Regan, you're not trying to imply to this jury that

19 this HP agreement is a perfect replica of what is going to

20 take place in a hypothetical negotiation between Crossroads

21 and Pathlight; is that correct?

22 A.   That's correct.

23 Q.   And when we talk about the reasonableness of a 30 percent

24 royalty versus the computer industry, is this the computer

25 industry that we're talking about?

1   A.   I'm unsure what you mean by the word this.

2   Q.   Mr. Dellett was pointing out a 30 percent royalty would be

3   a high rate in the computer industry.

4   A.   Oh, okay.

5   Q.   And I think the jury ought to understand whether or not

6   it's a fair comparison between this patent and the royalty

7   rate ought to be paid to come pair it to the computer

8   industry?

9   A.   No. You need to be more specific and this is a niche

10   within the industry and as we see with Pathlight's financial

11   statement, the gross margins are very strong with respect to

12   these products.

13   Q.   I also make very clear to the jury that this is a

14   hypothetical negotiation, correct?

15   A.   Yes.

16   Q.   So you could never have been at a negotiation advising Mr.

17   Smith or Mr. Rahmani anything. This is something that is a

18   court-created concept, right?

19   A.   Yes, sir, it's something we have to assume would have

20   taken place had the parties negotiated for the right to use

21   this feature.

22   Q.   If you -- if the parties weren't forced to do so by the

23   court in coming up with a reasonable royalty rate, what

24   success do you think that you and Mr. Regan, with all your

25   backgrounds and charm as a C P A, would have in convincing Mr.

1   Smith, who's a CEO of Crossroads, to ever enter into a license

2   of any kind with Pathlight with respect to this patent?

3   A.   I don't think I'd be able to convince him.   I don't think

4   they want to do that.   It's something they must do as a result

5   of the process that they find themselves in.

6   Q.   Finally, there are a number of questions in which Mr.

7   Dellett asked you to speculate what the product that Pathlight

8   makes would be worth for what margin might be made if the

9   infringing products, the channel zoning and VPS were not

10   included in it?

11   A.   Yes.

12   Q.   Do you recall that?   We don't have to speculate about how

13   or what Pathlight did when they did have the VPS and the

14   channel zoning, do we?

15   A.   That's right.

16   Q.   Let me take you back quickly through exhibit 549.   Tell

17   the jury what happens without speculating what might happen

18   had they not had the channel zoning or VPS, tell the jury what

19   happened when they did have it?

20   A.   Well, as I said earlier, after the VPS was enabled, the

21   sales increased dramatically.   The sales in 1999, say, in

22   December were well below half a million dollars.   And in the

23   year 2000, many months are in the two to something greater

24   than $3 million level.

25   Q.   So while you can't speculate what might have happened if

1   they didn't have the VPS or channel zoning, there's no

2   question what happened when they did?

3   A. That's right. And this tracks after the VPS. There is

4   channel zoning in the products prior to December of 1999.

5   Q. Exhibit 573 which the jury has seen before. In terms of

6   dollars, again, without speculating what might have happened

7   if Pathlight had not put the infringing products in, what

8   happened when they did?

9   A. Pathlight achieved a very substantial amount of revenue as

10   a result of selling the infringing products, revenue which

11   enabled it to gain market share which was very important to it

12   as a company in 1999 and 2000.

13   Q. Finally, Mr. Regan, exhibit 543. You've heard all the

14   questions Mr. Dellett asked you and I've asked you. Tell the

15   jury what you believe the appropriate reasonable royalty rate

16   ought to be in your opinion?

17   MR. DELLETT: Objection. He's just repeating his

18   direct.

19   THE COURT: You can ask him. Objection sustained.

20   MR. ALBRIGHT: Have no more questions, your Honor.

21   RE-CROSS EXAMINATION

22   BY MR. DELLETT:

23   Q. Mr. Regan, if you were at the hypothetical negotiation,

24   would you be able to tell Mr. Smith and Mr. Rahmani any other

25   reasons why Pathlight increased its sales in 2000?

1 A. Well, hypothetical negotiation, according to the rules of

2 Georgia Pacific, has to occur just before the first

3 infringement, which would be, say, September 1st. So you

4 wouldn't know what the sales are going to be in the year 2000.

5 Q. So this chart would be not known at a hypothetical

6 negotiation?

7   MR. ALBRIGHT: Your Honor, that's an incorrect

8 statement of the law. That's just flat wrong.

9   THE COURT: I'll instruct the jury as to what --

10   MR. ALBRIGHT: Apologize.

11   THE COURT: The question is at the hypothetical

12 circumstance, they wouldn't have the particular chart. That's

13 the only question before the witness. And we all know the

14 answer to it, so let's ask your next question.

15   MR. DELLETT:

16 Q. Now, do you think Mr. Rahmani would know more than you do

17 about reasons why Pathlight increased its sales?

18 A. I would expect that he would be very knowledgable and his

19 knowledge is greater than mine.

20 Q. Okay. And Mr. Albright asked you about this graph that he

21 put up. Is it correct there that those amounts, the $23

22 million -- let's just talk about the $21 million in the

23 middle. Is it correct that that is for sales of all gateways

24 and routers, correct?

25 A. Yes. For a period of September 1, '99 through April 27,

1   2001.

2   Q. That's not sales of the VPS option?

3   A. That is the total sales of gateways and routers.

4   Q. Do you know what portion of that $21 million is the VPS

5   option?

6   A. I don't believe you can determine that number.

7   Q. Finally, do you know what the list price to IBM is with

8   the VPS optional all your Honor, beyond the scope of my

9   redirect?

10   THE COURT: It is and I sustain the objection.

11   MR. DELLETT: No further questions.

12   MR. ALBRIGHT: We have nothing, your Honor.

13   THE COURT: You may step down. May this witness be

14   excused, counsel? You may be excused, sir.

15   THE WITNESS: Thank you, your Honor.

16   THE COURT: You may call your next witness all.

17   MR. ALCOCK: Your Honor, subject to a couple of topics

18   I'd like to discuss with the court at sidebar, we rest.

19   THE COURT: All right. Members of the jury, I'm going

20   to put you in the jury room for a few minutes. You'll have

21   time to use the facilities.

22   (Jury not present.)

23   MR. ALCOCK: Your Honor, we have no more witnesses.

24   We rest. There are a couple of housekeeping document issues

25   that I'd like to address with counsel. There's exhibit 153

1   that is partially in and partially not. We've got an

2   agreement --

3   THE COURT: It's 92, isn't it?

4   MR. ALCOCK: I believe some other portions of it and

5   there may be a couple of other document housekeeping issues

6   and then, I didn't want the case to go on without making a

7   rule 50 motion. We have one prepared. I know the Court's

8   practice generally is to proceed on and hear that at some

9   appropriate time.

10   But we would like to make a rule 50 motion on

11   infringement.

12   THE COURT: My rule is that I make the rulings at the

13   resting and at the closing just like any others. I don't have

14   any other procedure that I'm aware of. I mean, there's some

15   judges that don't even make any rulings?

16   MR. ALCOCK: Your Honor, I think -- let me say it this

17   way. When I'm the plaintiff, I never rest my case without

18   making a rule 50 motion on that which I have the burden on.

19   THE COURT: That tells me how important it is. All

20   right. Let me give you a few minutes to do the housekeeping

21   and then, I'll hear both of your motions. Yours, I assume, is

22   in writing. Is yours in writing?

23   MR. DELLETT: We have three motions, two of them are

24   in writing. I'm not sure if we're going to be able to -- I

25   guess when I said in writing, we'll be able to file those by

1   the close of business. The third one was based on Mr. Regan's

2   testimony and that we'll be able to argue that orally. But

3   the writing, I don't think we're going to be able to file

4   until tomorrow. But I'll be able to address all three of

5   those orally. These are rule 50 motions.

6   THE COURT: I understand that. I'm always curious. I

7   don't mean this critical. I'm always curious why you even

8   have a rule 50 motion before you announce ready for trial. I

9   wouldn't permit a lawyer to work for me. All right.

10   (Recess.)

11   THE COURT: All right. You may be seated. All right.

12 I have reviewed the plaintiff's motion for judgment. Based on

13 unrebutted testimony, of course, that's very accurate and an

14 opportunity to put in any testimony other than the plaintiff,

15 I'll take the motion under advisement till I've heard the

16 evidence, of course, with the exception of contributory and

17 induced infringement.

18   Counsel, why is this in here?

19   MR. ALCOCK: Your Honor, because of claim 7 is a claim

20 to a storage network, and Dr. Hodges testified that --

21   THE COURT: Well, I understand that you may have

22 evidence to support it, but I mean in the overall grand scheme

23 of things, you have no separate damages on it. It's just

24 internal.

25   MR. ALCOCK: That's true. I mean, it is for the

1 different claims, but in order to prove infringement of claim

2 7, it's a contributory claim. And claim 11 is inducement and

3 we've put on evidence of both, both in terms of the operation

4 of the device itself for a contributory and for the user

5 manuals which are in evidence for inducement.

6   THE COURT: Okay. I'll hear from the defendants.

7   MR. BAHLER: Your Honor, I have -- we certainly oppose

8 the plaintiff's motion for JMOL on issue of infringement, and

9 we have indeed filed our own motion, actual paper, for

10 judgment as a matter of law under rule 50 on the issue of

11 infringement. And what I'd like to do is address -- that has

12 several facets, not simply contrib and inducement.

13   What I'd like to address first is channel zoning.

14 Channel zoning, each of those claims -- you're moving around

15 like you need to go to the rest room.

16   MR. ALCOCK: Your Honor, I don't think I have a copy

17 of the paper --

18   THE COURT: Oh.

19   MR. ALCOCK: -- that he's talking about. I don't know

20 what it is.

21   MR. BAHLER: Hang on just a minute.

22   THE CLERK: I'll make one.

23   THE COURT: All right.

24   MR. BAHLER: Should I wait or go?

25   THE COURT: Here, give plaintiffs this and I'll just

1   listen.

2   MR. ALCOCK: I'm sorry, your Honor. Thank you.

3   MR. BAHLER: With respect to as the evidence is in,

4   there are two aspects of the plaintiff's price, one's this

5   thing called channel zoning and this other is this feature

6   added called VPS. With respect to channel zoning this is when

7   VPS is not enabled; channel zoning is just there. And we move

8   for judgment as a matter of law that that feature does not

9   infringe, cannot possibly infringe, literally, under the

10   doctrine of equivalence. Particularly, all the claims require

11   this limitation of maintaining a configuration of storage

12   devices connected to the medium.

13   And in this channel zoning environment, the -- excuse

14   me, could you get this going, please? Oh, I'm sorry. On the

15   channel zoning environment, the granularity there is on a

16   channel-by-channel basis, and there's no granularity within

17   the channel, in other words, identifying specific subset or

18   specific ones of the storage devices. And that's an express

19   requirement of the claims, your Honor, that element is

20   completely missing in the channel zoning environment.

21   In addition, doctrine of equivalence is inappropriate

22   to add a missing element. Mr. -- Dr. Hodges even slipped and

23   said it's done a different way. Channel zoning is -- he

24   contends it's the same, but he admitted it's done by a

25   different way. That's the middle part of the function wave

1   result test for doctrine of equivalence, therefore, we think

2   that the Court should grant judgment as a matter of law and

3   Pathlight's favor with respect --

4   THE COURT: He also said it was at the same result

5   through the same medium. This was done differently.

6   MR. BAHLER: Do you want that back up? By the way,

7   this is just a -- this is a tab that's attached to their

8   motion. And as I said, your Honor, the granularity there is

9   on a group basis rather than simply elements within the group.

10   You take a look at the patent itself on this side, your Honor,

11   there's a single SCSI bus, single one.

12   And on this side there's a single fiber channel bus,

13   single one. And the single one is the single arrow right

14   there and a single arrow right there so the patent doesn't

15   even contemplate the fact that there would be a number of SCSI

16   buses coming out the other end, each of which would have a

17   number of SCSI storage devices.

18   And the facts, in fact, require that within each

19   medium singular there's required to be the maintenance of a

20   subset of a configuration of storage devices connected to that

21   medium. And channel zoning doesn't do that. Doesn't do

22   anything like that.

23   As can be seen here, your Honor, the granularity here

24   is on a bus-by-bus basis, as I just explained through figure

25   3. There's only one bus disclosed and there's a singular use

1   but I'm not relying on that because not only is there a use of

2   the singular, but the configuration is required to be

3   maintaining a configuration of the storage devices on the

4   medium and that's not in channel zoning.

5   The elements missing is inappropriate to apply -- to

6   provide a missing element. These next arguments with respect

7   to noninfringement, your Honor, apply to the VPS enabled or

8   the channel zoning, either one, doesn't matter. So the first

9   is that they have not shown or there's no evidence that the

10   devices implement access controls. That's waiving all around.

11   I still don't know what it means.

12   Dr. Hodges was -- whether there was security, whether

13   there was no security. There's no evidence that the access

14   controls as required, the narrow definition that is being

15   urged by the plaintiffs in this case is met by any of

16   Pathlight's products.

17   The next issue, your Honor, is with respect to native

18   low level block protocol. I showed that computer program on

19   the screen and that was a program that Dr. Hodges was running

20   on his work stations, but the protocols, your Honor, are

21   what's flowing in the channels, what's flowing from the work

22   station on to the fiber channel through the router and out the

23   other end on the SCSI bus. It's what's on the channel.

24   And he never looked at that. He never opined about

25   that. He never measured that. He has no idea. There's no

1 evidence at all what that protocol is much less whether it's a

2 native low level block protocol as narrowly and specifically

3 required by the claims.

4   With respect to claim 7 through 14, and that is with

5 respect to 7 through 14, there cannot possibly be any direct

6 infringement. So we'd like a JMOL on that that Mr. Alcock

7 just addressed the contributory and inducement issue. We

8 should get a directed verdict on -- direct infringement

9 because those claims are directed to a network and the network

10 requires storage devices and work stations. We don't sell any

11 of that stuff. So there's no way Pathlight could be in direct

12 infringement.

13   Next, your Honor, we believe that the mapping issue is

14 absent, too, the mapping element and that's a functional

15 element that's required to be a function of the supervisor

16 unit. The evidence is that Dr. Hodges has simply concluded

17 from the blue there's mapping. There's no evidence that there

18 is mapping, in fact. He never looked at any source code or

19 anything to figure out exactly that's going on inside.

20   And that is required. And, your Honor, that completes

21 our -- in addition, your Honor, I should address 7 through 14

22 with respect to the issue of inducement. There's been no

23 showing that there's been any inducing acts, and contrib

24 requires that there be sold a -- something that is incapable

25 of substantial non-infringing use and there's been no evidence

1   on that front either. So either inducement or contrib go on

2   the 972 either.

3   I think I probably addressed their issues in the

4   interim.

5   THE COURT: All right. Mr. Alcock.

6   MR. ALCOCK: I'll take the issues in reverse order,

7   your Honor. The evidence -- I think Mr. Bahler has his law

8   wrong. With respect to inducing, all that is required is that

9   there be proof that customers be instructed to perform the

10   method and that there's a performance of the method. There's

11   been proof that customers were instructed to perform the

12   method by virtue of the user manuals.

13   There's been proof that customers have performed the

14   method with respect to the evidence on IBM. With respect to

15   contributory infringement, claims 7 through 14, there has been

16   proof that those routers have no substantial non-infringing

17   use. They can only be used in a storage network. That was

18   the evidence from the stand.

19   So contributory infringement has been established.

20   With respect to the native low level block protocols, the

21   evidence was that, in fact, through the use of that program,

22   Dr. Hodges was able to determine that that's, in fact, what

23   went into the S-C-S-I, SCSI storage devices and, therefore,

24   did use native low level block protocols as to those claims.

25   With respect to the access controls, the evidence was

1 through screen shots that showed that the storage router

2 operated with access controls. There was extremely detailed

3 evidence of that. Now, with respect to channel zoning, could

4 you -- just a moment, your Honor. It's registering. It's

5 just not showing up on the screen. 016 R O 1 H R.

6 Your Honor, the graphic that he showed was only one in

7 a series of three -- of four. First, there was the graphic

8 checking the boxes, just as it was instructed on the web site.

9 Then there was a graphic that showed that as a result of

10 checking the boxes, one was able to get access controls

11 between the five storage devices that were on there.

12 And then, there were two additional graphics shown

13 that, in fact, by checking the boxes in the way that they were

14 checked, they achieved the same access controls that were

15 achieved through use of the VPS option. One computer could

16 have access to two of the -- one work station could have

17 access to two of the remote storage devices, the other could

18 have access to the other three storage devices.

19 So there has been testimony that the channel zoning is

20 access controls just as the VPS has access controls to the

21 extent there's any question on the issue. There was testimony

22 that it did the same function, the same way and performed the

23 same result. In more detailed questioning about a detail of

24 how it performed those, Dr. Hodges did say that a particular

25 detailed function was different.

1   But not that questioning was not in terms of the claim

2   element itself. So it does meet the elements of the claim.

3   THE COURT: All right. I'll hold both motions under

4   advisement at the present time. Bring the jury back.

5   MR. BAHLER: Your Honor, we have two more motions.

6   Sorry.

7   MR. DELLETT: Rule 50 motion. One you have in --

8   THE COURT: I know the rules contemplate at the end of

9   the plaintiff's case when the plaintiff rests, the party may

10   file a motion pursuant to rule 50. How many -- you've already

11   filed two. You have two more.

12   MR. DELLETT: No. I'm sorry. One more. We filed

13   two. One, Mr. Bahler addressed. The other one that your

14   Honor has is specific to the issue of willful infringement,

15   and that was the subject of Mr. Kuffner's testimony, for

16   example, and specifically, the element that is missing from

17   the plaintiff's proofs right now is that anything that

18   Pathlight did was unreasonable.

19   And willful infringement has a number of different

20   elements. The most important one, though, is whether or not

21   the plaintiff or the accused infringer got an opinion of

22   counsel. And there's testimony that Mr. Rahmani did get an

23   opinion of counsel and Mr. Rahmani even testified about what

24   he did.

25   They have no proof that what Mr. Rahmani did was

1   unreasonable under the circumstances, and that is an element

2   --

3   THE COURT: There's evidence that any thinking person

4   might question Mr. Levi's credibility. I think his

5   credibility's going to be an issue. I'll take that under

6   advisement, also.

7   MR. DELLETT: The one last motion, rule 50 motion was

8   entirely based on what Mr. Regan said when he was on the stand

9   just a little while ago. That has to do with what is the

10   basis for his reasonable royalty. I'm not talking about what

11   evidence went into it or anything. I'm talking about what he

12   said his 30 percent was for.

13   And he said his 30 percent was for, well, maybe it was

14   for the 972 patent, maybe it was for the 972 patent plus some

15   other software. There's no proof that Pathlight ever took any

16   software from anybody else, and that's a fundamental part of

17   Mr. Regan's royalty. He doesn't know whether it's got

18   software in it or not, so he's asking for a royalty for not

19   just the 972 patent that's in this case but for other things,

20   as well.

21   So as a matter of law, we don't -- Crossroads had not

22   presented any evidence of what a reasonable royalty would be

23   for the 972 patent by itself.

24   THE COURT: Response?

25   MR. ALBRIGHT: Your Honor, Mr. Regan testified he

1   considered the Georgia Pacific factors, he considered relevant

2   documents, for example, the HP document in terms of coming up

3   with the reasonable calculation. And frankly, I'm not even

4   sure I follow what Mr. Delllet's argument is. He specifically

5   addressed what Crossroads would -- as a forced licensor would

6   be willing to accept to license the patent for in the

7   situation of a hypothetical negotiation.

8   That was all he talked about. I think Mr. Dellett has

9   some arguments he could make on closing argument, but

10   certainly there's evidence in the record now as to what a

11   reasonable royalty rate in this case ought to be.

12   MR. DELLETT: Just before the finish of crossing Mr.

13   Regan, I asked him about three or four times, do you have any

14   opinion as to whether your royalty rate is for the 972 patent

15   by itself or for the 972 patent and some other software and

16   hardware and whatnot. There's no proof that Pathlight took

17   from Crossroads. Mr. Regan didn't know.

18   · THE COURT: Well, you'll be able to argue that if you

19   wish to the jury. There's no question that the gentleman did

20   testify to the tune of over $100,000 that this 972 patent

21   function was the precipitating factor and was considered

22   essential by the defendant to compete and essential by the

23   defendant to sell the products.

24   If you want to argue it, then take away a little bit

25   of his 30 percent, I think you're certainly entitled to do it

1   based on the evidence, but that's all the evidence

2   establishes. On the other hand, I expect you're going to come

3   back the other way on one percent, and not mention it. But

4   that's your choice.

5   All right. Anything else?

6   MR. BAHLER: No, your Honor.

7   MR. DELLETT: No, your Honor.

8   THE COURT: All right. Bring in the jury.

9   (Jury present).

10   THE COURT: Okay. Mr. Bahler, you may call your first

11 witness.

12   MR. BAHLER: Defendant calls Mr. Said Rahmani.

13   THE COURT: If you'll tell us your full name, please,

14 sir.

15   THE WITNESS: Said Rahmani Khezri.

16   THE COURT: Mr. Rahmani, you are still under oath. Do

17 you understand that, sir?

18   THE WITNESS: Yes, sir.

19   THE COURT: All right. Proceed.

20   DIRECT EXAMINATION

21 BY MR. BAHLER:

22 Q. Mr. Rahmani, would you please summarize your educational

23 background, please, sir?

24 A. Sure. I would first like to apologize for my voice. I'm

25 suffering from a cold right now, so I'll proceed so.

1 Q. Would you please summarize your educational background,

2 please?

3 A. Yes. I received my undergraduate degree in electrical and

4 computer engineering from Arizona State University. Later on,

5 I received a master of science degree in digital system

6 design, and graduate degree, master of science in computer

7 engineering and digital system design.

8   I also completed one year of MBA course.

9 Q. When did you finish your education? What year?

10 A. I received my bachelor of science in electrical computer

11 engineering in 1983. I received my graduate degrees in 1986

12 and 1988.

13 Q. All right, sir. Could you please summarize for us your

14 employment history?

15 A. Sure. I worked as a teacher, teaching math and physics

16 for a couple of years. During my graduate studies, and I

17 joined IBM in 1989 and worked at IBM for almost six years, and

18 later on, in 1995, I cofounded Pathlight Technology.

19 Q. All right, sir. Could you just tell us the nature of your

20 work at IBM?

21 A. Yes, we at IBM, I was involved in developing storage

22 networking products.

23 Q. What do you mean by storage networking?

24 A. Storage networking, solutions that interconnected multiple

25 work stations and storage devices, and enabled high speed

1   interconnect activity between those work stations and those

2   storage devices using typically using native low level

3   protocols.

4   Q.   How many years of experience have you had in storage net

5   working?

6   A.   Almost 13 or 14 years.

7   Q.   Are you a member of any societies in technology?

8   A.   Yeah, a number of them, specifically in regard to the

9   storage networking, I'm a member of the storage networking

10   industry association.

11   Q.   What do they do?

12   A.   For storage networking association helps educate and

13   define anything related to the storage networking,

14   specifically it's used in solving customer problems and

15   creating solutions.

16   Q.   What role have you played in that organization?

17   A.   Well, I helped cofound Niagara, storage networking

18   industry association in 1997, mid-1997.

19   Q.   How many members are there today, sir, in that

20   organization?

21   A.   Close to 100 companies including IBM, Hewlett Packard,

22   Compaq, Dell, many other companies and thousands of

23   individuals.

24   Q.   Right. Now, you left IBM to form Pathlight; is that

25   correct?

1   A. Yes, I did.

2   Q. Why did you leave IBM to form Pathlight?

3   A. Well, I left IBM to form Pathlight because I had the dream

4   to create my own company, to be able to leave and impact the

5   industry and I wanted to follow, pursue the challenges that I

6   really felt I should have pursued at that time.

7   Q. And that was in early 1995?

8   A. It was end of 1994, beginning 1995, yes.

9   Q. All right, sir. What has been the business of Pathlight

10   since then?

11   A. From day one at Pathlight, basically develop the storage

12   networking product, again, products that enable connectivity

13   between multiple work stations and storage devices.

14   Q. Now, as the pretty clear from this case, the phrase access

15   control is important. Have you ever heard that phrase during

16   your experience in the storage network -- storage networking

17   area?

18   A. Yes, many times.

19   Q. And when was the first time you heard it?

20   A. The first time I heard it was actually in late 1980ses

21   when I joined IBM in relationship with the product that we

22   were developing at IBM, again, storage networking product.

23   Q. What does access control mean in that field?

24   A. Well, access control to me means -- is a generic word.

25   I've used it, I have been involved in developing access

1   control techniques and methods since the end of 1980s, and as

2   a generic word, it basically means controlling access from a

3   work station to single device or multiple devices in the

4   storage network.

5   Q. Are there -- is there only one kind of access control?

6   A. I am familiar with multiple kinds of access control

7   techniques.

8   Q. How have they been -- how have those multiple times been

9   historically implemented?

10   A. Well, I can classify them in three categories, really.

11   One category is where you have -- or I would refer to it as

12   manual access control, another category is what I refer to as

13   distributed access control, and the third one is why refer to

14   or probably the most generic the industry refers to as

15   controller based access control.

16   The first one, the manual one is really just -- and

17   all these cases, the access control is implemented using the

18   software, a piece of code and it's really irrelevant of the

19   technologies or the interfaces that are used. Could be a

20   processor, fiber channel SCSI. It is really a means to

21   control access from one point to another point.

22   Q. Okay. And the storage network architecture, there's

23   control between hosts and storage devices, correct?

24   A. Well, obviously when you connect multiple work stations,

25   the multiple storage devices, somehow you need to control the

1   access from those work stations to those storage devices, and

2   that's the fundamental need to be addressing any storage net

3   working solution.

4   Q.   Now, what does the term security mean in the context of

5   storage networking as it relates to access control?

6   A.   Well, again, it is a widely-used term that could mean

7   anything. I mean, you could have maximum security or you

8   could have no security or you could have some sort of

9   security. When you talk about controlling access in any field

10   -- and this is nothing related to computers. I mean, when you

11   talk about controlling access to your home, it could be

12   controlling access to your home using a key, or you could go

13   and purchase an elaborate A D T security system.

14   In both cases, you are controlling access. And in

15   both cases, you could claim that you have some level of

16   security. But in either case, it takes certain effort to

17   break into that security system if none of them are really

18   absolute. And you could go overboard and invest much more and

19   try to have multiple other different ways of controlling

20   access.

21   So in sort, security really is a relative term in

22   relationship with access control, as well.

23   Q.   Thank you, Mr. Rahmani. Are you aware of any past

24   products or products from the past that have used access

25   control?

1   A.   Yes, indeed.   The first product that in 1989 that I worked

2   on in IBM had access control, and it was implemented on the

3   controllers.   I should say a specific controller that was

4   between the devices, the storage devices, and the work

5   stations that are connected to the storage devices.

6   Q.   Did that use this native low level block protocol that

7   we've been hearing about?

8   A.   All the products that I have developed or I having

9   involved with in the last 14 years have used native low level

10   block protocols for connecting work stations to a storage

11   device.

12   Q.   That -- the first product you mentioned was at IBM?

13   A.   Yes.

14   Q.   Were there any other IBM products that used access

15   control?

16   A.   Yes, later on in any career the second major product that

17   I was responsible for overall program, development of this

18   product, both hardware, software, testing and qualification of

19   it to the end, it also implemented access control.   It was a

20   storage networking solution, again, we've heard connecting

21   multiple work stations to multiple storage devices using

22   native low level protocols, block protocols.

23   And the implement access control in this case on the

24   controllers using the special software that we developed.

25   Q.   All right, sir.   Were there any other product within IBM

1   while you were there that used access control?

2   A. Well, I can go back beyond my career, the ones that I

3   didn't work on, going back to Escon and other technologies.

4   Q. I'd just like the ones you know about personally.

5   A. I worked in two mayor classes that we developed from

6   concept to full production and shipped to our customers during

7   those six years, and they both had access controls.

8   Q. All right, sir. Now, since you left IBM and formed

9   Pathlight, has Pathlight sold product has based on your

10   understanding of the terms used access controls?

11   A. Indeed, in 1995, the first product that we developed in

12   Pathlight was actually a controller card that would plug into

13   the host system, a work station and would connect multiple

14   work stations to multiple storage devices. And we were

15   setting up a demo, a major demo for Comdex 1995, and what we

16   realized, obviously, was that when you have these multiple

17   systems interconnected in the storage network, one was

18   running, for example, McIntosh operating system, one was

19   running Windows '95, and the other was running Unex. We had

20   to provide some access control within those work stations with

21   these hosts, this service to this storage that they all had a

22   success. And we actually set up that demo, we demonstrated

23   that solution in 1995 at Comdex.

24   Q. All right, sir. That was Las Vegas?

25   A. Yes.

1   Q.   All right.   Mr. Rahmani, what I'd like you do is run

2   through briefly the chronology of the Pathlight products

3   leading town the SAN gateway and SAN router products that are

4   at issue in this case and with your Honor's permission, could

5   he step down from the bench?

6   THE COURT: He may.

7   MR. BAHLER: I mean the witness chair.

8   MR. BAHLER:

9   Q.   I have exhibit -- demonstrative exhibit 500 and Mr.

10   Rahmani will also be referring to physical exhibits 558

11   through 566, which are here on the table in front of the jury.

12   Mr. Rahmani, what's the first line show?   Absolutely

13   nothing, does it.

14   A.   It's a time line.   Well, before this product will be

15   referred to as Niagara, as I was explaining, we had storage

16   networking products that implemented access control using the

17   first two methods that I described.   One, the manual method or

18   the distributor method.   We actually shipped products called

19   image net one, image net work one and image net two before

20   this time frame that used those two methods of access control

21   for controlling access from multiple work stations to a

22   storage device.

23   What happened in mid-1996, we had transferred some of

24   experience that we had gained in Pathlight and moved this

25   method of access control on a controller, and this was the

1   controller exhibit D-559 that implemented access control.

2   This was actually a bridge controller. It had ability to

3   connect host work station devices and had the plug in

4   capability for storage devices.

5   So it basically is a piece of hardware and the

6   software was running on this hardware and had the ability to

7   control access from work stations to devices. This is the

8   product that we refer to as Niagara.

9   Q. That was sometime in the middle of '96?

10   A. Yes.

11   Q. All right.

12   A. Actually sold multiples of these products around this

13   time.

14   Q. Could we have the next slide, please?

15   A. In mid '96 to 1996 -- one of the characteristics of this

16   specific controller was although it was a bridge or

17   interconnectivity between work stations and the storage

18   devices was actually in the work station itself. It wasn't

19   out there in the network. What we did was we basically take

20   the same circuitry, almost identical to this, and we put it in

21   different size and form and put it in this box.

22   And this is a product called Image Agent one and this

23   is where we performed both all of that function in this box,

24   including access control, and work stations and this was

25   basically sitting at work stations and storage devices.

1   Q.   Mr. Rahmani, could you tell us what the number is on that

2   blue sticker is, please?

3   A.   Sure, it's D-561.

4   Q.   All right.

5   A.   As you can see, the difference between the previous

6   product and this one is that it has a parts supply of its own

7   and with this parts supply, you take power from any power

8   cord, any plug and you can power up this hardware and the

9   software will be running here and will be performing access

10   control in this platform basically.

11   It uses the same processor as the previous one,

12   supervisor that everybody refers to. You have buffer, same as

13   the previous one is memory like in the other computer. It had

14   interface chips that would connect -- either storage devices

15   or work station to it. And it basically -- if you look at the

16   back, I'm sure you're hearing about all this SCSI and fiber

17   channel and SSA and all this technology.

18   If you look at the back, this wire connector, big

19   connectors, these are the connectors that you typically use to

20   conduct to SCSI. So you had a disk drive or tape drive that

21   connected to this channel or multiples of this channel,

22   multiples of them to that channel so you have storage devices

23   here now.

24   As you can see here on the right side or left-hand

25   side, your left, it says storage network 1. It doesn't say

1   SSA or fiber channel or SCSI or anything. From that time in

2   1996 or before that, we intended to be able to plug in any

3   controller here that the work stations would connect to now.

4   It would be fiber channel, SSA, anything, work station

5   connect here, the storage device is connected here and we

6   basically connect, you know, we were running low level native

7   block protocol. Here in this work station connections and

8   SCSI connections.

9   Q. All right, Mr. Rahmani. Could I have the next slides,

10   first. First of all, with respect to the image agent, those

11   were both before the end of 1996, right, sir?

12   A. Yes.

13   Q. And when was the patent in this case filed? The end of

14   '96, right?

15   A. It was December 1997 was here.

16   Q. Okay. So these were long before, right?

17   A. We actually demonstrated Image Agent as a complete

18   solution with a company called sigh Tex. It's an

19   international company. Another major show in Las Vegas called

20   national association of broad casters. And that was back in

21   March or April of 1997. We won two awards for this product

22   for contribution to the science and solutions and digital

23   video and TV broadcast. Our customers were using it in that

24   show.

25   Now, day one, in the middle of that year, basically a

1 slight in hand, a slight change that made it a little bit more

2 configurable and called this product Image Agent two. And

3 this is the Image Agent two.

4 Q. Could you just tell us the blue sticker number on that,

5 too, please?

6 A. Sure. It's D-562. And again, just a quick -- I don't

7 want to take too much of your time. As you can see, it has

8 the same elements. Now, it has SCSI here, it has the plug-in

9 parts that could be the storage network. It still says

10 network connection one, connection two, and it has power

11 supply in it and it's the same kind of front as the one

12 before.

13   It's rust bigger. It has other hardware and performs

14 the same function as this one.

15 Q. All right. Could we have the next slide, please? Okay.

16 And what's next?

17 A. In 1998, we started to change the previous product, the

18 Image Agent two, and created this product, the SAN gateway.

19 Q. And that's exhibit 563 you're holding?

20 A. It is exhibit 563. And again, as you can see, the only

21 difference you can visually see is these SCSI connectors are

22 further apart, you can change them, get more configurable. We

23 actually enhanced the performance. It could run faster than

24 before. But it's still connected work stations storage

25 devices and had all the previous elements and basically

1   performed access control functions, as well as access control.

2   Q. This case deals with fiber channel and SCSI bridges. Are

3   any of those that?

4   A. All of these have the ability to bridge within fiber

5   channel and SCSI any of those technologies.

6   Q. How is that ability realized?

7   A. Well, as I said, all of this had storage network

8   connections. And this is how you would enable those storage

9   network connections. You could have even connect SCSI to

10   them. So you connect SCSI to SCSI. SSA so you connect SSA to

11   SCSI, or you connect fiber channel, which is not here. You

12   connect fiber can Mel to SCSI and in our case and in these

13   products you can actually put all of in there and you connect

14   any of this to any -- you can connect SSA to fiber channel

15   SCSI to SSA, SCSI to fiber channel. Really we never felt

16   there was any novelty connecting two boxes together. That was

17   something they're doing for ages, I mean, they're doing it at

18   IBM, doing it at Pathlight.

19   Q. Before you put those down, could you just tell those

20   numbers on the blue stickers?

21   A. Sure, it's D-564, D-565 and D-566.

22   Q. All right.

23   A. So the last thing in this chart, I don't know if it's

24   there or not, but we did SAN router actually in 1999.

25   Q. Yes.

1 A. So that's the first product we actually call SAN router.

2 This was a gateway, this was Image Agent two, Image Agent and

3 Niagara. This was the time line that the products they have

4 been developing in Pathlight.

5 Q. All right, sir. Thank you. If you could please take your

6 seat. I'd like to move on to a new topic. Put this chart

7 back up there. This is defendant's demonstrative 549. Now,

8 you recall the testimony that this spike is being attributed

9 to introduction of VPS in SAN gateway and SAN router. Do you

10 recall that?

11 A. Yes, I do.

12 Q. By the way, Mr. Rahmani, with respect to the SAN gateway

13 and SAN router, what is the price of the SAN gateway?

14 A. Oh, it's about $6,000 to $7,000.

15 Q. What's the price of the SAN router?

16 A. 2 to 2 and a half, $2,000 to 2500.

17 Q. Why are they different?

18 A. Well, the SAN gateway provides a different hardware than

19 SAN router provides faster performance, higher performance,

20 manly that and the hardware is different between the two

21 basically.

22 Q. All right. Where do you manufacture those products?

23 A. Right here in Austin.

24 Q. Okay. Now, let's move on to this revenue trend chart,

25 which is exhibit 549. During this period -- and this shows

1   1999 and 2000 -- who was Pathlight's principal customer?

2   A.   Our principal customer was IBM.

3   Q.   All right. And at some point, did IBM receive request for

4   proposal from IBM to bid on business?

5   A.   Pathlight received --

6   Q.   I'm sorry, yes, apologize.

7   A.   Request for proposal from IBM.

8   Q.   Would you please take a look at your book at Defendant's

9   Exhibit 243?

10   A.   Yes.

11   Q.   What is that?

12   A.   It is the RFP, the request for proposal that we received

13   from IBM on the 21st of April, 1998.

14   Q.   All right. Your Honor, I'd move defendant's 243 into

15   evidence?

16   MR. ALCOCK: No objection, your Honor.

17   THE COURT: Received.

18   MR. BAHLER:

19   Q.   I'll just put up the first page so we have a reference

20   here. What was this -- what is this request for proposal?

21   What's it asking for?

22   A.   As you can see, it is a request for a fiber channel to

23   SCSI bridge, and it basically stated from IBM to us what

24   requirements they have for this fiber channel to SCSI bridge.

25   Q.   So what product they really wanted, were there any

1   requirements in that request for proposal for access control,

2   sir?

3   A.   Absolutely not.

4   Q.   Now, did Pathlight win that business?

5   A.   We did so, yes.

6   Q.   Do you know why?

7   A.   My belief is that we had the most superior, the highest,

8   the best product, the highest performance, the highest

9   connectivity, the best reliability features and the best

10   manageability and serviceability capabilities that none of our

11   competitors had at that time.

12   Q.   All right, sir. And then, RFP was dated April 21, 1998?

13   A.   Yes.

14   Q.   All right. Now, did -- when did Pathlight win that

15   contract?

16   A.   Well, the contract, the process that a company like IBM

17   starts with RFP, it is a long process. They had probably four

18   or five companies they send RFP to, they short-listed some and

19   then we went to RFQ, request for quotation process. That

20   whole process went through almost all of 1998 and it was clear

21   we were told I think sometime towards, you know, I really

22   don't remember exactly. I think August, maybe that year that

23   we have won the business.

24   But it took us at IBM until end of January 1999 to

25   actually see the contract. Procurement contract between us

1   and --

2   Q. Did -- okay. So did you start selling the product in 1999

3   as reflected by this chart that's shown here?

4   A. Yes.

5   Q. All right. And did your sales just take off immediately

6   in 1999?

7   A. No, it did not. As you can see -- can I approach the --

8   Q. Sure. Your Honor, with your permission.

9   A. As you can see, we signed the contract in January 1999,

10   and I B P really completed its test qualifications by this

11   time, February. And they started shipping sometime in March.

12   But our sales didn't go up much during 1999.

13   Q. Why is that?

14   A. Well, IBM was buying -- wanted to buy this product, the

15   SAN gateway product from us to connect one of its own store am

16   devices to the storage network. Basically, that storage

17   device was called by IBM. The code name was tar pan and that

18   tar pan storage device is the high end storage wave some wear

19   system they use in banks. Was connecting to gateway fib er

20   channel. That tar pan was not received very well in the

21   market. IBM had difficulty with the pressure and they really

22   department sell much of that product and that's why, you know,

23   they didn't sell much of their product, they didn't sell much

24   of our products.

25   Q. That changed in 2000, right? What happened to cause that

1 increase?

2 A. Well, what happened was IBM at this time was developing

3 another product which was a replacement to tar pan. It was

4 code named shark. That product was being developed for a few

5 years and the whole reason they did tar pan was because the

6 shark was not ready yet. But then, shark was ready around

7 this time and they cheated testing that new product shark or

8 they call it ESS, enterprises storage server, around this time

9 and they started shipping our products with the shark, the new

10 product, right around this time. Exactly that time.

11 And they did much better with shark. They actually

12 had everybody in the storage system division at IBM, every

13 salesperson, every marketing person had been asked that they

14 must sell this product because it was really a serious threat

15 for their existence in that division.

16 So they did sell it and therefore, they sold more of

17 our products.

18 Q. Did that increase have anything to do with VPS?

19 A. Absolutely not.

20 Q. Now, later in 2000, the sales actually went down, correct?

21 A. Yes.

22 Q. Why is that?

23 A. Because IBM, as I said, was using our product to connect

24 either tar pan or shark. Their storage device from one side

25 to this side. And at the same time, they were developing

1   their native fiber channel connections for that product,

2   shark. As soon as they had the direct storage network

3   connection in their own product, which was right around here,

4   they announced it, they didn't need our product anymore. So

5   they didn't buy it anymore and since then, we actually haven't

6   sold, I don't think, any gateways to IBM anymore.

7   Q. Did the product have VPS since the beginning of 2000?

8   A. Yes. The product had VPS, you know, had the ability,

9   still has it, but the reason that they sold the product, we

10   didn't sell it had nothing to do with that.

11   Q. Now, did you ever ship to IBM a VPS on a SAN gateway?

12   A. Yes, we did.

13   Q. Did you ever ship to IBM VPS on a SAN router?

14   A. No. We never shipped VPS to IBM on SAN routers.

15   Q. What percentage of VPS option are sold as gateway as

16   opposed to routers?

17   A. All of them. They're sold in gateway, SAN gateway and not

18   on SAN router.

19   Q. I'm talking about not only IBM but everything, just as --

20   A. IBM's not the only customer, it's a big one, but it's not

21   the only one, correct. I don't recall us really anybody being

22   interested in having access control kind of function that VPS

23   and a router.

24   Q. All right. Now the gateways you were selling to IBM

25   during 1999 and 2000, how many SCSI buses were there?

1   A. Gateway had four SCSI channels.

2   Q. How many fiber channels?

3   A. It would have up to six fiber channel, but to IBM

4   specifically, they were buying a -- sometimes one fiber

5   channel and four SCSIs, sometimes they were buying two fiber

6   channel, four SCSI.

7   Q. All right. Now, I'd like to move to this license

8   agreement that came up with -- during Mr. Regan's discussion

9   and that is the $1.8 million per year offer to IBM. Do you

10   know anything about that, sir?

11   A. Yes, I do.

12   Q. And how is that? How do you know about that?

13   A. Well, we were negotiating a source code license agreement

14   on VPS with IBM. The first quarter of 2000, around that time.

15   Q. And what was -- what's a source code license, first of

16   all?

17   A. Source code is the computer program that helps perform any

18   of the software functions. Really, it's the software source

19   code program.

20   Q. All right. Did the license agreement that was being

21   proposed to IBM during 2000 have anything to do with access

22   controls?

23   A. It did not have anything to do with access control

24   whatsoever.

25   Q. Have anything to do with VPS?

1   A.   Yes.

2   Q.   What part of VPS?

3   A.   Specifically, IBM was, as I said before in my prior

4   testimony, VPS is a system. It has multiple components. One

5   of its components is access control. It has a VPS component

6   that actually runs on the work station. It's a piece of

7   software actually doesn't run on the gateway or a router. It

8   runs on the work station itself.

9   That piece we call -- we refer to as VPS host

10   registration service. It's a piece of software on the work

11   station. They were interested on that part of VPS, and that's

12   what the source code licensing discussions was all about.

13   They were not interested on the access control for the simple

14   reason that they already had access control on their storage,

15   the shark that was connecting to our product already had that,

16   so they didn't need access control.

17   Q.   If they already had it they didn't need to buy it from

18   you?

19   A.   Absolutely.

20   Q.   Now, this was -- these negotiations were going on in the

21   spring of 2000, sir, correct?

22   A.   Yes.

23   Q.   Okay. Seems to be big deal brewing about this e-mail.

24   This is February 25th, 2000, 2:39 a.m., it's an e-mail from

25   you.

1   A. Yes, it is.

2   Q. What was that about?

3   A. As you can see, it's an e-mail that I sent to our patent

4   lawyers at sales man and levy and copied Mark DeWilde and Greg

5   Prestas.

6   Q. Why did you send it at 2:39 in the morning?

7   A. Well, people know me know that I actually send quite a few

8   of my e-mails during that time. It's been 11:00 p.m. to 2:00

9   or 3:00 a.m.

10   Q. Why is that?

11   A. Well, it is a hard job, as Mr. Smith said. I mean, we

12   work hard in this -- the make these things happen. And one of

13   the things I tried to do is to get home about 7:00, 8:00 in

14   the afternoon, spend the time with my family, have dinner, put

15   my son in bed, spend some time with my wife. And then, I get

16   back to work typically around 10:00, 11:00 at night in my home

17   office and stay on till 2:00, 3:00, sometimes 4:00 in the

18   morning,.

19   Q. Now, you conclude that e-mail by saying, as I said, there

20   are some business urgency. It's 2:30 in the morning, right?

21   A. Yes.

22   Q. What was that about?

23   A. Well, the business urgency was that I was referring to the

24   -- our private connection, the patent that has been referred

25   to before, patent application. And because we were in

1   negotiation with IBM about source code license, license for

2   the source code of the VPS source registration service, I

3   wanted to make sure that we have done the right things, we

4   have covered our, you know, implementation of that technology

5   because those discussions were happening at the same time.

6   And I thought it might be -- that it might get to a

7   point that we might have to transfer the source code to IBM

8   and I just wanted to make sure it's covered by our patent.

9   Q. Did this business urgency have anything whatsoever to do

10   with the 972 patent?

11   A. No, it has nothing to do with it.

12   Q. Did IBM accept your offer for a source code license of

13    $1.8 million?

14   A. No, they rejected it.

15   Q. All right, sir. Now, I'd like to turn to the royalty rate

16   issue and we've just heard Mr. Regan sponsor a royalty rate of

17   30 percent. Do you know what Pathlight's net profit margin is

18   on its sales?

19   A. Yes.

20   Q. What is it?

21   A. It is in the year 2000, it was about 25 percent.

22   Q. Now, Mr. Regan mentioned a gross profit margin of 60

23   percent. Why is the net profit margin less than the gross

24   profit margin by so much?

25   A. Well, the gross profit margin doesn't take into account

1   our expense rate.

2   Q. What type of expenses are you talking about?

3   A. Well, everything that we spend R and D, engineering,

4   sales, marketing, administration, everything that we do to run

5   the business is not taken into account for gross margin.

6   Q. Does IBM spend a lot of money on research and development,

7   Mr. Rahmani?

8   A. Do we, yes.

9   Q. Mr. Rahmani, have you ever heard of a 30 percent royalty

10   rate being paid in this industry?

11   MR. ALCOCK: Objection. Calls for hearsay, calls for

12   expert testimony.

13   THE COURT: Whether he's heard of it or not is not

14   relevant. I'll sustain the objection.

15   MR. BAHLER: Your Honor -- I'm sorry.

16   MR. BAHLER:

17   Q. Mr. Rahmani, what royalty rates are you aware of?

18   MR. ALCOCK: Objection, your Honor. Calls for

19   hearsay, calls for expert testimony.

20   THE COURT: Is he listed as an expert?

21   MR. BAHLER: No, your Honor.

22   THE COURT: Sustain the objection.

23   MR. BAHLER:

24   Q. Mr. Rahmani, could Pathlight afford to pay a 30 percent

25   royalty rate on its SAN route, SAN gateway products?

1   A.   No, we could not.

2   Q.   Turning back to the 972 patent, do you believe that patent

3   is valid, sir?

4   A.   Yes, I do so. What was the question? Sorry.

5   Q.   Do you believe that that patent is valid?

6   A.   No, I don't.

7   Q.   Have you ever done anything to confirm that belief?

8   A.   Yes, I have.

9   Q.   And what did you do?

10   A.   As soon as I became aware of its existence, as you have

11   seen the evidence so far, I contacted our patent attorneys and

12   asked for their legal advice and what I had to do or what we

13   had to do at that time.

14   Q.   That was Mr. Levy?

15   A.   Mr. Levy at Salzman & Levy, yes.

16   Q.   Why did you pick Mr. Levy?

17   A.   Well, Mr. Levy was working with us for many months before

18   that time and he was as the patent office, helping us to

19   prepare our patent applications, so it was a logical and an

20   obvious choice for us to contact Mr. Levy for his advice.

21   Q.   Your Honor, just for completeness, the e-mail that I was

22   referring to, 239, was Plaintiff's Exhibit 59. That's already

23   in evidence.

24   Now, did Mr. Levy know anything about storage

25   networking products.

1   A. By that time, Mr. Levy was very well-informed of the

2   storage networking products because we had invested quite a

3   substantial amount of time with Mr. Levy and his team and

4   transferring the information that we had on our own products,

5   our competitors, every web site, every information that he

6   could think could be relevant to anything that we do, and they

7   had studied those information and they were using that

8   information for writing, you know, helping us write patent

9   applications.

10   They had also performed multiple searches in the

11   patent library in Washington for prior arts before that time.

12   , .

13   Q. All right, sir. What did Mr. Levy tell you?

14   A. Well, Mr. Levy told me that he has to investigate this and

15   inform us with his opinion in writing.

16   Q. And did he do that?

17   A. He did do that.

18   Q. And was it -- what was that opinion as far as you

19   understand it?

20   A. He basically in his opinion said that this patent is

21   invalid.

22   Q. And he gave you an opinion in writing, correct? Show you

23   Plaintiff's Exhibit 7.

24   A. Yes, he did.

25   Q. It's already in evidence. Did you read it?

1   A. Yes, I did.

2   Q. Did you understand it?

3   A. I believe so.

4   Q. Do you believe it?

5   A. I do believe it, yes.

6   Q. Did you have any reason whatsoever to think he was wrong?

7   A. I had no reason to believe he was wrong, no.

8   Q. Do you still believe Mr. Levy today?

9   A. Yes, he still is our patent lawyer and he's still helping

10   us prepare patent applications.

11   Q. Now, Mr. Rahmani, before suing Pathlight, did Crossroads

12   receive any communication from -- I'm sorry. Did Pathlight

13   receive any communications from Crossroads?

14   A. No, we did not.

15   Q. Receive an e-mail?

16   A. No.

17   Q. Letter?

18   A. No.

19   Q. Phone call?

20   A. No.

21   Q. Mr. Rahmani, after all you've been through in this case,

22   is there anything you would have done differently once you

23   found out about that patent?

24   A. I can't think of anything I could do differently. As soon

25   as I was aware of this, I contacted a patent attorney for his

1   legal advice, received that add vice. We accepted that add

2   vice, and I still, a year and a half later than that, no

3   lawyer, no lawyer advice I've received I could have done

4   anything beside what I did.

5   Q. Pass the witness.

6   CROSS-EXAMINATION

7   BY MR. ALCOCK:

8   Q. I've got a book of exhibits. It's real thick, but I'm not

9   going to ask you about very many of them. I just had them

10   collected up.

11   A. Thank you.

12   Q. I'd like to start with that IBM request for proposal.

13   It's exhibit D-243, and you testified on direct that that was

14   a proposal for a fiber channel to S-C-S-I or SCSI bridge; is

15   that right?

16   A. Yes.

17   Q. And they were asking you for a fiber channel to SCSI

18   bridge because you didn't have one?

19   A. That's not correct.

20   Q. Okay. Before this --

21   A. That's not what RFP means.

22   Q. But they were asking the product IBM wanted was a fiber

23   channel to SCSI product; is that right?

24   A. That's correct, yes.

25   Q. They were asking you to propose a product for them?

1   A. And they asked Crossroads and a few other companies to do

2   the same, yes.

3   Q. Right. You talked earlier about the Image Agent II,

4   Niagara and Image Agent. Those were SSA products, were they

5   not?

6   A. No, sir.

7   Q. They were sold as SSA products, were they not?

8   A. They were sold as SSA and fiber channel.

9   Q. Okay. You discontinued all those products?

10   A. Some of them.

11   Q. Are any of them still being sold?

12   A. As I said, Image Agent II was really almost identical to

13   SAN gateway and actually, if you look at our proposal, the

14   proposed Image Agent II to IBM. We just changed the name from

15   I and made some --

16   Q. In any event, the products you had were not what you were

17   asked to propose to IBM because they wanted a fiber channel to

18   SCSI bridge; isn't that right?

19   A. That's incorrect, sir. Do you want me to explain why?

20   Q. No. They wanted a fiber channel to SCSI bridge, did they

21   not?

22   A. In an RFP, you explain what you need obviously and send it

23   to people who can provide that. If they thought that we can't

24   provide that or we don't have it, they wouldn't send it to us.

25   Q. Okay. And so then, did you start work on a fiber channel

1   to SCSI bridge?

2   A.   No.   We were working fiber channel technology well before

3   that time, sir.

4   Q.   Okay.   Did you respond to the request for proposal?

5   A.   Yes.

6   Q.   Okay.   And did ultimately you develop a product in

7   connection with this proposal?

8   A.   We had a product.

9   Q.   Okay.   And ultimately, did you sell them the SAN gateway

10   product?

11   A.   We initially sold them Image Agent II, sir.

12   Q.   Okay.   Did you ultimately sell them the SAN gateway

13   product?

14   A.   Ultimately, yes.

15   Q.   Okay.   And in connection with developing the SAN gateway

16   product, there came a time when you were to develop an access

17   control feature for that product; is that right?

18   A.   We had an access control feature of that product.

19   Q.   Okay.   And in early 1999, you were working with this

20   access control feature called ITL access control; isn't that

21   right?

22   A.   Could you repeat your question again?

23   Q.   Yes.   In early 1999, you were working with this access

24   control feature for this SAN gateway product, and it was

25   called at the time ITL access control; is that right?

1   A. Not really. My mean the ITL access control was -- the

2   first specify cake, was about April 1999. When I talk about

3   access control I mean many different matters of access

4   control.

5   Q. I see, so this ITL access control, you believe you started

6   developing in April 1999?

7   A. The ITL ?

8   Q. Yeah.

9   A. Access control, I believe so.

10   Q. Okay. But whatever it was, whenever you started it, it

11   was different than the other access control features you had

12   previously thought about?

13   A. Some what, yes.

14   Q. Well, it was so different that you thought it was

15   patentable, didn't you?

16   A. Not really.

17   Q. Could you turn to exhibit 16, sir. This is -- looks to be

18   like a presentation that you made on March 6, 1999. Do you

19   see that, sir?

20   A. Yes.

21   Q. Do you remember this presentation?

22   A. Vaguely.

23   Q. Right. And you mentioned that some aspects of the

24   following technologies might be patentable. That means new,

25   different than the access control features that came before.

1 Is that what you had in mind?

2 A. Can I have a look at it?

3 Q. Sure. I'm particularly interested in the --

4 A. Sure, yes.

5 Q. VPS using ITL access control. That's what we talked about

6 a little bit the other day. Do you remember that?

7 A. Yeah, this is a laundry list of technology that I taught

8 that some aspects of them might be patentable.

9 Q. Right. And so certainly, as of March of 1999, this access

10 control feature that you were thinking of putting in this SAN

11 gateway product, you thought was potentially patentable

12 because it was different than all those access control

13 features that were in history. Have I got that right?

14 A. I would say it is very different than what I said, but I

15 don't --

16 Q. Well, and ultimately, you did file a patent application on

17 this access control feature, and you called it the VPS patent;

18 is that right?

19 A. No.

20 Q. Could you take a look at exhibit 75, sir? This is that

21 e-mail that we've talked about. There's one that's at 2:39

22 a.m. and there's one that's at 2:40 a.m.   I think it just

23 went to two different people. This is the one that in the

24 first part of that, you talk about the report that you want

25 from Mr. Levy on the Crossroads patents's invalidity. Do you

1   see that?

2   A.   Yeah.

3   Q.   Right. But I'm interested in the bottom half. This is

4   your writing; is that right?

5   A.   Yes.

6   Q.   And the patent, you're calling this patent the VPS patent.

7   Isn't that what it was called commonly inside of Pathlight?

8   A.   In short, yes, but the patent is not called VPS.

9   Q.   I understand that. But --

10   A.   Those are just accurate in my statement or response, I'm

11   sorry.

12   Q.   Right. We all use shorthand words for things, but the

13   words that you chose as your shorthand words for the patent

14   that we're referring -- that you were referring to was this

15   VPS patent; is that right?

16   A.   Sure, yes.

17   Q.   Okay. And now, I'll show you exhibit 232. That, in fact,

18   is the VPS patent; isn't it?

19   A.   The title says creating virtual private connections

20   between end points across a SAN. It doesn't say VPS.

21   Q.   I understand. But that is the patent that you called the

22   VPS patent in your 2:40 a.m. memo on February 25th.

23   A.   That's the one I was referring to, yes.

24   Q.   Right. And this is the one that was filed just three days

25   before you got that opinion letter from Mr. Levy; is that

1   right?

2   A.   If you say so.

3   Q.   You can take a look back at exhibit P-32.   I apologize,

4   P-31.   That's a letter from Mr. Levy to Mark DeWilde,

5   referring to the P T I 108 patent application and it indicates

6   it was filed on February 7, 2000.   Is that right?

7   A.   Yes, sure.

8   Q.   Okay.   And so, then, the patent that we were just looking

9   at, exhibit 232, you all filed that patent application at the

10   same time you were considering Mr. Levi's invalidity analysis

11   on if Crossroads 972 patent; is that right?

12   A.   The work was being done, yes.

13   Q.   And in fact, there were e-mails and communications back

14   and forth between you and Mr. Levy where both subjects were

15   discussed interchangeably; is that right?

16   A.   No.

17   Q.   Okay.   Do you remember meetings in that time period

18   between November 15th of 1999 and April 10th of 1999 where

19   both the VPS patent and the Crossroads -- the VPS patent

20   application and the Crossroads 972 patent were discussed?

21   A.   Yes.

22   Q.   Okay.   It was more than one, wasn't it?

23   A.   I really don't recall how many there were.

24   Q.   Maybe we'll ask Mr. Levy about that.   But the -- this is

25   the patent application where the access control feature you

1   were telling the patent office is one of the most significant

2   advantages realized by the invention?

3   A.   That's not true. I said that a couple of days ago in my

4   testimony, and I'll say it again that this patent is about as

5   you can read here, it is about creating virtual connections,

6   it is about implementation of a method, software method and

7   the fact that it can enforce access control but with no

8   performance degradation. It's about how you use the cache

9   system inside our system to avoid degradation. It's not a

10   concept of access control.

11   Q.   Okay. Let's switch topics for just a moment, Mr. Rahmani.

12   If you look at exhibit 48, I'm just going to ask you a

13   question or two about this IBM situation. There is in exhibit

14   48 -- do you have it in your notebook -- that they're in

15   numerical order.

16   A.   Yes.

17   Q.   And what I'm interested in is the third page in. It's a

18   memo from or an e-mail from Mr. Watson to Mr. Hood. I believe

19   you were copied on some of the other memos in this package.

20   But the date on the memo is September 29, 1999, and I'm

21   interested in -- first of all, let me ask you a background

22   question.

23   Was the VPS software fully operational here in

24   September of 1999? Was it ready to be used on the SAN

25   gateway?

1   A. It was, yes.

2   Q. Okay. So was it not quite ready yet, or was it pretty

3   close to being ready?

4   A. My recollection is it had completed its development before

5   that and it had gone through quite a bit of testing that time.

6   So it was.

7   Q. Okay. So what ended up happening was IBM not only put the

8   VPS software on all future products, but they also put it on

9   all the products that they already had bought. Is that right?

10 A. No, it's not. That's not right. That's not correct.

11 Q. You don't remember IBM shipping hundreds of units back to

12 you so that you could install the VPS software on it after

13 they were already out in the field?

14 A. I'm under oath, sir. They did not put VPS in the prior

15 products. They did recall those units for upgrade, hardware

16 upgrades they had to do, but that wasn't because of VPS. They

17 had old hardware that needed to be upgraded and that's listed

18 here as part of G enhancement plan, it was an enhancement to

19 Tachyon -- Tachyon is a fiber channel chip.

20 Q. So they were upgrading?

21 A. For other reasons.

22 Q. When they were upgraded the VPS software was put on there?

23 A. IBM decided not to purchase VPS for all gateways to that

24 date, sir.

25 Q. On that date. How about later? How about in December of

1   19 --

2   A.   They never decided to buy VPS for the gateways shipped

3   earlier.

4   Q.   So this VPS does a lot of other things?

5   A.   A few other things, yes.

6   Q.   And those other things are important?

7   A.   I believe so.

8   Q.   Okay. Take a look at exhibit 24. It's the second in your

9   book. This is one of the two web sites?

10   A.   Yes.

11   Q.   One of the things that both channel zoning and VPS does is

12   provide access controls which is an absolute necessity for

13   multi-host SAN solutions; is that right, sir?

14   A.   What was your question, sir?

15   Q.   Is that a correct statement?

16   A.   What was your question? Read this and say it is correct

17   or not?

18   Q.   I think I added a little. I think I said that the channel

19   zoning and the VPS provide access controls which are an

20   absolute necessity for multi-host SAN solutions.

21   A.   I explained that I think access control is a necessary

22   function, yes.

23   Q.   I have no further questions of the witness, your Honor.

24   RE-DIRECT EXAMINATION

25   BY MR. BAHLER:

1   Q. Mr. Rahmani, I'd like you to refer to exhibit --

2   Plaintiff's Exhibit 232, which is your patent application.

3   It's in your notebook there, sir. Mr. Rahmani, were you

4   trying to patent access control with that patent application?

5   A. No, we were not, sir.

6   Q. Okay. Please take a look in there. Please take a look at

7   page 11, first of all. And there, you begin a section summary

8   of the invention. Do you see that, sir?

9   A. Yes.

10   Q. Okay. Now, before that, beginning on page 1, you have a

11   section entitled background of the invention, correct?

12   A. Yes.

13   Q. Can you explain anywhere in the back grounds of the

14   invention part -- first of all, is the background of the

15   invention, is that your invention?

16   A. No.

17   Q. Okay. In the backgrounds of the invention part, you speak

18   at all about access controlling?

19   A. I believe so.

20   Q. Could you point that out to me?

21   A. There are a number of places I believe I --

22   Q. Take a look at page 3.

23   A. Uh-huh.

24   Q. See this? It says manual host configuration depends on

25   the configuration?

1   A.   Actually, I just saw right above that, it says we

2   explained to the patent office that there are three methods of

3   access control historically. Basically what I said today at

4   court, we have explained there that the manual methods, the

5   distributed, and the access control based on the controller.

6   Those three methods are explained here to the patent office

7   and just to explain that access control is prior art, there's

8   no novelty in implementing access control.

9   Q.   Okay. Now, if that's in the background portion, are you

10   claiming that as your invention, sir?

11   A.   No. We're trying to be honest and truthful to the patent

12   office that access control is not an invention and that's not

13   our claim. And we explained everything we knew at that point

14   in detail in eleven pages to the patent office why -- what

15   methods there exists for access control and how they're

16   implemented as prior art, all their products.

17   Q.   Then you go on to describe the improvement provided by

18   your invention, right?

19   A.   We basically specifically in this patent describe an

20   architecture and implementation of a method. It is describing

21   how the software worked -- works. There are nine flowcharts,

22   detailed flowcharts in here that explains in detail how this

23   system works that we have implemented, not any hypothetical

24   thing that -- called access control.

25   Q.   All right. Pass the witness.

1   MR. ALCOCK: No further questions of the witness, your

2   Honor.

3   THE COURT: You may step down.

4   MR. BAHLER: Plaintiff calls Terry Kelleher.

5   THE COURT: Just stand there and be sworn, please.

6   (Witness was sworn.)

7   THE COURT: Take this chair.

8   MR. BAHLER: Please state your name, please.

9   THE WITNESS: Terrence Michael Kelleher.

10   THE COURT: Spell Kelleher.

11   THE WITNESS: K E L L E H E R.

12   DIRECT EXAMINATION

13   BY MR. BAHLER:

14   Q. Mr. Kelleher, do you have a college degree?

15   A. Yes, I have.

16   Q. From where?

17   A. It's from Boomington Community College in Boomington, New

18   York.

19   Q. In what?

20   A. Electrical engineering technology.

21   Q. When did you graduate from college?

22   A. In 1981.

23   Q. And since that -- after then, did you take a job in the

24   computer field or did you start working, I guess is better

25   yet?

1   A. Yes, I did.

2   Q. Did there come a time during your employment when you

3   became involved in the computer storage area network industry?

4   A. Yes. In 1986, I started working for Encore Computers.

5   They built a super mini computer and I dealt with the software

6   and hardware to connect those computers to storage devices,

7   disk drives, tape drives.

8   Q. All right. And did you continue working in that industry

9   after that?

10   A. Yes, I have.

11   Q. And what was your next job in that industry?

12   A. After Encore, I next worked for Pathlight Technology --

13   I'm sorry. I spent a year as an independent consultant

14   between those two jobs.

15   Q. What were you consulting with -- what were you consulting

16   about when you were a consultant?

17   A. I worked for array technologies and I was doing some

18   software for IBM's RS 6,000 systems to connect those RS 6,000

19   systems to Array Technologies storage devices.

20   Q. All right, sir. What did you do next?

21   A. I next worked for Pathlight technology.

22   Q. When did you start working for Pathlight?

23   A. It was in March of 1994.

24   Q. Could you --

25   THE COURT: March of what? What year.

1   THE WITNESS: 194.

2   MR. BAHLER:

3   Q.   March of '94?

4   A.   Yes.

5   Q.   Okay. And what did you do for Pathlight?

6   A.   I've been a software engineer, product manager and an

7   engineering manager and product architect.

8   Q.   Okay. What has been Pathlight's business during that

9   time?

10   A.   Buildings interconnect products for storage technology.

11   Q.   Okay. Now, we've already heard in this room the kind of

12   chronology of Pathlight products including the Niagara

13   product, the image agent product, the image agent I and SAN

14   gateway and SAN router. My question to you, sir, is what

15   responsibility did you have in the development of those

16   products?

17   A.   I designed the software architecture for those products,

18   starting with the Niagara and working through the SAN gateway

19   and SAN router. I continued to have that responsibility and I

20   worked on the implementation of much of the software runs on

21   those products.

22   Q.   Okay. And you were there all the way up until the time

23   that the SAN router was made?

24   A.   Yes.

25   Q.   Okay. Which was made later, the SAN router or the SAN

1   gateway?

2   A.   The SAN router was later.

3   Q.   Okay.   During the development of any of those products,

4   did you rely in any way on the Crossroads 972 patent in this

5   case?

6   A.   No.

7   MR. ALCOCK: Your Honor, I think it's the 972.

8   MR. BAHLER:

9   Q.   I'm sorry.   The 972 patent in this case?

10   A.   No, I did not.

11   Q.   Did you copy anything from that Crossroads patent?

12   A.   No.

13   Q.   Did you rely in any way upon any of Crossroads' products?

14   A.   No.

15   Q.   Now, Mr. Hood testified yesterday by deposition that a

16   Pathlight had in its in-house a Crossroads product, and I want

17   to know if you know anything about that?

18   A.   Yes, I do.

19   Q.   Okay.   Could you tell us about that?

20   A.   One of our customers was comparing the Crossroads products

21   to our SAN gateway product and asked us to do some performance

22   testing on that box to see how the two compared.

23   Q.   And who did that testing for Pathlight?

24   A.   I did that testing.

25   Q.   How long was that Crossroads product in-house?

1   A.   For one afternoon.

2   Q.   Where did you get it from?

3   A.   It belonged to the customer who asked us to do the test.

4   Q.   And what did you do wit when you were done with it?

5   A.   We returned it to the customer.

6   Q.   Did you look at any of the software?

7   A.   No.

8   Q.   Did you do any sort of reverse engineering at all?

9   A.   No.

10   Q.   Okay. Did you copy anything at all from that Crossroads

11   product?

12   A.   No.

13   Q.   Mr. Kelleher, please look in your notebook there at

14   exhibit -- Defendant's Exhibit 343?

15   A.   Yes, I see that.

16   Q.   All right. What is that, sir?

17   A.   That's the -- titled the media server interface

18   specification.

19   Q.   And who wrote it?

20   A.   I did.

21   Q.   Did you write that as part of your work at Pathlight?

22   A.   Yes, I did.

23   Q.   And is the date at the bottom -- did you prepare it before

24   that date?

25   A.   It was in progress before this date. This is indicating

1   the date it was printed.

2   Q. As of this date, is this an accurate document?

3   A. Yes, it is.

4   Q. Your Honor, I move D-43 into evidence.

5   MR. ALCOCK: Objection, your Honor, irrelevant,

6   hearsay.

7   THE COURT: May I see it? Did you prepare this while

8   you were in the employ of Pathlight in your job

9   responsibility?

10   THE WITNESS: Yes, I did.

11   THE COURT: Objection's overruled. 343's admitted.

12   MR. BAHLER:

13   Q. I'm going to put it up here. This is called the media

14   server interface specification. First of all, what's the

15   media server?

16   A. Well, at the time I wrote this document, we were working

17   on a conceptual design of what we later called the Image

18   Agent. We hadn't given the product a name yet, and I was

19   using the name media server to talk about it.

20   Q. So is it media server, is this document about the Image

21   Agent?

22   A. Yes, it is.

23   Q. Okay. Take a look at section 2.4 within that document.

24   Down there at the bottom, it says device addressing. Do you

25   see that, sir?

1   A.   Yes.

2   Q.   What is that section dealing with?

3   A.   Describes the device addressing method we were using in

4   the image agent.

5   Q.   And it says there the media server will maintain a mapping

6   table of logical unit numbers to devices for each initiator

7   which requests a mapping. What does that mean?

8   A.   The initiator is going to be sending commands to the Image

9   Agent to try to direct them at target devices connected, and

10   this is a mapping table that says how we're going to route

11   those commands.

12   Q.   Where is that mapping table stored?

13   A.   In the image.

14   Q.   What devices are those?

15   A.   Those are disk drive or tape drives connected to the Image

16   Agent.

17   Q.   Okay. And it says each initiator. What's an initiator?

18   A.   It's a host, a work station or a server computer.

19   Q.   Okay. That's connected to the Image Agent?

20   A.   Yes.

21   Q.   Okay. Take a look at the next section, section 2.4.1.

22   See that, sir?

23   A.   Yes.

24   Q.   Okay. This says LUN to device mapping request, right?

25   A.   Yes.

1 Q. What's that section about?

2 A. This describes how a device mapping through this table can

3 get configured, how we're going to set up that -- the mapping

4 instruction.

5 Q. And it says here, a host may request a mapping of a LUN to

6 a specific device. Right?

7 A. Yes.

8 Q. What does that mean?

9 A. That means the host is going to send a request to the

10 Image Agent that specifies one of those logical unit numbers

11 and tell us which device attached it wants that logical unit

12 number to be directed at.

13 Q. All right. And once that mapping is set up, can other

14 hosts get access to that storage device?

15 A. Well, another host can issue another mapping request to

16 that same device, yeah.

17 Q. Well, let's back up and just say that another host doesn't

18 do that. But can a host -- well, once the mapping is set up,

19 can other hosts read and write data from that storage device

20 without something else happening?

21   MR. ALCOCK: Objection, your Honor, calls for

22 speculation, lacks foundation.

23   THE COURT: Why don't you rephrase the question?

24   MR. BAHLER:

25 Q. Once one host establishes this mapping in the Image Agent,

1   can -- that maps the host to a specific device, that storage

2   device, correct?

3   A. Yes.

4   MR. ALCOCK: Your Honor, still lacks foundation. Are

5   we talking about a device that this document describes or I

6   don't know what we're talking about.

7   MR. BAHLER:

8   Q. Well, what is this specific device here?

9   A. The specification is documenting what we built for the

10   Image Agent.

11   Q. But this is talking about mapping of a LUN to a specific

12   device. What is specific device?

13   A. Oh, the specific devices are the disk drives and tape

14   drives that might be attached to the image agent.

15   Q. All right. And does this mapping, is this mapping between

16   a host and a tape drive or disk drive?

17   A. Yes, the host would request that a logical unit number

18   would reference one of the attached devices.

19   Q. All right. And what, if anything, happens to requests by

20   other hosts once a host establishes this mapping between

21   itself and a specific storage device?

22   A. This affects only the host that made the request, no other

23   host is affected.

24   Q. Okay. Can other hosts get access to that storage device?

25   A. Not through this mapping, no.

1　Q.　Okay.　Now, later on, it says a request is made to assign

2　a LUN to a device using a LUN which is already assigned, then

3　the new mapping will replace the prior mapping.　What does

4　that mean?

5　A.　Oh, that means if the host sends another request that will

6　use the same logical unit number but direct the commands at a

7　different device, then the new mapping will override the olds

8　one.　So if previous mapping, the host could talk to disk A,

9　it may send a request and said now this same LUN is going to

10　talk to disk B, further commands will go to disk B.

11　Q.　Okay.　By this mechanism, can one host who was not mapped

12　to speak with a specific device, storage device, send a

13　request and as a result of the request, be allowed to read and

14　write data to that storage device?

15　　　　MR. ALCOCK:　Objection.　Lacks foundation, leading and

16　calls for -- lacks foundation.

17　　　　THE COURT:　The lacking of foundation I overrule.　The

18　leading I sustain.

19　　　　MR. BAHLER:

20　Q.　All right.　What -- once a mapping is set up between a

21　host and a storage device through this mechanism, what, if

22　anything, can other hosts do to change that mapping?

23　A.　Well, another host could not modify the first host's

24　mapping.

25　Q.　Could modify?

1   A. Could not modify the host A sets up a mapping to a device,

2   then host B could set up its own mappings but its couldn't

3   change the mappings for the host A.

4   Q. Okay. Now, down at the bottom here, it talks about a send

5   diagnostic command. Do you see that?

6   A. Yes.

7   Q. What is that?

8   A. That's one of the SCSI commands. We'll use the send

9   diagnostic command to send out LUN device mapping request

10   along with other things.

11   Q. Okay. Is that the mechanism that's used to accomplish

12   this function described in this background?

13   A. Yes, it is.

14   Q. Mr. Kelleher, I refer you to Plaintiff's Exhibit 136,

15   which is already in evidence. It's in your notebook?

16   A. Yes, I found it.

17   Q. Do you know what that is, sir?

18   A. It appears to be some prints from the ADIC web site.

19   Q. Let me turn you specifically to page -- there's numbers in

20   the bottom right-hand corner, 64423.

21   A. Yes.

22   Q. Put that sheet up. What is that page dealing with?

23   A. That's a product marketing sheet that describes our SAN

24   gateway product.

25   Q. All right, sir. Now, in the right-hand column, it talks

1   about comprehensive SAN serviceability and maintenance. See

2   that, sir?

3   A. Yes.

4   Q. What is that section dealing with?

5   A. We have various methods for management configuration,

6   control and service of the SAN gateway and this is a paragraph

7   dealing with those features.

8   Q. It talks about three distinct options, right, for maximum

9   administrative flexibility. Do you see that?

10   A. Yes.

11   Q. What are those three options?

12   A. First is SAN gateway's Ethernet port provides out of band

13   management with S N M P. It's for use with the SAN director.

14   Q. And then, after that, it says alternatively, in-band SAN

15   management is supported using Pathlight's well-defined API.

16   A. Yes.

17   Q. See that in first of all, what's in-band management?

18   A. In-band management is what management commands would be

19   sent between a host and a SAN gateway across the same channel

20   that the host is requesting data transfer, so read and write

21   commands.

22   Q. All right president and the second alternative deals with

23   in-band management, correct?

24   A. Yes.

25   Q. And it's stated here -- first of all, were these three

1   options available in the SAN gateway and SAN router today?

2   A. Yes.

3   Q. Okay. And the first option as you mentioned deals with

4   the SAN director. What is the SAN director first of all?

5   A. The SAN director is a software product that we sell, graph

6   call user interface that provides management capabilities for

7   the SAN gateway, SAN router.

8   Q. Okay. And this alternative in-bands SAN management, my

9   question is, first of all, what is Pathlight's well-defined

10   API? What's that?

11   A. That's the language. An API is an applications

12   programming interface, and this is a language that we've

13   defined to allow the host to communicate with the SAN gateway

14   to do management tasks.

15   Q. All right. What's an API?

16   A. That's applications programming interface.

17   Q. What's an applications program?

18   A. An applications program is a computer program that runs on

19   some kinds of computer.

20   Q. Okay. Can you give us some examples of applications?

21   A. Sure. A web browser, an e-mail tool, word processor,

22   Microsoft word is an application, things of that sort.

23   Q. Solitary?

24   A. Yes, solitary.

25   Q. Where are the applications running on the SAN -- in a

1   network including the SAN get way?

2   A. Those are run on the hosts on the workstations.

3   Q. Do they run on the management stations?

4   A. Yeah, that's a computer.

5   Q. Okay. Now, this is stated as an alternative it's a SAN

6   director, correct?

7   A. Yes.

8   Q. Is it the same SAN director?

9   A. No.

10   Q. This in-bands management?

11   A. No, it's not the same.

12   Q. Okay. Now, is this in-bands management function in a SAN

13   gateway or in the SAN -- including a SAN gateway with host

14   computers located on one side and storage devices on the

15   other, where are the applications that are referred to in this

16   highlighted portion? API?

17   MR. ALCOCK: Objection, leading.

18   THE COURT: It is.

19   MR. BAHLER: Where? There was a where in there.

20   MR. BAHLER:

21   Q. All right, Mr. Kelleher, in a system including a SAN

22   gateway and host computers, on one side and storage devices on

23   the other, would those have application programming?

24   A. The host computers could have application programs, yes.

25   Q. Okay. And what, if anything, does that have to do with

1   the API that's mentioned in this paragraph?

2   A. An application program running on that computer could make

3   use of this applications program interface to send commands to

4   the SAN gateway.

5   Q. Okay. Is that true of all computers connected to the

6   gateway?

7   A. Yes.

8   Q. All host computers?

9   A. Yes.

10   Q. Or just special ones?

11   A. No. Any computer that's connected via, well, through any

12   storage connection can sends commands.

13   Q. And is this in band management mentioned in this section,

14   is it provided in addition to that provided by the SAN

15   director?

16   A. Yes, those are separate interfaces.

17   Q. Okay. We brought this up briefly with Mr. Rahmani. I'd

18   like to refer you to Plaintiff's Exhibit 232, which is your

19   patent application. The three distinct options, are those

20   discussed anywhere in the -- in your patent application,

21   exhibit 232?

22   A. Yes.

23   Q. Where is that?

24   A. From page 30.

25   Q. All right. Where?

1   A. It's starting at line 18.

2   Q. Okay. It says the administrative and user interface

3   functions in one of three forms. Okay. What does that have

4   to do with the three options that are mentioned in Plaintiff's

5   Exhibit 136?

6   A. This paragraph is describing the same three functions that

7   we talked about on the other exhibit.

8   Q. All right. And this first one is SCSI commands over the

9   in-band SAN interface. Do you see that?

10 A. Yes.

11 Q. Okay. What does that have to do with the second

12 alternative, what, if anything, does that have to do with the

13 second alternative mentioned in Plaintiff's Exhibit 136?

14 A. That's referring to what we call the well-defined API.

15 Q. Okay. And what are SCSI commands?

16 A. Those are the commands that the host sends to the Image

17 Agent, the same gateway to SCSI devices.

18 Q. You remember all the way back to that exhibit 343 that

19 multi -- that media server. There was that send diagnostic

20 command.

21 A. Oh, yes.

22 Q. Is that a SCSI command?

23 A. Yes, SAN diagnostic is a SCSI command.

24 Q. Is exhibit 343 an example of in-band management?

25 A. That section of 343 is an example of in-band management,

1 yes.

2 Q. All right. Are these three features in the SAN gateway

3 and SAN router product?

4 A. Yes.

5 Q. Okay. And then described a little bit here. What are

6 those -- what functions can be performed by the in-band

7 management?

8 A. The in-band management provides administrative controls.

9 It allows the host application to reconfiguration data from

10 the SAN gateway, make modifications, send requests back to

11 alter the configurations.

12 Q. Okay. Please take a look at page 31. It's the next page.

13 A. Yes.

14 Q. It says here several functions are provided via one or

15 more of the interfaces, see that?

16 A. Yes.

17 Q. Okay. Is that true, the in-band SCSI commands?

18 A. Yes, it is.

19 Q. Okay. Can those functions be performed by any host in a

20 system including a SAN gateway and a SAN router?

21 A. Yes.

22 Q. Okay. Let's take a lack at the functions. It says one of

23 the functions is the administrative access privileges may also

24 be displayed or set. What does that mean, sir?

25 A. This is a function to describe being able to control which

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1   host attached on the SAN gateway might control that

2   administration.

3   Q. All right. Now, what does that have anything to do with --

4   hang on just a minute. Is that function included in the SAN

5   gateway and SAN router products?

6   A. No. That's a feature we have not yet implemented.

7   Q. The displaying of setting of access privileges?

8   A. You asked me at about the administrative access

9   privileges.

10 Q. May be displayed or set?

11 A. I think you're on the line above where I thought you were.

12 Could you restate which line you're talking about?

13 Q. Line four, line six, the administrative access privileges

14 pay also be displayed and set. See that?

15 A. Yes, I do.

16 Q. All right. Is that a function that's performed by the SAN

17 gateway and SAN router products?

18 A. The administrative access privileges are not controlled,

19 no.

20 Q. Okay. I'm sorry. I am on the wrong line. You're

21 absolutely right. It says the host initiator access

22 configuration likewise may either be displayed or set. All

23 right. Is that function in the SAN gate which and SAN router

24 products?

25 A. Yes.

1   Q. Okay. And what does that mean -- first of all, what are

2   host initiator access configuration? What is that?

3   A. We're referring there to the access controls that allow

4   the host that are connected on the one side to communicate

5   with the target devices, the disk drives, the tape drives on

6   the other side.

7   Q. Okay.

8   A. And these are the controls essentially -- well, the

9   configuration that says which host can talk to which devices.

10   Q. And this is done using the in-band signaling that we

11   talked about earlier?

12   A. Yes.

13   Q. In-band management?

14   A. Yes.

15   Q. Can this be done by any host?

16   A. Yes, it may.

17   Q. Okay. At any time?

18   A. Yes, at any time.

19   Q. Okay. Using this feature of the SAN gateway and SAN

20   router, can any host change the access configuration at any

21   time?

22   A. Yes.

23   Q. Now, Mr. Kelleher, in a storage area network, in using the

24   in-band management that we've just been talking about with

25   respect to Plaintiff's Exhibit 136 and 232 in a storage area

1   network with the Pathlight SAN gateway that has several host

2   computers connected to one side and several SCSI storage

3   devices connected to the other, can all hosts get access to

4   any storage device at any time?

5   A. Yes.

6   Q. The same question with respect to the SAN router. Can all

7   hosts get access to any storage device at any time?

8   A. Yes.

9   Q. Please take a look at the next paragraph on page 31, it

10   talks about the administrative accounts database. I'm not

11   going to highlight the whole thing. What is that dealing

12   with?

13   A. Well, this is talking about administrative controls that

14   would allow or deny a particular host the ability to change or

15   access those -- the configuration.

16   Q. Does it include a password, for example?

17   A. That's a possibility.

18   Q. Okay. Has that feature been implemented in the SAN

19   gateway and SAN router products?

20   A. No, it hasn't.

21   Q. Pass the witness.

22   THE COURT: I'm going to give the jury a break.

23   Members of the jury, we'll take a ten minutes. You'll have

24   time to use the facility, stretch, wake up.

25   (Recess.)

1   CROSS EXAMINATION

2   BY MR. ALCOCK:

3   Q. Hello, Mr. Kelleher. We've never met before. My name is

4   John Alcock. A few questions on this in-band. How is it

5   enabled?

6   A. How is the in-band management enabled?

7   Q. Yes.

8   A. It's enabled when the product was shipped.

9   Q. How is it disabled?

10   A. It can't be disabled.

11   Q. Okay. Would a normal user with Microsoft be able to make

12   the change issues as you have described with in-band?

13   A. I'm afraid I'm not -- a normal user with Microsoft what?

14   Q. Normal user with Microsoft windows, that's all, a work

15   station or a computer with Microsoft windows, would it be able

16   to make those changes that you described?

17   A. I don't know about the user. The system could.

18   Q. Okay. Does it work -- does in-band work if channel zoning

19   is active?

20   A. Yes.

21   Q. Okay. Could you take a look at exhibit 64422. I mean

22   page 64422 of exhibit 136.

23   A. Yes.

24   Q. Excuse me. It will take a second. This is the page

25   before the page that you were referring to, and it talks about

1   the SAN gateway including VPS and virtual private map,

2   powerful access security control services that provide

3   protected connections between multiple hosts and multiple

4   storage. Do you see that?

5   A. Yes.

6   Q. Is that an accurate statement?

7   A. Yes.

8   Q. And so the present products still provide this access

9   control according to VPS and virtual private map; is that

10   right?

11   A. Yes.

12   Q. So nothing you earlier testified to is inconsistent with

13   that?

14   A. I don't believe so.

15   Q. Okay. Let me ask you just a couple of questions about the

16   D-343 that you were asked about earlier. First of all, I

17   notice on the bottom, it says preliminary draft, 1-10-97. Do

18   you see that?

19   A. Yes, I do.

20   Q. Is this an early working document?

21   A. Yes.

22   Q. And it says 0.00, so is this the very first working

23   document?

24   A. This was a work in progress. I have not yet set a

25   revision on it.

1   Q.   I see.   So was this the start?

2   A.   No.   This is the state it was in on that date.

3   Q.   I see.   And then, I notice on the top that it says it's an

4   application of the SSA SCSI bridge?

5   A.   Yes.

6   Q.   Is that a correct statement?

7   A.   Yes, it is.

8   Q.   And on the second page of the document, it shows SSA web 1

9   and SSA web 2.   Do you see that?

10   A.   Yes, that's correct.

11   Q.   And what does SSA stand for?

12   A.   Serial storage architecture.

13   Q.   I have no further questions of this witness, your Honor.

14   MR. BAHLER: No questions, your Honor.

15   THE COURT: May this witness be excused, counsel?   Mr.

16   Alcock?

17   MR. ALCOCK: Perhaps we want to speak about that at

18   the end of the day, your Honor.   Subject to recall.

19   THE COURT: Well, okay.   Do you live in Austin?

20   THE WITNESS: No.

21   MR. BAHLER: Right now he does.

22   THE COURT: Yeah, you're a resident for a while.

23   THE WITNESS: I'll be here tomorrow.

24   THE COURT: All right.   Yes.   Thank you.   Call your

25   next witness.

1   MR. DELLETT: Pathlight calls Greg Prestas.

2   (Witness was sworn.)

3   THE COURT: You need to walk up around this column and

4   have a seat, sir. If you will tell us your full name.

5   THE WITNESS: Gregory Prestas.

6   THE COURT: Spell your last.

7   THE WITNESS: P R E S T A S.

8   DIRECT EXAMINATION

9   BY MR. DELLETT:

10   Q. Mr. Prestas, how long have you worked for Pathlight?

11   A. I've worked there since 1996, April.

12   Q. What is your current position?

13   A. I'm manager of embedded software engineering.

14   Q. And what are you responsible for in that position?

15   A. I'm responsible for the software that makes our box work

16   and ships with it and runs when it's powered on and for

17   coordinating development and fixing problems.

18   Q. How many people report to you?

19   A. I have four people reporting to me directly.

20   Q. Have you had any other positions while you've been at

21   Pathlight?

22   A. Yes, I was hired as a senior engineer, and then, I worked

23   on a SSA firm wear product and then I was manager of a product

24   engineering group for about a year with product testing.

25   Then, I went back into development.

1   Q. Before you joined Pathlight in was it 1996?

2   A. Yes.

3   Q. How long had you been working in the software field?

4   A. I'd been in programming professionally since 1977.

5   Q. And do you have any patents where you are the inventor?

6   A. Yes, I'm co holder of five patents.

7   Q. Now, when did you first do any work on Pathlight's SAN

8   gateway or SAN router products?

9   A. My first involvement with SAN gateway was in June of 1998,

10   when I was managing the product engineering group and the

11   involvement was with testing the gateway and going through the

12   initial qualification tests while we were pursuing the

13   contract and delivery to IBM.

14   Q. What was your next involvement with the Pathlight SAN

15   gateway or SAN router products?

16   A. In December of '98 and January of '99, we contracted with

17   an outside firm to conduct a software review of our critical

18   performance code, because we needed to increase the

19   performance and I was involved with that and with some of the

20   modifications we did after that in order to increase

21   performance.

22   Q. Now, at some point in time, did you get involved with

23   something called VPS?

24   A. Yes.

25   Q. When was that?

1   A.   That began in March of 1999.

2   Q.   Who asked you to get involved in that?

3   A.   Said Rahmani.

4   Q.   What was the first thing you did?

5   A.   We had been having discussions about features that we

6   wanted to add to the box for quite a while, and the first

7   thing I did was specifically discussed the features concerning

8   VPS that we wanted to add and actually write a requirement

9   specification that actually detailed just what it was we

10   wanted to do so that I could get everyone to agree before I

11   actually tried to figure out how to do it and actually started

12   doing it.

13   Q.   Mr. Prestas, I'm going to show you what we have marked as

14   an exhibit D-331. Is that the requirement specification that

15   you wrote?

16   A.   Yes, it is.

17. Q.   And how long did it take you to write that?

18   A.   Oh, approximately a month.

19   Q.   Did you write it yourself?

20   A.   Yes, I did with input from the other people I mentioned.

21   Q.   Pathlight moves to admit exhibit D-331.

22   MR. ALCOCK: No objection, your Honor.

23   THE COURT: It's received.

24   MR. DELLETT:

25   Q.   What did you to next after you did the requirement

1   specification?

2   A.   The next step was a design specification where continuing

3   discussions, especially with Terry and review of the code

4   began to figure out how it was we were going to implement

5   these functions and I began to capture that information in a

6   document so that I, as a guide, basically, for actually

7   writing a code tried to figure out the big problem and get the

8   main organization set, first, before I actually started to

9   write code.

10   Q.   And what is a control design specification?

11   A.   Well, that's the design specification for the ITL access

12   control is what we called the feature at the time and it

13   specifies, again, the requirements spec spells out what it is

14   we were going to do.   So I got everybody to agree that, yes,

15   this is what we wanted to do, and then, that spec is the

16   beginning of our strategy on how I was going to do it and make

17   it work.

18   Q.   I'm going to show you what's been marked as D-330.   Can

19   you tell me if that is the design specification you did?

20   A.   Yes, this is it.

21   Q.   And did you write that yourself?

22   A.   Yes, I did.

23   Q.   Pathlight offers to admit exhibit D-330?

24   MR. ALCOCK: No objection.

25   A.   Your Honor.

1   THE COURT: It's received.

2   MR. DELLETT:

3   Q. Now, to yes the requirement specification or the design

4   specification, did you use any information from Crossroads?

5   A. No, I did not.

6   Q. Did you copy anything of Crossroads's products?

7   A. No.

8   Q. Okay. Did you use anything from Crossroads at all?

9   A. No, nothing at all.

10   Q. Now, what did you do next in this VPS project?

11   A. Began writing the code.

12   Q. And did you write that code yourself or did you sign that

13   to somebody?

14   A. I wrote it myself.

15   Q. What computer language did you write it in?

16   A. It's written in C programming.

17   Q. Is that a language you had used before?

18   A. Yes, for many years.

19   Q. Now, there's been some testimony here about access control

20   functionality. Is that part of the VPS code that you were

21   working on back in 1999?

22   A. Yes, there is access control function as part of VPS, yes.

23   Q. Did it have other functions and if so, what?

24   A. Yes, it has several other functions. There's a host

25   registration function that allows it to automatically register

1   the identity of the host computers that are attached to it.

2   It has a dynamic health monitoring function that allows it to

3   monitor the status of those hosts and allow a user to discover

4   which hosts are attached and if they're active, if they're

5   currently active. It has some other things to it.

6   Q. Those functions are different than the --

7   A. It has an in-band configuration functions built into it,

8   also.

9   Q. Are those functions different than the access control

10   function?

11   A. Yes.

12   Q. Now, when did you have the VPS code for the access control

13   function complete enough to know that it worked?

14   A. I began experimenting with the access controls by late May

15   and by the end of June the access control part was

16   functioning.

17   Q. How did you know that?

18   A. I had a test set up so that I could compile and run the

19   code and perform tests and determine that it was doing what it

20   was supposed to be doing.

21   Q. Were you working on VPS full-time during that period?

22   A. It was my main task, but I did have other responsibilities

23   that I would also work on and sometimes have to stay later. I

24   devoted most of my time to that during what period.

25   Q. By June 1999, had you shown the VPS code to anybody

1   outside of Pathlight?

2   A. No.

3   Q. Now, what equipment did you use in writing the VPS code?

4   A. Well, the code is just written on a regular computer with

5   a text editor and stored in files on one of our servers.

6   Q. Did you use any equipment from Crossroads when you wrote

7   the VPS code?

8   A. No, not at all.

9   Q. Now, is it correct that the VPS code is copied on this

10   disk?

11   A. Yes, this disk contains the entire source treat during our

12   product including the VPS code.

13   Q. How do you know that?

14   A. I examined it when I was at your offices last week.

15   Q. Now, approximately how many lines of code are in the VPS

16   software?

17   A. Approximately 3,000 lines of active code.

18   Q. And of that 3,000 lines, how many lines relate to the

19   access control functions?

20   A. Approximately one-third or 1,000.

21   Q. 1,000 lines?

22   A. Yes.

23   Q. And how many lines of code in total are in a Pathlight

24   storage gateway or router?

25   A. Approximately 240,000.

1   Q.   240,000?

2   A.   Yes.

3   Q.   Now, Pathlight moves the admit exhibit D-334?

4   MR. ALCOCK: No objection, your Honor.

5   THE COURT: 334 is admitted.

6   MR. DELLETT:

7   Q.   Now, let's move ahead to August 24th, 1999. Are you aware

8   that that's the date when the Crossroads 972 patent issued?

9   A.   Yes, I am.

10   Q.   And did you know about it, the Crossroads patent on August

11   24th, 1999?

12   A.   No, I did not.

13   Q.   What was the status of your work on writing the software

14   for the access control function as of August 24th, 1999?

15   A.   The access control function was complete at the beginning

16   of August.

17   Q.   Before you -- before the patent even issued?

18   A.   Yes, I reviewed the source code in the last check-in was

19   August 4th.

20   Q.   Did you do any work at all on access control function

21   after August 24th, 1991?

22   A.   There's been some occasional maintenance and minor changes

23   but nothing beyond that.

24   Q.   Has the functionality of the access control feature

25   changed at all since you wrote it in 1999?

1   A.   No, it has not.

2   Q.   Now, did you ever look at any Crossroads products or other

3   Crossroads information while you were writing the computer

4   code for access controls?

5   A.   No, I did not.

6   Q.   Let's move ahead into a time period when you became

7   involved in a patent application for Pathlight. The jury's

8   heard some testimony about that. And I'd like to first refer

9   you to the cover page of that patent application. Do you

10   recognize this patent application?

11   A.   Yes, I do.

12   Q.   What is your name first? It's down there under inventors.

13   A.   Uh-huh. I'm listed as the principal inventor. It's

14   because I designed and implemented and ran this project.

15   Q.   Do you have an understanding as to why you filed this

16   patent application?

17   A.   Yes.

18   Q.   Why is that?

19   A.   We had invested considerable time, energy and talent in

20   developing these features and improvements and we wanted to

21   protect them.

22   Q.   Is this the only patent application Pathlight has filed?

23   A.   No, there are others.

24   Q.   Now, did you write this patent application yourself?

25   A.   No. I provided the technical information to our

1   attorneys.

2   Q. Who was that?

3   A. Mark levy and David Ben her.

4   Q. Did you help Mr. Levy write it?

5   A. In that I review and commented and gave feedback, yes.

6   Q. Okay. What is your understanding of what you were trying

7   to get a patent on?

8   A. We were trying to patent the specific method and

9   implementation that we had used in order to implement these

10   features in our product.

11   Q. Were you trying to get a patent on every type of access

12   control?

13   A. No.

14   Q. Why not?

15   A. Well, access control is something that's just part of

16   storage area networking and has been from its conception. So

17   we didn't consider that the concept was patentable, but this

18   particular method involved unique aspects of our architecture

19   and considerable experimentation and development that we had

20   done and felt that it was worthwhile and worth patenting.

21   Q. So what extent did you tell the patent office whether or

22   not access control, the concept of access control was

23   patentable?

24   A. I included in the background section of the application a

25   discussion of the three primary methods of access control that

1   I was familiar as existing in the prior art and being used and

2   then previously.

3   Q.   Now, does this patent application show the virtual

4   connection architecture that you designed?

5   A.   Yes, it does.

6   Q.   And where would I find that in the patent application?

7   A.   There's a figure 1 is in overall block diagram of the

8   entire system.

9   Q.   Let me see if I can get that on the screen.   Can you read

10   that?

11   A.   Yes.

12   Q.   Okay.   Now, is this diagram show the virtual connection

13   architecture that you designed?

14   A.   Yes, it does.

15   Q.   Okay.   Can you describe it briefly?

16   A.   Yes, the top box on the left represents a host that would

17   send a command.   The command is received by the virtual

18   connection manager, which is the little box in the top center

19   of the big box that's on the bottom.   Then, the virtual

20   connection manager interacts with the virtual connection cache

21   and the initiator accounts database to determine whether that

22   connection is valid or not and then, processes the command out

23   to the target and back to the host accordingly.

24   Q.   Now, does the patent application explain anything more

25   about what the virtual connection manager is?

1   A. Yes, figure 4 should be a flowchart of that process.

2   Q. Can you explain what your invention is in figure 4?

3   A. Yes, well, the top box and the middle where it says wait

4   for command, that's -- this is the virtual connection manager

5   when no command is pending. The command comes in at first,

6   checks to see if there's already a connection in the cache.

7   If there is, it goes off to the right where it says yes. If

8   it's a valid connection, it means that command is allowed to

9   be processed and it is processed. If it's invalid, the

10   command is returned as failed back to the host.

11   If there's not already a connection in the cache, it

12   goes to the left where it says no. And then, in the diamond,

13   it says 412, it checks with the initiator account database to

14   see if this connection is allowed, if it creates a valid

15   connection in the cache and processes the command normally.

16   If not, it puts an invalid connection in the cache and rejects

17   the command as failed.

18   Q. Now, does your patent application include any other

19   features other than what we showed in figure 4 and figure 1?

20   A. Yes, it does.

21   Q. What are those features?

22   A. It includes the host registration and dynamic health

23   monitoring feature that I mentioned and it also includes

24   mention of the other in-band control mechanisms.

25   Q. Are the virtual connection architecture and the host

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Oracle Ex. 1024, pg. 819

1   registration features ones that Pathlight uses in its SAN

2   gateways and SAN routers?

3   A.   Yes, they are.

4   Q.   Now, does the same virtual connection architecture exist

5   in the SAN gateway that exist in the SAN router?

6   A.   Yes, it does.

7   Q.   Identical?

8   A.   Yes.

9   Q.   Now, have you read the Crossroads 972 patent?

10   A.   Yes, I have.

11   Q.   When did you first hear about that patent?

12   A.   The end of November 1999.

13   Q.   Now, by the time you saw the 972 patent, what was the

14   status of the VPS software you were writing?

15   A.   It was finished.

16   Q.   Finished?

17   A.   Yes.

18   Q.   Now, does the 972 patent describe the virtual connection

19   architecture that you talked about here?

20   A.   No, it does not.

21   Q.   Is there anything in the 972 patent that would help you

22   write the computer code for virtual connection architecture?

23   A.   No, there's not.

24   Q.   Is there anything in the 972 patent that would help you

25   write computer code for any feature of VPS?

1   A. No.

2   Q. Did you use anything in the 972 patent to design and write

3   the code for VPS?

4   A. No, I didn't.

5   Q. Have you ever been accused of copying any computer

6   software before?

7   A. No.

8   Q. Pass the witness.

9   CROSS-EXAMINATION

10   BY MR. ALCOCK:

11   Q. Hello, Mr. Prestas. My name's John Alcock. We've not met

12   before. If you could turn to -- I'm going to call it exhibit

13   232. Do you have your patent application in front of you?

14   A. No, I don't.

15   Q. Here, I'll hand you one. Actually, I think it's in that

16   book, too. Just quickly, could you turn to page 13. There's

17   a discussion there of the description of the preferred

18   embodiment. Do you see that?

19   A. Yes.

20   Q. All right. And you have a number of patents. The

21   preferred embodiment is the best which to build the invention;

22   is that your understanding?

23   A. Well, I didn't write the patent. I'm not that familiar

24   with patent language itself, but that sounds reasonable.

25   Q. Okay. I want you to fast-forward to page 20. You were

1   asked some questions about figure 4. Figure 4 is the kind of

2   overall architecture of the device; is that right?

3   A.   No. Figure 4 is the flowchart of the connection manager

4   relative to executing a command.

5   Q.   I see. And the connection manager is the device or the

6   part of the software that manages the connections between the

7   work stations and the remote storage devices?

8   A.   Yeah.

9   Q.   Okay. And here, it says that figures 4 and 3 show how the

10   inventive architecture is able to enforce, complete end-to-end

11   access control with no performance degradation. End-to-end

12   access control means from the work stations to the remote

13   storage devices?

14   A.   Yes, the end points on the storage area network.

15   Q.   I see. And this feature? The products that's in the SAN

16   director through the VPS software?

17   A.   Yes, there are -- to a degree, yeah.

18   Q.   And it works?

19   A.   Yes, it does.

20   Q.   Works well?

21   A.   It works.

22   Q.   And the next sentence there, this is one of the most

23   significant advantages realized by the instant invention. Is

24   that your words or is that Mr. Levi's words or whose words is

25   that, do you know?

1   A. I really don't know who wrote that sentence.

2   Q. Okay. Thank you very much. No further questions. Pass

3   the witness.

4   RE-DIRECT EXAMINATION

5   BY MR. DELLETT:

6   Q. Mr. Prestas, does the access control feature that Mr.

7   Alcock showed you, does that provide ironclad restrictions of

8   access to -- between a host and a storage device?

9   A. No. They're not ironclad.

10   Q. Pass the witness.

11   MR. ALCOCK: No further questions, your Honor.

12   THE COURT: All right. May this witness be excused?

13   MR. ALCOCK: Yes, he may, your Honor.

14   THE COURT: You may be excused, sir. Who is your next

15   witness?

16   MR. BAHLER: We have a deposition to read in, your

17   Honor. This might be a good time to break for the day.

18   THE COURT: Might be, but it's not.

19   MR. BAHLER: Okay.

20   MR. ALBRIGHT: Your Honor, which deposition is going

21   to be read?

22   MR. BAHLER: Mr. Englebrecht.

23   THE COURT: How long is the deposition?

24   MR. BAHLER: About 30 minutes direct.

25   THE COURT: Are you going to have a bunch of cross on

1   this deposition?

2   MR. ALBRIGHT: Very brief, your Honor, I believe. No,

3   sir. Just a couple of minutes.

4   MR. DELLETT: The first deposition was taken of Mr.

5   Englebrecht on November 30th, 2000.

6   THE COURT: Spell the witness' name, if you would for

7   the Court Reporter and the Court.

8   MR. DELLETT: E N G E L B R E C H T.

9   THE COURT: Thank you.

10 Q. My name is Michael Barrett and I work with the firm

11 Fulbright and Jaworski. I represent two defendants in this

12 case, Pathlight and Chaparral. Before we get into the main

13 part --

14   THE COURT: Before you get your head taken off, a

15 little slower. She's been working all day.

16   MR. DELLETT: Sorry.

17   THE COURT: It's all right.

18   MR. DELLETT:

19 Q. My name is Michael Barrett and I work with the firm

20 Fulbright and Jaworski. I represent two defendants in this

21 case, Pathlight and Chaparral. Before we get into the main

22 part of our questioning, I was wondering if we could cover

23 some background material. Would you please explain to me a

24 synopsis of your educational background?

25 A. Okay. I have a bachelor's degree and a master's degree in

1   electrical engineering from the university of Missouri at hoe

2   have my master's degree granted in 1973 and we have a master's

3   in engineering management in science from Wichita state

4   university. That was granted in 1982.

5   Q. I know you already have described it some, but what's the

6   overview of your current job responsibilities for LSI?

7   A. Okay. I'm in charge of the engineering development of our

8   product lines, which at this point are almost completely

9   storage systems. We do high performance, high availability

10   storage systems and sell them to both OEM customers and to end

11   user customers through our reseller channel so the engineering

12   development includes hardware development firm wear

13   development, system software test. And I also have

14   responsibility for the manufacturing operations that actually

15   build and assemble these units for the end user customers.

16   Q. What was the earliest fiber channel RAID controller that

17   LSI made?

18   A. It was a product called the 3701 controller. And this was

19   developed in late 1994 and 1995. We did some demonstrations

20   of the product to selected OEM customers in the middle of

21   1995.

22   Q. Okay. So we're talking about the 3701 controller. You

23   said it was demoed in 1995?

24   A. Yes.

25   Q. Is that product still current?

1   A.   There is -- there are actually two versions, a 3701 and a

2   3702 and they differed only in they're mechanical form factor,

3   in the mechanical enclose were they went into. The 3701 is no

4   longer current. The 3702 version is actually still sold.

5   Q.   Okay. Let's move on to the first fiber channel family

6   controller. If I've got my notes right, it's the 3701.

7   A.   Yes.

8   Q.   Now, you mentioned before that the May have been developed

9   in the '94 time frame; is that correct?

10   A.   Development began in 1994.

11   Q.   I know it's difficult to gauge when something has stopped

12   development and completed, but when would you say this 3701

13   product was completed?

14   A.   The ends of 1995.

15   Q.   Do you remember when the first 3701 product was sold,

16   approximately?

17   A.   Fourth quarter of 1995, limited engineering models.

18   Q.   Now, did the 3701 product which is fiber channel to SCSI

19   support reserve release?

20   A.   Yes.

21   Q.   Can you explain how that was done?

22   A.   Well, it was implemented exactly the same as I've

23   explained for the 3621 because it's the same, the same core

24   firm wear set runs on a 3701 and 3702 controllers. All that

25   we do from a firm wear point of view is add a fiber channel

1   driver effectively on the front end of this firm wear package

2   to do the interfacing to fiber channel. So the structure of

3   the table that maintains access privileges in the firm wear is

4   the same as explained for the 3621.

5   Q. So in this fiber channel to SCSI product, the controller

6   itself was keeping track of which host had reserved which

7   target?

8   A. Yes.

9   Q. Now, I'm sure this is probably simplistic, but the table

10   you're talking about, it keeps track of -- let's see if I can

11   get a grasp of all the information it's keeping track of. Is

12   it keeping track of the fiber channel hosts that makes the

13   reservation?

14   A. Yes.

15   Q. And how does that do that by worldwide name?

16   A. Today it does. In the early implementations, we had not

17   supported the worldwide name conventions, and I believe it was

18   -- it was kept track by a lower order primitive.

19   Q. But it was some unique identifier?

20   A. It was a unique identifier. I think there's an eight-bit

21   field that we were able to use at that point.

22   Q. And then, how would it keep track of which SCSI target the

23   reservation was meant for?

24   A. Well, it tracked -- it basically maintains that accounting

25   on a logical unit basis. Theological units are defined

1   separately and they actually are typically comprised of

2   multiple disk drives that are striking data across multiple

3   channels and multiple disk drives to get the high

4   performability and characteristics. So there's another table

5   in the firm wear that defines each of these LUNs and maps the

6   logical address range to the physical set of devices that

7   comprise that address range.

8   Q. So in this reserve release feature, the table we're

9   talking about now, you would have some unique identifier

10 associated with the fiber channel hosts and then, some unique

11 identifier associated with the target that had been reserved;

12 is that correct?

13 A. With the LUN that will be reserved, yes.

14 Q. Could you reserve just part of a LUN or is it on a

15 LUN-by-LUN basis only?

16 A. We did define something that we called sub LUNs which

17 allow you to reserve part of a LUN, yes.

18 Q. Would that corresponds to, if we're talking about hard

19 disk drives, would that correspond to a portion of the hard

20 disk drive or could it?

21 A. Yes, it's actually portions of multiple disk drives in our

22 interpretation.

23 Q. Okay. Could the LUN that's being reserved also refer to

24 an entire storage device? For instance, an entire hard disk

25 drive?

1   A. It could be or portions thereof or portions, yes.

2   Q. Okay. Do you know if the 3701 product had any type of

3   buffer memory in it?

4   A. Yes, it did.

5   Q. And where was that?

6   A. Well, it's -- it resides on the -- off the main processor

7   bus. The architecture of the controller is what we

8   characterize as a dual memory architecture. It has one memory

9   structure that is used by the processor for processor commands

10   and some table storage and it has another memory that is

11   dedicated to data buffering.

12   Q. Okay. And did the 3701 have a fiber channel controller?

13   A. It has a fiber channel controller chip on the option card

14   that I mentioned earlier.

15   Q. Do you know what brand of finer channel controller was

16   used?

17   A. It was a Tachyon chip.

18   Q. Was that made by Hewlett Packard?

19   A. It was a Hewlett Packard at that point in time. Today's

20   it's Adulent.

21   Q. And this fiber channel controller, it's connected to the

22   -- it connected to the fiber channel bus, if you will?

23   A. Yes.

24   Q. And did the 3701 have a SCSI controller?

25   A. Yes, it had multiple SCSI controllers.

1   Q.   How many?

2   A.   Six.

3   Q.   Do you know what brand was used?

4   A.   They were Symbios Logic at that point.

5   Q.   And each one of those connected to a SCSI bus?

6   A.   Yes.

7   Q.   Did the 3701 have a microprocessor in it?

8   A.   Yes.

9   Q.   Was the I 960 chip used?

10   A.   No.

11   Q.   Are you familiar with the I 960 chip?

12   A.   Yes.

13   Q.   What microprocessor was used in the 3701, if you remember?

14   A.   An Intel 486.

15   Q.   In general terms, what was the function of this

16   microprocessor?

17   A.   To execute the firm wear program that provides the

18   functionality of the controller. Basically, the data striking

19   and data recovering functions.

20   Q.   Did it work in conjunction with the release to firm wear?

21   A.   Yes.

22   Q.   Did it when working in conjunction with the release to

23   firm wear, then, did it have any role in translating between

24   fiber channel and SCSI?

25   A.   Yes.

1   Q.   And what role would that have been?

2   A.   Processor is executing the firm wear code that is actually

3   doing this translation which is basically a specified by the

4   fiber channel specification developed by an si.

5   Q.   Do you know what version of SCSI was running on the 3701?

6   Was it SCSI two?

7   A.   The host side implement take could be characterized as

8   SCSI 2 with 16-bit implementation.

9   Q.   Okay. If you remember, we were talking about a table that

10   keeps track of reservations. Where would that table reside in

11   the controller? Is it also in E prom memory?

12   A.   It would -- the code would and the table structure would

13   reside there prior to the controller actually be included up

14   and brought into service. After that point in time, that

15   table structure would reside in what we would characterize as

16   the process of memory as opposed to a data buff memory.

17   Q.   Okay. What is going on in the buffer in the 3701 product?

18   In other words, how is it used in the 3701 product?

19   A.   It's used as intermediate storage for the data. The data

20   coming in the host is buffered in the buffer memory process.

21   The firm wear generates in another step this redundancy

22   information that I mentioned earlier, and it effectively

23   inserts it into the buffer in appropriate locations. And

24   then, a second set of operation takes the buffer contents and

25   strikes them across the specified number of disk drives.

1   Q. So it truly is the data, then, so whatever data needs to

2   be written to the disk drive, for instance, during its travel

3   to those disk drives, it travels through the buffer at one

4   point or the other?

5   A. Yes.

6   Q. Okay. Do you know if the 3701 had any DMA which is direct

7   memory access memory?

8   A. The architecture used DMA really on both of these memory

9   structures. In fact, we have a very high performance DMA

10   engine on the buffer memory to optimize performance, so would

11   it be fair to say that this 3701 is translated between fiber

12   channel and SCSI, yes.

13   Q. Okay. Just so I can get my date straight, all these

14   features we've been talking about in the hardware and software

15   side, they were available sometime in 1996?

16   A. Yes.

17   Q. Okay. This section, again, entitled reserve, the one --

18   the seconds sentence says, the controller processes this

19   command at the controller level. No member drives are issued

20   a reserve command. Can you explain what is meant by that?

21   A. It means that the controller itself is managing the

22   execution because the drives it were using SCSI drives, those

23   drives respond to the SCSI commands, as well. These are

24   standard SCSI commands. And so the intent here is to indicate

25   that the controller is managing all of this reserve release

1   activity.

2   We aren't delegating any of it to the actual target

3   drugs for executed.

4   Q. So the sentence basically says the controller is the one

5   keeping track of the reserve commands?

6   A. Yes.

7   Q. Is it doing it via the table, that table we were talking

8   about earlier?

9   A. Yes.

10   Q. All right. Let's -- well, in general terms, what does

11   this document that we marked as Defendant's Exhibit 74

12   describe?

13   A. Well, it's the functional specification or the hardware

14   part of the controller so it specifies the IO printouts, it

15   specifies the power requirement, it sets up the connector

16   schemes for the various SCSI buses that are utilized.

17   Q. All right. Let's turn to page 4, which is the block

18   diagram we mentioned a little earlier. Pathlight moves to

19   admit exhibit D-74.

20   MR. ALBRIGHT: No objection, your Honor.

21   THE COURT: Received.

22   MR. DELLETT:

23   Q. Let's turn to page 4 which is the block diagram we

24   mentioned a little earlier. Are you generally familiar with

25   what block diagram?

1   A.   Yes.

2   Q.   Do you know if that's an accurate representation of the

3   3701 controller's hardware?

4   A.   Yes, yes, it is.

5   Q.   And do you know what date -- let me see if I can words

6   this.   That block describes the 3701's hardware from what

7   date, if you know?

8   A.   1995.

9   Q.   Do you know if the hardware changed significantly from

10   what is shown in that block diagram after 1995?

11   A.   No, I do not.

12   Q.   Now, I haven't studied that much in detail, but does that

13   show a buffer anywhere?

14   A.   The cache data area here is what you've termed the buffer

15   previously.

16   Q.   Okay.   And what is that connected to?

17   A.   It's connected to a chip that we call the Saturn, which is

18   a unique basic that we developed that provides high speed DMA

19   in-and-out of this buffer.   It also does the ex or function

20   that's critical for most of the radiant mutations.

21   Q.   Is that different than the chip we were talking about

22   earlier?   I think we were talking about a 486 chip.

23   A.   Well, the 486 is the actual processor chip.

24   Q.   Okay.   And does that block diagram show a fiber channel

25   controller?

```
 1    A.   Its shows the interface port.  It doesn't show the

 2    controller chip.  It shows a depiction in the block diagram of

 3    this plug-in daughter card that contains the interfacing chip.

 4    Q.   Okay.  So would the fiber channel, would a fiber channel

 5    controller somehow hook up to the interface or is that block

 6    meant to include the fiber channel controller?

 7    A.   It's meant to include the fiber channel controller.

 8    Q.   How about a SCSI controller?  Is that shown in the block

 9    diagram?

10    A.   All these six chips are the SCSI controllers.

11    Q.   How are those labeled?

12    A.   They're labeled as 53C, 875, PCI-SCSI.

13    Q.   Do you know what that designation means, 53C?

14    A.   Well, those are the Symbios part number designations.

15    That was the part number that it was marketed under.

16    Q.   Was the information contained in this ever presented at

17    what trade show?

18    A.   The information itself was not.  The controller was

19    demonstrated at at least one trade show.

20    Q.   Do you remember which trade show that was?

21    A.   Comdex.

22    Q.   Was that Comdex '95 or '96?

23    A.   Both.  Well, the 3701 was demonstrated in '95.  By 1996,

24    it would have been the 3702.

25    Q.   In the other demonstration you guys were running at Comdex
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1   1996, I'll refer to that as the loop demonstration. Exactly

2   how many fiber channel hosts were hooked up to the host side

3   of the controller, if you remember?

4   A.   I don't remember, ten or more.

5   Q.   And they were in the arbitrated loop topology?

6   A.   Yes, yes.

7   Q.   And how exactly does that work? If you have ten fiber

8   channel hosts on one side, do they plug into a single fiber

9   channel port of your controller?

10   A.   No, it's effectively a daisy chain between the devices on

11   the loop. Actually income that configuration, I'm sure we

12   were using a hub and the hub, in effect, turns sort of point

13   to point connections into a loop connection.

14   Q.   Okay.

15   A.   It prevents any one device failure from bringing down the

16   entire loop.

17   Q.   Okay. And so we have multiple fiber channel hosts on one

18   side, correct?

19   A.   Uh-huh.

20   Q.   Do we have multiple SCSI storage devices on the other side

21   of the controller?

22   A.   Yes.

23   Q.   Now, in that device, was the reserve release functionality

24   implemented?

25   A.   It was implemented but not demonstrated.

1   Q. Okay. Had it been demonstrated, would it have the --

2   would it have add the ability to reserve the specific LUN for

3   a specific fiber channel host?

4   A. Yes.

5   Q. And how do you come to that conclusion?

6   A. Because I'm confident that the firm wear functionality

7   was, in fact, present and if reserve release commands were

8   issued to us, we would have responded appropriately.

9   Q. Okay. And if one of those reserve commands was issued and

10   a LUN was reserved, if a different one of the fiber channel

11   host was then trying to access that reserve drive, what would

12   happen?

13   A. Would have reserved an illegal command status.

14   Q. Who would have sent that illegal command status?

15   A. The RAID controller.

16   Q. And is that because the RAID controller was keeping track

17   of the reservations?

18   A. Yes, it is.

19   Q. And so, at the Comdex '96, the RAID controller have the

20   ability to associate a unique identifier for a fiber channel

21   host with a unique identifier for a SCSI storage device?

22   A. Yes.

23   Q. Okay. Let me step back just a little bit and kind of talk

24   about some of the hardware of the devices shown at '95 Comdex

25   and '96 Comdex. I'll start with 1995. In '95, you showed the

1   3701. Do you remember if within the hardware of the

2   controller shown at 95 Comdex, if a buffer was present in the

3   controller?

4   A. Yes, it was.

5   Q. Was there a fiber channel controller within the device

6   shown at Comdex '95?

7   A. Yes, there was.

8   Q. Was there a SCSI controller?

9   A. Yes, there was.

10   Q. And was there a micro processor within the controller that

11   worked in association with the firm wear?

12   A. Yes, there was.

13   Q. Actually, I have the same questions for Comdex '96. But

14   just for completeness, the 3702 controller shown at Comdex

15   '96, are you aware it did have a buffer?

16   A. Yes, it did.

17   Q. And a SCSI controller?

18·   A. Yes, it did.

19   Q. A fiber channel controller?

20   A. Yes, it did.

21   Q. I'm sorry if I'm repeating. And a SCSI controller?

22   A. Yes.

23   Q. And did it also have a microprocessor that worked in

24   association with the firm wear?

25   A. Yes.

1   Q. Okay. Were there any other trade shows or presentations

2   that the 3701 or 3702 products were shown at, if you remember?

3   A. Not that I recall.

4   Q. Did you guys ever publish any journal articles or get

5   presentations outside the Comdex arena?

6   A. I don't recall any in that time frame.

7   Q. Okay. I don't know if I got into this, but at Comdex '96,

8   was literature or product information handed out to people who

9   were interested?

10   A. Yes.

11   Q. Do you know what kind of information was handed out?

12   A. Product briefs or brochures. I think we provided one

13   example.

14   Q. Do you know if those brochures mention hard wear

15   components?

16   A. Yes, they were more hardware descriptive than they were

17   firm wear descriptive.

18   Q. Okay. Do you know or do you remember -- well, first, were

19   you at these cop Defendant's Exhibit '9 --

20   A. Yes, I was.

21   Q. You were at both the '95 and '96?

22   A. Yes, I was.

23   Q. Okay. Do you remember who else was with you at these

24   Comdex shows?

25   A. No, I don't.

```
1    Q.  Were you -- you weren't by yourself, though, were you?

2    A.  I wasn't by myself, no.  The shows are too long for that.

3    But you know, one person I can recall was along was Rich

4    Watsonheiser, who was my marketing manager at the time.

5    Q.  Is he still around LSI?

6    A.  No, he's not.

7    Q.  Do you know where he is?

8    A.  Actually, I believe he's with Crossroads.

9    Q.  Oh, okay.

10   A.  He was with HP.  I believe I recall hearing that he had

11   gone to Crossroads.

12   Q.  Before we broke for lunch, we were talking about Comdex

13   '96.  I just want to continue along that line for a little

14   while.  What exactly were you demonstrating at Comdex '96?

15   Was the controller up and running?

16   A.  Yes, it was.

17   Q.  So during the demonstration, was it evident that fiber

18   channel protocol was being translated into SCSI protocol?

19   A.  Yes.

20   Q.  At the time of Comdex '96, LSI was already selling their

21   3702, correct?

22   A.  It was being offered for sale.

23   Q.  Okay.  Now, the version being offered for sale, was it

24   identical to the version up and coming in '96?

25   A.  Yes.
```

1   Q. No difference in the hardware?

2   A. No.

3   Q. Or software?

4   A. No.

5   Q. Or firm wear?

6   A. No.

7   Q. Okay. And at the demonstration of Comdex '96 that

8   demonstrated product, that demonstrated product was running

9   RAID manager five; is that correct?

10   A. Yes.

11   Q. Okay. Because you said that the hardware and software was

12   identical to that being offered for sale, then, or at some

13   time later, is it safe to say that these documents that you

14   provided today accurately reflect the hardware and/or software

15   features of the device shown at Comdex '96?

16   A. Yes.

17   Q. So the hardware specification block diagram that we

18   discussed before, does that describe the top level hardware

19   features of the Comdex '96 device?

20   A. Yes.

21   Q. And the same is true for the software?

22   A. Yes.

23   Q. And firm wear?

24   A. Yes.

25   Q. Okay.

1   A.   Before we go further, during the break, I was looking

2   again at the block diagram.

3   Q.   Uh-huh.

4   A.   I'm nor familiar with the marketing version of this

5   question had created and realized I had pointed out the buffer

6   area incorrectly on this.

7   Q.   Okay.

8   A.   The buffer memory area is actually this odd bank-even bank

9   area that's pointed out down here controlled by the RPH.

10   Q.   Just because we're all not text, you're pointing to the

11   box RPH chip and also pointing to the two little structures

12   immediately below it, one of them says even bank and the other

13   one says odd bank?

14   A.   Right. This is the actual data buffer. I got misled by

15   the cache. This is the second level cache of the processor

16   memory I originally pointed to. This is the data buffer area.

17   Q.   Thanks for pointing that out. A couple of nor questions.

18   Do you know the date of the -- the date of the first

19   commercial sale of the 3701 product?

20   A.   Fourth quarter, 1995.

21   Q.   And that was a sale? Do you know who did that?

22   A.   IBM corporation.

23   Q.   Okay. The first sale of the 3702 product, do you know the

24   date of that?

25   A.   Second half, 1996.

1   MR. DELLETT: We next have a portion of the deposition

2   of Mr. Englebrecht also, this one is March the 5th, 2001.

3   Q. Okay. Mr. Englebrecht, I sent to you several exhibits,

4   draft exhibits or proposed exhibits. Could you turn within

5   that stack to what has been marked defendant's trial exhibit

6   D-79, okay? Actually, we're going to turn over to -- let's

7   turn over to D-80.

8   A. Okay.

9   Q. And that's a -- do you know what that is?

10   A. Yes. This is another order for trans soft. I got three

11   sheets here. The first sheet is the actual order that came

12   from Transoft. We were using a manufacturer's wrap at that

13   point called leading concept technology so the or came from

14   Transoft to leading technology who then forwarded on to us.

15   Q. All right. And what does this purchase order deal with?

16   A. This is another order for, in this case, 26299 controller

17   assembly and this one specific think calls out the fiber

18   channel option on the 2699.

19   Q. And by option, is that the daughter board option that you

20   spoke with Mr. Barrett about?

21   A. Yes, it is.

22   Q. Okay. And when the 3620 was outfitted with the fiber

23   channel daughter board, did it have an LSI? Did that product

24   have an LSI number?

25   A. Yes, we would call that assembly bend a 3701 controller.

Oracle Ex. 1024, pg. 843

1 Q. Okay. So does this purchase order, Defendant's Exhibit

2 D-80, deal include the sale of a 3701 controller?

3 A. Yes, it does.

4 Q. Pathlight offers exhibit D-80.

5   MR. ALBRIGHT: No objection.

6   THE COURT: 80 is received.

7   MR. DELLETT:

8 Q. Okay. Do you know how many controllers of that type it

9 includes? Can you tell by looking at this?

10 A. I only see one specifically listed.

11 Q. Okay. And the price is $61,570?

12 A. Yes, that would be the price for two of the 6299 units.

13 Q. Okay.

14 A. That are ordered on this purchase order.

15 Q. So this purchase order in contrast with the purchase order

16 of exhibit or the invoice of exhibit D-79 deals with the 3701

17 controller?

18 A. That's correct.

19 Q. Do you know how Transoft was using these 3701s?

20 A. It was in the same general application of storage that was

21 used to store a video game edited, and in this file was shared

22 between multiple work stations.

23 Q. Okay. Were those fiber channel work stations in this

24 instance?

25 A. In this case, they must have been. They were using both

1   modes and since they're ordering the fiber configuration,

2   that's the only way to connect it.

3   Q.   Okay. And that's why you say why you said they must have

4   been using fiber channel?

5   A.   Yes. I assume they would not have ordered the fiber

6   channel option if they weren't using it in the fiber channel

7   mode because it cost additional money over the SCSI

8   configuration.

9   Q.   Now, do you know whether or not Transoft -- was Transoft

10   an OEM?

11   A.   Transoft was treated as an OEM. They were what we could

12   call today a systems integrator.

13   Q.   And were they -- do you know whether or not they were

14   using a 6299, which included the 3701 controller in order to

15   create an integrated system for some ultimate customer?

16   A.   Yes, that was their intent.

17   Q.   Okay. Do you know whether or not they actually did that?

18   A.   I don't absolutely know that.

19   Q.   All right. Let's move to LSI exhibit D-81. Do you know

20   what that is, sir?

21   A.   This is a press release that we released in the time frame

22   of Comdex, the industry computer show in the fall of 1996.

23   Q.   Let me offer exhibit D-81.

24   MR. ALBRIGHT: No objection.

25   THE COURT: It's received.

1   MR. DELLETT:

2   Q. Okay. And is this -- was this an actual release to the

3   public?

4   A. Yes. Well, this was released to the press and than we had

5   copies of this as handouts at our exhibit during Comdex fall

6   1996.

7   Q. Okay. Now, at Comdex fall '96, was there a 3701 RAID

8   controller on display?

9   A. Yes.

10   Q. Okay. And just to cut to the chase, you mentioned two

11   during your last deposition, you mentioned two demonstrations,

12   one of which was in FCLC room, which is the fiber channel loop

13   community; is that correct?

14   A. Right.

15   Q. Okay. And that's mentioned actually in the second to the

16   last full paragraph. It's a sentence-long near the bottom of

17   the first page of page 12.

18   A. Yes.

19   Q. Of D-81.

20   A. Yes.

21   Q. Was that the -- was that FCLC room, was that a private

22   suite or was it open to the public?

23   A. No. It was open to the public.

24   Q. I'm sorry. Were there multiple fiber channel hosts

25   connected to the 3701 at that demonstration?

1   A.   Yes.

2   Q.   Okay.   Do you remember how many?

3   A.   No, I don't.

4   Q.   Okay.   But there was more than one?

5   A.   Yes.

6   Q.   All right.   Could you just describe for me how the 3701

7   was being demonstrated in that FCLC room in Comdex '96?

8   A.   Well, the mode of the demonstration was actually fairly

9   similar to this application that I mentioned Transoft doing.

10   Q.   Right.

11   A.   What we had was a video file on the RAID sub system and

12   multiple hosts and could access this video screen and display

13   it locally at the various servers.

14   Q.   Okay.

15   A.   The intent was to demonstrate the higher performance of

16   fiber channel relative to SCSI and to show the ability to do

17   actual streaming video off the shared storage.

18   Q.   Okay.   And how many -- do you recall how many SCSI discs

19   were connected in that RAID system?

20   A.   20.

21   Q.   Okay.   And do you recall -- okay.   There were more than

22   one fiber channel hosts connected on a fiber channel side,

23   correct?

24   A.   Yes, there were a number of other companies who were

25   demonstrating their host adapters and servers.   But I don't

1   remember exactly how many were in this particular

2   demonstration.

3   Q. Okay. Do you know over how many days the 3701 was

4   demonstrated at Comdex '96?

5   A. Yes. All of the come depositions have been five days long

6   and the demonstration lasted through that week, five days.

7   Q. Okay. And, sir, were you there personally?

8   A. Yes, I was.

9   Q. And you witnessed everything that you've been talking

10   about?

11   A. Yes.

12   Q. Okay. Take a look at D-82, sir. It's one duplex page.

13   A. Yes.

14   Q. Do you know what that is?

15   A. This is our OEM data sheet on the 3701 controller.

16   Q. Okay. Was this available at Comdex 1996?

17   A. Yes, it was.

18   Q. Does this accurately describe the 3701 as at this time

19   existed at Comdex '96?

20   A. Yes.

21   Q. Pathlight offers exhibit D-82.

22   MR. ALBRIGHT: No objection, your Honor.

23   THE COURT: Received. Mr. Dellett, why don't you mark

24   your place. Members of the jury, I'm going to give you the

25   evening break. I'd like for you to be here about little

1   before 9:00 so we could start promptly at 9:00.   Please

2   remember the instructions.   See you in the morning.

3   (Proceedings adjourned.)

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1   REALTIME UNEDITED TRANSCRIPT DISCLAIMER IN THE MATTER OF

2   CIVIL ACTION NO. A 00-CA-248 SSCROSSROADS SYSTEMS, (TEXAS), INC., A TEX.

3   VS.

4   PATHLIGHT TECHNOLOGY, INC., A DELAWARE CORPORATION

5   The following transcript(s) of proceedings, or any portion

6   thereof, in the above-entitled matter, taken onbeing delivered UNEDITED

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18   _____   _____

19   Signature of Purchaser   Date

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21   Signature of Official Reporter   Date

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1   THE COURT: All right, counsel, let's get the nuts and

2   bolts around. I have received Pathlight's proposed

3   preliminary instructions. I have reviewed them. They are

4   accurate. Of course, I would like to accommodate counsel in

5   every way I can to make it easier.

6   I have a fear, however, if I read these instructions,

7   the jury would get up and leave. I don't believe that the

8   reading of these instructions would be at this point in time

9   anything but very confusing to the jury, since they don't know

10   anything about this case. I contemplated copying them and

11   give them each a copy. Then I thought, well, you know, then

12   -- if they're conscientious, they will start trying to

13   interpret these instructions to the statements of the lawyers

14   and the evidence a little early in the case.

15   So I'll be glad to listen to your comments with regard

16   to these instructions, but by the time I get to the definition

17   of terms and the doctrine of equivalence, I really fear we're

18   going to lose the jury. Now, with those preliminary remarks,

19   I'll be glad to hear anybody that would like the make a

20   comment.

21   MR. BAHLER: Your Honor, those were offered simply as

22   a possible aid to the Court to do with it what you wanted.

23   THE COURT: No. I understand that. But as far as

24   your presentation, if you think it would be helpful, I'll be

25   glad to listen to you, Mr. Bahler. I just think that fresh

1   early in the morning, without opening statements, is going to

2   be confusing.

3   MR. BAHLER: Well, I'll defer to your judgment, then,

4   your Honor.

5   MR. ALCOCK: We agree with the Court, your Honor. We

6   believe we should go directly to opening.

7   THE COURT: All right. Anything else before we bring

8   in the jury? We've got them all?

9   THE BAILIFF: Yes, sir.

10   MR. BAHLER: To things. One, both parties agree we're

11 going to invoke the rule.

12   THE COURT: All right.

13   MR. BAHLER: And secondly, we have a relatively minor

14 some what significant in light of the time constraints with

15 respect to deposition designations. We propose Pathlight

16 proposes that the time be allotted for depositions that are to

17 be read according to the lines designated by each party. That

18 we thought that that would be fair. And they have --

19   THE COURT: It's a little bit difficult for Ms. Same

20 toss do because she doesn't now hoe long it's going to read

21 the deposition. She did not start off singing the star

22 spangled banner this morning.

23   MR. ALBRIGHT: Your Honor, our only concern is from

24 what we can tell of some of the portions that they have picked

25 out no reading depositions, needless to say they would do what

3

1   any good lawyer would do which is read as much as helps them

2   and then stop if there is anything that comes after or starts

3   that doesn't. And all that we care about is that we shouldn't

4   have time taken against us for them to complete a subject

5   matter with respect to the deposition over a topic --

6   THE COURT: We'll do it like we do in every case.

7   We'll stop the clock as long as one of you are up there

8   reading the deposition and it will run on your time and if the

9   other wants to do it, it will run on his time. Ms. Sims can

10   do that. We do that daily. So we'll just -- we'll handle it

11   that way.

12   All right. The rule has been invoked. I don't know

13   who is and who is not a witness, so I'll rely upon the

14   lawyers. I'll just simply tell the lawyers they're to

15   instruct all their witnesses not to speak to anybody about

16   their testimony in the case except the lawyers and that they

17   are free not to talk to the lawyers if they wish and if they

18   communicate in any way, shape or form any portion of their

19   testimony without consent of the Court or the stipulation of

20   counsel to a third party, they are subject to disqualification

21   as a witness.

22   All right. With that said, bring the jury in.

23   MR. BAHLER: Your Honor, may I -- during opening may I

24   move around so I can see that big screen?

25   THE COURT: Yes. The only thing that -- the only

4

1   limitation I have is don't hurt lily and don't go sit over in

2   the jury box, but if you do move around, which I have no

3   objection to, you've got the keep your voice up because the

4   mechanical recordings need to pick it.

5   MR. BAHLER: Specifically what I was talking about was

6   during their opening if I could move around to see the big

7   screen.

8   THE COURT: Anywhere in the courtroom.

9   MR. BAHLER: Thank you.

10   THE COURT: Members of the jury, when we met Monday

11   and you were selected in this case, I told you that at each

12   time we opened Court, that is, in the morning session and in

13   the afternoon session, I would ask you three questions which

14   under your oath you must answer. Those questions are

15   these:Have you talked to anybody about this case, have you

16   permitted anybody else to talk to you about this case? Or

17   have you learned anything about the case outside the presence

18   of each the seven of you in this courtroom? You need the

19   answer those questions orally. I look and make sure. As a

20   matter of fact, after a day or two, you start sounding like a

21   choir. We kind of cultivate that. And then I will tell Ms.

22   Reznik how you answered those questions.

23   So let's start off. Of course, if you've talked with

24   somebody, you have to tell us. Have you talked to anybody

25   about this case?

5

1   THE JUROR: No.

2   THE COURT: Have you permitted anybody else to talk to

3 you about this case?

4   THE JUROR: No.

5   THE COURT: And have you learned anything at all about

6 the case outside the presence of each other and this

7 courtroom?

8   THE JUROR: No.

9   THE COURT: All right. If you'll be kind enough to

10 stand and raise your right hand, Ms. Sims will swear you in as

11 the jury in this case.

12   THE CLERK: Do you and each of you solemnly swear or

13 affirm that in the case of Crossroads systems, Inc. Vs.

14 Pathlight technology Inc. that you will a true verdict render

15 according to the law as it may be given to you in charge by

16 the Court and the to evidence as submitted to you under the

17 rulings of the Court, so help you God?

18   THE JUROR: I do.

19   THE COURT: You may be seated. Now, in the taking of

20 that oath, you have become judges in this case. Your

21 responsibility will be to judge the evidence and determine the

22 facts. Any responsibility is to make the legal decisions in

23 the case which basically amount to what evidence you are to

24 consider when you answer the questions that will be submitted

25 to you at the end of the case. Those questions we call the

6

Oracle Ex. 1024, pg. 855

1 verdict, but there will be a list of several questions for you

2 to answer after I've heard the Edwards, I have to formulate

3 those questions evidence).

4   So let's talk a little bit about what the evidence is.

5 As you can see, we have lots of electronic equipment and we

6 have an electrical storm probably this entire bank of

7 courtrooms will go in the dark. But the evidence is the sworn

8 answers to the questions by the witness. Notice I said the

9 answers.

10   The questions are not evidence. The statements of the

11 lawyers are not evidence. The summaries of the lawyers are

12 not evidence. What I say is not evidence the sworn answers to

13 the questions, any documents and all the documents and there

14 are going to be plenty of documents, I fear. All of the

15 documents that will be presented in evidence will be with you

16 when you deliberate, and the lawyers before, just before you

17 start deliberating in this case, they will tell you which

18 documents they think are the most worthy of your consideration

19 and so you don't have to worry about seeing them during the

20 trial until deliberation, although the lawyers may extrapolate

21 parts of a document so that they can question a witness, but

22 you'll have all the documents.

23   And the third form is a stipulation. The parties

24 could agree for example, today is Wednesday and they wouldn't

25 have a bring a person with a calendar to try to prove up it's

7

1 Wednesday because there's no dispute about that. So those are

2 the three ways that the evidence comes in.

3   This case will be just like all cases and that is,

4 there will be objections made. When a lawyer makes an

5 objection, don't think the lawyer is trying to hide something

6 or make something more important than it is or less important.

7 That lawyer is obligated to me to make an objection to call my

8 attention to the fact that I have to nick a ruling as to

9 whether or not you should consider the evidence.

10   Many times, I will ask the lawyers to come up here if

11 I want an explanation. Don't try to listen, just kind of

12 think of it like the pitcher and the catcher when they go out

13 there in baseball. I've always wondered what they talked

14 about. But I never ease dropped. Just relax because the

15 alternative is for me to take you and put you in the jury room

16 and then bring you back and while the exercise may be good for

17 you, you'll get tired of it. So we'll bring the lawyers up

18 here and we'll hash out some if we need to.

19   If I sustain the objection, that means you generally

20 will not hear the evidence. Don't try to guess at what it was

21 because you won't be -- you won't be considering it any way.

22 If I overrule the objection, you'll hear the evidence, but

23 don't think it's any more important than any of the other

24 evidence that you're going to hear.

25   During the trial, I might tell you that you can

8

1   consider the evidence for one purpose but not another. If you

2   don't understand it, just raise your hand. I'll make sure

3   that you understand it. I may turn to you and say, members of

4   the jury, I don't want you to consider that evidence for any

5   purpose.

6   One of my sons once asked, how do you expect a jury to

7   forget what they've just heard. Well, the law is not that

8   crazy. We don't expect you to forget it, but we do expect

9   under your oath not to rely upon it when you answer the

10 questions. And so that's how the game of evidence is played,

11 and it goes on in every trial, this trial would be no

12 exception.

13   Now, I, because of the nature of this case and because

14 of the length of the case, Mr. Mace has given you each a pad

15 with a pencil so that you can make such notes. Let me give

16 you my little speech on that. If you'll remember back in

17 school, when you're making notes, you forget to listen for a

18 minute and then you start listening again and you might miss

19 something.

20   So be careful about your notetaking. That's the first

21 thing. Don't try to record everything that's happened. Just

22 make a personal note that you wish. The second is those notes

23 are yours. They're not your neighbor's. You're not to share

24 them with anybody because if you shared them with any other

25 person on the jury, then you could become a witness and you're

9

1   not a witness, you're a judge.

2   Those notes are just for your memory when you

3   deliberate, then you can use them if you wish. Every evening

4   you will turn them over to Mr. Mace. He will keep them in

5   custody until you come back the next morning. And at the end

6   of the case, he will maintain custody. So don't write down

7   the Judge is a fink or something like that in your notes

8   because somebody might look at them sometime.

9   When you deliberate, however, regarding your notes,

10   it's your memory of the evidence that's more important, not

11   the notes, but the notes can be helpful. And I permit you to

12   take notes in this particular case.

13   Now, we're going to -- for those of you who may not

14   have seen a trial before, generally here's what's going to

15   happen. The lawyers in just a minute are going to make their

16   opening statements, and the purpose of that is to educate you

17   as to the contentions that is what they contend, and to tell

18   you what evidence they're going to produce that will support

19   those contentions.

20   As I've told you, it's not evidence, just sit back and

21   listen to it, but what the lawyers say is very important

22   because they know what the evidence is going to be. They've

23   lived with it for a year, and they're going to be at the end

24   of the case trying to tell you what this evidence means.

25   So while I say you can't -- what the lawyers say is

10

1   not evidence does not mean it's not important. Listen, they

2   can be helpful. Challenge what they say from the evidence,

3   but in the end, you will make a determination of what you

4   believe the evidence establishes in answering the questions.

5   After the lawyers make their opening statements, then

6   the plaintiff -- in this case, Crossroads, who's filed this

7   lawsuit, they have the burden of convincing you by a

8   preponderance of the evidence, that is, more evidence that

9   establishes something is more likely true than not. They have

10   the burden of proof because they filed the lawsuit. They get

11   to bring their witnesses first.

12   They'll call their witnesses, they'll ask their

13   witness a question. When they're through, then the defense

14   will be able to ask the questions. Then they'll be able to

15   ask what we call a rebuttal question and then they'll call

16   their next witness and we'll go through that until they have

17   called all of their witnesses. And then, it will switch over.

18   The defendant will call the witnesses and the process is

19   reversed.

20   When all of the evidence is in and we will take a

21   short recess, maybe half a day or maybe a day, depends, and it

22   will be my responsibility to write up the legal instructions

23   for you, submit them to the lawyers. They have the right to

24   criticize them and make suggestions, and then, I get them in

25   final form. I bring you back into the courtroom. I will read

11

1   them to you but I also give them to you verbatim in writing.

2   And then, the lawyers make their final statements, and

3   then, you will have the responsibility of deliberation and

4   decision. Now, during the trial, you're not to talk to

5   anybody including each other about the case. So if you go to

6   lunch, which is fine, talk about anything else, but don't talk

7   about anything going on in the case until you've heard all of

8   the evidence.

9   The last witness may be the most important. Don't

10   make up your mind on anything until you've heard all of the

11   evidence and you've been able to deliberate with your fellow

12   jurors after you've looked at the documentary evidence.

13   I don't know if there's going to be any publicity

14   about this case. Fortunately, most of the media think the

15   courtroom's on the fourth floor, so they go to the fourth

16   floor or the second floor. They don't know about my

17   courtroom. That's fine with me. But if something in the

18   paper or something in the news, just ignore it because you

19   don't want to know anything about it. Save the newspaper so

20   that you can read it after the trial is over.

21   But don't try to learn anything about the case through

22   media. Now, the rule has been invoked in this case which

23   means that the par Is have agree had the witnesses will not

24   speak to each other about their own testimony and, of course,

25   will not hear the testimony of each witness. So as each

12

1   witness comes in, they will testify and the other witnesses

2   will not know exactly what they have said.

3   Now, this is a patents infringement case, and I will

4   be instructing you at the end of the case, but let me just

5   tell you generally a little bit about what happens. A person

6   who has something that he believes that a patent will make a

7   patent application to the patents office in Washington and

8   they study it and after a period of time of investigation,

9   they will either grant or not grant a patent.

10   In this particular case, a patent was granted to

11   Crossroads systems. Now, that patent protects in the United

12   States the owner of the patent from anybody producing a

13   product that infringes on that product, and this is what this

14   lawsuit is about. Crossroads contends that Pathlight has

15   infringed on their patent. And they'll explain that in

16   detail.

17   But the law on patents is very complex. For example,

18   juries can determine whether a patent is valid or invalid

19   based on certain criteria based on certain doctrine, which I

20   will, of course, give you instructions on. And the lawyers

21   will explain their contentions to you.

22   So you'll be listening to a lot of complex testimony

23   in this trial. Don't worry about getting confused or not

24   understanding. These are good lawyers. Be patient with them.

25   You will find that it will be a very, very interesting case.

13

1   Just stay with it. It is a lot more complex than somebody

2   running a red light, but we try these cases all the time in

3   federal court and juries, just like yourself, listen to the

4   evidence and make those determinations.

5   So just have patience, listen to the lawyers and

6   listen to the evidence, and I don't think you'll have any

7   problems at all. All right. Mr. Alcock, you have the

8   lectern.

9   MR. ALCOTT: Thank you, your Honor. May it please the

10   Court, counsel.

11   Members of the jury, I like to say that every case can

12   be summarized in just a few words. And this case is no

13   different. This case is about invention and infringement,

14   about inventors and infringers. I'm privileged to stand

15   before you representing Crossroads. We have the invention.

16   The defendant, Pathlight, we will prove to you,

17   infringes our patent. Crossroads got a patent from the United

18   States Patent Office on August 24th, 1999. Less than four

19   months later, on November 15th, 1999, the chief engineer from

20   the defendant uncovered that patent, and the minute he

21   uncovered that patent, he realized all their products were at

22   risk of infringing it.

23   So what he did was immediately notify his boss, upper

24   level management at the defendant, and he immediately notified

25   the company patent lawyer. Upper level management appreciated

14

1   the risk, but they knew that they needed that patented

2   invention in order to sell their products. Indeed, it was an

3   absolute necessity for them to sell their products.

4   So they took a gamble. Instead of calling Crossroads

5   and asking for permission in the form of a license to use the

6   patented invention, they went ahead and built products using

7   it, products that got them revenue of millions of dollars.

8   They lost the gamble. Crossroads found out about the sales of

9   infringing products and filed this case. And that's why we're

10   here.

11   And we will prove to you that the products that they

12   sold infringed our patent. This is my opportunity to go over

13   the evidence that you'll hear in this case. I'd like to

14   organize it sort of like in chapters, and so there will be

15   four chapters to my discussion. First, I'll take talk a

16   little about the parties starting with Crossroads and then

17   talking about the defendant, Pathlight.

18   I'll then spend a fair amount of time talking about

19   Crossroads's patented invention. Then, I'll turn to

20   Pathlight's products and fill out the story that I just gave

21   you a moment ago. And then, lastly, I will talk about damages

22   and in this case, in a patent case, that's reasonable

23   compensation for the defendant's use of my client's property.

24   Crossroads is an amazing company. It started in 1994.

25   Brian Smith, who's sitting at the table, you've already met,

15

1   and Dale Quisenberry, who you will meet, started the company.

2   They started it as a consulting company. They weren't sure

3   quite what they were going to do. Of a while, they determined

4   that they thought they could build a product and they came up

5   with a product, a product called a storage router.

6   I'll explain that more in a little while. But they

7   hired two brilliant engineers to help with that -- to come up

8   with that product, Geoff Hoese and Jeff Russell. You'll hear

9   from them today and maybe tomorrow. And they came up with

10   more than a product. They came up with an invention and

11   that's what brings us here.

12   I'll describe the invention in some detail in a few

13   moments, after I give you some background on the network that

14   the invention generally involves. But right now, I want to

15   bring you two words. Five years from now, ten years from now,

16   if anyone asks you what your jury service was about here in

17   this federal courthouse for this week, you'll be able to

18   answer them using two words: Access controls.

19   This is a key part of the invention that Geoff Hoese

20   and Jeff Russell came up with. And I'll return to that in

21   more detail in a minute. But as I told you, I give you a

22   little background before I describe the invention. That's

23   what I'm going to do now.

24   Now for some people, problems are bad things. For

25   other things, problems are opportunities. Crossroads saw a

16

1   problem as an opportunity. The picture before you shows a

2   common situation in the modern world. Computers are networked

3   one with another. People need to communicate and share

4   information by computers.

5   But, also, sometimes where they need to get that

6   information from is some distance away from the computers that

7   they're working with. So in this picture, we have a number of

8   people working together in one building with the computers

9   networked together, and the storage that they need to get

10   information is a little distance away.

11   This is pretty much the picture of the world when

12   Brian Smith and Dale Quisenberry struck out to form

13   Crossroads. And before the Crossroads invention, this is

14   essentially how that problem was solved. There were things

15   called network servers and these still are commonly used.

16   Crossroads hasn't replaced this.

17   And on the one side are those computers, and at the

18   time that Brian Smith and Dale Quisenberry struck out, this

19   Fibre Channel stuff that you'll hear a lot about and that you

20   know is used a lot today wasn't really sure that it was going

21   to be used that much when they struck out on their own.

22   For now, all you need to know about that and there

23   will be some detailed explanation on Fibre Channel -- is it's

24   a connection between the computers and it's a way they can

25   communicate, a particular language. For the moment, we'll

17

1   call it English.

2   On the other side of the network server in that

3   building that's a little ways away are what's called remote

4   storage. That's memory that these computers need to get to

5   and get information from, and there's something called SCSI on

6   that side of the server. It's called small computer system

7   interface, I'm told, but the word that everybody uses for it

8   is SCSI.

9   Now, all you need to know about that for the moment is

10   that's a different language, sort of like Greek. And so the

11   problem is that the computers on this side of the network

12   server talk one language and the information that they need to

13   get on the other side talks a different language.

14   So you need a translator. And the network server,

15   until Crossroads came along with their product, was the

16   primary way that this translation was done, but there was a

17   problem. The problem is that server is a very slow

18   translator. The computers are asking for information from

19   that remote storage on the other side, and the network server

20   can't keep up with the requests.

21   And we know in the modern world with computers there's

22   a need for speed, and so one of the problems that Crossroads

23   confronted was this problem of slowness. So Crossroads came

24   up with an alternative, something called a storage router. It

25   solved the speed problem. It allowed communication directly

18

1   from these computers on one side to these routers on the other

2   side, and it got the information fairly quickly without the

3   complicated translation involved in the network server.

4   Now, these routers weren't completely new. Crossroads

5   wasn't the first person ever to come up with a storage router.

6   They were one of the first companies, however, to make a

7   commercially viable and successful storage router, and the one

8   that they built initially, as is often the case at the start

9   of an industry, was not a Ferrari, it was not super advanced;

10 it was a basic standard product because they were in it at the

11 beginning of this industry, and it didn't have the invention

12 that brings us here today.

13   Geoff Hoese and Jeff Russell came up with the Ferrari.

14 Crossroads didn't need it when they were introducing product

15 first into the market. So I'll explain that more to you in a

16 minute.

17   So this initial Crossroads product, it's called the

18 4100, was very successful, not because it was fancy but

19 because it was first, and it took that little four-person

20 company here in Austin to a almost 200-employee company, very

21 successful.

22   But as I said, that product didn't have the invention.

23 Geoff Hoese and Jeff Russell came up with something more

24 advanced. And what was it? It came back to those two words I

25 brought you a few moments ago, access controls. Not only

19

1   speed but security.

2   Here are those computers that are on one side of this

3   router. Let's say that computer A is the personnel department

4   and let's say that computer B is the tax or finance

5   department. Now, if you're running a business, you'd kind of

6   like to keep the finance people out of the personnel records

7   and you'd kind of like to keep the personnel people out of the

8   tax records. And that's what access control allows.

9   Here, computer A can get into storage location one,

10   which has personnel files, computer B can get into storage

11   location two that has tax files, and access controls allows

12   both of the computers to get into three, which is the company

13   web site.

14   Before Geoff Hoese and Jeff Russell, no one had built

15   a storage router with the speed advantage, and access controls

16   with the security. So, on December 31, 1997, they filed a

17   patent application. Now, you've heard a little bit from the

18   Court about the patent process and you'll hear more as the

19   trial goes on.

20   The Patent Office was authorized by the constitution.

21   It's been around for over a hundred years. And if you come up

22   with something new, you can apply to the Patent Office and

23   there are technically trained examiners. That's what they're

24   called, examiners, because what they do is they examine. They

25   examine the application to determine if it really is new. And

20

1   if it's not new, they don't grant a patent on it.

2   If it is new, they grant a patent on that which is

3   new, not that which is old. It's sort of like a deed, it

4   marks out the corners of your property, not land in this case,

5   but intellectual property, and it's what you own. And if

6   someone uses your property, they can't do it without your

7   permission or without their payment to you of reasonable

8   compensation.

9   Now, one thing about the Patent Office, there's no

10   patent police at the Patent Office. The Patent Office doesn't

11   enforce patents. The only way to enforce a patent is to come

12   in here, federal court stands exercise your constitutional

13   right to a jury trial and that's what Crossroads is doing in

14   this case.

15   I want to tell you one more thing about patents

16   because it's going to be relevant to a discussion we have in a

17   moment. There's something at the end of a patent called

18   claims. They define the scope of the invention. It's

19   actually pretty simple. It's just a list of elements that

20   define what you own.

21   So if I came up with a new invention, screwdriver, you

22   could get a patent on that, and the patent would -- the claim

23   could say a tool comprising a handle, a shaft, and a tip for

24   engaging a threaded fastener. Patents can't be written in

25   English. They need to be written in some funny way and this

21

1   would be a way that one could describe and claim an invention

2   on a screwdriver.

3   And so when you figure out if someone's infringing a

4   patent, you take that list of elements, you look at the

5   product, and you see whether or not it has the elements. More

6   on that in a minute.

7   This is another figure of the 972 patent. That's what

8   we're going to call the patent that has seven numbers to it,

9   but it's commonly referred to as the last three numbers. And

10   this is a more complicated picture, but it shows the

11   invention. It shows the work stations or computers on one

12   side, the storage router in the middle, and the remote storage

13   devices on the other side, and it shows that certain of the

14   computers can only access certain of the remote storage or

15   certain parts of the remote storage.

16   And I think I mentioned to you earlier that the

17   product that Crossroads came out with didn't need this

18   invention. They were quick to market. They were able to make

19   a market and make a product without using this.

20   Now, on to the next chapter. While Crossroads didn't

21   use the patented invention, the defendant, Pathlight, did.

22   Pathlight started out with a completely different technology,

23   not something called Fibre Channel, but something called SSA,

24   and it's sort of like beta max and V H S. SSA was beta max.

25   It lasted for a while and then died. And so Pathlight had to

1   get into a different market and so they moved into the Fibre

2   Channel market. But since they were late to the market, they

3   needed something. They need an extra boost. They had to

4   offer an advanced feature. That wasn't already present.

5   You know what that add entranced feature was? Access

6   controls. You don't have to take my word for it. I've put

7   before you the Pathlight web site. The bottom line is access

8   control is an absolute necessity for multi-host sand

9   solutions. What that means is more than one computer (S A N)

10   so let me explain this to you, there's some new language here.

11   San means storage area network. That just means a

12   network with a number of remote storage locations. That is

13   their product. That is a storage router. We will prove that

14   to you. It says the only San product of capable of providing

15   true research sharing, this is accomplished by San gait way's

16   access control features, and there are two of them, channel

17   zoning and optional VPS or virtual private San.

18   VPS is the one that they used initially and you're

19   going to see in their documents quite a lot, but they are both

20   forms of access control. Now, remember I told you at the

21   beginning that a Pathlight engineer found this patent, just

22   found the Crossroads patent, just a few months after the

23   Patent Office granted it?

24   And the upper level management there decided to take a

25   gamble. Let's take a look at what happened. November 15th,

23

1   patent. The day he found it by e-mail, he reported its

2   existence to Mr. Rahmani, upper level management at the

3   defendant Pathlight, and to Mr. Levy, the company patent

4   lawyer.

5   Three days later, upper management acted quickly. Mr.

6   Rahmani sends Mr. Levy an e-mail. We need to get your advice

7   on this matter, that is, the 972 patent, and, also, the

8   clarify our current patents and make sure they are valid and

9   enforceable. I'm not going to tell you much about this part

10   of the story in opening but you're going to hear that not only

11   was the defendant concerned about Crossroads's patent

12   impacting their products, they were concerned that this patent

13   impacted heavily their own intellectual property.

14   They did move fairly quickly. On December 23rd, there

15   was a meeting, the bill for it was on December 29th. There

16   was a meeting at Pathlight with Mr. Levy and with the

17   engineers and at that meeting, Mr. Levy agreed to write an

18   opinion to give them a letter to say it's okay to keep selling

19   the products. They needed that to try to develop a reasonable

20   belief that it was okay for them to keep doing what they were

21   doing.

22   There was no letter in December. There was no letter

23   in January. There was no letter from Mr. Levy in February.

24

25

24

1   The next thing that happened is there's an e-mail from Mr.

2   Rahmani to Mr. Levy at 2:39 in the morning, 2:39 a.m., early

3   on a Friday morning. Could you please let me know when you

4   can get us your report on if Crossroads patent? 2:39 in the

5   morning.

6   What was the sense of urgency? What was going on in

7   January, February and March? Sales. Remember I said VPS was

8   the first access control software that they used and later on,

9   they used another one? They began bundling that software with

10   this San gait way product and with all their other products in

11   or around the end of 1999, the beginning part of 2000.

12   Before that, their products weren't doing too well.

13   After that, they did a lot better. In the month of March --

14   and obviously this was orders taken earlier -- they sold

15   almost two million dollars worth of this product, and it kept

16   going up and up and up. It went down later for reasons that

17   we'll explain later in the trial.

18   Most of these sales were to one customer, IBM. Now,

19   let's see what Pathlight was telling IBM about this access

20   control feature in this time period. November 24th, 1999, a

21   fax, day before Thanksgiving, a fax from the president of

22   Pathlight to a gentleman at IBM. Now, remember the

23   chronology. Nine days before this letter, their chief

24   engineer discovers Crossroads's patent and e-mails around to

25   upper level management.

25

1   What are they doing nine days later? Trying to get

2   IBM to buy their products because they have access controls.

3   We believe it is a competitive necessity for IBM to adopt this

4   new San gate way configuration. And what is that new San gate

5   way configuration? The VPS option, the access controls that

6   we've been talking about.

7   They were right. It was a competitive necessity for

8   them to include these access controls, not for Crossroads

9   because they started the market early, but for Pathlight. We

10   will prove to you that the San gate way with VPS software and

11   with channel zoning software infringes every claim of the 972

12   patent.

13   And here's how we'll prove it. We have a standard

14   Ph.D., who's worked 30 years in the storage routing area.

15   He's gotten their product. He's analyzed it. He's set up a

16   test setup and he's tested it every which way. And you'll

17   hear detailed testimony matching up every element of the claim

18   with an aspect of their product.

19   Now, as the Court said, some of the testimony you're

20   going to hear is a little complicated. This obviously is a

21   little more complicated than the screwdriver that I showed you

22   a few moments ago. We will provide tutorial testimony before

23   we talk about the details of this product so that you all are

24   comfortable with the technology before we get into the details

25   of this claim language and the details of the Pathlight

26

1   product.

2   Let me return to the time line. So you saw the sales

3   skyrocketing during this time period so they did get a letter.

4   They got a letter on April 10th of the year 2000. And you're

5   going to hear a lot about what that letter said and, also,

6   about what it didn't say.

7   One thing it didn't say -- no where in that letter --

8   and it's 25 pages long -- is there a word spoken that any

9   Pathlight product lacks any elements of those claims over

10   there. Not one word said that the Pathlight products don't

11   have all those claim elements.

12   Instead, what it says is that the Patent Office

13   shouldn't have granted the patent, that is, it says that there

14   is prior art available and you're going to hear a lot about

15   this. There's prior art available that invalidates the

16   Crossroads patent, takes aware their property. And you're

17   going to hear some evidence on that and you're going to hear a

18   lot of evidence justifying or trying to justify Mr. Levy's

19   letter.

20   They're going to try to convince you that something

21   called reserve management, an old technology, is the same as

22   what Geoff Hoese and bill Russell came up with. And you're

23   going to evaluate that testimony technically, and we're

24   confident it will become obvious to you that it isn't

25   invalidating.

27

1   To complete the chronology, just a few days after the

2 levy letter, the complaint for this case was filed. Now,

3 there's some evidence that I'm not going to talk with you much

4 about now, but it's very interesting. Three days before Mr.

5 Levy sent a letter to Pathlight saying that the Crossroads

6 patent was invalid, three days, he filed a patent application

7 for Pathlight on if VPS access control for Pathlight.

8   And he told the Patent Office that that wasn't old.

9 We'll hear more about that later. I told you there's going to

10 be some evidence on this reserve management, and I'm not going

11 to go into great detail on it right now, but as you hear the

12 testimony on whether or not this old technology reserve

13 management really is what Geoff Hoese and Jeff Russell came up

14 with, ask yourself the question whether or not there are

15 multiple conditions where this reserve management doesn't keep

16 people out, doesn't provide the access control that the cross

17 roads invention does.

18   So I now have covered the first three topics. We've

19 talked about the parties. We've talked about, at some length,

20 the Crossroads patented technology, and I've talked about the

21 San gate way product and how those products infringe the

22 Crossroads patent.

23   Now I just want to spend a moment on damages at the

24 end of the case, you will be asked to determine what is

25 reasonable compensation for Pathlight, who is a competitor of

28

1   Crossroads, for Pathlight's use of Crossroads's patented

2   technology. And the form of damages that are presented here

3   to you in this case are a royalty that is a portion of the

4   revenue that they obtained through, we will prove to you, the

5   use of the Crossroads patented invention.

6   These products sold for around $6,000 per unit, and we

7   will be asking you for a royalty on the order of $1500 to

8    $1800 per unit. Their profit margin was close to 60 percent

9   of these sales. So we will be asking you for a portion of the

10   profit that they achieved through what we believe is the use

11   of the Crossroads invention.

12   Now, there may be some argument and evidence as to

13   whether or not the access controls contributed to these sales.

14   I think Pathlight has given us the answer to that in their own

15   documents. Thank you for your attention at the close of the

16   evidence, I will ask you to render a just verdict in this case

17   which we believe will be a verdict for my client. Thank you

18   very much.

19   THE COURT: Mr. Bahler do you wish to make an opening

20   statement at this time?

21   THE COURT: Yes, sir, I do. I need a minute to set

22   up.

23   THE COURT: Members of the jury, I give you a short

24   break. Have time to use the facilities if you do. But short

25   break. Let's try to keep it under ten minutes.

29

1   (Jury not present.)

2   THE COURT: All right. We're in recess for ten

3 minutes. Mr. Bahler, you ready?

4   MR. BAHLER: Yes, your Honor.

5   MR. BAHLER: All right. Bring the jury in.

6   (Jury present.)

7   THE COURT: Mr. Bahler, you have the courtroom.

8   MR. BAHLER: Play it please the Court, counsel.

9   Good morning. I'm Dave Bahler and I am proud in this

10 case to represent Pathlight. Now, Pathlight has been sued

11 here phone patent infringement, an access that Pathlight takes

12 very seriously. It's a very serious accusation. Crossroads

13 is trying to prevent Pathlight from competing with Crossroads

14 in the marketplace.

15   This lawsuit has hurt Pathlight's reputation and

16 business. Fortunately, you have the power to end this

17 injustice by finding in favor of Pathlight. Now, the Judge

18 touched on the order of evidence when he gave you your

19 instructions. I want you to keep that in mind.

20   The law states that the plaintiff in this case,

21 Crossroads, gets to go first. They get to go first in every

22 instance. They get to go first not the opening, they get to

23 go first in the presentation of evidence, and in this case,

24 it's likely that you won't get to hear Pathlight's side of the

25 story until same next week.

30

1   There's going to be a big gap between Crossroads's

2   case and Pathlight's case. Wait to hear Pathlight's side of

3   the story because I assure you, members of the jury, there are

4   two sides of this story. This patent should never have been

5   issued and had the Patent Office examiner been aware of all

6   the facts that were necessary for proper issuance, it would

7   not have been.

8   Now, please don't believe for a minute that the act of

9   filing of this lawsuit makes Pathlight guilty of anything.

10 This is America; anybody can file a lawsuit for any reason if

11 you have a typewriter and $25, you can walk into the clerk's

12 office, just behind me down haul, and sue anybody for almost

13 anything.

14   But we have the best legal system in the world, it

15 does indeed permit that. Crossroads is pursuing this case

16 because it can't succeed by fair competition. Crossroads has

17 never had a profitable quarter in its history. They have

18 never made any money. They've lost money at every turn.

19   And they are simply trying to use this case to earn in

20 the courthouse what they have miserably failed to earn in the

21 marketplace. As you will see, Pathlight is not a company that

22 copies other people's products or that has succeeded by

23 stealing ideas and devices from other companies.

24   Pathlight began as three trends with a dream to make

25 the best storage routers in the world. They spent millions

31

1   and millions of dollars developing that product and they do

2   have, indeed, a successful product. Trends) not every patent

3   is valid. As the Judge will instruct you at the end of the

4   evidence, a patentable invention means what a device or method

5   needs to be number one, novel, that means new, never been done

6   before, and number two, non obvious in view of what's called

7   the prior art.

8   Now, Mr. Alcock was kind enough to describe several

9   things to you. Prior art is a term that you will be hearing a

10 lot from Pathlight. Prior art means things that have come

11 before. You can't get a patent if an invention is in the

12 prior art, described by the prior art. What is that in this

13 case? In this case, there are many companies that had

14 products that included Crossroads's invention long before

15 Crossroads had even thought of that.

16   That prior art, members of the jury, invalids these

17 patent claims. In addition, there are several things that

18 Crossroads themselves knew about that invalidated these patent

19 claims. Because the patent application process is

20 confidential and that means that once a patent application is

21 filed, the government is required by law to keep it secret,

22 even away from the public, nobody else including Pathlight can

23 participate in the patent application process.

24   The patent issued in August 1999. Before that date,

25 nobody, nobody in the world except for Crossroads knew about

32

1   what was in that patent application kept for one person, the

2   patent examiner, patent examiner knew and he was relying upon

3   Crossroads to tell him what he needed to know.

4   The examiners -- the law recognizes that patent

5   examiners are at some what of a disadvantage. They have to do

6   a lot of work. There's a lot of patent filings in the United

7   States. Over 100,000 patent applications a year are filed in

8   the United States and they are all carefully examined by the

9   Patent Office.

10   But the crush of that business makes their job less

11   than perfect. And so the law places upon patent applicants,

12   in this case, Crossroads, what's called a duty of disclosure.

13   You are required when applying for the pressure right of a

14   patent to tell the Patent Office everything that you know

15   about that may be considered important by the Patent Office in

16   determining whether or not to allow you a patent.

17   This Crossroads did not do. As Judge Sparks will

18   instruct you, when a patent applicant intentionally with holds

19   information from the Patent Office, as in this case, the

20   patent -- the prior art renders that patent unenforceable.

21   That means it cannot be enforced against anyone, not against

22   Pathlight, not against you, not against me, not against

23   anybody.

24   Now, one of the key issues in the case is whether the

25   claims and Mr. Alcock described the claims in the patent,

33

1   describe an invention which when compared to the prior art was

2   -- whether or not that was unknown to the examiner. That the

3   evidence will show the 972 patent is, indeed, described by the

4   prior art, or, at the very least, the differences between the

5   prior art and the patent are so trivial that it would have

6   been obvious to somebody who -- to a skilled computer engineer

7   to make the invention based upon what case Ted in the prior

8   art.

9   Mr. Alcock pointed out everything in those claims

10 existed) -- let me set it up again. He pointed to you claim

11 1. This is claim 1 of the 972 patent we'll be talking a lot

12 object this. He pointed to -- what did he pick out in here

13 that was new? What did he pick out of here that was the real

14 invention? It's real here, access control.

15   Where is it? Let me see if I can find it. It's right

16 here. Right there. Two words, and you know what, the

17 evidence will show that every other piece of this, every

18 single piece of this, all of it is old, every piece with the

19 possible exception of access control and, indeed, even that

20 was old.

21   Members of the jury, if you were to find it in your

22 heart to find this patent invalid at the end of the day next

23 week, you wouldn't be the first person to do that. Mr. Alcock

24 mentioned Mr. Mark levy did exactly the same thing. Mark levy

25 is a highly skilled patent attorney with a degree in physics

1   and patent law, and he looked at the patent as Mr. Alcock

2   described, and concluded independently that that patent was

3   invalid. He's already done this job.

4   You will also hear from an expert witness, fella named

5   Gary Stevens, who is highly skilled engineer, and he

6   participates in standard study committees, he acts as a

7   consultant in the Fibre Channel and SCSI industry and he has

8   come to exactly the staple conclusion as Mr. Levy, that indeed

9   this patent is invalid.

10   The evidence will also show as I mentioned the

11   Crossroads knew about prior art more relevant, more important,

12   more critical, more material than that considered by the

13   examiner. Crossroads's failure to disclose such prior art is

14   a clearly independent basis to find the patent can't be

15   enforced against Pathlight.

16   Prior art is one basis, unenforceability because

17   Crossroads didn't tell the Patent Office everything they

18   should have known is a completely independent basis. I

19   touched on the Patent Office just a second ago. Now, the

20   Patent Office, like -- isn't perfect, as I mentioned. They

21   try to do the best job that they can, but the law provides a

22   safety net, and that safety net, in fact, provides for a

23   second Patent Office. The first Patent Office is in

24   Washington, D.C. and the second Patent Office is sitting right

25   in front of you, you, the members of the jury. You get to

35

1   look at the evidence and to decide whether or not the patent

2   was issued legitimately. That's your power, that's your right

3   under the law.

4   Now, Pathlight will explain to you what you need to be

5   watching and listening for during the testimony so you can

6   decide for yourself whether Pathlight has, indeed, done

7   anything wrong. And we will prove that the Patent Office

8   never should have issued this patent, ever.

9   Now, before I get started on this, I'd like to just

10   tell you just a little bit about the Patent Office. The

11   Patent Office is perceived by many to be a pillared marble

12   bidding sitting on a pillar in Washington, D.C.. In fact,

13   it's a building -- it's not even Washington, it's in Virginia,

14   it's in rented space and it's actually several buildings.

15   It's just across, just right next to Ronald Regan court on the

16   west side of the Patoma River.

17   It doesn't have one single marble pillar, not one.

18   And there aren't inside of the Patent Office, there aren't a

19   bunch of scientists in white coats running around with test

20   tubes and bikers and micro scopes, microscopically examining

21   people's inventions and looking at models of inventions with

22   magnifying glasses.

23   Indeed the Patent Office is a bunch of offices and in

24   those offices are patent examiners and what they have to look

25   at is paper, lots and lots of paper. That's all they have at

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1   their disposal. They don't have technical equipment, they

2   don't have anything that would permit them to assess whether

3   or not inventions are patentable other than paper.

4   And that is why, members of the jury, it is so

5   critical that when patent applicants apply for patents, they

6   come clean, they tell the Patent Office what they know about

7   it, what they know about it so that the Patent Office doesn't

8   have to -- because the Patent Office certainly could miss

9   manage in that mountain of paper. (Miss something).

10   In this particular case, the evidence will show that

11   the Patent Office did not have all that they needed to do a

12   good job. They did not have what you, the second Patent

13   Office, will have, and they did not have what Crossroads

14   themselves knew about and withheld from the Patent Office.

15   Moving on to Pathlight, the evidence will show that

16   Pathlight has done nothing wrong and owes Crossroads nothing.

17   On the outside, Pathlight has acted responsibly, fairly and

18   ethically. When they dropped their product, they never copied

19   one sentence, one iota from the 972 patent. Their product was

20   developed and completed by the time the 972 patent even issued

21   in August 1999.

22   In addition, they never looked at or considered any of

23   Crossroads's products. They never copied anything at all.

24   They developed their own products and these products were, in

25   fact, much better than what Crossroads was producing.

37

1   Crossroads's patent is invalid because Crossroads broke the

2   rules.

3   First, as I mentioned, the patent is invalid because

4   it's old. Somebody's done it before. The evidence will show

5   that several companies have built product that did exactly

6   what Crossroads's patent did. Exactly. And long before

7   Crossroads had ever even thought of their invention. Second,

8   Crossroads did not fell the Patent Office everything that they

9   knew and that is a fundamental requirement when dealing with

10   the patent office in order to get this precious and powerful

11   right of a patent. And third, the evidence will show that

12   Crossroads's patent is extremely unclear. The issue of access

13   controls is simply one example, what does that mean.

14   It's so unclear that it is not possible, members of

15   the jury, to figure out exactly what the patent covers. And

16   in that case, one of the fundamental requirements of a patent

17   is to let the public know what it covers. That's a

18   requirement. How else can people like Pathlight or you or I

19   figure out whether products that we want to make fall inside

20   or outside the patent?

21   The burden falls on the patent applicant to come clear

22   -- to make his invention clear so it can be understood by

23   anybody and that was not done in this case. Now, I mentioned

24   three things. Those three different things. Any one of those

25   things if found by you to be in Pathlight's favor, will be

1   sufficient. Any one, any one of those three.

2   However, the evidence will show that all three, all

3   three are there. Pathlight has always done the right thing

4   from the outset and has not done anything that Crossroads says

5   it has. I'd like to tell you a little bit about Pathlight.

6   Pathlight was started in 1994 and was started by three

7   gentlemen, not just two like Crossroads, but three gentlemen.

8   They were all trends. One of whom is Mr. Said Rahmani who

9   will be sitting with me at counsel table. He was one of the

10   founders of Crossroads and you'll be hearing from Mr. Rahmani

11   during the testimony of this case.

12   Now, Mr. Rahmani that will testify that Pathlight

13   successfully designed, developed and sold the computer data

14   storage products since 1995. Mr. Alcock mentioned IBM. The

15   deal was struck between Pathlight and IBM in 1998, 1998. That

16   is at least eight months before Crossroads patent even issued

17   and long before this VPS option was even created.

18   The deal was struck with IBM in 1998. And who did

19   Pathlight compete with in that deal? Crossroads. Before VPS

20   when the products were compared side-by-side, IBM chose

21   Pathlight over Crossroads. IBM's selection of Pathlight for

22   its supplier of those products has nothing to do with this

23   invention, nothing to do whatsoever.

24   You'll also hear from Mr. Terry Keller here. He's

25   sitting back here. Mr. Keller here was the chief architect of

39

1   Pathlight's products and he'll testify about the history of

2   Pathlight's products including the development of the products

3   from -- long before Pathlight or long before Crossroads had

4   thought of their invention to date including all of the parts

5   that are old, all of them.

6   You'll also hear from Mr. Greg press us the. Mr. Greg

7   press us the is the computer programmer who actually

8   programmed VPS. Mr. Press us the has over 20 years experience

9   and Mr. Press us the will testify he wrote the computer

10   programs for Pathlight without ever looking at anything from

11   Crossroads, completely independent.

12   So you'll be hearing from Mr. Rahmani during the case,

13   one of the founders of Pathlight, Mr. Keller, the chief

14   architect of the product that's being accused of infringement

15   and Greg press us the, who worked for Mr. Keller and who

16   actually programmed the computer.

17   Now, Pathlight was started in order to market products

18   for use in the computer data storage market. That's a market

19   that Mr. Rahmani learned about during his years of employment

20   with IBM. Now, before the end of 1995, Pathlight had sold its

21   first product into this market and you'll see evidence about

22   that.

23   Pathlight's patent issued four years later, long after

24   Pathlight started developing their products. This was August

25

1   discovered the Crossroads patent. They did so without any

2   word from Crossroads. Nobody from Crossroads called them,

3   sent them a letter, phone call, nothing.

4   And what did they do? They immediately contacted

5   their patent lawyer. That's exactly what they're supposed to

6   do. That's exactly what the law requires. That's exactly

7   what they did and they did it within days of discovery of the

8   972 patent.

9   Why did they select Mr. Levy? Mr. Levy was a very

10   well-respected or is a very well-respected member of the

11   community and highly skilled patent lawyer. He came highly

12   recommended and indeed, Mr. Levy had been doing patent

13   application work for Pathlight, so he already knew about

14   Pathlight's technology. That wasn't a requirement. He wasn't

15   required to get up to speed.

16   Mr. Levy thoroughly studied the 972 patent and

17   concluded that it wasn't valid because Crossroads wasn't

18   first. Now, as I mentioned earlier, you'll also be hearing

19   from Mr. Levy in this case. And then, without sending a

20   letter, once again, without sending a letter, without phone

21   call, without any communication whatsoever, Crossroads sues

22   Pathlight.

23   Just shoot first and ask questions later. That

24   exactly what happened. That was April of 2000. Crossroads

25   sued Pathlight because Crossroads could not compete in the

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1   market. Pathlight had passed them by with more advanced

2   technology.

3   Although Crossroads sued Pathlight, the evidence will

4   show, as I mentioned, that Crossroads was not the first to

5   make their invention. You listen carefully to the evidence,

6   the evidence clearly shows that several companies made

7   products before Crossroads, and even indeed before Pathlight.

8   And they have exactly the same things that are in the 972

9   patent.

10   So why did the U.S. Patent Office grant this patent at

11   all if Crossroads really wasn't first? Because the U.S.

12   Patent Office didn't know about the devices and products that

13   came before Crossroads. They didn't know about it. Why

14   didn't the Patent Office know? Well, one reason is because

15   Crossroads did not tell them of its own stuff that was prior

16   art.

17   You'll hear testimony that Crossroads's witnesses knew

18   about other companies's products that were first. Crossroads

19   didn't tell the Patent Office. Crossroads knew that because

20   -- Crossroads knew if it told the Patent Office, hey never

21   would have gotten the 972 patent. They never would have gotten

22   the leg up that they have that they think they have now

23   against Pathlight.

24   Now, Mr. Alcock mentioned that the whole point of

25   contention here and I have difficulty disagreeing with this,

42

1   is access control. Boils down to access control. Now, during

2   trial and during, indeed, during Mr. Alcock's opening

3   statement, he brought out that Pathlight's products were

4   advertised as having access controls. Those advertisements,

5   members of the jury, were created in January 1999. That when

6   it started. That's when Pathlight started using the word

7   access control.

8   When did the patent issue? Patent issued in August

9   1999. Pathlight coined that phrase long before the Pathlight

10   patent even -- I'm sorry, long before the Crossroads patent

11   even hit publication, even came out of the Patent Office.

12   And Crossroads will, indeed, as they have during

13   opening, parade documents up and down saying Pathlight has

14   access controls, Pathlight has access controls. Well, first

15   of all, if Pathlight used those terms before the patent even

16   issued, could they have been using it differently? Indeed,

17   that's the case. That is the very case here.

18   While the words are the same, Pathlight used those

19   words in their marketing materials, first of all, long before

20   they ever knew about the 972 patent and the way that Pathlight

21   used these words in their marketing materials was completely

22   different than Crossroads now contends access controls means

23   -- now what Crossroads now contends access controls means in

24   their patent.

25   Now, access controls is a concept used in many

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1   She's going to want to drive the car. I know that some of cow

2   have been through this already. I'm not looking forward to

3   it, but it's going to come up. She's going to want to drive

4   my car if her attitude at all remains consistent.

5   And I'm going to have to put rules down. I know.

6   What can I do? I can say, Alex, you will not drive the car

7   unless you ask my permission. That's one. What's the other

8   way? What's another way? I could keep the only keys to the

9   car in my pocket, keep them away from her so she couldn't

10   drive the car, or I could -- a third way would be to buy a

11   garage and to put a padlock -- put the car in the garage and

12   put a padlock on the car. That would be another way.

13   What would be another way? Well, I could drive the

14   car to my relatives up in Cameron, Texas. I could park it in

15   trier Dave way so she doesn't even see the car. Each of those

16   is what? Access control. Each one is access control.

17   (Driveway) but each one is complete think different from the

18   other. They all control access to that car to varying

19   degrees.

20   The evidence will show that Pathlight's access control

21   is much closer to the first one than it is to the last one,

22   locking the car up in Cameron, Texas as Crossroads contends

23   their patent covers.

24

25

1   patent at all. And therefore, Pathlight's products cannot

2   possibly infringe those claims. So there's a fourth one.

3   Number one, the patent is invalid because it's in the prior

4   art. Number two, patent is invalid because it's

5   unenforceable. Crossroads didn't tell the Patent Office

6   everything it needed to know. Number three, the claims of the

7   patent are indefinite. You can't tell what they mean. Number

8   four, Pathlight doesn't infringe. Once again, four

9   independent bases, four independent situations, any one of

10   which, any one of which if proven to your satisfaction means

11   Pathlight owes Crossroads nothing.

12   Indeed, the evidence will show that, indeed, that is

13   exactly the case. Mr. Alcock touched on the issue of damages

14   and he gave you a number -- actually, he didn't give you a

15   number, but he said that Crossroads is going to ask you if you

16   -- if and only if you find that there is infringement and if

17   and only if you find that the patent is valid and Crossroads

18   has asked that you award them what they term to be a, quote,

19   reasonable royalty, and that's 30 percent, 30 percent of the

20. gross selling price of the entire product.

21   Now, Mr. Alcock mentioned that Crossroads sells their

22   product for around $6,000. That's about correct. Do you know

23   how much the VPS option costs? $285. That's what Pathlight

24

25

45

1   charges for that VPS option. That's what Pathlight charges

2   for what it calls access control.

3   Thirty percent would be about a -- thirty percent of

4   the gross selling price, members of the jury, would be about 6

5   or 700 percent reasonable royalty and that on its face is

6   completely unreasonable. In addition, I mentioned the entire

7   product. Let's look at it again.

8   Pathlight's entire product is -- it is undisputed that

9   every single element, every single piece of this claim is in

10   the prior art. Every single piece. None of this is new.

11   None of this at all is new. All of this is access control.

12   They want 30 percent for two words, 30 percent for two words.

13   If you look at the lines of programming code, there

14   are almost 300 lines of programming code in the Pathlight

15   product. How many lines are dedicated to VPS? 3,000. That's

16   one percent, one percent of the programming code that goes

17   into the product is for VPS, which is the portion of the

18   product that Pathlight or that Crossroads is contending

19   infringes.

20   That is perhaps the most outrageous part of this case.

21   So Pathlight owes Crossroads nothing because Crossroads was

22   not first because the Crossroads patent was not clear because

23   the Crossroads patent is unenforceable because Crossroads

24   didn't tell the Patent Office everything it needed to know and

25   that Crossroads's patent is not infringed by the Pathlight

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1   product.

2   On behalf of Pathlight, I'd like to thank you in

3   advance for your attention and patience during the next week

4   or so. All that Pathlight's asked is that you be fair and

5   listen to all the evidence including Pathlight's evidence that

6   comes in next week before making your decision. Don't let

7   Pathlight break the rules yet again and use this courtroom to

8   get an advantage that it can't get in the marketplace. Thank

9   you.

10   THE COURT: Turn the lectern around, do we have to

11   disconnect it in any way, shape or form?

12   MR. ALCOCK: We may need to move some cords and some

13   --

14   THE COURT: All right, members of the jury, I'll give

15   you a short break while we get the courtroom ready for the

16   trial.

17   (Jury not present.)

18   THE COURT: Is there a resolve on experts?

19   MR. ALBRIGHT: Yes, sir. They'll be allowed to say in

20   the courtroom.

21   THE COURT: Is that satisfactory with you, Mr. Bahler?

22   MR. BAHLER: Yes, your Honor.

23   THE COURT: You may call your first witness.

24   MR. ALBRIGHT: Your Honor, Crossroads would call Mr.

25   Brian Smith.

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1   THE COURT: Come forward, please. Ms. Sims will

2   administer an oath to you.

3   (Witness was sworn.)

4   THE COURT: Step right up here, please. If you'd

5   state your full name and spell your last, please.

6   THE WITNESS: Brian Rutledge Smith, S M I T H.

7   DIRECT EXAMINATION

8   BY MR. ALBRIGHT:

9   Q. Mr. Smith, can you introduce yourself to the jury, please?

10   A. My name is Brian Smith and I am the founder and chairman

11   and CEO of Crossroads Systems.

12   Q. Mr. Smith, would you tell the jury your educational

13   background?

14   A. I have an undergraduate degree in electrical engineering

15   from the university of Cincinnati and a graduate degree in

16   electrical engineering from Purdue University.

17   Q. And just briefly what your work background was in the

18   early '90s.

19   A. While at the University of Cincinnati, I worked my way

20   through undergraduate school while working for IBM. I went to

21   work for them full-time after Purdue University, graduate

22   school, which I went to directly after undergraduate and

23   worked for them approximately seven years in total.

24   Q. Would you tell the jury what you were working on while you

25   were working with IBM?

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1   A.   I worked on number of development projects.   I was in

2   engineering.   I'd developed hardware and software products

3   both in the New York operations, as well as here in Austin,

4   for about three years.

5   Q.   And in around 1992 or 1993, you met Mr. Dale Quisenberry?

6   A.   That's correct.

7   Q.   And what effect did that have on your life?

8   A.   Dale eventually became the cofounder of Crossroads with

9   me, and we had many discussions in that time frame about what

10 business opportunities we might look at.

11 Q.   Would you tell the jury very briefly of the transition

12 from when you were at IBM to moving into the consulting and

13 Fibre Channel industry?

14 A.   I spent three years, as I said, here in Austin working on

15 the beginnings of what was called Fibre Channel.   At that

16 time, it was brand new, not yet a standard discussion amongst

17 the industry about disciplines about what it could be and I

18 worked on --

19 Q.   Let me stop -- why don't you tell the jury what fiber

20 channel is?

21 A.   Fiber channel is an agreed-upon standard amongst a number

22 of companies that work in the computer business, for instance,

23 Hewlett Packard or Compaq or Del might be examples of those

24 kind of companies, and they agree on a way to build a standard

25 that would enable networking of computer information as you

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1   were shown earlier in the diagrams.

2   Q. And what were you working on while you were with IBM?

3   A. I worked on a number of projects. The time I was in New

4   York, I worked on technology called Escon, technology for DBI,

5   which were both networking technologies. And when I came to

6   Austin, we began to work on the -- what became the standard

7   Fibre Channel, we worked on software products.

8   Q. I want you to take a minute, take a deep breath, and we're

9   going to slow down just so you don't kill the Court Reporter

10   by talking as fast as you're talking. Okay. So we're in or

11   around the 1994 time period. You decided to leave IBM and you

12   start doing consulting, correct?

13   A. That's correct.

14   Q. And just thumbnail sketch to the jury slowly about kind of

15   a consulting work that you and Mr. Quisenberry started.

16   A. Since I had the opportunity to work on Fibre Channel for

17   about three years, there were a number of industry companies

18   that had not been working on Fibre Channel yet and they needed

19   my expertise, and so, we offered that expertise to help them

20   develop their products.

21   Q. Okay.

22   A. We had worked on other things, but purely consulting from

23   the development point of view and even some market kind of

24   analysis work.

25   Q. And at some point, you decided that there might be a

1   market for a product called a storage router, correct?

2   A. Correct. We were developing our consulting business. We

3   realized that it was going to be hard to scale it up.

4   Basically, our assets, got into our cars at night and drive

5   home, and we needed to build a business that could scale much

6   better than that.

7   Q. You heard Mr. Alcock describe, basically, what a storage

8   router does is translating Greek from English or vice versa.

9   Would you give the jury a little understanding what a storage

10   router does?

11   A. It's a great way to think about it. Essentially, on one

12   side of the router is one computer language and on the other

13   side is another computer language, and there are some needs to

14   translate between them very rapidly. And a number of

15   companies have invested in technologies that are old like

16   SCSI. You want to move to new technologies like Fibre Channel

17   and so router enables them to do that to preserve their

18   investments or to have some advantages with applications that

19   are out there.

20   Q. If I can figure out how to make this wand work, I'm going

21   to show a graphic and have you explain to the Court basically

22   the problem you were trying to address in this time period.

23   If you would -- does the monitor show what the jury is looking

24   at?

25   A. I can see it, yes.

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1   Q.   Would you basically explain what the jury is looking at

2   this point?

3   A.   On the left-hand side is a facility with a number of

4   computers in it.   The campus of a typical Fortune 1,000

5   company.   On the right-hand side this IT department has

6   decided to keep its information disk storage devices in

7   another building, and the problem is that there's a lot of

8   distance between them, and technologies prior to Fibre Channel

9   could not connect the two together over a large distance.   And

10 so we had an interest in helping them to design their data

11 centers so that they could connect the two together.

12 Q.   Let me show you the jury a different graphic.   Would you

13 explain to the jury what a SCSI bus is and how it's relevant

14 to what you just discussed?

15 A.   Here, there are -- it's showing a connection between a

16 computer on the left and a storage device on the right being

17 connected by a -- what's called a SCSI cable, has 68 wires in

18 it and SCSI limits that distance to 25 meters or about 25

19 yards.   And in a typical enterprise application today, you can

20 only go about six meters or about 18 feet, and that severely

21 constrains the way that a storage device and a set of

22 computers can be interconnected to one another.

23 Q.   Okay.   So one of the features of fiber channel addresses

24 is the distance issue?

25 A.   That's correct.

52

1   Q.   There was another issue that was addressed, though, with

2   regard to speed by Fibre Channel, correct?

3   A.   Correct. In this picture, there's a network of servers on

4   the left that want to have access, common access to

5   information. And before our products were invented, there had

6   to be a network server in between those described earlier.

7   Q.   And what did Fibre Channel and storage routers do to

8   address that problem?

9   A.   We enabled the devices on the right, the SCSI, in this

10   case, the SCSI disk drives to be connected to the network of

11   fiber channel on the left where multiple servers could have

12   access then to those storage devices.

13   Q.   I'm going to get back to talking a little bit more about

14   you and how Crossroads began. I take it there was some risk

15   when you left IBM?

16   A.   There was indeed.

17   Q.   And you decided to leave IBM because?

18   A.   I was convinced that Fibre Channel was a very good

19   technology, that it could solve real world customer problems,

20   and that with IBM moving away from it at the time that that

21   didn't make sense to me and I wanted to go invest in building

22   products for customers with that technology.

23   Q.   Would you say there was universal agreement back in 1995

24   and 1996 when you took the risk of leaving IBM that Fibre

25   Channel was the way to go?

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1   A.   It was clearly very risky. There were other standards out

2   there that was mentioned earlier today, SSA, there were even

3   concepts of hybrids, and so it wasn't clear at all that Fibre

4   Channel would be a winning technology.

5   Q.   In fact, in 1996, isn't it true that there was an effort

6   to derail the Fibre Channel process?

7   A. There were a couple of companies that got together and

8   tried to change the standard rather dramatically and move the

9   industry away from the core of Fibre Channel technology, yes.

10   Q.   What caused you all to persevere?

11   A.   We still believed that it was the right technology as

12   defined. We believe that customers could benefit from it, and

13   we again thought it was the right thing. We were out

14   evangelizing that.

15   Q.   Now, back in the 1996 time period, there were how many

16   people at Crossroads?

17   A.   About six or seven in the early part of year. It grew a

18   couple by the end of the year.

19   Q.   I'd like to talk about three others beside yourself.

20   There's Mr. Dale Quisenberry who the jury is going to meet.

21   What was his just thumbnail sketch, his role at Crossroads?

22   A.   Dale's really responsible for day-to-day operations. He

23   had more business experience and that complemented my

24   technology background.

25   Q.   And two other gentlemen who Mr. Alcock introduced that are

54

1   going to also be witnesses in the case today. Their names are

2   Mr. Hoese and Mr. Russell. Who were they in relationship to

3   Crossroads?

4   A. Geoff Hoese was a gentleman who had a lot of experience in

5   developing software technologies in the past. He had also

6   been a manager. So we hired Jeff to come in and manage and

7   help us develop the software side of our business. And Jeff

8   Russell was also a senior engineer who had hardware

9   experience, and he came in to help us develop the hardware

10   side of our products.

11   Q. You mentioned earlier that you meant to be an evangelist

12   for Fibre Channel. Tell the jury what you meant by that.

13   A. Well, since Fibre Channel was new, there were a lot of

14   companies that we would have -- begin to sell to and therein

15   user who would need to understand what this technology was and

16   part of my job was to communicate the advantages of moving to

17   Fibre Channel as well as convince them that they could put

18   very successful solutions together to sell the customers.

19   Q. On the micro level, what was Brian Smith's role with

20   potential customers in that time period?

21   A. I was out educating on our company. I was out helping

22   investors understand what we were doing so we could receive

23   investment and be able to fund our business. And in general,

24   kind of keep division up for the company, what products do we

25   build and where we should be going.

55

1   Q.   And on a macro level, what was your job at Crossroads?

2   A.   Again, to be out there evangelizing in the industry, help

3   to make sure that people who had questions about Fibre Channel

4   could get them answered and show them why this was a

5   compelling piece of technology.

6   Q.   In the 1996, 1997 time period, during the development of

7   this invention, what was your general role as CEO with the

8   development of or getting patents or protecting patents?

9   A.   I had hired Geoff and Jeff and others to actually develop

10   the products and so my job was to go out and collect customer

11   input and give that back to them so they could build the

12   products that our customers were asking with features they

13   wanted.   And, also, to continue to raise funds so we could

14   fund our business as we grew.

15   Q.   Specifically with respect to the 972 patent, the patent

16   that we're dealing with in this case, what was your role with

17   the 972 patent?

18   A.   I had no specific role other than kind of all the time and

19   regularly encouraging our engineering team that as they

20   thought of new and novel things that could be part of our

21   products or important in our business to go through the

22   process of filing for their invention disclosures.

23   Q.   Do you recall whether or not you saw anything from the

24   Patent Office with respect to this patent?

25   A.   I would have signed documents given to me by our patent

1   attorney requesting the making steps with the Patent Office.

2   That would be about it.

3   Q. On a day-to-day basis, did you have any involvement with

4   the 972 patent?

5   A. I did not.

6   Q. And why didn't you take a more active role in that time

7   period?

8   A. Certainly there were many other things to be done.

9   Raising money, seeing customers. We had -- there were about

10   20 customers at a macro level that we sell to and each of them

11   have multiple divisions. So I was out with our sales force

12   seeing customers and frankly raising money to keep the company

13   alive.

14   Q. I'm about to wrap up, sir, the background of your

15   involvement. I'd like you to give the jury some idea, if you

16   even can, of what Brian Smith invested in the '96 and '97 time

17   period in terms of the hours of your life that you dedicated

18   to building Crossroads and what it is today.

19   A. They were certainly significant. I would say work weeks

20   were 80 hour plus each and every week on planes, each and

21   every week to go see customers, to talk to investors, to work

22   with, you know, the customer base that was out there and it

23   was a significant part of my life.

24   Q. How much would you estimate that Crossroads invested, has

25   invested in creating marketplace in the storage router portion

57

1   of the Fibre Channel industry?

2   A.   Well, all told, we have raised from investors over $100

3   million in building our company and we have had just in the

4   class three years about $75 million of revenue, and so we've

5   invested all of our profits into developing our storage

6   routers and additional marketplaces that we believe are big

7   opportunities for us going forward.

8   Q.   How much would you estimate that Crossroads had invested

9   in developing and protecting its intellectual property, its

10   patents, like the 972 patent?

11   A.   Certainly a significant effort on the engineers who have

12   filed for those. We have invested probably on the order of

13   12, $15,000 per patent disclosure and just countless hours of

14   engineering.

15   Q.   What was the first Crossroads product?

16   A.   The first Crossroads product was what we call today the

17   4100.

18   Q.   And when did Crossroads begin to develop the 4100?

19   A.   We got -- had a vision for that product in the '96 time

20   frame and began to talk to customers in the summer of '96

21   about what it might look like from a feature point of view,

22   and began to get feedback on that product around then.

23   Q.   Were Mr. Hoese and Mr. Russell who we discussed earlier,

24   were they involved in the development of the 4100?

25   A.   Yes, they were.

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1   Q. And by the end of, say, 1996, how far along would you say

2   Crossroads was in the development of that 4100?

3   A. We had an ability to demonstrate a what I call a

4   technology hard wire function at the end of the year which we

5   showed at Comdex in Las Vegas in November. It's a trade show

6   that we go to typically every year. And so not as far as I

7   would have wanted.

8   Q. Now when you tell the jury you have a capacity to show a

9   hard wired model, what do you mean by that?

10   A. We had an ability to very simply translate one sentence,

11   if you will, between Greek and English like how do I go to the

12   bathroom. So we were able to communicate very simply between

13   the Fibre Channel side and the SCSI side.

14   Q. In 1996, would it be more fair to say that you were able

15   to show a product or a concept?

16   A. We showed a concept of technology, piece of hardware and

17   software, had very limited function.

18   Q. I'd like to turn your attention to another company that

19   has a big part in Crossroads's history which is Hewlett

20   Packard. And would you tell the jury what the relationship --

21   when the relationship with Hewlett Packard began with

22   Crossroads?

23   A. Hewlett Packard has multiple divisions. The first group

24   of people we met at Hewlett Packard were in the fall of '96,

25   the Roseville group, and we began to talk to them about that

1   product they were developing called the Mux.

2   Q. Is the Mux or the Hewlett Packard Mux or the HP Mux, is

3   that the same thing as the 4100 you've told the jury about?

4   A. It is not.

5   Q. With respect to Hewlett Packard, did they invest in

6   Crossroads?

7   A. They did in September of '98.

8   Q. And were they a minor or major investor?

9   A. They were the major investor in that round of financing,

10   and as I understand, they still hold their position today.

11   Q. Okay. With respect to them as a customer, are they a

12   substantial or a minor customer of Crossroads'?

13   A. They are a significant customer of ours. They were over

14   ten percent of our revenue in the last quarter.

15   Q. Was it important to Crossroads to latch on to Hewlett

16   Packard as a strategic partner in this time period?

17   A. Indeed it was. We knew that they had a lot of the

18   marketplace for the products in which we wanted to -- the the

19   products they wanted to connect with our products through the

20   network. They had a significant part of the market so they

21   were a big market leader. Certainly Hewlett Packard is a very

22   big computer company, and so they would have validated our

23   technology and our solution. And as an investor, that's just

24   further validation that we were on the right track.

25   Q. Was it fair to say back in '96, 1996 that Hewlett Packard

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1   was a slightly larger entity than Crossroads was?

2   A. Very definitely, still are today.

3   Q. Okay. Now, at one point, or several points, Crossroads

4   entered licenses with HP, correct?

5   A. That's correct.

6   Q. Counsel, I'm going to move for the admission of

7   Plaintiff's Exhibit 39, 40, 41 and it looks to me to be 59.

8   I'm sorry, it could be 54. We have a pretty dark copy here.

9   It is 54, your Honor.

10   MR. BAHLER: No objection, your Honor.

11   THE COURT: All right, 39, 40, 41 and 54 are admitted.

12   Q. (BY MR. ALBRIGHT) Just to run briefly through these, Mr.

13   Smith, I'll represent to you that these are all license

14   agreements with Hewlett Packard, dated May 12, 1997. There's

15   a 4200 license agreement, there's a purchasing agreement in

16   1998, and there's an amendment June 23rd, 2000. Are you

17   familiar with all those documents? ·

18   A. I think so, yes.

19   Q. Okay. Basically, what is it that Crossroads was licensing

20   to Hewlett Packard?

21   A. Well, we were talking to them, they had an interest in

22   taking our technology which today we sell as external boxes.

23   They wanted to put that technology inside their product. And

24   they believed that they could build that product cheaper than

25   we could build it and so they really wanted a license as

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1   opposed to actually buying it from us in their interested form

2   factor so we worked out a deal with they could license or hard

3   work.

4   Q.   Has Crossroads licensed its products to any other entity?

5   A.   Not that I'm aware of.

6   Q.   Would it be fair to say that Hewlett Packard and in your

7   mind set is a competitor or a strategic partner of Crossroads?

8   A.   They're very definitely a strategic partner both

9   investment side and customer side.

10   Q.   Did that relationship go into the figuring out of what the

11   appropriate licensing or license rate would be for Hewlett

12   Packard?

13   A.   Its certainly was a big part of it in the '98 time frame

14   when we would have been talking to them about their potential

15   to be a customer. We would have been interested in their

16   validation of our marketplace, their sales force which is many

17   people who can go out and sell products, and their ability to

18   fund what we were doing.

19   Q.   Turning for a second from Hewlett Packard to Pathlight,

20   would you consider Pathlight to be a competitor or not a

21   competitor?

22   A.   Absolutely a competitor.

23   Q.   As compared for example, a Hewlett Packard and Pathlight,

24   would you tell the jury the differences between those two in

25   your opinion?

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1   A.   Hewlett Packard is a customer of ours that is a strategic

2   partner and Pathlight is someone we compete with on a regular

3   basis and have in the past.

4   Q.   Counsel, I'm going to ask questions from exhibit 42.

5   MR. BAHLER: All right.

6   Q.   (BY MR. ALBRIGHT) Would you tell the jury what this is,

7   please, sir?

8   A.   It appears to be a title description of a analysis of

9   competition.

10 Q.   Okay. Who is that prepared by, what company?

11 A.   There's nothing other than the title on any screen.

12 Q.   Is it Crossroads document? Here, I'll show you one on the

13 next page. If you would look at this page, sir. It is the

14 third page. It has -- fourth page under competitive snapshot

15 of Pathlight.

16 A.   It's a competitive analysis that we had internally that

17 what had a high level outline of the comb pet for.

18 Q.   Who is shown as a comb pet for of yours?

19 A.   Pathlight.

20 Q.   If you would read to the jury that statement about

21 Pathlight, please, sir?

22 A.   Recent news, introduced virtual private San, that provides

23 San administrators with full access control over all available

24 targets and lungs. The second bullet is the Rand capitol Corp

25 of buffalo, increased its investment of Pathlight by 750,000

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1   for a current total of $1,175,000. This figure is expected to

2   grow into an estimated $5 million.

3   Q. Would it be fair to say that at the time this was prepared

4   that Crossroads considered the fact with regard to the virtual

5   private San or the VPS that we talked about that something its

6   competition was doing?

7   A. Yes.

8   Q. It would give them competitive advantage?

9   A. Certainly would.

10   Q. Let's turn to IBM. Back in the 1998 time periods, Mr.

11   Bahler discussed the fact that Pathlight got a contract from

12   IBM. Do you recall the opening argument where he told them

13   that?

14   A. Yes.

15   Q. How much time would you say, time and money would you say

16   Crossroads invested in trying to get IBM as a potential buyer

17   or contractor during that period of time?

18   A. We had an opportunity to bid on their request for product

19   at that time frame, we would have spend hundreds of hours,

20   numbers of people in visiting IBM to educate them on the

21   company, educate them on our product and the time it took to

22   develop the response to that R F P. So hundreds of hours and

23   lots of people and time.

24   Q. What about in 1999?

25   A. We again had another opportunity in 1999 to bid on R F P,

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1   again, the same kinds of effort, hundreds of hours and lot of

2   people and time.

3   Q.   In 1999 is the year that the patent issued, correct?

4   A.   Yes.

5   Q.   Are there any other companies that you considered that

6   you've been in competition with Pathlight to get their

7   business?

8   A.   There are others we compete with. Chaparral, Ado and

9   others.

10   Q.   What about other companys that you've tried to get

11   business from where you've had to compete with Pathlight?

12   A.   We believe that some of the other OEMs that we have

13   opportunities to bid on business with that Pathlight is a

14   competitor there.

15   Q.   Could you give the jury just a couple of examples?

16   A.   We have had opportunities to bid on business for a number

17   of companies including Compaq and Del and sun, those would be

18   examples of places where we would anticipate like competitors

19   like Pathlight to show up.

20   Q.   I want to run briefly through three different topics,

21   first is the Hewlett Packard Mux. You talked a little bit

22   about it. It was a 1996 product. How would you describe the

23   Hewlett Packard Mux in terms of where it was in development as

24   a router?

25   A.   It was very primitive in 1996, when we were introduced to

1   it with Hewlett Packard, and it had more activity from a

2   account point of view than the 100, so in some ways it

3   complemented what we were doing with the 4100 but it was

4   pretty primitive at the time.

5   Q. With respect to negotiations that you had with the company

6   called Clarion?

7   A. Uh-huh.

8   Q. This took place back in 1996, did it not?

9   A. We had meetings with them in '96, yes.

10 Q. Did Crossroads have any products to sell at this time?

11 A. No.

12 Q. What were you trying to sell to Clarion back in 1996?

13 A. It's a common practice of ours in the business when we're

14 looking for new customers and new products to introduce them

15 to our way of thinking about it, get their input on those

16 products, and that's what we did with Clarion. We met with

17 them in the summer of '96, proposed what we thought would be

18 interesting product for them and they gave a feedback to us.

19 Q. Did you sell them any products in 1996?

20 A. No, we did not.

21 Q. Did you ever '96 or to the present sell them any products

22 or deliver any products?

23 A. I don't recall ever selling Clarion any product.

24 Q. And have you ever delivered any product toss Clarion?

25 A. I don't recall us doing that.

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1 Q. Finally, I want to turn to the Comdex demonstration in

2 class Vegas in 1996. Tell the jury just briefly what Comdex

3 is?

4 A. Comdex is a computer trade show where a number of sellers

5 of computer hardware and software can show their products to

6 very concentrated audience. And for us, it was an opportunity

7 to meet with all of our customers in one week. And so we used

8 Comdex as a way to kind of show them what we were thinking

9 would be future products and we also demonstrated a piece of

10 technology that we described earlier, connecting a Fibre

11 Channel network to a storage device.

12 Q. Basically shared a booth with Hewlett Packard, correct?

13 A. I don't recall what we did. We were involved as I think I

14 remember with the industry association.

15 Q. Okay. Now, when you say you showed a product in 1996,

16 tell the jury what that product was?

17 A. We would certainly not call it a product inside

18 Crossroads. It was really a piece of technology that we had

19 dropped that was a precursor to what was hopefully someday

20 become our product line that we started with the 4100.

21 Q. Could that product that you showed in 1996 do any of the

22 things we've been talking about today in terms of the access

23 control that's in the 972 patent?

24 A. Not as I understand access controls but it was a very

25 simple hard wired piece of technology.

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1   Q.   Or just from the description you heard Mr. Alcock and Mr.

2   Bahler give this morning of what access controls are, would it

3   have been able to do any of that in '96?

4   A.   No.

5   Q.   Let me wrap up with just a few things. Tell the jury how

6   important intellectual property is to a young company. Think

7   back to 1996, '97 and tell the jury how important these --

8   this patent and other intellectual property was?

9   A.   It was very important to us. We believe it was a way for

10   us to protect the things that we were designing and inventing.

11   It was important for us investors to know that they could

12   invest in something that had value and so they often asked us

13   how the patent application's going, how many patents did we

14   file. So it was a very core piece of the culture at

15   Crossroads.

16   Q.   Was it ever brought up at board meetings?

17   A.   We discussed it regularly how many had been filed since

18   the board meeting, it's been a topic of conversation since the

19   earliest board meetings.

20   Q.   Did it make any difference to investors or potential

21   investors whether or not you were able to get intellectual

22   property and protect it?

23   A.   I think it was very important.

24   Q.   And why?

25   A.   That was a way for them to understand that they had an

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1   asset, protectable asset in Crossroads and that gave them

2   reasons to make further investments.

3   Q. Has Crossroads ever had any kind of incentive plan for

4   folks could develop intellectual property?

5   A. We do it's a common practice in our field to encourage

6   engineers to file patent applications and so we have in the

7   past given a thousands dollars to award -- awarding to

8   employee who's file patent disclosures that make it through

9   the process and then some additional awards on the back end.

10   Q. If the patent is --

11   A. If it's issued, yes.

12   Q. Who is it at Crossroads that you, Brian Smith, as the CEO,

13   count on to take care of protecting your --

14   A. It's really the responsibility of the engineering group to

15   work amongst the engineering team am when they discover novel

16   idea toss get them filed in the process. So we really look at

17   the management team in engineering to run that process.

18   Q. And in the '96-'97 time period, who was that.

19   engineering/management team?

20   A. It was Geoff Hoese as the manager, if you will, of the

21   software effort. Jeff had a great appreciation for the value

22   of patents, had done the process himself prior to coming to

23   Crossroads and so he was a great leader in that area.

24   Q. Okay. Finally, Mr. Smith, before I sit down, in 1996,

25

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1   Crossroads to get the protection of the patent in place or to

2   implement the patent in a product and get the product up for

3   sale?

4   A.   Our number one priority is to protect our intellectual

5   property and inventions that we have and so we encourage our

6   engineering team to file for patent protection and then, as we

7   introduce those ideas under non disclose your to our customers

8   we prioritize the features that they're interested in and go

9   off according to that priority.

10   Q.   And is that what you did in this case?

11   A.   That is what we did in this case.

12   Q.   Thank you, sir. Pass the witness.

13   MR. BAHLER: Could I have just a second to set up,

14   your Honor?

15   CROSS-EXAMINATION

16   BY MR. BAHLER:

17   Q.   Morning, Mr. Smith.

18   A.   Morning.

19   Q.   Mr. Smith, how many shares of Crossroads do you own

20   personally?

21   A.   I don't know the exact number, but about 13 percent of the

22   company? About 13 percent.

23   Q.   About how many shares -- what's the market capitalization?

24   A.   Varies from day-to-day, but 180 million let's say.

25   Q.   So it's about $20 million?

70

1   A.   Uh-huh.

2   Q.   All right.   Now, Mr. Smith, Crossroads issues press

3   releases periodically, correct?

4   A.   That's correct.

5   Q.   And if Crossroads wins this case, it's going to issue a

6   press release, right?

7   A.   It's our duty as a public company to disclose significant

8   events, yes.

9   Q.   And when that press release hits the wire, your stock's

10   going to go way up?

11   A.   I have no idea.   The market's been difficult to predict

12   lately.

13   Q.   You expect that to happen, don't you?

14   A.   I'm not sure.

15   Q.   Now, Mr. Smith, you mentioned Comdex 1996 and you

16   described briefly what Comdex 1996 but I'd like to cover that

17   in just little more detail.   First of all, it's a trade show

18   in Las Vegas?

19   A.   That's correct?

20   Q.   And it happened in November 1996, right?

21   A.   Yes.

22   Q.   And it's a trade show that anybody in the world can come

23   to, right?

24   A.   Yes.

25   Q.   Now, I've heard reports -- I've read reports that Comdex

71

1   1996 attracted some 200,000 people. Is does that sound out of

2   line to you?

3   A. On the order, yes, I'm sure.

4   Q. And Crossroads was there, right?

5   A. That's correct.

6   Q. And they had this what you called a technology review.

7   What did you call it?

8   A. Technology demonstration.

9   Q. Technology demonstration. And that was of the 4100 card,

10   right?

11   A. That's not true.

12   Q. All right, sir. You had the 4100 card literature there,

13   right?

14   A. We had a demonstration of some technology and some

15   documents describing what we hope to have someday.

16   Q. All right, sir. Mr. Smith, also Comdex 1996, you were in

17   a booth with Hewlett Packard, right?

18   A. We were as I remember there with what's called the Fibre

19   Channel industry association.

20   Q. Fibre Channel community?

21   A. That could be the right -- I forget the exact term.

22   Q. All right, sir. And that was a room at Comdex that was

23   open the public?

24   A. That's correct.

25   Q. And this technology demonstration that you mentioned was

72

1   open to the public, too, right?

2   A.   Yes.

3   Q.   And it was in that room, right?

4   A.   It was.

5   Q.   Okay. And what I'm putting on the board here is a copy of

6   the claims of the patent that's in this case, the 972 patent.

7   Let me see if I can get there on your screen so you can see

8   it. Can you see it, sir?

9   A.   Yes.

10   Q.   Specifically, I'd like you to focus on claim 1.

11   A.   Okay.

12   Q.   Now, the technology demonstration at Comdex 1996, in that

13   room that was open to the public, it had a buffer, right?

14   A.   I don't recall the specifics of it.

15   Q.   It had a Fibre Channel controller, right?

16   A.   It did.

17   Q.   Had a SCSI controller, right?

18   A.   It did.

19   Q.   And it had a supervisor unit, right? Had a micro

20   processor?

21   A.   It did, yes.

22   Q.   And you mentioned that there was connecting Fibre Channel

23   describe vices on one side, SCSI storage devices on the other

24   sides?

25   A.   As I recall, it was one computer, one server talking to

1   one storage device.

2   Q. All right. And was there any -- how many devices were

3   connected to the server?

4   A. The server was only connected to the router.

5   Q. All right.

6   A. Or the prototype.

7   Q. What was it serving?

8   A. The storage device had images on it and we were showing

9   those images being displayed on the screen of the computer.

10   Q. All right. So it had a Fibre Channel host, right?

11   A. It had a Fibre Channel host, yes.

12   Q. And it had SCSI storage device, right?

13   A. It did.

14   Q. All right. And in order to permit the Fibre Channel hose

15   to talk to the SCSI storage device, there had to be some

16   mapping between nose to, right?

17   A. Its was a hard wired technology.

18   Q. But it was mapping sufficiently to permit the Fibre

19   Channel hose to communicate with the SCSI storage device,

20   right?

21   A. Right. That hard wire ability, yes.

22   Q. And it was using -- what was the protocol on the Fibre

23   Channel side? Fiber channel protocol, is that a term you're

24   familiar with?

25   A. Could have been used. I don't know what specifically was

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1   being used on that demonstration.

2   Q. Well, was there any high level server protocols in that

3   network like Mr. Alcock talked about during his opening

4   statement?

5   A. I don't really know.

6   Q. Don't know?

7   A. I didn't develop think of that technology.

8   Q. Okay. All right, sir. I'd like to refer you to

9   Defendant's Exhibit 113. Do you see that, sir?

10   A. Yes.

11   Q. All right. Let me just pull it down. First of all it

12   says dated 11-96. Do you see in the much per left hand Corp?

13   A. I do.

14   Q. Fibre Channel to SCSI router, correct?

15   A. That's what it says.

16   Q. And this was distribute Todd the public at comments 1996,

17   right?

18   A. I'm not sure what the final document was there, but this

19   could have been that.

20   Q. Well, something this or something like it was district

21   Todd the public there, right?

22   A. I believe so.

23   Q. And how many versions of this did you have?

24   A. There would have been some we edited before going, I'm

25   sure, but the only one would have been shown.

75

1   Q.   Comdex '96 you had one, right?

2   A.   (Moving head up and down.)

3   Q.   Please take a look at that figure in the lower right-hands

4   corner there?

5   A.   Uh-huh.

6   Q.   It's hard for me to see over here. Right here is the

7   cross point 4100, right?

8   A.   Yes.

9   Q.   And that's the 4100 product that you were trying to

10   promote at the time, right?

11   A.   That was the product we were trying to promote, yes.

12   Q.   And it's connected to a Fibre Channel right here, right?

13   A.   Uh-huh, I believe so.

14   Q.   And there are -- you said one server. This picture shows

15   actually two servers up there, right?

16   A.   Yes, I'm having a hard time reading the --

17   Q.   Yes.

18   A.   Detail.

19   Q.   Let me see if I can zoom in a little bit better for you.

20   This is defendant's exhibit 13?

21   THE COURT: 13 or 113.

22   Q.   (BY MR. BAHLER) 113. There's two servers shown up there,

23   right?

24   A.   Correct.

25   Q.   And those are in this picture, at least, those are Fibre

76

1   Channel hosts, right?

2   A. Yes.

3   Q. Okay. Then, down here, there's a SCSI tape device, right?

4   A. Yes.

5   Q. And actually, such tape devices usually have more than one

6   SCSI tape in it, right?

7   A. Depends on whether it's a tape drive or a tape library.

8   Q. Well, it could certainly have for, right?

9   A. Yes.

10   Q. All right. And that's a SCSI storage device, right?

11   A. Yes.

12   Q. And this is you're handing out literature at Comdex 1996

13   showing this product, right?

14   A. What we had hoped to have the 4100, yes.

15   Q. Now, you weren't the only person there from Crossroads at

16   Comdex 1996, right?

17   A. That's correct.

18   Q. And Mr. Quisenberry was there, right?

19   A. Yes, he was.

20   Q. And Mr. Hoese was there?

21   A. I believe so.

22   Q. And Mr. Russell was there, right?

23   A. I don't recall.

24   Q. And a come named Barbara Bardach was also there?

25   A. I believe so.

77

1   Q.   And Mr. Hoese was one of the inventors of the patents in

2   this case?

3   A.   That's correct.

4   Q.   And he was there at the booth, right?

5   A.   I believe so, yes.

6   Q.   And he was working with customers, right?

7   A.   Yes.

8   Q.   And he was responsible for handing out brochures like

9   Defendant's Exhibit 13, right?

10   A.   I believe so, yes.

11   Q.   Okay. And why did Crossroads go to Comdex 1996?

12   A.   We had hope to meet customers and introduced them to what

13   we would one day have which was called the 4100.

14   Q.   You wanted to neat customers?

15   A.   Yes.

16   Q.   Okay. Now, Mr. Albright touched briefly on the Hewlett

17   Packard 4400. That was also at Comdex 1996, correct?

18   A.   I don't recall that.

19   Q.   Let me take a look at Defendant's Exhibit 98. Once again,

20   can you see that, sir?

21   A.   I can.

22   Q.   Let me point to the upper left-hand corner there.

23   A.   Uh-huh.

24   Q.   And once again, that's dated November 1996, right?

25   A.   Correct.

78

1   Q. This was a brochure that Crossroads had at Comdex 1996,

2   right?

3   A. I believe so.

4   Q. And it was used to interest customers, once again, in

5   purchasing the cross point 4400 in this case, right?

6   A. Yes.

7   Q. What's the difference between the 4100 and the 4400?

8   A. The 4400 was a product that HP had developed that they

9   called the Mux. And we were interested in OEM'ing that

10   product or buying from them to sell to our customers in

11   compliment to the 4100 which was a product of lower

12   multiplexer count.

13   Q. And Mux means a lower multiplexer, right?

14   A. That's correct.

15   Q. And HP Mux is also point adds a CrossPoint 4400, it had a

16   connection that would permit it to connect to multiple fiber

17   channel hosts, right?

18   A. Had the connection. I don't know if the software could

19   handle that. I believe it had no access controls. It was

20   just hard wired.

21   Q. We'll get to that. And it had a connection that permitted

22   it to be connected to the SCSI storage devices, right?

23   A. That's correct.

24   Q. Fiber chance them to SCSI storage router?

25   A. It was a Mux multiplexer.

79

1   Q.   It had a buffer, right?

2   A.   I believe it did.

3   Q.   It had a SCSI controller, right?

4   A.   Yes.

5   Q.   Had a Fibre Channel controller, right?

6   A.   Yes.

7   Q.   And it also operated to map between fiber chance them

8   diseases and SCSI storage devices, right?

9   A.   I believe it was hard wired.

10   Q.   Okay. But once again, it could work to connect SCSI

11   storage devices with Fibre Channel devices?

12   A.   Yes.

13   Q.   So those two can communicate?

14   A.   Yes.

15   Q.   Greek on one side and I forgot the other language, right?

16   A.   English.

17   Q.   That would work?

18   A.   Uh-huh.

19   Q.   Okay. Was there any high level server protocol on that

20   product?

21   A.   I don't know.

22   Q.   Or was it all native low level --

23   A.   I don't know. I did not develop think of that product.

24   Q.   Do you know what that means native low level block

25   protocol?

80

1   A.   I'm minute sure what your definition is.

2   Q.   Do you know what it means in the claims?

3   A.   I don't.

4   Q.   Now, did Hewlett Packard sell the HP Mux?

5   A.   I believe they did, yes.

6   Q.   And when did they sell it?

7   A.   I don't recall when they started selling it.

8   Q.   Were they selling it before they had these dealings with

9   Crossroads in 1996?

10   A.   No, they were not. I believe it was at the earliest, late

11   in '97, if not, '98.

12   Q.   Now, you made a deal with Crossroads or with Hewlett

13   Packard in 1996 in respect to the Hewlett Packard Mux, right?

14   A.   I don't recall when the deal was actually agreed to.

15   Q.   I'm going to show you what's been marked as Defendant's

16   Exhibit 97. Do you recognize that, sir?

17   A.   I believe it's a letter from Barbara, yes.

18   Q.   And in fact, it's to Mr. Bob -- boy, I can't pronounce

19   that name?

20   A.   It's why cycle.

21   Q.   And it's dated November 27, 1996, right?

22   A.   Yes.

23   Q.   And it's just after Comdex '96, right?

24   A.   I believe so.

25   Q.   And he works for Hewlett Packard, right?

1   A.   He did at the time, I think.

2   Q.   And this is from Barbara Bardach, right?

3   A.   Yes.

4   Q.   The lady that I mentioned earlier?

5   A.   Uh-huh.

6   Q.   Who was at Comdex with you, right?

7   A.   Yes.

8   Q.   And in the first paragraph, she mentions Brian and I want

9   to thank you and Joel for inviting us to represent Crossroads

10   in your technology suite at the marriage hotel during Comdex.

11   That's what she wrote there, right?

12   A.   Yes.

13   Q.   And that accurately describes what was the deal between

14   Hewlett Packard and Crossroads at Comdex '96?

15   A.   Well, this just says we were able to represent Crossroads

16   there. I don't think that suggests a deal.

17   Q.   Well, you were in Hewlett Packard's technology suite,

18   though, right?

19   A.   Yes.

20   Q.   Okay. And that's where the 4400 brochure that we talked

21   about earlier, that's where it was -- was handed out?

22   A.   Again, I don't remember where it was handed out.

23   Q.   And in the next paragraph, Ms. Bardach continues, our

24   prospective customers who visited with us at Comdex are quite

25   enthusiastic about the Fibre Channel SCSI Mux, Joel's group

1   designed. Right?

2   A. Yes.

3   Q. That's a Hewlett Packard Mux, right?

4   A. Yes.

5   Q. Customers were reviewing that at Comdex '96, right?

6   A. Yes.

7   Q. All right. And it was the whole purpose of that show at

8   Comdex '96 was to interest those customers in purchasing the

9   HP Mux, right?

10   A. Our goal was to interest customers in the product.

11   Q. Well, this product in this case, the product was the HP

12   Mux, right?

13   A. It was a product we were going to buy from them, yes.

14   Q. And also goes by the name CrossPoint 4400, right?

15   A. Yes, that was the Crossroads designation.

16   Q. All right. And then it says in the next paragraph it

17   says, we are looking forward to completing a mutual technology

18   license agreement with your group in January, right?

19   A. Yes.

20   Q. This will allow us to in corporate your HP Mux into our

21   cross-link storage router line in early 1997 as the CrossPoint

22   4400, right?

23   A. Yes.

24   Q. Did you talk money terms at this time in 1996?

25   A. I don't recall.

83

1   Q.   Did you at any time purchase a HP Mux from Hewlett

2   Packard?

3   A.   Yes.

4   Q.   When?

5   A.   In '97, I believe.

6   Q.   When in '97?

7   A.   I don't recall when.

8   Q.   Well, at this point in time in November 1996. You were

9   certainly talking ability buying one, weren't you?

10   A.   We were talking about OEM'ing their productings yes.

11   Q.   And part of the OEM deal was to buy one from them, right?

12   A.   Its would have been.

13   Q.   And you talked about purchasing a 44 -- or HP Mux from

14   Hewlett Packard before the end of 1996, right?

15   A.   I don't know if we actually talked about the purchase of

16   it. We would have talked about its features and its

17   capabilities and an OEM deal but I can't recall if we talked

18   specifically about purchasing one.

19   Q.   Mrs. Bardach says in this letter that the mutual

20   technology license will allow us to incorporate your Mux in

21   our cross-link storage system, right?

22   A.   Yes, it does.

23

24

25

84

1   Q. All right. Isn't that an offer to sell the HP Mux to you,

2   to Crossroads?

3   A. It was an offer for us to OEM it if our customers

4   registered it and then sell it at that point.

5   Q. What's an OEM?

6   A. It's where one company provides a product to another who

7   then sells that product to a final customer.

8   Q. Right. One company provides a product, actually sells the

9   product to the second company, right?

10   A. That's correct.

11   Q. And that's exactly what Crossroads and Hewlett Packard

12   were talking about in November 1996, right?

13   A. Appears to be, yes.

14   Q. And that dealt with the Hewlett Packard Mux, right?

15   A. That's correct.

16   Q. Which was also known as the CrossPoint 4400, right?

17   A. Right, that was our designation.

18   Q. So that we're on the same page, involves that product,

19   right?

20   A. Yes, that's the name.

21   Q. Now, I'd like to talk to you about back to the CrossPoint

22   4100. That's a storage router, right?

23   A. Yes.

24   Q. No doubt about it?

25   A. Yes.

85

1   Q.   Right.   And Crossroads had the technology demonstration at

2   Comdex '96 and also had flyers for the 4100 at Comdex 1996,

3   correct, sir?

4   A.   Yes, we did.

5   Q.   And, in fact, before the end of 1996, you offered to sell

6   the 4100 to Clarion, right?

7   A.   We offered to have Clarion evaluate our product.

8   Q.   I'd like to put on the overhead Defendant's Exhibit 93.

9   Can you see that, sir?

10   A.   Yes.

11   Q.   On your screen?

12   A.   Yes.

13   Q.   And that is a, in fact, a purchase order.   It's a bunch of

14   paper, right?   Well, you can only see --

15   MR. ALBRIGHT: Mr. Bahler, what exhibit is that, sir?

16   MR. BAHLER: Defendant's Exhibit 93.

17   Q.   (BY MR. BAHLER) I tell you what, Mr. Smith.   May I

18   approach bench, your Honor?

19   THE COURT: Sure.   You don't need my permission.

20   Q.   (BY MR. BAHLER) These are loose papers but if you'd permit

21   me to hand you copies, I want to show you several pages in

22   there.   Okay.   With the whole document in front of you, Mr.

23   Smith, that is a purchase order from data general, which is

24   Clarion, right?   Clarion, data general, the same company?

25   A.   I believe they are.

1   Q. Okay. And it's a purchase order for the CrossPoint 4100,

2   right?

3   A. No, it's not.

4   Q. Well, let's see. Take a look at the second page. First

5   of all, let's get a date on this. June 22nd, 1996? See that?

6   A. I believe it says July.

7   Q. I'm sorry. You're right. July 22nd, 1996. And the

8   subject matter of the purchase order is for a F C 2 S-11 Fibre

9   Channel protocol to bridge. Isn't that the 4100, sir?

10   A. I'm not sure what that is.

11   Q. It's a Crossroads product, isn't it?

12   A. We never had a product of that designation.

13   Q. Well, whatever it is, it's a Fibre Channel to SCSI

14   protocol bridge, right?

15   A. Yes, that's what it says.

16   Q. It's exactly what the 4100 was, right?

17   A. No. The 4100 didn't exist at this time.

18   Q. So this was the pre curse tore the 4100, right?

19   A. I don't know what that designation is.

20   Q. Mr. Smith, let me show you what's been marked as

21   Defendant's Exhibit 25. May I approach again, your Honor?

22   THE COURT: You don't need my permission. You can.

23   Q. (BY MR. BAHLER) Thank you, your Honor. This is once again

24   the entire document loosely. This is, counsel, Defendant's

25   Exhibit 25. Now, that is a series of e-mails, correct?

87

1   A.   Yes.

2   Q.   And the first one is dated December 20th, 1996, right?

3   A.   Yes.

4   Q.   And that's an e-mail to Clarion, right?

5   A.   It appears to be from Clarion.

6   Q.   Right. From Clarion. And the first part, just so we're

7   on the same page here, we're on the first page, and there's a

8   bunch of bullets. That is an e-mail from you, right, little

9   carrot there on the left-hands side, right? You say Joe, so

10   forth, right?

11   A.   Yes, it appears to be.

12   Q.   And then, Brian is you, right?

13   A.   Yes, appears to be.

14   Q.   And he says our 4100 with proper is available on

15   evaluation P O for 3300 for 60 day evaluation. That's a

16   dollar figure, right, sir?

17   A.   It is.

18   Q.   And you're asking for $3,000 for a 4100 product, right?

19   A.   We are not.

20   Q.   Okay. You're saling it -- you're offering it to sell them

21   for evaluation purposes, right?

22   A.   We are offering for them to evaluate the product and then

23   return it.

24   Q.   And you're asking them to pay you $3,000, right?

25   A.   We are not. We are expecting to have it back.

88

1   product, right?

2   A.   We are not.

3   Q.   Now, Mr. Smith, you've heard of a company called Adaptec,

4   right?

5   A.   Yes.

6   Q.   And, in fact, you visited Adaptec once upon a time, right?

7   A.   I believe so, yes.

8   Q.   That was in early 1997, right?

9   A.   I don't recall.

10   Q.   All right.   Now, you went to Adaptec and you looked at one

11   of their fiber channel to SCSI bridge products, right?

12   A.   I don't recall that either.

13   Q.   All right.   Let me show you what's been marked as

14   Defendant's Exhibit 95.   First of all, Mr. Smith, that's your

15   handwriting, right?

16   A.   Yes.

17   Q.   Okay.   And that's a note you took, that's notes you took

18   to record your trip to Adaptec, right?

19   A.   It appears to be.

20   Q.   And that was in February 1997?

21   A.   Yes.

22   Q.   Now, Mr. Smith, did you make these notes like on the plane

23   back or while you were there or what?   Do you recall?

24

25

1   Q. And when you went to Adaptec, you looked at the Adaptec

2   bridge, right?

3   A. I don't know that I looked at it.

4   Q. Well, you wrote a lot of stuff down about it, right, sir?

5   A. Correct. I don't know that they showed it to us.

6   Q. You refer to it as a 4200 look alike, right?

7   A. Uh-huh.

8   Q. What's a 4200?

9   A. 4200 was our second generation product.

10   Q. Crossroads product, right?

11   A. Yes.

12   Q. And it looks just like it, right?

13   A. Yeah, I'm not sure what the reference means.

14   Q. Well, if you didn't see it, Mr. Smith, how do you know it

15   looked alike?

16   A. The reference could have been just to functionality as far

17   as objectivity as opposed to what it physically looked like.

18   Q. You don't remember one way or the other, right, sir?

19   A. I don't.

20   Q. You didn't say functions alike?

21   A. I did not.

22   Q. It says look alike?

23

24

25

90

1   A.   That's what I said.

2   Q.   And you knew this emerald chip on the Fibre Channel side,

3   that's a finer channel controller, right?

4   A.   Yes.

5   Q.   And you knew that and you've got it 895 dual channel SCSI

6   that's a SCSI controller, right?

7   A.   I believe so.

8   Q.   And it's got an A.M. D 3586 processor. That's a

9   supervisor unit, right 586)?

10   A.   I believe so.

11   Q.   And right here, it says RAID box FF assist engine, right?

12   A.   The letter is X O R. I'm not sure what that means.

13   Q.   That's a -- or RAID is a type of SCSI storage system,

14   right?

15   A.   It is.

16   Q.   And that's how the Adaptec bridge was being promoted at

17   the time by Adaptec, right?

18   A.   I assume so.

19   Q.   And down here, you knew that they were offering that

20   Adaptec product for 1500ed, right?

21   A.   I'm not sure why I wrote that down, but it says $1500.

22   Q.   Why were you looking at Adaptec?

23   A.   I don't recall.

24   Q.   You had your own stuff, right?

25   A.   We did.

91

1   Q.   So Adaptec had something else, right?

2   A.   Apparently, they did.

3   Q.   Why were you considering and OEMing -- were you

4   considering OEM'ing something from Adaptec?

5   A.   I don't recall.

6   Q.   Now, Mr. Smith, turning to the patent application that

7   resulted in the issuance of the 972 patent -- I'll put the

8   lames back up there again just for reference point. Now, you

9   were involved with the initial meetings with Crossroads

10   outside of patent counsel, correct?

11   A.   Yes.

12   Q.   And you were involved in the selection of this particular

13   idea for filing patent application, right?

14   A.   I don't recall.

15   Q.   You did meet with the lawyers, right?

16   A.   I did.

17   Q.   And those lawyers are from gray carry, right?

18   A.   Yes -- at the time, I don't believe he was, though.

19   Q.   At the time he was with Baker Botts, right?

20   A.   That sounds correct.

21   Q.   Taking ability Mr. Bill Halsey, right?

22   A.   That's correct.

23   Q.   And he's the guy that wrote the application?

24   A.   I believe so. I'm not sure if he actually wrote it.

25   Q.   All right. And now, as president and CEO of Crossroads,

92

1   Mr. Smith, you sign documents on behalf of the corporation all

2   the time, correct?

3   A.   I do.

4   Q.   And you are careful when you sign such documents, right?

5   A.   I try to be, yes.

6   Q.   And you read the documents before you sign them, right?

7   A.   Not all of them.

8   Q.   Well, if you don't understand something in a document,

9   you'll get somebody to tell you what it means, right?

10   A.   I certainly try to, yes.

11   Q.   Okay.   Let me show you what was marked at your deposition

12   and what was marked at as trial exhibit today as Defendant's

13   Exhibit D-90.   Do you see that, sir?

14   A.   Yes, but difficulty reading it.

15   Q.   It is hard to read.   Turn to the second payment there?

16   A.   Uh-huh.

17   Q.   That's your signature, is it not?

18   A.   Yes, it is.

19   Q.   And you filed this paper on behalf of Crossroads, right?

20   A.   I believe so.

21   Q.   And you filed it -- this was a paper that was filed with

22   the U.S. patent and trademark office, right?

23   A.   Yes, it was.

24   Q.   And it was filed with the U.S. patent and trademark office

25   in connection with the patent application that resulted in the

93

1   patent that's in this case, right?

2   A.   Uh-huh, I believe so, yes.

3   Q.   And in that paper, you stated, quote, we acknowledge the

4   duty to disclose information which is material to the

5   examination of this application in accordance with title 37,

6   code of federal regulations, section 1.356 A, right?

7   A.   Yes.

8   Q.   That's a statement that you signed, right?

9   A.   It is.

10   Q.   And you know that that is -- it talks about the duty to

11   disclose information, right?

12   A.   Yes.

13   Q.   And you signed that, right?

14   A.   I did.

15   Q.   And you acknowledged that you had a personal duty to

16   disclose such information, correct?

17   A.   Yes.

18   Q.   Mr. Smith, you never disclosed to the Patent Office the HP

19   Mux, did you, sir?

20   A.   I don't know.

21   Q.   And you never disclosed to the Patent Office the cross

22   .4400 product, did you?

23   A.   Again, I don't know.

24   Q.   And you never disclosed to the Patent Office -- I'm

25   talking about you personally, right?

94

1   A. Right. I did not.

2   Q. Okay. You didn't disclose the HP Mux?

3   A. Right.

4   Q. You didn't disclose the CrossPoint 4400, right?

5   A. Right.

6   Q. You didn't disclose the CrossPoint 4100, right?

7   A. Yes.

8   Q. You didn't disclose the public -- you didn't disclose

9   anything about Comdex 1996, right?

10 A. Right.

11 Q. You didn't disclose anything about the Clarion, right?

12 A. Right.

13 Q. You didn't disclose anything about the Adaptec product

14 that you saw either, did you, sir?

15 A. Right.

16 Q. Now, Mr. Smith, as the chairman and CEO of Crossroads,

17 ultimately your responsibilities for the actions of

18 Crossroads, right?

19 A. Yes.

20 Q. Early on, when it was a small group, you had a lot of

21 control, right?

22 A. I'm not sure what you mean by control.

23 Q. Well, you knew what was going on, right?

24 A. Certainly some things.

25 Q. You made it part of your day-to-day operation to make sure

95

1   you knew what was going on, right?

2   A. I was interested in many things in the company, yes.

3   Q. And when the 972 patent issued, patent that's in this

4   case, Crossroads applied a patent label to its products,

5   right?

6   A. I believe that's correct.

7   Q. Okay. And that patent label listed the 972 patent as

8   being embodied in, for example, the cross .4100 product,

9   right?

10   A. Again, I didn't know.

11   Q. Do you have any reason that it was not?

12   A. No.

13   Q. Let me show you what's been marked as Defendant's Exhibit

14   11.

15   MR. ALBRIGHT: Your Honor, we would object on the

16   grounds that we discussed yesterday with respect to the

17   introduction of any of the documents relating to marketing.

18   THE COURT: Let me see 11.

19   (At the bench, on the record.)

20   MR. BAHLER: Your Honor, there's several pages in

21   there that are more relevant.

22   THE COURT: How does it refer to the products?

23   MR. BAHLER: There we go. Here's the patent and

24   here's the 4100 right this.

25   THE COURT: Your objection.

96

1   MR. ALBRIGHT: Our objection, your Honor, is on

2   relevance.

3   THE COURT: Okay. It's overruled. 11 is admitted.

4   Q. (BY MR. BAHLER) Mr. Smith, let me hand you a complete

5   copy, once again, it's loosely, of Defendant's Exhibit 11.

6   Let's just look at the first page right now. Can you tell me

7   -- well, first of all, this is a group of documents that are

8   drawings from -- for Crossroads, right?

9   A. Yes.

10   Q. And, in fact, let's just stay on the first page. It says

11   regulatory label, Crossroads C P 4200, right?

12   A. Yes.

13   Q. That's what the first page; right?

14   A. Uh-huh.

15   Q. Okay. Then, let's turn several pages in to this page. Do

16   you have it; sir? This is the one labeled regulatory rodeo

17   4100. That's the CrossPoint 4100 product, right?

18   A. I believe so, yes.

19   Q. That's the 4100 product that we've been talking about,

20   right?

21   A. Yes.

22   Q. It's the 4100 product that Mr. Alcock during his opening

23   statement said did not include the invention of the patent in

24   this case, right?

25   A. Yes.

97

1   Q.   And yet, Crossroads applied this label to that product,

2   right?

3   A.   I believe so.

4   Q.   And included in that label is an indication that the 4100

5   is protected by U.S. patent No. 5941972. It's not very good,

6   but that's what it says, right?

7   A.   I believe so.

8   Q.   That's the patent in this case, right?

9   A.   Yes.

10   Q.   Crossroads -- this is the first patent that Crossroads had

11   ever gotten, right, sir?

12   A.   I don't remember which was the first.

13   Q.   It was an important one, right?

14   A.   It is an important one.

15   Q.   First one that or at least that's what you think, right?

16   A.   Uh-huh.

17   Q.   First one that Crossroads ever filed, right, sir?

18   A.   I don't recall that either.

19   Q.   Certainly first one you ever sued anybody on, wasn't it?

20   A.   It is.

21   Q.   Do you know why it was Mr. Alcock said you never made your

22   invention during his opening?

23   A.   I'm sorry.

24   Q.   Do you know why -- first of all, does Crossroads make any

25   products that include the patent in this case in your opinion?

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1   A.   That we -- what do you mean by make? It's unclear. We've

2   already sold, will sell?

3   Q.   Well, does the 4100 include the patent in this case?

4   A.   I didn't believe it does.

5   Q.   What leads you to that belief?

6   A.   That's what I've learned from our engineering team.

7   Q.   Pardon me?

8   A.   That's what I've learned from our engineering team.

9   Q.   Okay. And that's not what you told the world in November

10   1999, was it?

11   A.   I'm not sure I understand.

12   Q.   Well, up in the right-hands corner of that document

13   there's a November 1999 date, right?

14   A.   There is.

15   Q.   That means that that's the effective date of this

16   document, right?

17   A.   Somewhere in that time frame.

18   Q.   Effective date of that label, right?

19   A.   It appears to be.

20   Q.   And after that date, sometime after that date, this label

21   is actually applied to the product, right?

22   A.   Yes.

23   Q.   That was done so Crossroads could tell the world that the

24   4100 product was covered by the patent in this case, right?

25

99

1   Q.   And at that time, Mr. Smith, the only form of access

2   control in the 4100 was this reserve command that Mr. Alcock

3   mentioned during his opening, correct, sir?

4   A.   I don't know that.

5   Q.   Next page in that exhibit, sir. First of all, 4200,

6   right?

7   A.   Yes.

8   Q.   That's the one that's the Adaptec look alike, right, sir?

9   A.   That's what any comments were in the note.

10   Q.   Well, that's what you said in the notes we've talked about

11   a second ago, right? And you applied the patent number to

12   that product, too, right?

13   A.   Yes.

14   Q.   Which means Crossroads is telling the world that the cross

15   point 4200 included the invention of the patent in this case,

16   right?

17   A.   Yes.

18   Q.   Okay. Next page is another level for another version of

19   the 4100, right, sir?

20   A.   Yes.

21   Q.   And once again, patent number's on there, right?

22   A.   It is.

23   Q.   Next page. This label says effective against the 4100 and

24

25

100

1   Q.   And that is April 3rd, 2000, right?

2   A.   Yes.

3   Q.   It's right about the time you sued Pathlight, right?

4   A.   Yes.

5   Q.   And you were still telling the world that your product was

6   covered by the patent in this case, right?

7   A.   Yes.

8   Q.   Pass the witness -- or hang on just a second. I move for

9   the admission of Defendant's Exhibit 11. I think your Honor

10 already moved on that one?

11   THE COURT: It's in.

12   MR. BAHLER: Defendant's Exhibit 90.

13   THE COURT: Any objection on 90?

14   MR. ALBRIGHT: Your Honor, if he just wants to read

15 off the numbers we have if objection to any.

16   THE COURT: 90, 95, 25, 93, 97, 98 and 113 are

17 admitted.

18   MR. BAHLER: All right. Thank you, your Honor.

19   MR. ALBRIGHT: Your Honor, do we do redirect now?

20   THE COURT: Redirect now.

21   MR. ALBRIGHT: Okay.

22   RE-DIRECT EXAMINATION

23 BY MR. ALBRIGHT:

24 Q.   Mr. Smith, I'm going to ask you to introduce a new concept

25 to the jury which is have you ever heard of a company making a

101

1   mistake?

2   A. Yes.

3   Q. With respect to the label that we've just heard about for

4   a good while, do you know whether or not the 972 patent is in

5   the products that Crossroads have sold up to today?

6   A. It is not.

7   Q. And who do you rely on for that testimony?

8   A. Engineering didn't and then, the customer group that work

9   with our customers as to how to label the product.

10 Q. Would it be fair to say that Geoff Hoese and Jeff Russell

11 say that the patent isn't in there if it's not in there?

12 A. That's fair.

13 Q. Would it be fair to say that as the CEO of a company the

14 transition from four people to six people in '96 to 200 now

15 that you were not in charge of putting labels on the products

16 that you sent out?

17 A. Yes.

18 Q. Did anybody from the labeling section ever call you before

19 they did anything?

20 A. No.

21 Q. Prior to this lawsuit, were you aware that this label was

22 on your products?

23 A. No.

24 Q. Did you have anything to do with making -- putting on

25 there or have any discussion with anyone that should or should

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1   out in have been on there?

2   A. I did not.

3   Q. And with respect to whether or not it should be on there

4   in terms of whether or not the patent is actually in the

5   product, you would defer to the engineers we're going to hear

6   from today?

7   A. Yes.

8   Q. Okay. With respect to the questions about what it was

9   that you informed the United States Patent Office about, who

10   did you, Brian Smith as the CEO of Crossroads rely on to get

11   the appropriate information to Patent Office in terms of

12   applying for this patent?

13   A. Both Jeffs and the bill Halsey, the attorney.

14   Q. Okay. Again, were you personally involved in making

15   certain that this information got to the Patent Office?

16   A. I was not.

17   Q. Did you give instructions to the engineers and to your

18   lawyers to make certain that the appropriate information did

19   get to the Patent Office?

20   A. Absolutely.

21   Q. As you sit here today under oath, do you believe that

22   Crossroads did get all the information to the Patent Office

23   that it was supposed to?

24   A. I do.

25   Q. And again, with respect to Mr. Hoese and Mr. Russell who

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1   are going to testify today and who were principals in terms of

2   getting this application, did you rely on them to make certain

3   they got the appropriate prior art to the Patent Office?

4   A. Yes.

5   Q. Is it your opinion that they did so?

6   A. It is my opinion they did so, yes.

7   Q. Okay. Mr. Bahler asked you a couple of questions about a

8   purchase order, and I would think that a purchase order is a

9   purchase order. Am I wrong?

10 A. There are differences.

11 Q. When he was asking you whether something was a purchase

12 order and you were telling him it was not, I don't know that

13 the jury could see the exhibit to see really what you're

14 looking at. Why were you saying that what he was showing you

15 was not a purchase order?

16 A. It's a common practice in our business to give early what

17 we call beta products to potential customers to evaluate and

18 see if it meets their needs and typically, the way they're

19 exchanged is through what's called an evaluation purchase

20 order. The customer agrees to take that product for 30 or 60

21 days, evaluate it, and then return it.

22 Q. For example, right now, Crossroads, on August 1st, will

23 release a next generation products?

24 A. Yes, our fourth generation.

25 Q. Okay. And as we speak right now, I take it there are

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1   people who have those products -- customers have purchased

2   those products already, have they not?

3   A.   There are customer who's are evaluating those products,

4   re.

5   Q.   So they might have an evaluation purchase order showing

6   that customers have those next generation products but don't

7   go on sale till August 1st so anything until August 1st is not

8   typical a sale until Crossroads is concerned?

9   A.   And many of them don't have the certifications required to

10 be sellable.

11 Q.   Okay. And tell us what you mean by that.

12 A.   The FCC, for instance, has to certify that products meet

13 their requirements for safe use in both home and businesses,

14 and many of those evaluation units have not been through that

15 process. They're merely to be evaluated.

16 Q.   To see if those customers will want to buy them?

17 A.   That's correct.

18 Q.   And with respect to those products that you call beta

19 products, I take it that comes after alpha?

20 A.   Yes.

21 Q.   Those beta products, is there any protection against those

22 being released to the public, for example income if form of an

23 NDA?

24 A.   There is we have M D As with all of our customers adds we

25 give them early access to products under those

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1   non-disclosures.

2   Q.   Now, I've just talked about an NDA I want to Mick sure the

3   jury understands what an NDA is?

4   A.   Nondisclosure agreement between parties or more where

5   things, concepts, products can be exchanged under just the

6   disclosure between those two organizations and not to others

7   beyond that.

8   Q.   So the company is taking or that's getting the product to

9   evaluate cannot disclose what's in that product?

10   A.   That's correct.

11   Q.   Now, once your new products go on sale on August 1st,

12   there's not going to be a non-disclosure agreement with those?

13   A.   Correct.   We make them what we call generally available.

14   Q.   Those are going to meet all the standards by the FCC and

15   whatever government agency you need to meet, correct?

16   A.   That's correct.

17   Q.   Will those products have the 972 patent in them?

18   A.   I believe they will.

19   Q.   Okay.   Finally, we had a fair amount of discussion -- I'm

20   not certain if the jury remembers or not -- concerning what

21   was on sale at Comdex of '96.   There were two products, the

22   Crossroads or cross .4100, and the 4400 which is basically the

23   Hewlett Packard product, correct?

24   A.   Uh-huh.

25   Q.   In 1996, was there a 4100?

1   A.   No.

2   Q.   In 1996, was there a 4400?

3   A.   There was an HP precursor to that.

4   Q.   But could you have sold either of those products?

5   A.   We could not in '96.

6   Q.   If Clarion called up and said get me the 4100 today, could

7   you have done it in 1996?

8   A.   We could not.

9   Q.   So when they talked to you again about the Clarion

10 purchase order or even an offer to purchase or anything like

11 that in 1996, was there a 4100 that Crossroads could have sold

12 to them in 1996?

13 A.   No.

14 Q.   And as you've testified earlier, did you ever sell a

15 product to Clarion?

16 A.   I don't recall ever selling one to Clarion.

17 Q.   And let's get down to the heart of it, really, with

18 respect to the two products that are being shown in 1996 at

19 Comdex.   Did either one have the patent -- the 972 patent in

20 them?

21 A.   I believe they did not.

22 Q.   Did either one, as far as you know, have the ability from

23 what you've heard today in this courtroom and what you've

24 discussed with your engineers now in terms of what access

25 control is in 1996, could either of those products perform

1 precursor, was hard wire. What does that mean?

2 A. Means there's only one way for them to connect between the

3 Fibre Channel side and the SCSI side. There were no choices,

4 there was no access control as we've talked about today. It

5 was just simply the data came up and went up.

6 Q. Again, it's because there's a box here and the box

7 underneath the table and wires running back and forth and it

8 was just approved the consent?

9 A. That's correct.

10 Q. Would there be any need for access control if there was

11 only one box on top and one box on bottom?

12 A. I don't believe so.

13 Q. Because you wouldn't have the host or the computer trying

14 to get into different storage devices, right?

15 A. That's correct.

16 Q. There was one host or one computer and one storage device?

17 A. That's correct.

18 Q. Pass the witness.

19   MR. BAHLER: May I redirect?

20   THE COURT: Yes, if you have something that was

21 brought up on redirect that you haven't covered.

22   MR. BAHLER: Thank you, your Honor.

23

24

25

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1   RE-CROSS EXAMINATION

2   BY MR. BAHLER:

3   Q. Now, Crossroads put those labels on its products because

4   its patent lawyer said it was okay to do it?

5   A. I don't know.

6   Q. Okay. Now, Mr. Sims was identified by Crossroads to speak

7   on his behalf on selected topics. Do you have that knowledge,

8   sir?

9   A. I don't, no.

10   Q. Mr. Smith, when was it that Crossroads decided that it

11   wasn't making any products according to your patent in this

12   case?

13   A. I would say when was it decided?

14   Q. Yes. When did you figure that out?

15   A. I'm not sure when the team figured out. I understood it

16   recently personally.

17   Q. All right. Were you aware that Pathlight served upon

18   Crossroads what's called an interrogatory, asking them to

19   identify products that incorporated the patent in this case?

20   MR. ALBRIGHT: Your Honor, if I may, I think he's got

21   to ask a question and if there's an answer he disagrees with

22   in terms of the responses, then that's the appropriate way to

23   do this.

24   THE COURT: It may be. He just asked if he was aware

25   of an interrogatory. Are you aware of an interrogatory?

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1   THE WITNESS: I am not.

2   THE COURT: All right. Ask your next question.

3   Q. (BY MR. BAHLER) All right. Were you aware that in

4   response to such interrogatory --

5   MR. ALBRIGHT: Your Honor, if I may. I believe he

6   must ask the witness a question and find out what the answer

7   is and then he can show the interrogatory response.

8   MR. BAHLER: I haven't shown him anything.

9   MR. ALBRIGHT: Well, read the interrogatory.

10   MR. BAHLER: That's what I'm going to do.

11   THE COURT: Well, I don't have a question before me

12   yet.

13   Q. (BY MR. BAHLER) Were you aware that in response to such an

14   interrogatory, Crossroads answered after objecting subject to

15   and without waiving its objections, Crossroads answers as

16   follows. Crossroads is still investigating its sales of

17   products which incorporate the invention of the 972 patent.

18   Were you ever aware that Crossroads answered that question?

19   A. I was not.

20   Q. All right. And --

21   MR. ALBRIGHT: Your Honor, if we could still have a

22   date on the interrogatory answer?

23   MR. BAHLER: I'm about to do that, sir. Thank you.

24   Q. (BY MR. BAHLER) That response was July 2000 and it was in

25   response to a question that we had served about a month

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1   before, May of 2000, right, sir?

2   A.   And the question is?

3   Q.   Well, my next question is, you just figured out what

4   products cover -- are covered by your own patent recently?

5   A.   Me personally, yes.

6   Q.   How about the company?

7   A.   I don't know.

8   Q.   Okay. Now, this case was filed in April of 2000, right?

9   A.   Yes.

10   Q.   And at the time, Crossroads was telling the world with its

11   patent label that its product included the patent, right?

12   A.   Yes.

13   Q.   And then, recently, at least you discovered that

14   Crossroads really wasn't making any products according to your

15   invention?

16   A.   That the image was not included in the products sold, yes.

17   Q.   Exactly. And in July 2000, you didn't know whether or not

18   they did, right, according to this corporate statement, right?

19   A.   I don't know.

20   Q.   Okay. Were you having difficulty figuring out what that

21   patent meant, Mr. Smith?

22   A.   I don't know. It's not my job.

23   Q.   Pass the witness.

24   MR. ALBRIGHT: About another half hour, your Honor.

25   THE COURT: You may step down. Members of the jury,

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1   we're going to let you go to lunch, 1:30. I'd like you back

2   at 1:30 please remember the instructions. Have a nice lunch.

3   (Jury not present.)

4   THE COURT: We're in recess till 1:30.

5   (Lunch recess.)

6   THE COURT: All right, counsel anything before we

7   bring in the jury?

8   MR. BAHLER: No, your Honor.

9   MR. ALBRIGHT: Not from the plaintiffs, your Honor.

10   THE COURT: Knowledge, during the noon hour, did

11   anyone attempt to talk to you about this case?

12   THE JUROR: No.

13   THE COURT: Did you talk to anybody about the case?

14   THE JUROR: No.

15   THE COURT: And did you learn anything at all about

16   the case outside the presence of each other and this

17   courtroom?

18   THE JUROR: Know.

19   THE COURT: Show negative answers to all questions by

20   all jurors. You may call your next witness.

21   MR. ALBRIGHT: Thank you, sir. Plaintiff would call

22   Mr. Dale Quisenberry.

23   THE COURT: Come forward and be sworn, please, sir.

24   This is Mrs. Sims. She's going to administer an oath to you.

25   (Witness was sworn.)

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1   THE COURT: Walk around this column and have a seat,

2   please, sir. And if you'll tell us your full name and spell

3   your last.

4   THE WITNESS: Thomas Dale Quisenberry, Q U I S E N B E

5   R R Y.

6   DIRECT EXAMINATION

7   BY MR. ALBRIGHT:

8   Q. Mr. Quisenberry, the jury's already heard about you this

9   morning. If you'd be so kind as to introduce yourself to them

10   and basically tell them how you met Mr. Smith back in the

11   early '90s?

12   A. Sure. I'm Dale Quisenberry and I'm met Brian at church in

13   1992. At the time that we were both looking for something to

14   do, to go out on our own to do and so that's -- we started

15   talking and primarily 1993 to get together and do something on

16   our own, business-wise.

17   Q. And what did that lead to in the 1993-'94 time period,

18   sir?

19   A. In 1994, we had started a company by the name of infinity

20   software, which was primarily a consulting company, and we --

21   I was doing networking consulting. That is my background,

22   which is data networking. And then, Brian was still at IBM at

23   the time and left IBM in the fall of 1994 and then, we both

24   started doing consulting. I again was still doing data

25   network consulting and Brian was doing some system analysis

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1   to 1995?

2   A. In late '94, we had some queries from -- actually a head

3   hunter who were looking for people that had expertise in the

4   Fibre Channel area. They had heard about Brian and what Brian

5   had been -- had worked on at IBM and inquired with us as to

6   were we available to work on a contract with a company,

7   Symbios Logic, to assist them in some Fibre Channel

8   architecture and software implement take that they were trying

9   to do on some of their products.

10   Q. Now, just to put this in time context for the jury in the

11   '94-'95 time period, you all had not at this point decided to

12   start trying to develop a storage router, correct?

13   A. That is correct.

14   Q. So '95 period, you all were doing consulting for other

15   companies?

16   A. That is correct.

17   Q. Okay. If you could tell the jury what happened from 1995

18   into 1996 and the transition that you and Mr. Smith met.

19   A. Sure. In 1995, when we were awarded a contract to do

20   consulting for this company that needed the expertise, Fibre

21   Channel software engineering expertise, we established another

22   company that was infinity come stole L L C. The reason why we

23   did that was that we had done some work store) in the prior

24

25

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1   company, some software work that could have resulted in us

2   receiving royalties, and we did not want to mix that revenue

3   with both companies.

4   So we started this new company called infinity come

5   store and that was in the spring of '95. In all of that year,

6   we did consulting for various companies. And then, on into

7   '96, we continued doing consulting but, also, as we -- as the

8   consulting continued, some of the members of the company and

9   certainly primarily Brian was the person who was the external

10   face would travel. He also did education classes with another

11   gentleman.

12   And so, in the course of that time frame, he would be

13   able to visit with companies to find out what their needs

14   were, and what types of products were currently being

15   developed by other companies in the Fibre Channel arena.

16   And again, in doing so in '96, we started talking

17   about the actual -- a product and moving away from consulting

18   and moving into just being a product development company.

19   Q. Okay. So we're in '96 now. And you all have decided to

20   make the transition from consultants to hopefully producing a

21   product, this storage router that Mr. Smith talked about this

22   morning.

23   How many folks were with the company at this point.

24   A. In mid-'96, we probably was around ten.

25   Q. Okay. And we've heard already this morning from Mr. Smith

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1   that he was the CEO. What was your role?

2   A. My role at certainly from the the point of infinity come

3   store and moving with always kinds of an inside role of taking

4   care of facilities, taking care of personnel, taking care of

5   payroll, some little marketing at times, but very little. And

6   so, again, it was dealing with, you know, making sure people

7   had medical insurance, making sure that the accounting was

8   taken care of, et cetera.

9   Q. Making sure the ship kept running?

10   A. Uh-huh.

11   Q. Okay. Was your job at all in 1996 or ever with Crossroads

12   to develop intellectual property?

13   A. It was not.

14   Q. Okay. Did you have -- did you interact with the engineers

15   that ones that were going to meet with Mr. Hoese and Mr.

16   Russell about developing intellectual property?

17   A. I did not.

18   Q. Okay. As between Mr. Smith, yourself and the engineers,

19   would you tell the jury whose role it was to develop and

20   product intellectual property on behalf of Crossroads?

21   A. Geoff Hoese.

22   Q. Okay. And Geoff Hoese is an engineer -- was an engineer

23   with Crossroads?

24   A. He was.

25   Q. Okay. He's also a manager at the time?

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1   A.   He was.

2   Q.   Okay. We're in 1996, we're in November of 1996. It's Las

3   Vegas at the Comdex. Do you recall what it was Crossroads

4   showed at Comdex in 1996?

5   A.   I do. We had a prototype or a demo set up on a table in a

6   room about this size with probably 20 other companies that

7   were also displaying their products, and at this time, we had

8   a monitor connected to what looked -- what was a Del P C

9   frame, and then which was connected to some storage -- a

10   storage device.

11   And basically, our demo was showing that we could go

12   take a SCSI protocol and go to a Fibre Channel protocol

13   through the conversion, what have you. And so when folks

14   would come by our booth, if you will, and look, what they

15   would see on the screen were images. And basically, those

16   images came from the storage device. Started out with being

17   one protocol and then, ended up on the screen as Fibre

18   Channel.

19   Q.   Was this a product y'all could have sold?

20   A.   No.

21   Q.   If someone from Clarion or some other company had been at

22   Comdex there and said I sure would like one of those, would it

23   have been available for sale to them?

24   A.   No.

25   Q.   What do you know about the two words we've heard the most

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1   about here today, which are access control?

2   A. I know how to spell it, but I don't know necessarily what

3   it does or certainly didn't know -- I don't even recall those

4   words back in that time frame.

5   Q. Okay.

6   A. But later on in the Crossroads, you know, years is when I

7   recall hearing those words.

8   Q. If I were to ask you either were access controls in that

9   product or was the 972 invention in that product, the Comdex

10   '96, would you know one way or the other?

11   A. I would not know.

12   Q. Thank you, Mr. Quisenberry. Pass the witness.

13   CROSS-EXAMINATION

14   BY MR. GILLETTE:

15   Q. Good afternoon, your Honor, ladies and gentlemen, my name

16   is Steve Jill let. I'm one of Pathlight's attorneys. I know

17   I was introduced yesterday, but I just wanted to introduce

18   myself again?

19   Good afternoon, there Quisenberry. You attended

20   Comdex '96, didn't you.

21   A. I did.

22   Q. And why did you attend Comdex '96?

23   A. Well, at the time, the company only had still I think

24   around twelve people at that time, and so we needed some

25   bodies to help man the booth, if you will, and so I was

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1   certainly a warm body that didn't mind talking to people and

2   introducing them to the company, introducing them to what the

3   prototype and the demo was accomplishing and what the product

4   ideas that we had in mind q.

5   Q. And you viewed these mind that you were introducing

6   yourself to as customers or prospective customers?

7   A. Prospective customers.

8   Q. Now, even before Comdex '96, you received -- you at

9   Crossroads received a purchase order from a company called

10 Clarion?

11 A. Date general I believe was the company.

12 Q. What's the relationship between data general and Clarion?

13 A. I'm not for sure.

14 Q. You say that purchase order in your desk, didn't you?

15 A. Uh-huh, I did.

16 Q. And why did you do that?

17 A. It was our first purchase order.

18 Q. First purchase order?

19 A. For the product.

20 Q. What product was that?

21 A. That we were developing. The bridge.

22 Q. The bridge?

23 A. Uh-huh.

24 Q. And was that the 4100?

25 A. Yes.

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1   Q.   Okay.   And when did you get what purchase order?

2   A.   I don't recall at the top of my head.   I would have to --

3   Q.   I'm going to put up on the screen a copy of what I believe

4   the jury has seen earlier.   This is a purchase order.   At the

5   top it says data general.   Do you see that?

6   A.   Yes.

7   Q.   And do you see there it has a purchase order date down at

8   the left-hand side?

9   A.   Yes, P O date.

10   Q.   And what's what date?

11   A.   July 22nd, '96.

12   Q.   And that is the purchase order that you saved in your desk

13   as the first purchase order for a product that was

14   manufactured by Crossroads, correct?

15   A.   I'm not seeing the whole purchase order, so if you want me

16   to speculate that this is an exact copy of what I kept on my

17   desk, I would only -- that would only be speculation at this

18   time, but I did keep a purchase order, one of the first

19   purchase orders that I received in any desk.

20   Q.   Was one of the first --

21   A.   I said the first purchase order that I remember getting.

22   Q.   It's your recollection that purchase order was in the July

23   1996 time frame?

24   A.   I do not recall that, but just didn't recall when it came

25   in.

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1   A.   I don't have any reason that's not the date. I just don't

2   recall the date.

3   Q.   Now, between July 1996 and December 31st, 1996, did data

4   general ever withdraw that purchase order?

5   A.   Not that I'm aware.

6   Q.   Now, in fact, in December 1996, did somebody at data

7   general get a held of you at Crossroads and said, why haven't

8   we received the products we ordered yet? Did somebody do

9   that?

10 A.   Again, I'm not sure of the date. There was some

11 conversation, I believe, e-mail-wise that I recall seeing as

12 to an inquiry as to when they would receive those.

13 Q.   And was that from somebody at data general named Mr. Boy

14 Ken?

15 A.   That was the gentleman that we were dealing with from a

16 technical lead on that -- on the data general side.

17 Q.   And he wanted to get those products that he ordered by the

18 ends of the year 1996, correct?

19 A.   I do not know that.

20 Q.   Well, let's look at another document here. This is

21 Defendant's Exhibit 25. What I've got up on the screen here,

22 this is Defendant's Exhibit 25, it looks like a series of

23 e-mails here, and do you remember, I asked you questions about

24

25

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1   this set of e-mails earlier this year?

2   A.   I do.

3   Q.   And I asked you, do you remember, now that you've had a

4   chance to see this e-mail, that that was an issue that was of

5   some concern to Crossroads in late 1996, and your answer was

6   yes?

7   A.   (Moving head up and down.)

8   Q.   Do you remember that?

9   A.   I do.

10   Q.   Okay. You see the e-mail's dated December 20th, 1996?

11   A.   Yes.

12   Q.   Now, do you have any understanding as to why data general

13   was upset they hadn't received the products they ordered yet?

14   A.   These were products that were being developed and so,

15   again, my recollection is that the development wasn't complete

16   for them to receive the product.

17   Q.   And that's what you told Clarion?

18   A.   I do not know what was -- I did not respond to this e-mail

19   with Clarion, so I could not respond to that question.

20   Q.   Now, let's go back, again, to what happened at Comdex.

21   The demonstration that Crossroads did at Comdex '96, was there

22   something that was actually turned on there?

23   A.   Yes.

24   Q.   Okay. Did anyone in the public see it? Anybody that came

25   into Comdex?

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1   A.   I don't recall. You know as far as the monitor, it was

2   turned on, and so people could see it. And I'm not -- I don't

3   recall everything was on a table or not. I know at some

4   Comdexes in the latter years you could put things under the

5   table, but I don't recall in 1996 what the situation was

6   there.

7   Q.   And the people that saw it, did Crossroads keep track of

8   those people by making a list of customer leads?

9   A.   If they left a card or if we got their information, that

10   information was attempted. It was attempted to be tracked and

11   kept. I'm not sure that it was 100 percent completely done.

12   Q.   Whose responsibility was it to keep track of customer

13   leads?

14   A.   If the -- whoever was at the booth, you know, was

15   responsible to try to get business cards or write their name

16   down and then, hand those back to Barbara Bardach.

17   Q.   What was her job back in 1996?

18   A.   It was vice-president of business development.

19   Q.   What were her responsibilities?

20   A.   Primarily to cultivate new relationships, E O M

21   relationships with Crossroads. OEM) not only cultivate but of

22   course introduce the company and what the products that we

23   were hoping to develop or in the process of developing.

24   Q.   Now, back in the 1996 time frame, did you keep any type of

25   notebook which you kept notes and things about Crossroads in?

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1   A.   I did.

2   Q.   We're going to mark this notebook, or at least a copy of

3   this notebook as exhibit -- it's D-354. I'd like to put it up

4   on the screen here?

5   MR. ALBRIGHT: Your Honor, may we approach the bench?

6   THE COURT: You may.

7   (At the bench, on the record.)

8   MR. ALBRIGHT: Your Honor, my problem with this

9   exhibit is that we didn't get it till last night. We didn't

10   have notification it was going to be introduced until last

11   night.

12   MR. GILLETTE: We didn't know Mr. Quisenberry was

13   going to be a witness until I think early yesterday. We

14   thought we were going to read it in his deposition and this

15   exhibit was parts we were going to read it. They changed it

16   and put Mr. Quisenberry on their list sometime either --

17   either yesterday morning.

18   MR. ALBRIGHT: Believe we let them know on Monday, and

19   --

20   THE COURT: Let's cut through the fat. What's the

21   problem with the --

22   MR. ALBRIGHT: Your Honor, I have no problem with in

23   exhibit. It's just we've got a host of exhibits last night

24   and I didn't want to waive -- there may be others where

25   they're trying to introduce them that they're going to raise

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1   this point with and I didn't want to have the argument made,

2   well, if we let this one in, we're allowing all of them in.

3   We've got a group of documents last night. I don't

4   think it's fair to say they didn't know Mr. Quisenberry was

5   going to be there. I think I let them know. But I don't want

6   to argue that.

7   MR. GILLETTE: Sometime Monday or Tuesday.

8   MR. ALBRIGHT: Well, Monday we found out we were going

9   to trial today.

10   THE COURT: Surely there's a list of exhibits.

11   MR. ALBRIGHT: That's what I'm saying, your Honor,

12   this was not on it. We didn't get this till last night. But

13   my point is --

14   THE COURT: If it's not on the list, it's not going

15   in.

16   MR. GILLETTE: It was not on the list last night, your

17   Honor. Your Honor, this is the reason that we're having to

18   scramble at the last minute is we got -- Mr. Albright added

19   Mr. Quisenberry last night. He added another witness I

20   believe --

21   THE COURT: You didn't provide a witness list?

22   MR. GILLETTE: He was changed. I think he had it by

23   deposition.

24   MR. ALBRIGHT: This is silly to argue it's -- Monday

25   they told us we didn't call -- I told them we had decide we

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1   didn't have time to call Mr. Quisenberry. That we'd just take

2   Mr. Smith. They told me if we didn't call and say that they

3   would subpoena him, so it was at that point we said, fine,

4   we'll just call him.

5   And that's the reason we didn't know until --

6   THE COURT: What is in the diary that you're --

7   MR. GILLETTE: Mr. Quisenberry's involvement with the

8   prosecution. He had involvement in keeping track of

9   competition, things that he said he directly had no

10   involvement in. His lab book says otherwise.

11   MR. ALBRIGHT: He had no involvement with patent

12   prosecution and there's a statement, one statement that I can

13   find that says something about contact --

14   THE COURT: My understanding, admissibility he'd be

15   able to look at it and refresh his memory. But I don't quite

16   understand how we're operating with adding people to a witness

17   list or adding exhibits to witness lists. Those lists should

18   have been completed pursuant to my order over a month ago. So

19   I don't know exactly -- I did note that Mr. Smith wasn't on

20   the witness list, and he's already testified.

21   MR. ALBRIGHT: Your Honor, I'm not going to object to

22   this document as long as we can raise it with other documents

23   we received last night.

24   THE COURT: I can't rule on objections I haven't

25   heard.

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1   MR. ALBRIGHT: Okay.

2   MR. GILLETTE:

3   Q. Mr. Quisenberry, I'd like to show you a page from your

4   notebook?

5   THE COURT: That exhibit is not in evidence.

6   MR. GILLETTE:

7   Q. It is dated September 4th, 1996, do you see that?

8   THE COURT: Counsel, y'all are starting -- you're

9   showing the jurors exhibits that are not in evidence. If you

10   want to show it on the machine, you ask to have it introduced.

11   If you want to show it to the witness, then show it to the

12   witness. But unless there is -- both sides have been doing

13   this, but I don't know what agreements, if any, there are.

14   But I don't want to have an exhibit shown if there's

15   going to be an objection. So let's admit an exhibit before

16   it's disclosed to the jury just like lawyers do.

17   MR. GILLETTE: Pathlight offers exhibit D-354.

18   MR. ALBRIGHT: No objection, your Honor.

19   THE COURT: All right. 354 is received.

20   MR. GILLETTE:

21   Q. Can you tell if that's your handwriting?

22   A. It is.

23   Q. And that page is dated September 4th, 1996?

24   A. Yes.

25   Q. And was it your practice to keep handwritten notes of

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1   meetings that you participated in back in that time frame?

2   A.   It was.

3   Q.   All right. And the next page doesn't have a date on it,

4   but it's got the number 2 in the upper left-hand corner, and

5   then, the page after that has a number 3 in the upper

6   right-hands corner. Would that indicate that those are all

7   your notes from September 4th, 1996?

8   A.   It appears that they are.

9   Q.   Okay. Now, near the bottom of the page here, what does

10   that very last line say?

11   A.   It says patent lawyer, have to be done before Comdex.

12   Q.   Why did you write that down?

13   A.   I believe it was part of the discussion with Dr. Prior

14   mart er.

15   Q.   Do you know why you thought you had to have a patent

16   lawyer before Comdex in 1996?

17   A.   I don't recall the conversation as to, you know, why this

18   note was written, so therefore, I do not --

19   Q.   Did Crossroads, in fact, get a patent lawyer before Comdex

20   many 1996?

21   A.   I don't recall.

22   Q.   Now, you also saw the product we've referred to here as

23   the HP Mux at Comdex 1996. Didn't you?

24   A.   Rephrase the question.

25   Q.   Did you see a product referred to as the HP Mux at the

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1   Comdex 1996?

2   A.   I did.

3   Q.   And where did you see it?

4   A.   It was in the HP suite.

5   Q.   Did you -- did Crossroads invite prospective customers to

6   look at the HP Mux?

7   A.   They did.

8   Q.   And was the HP Mux turned on?

9   A.   I believe it was.

10   Q.   Was it hooked up to SCSI drives?

11   A.   I believe it was.

12   Q.   And did several customers tell you and others at

13   Crossroads that they were interested in buying that product?

14   A.   I was not involved in those discussions with customers.   I

15   was there as a personal -- on a personal visit to the HP suite

16   when I -- just as I just stated about what I saw in the HP

17   suite but I was not there during any customer visits.   I was

18   only there with Crossroads people or HP personnel.

19   Q.   And after -- right after Comdex 1996, did Crossroads bring

20   one of these HP Mux back to Austin?

21   A.   I don't recall at what time, but we did have some 4400 HP

22   Mux come into Austin, but I don't recall when that would have

23   been.

24   Q.   Why did you bring those into Austin?

25   A.   We were talking with HP about doing some further

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1   development on that particular box. We were also talking to

2   them about maybe adding that to the product line, having a

3   high end product along with our low end 4100. And so there

4   was a lot of talk with HP around that time about what might be

5   done.

6   Q. As of Comdex 1996, was the HP Mux further along in

7   development than the 4100?

8   A. I would not know.

9   Q. Now, when you got back to Austin after Comdex 1996, did

10   Crossroads receive a purchase order from Compaq for a 4400, I

11   was the same as the HP Mux?

12   A. I don't know.

13   Q. Well, there was something called a Crossroads purchase

14   order log that Crossroads used at that time?

15   A. Yes.

16   Q. Pathlight offers exhibit D-353?

17   MR. ALBRIGHT: Your Honor, we object on the basis of

18   the fact that witnesses first said he doesn't know, and the

19   second in terms of the time of the delivery of the exhibits

20   which were last night.

21   THE COURT: Let me see the exhibit. Counsel, is it on

22   the exhibit list?

23   MR. GILLETTE: Yes, it is.

24   THE COURT: Okay. The objection's overruled.

25   MR. GILLETTE:

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1   Q.   Now, Mr. Quisenberry, do you recognize this as a

2   Crossroads purchase order log?

3   A.   I can't read this.

4   Q.   Let me see if I could zoom it in a little.

5   A.   Yes.

6   Q.   And there I've highlighted in yellow an entry that says

7   data general-Clarion. Do you see that?

8   A.   Yes.

9   Q.   And it shows that the date the purchase order received was

10   July 22nd, 1996. I know it's awfully hard to read. It's very

11   small print. Is that any better?

12   A.   I can make the -- yeah, I can make 22 out. As far as the

13   date received.

14   Q.   Okay. And that product that was ordered was the C P 4100?

15   A.   That's what it says.

16   Q.   Now, about four or five lines above that, do you see a

17   company entry for Compaq and if you go across to the date

18   received, it shows the date of December 9th, 1996?

19   A.   Again, you know, if you're asking me to repeat what you're

20   saying that I see on this that I can't read, then I'd ask you

21   to rephrase the question if there is a question.

22   Q.   Did Crossroads receive a purchase order from Compaq for

23   the 4400 on December 9th, 1996?

24   A.   I do not know.

25   Q.   Do you have any reason to believe that this purchase order

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1   log was inaccurate?

2   A.   I have no reason to believe that it is inaccurate, no.

3   Q.   Now, did Compaq know what the price for the C P 4400 was

4   going to be?

5   A.   I don't know.

6   Q.   Turning back to this exhibit that shows the price of

7    $17,000, do you see that? I'll highlight it here.

8   A.   I'll take your word that that's a 17.

9   Q.   Do you know how Crossroads decided to price the 4400 at 17

10   thousand dollars?

11   A.   I don't know.

12   Q.   Now, let's move ahead to 1997. That was the year in which

13   Crossroads claims it developed the invention here, correct?

14   A.   I do not know.

15   Q.   Do you know that Crossroads filed a patent application for

16   the 972 invention on December 31st, 1997?

17   A.   I knew that Crossroads filed several patent applications,

18   but I don't know of one specific on that date. I don't know

19   that information.

20   Q.   Did you ever meet with these patent attorneys who were

21   working on the patent application in 1997?

22   A.   I don't recall dates. I did meet with patent attorneys

23   along with Geoff Hoese or at some point, probably, Brian

24   Smith. And again, that probably was more of an introduction

25   meeting. I did not, was not responsible for patent -- the

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1   creation of or even ensuring that they were done.

2   Q. Why did you meet with them then?

3   A. Is to meet them that they knew that I was the guy that was

4   most likely going to write the check to pay their bills, and

5   so I wanted to make sure that they could have a face with a

6   name so when I call to inquire about the bills, which I often

7   did which I didn't understand them, they knew who I was.

8   Q. And you saw the patent application?

9   A. I could have seen it. I think I remember seeing it at one

10 time, but again, that's just a vague recollection. I don't

11 know when that was.

12 Q. Have you seen the patent finally issued?

13 A. Again, I'm not sure that I have. I wouldn't know if I was

14 to see it right now, so you'd have to point it out to me.

15 Q. Now, let's talk about another entry in your notebook which

16 we had talked about earlier. Can you identify this page as in

17 your handwriting?

18 A. It is.

19 Q. And that date is October 2nd, 1997?

20 A. I believe so.

21 Q. And as of that time, had you met with any of the patent

22 attorneys who were working on the patent application for

23 Crossroads?

24 A. As I said earlier, I had not met with any of the attorneys

25 except for just meeting them. So I don't know if I had done

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1   that prior to that date. I -- again, it would be an

2   assumption that I had.

3   Q. What is this list in you've got three headings here, hub

4   switches and routers. What did you need to show by that?

5   A. These notes were taken at a meeting and as I recall these

6   companies were named under these categories as to being --

7   this was their product that they were in business to build and

8   to sell.

9   Q. And you listed Ancot sequin HP and Adaptec under routers?

10   A. I did.

11   Q. And how did you come to understand that those were

12   companies that should be listed under routers?

13   A. You know, I don't recall the ins and outs of that

14   conversation. I think what started that conversation that day

15   was talking about different acquisition activity that might be

16   going on during that time frame.

17   Q. Now, as one of your responsibilities, I believe, Mr..

18   Albright asked you about in your job at Crossroads, you had

19   responsibility over some of the financial?

20   A. I did.

21   Q. What, specifically, was your responsibility there?

22   A. In the '97 time frame, my title was vice-president of

23   finance and administration. So, again, it was anything that

24   had to do with from an accounting standpoint, you know, paying

25   bills, you know, making sure that the financial reporting was

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1   done is kind of all under that category.

2   Q. Did you keep track of whether financial reporting was done

3   properly in 1998?

4   A. I don't recall the date. We switched to a C F O, interim

5   C F O and it could have been in the late '97 or early '98 time

6   frame to jack low si. I don't recall the date that that

7   happened.

8   Q. Do you remember if Crossroads lost money in every quarter

9   in 1998?

10   A. I don't recall.

11   Q. You don't recall? Pathlight offers the exhibit D-350.

12   MR. ALBRIGHT: Another exhibit we had identified last

13   night, your Honor.

14   THE COURT: When you say identified, but it was on a

15   witness list -- I mean was on an exhibit list.

16   MR. ALBRIGHT: It got on the exhibit list like the

17   other two last night. In other words, when you asked Mr.

18   Earlier was it on the exhibit list last night as of when we

19   got it the answer was yes.

20   THE COURT: Members of the jury, I'm going to put you

21   in the jury room for a minute.

22   (Jury not present P).

23   MR. ALBRIGHT: Your Honor, in other words, we've had

24   no opportunity to prepare Mr. Quisenberry for any of this

25   because we got all this information last night that these were

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1   going to be exhibits in this case.

2   MR. GILLETTE: I have an e-mail -- your Honor, I have

3   an e-mail here of -- I don't believe it's dated, but I think I

4   remember seeing it in the evening, late evening of yesterday.

5   This is the first time they indicated they were going to call

6   Mr. Quisenberry live.

7   MR. ALBRIGHT: Your Honor, that's just flat wrong.

8   THE COURT: Okay. I don't, you know, somewhere I've

9   got the magic ball up here, but it doesn't help me. I don't

10   know who is representing accurately or who is not. I note

11   from the lawyers in the courtroom that I don't believe anybody

12   would misrepresent. Sometimes we forget things, but I know a

13   lot of lawyers that do misrepresent, but I don't think they're

14   in the courtroom.

15   But I don't know how I can operate except under the

16   rules and the exhibit list and the witness list was to be

17   accomplished by the plaintiff by August 18, 2000. And by the

18   defendant on September 28, 2000 by my order. Now --

19   MR. ALBRIGHT: Your Honor, I believe that was the

20   order, that order was changed as of December when you

21   rescheduled the trial.

22   THE COURT: I was going to ask, then, but did I change

23   -- I've got a date down for -- I don't know that I have a

24   different date on an exhibit list or witness list, but at some

25   point in time either you all made agreements or you ignored

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1   the orders, and it doesn't help that an exhibit list or a

2   witness list was made last night.

3   The whole point is that we don't sit here and take

4   time and put the jury out while you two argue about when you

5   learned that Mr. Quisenberry was going to be a witness if his

6   name's on the list, he may be a witness. Or when you learned

7   that they were going to put on your own client's financial

8   information because it was on a list.

9   Now, what am I supposed to do? I can make a blanket

10   -- if y'all can find me another order that changes the 2000

11   dates, I will be glad to follow it. But if you're going to

12   get up here and both of you make these accusations that they

13   came in last night, then I'm not going to allow any witnesses

14   who not on the list by the October and September dates testify

15   and I'm not going to let any exhibit that's not on the list by

16   those dates come into evidence.

17   So y'all get together and you decide how you wish to

18   proceed and then, you tell me when you're ready.

19   (Recess.)

20   MR. ALBRIGHT: If they want those exhibits we have no

21   objection and I don't anticipate us having any other problems

22   because I think this is a unique situation with respect to

23   exhibits and Mr. Quisenberry. And so I do want the Court to

24   know that there are a couple of separate issues we would like

25   to take up at the end of the day that don't have anything to

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1   do with the late production of exhibits.

2   THE COURT: There are a few terms I want to ask y'all

3   at the end of the day, too, and we'll do it while the sun is

4   still up.

5   MR. ALBRIGHT: Thank you, your Honor.

6   THE COURT: All right. Ready for the jury. Mr.

7   Quisenberry, you remain under oath, sir. You may proceed,

8   sir.

9   MR. GILLETTE:

10   Q. Mr. Quisenberry, I've got here what's identified as

11   Crossroads's financial reporting package, and I'm going to

12   look specifically at a bar chart here which is entitled the

13   net loss matrix analysis starting with the third quarter

14   fiscal year '98 and going through the third quarter fiscal

15   year 2000. Were you --

16   MR. ALBRIGHT: Could I ask for a page?

17   MR. GILLETTE: I'm sorry. It is page 51879.

18   MR. ALBRIGHT: Thank you, sir.

19   MR. GILLETTE:

20   Q. Were you there at Crossroads for that entire period?

21   A. No.

22   Q. What period -- when did you leave Crossroads?

23   A. I left May 31st, 2000.

24   Q. Would that have been between the second year and third

25   quarter fiscal year 2000 (net loss trend)?

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1   A.   You may have to have a clarification when fiscal quarter

2   ended now, when it ended then.

3   Q.   When did it end?

4   A.   I'm speculating, trying to recollect that it ended in

5   January was the end of the first quarter. Is that --

6   Q.   Now, between the third quarter fiscal year 1998 and the

7   time you left Crossroads, do you recall that Crossroads did,

8   in fact, lose -- had a net loss every single quarter?

9   A.   I do by this chart.

10   Q.   It never made a profit any quarter while you were there?

11   A.   I don't recall. I was -- I was thinking maybe we had a

12   profitable month or two, but maybe not the whole quarter at

13   that time.

14   Q.   Now, you said you don't have any understanding of the

15   patent in this lawsuit?

16   A.   I do not.

17   Q.   Is that right? You would rely on your patent attorneys to

18   tell you what was covered by that patent?

19   A.   I would.

20   Q.   And have the Crossroads patent attorneys ever toad you

21   whether or not Crossroads's own products are covered by the

22   972 patent?

23   MR. ALBRIGHT: Your Honor, objection, invade the

24   attorney client privilege.

25   THE COURT: It would and it's also hearsay. Objection

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1   is sustained.

2   MR. GILLETTE: No further questions.

3   MR. ALBRIGHT: May I have ten seconds, your Honor?

4   THE COURT: You may.

5   MR. ALBRIGHT: Thank you, your Honor.

6   RE-DIRECT EXAMINATION

7   BY MR. ALBRIGHT:

8   Q.   Mr. Quisenberry, Mr. Gillette spent a fair amount of time

9   talking to you about purchase orders for 1996.   Do you

10   remember that?

11   A.   Yes.

12   Q.   He kept trying to get you to explain why Clarion was

13   unhappy in December of that year.   Do you remember why in that

14   December Clarion was unhappy with Crossroads?

15   A.   I don't recall that there was ever a -- what month Clarion

16   was unhappy.   I remember the question coming up as to when

17   will we receive our prototypes that they had ordered.

18   Q.   And when they kept calling you and asking you month after

19   month when were they going to get these, who got those calls?

20   A.   Usually it was either Barbara Bardach or Brian.

21   Q.   Basically during that entire 1996 period, they remained

22   unhappy because you never got a product to them, did you?

23   A.   I do not know that.

24   Q.   Okay.   I was wrong.   Do you have any idea whether or not

25   the products that Mr. Gillette was talking about in 1996 had

                                                                    140

1   any capacity to perform access control?

2   A.   I would not know that.

3   Q.   Okay. When he was talking to you about a purchase order

4   in the amount of $17,000, did you all ever sell a product,

5   actually sell a product for $17,000?

6   A.   I would not recall if we had or not.

7   Q.   Okay. If Mr. Smith has testified about what a beta unit

8   was to this jury, would you defer to what he would know about

9   that?

10   A.   Absolutely.

11   Q.   Okay. If he testified about what a development unit was,

12   would you defer to him in that situation?

13   A.   Absolutely.

14   Q.   Finally, I think Pathlight has pointed out a couple of

15   occasions that Crossroads didn't make a lot of money in any of

16   those quarters. Did you get that sense?

17   A.   I did.

18   Q.   Okay. From 1996 to present, how much did Crossroads grow

19   in terms of people?

20   A.   From 1996 to today?

21   Q.   Yes, sir. Or till the time you left, let's just say.

22   A.   In '96, let's say at the end of '96, I believe we had 13

23   or 14 employees until I left on May 31st, 2000. I believe we

24   had over 200 May 31st. You know, somewhere around I think it

25   was 200, 220, something like that.

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1   Q.   During that period of time, did you all build a building

2   of your own out on MOPAC?

3   A.   Yes, we occupied, yes.

4   Q.   Okay. During that period of time, did anything happen in

5   terms of going public with Crossroads?

6   A.   Yes, October of '99.

7   Q.   And despite the fact this doom and gloom over not making a

8   profit in these quarters, would you consider the I P O that

9   Crossroads did, would it be considered successful in your

10   book?

11   A.   Absolutely.

12   Q.   In terms of NASDAQ rankings, do you have any idea where it

13   places on the NASDAQ rankings?

14   A.   We were fifth at all times first day as far as the initial

15   public offering we were fifth, as far as the amount of

16   percentage that open it at and then it closed at, the pricing

17   that it closed at.

18   Q.   When did y'all go public?

19   A.   October 20th, 1999.

20   Q.   Would you say that makes y'all fairly successful?

21   A.   Sure.

22   Q.   Thank you, sir.

23   RE-CROSS EXAMINATION

24   BY MR. GILLETTE:

25   Q.   Mr. Quisenberry, do you still own any stock in Crossroads?

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1   A. I do.

2   Q. Approximately how much?

3   A. Approximately 600,000 shares.

4   Q. No further questions.

5   THE COURT: May this witness be excused, counsel?

6   MR. ALBRIGHT: Yes, your Honor. Thank you.

7   MR. GILLETTE: We offer --

8   THE COURT: May the witness be excused?

9   MR. GILLETTE: Yes, sir.

10   THE COURT: You may be excused, sir.

11   THE WITNESS: Thank you.

12   MR. GILLETTE: Pathlight offers exhibits D-354, D-353

13   and D-350.

14   THE COURT: All right. They're received. You may

15   call your next witness.

16   MR. ALCOCK: Yes, your Honor, we'd call Geoff Hoese.

17   THE COURT: Just come all the way up, please, sir.

18   This is Mrs. Sims. She's going to administer an oath to you,

19   sir.

20   (Witness was sworn.)

21   THE COURT: Come up here and have a seat, please. If

22   you'd tell us your full name and spell your last name, please,

23   sir.

24   THE WITNESS: Jeffrey Hoese, H O E S E

25   DIRECT EXAMINATION

1   BY MR. ALCOCK:

2   Q. Where do you live, sir?

3   A. Austin, Texas.

4   Q. And how long have you lived in Austin?

5   A. About 14 years.

6   Q. Ever work for a company called Crossroads?

7   A. Yes, I have.

8   Q. From what time period -- over what time period did you

9   work for Crossroads?

10   A. From May of 1996 through October of 2000.

11   Q. Okay. I'm going to hand you a notebook that has trial

12   exhibits 1, 4, 5 and 7 in it, and I'm going to ask you to take

13   a look at exhibit 1 and tell us if you can identify that.

14   A. It's a patent filing of an invention between myself and

15   Jeff Russell.

16   Q. Offer exhibit 1 in evidence, your Honor?

17   MR. BAHLER: In objection.

18   THE COURT: Received.

19   MR. ALCOCK:

20   Q. What role did you have in exhibit 1?

21   A. Well, in conjunction with Mr. Russell, we conceived the

22   idea we were to document the idea and work through the

23   disclosure and patent filings associated with it.

24   Q. Okay. Could you give the ladies of the jury some idea as

25   to what you're job was in coming up with this invention and

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1   what Mr. Russell's job was in coming up with the invention?

2   A. We collaborated a great deal on it. Primarily I was more

3   of a software person. Mr. Russell was more of a hardware

4   person. So he had greater involvement like the hardware

5   design and architecture that went into it. I did more of the

6   software. However, we both collaborated a fair amount in

7   discussing concepts and ideas that led to this.

8   Q. Okay. Could you --

9   A. I'll try. I'm sorry. I have a soft voice, so I'll try to

10   speak louder.

11   Q. Okay. What did you do when you first started at

12   Crossroads? What was your job when you first started there in

13   May of '96?

14   A. I started essentially as a software engineer. My job was

15   mainly to start developing concepts and ideas towards the

16   business consent of having Fibre Channel connectivity for the

17   company of developing these concepts to further to make its

18   products.

19   Q. Did you have any experience before Crossroads in managing

20   people to build a product?

21   A. Yes, I did. I was a manager at Compaq corporation. I

22   managed the software development for their network adapt er,

23   got through that through management I had at form as Conrad

24   which was my employer at Compaq.

25   Q. How long did you do hose management jobs?

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1   A.   It was with Compaq and Thomas Conrad approximately a

2   couple of years in those positions.

3   Q.   And did that all involve software development?

4   A.   Yes, it did.

5   Q.   I see. And how many people did you manage?

6   A.   It varied. I would say from a lower five to maybe a

7   dozen, some what more perhaps at times.

8   Q.   All on software engineering products?

9   A.   Predominantly. There may have been a project manager

10   person involved at different points or something of that sort,

11   but predominantly software development.

12   Q.   Okay. And did these come out with products?

13   A.   Oh, yes, quite a few (development).

14   Q.   Could you tell the members of the jury your educational

15   backgrounds?

16   A.   I have a couple of years of college. I was a glass any

17   major with physics minor. I did not complete a degree.

18   Q.   When did you leave school?

19   A.   1981, I believe, may have been '82.

20   Q.   Okay. When did you first write any software programs?

21   A.   I started when I was in high school writing software and

22   playing with computers and doing things of that sort.

23   Q.   How many patents are issued to you as a named inventor,

24   sir?

25   A.   I believe five, at least five. I haven't followed what's

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1   been issued recently. I have a couple more filed, so I

2   believe it's five.

3   Q. Those at Crossroads or other companies, too?

4   A. I have two others outside of Crossroads. One issued from

5   Compaq and one from previous employment at Del computer

6   corporation.

7   Q. What are you doing now, sir?

8   A. Right now, I have some involvement with a couple of smart

9   startups. I'm trying to decide what role I really have if I

10   work with them more directly, pick one to work with. So it's

11   -- I have some consulting roles that I do at one or two places

12   and other involvement.

13   Q. Why did you leave Crossroads?

14   A. I had worked hard for a long time and spent, you know,

15   four or five years really focused and really working hard and

16   really wanted to take a break.

17   Q. Okay. So you're one of the inventors on the 972 patent.

18   Can you explain your invention to us in your own words?

19   A. Simply put, it's a device and method this allows computers

20   to be connected to storage using more native protocols to

21   allow access to that storage and access control storage to

22   provide for security and controlled access for those

23   computers.

24   Q. Would a graphic exhibit or two help to explain this to the

25   jury?

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1   A.   Absolutely.

2   Q.   I'm going to place on the screen demonstrative exhibit

3   504, your Honor. Could you explain what 504 is showing?

4   A.   This drawing shows a network server environment, which

5   shows computer systems, work stations, tied to storage by a

6   network server. This really shows the prior existing

7   solutions for the type of problems that the patent addresses.

8   It addresses certain problems with this environment. So what

9   we have here is a network server with computers attached to

10   one side of it and storage devices attached to the other side

11   of it.

12   Q.   Okay. And what was one of the problems that you were

13   trying to solve that we see here on exhibit -- demonstrative

14   exhibit 504?

15   A.   Primarily performance network server acts a bottle neck

16   getting to this storage. All these computers here have to go

17   through the server to access this data on the storage devices,

18   and there are some particular bottle necks involved that limit

19   performance, limit the speed at which data may access.

20   Q.   Placing before the witness, your Honor, demonstrative

21   exhibit 552. You mentioned a bottle neck. What's the nature

22   of this bottle neck that you faced?

23   A.   Well, a network server basically implements a file system

24   to represent that data, and implements network protocols to

25   translate that data and carry it over the network. What this

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Oracle Ex. 1024, pg. 997

1   drawing indicates is that you've got data coming in with the

2   blue balls, represent data coming from the computer systems.

3   As that data -- those data requests, really, get to the

4   network server, they have to be translated from the network

5   protocol, translated through the file system to the actual

6   data represented on the storage media, converted to those

7   native low level request that's the storage devices require,

8   and then meeted out to the storage devices.

9   So as you could see, the representation is that you

10   can get a lot more requests in than you can process through

11   that entire process to get the data out or the data requests

12   out to the storage devices. So you can have a lot more going

13   on the one side than the other basically there's an intrinsic

14   bottle neck there during that conversion.

15   Q.   When did you recognize it?

16   A.   This problem has been around for quite a long time. I

17   started focusing on it shortly after joining Crossroads.

18   Q.   Okay. So what is your invention change about this

19   picture?

20   A.   Well, seeing that a large part of the bottle neck is by

21   the protocol conversions involved and the accessed through the

22   file system, converted to that low level native protocol that

23   the storage devices use, what our invention does is eliminate

24   that conversion by having the requests from the computers on

25   the network side directly routed as data low level requests so

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1 those protocol con versions and file system con versions don't

2 have to occur while simultaneously providing a lot of the

3 access control and security that's needed to support multiple

4 systems in that environment.

5 Q. Okay. Let me place before you demonstrative exhibit 520.

6 What does that depict, sir?

7 A. Basically, it's a similar environment we where we had the

8 network server. However, in this case we have a storage

9 router in police of the network server. The computer's

10 talking to the router and the router talking to the storage

11 devices.

12 Q. And what's the fundamental difference between a router and

13 a server in this context, sir?

14 A. Server implements a file system. The router does not have

15 to implement the file system. The server also provides higher

16 level protocols at conversion to T C P ID is one of the

17 predominant protocols for network communication for computers

18 in this case do not have to use that T C P ID protocol. We

19 use their native SCSI protocols.

20 Q. Okay. You said a mouthful. Let me see if I can

21 understand. So one thing is it doesn't use a file server and

22 another thing it doesn't need these fancy protocols; is that

23 right?

24 A. That's right.

25 Q. Okay. And what's the net effect of that?

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1 A. You gain that performance back that you would have lost by

2 going through those conversions.

3 Q. Okay. Now, you've mentioned on a couple of occasions

4 access controls. What do you mean by that?

5 A. Access control refers to the ability to recognize read and

6 write data to a storage device on a device by device basis.

7 So you have these different computers out here. Their ability

8 to know that data's out there, note that these storage devices

9 are there, be able to put that data there selectively for the

10 protection of that data essentially.

11 Q. And what is the benefit of these access controls?

12 A. They are numerous. You may have data that you don't want,

13 certain computers have access to, uses that computer you might

14 not want them to see that data. You may have environments

15 where you worry about corruption of that data. If more

16 computers could get to that data, if a program crashes on this

17 one computer, it could destroy the data if it has access to

18 it, you could strain that access and prohibit that from

19 happening.

20   So those are two examples. There are many reasons you

21 might want security controls to access controls.

22 Q. Okay. I'm placing before you exhibit -- demonstrative

23 exhibit 593. Can you explain this for us, sir?

24 A. Sure. In the drawing here, we have two computers attached

25 through a storage router to multiple storage devices. Both of

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1   these computers here can access the storage device No. 3, it's

2   global access. There are essentially not any constraints put

3   on the access to that data. However, on the other two storage

4   devices one and two, A for example can only get storage device

5   one. The computer system A, the user on A would have no idea

6   that B exists. They would not know that data's there. It's

7   there. They without president be able to access it, they

8   wouldn't be able to modify it, they wouldn't be able to

9   corrupt it in any way.

10   Likewise, with computer B, it can only access this two

11   and three. It has no idea that one exists there. It may see

12   for example, it may be this number two as this primary disk.

13   A would see one as its primary disk, not knowing that the

14   data's there for the other one. So they could be configured

15   similarly without having access to the other device.

16   MR. BAHLER: Counsel, what exhibit's that? 50

17   something?

18   MR. ALCOCK: Demonstrative exhibit 593.

19   MR. BAHLER: Thank you.

20   MR. ALCOCK:

21   Q. Placing before the witness demonstrative exhibit 604 --

22   your Honor, with the Court's permission, could the witness

23   step down?

24   THE COURT: Sure. I will ask you to really keep your

25   voice up, though.

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1   THE WITNESS: I will try. Thank you.

2   MR. ALCOCK:

3 Q. Now you have to yell, Mr. Hoese, okay?

4   THE COURT: Now only will you try, you will succeed.

5   THE WITNESS: I understand.

6   MR. ALCOCK:

7 Q. Okay. Could you explain for us demonstrative 64 -- first

8 of all, can you recognize what it is for the jury? It says

9 figure 3 on the bottom. What does that mean?

10 A. This is a drawing I believe from the patent itself

11 describing the invention so it's a schematic drawing of the

12 environment, describing the characteristics of the invention.

13 Q. Okay. Now, can you explain to us your invention using

14 exhibit 604?

15 A. It's a very similar draw together this in that we've got

16 multiple stations, multiple computers out here connected to

17 the router. Also with storage devices behind it. What this

18 shows is that all of these computers can access the global

19 data.

20 Q. Excuse me. The global data is the block on the top No.

21 60; is that right, for the record?

22 A. That's correct.

23 Q. Okay. Continue.

24 A. And this is an arbitrary storage device. It could be a

25 disk drive, it could be a tape drive, any sort of SCSI storage

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1   device. So each one of these 60, 62, 64 here represent

2   different storage devices. So this shows that we can

3   segregate this access so that selectively, these computers can

4   access parts of or all of the different storage devices.

5   Q. Okay. And then, I see a storage router in a management

6   station, what do those things do in your invention?

7   A. Storage router provides the connectively between the fiber

8   channel and SCSI. Management station is agent essentially

9   that allows the configuration and management of these access

10   controls and the configuration of the overall system. So the

11   management station would be perhaps a software entity or

12   perhaps a separate work station or could be any one, you know,

13   with that capability specifically enabled, that provides the

14   capability as maybe as an administrator or whatnot. So the

15   administrator for this could come in and set up these

16   provisions so that maybe work station E crashes, well, we want

17   to give E that capability the configuration, the different

18   management systems have different access.

19   Q. Okay. Have a seat. Could you turn to exhibit 7 in your

20   book, sir?

21   A. Yes.

22   Q. What is exhibit 7?

23   A. Exhibit 7 is the -- basically the concept disclosure that

24   I wrote up for this invention and for the purpose of starting

25   the patent process and get -- documenting the concept to give

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1   to our patent attorneys and start.

2   Q.   I see.   So did you write this yourself?

3   A.   Yes, I did.

4   Q.   Did you write it in the regular course of business?

5   A.   Yes, I did.

6   Q.   And was it written at or near the time of the events

7   described therein?

8   A.   Absolutely, yes.

9   Q.   I'll offer exhibit 7 in evidence, your Honor.

10   MR. BAHLER: Your Honor, may we approach?

11   THE COURT: Yes, sir.

12   (At the bench on the record.)

13   MR. BAHLER: Mr. Alcock can certainly correct me if

14   I'm wrong, but this is going to be used as proof of conception

15   of the invention, okay?   Conception of the invention is a very

16   complicated issue and requires not only that the invention be

17   conceived or that written down like this, but it also be

18   communicated to somebody.

19   Now, it says Anthony Peter man, but that's hearsay.

20   This is a business record, granted, your Honor, but that part

21   is hearsay within hearsay.   There's no exception for that one.

22   There's no evidence of this --

23   THE COURT: Your objection to 7 is that the name

24   Anthony Peter man is hearsay?

25   MR. BAHLER: Yes.

1   THE COURT: The objection is overruled.

2   MR. BAHLER: Thank you.

3   THE COURT: 7 is admitted.

4   MR. ALCOTT: Thank you, your Honor.

5   MR. ALCOCK:

6 Q. What is the first page of exhibit 7?

7 A. It's fax cover document.

8 Q. And who did you send this to?

9 A. Anthony Peterman.

10 Q. Who is he?

11 A. Attorney at Baker and Botts that we retained to do patent

12 --

13 Q. What date did you send this to him?

14 A. The 28th of May, 1997.

15 Q. Okay. And could you take a look at the next two pages of

16 the document? What does the next page show?

17 A. Next page is an abstract in describing what's essentially

18 the methods that were in use at the time and the invention and

19 high lighting some of the distinctions there of what the

20 invention provided.

21 Q. Okay. So you weren't the first one to have a bunch of

22 computers on one side and a bunch of remote storage devices on

23 the other sides. You weren't the first to do that, were you?

24 A. No, I wasn't.

25 Q. And did you tell your patent lawyer that this was already

1   done here in this figure?

2   A.   Yes.

3   Q.   Take a look at the next page.   What are these two figures

4   showing, sir?

5   A.   Drawing 2 describes a storage route er environment with

6   global access where there are no access controls, so you have

7   the translation of data from the one side of the route tore

8   the other side of the router, an environment where all the

9   devices can see all the other devices so it's bringing that

10   data across directly.

11   Q.   Okay.   So here we've got a router.   Have I got that right?

12   A.   Yes.

13   Q.   And we've got computers on one side and SCSI remote

14   storage on the other; is that right?

15   A.   That's correct.

16   Q.   Is this your invention?

17   A.   No, that's not the invention.

18   Q.   So if we see all kinds of prior art that has remote

19   storage and work stations and a router, that's not your

20   invention necessarily, is it?

21   A.   It is not.

22   Q.   Okay.   Could you go further down the page?

23   A.   Drawing 3 shows an environment with the computers on one

24   side and storage devices on the other as being routed,

25   additionally, the storage access mechanisms are in place to

1   allow these access controls to selectively enable or disable

2   these systems to get to a storage device, a portion of those

3   devices.

4   Q.   I see.   Now, I notice that page 3 of exhibit 7 bears a

5   remarkable resemblance to figure 3 of the patent.   Was this --

6   exhibit 7 used to draft up the patent application?

7   A.   Absolute -- yes.

8   Q.   Okay.   Now, while you were at Crossroads, was any

9   Crossroads product sold to your knowledge that used the 972

10   invention?

11   A.   No.

12   Q.   Why not?

13   A.   Mainly it was a matter of bandwidth, manpower.   We started

14   out with our basic products.   We had different features we

15   wanted to put in over time as the market was able to adopt

16   those features an use them.   So we started out with the basic

17   storage routers and given the constraints of, you know, small

18   business, et cetera, the things we needed to do, we did not

19   get to that point where we had the resources and the time to

20   put this in.

21   Q.   Was there intent to put knit the product?

22   A.   We had at different points discussed putting these

23   features in, yeah.

24   Q.   And so now, did any of the Crossroads -- were you familiar

25   with the Crossroads products when you were there?

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1   A.   Absolutely, yes.

2   Q.   How were you familiar with them?

3   A.   I was very familiar with them. I helped with the

4   conception of a number of them, design and architecture. I

5   managed a lot of the software engineering effort to develop

6   the products, worked with the different teams on manufacture

7   and design of them, I was it Natalie familiar with them.

8   Q.   So if there was anybody to ask about whether or not this

9   patent was in a product, you're the guy?

10   A.   I would think so intimately), yes.

11   Q.   Now, you mentioned you had other patents, other patents at

12   Crossroads. Did any of those finds their way into products?

13   A.   We had a number of patent disclosures that were used,

14   number of inventions that were used in our products. And some

15   of those were issued patents were used in the products. I

16   don't have the list in mind exactly. We had on the order of

17   20 disclosures of patents that we had filed during the period

18   that I was there.

19   So I'm not able to name them, but, yes, absolutely.

20   Q.   Okay. Now, have you become aware that a Crossroads

21   product was marked as having your invention, that is, marked

22   with the 972 patent?

23   A.   I found that out during the deposition process for this

24   trial.

25   Q.   First time?

1   A. Yes.

2   Q. Was that right? I mean, should it have been marked?

3   A. No, no, absolutely not.

4   Q. Did you have anything to do with it?

5   A. No, I did not.

6   Q. Do you know who's responsible for its?

7   A. No, I don't, no, I didn't.

8   Q. Now, did you attend Comdex in 1996?

9   A. Yes, I did.

10   Q. What was your role there?

11   A. General support. I mean, I was there -- we showed a

12   technology demo there, so I was there to help put that

13   together and explain to people how that functioned, represent

14   the company, you know, we were a small company at that point,

15   so I think everybody was doing a number of things in that

16   regard.

17   Q. Did you have a product?

18   A. No.

19   Q. Did the demo that you do -- that you did have the 972, did

20   it use the 972?

21   A. No, it did not.

22   Q. I mean, it was five months before exhibit 7, right?

23   A. I'm not sure of the exact date of Comdex but on this

24   order, yeah.

25   Q. What was lacking in this technology demonstration compared

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1   to your invention?

2   A.   The technology demonstration connected a single work

3   station to a single storage device. It did not provide any

4   kind of mapping between the devices. It didn't have any

5   routing capabilities, as it were. It didn't have any access

6   control mechanisms. It had no management capabilities.

7   There's no configuration benefit. It's a pretty large

8   difference there.

9   Q.   So did it really have anything to do at all with figure 3?

10   A.   Not really, no.

11   Q.   We have heard a lot about the HP Mux. Do you know what

12   that is?

13   A.   Yes, I do.

14   Q.   How do you know what that is?

15   A.   I was involved in working with HP and understanding that

16   product.

17   Q.   What do you know about that product?

18   A.   I know a fair amount -- a lot about it, I know a great

19   deal about it.

20   Q.   Did it have anything to do with figure 3? Did it have

21   anything to do with your invention?

22   A.   No, it did not.

23   Q.   What was different about it?

24   A.   The HP Mux did not do any configurable mapping, it did not

25   have any management of that sort, it did not provide access

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1   controls at all.

2   Q.   You've used the term configurable mapping a couple of

3   times now.   Can you explain that to the ladies and gentlemen

4   of the jury what you mean by that?

5   A.   What I mean by that is what I would consider a storage

6   router is a device that provides mapping that can change --

7   that can be changed where you might have a device that you

8   might call a bridge or a Mux.   Those devices have a direct

9   correlation between devices on either side.

10   So for example, the computer's on one side would all

11   see these storage devices exactly the same way every time.

12   There's no way to change their addressing, how they appear.

13   It's a constant configuration, fixed configuration in that

14   regard.   A router that does mapping can change those mappings.

15   So you can have different devices tied in at different

16   addresses so that one computer may be able to see the

17   different devices at a given address and another may see a

18   different address.   Or you could go in at some point in time

19   and selectively change that administratively.

20   Q.   Take a look -- I'm placing before you demonstrative

21   exhibit 522.   Could you come down and explain to the ladies

22   and gentlemen of the jury what that is?

23   A.   This describes a map and what the mapping does, in effect,

24   where we have a system wanting to address the data on a

25   storage device.   A request is ven rated by one of these

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1   computers. It has to do that correlation, what does it want

2   so it puts in that request as to what it wants the map draws a

3   correlation as to what device that may be on and the region it

4   may be on.

5   And this example, these are the same in mapping con

6   figures, it's not necessarily true. It's not shown by this,

7   but it could be -- yeah, this guy's looking for disk Y so he

8.   knows it by one ad dress. In reality the router knows it by a

9   different address and remaps that to a different address. So

10   these addresses that are seen from the computers on one side

11   can be different and these regents can be different from one

12   side to the other and that's determined by the mapping tables

13   in the routing.

14   Q.   And that's part of your invention?

15   A.   The -- yeah, the addressing controls associated with that

16   are, yes.

17   Q.   Can you have a seat?

18   A.   Uh-huh.

19   Q.   So having worked at Crossroads for a while, were you

20   pretty familiar with the kinds of solutions that were out

21   there to solve the problem that you solved with this 972

22   patent?

23   A.   There weren't solutions out there to solve the problem

24   that we saw. That why we did the invention on it or did I

25   misunderstand your question?

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1   Q. You didn't. What is the significance of the invention

2   over the existing solutions?

3   A. It allows faster access so it allows systems to perform

4   the same function at greater speed or more data to be

5   retrieved at a given rate, so it's faster, faster and better.

6   Q. Pass the witness, your Honor.

7   MR. BAHLER: Your Honor, could we take a short recess?

8   THE COURT: Members of the jury, I'm going to give you

9   enough time to use the facilities, stretch your legs.

10   (Recess.)

11   THE COURT: Bring them in.

12   CROSS-EXAMINATION

13   BY MR. BAHLER:

14   Q. Mr. Hoese, I'd like to talk to you a bit about what

15   everybody's calling this technology prototype or whatever it

16   was at Comdex in 1996, all right, sir?

17   A. Yes, sir.

18   Q. That had a fiber channel controller in it?

19   A. It did.

20   Q. And that was a tacky on Fibre Channel controller from

21   Hewlett Packard, right?

22   A. I believe so, yes.

23   Q. And it had a microprocessor inside there, right?

24   A. Yes.

25   Q. And was that an Intel I 968 microprocessor?

164

1   A.   I believe so.

2   Q.   That's where you got it from?

3   A.   Uh-huh.

4   Q.   And just for clarity, the -- just to back up, the tacky on

5   I 960 has a internal buffer, right? It's called a guy know?

6   A.   It has a guy know in it, yes.

7   Q.   And it uses something called D M A to transfer from the --

8   that guy know memory which stands for first in, first out,

9   right, transfer from there to the buffer memory, right?

10   A.   I haven't looked at that chip in a while. It's very

11   possible. I don't specifically recall.

12   Q.   It what as fiber channel protocol unit, too, right?

13   A.   Yes.

14   Q.   And also in that demonstration Comdex 1996 was a SCSI

15   controller, right?

16   A.   Yes.

17   Q.   And that SCSI controller was bought from Symbios, right?

18   A.   Symbios logic.

19   Q.   And that had stuff inside of it, too, right?

20   A.   Yes.

21   Q.   And one of the things was a guy know memory, right?

22   A.   I believe that has a guy know in it, yes.

23   Q.   And it had SCSI protocol unit inside that chip, right?

24   A.   Yeah, yes.

25   Q.   Okay. And it had -- and a transfer data from the guy know

165

1   memory and protocol unit to the buffer memory of the router

2   using something called D M A, right?

3   A. I would not -- you used the term router in there and

4   described the whole thing but I wouldn't characterize it --

5   MR. ALBRIGHT: Your Honor, excuse me, that's the third

6   time that they've been on top of each other. I'm having

7   trouble following. I'm sure the court reporter.

8   THE COURT: The court reporter has a real good way of

9   telling me when she stands up and puts her hands up in the

10   air, I will know that she can't take it down until then, I

11   have confidence she's got every word. But let's do -- let him

12   finish the question and let him finish the answer.

13   MR. BAHLER: Yes, sir. Thank you. I'm withdrawing

14   the question and I'll ask it again.

15   Q. (BY MR. BAHLER) Symbios SCSI controller that was in the

16   thing at Comdex 1996 that was on display used something called

17   D M A to transfer data from the guy know memory within the

18   SCSI controller to the buffer memory of the thing, right?

19   A. I would think so, yes.

20   Q. All right. Now, Mr. Hoese, please take a look at -- you

21   still have a notebook up there and I also put some loose

22   papers up there that are clipped. Please look at your

23   notebook to plaintiff's 1. P-1 is a copy of the patents in

24   that note book. I would like you to take specifically a look

25   at figure 5 which I have up on the screen.

166

1   A.   Okay.

2   Q.   Now, that's a copy of the figure from your patent apply --

3   or from your issued patent, right, sir?

4   A.   Yes.

5   Q.   And that shows a Fibre Channel controller right here,

6   right, sir?

7   A.   Yes.

8   Q.   And that has all the stuff I just talked about that was in

9   the box that was at Comdex 1996, right?

10   A.   That's correct.

11   Q.   And it's got a micro processor right here, right?

12   A.   Yes.

13   Q.   That's just like in the box at Comdex 1996, right?

14   A.   That's fair.

15   Q.   All right. And then, over here the SCSI controller,

16   right?

17   A.   Uh-huh.

18   Q.   And that's exactly like what was in the box that Comdex

19   1996, right?

20   A.   Yes.

21   Q.   And up here, I'm sorry, this is a buffer. This isn't a

22   micro process earn, right? Here's the buffer?

23   A.   This is a schematic diagram that don't directly correlate.

24   It would have maybe in the diagram some characteristics of

25   both.

167

1   Q. Sit says right here item 84 it's a buffer, right?

2   A. Yes.

3   Q. And the box Comdex 1996 had a buffer, right?

4   A. Yes.

5   Q. And then, up here, this supervisor, that's the

6   microprocessor, right?

7   A. I would consider that so.

8   Q. And the box at Comdex 1996 had a supervisor unit,

9   processor, right?

10   A. Yes.

11   Q. Okay. Now, let's take a look at the way you describe that

12   figure to the Patent Office. Let's see. First of all, take a

13   look at figure 3. Do you have it, sir?

14   A. Yes.

15   Q. And I notice that the storage router on this figure is

16   labeled item 56, right?

17   A. That's correct.

18   Q. All right. And the storage router in the other figure,

19   which is figure 2 -- by the way, did you invent or did you not

20   invent figure 2?

21   A. I would not consider figure 2 the invention described

22   here.

23   Q. All right, sir. And that storage router in contrast is

24   called item 44, right?

25   A. Yes, it is.

168

1   Q. All right. And then, you go on to talk about in figure --

2   in the figure 5 we just talked about where you're describing

3   there is item 56, right?

4   A. I'm sorry. Could you -- I'm not sure what you're asking.

5   Q. The figure 5 that had all the stuff in the box at Comdex

6   1996 is figure 5, right?

7   A. Yes.

8   Q. And you told the Patent Office that was your invention,

9   right?

10   A. I don't believe so.

11   Q. You didn't tell them it wasn't, did you?

12   A. I believe this is described in the patent as that

13   component of the invention.

14   Q. That's right.

15   A. It is not described as the invention.

16   Q. And you never told the Patent Office that that part was

17   old, did you?

18   A. I did.

19   Q. When?

20   A. In the invention disclosure forms in figure 2, basically

21   describes the characteristics of figure 5 in that regard.

22   Q. Mr. Hoese, figure 4 was storage router No. 44, right?

23   A. It is labeled as such.

24   Q. It's not storage router No. 56, right?

25   A. It is not labelled as such.

169

1   Q.   And in fact, there is no presentation anywhere of any

2   details within storage router 44 which is not your invention

3   in this, right?

4   A.   I don't know. I'd have to read it.

5   Q.   I looked for it very carefully and I don't find it. Do

6   you think I missed it?

7   MR. ALCOCK: Your Honor, that's argumentative.

8   MR. BAHLER: I'll withdraw it.

9   THE COURT: Let's don't pitch it out anymore.

10   MR. BAHLER: All right.

11   Q.   (BY MR. BAHLER) Just for completeness, let's take a look

12   at column 5 of your patent near the bottom, zoom in on that.

13   Do you have it, sir?

14   A.   No, I don't.

15   Q.   Column 5 of the patent, at the bottom?

16   A.   Okay.

17   Q.   After describing the function you say to accomplish this

18   functionality one implement take of the storage router

19   includes a Fibre Channel interface and there you mention the

20   tacky on chip, right?

21   A.   Yes.

22   Q.   And then, you mention the Intel I 960 chip, right?

23   A.   Yes.

24   Q.   And then the top of the next column, you specifically

25   mention the Symbios chip, right?

170

1   A. Yes.

2   Q. All right. And all that stuff was in the box in Comdex

3   1996, right?

4   A. Those were components that were use merchandise that.

5   Q. And you never told the Patent Office about that, either,

6   did you?

7   A. I told them about --

8   Q. You never told the Patent Office that you had all those

9   components down to the specific manufacturers in the box that

10 you showed to the public in Comdex 1996, did you, sir?

11 A. Didn't believe they're relevant.

12 Q. Objection, move to strike. Nonresponsive.

13   THE COURT: Ask your next question.

14 Q. (BY MR. BAHLER) You never told the Patent Office that the

15 components that you -- that you had represented to the Patent

16 Office were required for your invention or embodiment of your

17 invention were in fact completely and fully in that box and on

18 public display in Comdex 1996?

19 A. Your question says what was an embodiment and I don't

20 believe that's the case.

21 Q. You never told the Patent Office that you had a box that

22 looked exactly like figure 5 including the manufacturers, the

23 details of the manufacturing of the individual components, you

24 never told them that that was in the box at Comdex 1996, did

25 you?

1   A.   Specifically, no, I don't think I told them that.

2   Q.   I'd like to touch on the HP Mux for a minute, which is

3   also the CrossPoint 4400, right?

4   A.   At one point it became that.

5   Q.   Okay. And --

6   A.   It became the basis for that.

7   Q.   HP Mux is manufactured by Hewlett Packard of course and

8   the C P 4400 was manufactured by Crossroads, right?

9   A.   I'm sorry.

10   Q.   The 4400 was the Crossroads product, right?

11   A.   The 4400 was a Crossroads product.

12   Q.   And that had a buffer in it, right?

13   A.   Yes, it did.

14   Q.   And it had a Fibre Channel controller?

15   A.   Yes, it did.

16   Q.   In fact it has a Hewlett Packard tacky in the controller,

17   didn't it?

18   A.   It had two.

19   Q.   And it had a Symbios SCSI control, right?

20   A.   Yes, it did.

21   Q.   And it had an I 960 microprocessor, right?

22   A.   Yes, it did.

23   Q.   And that was something that was also a Comdex 1996, right?

24   A.   I don't recall that. I don't know. May have been.

25   Q.   You were at Comdex 1996, right?

172

1 A. Yes.

2 Q. Please take a look at column 7 of your patent, sir. Do

3 you have it?

4 A. Yes, I do.

5 Q. I'd like to direct your attention to -- first of all,

6 column 7 is describing how -- it's part of the description how

7 your invention works, right?

8 A. I'd have to read through this. I haven't looked at this.

9 Q. You didn't look at your patent before you came to testify

10 in court about it?

11 A. I didn't read it in detail, no.

12 Q. Well, maybe I can help you out here. Specifically I want

13 to ask you about this all capital inquiry issue. Do you see

14 that?

15 A. I do.

16 Q. That's a standard SCSI command, right?

17 A. That is correct.

18 Q. And it says there that the commands that the storage

19 router will support and that's talking about the storage route

20 er of your invention, right?

21 A. As a component of that invention, yes.

22 Q. Can include inquiry as well as vendor-specific management

23 commands, right? It says these are to be generally consistent

24 with the S C C's standard commands, right?

25 A. Yes.

173

1 Q. And that's S C C, that's a standard setting command

2 committee, right?

3 A. That S C C refers to a specific specification regarding

4 formatting for addressing devices.

5 Q. All right, sir. Now, this inquiry command permits any host

6 to get inquiry data, which is data actually from any storage

7 device, right?

8 A. The SCSI specification describes inquiry command as way to

9 get information about a device, it's not storage device

10 specific.

11 Q. All right. And it doesn't say anywhere here that inquiry,

12 this inquiry data can be gotten from a storage device except

13 when access controls are in place. It doesn't say that, does

14 it?

15 A. This paragraph has no bearing on that. I'm not sure how

16 to relate your question to that paragraph.

17 Q. It doesn't say that, right? Doesn't condition that

18 statement at all on whether or not the access controls exist

19 in the router or not, right?

20 A. As I understand your question, I'd say no, it doesn't, but

21 I'm not sure I understand your question.

22 Q. What's your problem?

23 A. You're talking about addressing storage devices. This

24 paragraph talking about addressing a controller device that

25 the router has a controller device so you're essentially -- I

174

1   don't know what your meaning is, you know, you're asking a

2   question about something different than described here, so I

3   can't relate the two things.

4   Q. Well, inquiry data comes from storage devices, right, ago

5   cord together the SCSI S C C standard, right?

6   A. Inquiry data comes from any device.

7   Q. Right. And it doesn't say there that it has to come from

8   the controller, does it?

9   A. That's what it's saying here, yes. It's saying that

10   addressed is logic unit 10 as a controlling device. That's

11   why I don't understand your question.

12   Q. All right. Let's take a look at column 6. Are you there,

13   sir?

14   A. Okay. I have column 6 here.

15   Q. It says there that -- I lost my place. I'd like you to

16   draw your attention to line 61 through 63 there. It says

17   right here configuration information can be stored in a

18   segment of flash memory and can be retained across resets and

19   power off cycles. See that? And it says pass word protection

20   can also be provided, right?

21   A. Yes, I see that.

22   Q. And that says -- doesn't say that it's required that

23   configuration information be stored in flash so it can survive

24   resets, does it? It says can, right?

25   A. That's true.

175

1   Q.   And the same as power off cycles, right?

2   A.   Yeah.

3   Q.   So that's just -- that's one possible implementation or

4   it's not a requirement, right?

5   A.   I don't believe so.

6   Q.   And so let's make sure we're clear on what we're talking

7   about. Configuration data there, and over in the claims,

8   there were for example, claim 1, just so we're clear, that use

9   of the phrase to maintain a configuration, right?

10   A.   I'm sorry, go ahead.

11   Q.   The claim says to maintain a configuration and then it

12   goes on, right?

13   A.   Yes.

14   Q.   And that's the same configuration data that's being talked

15   about at the bottom of column 6 that we just talked about,

16   right?

17   A.   The column 6 would be some subset of the configuration

18   referred to in claim 1.

19   Q.   Doesn't say that in column 6. Column 6 says configuration

20   data, it doesn't say a subset of configuration data, does its?

21   A.   No, it doesn't but it goes on to describe that data, which

22   is by implication a subset.

23   Q.   Pass the witness.

24   RE-DIRECT EXAMINATION

25   BY MR. ALCOCK:

1 Q. Real quick, Mr. Hoese, do you still have exhibit 7 in

2 front of you, sir?

3 A. Yes, I do.

4 Q. Take a look at the bottom where it says concept by Jeffrey

5 Hoese, March 22, 1997, first draft, May 1997.

6   MR. BAHLER: Objection, your Honor. This is beyond

7 the scope of cross.

8   MR. ALCOCK: He was questioned extensively.

9   THE COURT: It was -- let me hear your question.

10   MR. ALCOCK:

11 Q. Question is, you heard a lot about Comdex of 1996. When

12 did you come up with the access control notion?

13   MR. BAHLER: Objection, your Honor.

14   THE COURT: Objection's overruled.

15 A. In March of '97.

16   MR. ALCOCK:

17 Q. And if you look at the top figure on page 3 of exhibit 7,

18 what were you trying to do there?

19 A. I was trying to describe existing solutions.

20 Q. Okay. And now, if we look at figure 2 of exhibit 1, what

21 were you trying to do there?

22 A. It's the same purpose as the drawing in the previous

23 exhibit.

24 Q. Okay.

25 A. Of showing existing solutions.

177

1   Q.   Right.   Prior art?

2   A.   Yes.

3   Q.   Okay.   Now, is the HP Mux closer to your invention than

4   figure 2 or further away?

5   A.   It's further away.

6   Q.   Why is it further away?   What's in figure 2 that the HP

7   Mux lacks?

8   A.   There are a number of elements that HP Mux lacks in figure

9   2.   It doesn't have the management interface, it doesn't have

10   the addressing configuration, mapping that's described,

11   associated with figure 2 here.

12   Q.   Okay.   How about this demo unit at Comdex?   Is it closer

13   to figure 2 or -- is figure 2 closer to your invention or

14   further away?

15   MR. BAHLER: Objection, vague.   Closer or further

16   away.

17   THE COURT: Objection is overruled.   You may answer it

18   if you understand it.

19   A.   The device we showed at Comdex was much further away than

20   the invention in figure 2.

21   MR. ALCOCK: There what do you mean.

22   A.   It has less of a characteristic as figure 2 so it was less

23   similar to it than figure 2 would be.

24   Q.   So is your intent if figure 2 to disclose what you thought

25   was the closest?

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1   A. Yes.

2   Q. No more questions, your Honor. Pass the witness.

3   RE-CROSS EXAMINATION

4   BY MR. BAHLER:

5   Q. Mr. Hoese, let's take you back and look at figure 2. See

6   that? I'm sorry. How is that?

7   A. Yes.

8   Q. Okay. Now, and then, above that is figure 1, right?

9   A. That is correct.

10   Q. Figure 1 is this network server thing that Mr. Alcock's

11   been talking about, right?

12   A. Yes.

13   Q. All right. Take a look at column 1 -- column 2 where

14   you're describing what the figures are. All right, see that?

15   A. Yes, I do.

16   Q. Okay. You say that there figure 1 is a block diagram of a

17   conventional network that provides storage through a network

18   server, right?

19   A. That's what it says.

20   Q. And then, you say figure 2 is a block diagram of one

21   embodiment of a storage net work with a storage router that

22   provides global access and routing, right?

23   A. Correct.

24   Q. And you say -- then you describe figure 3 says a block

25   diagram of one embodiment of a storage router that provides

1   local storage?

2   A. That is correct.

3   Q. You described figure 1 as a conventional network?

4   A. Yes, sir.

5   Q. That's not the way you described figure 2, was it?

6   A. It is not a conventional network. I wouldn't describe it

7   that way.

8   Q. It's not your ven invention, is it?

9   A. No, it's not.

10   Q. Why did you tell the Patent Office that?

11   A. I think it's obvious. It's describe merchandise the text

12   here.

13   Q. You point it out to me, please?

14   A. I don't know specifically where it states that. It's in

15   the description. It discusses what these things are and

16   describes them as such.

17   Q. Pass the witness.

18   MR. ALCOCK: No further questions of the witness, your

19   Honor.

20   THE COURT: May this witness be excused?

21   MR. ALCOCK: He may.

22   MR. BAHLER: Yes, your Honor.

23   THE COURT: You may be excused. Call your next

24   witness. If you'll just come all the way down, please. This

25   is Mrs. Sims. She's go together administer an oath to you.

180

1   (Witness was sworn.)

2   THE COURT: Walk around this column and have a seat up

3   here in this blue chair, please. You need to tell us your

4   full name and spell your last, please.

5   THE WITNESS: Keith arroyo, last name is spelled A R R

6   O Y O

7   DIRECT EXAMINATION

8   BY MR. GUIST:

9   Q. Good afternoon, Mr. Arroyo. Now you've introduced

10   yourself, I'll introduce myself to the jury. I'm John Guist,

11   representing Crossroads, and one of the many attorneys here.

12   Mr. Arroyo, what kind of work do you do?

13   A. I do software development.

14   Q. What does that entail?

15   A. Entails design, writing code and testing.

16   Q. How long have you been doing this software development?

17   A. I'd say for about thirteen years.

18   Q. Can you give me an idea of some companies that you've

19   worked for?

20   A. IBM, Thomas Conrad, the Compaq, Crossroads and sis co

21   systems.

22   Q. And what kind of work did you do with those companies?

23   A. Software development.

24   Q. Did software development writing computer code?

25   A. Yes, it does.

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1   Q.   Did you write computer code at all at these companies?

2   A.   Yes, I did.

3   Q.   When did you begin writing computer code?

4   A.   I'd say '87.

5   Q.   At the companies you just mentioned, have you tone

6   anything else other than write computer code?

7   A.   I've done quality assurance at IBM.

8   Q.   For how long?

9   A.   Two years.

10   Q.   When did you Saturday working for Crossroads?

11   A.   Sometime in '96.

12   Q.   And what was your employee number?

13   A.   You mean like the number I was hired or --

14   Q.   Yeah?

15   A.   Employee number like a badge number?

16   Q.   Number when you were hired.

17   A.   I think I was like No. 10 or 11.

18   Q.   So tenth or eleventh employee or something like that?

19   A.   Yes.

20   Q.   What did you do when you started working at Crossroads?

21   A.   I started working on the design and coding of the router

22   product.

23   Q.   And did that product have a name at the time?

24   A.   I don't know if it had a name when I started writing --

25   when I started working on its. It had a name of Verzano as an

182

1   internal name.

2   Q. Do you know what a Verzano is?

3   A. I think it's a bridge in New York.

4   Q. You said you worked on routing code. What does routing

5   code do?

6   A. Routing code is the code that sits between the Fibre

7   Channel driver and the SCSI driver and it basically is the

8   code that translates or converts one media to the next. So

9   for information going from one side like in this instance,

10   fiber channel, it would map over to the protocol note SCSI.

11   So my code is involved in that process.

12   Q. So would your code connect the Fibre Channel computers to

13   the SCSI disk drives?

14   A. Yes.

15   Q. The Verzano product you just mentioned, did that

16   eventually release as a Crossroads product?

17   A. Became the 4100.

18   Q. The C P 4100?

19   A. C P 4100.

20   Q. Did you ever work on a Crossroads technology

21   demonstration?

22   A. I've worked on, yes.

23   Q. And why did you do that?

24   A. As a demo for the Comdex show.

25   Q. What did you do with respect to this demo at the Comdex

183

1   show?

2   A. I worked on getting -- writing the software or the P C I

3   described to you at that show.

4   Q. May we approach the witness, your Honor?

5   THE COURT: Don't need my permission.

6   MR. GUIST:

7   Q. Mr. Arroyo, I'm going to show you exhibit 141. Can you

8   take a look at that?

9   MR. BAHLER: Mr. Guist, do you have a copy?

10   MR. GUIST: Yes.

11   MR. BAHLER: Is that Plaintiff's 141?

12   MR. GUIST: Yeah.

13   MR. GUIST:

14   Q. Mr. Arroyo, could you tell me what exhibit 141 is?

15   A. This is the code that was used on the demonstration

16   platform.

17   Q. Did you write this code?

18   A. Yes, I did.

19   Q. And was it created in the course of your employment at

20   Crossroads?

21   A. Yes.

22   Q. Was it created in furtherance of the business interest at

23   Crossroads?

24   A. Yes.

25   Q. Your Honor, I'd like to move -- I'd like to offer exhibit

184

1   141 into evidence?

2   MR. BAHLER: No objection.

3   THE COURT: It's received.

4   MR. GUIST:

5   Q.   Let's talk about if Comdex demonstration in 1996 a little

6   more. What relation did that code have to the product at

7   Comdex?

8   A.   That the product -- the -- ask your question again.

9   Q.   Sure. What relation did that code have to the product

10   that was shown at Comdex in 1996?

11   A.   Did this code have --

12   Q.   Right.

13   A.   This is the code that was used in the demonstration

14   platform.

15   Q.   Okay. And using that code, can you tell me how many disk

16   drives the Comdex demonstration connects to?

17   A.   It connected to one only.

18   Q.   One only?

19   A.   Yes.

20   Q.   And how do you know that?

21   A.   Because we hard coded the SCSI driver to only address one

22   device.

23   Q.   Okay. And using this code in front of you, can you tell

24   me how many computers the demonstration unit at Comdex in 1996

25   worked with?

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1   A. It worked with one.

2   Q. Just one?

3   A. Just one.

4   Q. How do you know that?

5   A. I had set it up. There was just one computer and one

6   drive.

7   Q. It could be -- could this code work with more than one

8   computer?

9   A. It wasn't tested for more than one computer. I doubt it

10   did because we weren't at the stage of topping one more

11   computer. So I'd say no but, you know, it's something we

12   hadn't completed yet so we were only concerned with getting

13   one computer to talk to one drive.

14   Q. Did you ever hook up more than one computer to this

15   demonstration?

16   A. No, I didn't.

17   Q. Did you attend Comdex in 1996?

18   A. I did not.

19   Q. Have you worked on other products besides the C P 4100?

20   A. The C P 4200, which is the following product and I think

21   it was the follow-up -- I don't remember the name of that, but

22   there's another product.

23   Q. What did you do in relation to these other products?

24   A. Most of the code that I wrote was directly portable to

25   those other platforms. So there was certain tweaks in the

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1   code that we had to make, but basically 99 percent of it was

2   used in the other products.

3   Q. Do you ever use the term mapping in your operations of

4   Crossroads at work?

5   A. Yes.

6   Q. And what's your understanding of mapping in terms of a

7   Crossroads router?

8   A. Mapping to me, the way I use it, is a mapping between

9   Fibre Channel entities and SCSI entities, and there's a

10   protocol involved in translating one to the other.

11   Q. Did the unit at Comdex in 1996 have this capacity for

12   mapping?

13   A. No.

14   Q. How do you know that?

15   A. Because we hard coded in the SCSI driver to always address

16   one device.

17   Q. Okay. And is that proven by the code seen there in front

18   of you?

19   A. In this code, there's no setting of bus target line which

20   are identifications of the disk device. Eat not set in this

21   code and so that because we had the SCSI driver set those to

22   our coded addresses, there's no need to put that kind of code

23   in this.

24   Q. But eventually, a code of all to perform this mapping

25   function?

1   A. That's correct. That's one of the main pieces of this

2   code was to do that mapping function.

3   Q. And was there any way at all in the code sitting there on

4   exhibit 141 to control about set from any computer to any disk

5   drive?

6   A. Say it again.

7   Q. Sure, was there any way that the code sitting there on

8   exhibit 141 to control access from a computer to a disk drive?

9   A. If a command came in for the disk drive, it would be

10 nothing there to prevent from going to the drive. So there's

11 nothing to prevent a command from getting from -- from flowing

12 from fiber channel to SCSI.

13 Q. So there's nothing there that can block any access

14 whatsoever to the disk drives?

15 A. The only way it would stop is it an ill formed function or

16 ill formed command itself, it's a syntax there and the

17 protocol and it gets rejected. But if it's abiding by the

18 protocol, it's valid command, there's nothing that we do to

19 prevent that from going to the SCSI, to one SCSI drive.

20 Q. Is that supported by the code in exhibit 141, just your

21 last answer?

22 A. Yes.

23 Q. You're sitting here today in the witness box. Can you

24 tell me your understanding of what this case is about or why

25 you're here?

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1   A. I'm just aware of there's a lawsuit between Crossroads and

2   Pathlight Chaparral over a patent infringement that's not

3   involved with me.

4   Q. Okay. You knows there a patent involved in this case?

5   A. Yes.

6   Q. Have you ever seen or read this patent?

7   A. No.

8   Q. Do you know any definitions of any words that are used in

9   the patent?

10   A. I don't know anything about the patent.

11   Q. Okay. Pass the witness.

12   CROSS-EXAMINATION

13   BY MR. BAHLER:

14   Q. May I approach the witness, your Honor?

15   THE COURT: You don't need my permission.

16   MR. BAHLER: Okay. I'm sorry. I won't ask again.

17   Thank you.

18   Q. (BY MR. BAHLER) Mr. Arroyo, I place in front of you a

19   notebook that has several exhibits and I'd like you to turn

20   your attention to exhibit P 145 which is in there. It's at

21   tab 2, sir.

22   A. Tab 2, okay.

23   Q. Right?

24   A. Okay.

25   Q. Are you with me?

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1   A. Yes.

2   Q. All right. Now, this is a code that you wrote in

3   September 18th, 1997, correct?

4   A. That's the day of the -- that's the date that was put in

5   by the -- that was put in this code at a checking of some

6   time.

7   Q. Well, sorry, I didn't mean to overstep your question. You

8   wrote this, right?

9   A. This is a code I wrote, yes.

10   Q. And when did you write it?

11   MR. GUIST: Your Honor, he's talking about an exhibit

12   not in evidence.

13   MR. BAHLER: I haven't shown it to anybody.

14   MR. GUIST: I'm objecting to the basis he's reading

15   from an exhibit not in evidence.

16   THE COURT: He's just asking him if he wrote this code

17   and when. He's not asking it to be placed in evidence. You

18   may answer if you know when.

19   A. I don't know exactly when I wrote this code. I just know

20   that there's a date on here when the code was checked in.

21   Q. (BY MR. BAHLER) This is a code you wrote that found its

22   way into the Crossroads CrossPoint 4100 product, correct?

23   A. I don't know when we -- at some point, we got off the

24   platform and then, we went to the 4100 and I'm not sure if

25   this is the code that was actually billed for the official

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1   product. Built).

2   Q. Eventually, a code -- let me ask specifically. In this

3   code, there's, as we've discussed at your deposition, there's

4   accommodation or management of the SCSI reserve command,

5   correct?

6   A. If you give me a minute to look at it, just to find it.

7   Q. Sure. Why don't you take a look at -- see those numbers

8   at the bottom?

9   A. Yes.

10 Q. Page 63127.9729 G.90.

11 A. Yes.

12 Q. That's the page that discusses reserve command, right?

13 A. Well, it's a team that's called to build a request or send

14 back reserve, reservation conflict. I have to see if it's

15 called. Didn't write down the calling. You don't have the

16 calling page, do you?

17 Q. No, I don't.

18 A. Figure it out, find it.

19 Q. Mr. Arroyo, why don't we try to speed things along. As

20 you know, we have some time constraints here. Tab 1 in your

21 notebook is a copy of your deposition?

22 A. Okay.

23 Q. Right? And you were designated as a representative of

24 Crossroads to tell us about which products of Crossroads

25 included support for the SCSI reserve command, right?

191

1   A.   I don't -- I mean, I just write the code and as far as the

2   products it goes into.

3   Q.   All right.

4   A.   That's a marketing.

5   Q.   Well, you told us at your deposition that the SCSI reserve

6   command went into the 4100?

7   A.   Yes, I did.

8   Q.   And you know that for a fact?

9   A.   Yes.

10   Q.   And you're speaking on behalf of the corporation at the

11   time, right?

12   A.   Yes.

13   Q.   And also, the 4200, right?

14   A.   I know that for sure.

15   Q.   And it went into the 4400, too, right?

16   A.   4400? I don't know about that.

17   Q.   Well, at the very least, a program that kept track of the

18   SCSI reservations was written and included in a 4100 product,

19   right?

20   A.   Right.

21   Q.   And by what time, sir?

22   A.   I don't know when --

23   Q.   Was it before the end of '97?

24   A.   Before the end of '97?

25   Q.   Yeah.

192

1   A. I can't say.

2   Q. End of '98?

3   A. I don't know when the Mux was available.

4   Q. 4100 I'm talking ability?

5   A. Right.

6   Q. That's not the Mux. 4400 is the Mux. We're talking about

7   the 4100. When did it have support for the reserve command?

8   When did the 4100 have that support?

9   A. For the reserve command?

10   Q. Yeah.

11   A. Well, there's early -- when I did the reserve code,

12   there's cases where I would -- I mean, it was a progression.

13   In other words, it wasn't like one day it's in or not in and

14   then all of a sudden it's the complete version with all the

15   details is complete the next day. So there's a -- as we go

16   through and develop, right, we add something we know it's not

17   complete but we go ahead and test that part and move on.

18   Q. Well, eventually the 4100 product had or used the SCSI

19   reserve command to control reservations sent by hosts for

20   storage devices, right?

21   A. Yes.

22   Q. Okay. And when was that?

23   A. I don't know.

24   Q. Was it before the end of 1999?

25   A. Before the ends of '99? Sure, yes.

193

1   Q. All right. At least before the end of '99. Thank you.

2   Other than keeping track of reservations, was there any other

3   way for the 4100 at any point in time to control access

4   between Fibre Channel hosts and SCSI storage devices?

5   A. You're saying before?

6   Q. No. At any time.

7   A. Reserve leases is the only thing -- there's nothing other

8   than reserve release.

9   Q. That's the only thing that did access control, right?

10 A. What do you mean by access control? I mean, it's really

11 -- it's an open system, so depends on what you mean by access

12 control.

13 Q. Did the 4100 at any time ever have any mechanism other

14 than support of the SCSI reserve command to prevent a host

15 from accessing the storage devices?

16 A. Not to my knowledge.

17 Q. All right. Please take a look at tab 4 in your notebook,

18 which is Plaintiff's Exhibit 346.

19 A. Okay.

20 Q. Now, this is a -- this is called -- your Honor, I move

21 defendant's 346 into evidence.

22   THE COURT: It's received.

23   MR. BAHLER: Is it in?

24   THE COURT: Received. No objection from the

25 plaintiff.

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1   MR. BAHLER: All right. I also move Plaintiff's

2   Exhibit 145 into evidence.

3   THE COURT: Received.

4   Q. (BY MR. BAHLER) Mr. Arroyo, let me show you plaintiff's

5   146 to you. Take a look another that in your notebook. This

6   is called a Compaq C P 4100 Shiner OEM requirements, right?

7   A. That's what it says, yes.

8   Q. And this is dated October 22nd, 1997, right?

9   A. That's what the date is on this.

10   Q. And this is the version of the 4100 that was being

11   prepared for Compaq, right?

12   A. I didn't write this document. I don't know.

13   Q. Did you have anything whatsoever to do with the shine er

14   project?

15   A. I was -- I delivered source code for it.

16   Q. Okay.

17   A. I didn't write this document.

18   Q. Okay. Take a look at page 5 within that document.

19   A. Okay.

20   Q. Okay. Page 5 makes specific reference to implementation

21   of the SCSI reserve and release commands, right?

22   A. Uh-huh.

23   Q. And was that included in the Shiner project that of the

24   version of the C P 4100 that Crossroads was making for Compaq?

25   A. It eventually got into the product.

195

1   Q.   Do you know when?

2   A.   No, I don't.

3   Q.   This is dated October '97. Was it before the end of that?

4   A.   We -- I just remember shipping many, many versions of code

5   that had -- didn't have full support of this document. So I'm

6   not sure when the reserve release command --

7   Q.   Were you the one responsible for preparing the code that

8   would have done the functions that are described there in

9   section 4.2?

10   A.   Yes, I was in charge of writing the code that did this.

11   Q.   And this is the requirements from Compaq sent to

12   Crossroads and you filed those requirements, right?

13   A.   Let me read them real quick again. Looks like it's close

14   to what I have.

15   Q.   All right. And you wrote that code and it was put into C

16   P 4100 for Compaq, right?

17   A.   It was -- well, it was used for our product and the Compaq

18   product.

19   Q.   Okay. So this accurately describes the implementation of

20   the SCSI reserve command for the 4100 before the end of 1999?

21   Is that true?

22   A.   Yeah, I think end of '99.

23   Q.   Pass the witness.

24   MR. GUIST: No further questions.

25   THE COURT: Counsel, may this witness be excused?

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1   MR. BAHLER: Yes, your Honor.

2   THE COURT: You may be excused, sir.

3   MR. ALCOCK: We're getting our next witness, your

4   Honor.

5   THE COURT: All right. If you'll come down, please.

6   Just right up here. This is -- this lady right here standing,

7   Mrs. Sims, she's going to administer an oath the you.

8   (Witness was sworn.)

9   THE COURT: Now you need to walk around this column

10   and have a seat. Now if you'll tell us your full anymore and

11   spell yours last name.

12   THE WITNESS: I'm Jeffrey Thomas Russell, R U S S E L

13   L.

14   DIRECT EXAMINATION

15   BY MR. GUIST:

16   Q. Mr. Russell, can you introduce yourself to the jury?

17   A. I'm Jeff Russell.

18   Q. Where do you live, Mr. Russell?

19   A. I live in Austin, Texas.

20   Q. How long have you lived there?

21   A. I've lived here about a year.

22   Q. And where did you live before Austin?

23   A. Before Austin, I was in San Antonio for about five years.

24   Q. Okay. Can you give the jury a synopsis of your

25   educational background?

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1   A. Sure. I have bachelor of science in electrical

2   engineering and after that, I went to Purdue university and I

3   got a masters of science in electrical engineering there.

4   Q. What year did you get your masters?

5   A. I graduated with a masters in 1991.

6   Q. Can you give me and the jury, as well, a brief synopsis of

7   your work history background?

8   A. Sure, when I graduated from Purdue in '91, I was recruited

9   down here by IBM and I worked at IBM for about five years and

10   designed local area net work adapters circuit boards and some

11   computer chips and then, in '95, I hired on at precursor to

12   infinity to Crossroads which was infinity come star.

13   Q. What was your position at Crossroads?

14   A. I was hired as the first engineer and designed hardware

15   for Crossroads and that consisted of things like what you'd

16   see inside of a P C, the green circuit boards, computer chips,

17   figuring out connectors that go on and power supplies and

18   things like that.

19   Q. Terms of employees, what was your employee number?

20   A. Five plus or minus one, depends how you count, but five.

21   Q. Okay. Let me show you exhibit 1. Do you recognize

22   exhibit 1 shown in front of you?

23   A. Yeah, that's a patent.

24   Q. Okay. And you're listed as an inventor on this patent?

25   A. Yes, I am, along with Geoff Hoese.

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1   Q. And that's you, you're Jeffrey T Russell?

2   A. That's me. Cibolo is a little suburb of San Antonio.

3   Q. Okay. When you arrived at Crossroads, what products did

4   you start working on?

5   A. First big product I worked on was the C P 4100 which was

6   our first Fibre Channel to SCSI bridge.

7   Q. What products do you work on now?

8   A. Now I really don't work on specific products. I kind of

9   investigate new technologies that might get put into products

10   in the long-term, in connection with this patent.

11   Q. Can you tell me what your contribution was?

12   A. Sure. I collaborated with Geoff Hoese and my expertise

13   was designing hardware. So we went back and forth on ideas

14   and I really brought the hardware perspective to the

15   invention.

16   Q. Can you give the jury tan example of this hard wire you're

17   talking about?

18   A. Sure. Again, if you look inside of a PC, you'll see the

19   green circuit boards, what we designed for the CP 4100 is

20   about that complicated. Circuit board with computer chips on

21   it and then there's wires embedded in the circuit board that

22   connect all the chips together.

23   Q. Okay. What was your hardware design to do in connection

24   with that?

25   A. Hardware provides like all the physical interface toss the

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1   outside world, the connectors and the protocol interface

2   chips. It provides other connectors so you can manage it and

3   make it do something useful. It provides the power so it can

4   run and it works with the software to let the programs

5   execute.

6   Q.   Getting back to the patent, can you tell me and the jury

7   just a quick synopsis of what the patent is?

8   A.   Sure. Uses a space storage router and then it provides

9   virtual local storage using access controls. So the different

10   computers can get to different storage, things on the other

11   side using some kind of access control.

12   Q.   And why did you come one this invention?

13   A.   We thought it was a better way to do connections to remote

14   storage compared to traditional network file servers. So it's

15   -- it use as different set of protocols that have lower

16   overhead to access the storage compared to network file

17   servers.

18   Q.   Are access controls important to this invention?

19   A.   Yes, it's the central part of what allows the mapping to

20   occur.

21   Q.   When did you come up with this invention?

22   A.   It was in early to mid 1997.

23   Q.   What product were you working on during that time frame?

24   A.   That's when I was working on CP 4100.

25   Q.   Did you put this invention into that product, the CP 4100?

200

1   A.   No.   The CP 4100 was just kind of a basic bridge router

2   kind of thing.

3   Q.   Why didn't you put the invention into the CP 4100?

4   A.   Well, this was kind of one of those things you sat back

5   and said, gee whiz, this would be the great features to have

6   but there's just no time to implement that in a base product

7   that you had to get out the door, only a few people working on

8   it.

9   Q.   Did you work on any technology demonstrations for

10   Crossroads?

11   A.   Sort of.   We had a technology demonstration at Comdex

12   towards the end of 1997, and I had worked to put together a

13   box that was the concept of how the CP 4100 might be packaged.

14   Q.   Do you mean Comdex in 1996?

15   A.   Yeah, I do.

16   Q.   Sorry.   Did you attend that Comdex?

17   A.   Yes, I did.

18   Q.   And what did Crossroads show at that Comdex?

19   A.   We showed two thing, one was a box, that's what I

20   mentioned that I worked on, and we also showed the technology

21   demonstration of a computer talking to storage.   And the box

22   was what I worked on.   It sat on top of the table and it had

23   blinking lights and it had some connectors glued from the

24   inside but otherwise the inside of the box was kinds of empty

25   and then we took the determine straight that was actually

201

1   doing something and kind of draped the cables over that to a F

2   C that was under the table that executed all the software that

3   was doing the technology demonstration.

4   Q.   Okay. So what was the unit actually doing the technical

5   aspect?

6   A.   It was the PC. So my contribution of the box was just a

7   box with blinking lights.

8   Q.   And the PC was under the table?

9   A.   Yes.

10   Q.   And why was the PC under the table?

11   A.   It's just to get people to look and say there's a box

12   doing something so they'd come up and talk to us, you know. I

13   know when I was there talking to people, I didn't try to pull

14   any bate and switch. I just said what was going on.

15   Q.   Could you tell by looking at the demonstration what was

16   inside of the box or inside of the PC?

17   A.   Not really. You can tell that there was some kind of

18   hardware to interface the SCSI channel because there were

19   tables and things but past that you couldn't really see what

20   was going on. Cables).

21   Q.   Did this technology demonstration use the patented

22   invention, the 972 patent?

23   A.   No, it didn't.

24   Q.   And why not? Let me ask you this. How do you know it

25   didn't use the invention?

202

1   A. Well, the invention really wasn't part of the CP 4100. We

2   were just trying to show case some of the technology that was

3   in the CP 4100 at that time.

4   Q. So what was lacking from the CP 4100 in terms of your

5   invention?

6   A. Well, hardly any of the hardware was there. I mean, there

7   was some hardware interfaced to these protocols that you could

8   see, but there was none of the guts of the 4100 implemented at

9   that time.

10   Q. Did the technology demonstration use these access

11   controls?

12   A. No, it didn't.

13   Q. Is the technology demonstration from Comdex in 1996, is

14   that relevant to the 972 patent?

15   A. I don't think it is.

16   Q. Why not?

17   A. It was just kind of an early consent of, hey, this is what

18   you can do the hook up Fibre Channel and SCSI. It was just

19   trying to show what the product might eventually start to do.

20   It was a vague functionality.

21   Q. Pass the witness.

22   CROSS-EXAMINATION

23   BY MR. GARRETT:

24   Q. Good afternoon, Mr. Russell. How are you?

25   A. Great. How are you doing.

203

1   Q.   I'm okay.   I just have a few questions for you to follow

2   up on some of the testimony you gave.   My name is Martin

3   Garrett.   You and I met when we took your deposition sometime

4   ago, do you remember that?

5   A.   Yes, I do.

6   Q.   Now, you stated a second ago that the technology

7   demonstration at Comdex didn't include -- well, didn't have

8   hardly any of the hardware of the 4100; is that right?

9   A.   Right.

10   Q.   Now, the 4100 is a Fibre Channel to SCSI router, is that

11   right?

12   A.   I personally call it a Fibre Channel to SCSI bridge.

13   Q.   A Fibre Channel to SCSI bridge and it has a buffer in it,

14   right?

15   A.   The CP 4100 does, yes.

16   Q.   And it has a Fibre Channel controller, right?

17   A.   Yes, it does.

18   Q.   And it has a SCSI controller, right?

19   A.   Yes, it does.

20   Q.   And there's a supervising unit in there, as well; is that

21   correct?   A microprocessor?

22   A.   There was a microprocessor, yes.

23   Q.   Okay.   And isn't it true, though, Mr. Russell, that the

24   technology demonstration as you put it at Comdex had every

25   single one of those elements?

1   A.   I don't know.

2   Q.   Would you be surprised to learn that Mr. Hoese testified

3   that it did?

4   A.   I wouldn't be surprised.

5   Q.   Would you disbelieve him?

6   A.   No.   I wasn't involved in assembling all the details of

7   the PC that ran that software that was demonstrated in the

8   4100 so that's why I say I don't know for sure.

9   Q.   But you testified it didn't have hardly any of the

10   hardware, correct?

11   A.   I believe I testified that the 4100 prototype didn't have

12   hardly any hardware.   It was just an empty box with a power

13   supply.

14   Q.   Now, let's talk for a minute about your invention.   In

15   case you don't already have a copy of it, would you look at

16   that?   You're familiar with the patent application process,

17   right, Mr. Russell?   You went through it with respect to the

18   application at issue, this patent?

19   A.   Yes, I did go through it and I'm familiar with it in that

20   sense.

21   Q.   And you're familiar where the contents of the patent

22   itself, kind of how it's laid out, what's what?

23   A.   Yes.

24   Q.   Okay.   And you know, then, that in the detailed

25   description part of the invention, that's generally where you

205

1   actually describe what your invention; right?

2   A.   Yes.

3   Q.   Okay. Now, I'm going to put up on this nifty little

4   device here that hasn't been too kind to us so far what would

5   be column 6 for you. It may be easier for you to look at the

6   screen or neighbor the hard copy. Mr. Russell, have you

7   discussed this case with anybody today outside the courtroom?

8   A.   No, I haven't.

9   Q.   Okay. Let's look --

10   A.   What page are you looking at?

11   Q.   It's column 6. I believe the patent's not numbered in

12   terms of payments.

13   A.   Okay.

14   Q.   The sentence that my pen is more or less pointing to

15   states -- well, now it states, configuration information can

16   be stored in a segment of flash memory and can be retained

17   across resets and power off cycles. Is that right?

18   A.   That's what the sentence says.

19   Q.   That's what it says, right?

20   A.   Yes.

21   Q.   And this is in the detail description part of your

22   invention; is that correct? You can actually flip back to

23   column 2 and I think you'll see that heading, if you'd like to

24   verify it.

25   A.   Yeah, it is part of that section.

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1   Q. Okay. So in a part of the section of the patent that

2   discusses your invention, there's a sentence that says resets

3   are okay, isn't there?

4   A. I don't see the word reset in that sentence.

5   Q. Okay. Let me point it out to you. How about right there.

6   A. Okay. So could you repeat that question?

7   Q. Sure, sure. So in the detailed description part of your

8   invention a part of the patent that actually describes your

9   invention, you say the resets are okay, right?

10 A. Can I read the whole paragraph before I --

11 Q. Absolutely.

12 A. This is the kind of legalese form of what --

13 Q. Absolutely.

14 A. Okay. Can I hear the question again?

15 Q. Sure. In the detailed description part of your invention,

16 part of the patent that describes your invention, right?

17 A. Uh-huh.

18 Q. You said that resets can but don't need to be retained of

19 cross power cycles -- wait, withdrawn, apologies. The

20 configuration information can but need not be retained across

21 resets?

22 A. It does say it can be retained across resets.

23 Q. And it doesn't say it must be retained across resets, does

24 it?

25 A. I agree.

1   Q.   Now, I've got one more place I'd like you to look with me.

2   If you can flip to column 7 -- do a little better job here.

3   Okay. And we're going to look at this paragraph where my pen

4   is pointing -- actually, that's not exactly true. Paragraph

5   where it's now pointing. I'm going to zoom in just a little

6   bit here.

7   Okay. Now, we're still in the detailed description

8   part of your invention, are we not.

9   A.   Yes, we are.

10   Q.   Okay. Here it says commands of the storage router will

11   support can include inquiry. Is that right? Did I read that

12   right?

13   A.   Yes.

14   Q.   Okay. So again, in the description, the detailed

15   description of the invention a part of the patent that talks

16   about your invention, you say the inquiry commands are okay;

17   is that right?

18   A.   Again, can I read the whole paragraph?

19   Q.   Absolutely. You bet.

20   A.   Just to get the context? Okay. I'm ready to listen to

21   the question again. I'm sorry.

22   Q.   Let me see if I can repeat was bay have trouble doing

23   that. Detailed part of the invention, part of the patent,

24   that's what describes your invention, right?

25   A.   Uh-huh.

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1   Q. And in that part, you have said the commands that your

2   invention will support can include inquiry; is that correct?

3   A. Yes.

4   Q. Okay. Now, you're a named inventor on this patent, right?

5   A. Yes, I am.

6   Q. We get to see your name up there. And you realize, don't

7   you, that as a named inventor, you have a duty to disclose

8   information to the Patent Office that you consider to be

9   important and that the Patent Office might consider to be

10   important.

11   A. Yes.

12   Q. Is that right? Now, Brian Smith, did he have a lot of

13   interaction with you when the patent application process was

14   underway?

15   A. No, he did not.

16   Q. Did he ever talk to you about how you should conduct

17   yourself during that process?

18   A. No.

19   Q. Did he ever tell you to disclose anything about the Comdex

20   technology demonstration to the patent office?

21   A. No.

22   Q. Did he ever tell you to disclose anything about the HP Mux

23   to the Patent Office?

24   A. No, he didn't.

25   Q. Did he ever tell you to disclose any prior art to the

209

1   Patent Office?

2   A. No.

3   Q. Would it surprise you to learn that this morning, he

4   testified that he did?

5   A. I don't think it surprises me. I don't think it was

6   important if that's what was done.

7   Q. Pass the witness.

8.   RE-DIRECT EXAMINATION

9   BY MR. GUIST:

10   Q. Mr. Russell, you worked for Brian Smith. I mean right

11   now, as of the time of the invention, right?

12   A. Yes.

13   Q. And is it your testimony that he was not involved in the

14   patent prosecution effort to this patent?

15   A. I didn't see him involved in day-to-day activity with it.

16   Q. Okay. So did he ever instruct you how to behave in terms

17   of communications with the patent office?

18   A. No, I don't think so.

19   Q. And would you have expected him to do that?

20   A. No.

21   Q. Who was responsible for overseeing the patent prosecution

22   efforts at Crossroads?

23   A. I thought it was Geoff Hoese.

24   Q. Mr. Russell, do you know what the inquiry command is?

25   A. Yes, some what.

210

1   Q. Why don't you tell us what your understanding of that is?

2   A. My understanding is it's a command you send to a storage

3   device as kind of an initial hey, what kind of things can you

4   do.

5   Q. And can you also send that command to the CP 4100?

6   A. In certain operating modes you can -- it may interpret the

7   command instead of passing it through.

8   Q. Okay. Would that interpretation give you something,

9   information about the CP 4100?

10   A. I believe when you set up the right kind of mode it will

11   return CP 4100 stuff.

12   Q. If you look at column 7 of the patent on lines 27 through

13   34, which I have blown up here, do you see the inquiry command

14   listed in that section?

15   A. Yes, I do.

16   Q. And that's the inquiry command that you previously

17   testified, right?

18   A. Yes.

19   Q. What kinds of inquiry command is that as far as you can

20   tell?

21   A. Well, seems related to the ones consistent with the SCC

22   command standards.

23   Q. And what kind of information would you get back?

24   A. I don't know the specifics of what it would return.

25   Q. Would it be information about the router?

211

1   A. Yeah, it would be the information about the router.

2   What's actually in there, I don't know.

3   Q. Okay. Thank you.

4   THE COURT: Are you through with the witness?

5   MR. GARRETT: Just a couple more questions, your

6   Honor, if that's okay.

7   RE-CROSS EXAMINATION

8   Q. Mr. Russell, could the inquiry command that we've talked

9   about also return information about storage devices on the

10   other side of the router?

11   A. If you put the router in the right kind of addressing mode

12   it will pass the router and return information from the

13   devices on the other side.

14   Q. Thank you. No further questions.

15   MR. GUIST: No further questions.

16   THE COURT: May this witness be excused?

17   MR. GARRETT: He may, your Honor.

18   THE COURT: Y'all may be excused. Members of the

19   jury, I'm going to do a terrible thing. I'm going to let you

20   go home at 4:30, but you be very careful about the traffic.

21   Maybe this will give you a little bit of a lead, but I doubt

22   it. And I'll expect to see you in the morning at 9:00.

23   Please remember the instructions so that you can answer those

24   questions.

25   (Jury not present.)

1   THE COURT: Do you wish to have any further

2   proceedings today?

3   MR. ALBRIGHT: No, sir.

4   MR. ALCOCK: No, your Honor, not today.

5   MR. BAHLER: No, your Honor.

6   THE COURT: See you in the morning of ten of 9:00.

7   (Proceedings adjourned.)

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1   UNITED STATES DISTRICT COURT   WESTERN DISTRICT OF TEXA

2   WESTERN DIVISION

3   CROSSROADS SYSTEMS,   ) Docket No. A 00-CA-217 SS(TEXAS), INC., A TE

4   CORPORATION   )   )

5   vs.   ) Austin, Texas   )

6   CHAPARRAL NETWORK   )STORAGE, INC., A   )

7   DELAWARE CORPORATION   ) September 11, 2001

8   TRANSCRIPT OF TRIAL ON THE MERITS

9   BEFORE THE HONORABLE SAM SPARKS   Volume 5 of 6

10

11   APPEARANCES:

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2               Direct   Cross   Redirect   RecrossWitnesses:

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4   Kenneth S. Flamm              5

5   Paul Hodges                            38         47

6   Jeffry Russell                         53         60

7   Geoffry B. Hoese                       62

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10  Proceedings Adjourned                            119

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2   Offered   AdmittedPlaintiff's

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4   #76 Income Statement   57   57

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1   THE COURT: Anything before we bring in the jury?

2   MR. ALBRIGHT: No, sir.

3   (Jury present.)

4   THE COURT: Members of the jury, since we last met,

5   has anyone attempted to talk to you about this case?

6   THE JURORS: No.

7   THE COURT: Have you talked to anybody about the case?

8   THE JURORS: No.

9   THE COURT: And have you learned anything at all about

10   the case outside of the presence of each other and this court

11   room?

12   THE JURORS: No.

13   THE COURT: Show negative responses to all questions

14   by all jurors.

15   Members of the jury, this morning, a little after New

16   York time, 9:00, our time 8:00 -- I see y'all are nodding --

17   because of the circumstances of two separate airplanes hitting

18   the two separate buildings, I'm going to assume that that is

19   terrorism in New York. So I have put the courthouse on alert

20   and doubled our security.

21   So if you see extra security around, it has nothing to

22   do with anything local here, but it's for everybody's

23   protection here in the building. This is something that I,

24   unfortunately, have to do one or two times a month, regardless

25   of this, where something has happened or some information has

4

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1   leaked, and our informational sources from the United States

2   Marshal's Office calls us to do that.

3   But you might notice more security people, and that's

4   the reason for it. All right. Anybody have any questions or

5   they need to do anything?

6   All right. Mr. Flamm, if you'll come forward, please.

7   Mr. Flamm, you're still under oath, sir.

8   THE WITNESS: I understand, sir.

9   CROSS-EXAMINATION

10 BY MR. ALBRIGHT:

11 Q. Good morning, Dr. Flamm.

12 A. Good morning.

13 Q. Yesterday, you testified to the jury one point that when

14 we were discussing the Georgia Pacific factors that you were

15 going through yesterday. You testified that in one of the

16 considerations it was, for lack of a better word, negotiations

17 on behalf of Crossroads because most of the products that had

18 been sold by Chaparral did not contain the LUN zoning. Do you

19 remember that testimony?

20 A. That's correct.

21 Q. You didn't mean to imply that with respect to the niche of

22 Fibre Channel-to-SCSI RAID products that Chaparral has sold in

23 2001 that most of those don't include LUN zoning?

24 A. No. I did mean to imply that.

25 Q. You meant to imply that most of the Fibre Channel-to-SCSI

5

1   RAID products in 2001 did not include LUN zoning?

2   A. That's exactly what I meant to imply.

3   Q. And what is your basis of that?

4   A. I examined the sales invoices for all sales by Chaparral

5   from January through July of 2001, and I counted up the units

6   from the sales that contained LUN zoning, calculated the ratio

7   of those units to the total number.

8   Q. And you included only the RAID products that were Fibre

9   Channel-to-SCSI?

10   A. I did calculations of RAID and routers, routers and read

11   -- I'm sorry, I should mention that when I did the

12   calculation, I didn't include certain things.

13   Q. That's fine. Doctor, with respect to factor No. 5, which

14   is on the board, and I'll tell you, that's the one you

15   discussed with respect to the commercial relationship between

16   Crossroads --

17   A. I'm sorry. I can't see it. I'm going to have to open up

18   my factors here.

19   Q. Please do.

20   A. Okay.

21   Q. You testified that Crossroads and Chaparral are

22   competitive in the router industry but not in the RAID

23   industry; is that fair?

24   A. Yes, largely.

25   Q. Okay. And you took into consideration the fact -- you

6

1   took into consideration coming up with your factors, right?

2   A.   Yes.

3   Q.   Now, Mr. Regan, when he performed his economic analysis --

4   when Mr. Regan performed his economic analysis, he actually

5   attributed different royalty rates to the router products

6   which are competitive as opposed to the RAID products which

7   are not, correct?

8   A.   Right.

9   Q.   However, when you performed -- and this, your Honor, for

10   the record, this is D-706, defendant's demonstrative. When

11   you performed your analysis, you attributed the same royalty

12   rate to both the RAID and the royalty products?

13   A.   That's correct.

14   Q.   Is that correct?

15   A.   That's correct.

16   Q.   So you applied the same royalty rate regardless of whether

17   the products were competitive or not competitive with

18   Crossroads, correct?

19   A.   That's a standard feature, yes, many licensing agreements

20   I've seen.

21   Q.   The answer is yes, you applied the same rate?

22   A.   Yes, that's absolutely correct.

23   Q.   Also, you prepared an algorithm yesterday. You didn't

24   prepare it yesterday. I'm going to show D-705.

25   A.   Yes.

7

1   Q. And basically, the purpose of this algorithm was to tell

2   the jury that for the products that Chaparral had sold this

3   year, there had been no increase in profit as a result of

4   that; is that a fair statement?

5   A. That's correct.

6   Q. But --

7   A. No increase in price as a result of including LUN zoning

8   which would impact the profit.

9   Q. Okay. And there have been no increase in price,

10   therefore, your assumption was there had been no additional

11   profit accrued to Chaparral by the inclusion of LUN zoning?

12   A. There was no additional profit on those units that contain

13   LUN zoning.

14   Q. Okay. I'm sorry. I didn't get it just right. Your

15   algorithm, though, can't tell the jury whether or not there

16   were customers who bought products from Chaparral for the

17   first time in 2001 because they included LUN zoning, right?

18   A. The equation can't tell you that, but --

19   Q. Doctor, that --

20   A. -- I'm sorry.

21   Q. -- that was the question. The equation can't tell you

22   that, can it?

23   A. No, it can't.

24   Q. Not a factor in there that can tell you that right in the

25   equation?

8

1   A.   No, I wouldn't quite put that it way. The equation tells

2   you something for the market as a whole, aggregated together.

3   It doesn't talk about individual customers, that's true.

4   Q.   But nothing in there establishes whether or not a customer

5   decided in 2001 to buy a product because it had the LUN

6   zoning. That's correct, is it not?

7   A.   That's right. You have to look at individual invoice data

8   to determine that.

9   Q.   Okay. Doctor, you didn't contact any customer of

10   Chaparral's to determine if they wanted or needed LUN zoning;

11   is that correct?

12   A.   No. But I did look at individual --

13   Q.   Doctor --

14   A.   -- invoices --

15   THE COURT: Doctor, just answer the question. We'll

16   get along a whole lot better. The latest count, there's ten

17   lawyers, there's a jillion questions throughout, so just

18   answer.

19   THE WITNESS: Okay.

20   Q.   (BY MR. ALBRIGHT) Doctor, you didn't contact any Chaparral

21   customer to find out from the horse's mouth, as it were,

22   whether or not they wanted the LUN zoning feature, did you?

23   A.   I didn't talk to customers, no.

24   Q.   And you didn't, for example, go through the invoices and

25   determine which customers had decided to purchase the products

9

1   in 2001 for the first time because it had the LUN zoning in

2   it?

3   A.   Actually, I did analyze the invoices which shed some light

4   on that issue.

5   Q.   You did not do -- you did not do that step, though, did

6   you?

7   A.   Yes, I did.

8   Q.   You didn't confirm it?

9   A.   I did look at the invoice data, yes, I did.

10   Q.   And you compared who had purchased RAID products for the

11   first time with LUN zoning in it?

12   A.   That's right. What I did was I broke the -- you can break

13   the customers -- you can break the customers into two groups.

14   There are customers who never purchase products other than

15   products containing LUN zoning, okay, which assume, for the

16   sake of argument, that those people are buying it because of

17   the LUN zoning.

18   There are customers who purchase products without LUN

19   zoning whom now purchase LUN zoning when it was available.

20   And the third group would be customers who still don't

21   purchase LUN zoning. If you take the first two groups, that

22   is, people who purchased -- only purchased LUN zone products

23   -- not people, companies who only purchase LUN zoning products

24   and companies that purchase products without LUN zoning, then

25   began to purchase LUN zoning products and then, didn't buy any

10

1   further products without LUN zoning, okay.

2   So we're trying two candidate groups. Those two

3   groups are only five --

4   Q. I don't believe this is responsive to my question.

5   THE COURT: Well, I think it is, but we've

6   interrupted, so ask him another.

7   Q. (BY MR. ALBRIGHT) Okay. We'll move on to the alternatives

8   that you suggested to the jury. You suggested that there are

9   three alternatives that Chaparral could use that would not

10   infringe; is that correct, sir?

11   A. There are actually more than three, but those three are

12   the ones I focused on.

13   Q. You testified concerning three?

14   A. Yes.

15   Q. There actually were more noninfringing alternatives that

16   Chaparral could have used in December of last year instead of

17   implementing the LUN zoning. That's what you're telling the

18   jury?

19   A. I believe that's correct, yes.

20   Q. Okay. And it's your understanding that Chaparral could

21   have performed any of those noninfringing alternatives in

22   December based on the engineering skill that they had at that

23   time?

24   A. Yes, that's my understanding.

25   Q. Okay. Now, I'm going to show you what is your alternative

11

1   No. 1, which is D-629, and that's basically just the products

2   that are sold without any re -- without any LUN zoning feature

3   at all, correct?

4   A.   That's correct.

5   Q.   And that was your first alternative, was it not, sir?

6   A.   Yes.

7   Q.   But you don't mean to imply to the jury that these

8   products would have the same functionality that products with

9   LUN zoning do?

10   A.   There would be -- they would have acceptable performance

11   in the marketplace.

12   Q.   Doctor, that wasn't my question. They would not have 100

13   percent of the functionality of products that have LUN zoning

14   in them, correct?

15   A.   They would not be absolutely identical, that's correct.

16   Q.   They would not have the same functionality?

17   A.   I think I heard Mr. Stephens testify that they would have

18   equivalent performance.

19   Q.   Doctor, do you remember when I took your deposition in

20   August?

21   A.   Yes.

22   Q.   On page 77, I asked you: Would your alternative number

23   one, where you took up the LUN zoning, be able to perform

24   access control? You answered: Some of the functionality

25   would be available with number one. I asked you: But not all

12

1   of it? And you answered: Not 100 percent.

2   My question to you, then, sir, was: So it would not

3   be the functional equivalent, number one would not be the

4   functional equivalent of having LUN zoning in it, correct?

5   Mr. Dellett made an objection and you responded: Yeah, I

6   would agree with that. Is that what you said back in August?

7   A. That's what I said --

8   Q. It would not be the functional equivalent?

9   A. Well, I think I was trying to say they were not absolutely

10   identical, and I think that's what -- that extent it's about.

11   Q. That's not what you said there, was it?

12   A. Well, I used slightly different words, yes.

13   Q. What you said there was they would not be functional?

14   A. If you read it back again -- I don't think that's exactly

15   what I said.

16   Q. Well, the jury's heard it, Dr. Flamm. I'm going to move

17   on to the second alternative. I'm going to show you D-703.

18   And this is the second alternative that you suggested, was it

19   not, sir?

20   A. Yes.

21   Q. Okay. And you estimated that this could have been

22   performed back in December of 2000, and that it would have

23   cost about $51,000?

24   A. Correct.

25   Q. And the way you did that, the way you made the calculation

13

1   of $51,000 was you took what Mr. Stephens, who the jury saw

2   yesterday, testified with respect to the amount of time it

3   would take to do both design and testing, and multiply that by

4   the cost per hour, which Mr. Permut testified was $85,

5   correct?

6   A.   That's not exactly correct.   It was based not only on what

7   Mr. Stephens told me but, also, my direct conversations with

8   Mr. Permut on my own.

9   Q.   Sure.   But I want to know -- just so the jury understands

10   what they've heard testimony, Mr. Stephens was the source for

11   the appropriate amount of time, correct?

12   A.   No.

13   Q.   Mr. Permut was, as well?

14   A.   I talked to both Mr. Permut and Mr. Stephens.

15   Q.   Okay.   And Mr. Stephens talked to them, as well, correct?

16   A.   I wasn't present in those conversations, but that's my

17   understanding.

18   Q.   Well, you heard Mr. Stephens tell the jury that yesterday?

19   A.   Yes.

20   Q.   And you -- Mr. Stephens and you were trying to get to the

21   same goal of being able to tell the jury the appropriate

22   amount it would cost to do this alternative design, correct?

23   A.   Yes.

24   Q.   I mean, you all were trying to come up with the same basic

25   number of hours it would take, and then, you were relying on

14

1   Chaparral for the cost it would take, correct? That was the

2   goal?

3   A. Yes, I was relying on Chaparral and Mr. Permut and Mr.

4   Stephens.

5   Q. Sure. But, I mean, the goal of what Mr. Stephens was

6   testifying to the jury about how much it would -- how many

7   hours it would take was to be as accurate as possible,

8   correct?

9   A. That's correct.

10   Q. And that's your goal, as well?

11   A. Yes, of course.

12   Q. Of course. And for the second alternative, you have down

13    $51,000, correct?

14   A. Yes.

15   Q. Were you here yesterday when Mr. Stephens testified about

16   alternative No. 3?

17   A. Yes, I did.

18   Q. I'm going to show D-704. This is alternative No. 3, is it

19   not, sir?

20   A. Yes.

21   Q. Okay. And you determined based on your conversations with

22   Chaparral and with Mr. Stephens that it would cost $85,000?

23   A. Correct.

24   Q. And that was based on the number of hours that it would

25   take to perform the design and the number of hours it would

15

1   take to do the testing, and you multiply that out by $85 an

2   hour, correct?

3   A.   That's correct, yes.

4   Q.   Were you here yesterday when Mr. Stephens testified how

5   long this design -- this alternative design would take?

6   A.   Yes.

7   Q.   And did you hear what he testified to, sir?

8   A.   I thought so.

9   Q.   And he stated it would take one week, which is 40 hours?

10 A.   Okay.

11 Q.   Per product family for five families for the design phase,

12 correct?   I mean, I have the testimony -- the transcript.

13 A.   I don't remember precisely how he worded it, I'm afraid.

14 Q.   But that's what he testified to.   The jury will remember

15 that he said one week of 40 hours per product family, five

16 families for the design phase and $85 an hour, calculations

17 calculated, that would be $17,000?

18 A.   Correct.

19 Q.   He also testified it would take four weeks.   That would be

20 160 hours, correct, four weeks would be four times 40?

21 A.   I don't recall that.

22 Q.   Well, do you want to see a copy of the transcript of what

23 he testified to?   I'll represent to you --

24 A.   Okay.   Yes.

25 Q.   -- I'll represent to you, Doctor, that's what he said.

16

1   A.   I'll take your representation.

2   Q.   It was four weeks of 160 hours for each product and that

3   there were eight products for testing. Did you hear him

4   testify to that, sir?

5   A.   He may have testified to that.

6   Q.   Okay.

7   A.   But that would not -- but that's contradictory to the

8   previous thing he said. I'm just listening to what you said.

9   Q.   Doctor, okay. He testified it would be four weeks of 160

10 hours for each product in the testing and that there were

11 eight products. Are you following me there, sir?

12 A.   I heard you, but that contradicts your previous statement.

13 Q.   I understand, sir, but he testified there were five

14 product families and that there were eight products. That's

15 what Mr. Stephens testified to yesterday.

16 A.   That he may -- okay. If you're going to represent to me

17 that he said that --

18 Q.   I'll do better than that. I'll tell you, Doctor, that we

19 asked him specifically on the transcript, it is page 210.

20 From the transcript, he said, it would be one week per family

21 for five families for design, four weeks per product for eight

22 products for testing. That's from the transcript yesterday.

23   Are you following me now what Mr. Mr. Stephens said?

24 A.   I heard you with what Mr. Stephens said. He may have said

25 that, but he was mistaken in that regard.

17

1   Q. Yesterday, when Mr. Stephens was telling the jury what it

2   would take, it was Mr. Stephens that was mistaken in telling

3   the jury how long it would take to do alternative design?

4   A. There's a subtle issue here that's being confused that he

5   may have not realized. He may have misspoke about it. I'd be

6   happy to describe it.

7   Q. Doctor, you're telling the jury that Mr. Stephens made a

8   mistake when he told the jury yesterday that it would be for

9   eight products, correct?

10   A. A redesign would not be required for eight products, it

11   would only be required for five as in the first sentence you

12   went through the five product families.

13   Q. So Mr. Stephens, when he was testifying yesterday, was

14   incorrect?

15   A. He may have misspoke at this point, I believe. If the --

16   well, I believe it was possible he misspoke.

17   Q. Okay. But if he were correct and it were eight products

18   and he distinguished between five product families and eight

19   products, if he were correct, then the cost for testing that

20   would be $108,800, if I've done the math right, of 160 hours

21   by eight products at $85, correct? Mr. Stephens is correct

22   when he told the jury yesterday --

23   A. He didn't do that calculation, I did that calculation.

24   Q. I understand, sir. But I've got a calculator and I'm

25   asking you if I punch in the numbers based on what Mr.

18

1   Stephens says, that it would take four weeks for each product

2   and that there were eight products at $85 an hour. As long as

3   I do the math right on the calculator, it would be $108,800,

4   right?

5   A. Yes. If you punch in those numbers, it would come out

6   that way.

7   Q. Okay. So the total under your analysis would be $85,000

8   for this change, the total under Mr. Stephens' analysis would

9   be $125,800, correct?

10   A. Mr. Stephens didn't provide that number, he provided you

11   with hours, which is what I used.

12   Q. And I multiplied those hours by the appropriate amount,

13   and it's $125,000 and change?

14   A. That's your calculation, not mine. Mr. Stephens relied on

15   me to do those calculations. I'd be happy to explain them why

16   I did them the way I did.

17   THE COURT: The question is really simple: If

18   Stephens testified to this, it would be $125,000?

19   THE WITNESS: Yes, if we accept the eight products

20   that would have to be redesigned, it would have to be whatever

21   the number was, eight times 17,000, which is -- I don't have a

22   calculator.

23   Q. (BY MR. ALBRIGHT) Dr. Flamm, would you step over here to

24   the chalkboard, if you would, please.

25   A. Sure. Could I take my report with me?

19

1   Q. I don't think you need it, but you're welcome to. Could

2   you step over here just a second. I'm right-handed.

3   A. Absolutely.

4   Q. I just want to summarize for the jury what you --

5   yesterday, you told the jury that you believe that the -- that

6   the appropriate amount was roughly $38,000 if you apply the

7   reasonable royalty rate you said, correct?

8   A. Yes, the 2.5 percent.

9   Q. Okay. And if Chaparral had made these design changes and

10   done all the testing that you suggested in this alternative,

11   the first one that you discussed would have been 51,000; is

12   that right?

13   A. That's also correct.

14   Q. Okay.

15   A. Wait a minute. That's the second one I discussed. Let's

16   be clear on that.

17   Q. Okay. The second one you discussed. The first one you

18   attributed a number to.

19   A. I'm sorry. You're confusing me now. This is the 2.5

20   percent --

21   Q. That's exactly?

22   A. -- 1.5 million in sales. This is the fixed cost required

23   to do the first design that we talked about, correct.

24   Q. Okay. And then, if you're right, the second one would

25   have been $85,000. If you're right, or if Mr. Stephens is

20

1   right, it would have been $125,000. It would be one of those

2   two numbers for the second one, correct?

3   A. Yes.

4   Q. Okay. So back in December of 2000, it would have cost

5   Chaparral either this amount or this amount to do the

6   design-arounds that you've discussed, correct?

7   A. Yes.

8   Q. But by selling the products throughout the course of 2001

9   with LUN zoning in it, you're telling the jury that they can

10 get away with a reasonable royalty of just $38,000, right?

11 A. No, that's not what I'm saying.

12 Q. You're telling them that --

13 A. I'm not --

14 Q. -- the appropriate damages would be only $38,000, correct?

15 A. This 38,000 only covers sales through July. There are

16 going to be sales in this year subject to this royalty for an

17 additional six months or so which would --

18 Q. No, sir, there are not --

19 A. Oh, I'm sorry.

20 Q. -- that's an incorrect statement.

21 A. Well, I just --

22 Q. Doctor, through today, once this trial is over, if

23 Chaparral's not selling products anymore, there won't be a

24 royalty rate, are there?

25 A. I believe you're mistaken because this is about a

21

1   hypothetical negotiation that would have occurred in December

2   2000, as soon as they came to a voluntary negotiation of a

3   royalty rate, and if they came to a voluntary negotiation,

4   signed licensing agreement, then they would be paying this

5   rate throughout the year.

6   Q.   Doctor, if you'll take your seat. Dr. Flamm, are you

7   aware that in June of this year, Pathlight entered in a

8   license agreement with Crossroads?

9   MR. DELLETT: Objection. Outside the scope of direct.

10   This also brings up the 408 issue.

11   MR. ALBRIGHT: Your Honor, it's not outside the scope

12   of the direct. He spent a great deal of time yesterday

13   discussing factor 1. He said it was a critical factor what

14   the royalty rates that were received from the patent were.

15   And yesterday, Mr. Stephens testified explicitly with respect

16   to receiving a license -- the fact that Pathlight granted a

17   license.

18   MR. DELLETT: May we approach?

19   THE COURT: You may.

20   (At the Bench, on the record.)

21   MR. DELLETT: Mr. Stephens' testimony was solely about

22   the issue of commercial successes as relates to

23   non-obviousness. That's not something Dr. Flamm got into at

24   all.

25   The second reason that this is not appropriate to get

22

1   into is because Dr. Flamm's testimony about the HP agreement

2   was solely addressing what Mr. Regan said about the HP

3   agreement. He wasn't talking about some other issue of

4   licensing.

5   And he did not suggest anything other than that Dr. --

6   Mr. Regan's calculation of the royalty rate from the HP

7   agreement was incorrect. Dr. Flamm didn't go any further. I

8   would further indicate that when Mr. Regan was about to

9   testify, we had the same conversation whether or not

10   discussion about the HP agreement would open the door to --

11   Mr. Albright represented to me it would not open the door to

12   get into the Pathlight settlement.

13   MR. ALBRIGHT: Your Honor, first, he discussed

14   yesterday, at great length yesterday, the fact that there were

15   no royalties obtained and factors 1 and 8, this would be

16   admissible. He gave the impression that basically that the

17   patent continued success, that was the patent he took in

18   consideration.

19   With respect to opening the door, what I discussed,

20   the Chaparral product before the trial, he told us that any

21   information would be admissible is to allow experts being able

22   to testify in a manner that is consistent with the fact that

23   there are more licenses out there -- the Pathlight license --

24   he was asking the same question submitted yesterday with

25   respect to Mr. Stephens, which was Pathlight as a licensee

23

1   agreed to pay $15 million.

2   THE COURT: Well, when you say Pathlight license in

3   evidence, the document is not in evidence.

4   MR. ALBRIGHT: Yes, sir.

5   THE COURT: Okay. Pathlight had different products,

6   and I'm going to sustain the objection. The settlement and

7   the royalty paid by virtue of the trial and settlement in

8   Pathlight has come up with regard to a couple of notices and a

9   couple of issues that are influential from opening the door,

10   if you want to use that, but here, we're talking about

11   different products.

12   And this gentleman's testimony is that the products of

13   the defendant, even with LUN zoning, are marginal, at best.

14   So I don't see how the relevance would come in with settlement

15   with regard to Pathlight's products. I'm going to sustain the

16   objection on that basis.

17   MR. ALBRIGHT: Yes, sir.

18   MR. DELLETT: No further questions.

19   THE COURT: May this witness be excused, counsel?

20   MR. DELLETT: Yes.

21   THE COURT: You may be excused. You may call your

22   next witness.

23   MR. BAHLER: Your Honor, as a housekeeping matter, on

24   Plaintiff's Trial Exhibit list were Exhibits 174 and 177,

25   which we had originally objected or objected to, we would

                                                              24

1   withdraw those objections and move Plaintiff's Exhibit 174 and

2   177 into evidence.

3   MR. ALLCOCK: I think the same would go to Plaintiff's

4   Exhibit 21 and 168, your Honor. That's the complaint and the

5   other set of answers to interrogatories.

6   MR. BAHLER: The complaint and amended complaint are

7   already in evidence. And with respect to the other

8   interrogatory responses, we have objections to those. These

9   are the ones we don't --

10   THE COURT: All right. Let's take them individually.

11   Any objection to 174 and 177?

12   MR. ALLCOCK: Yes, your Honor, relevance.

13   THE COURT: I'll have to look at them. 21 and 168,

14   you have objections to.

15   MR. BAHLER: If one of those is the complaint, it's

16   already in evidence. So I don't have any objection to that

17   one.

18   MR. ALLCOCK: Yeah, 21 is the complaint, your Honor,

19   and 168 is answers -- their answers to interrogatories as

20   opposed to our answers to interrogatories.

21   THE COURT: All right. Subject to ruling on that, do

22   you have another witness?

23   MR. BAHLER: Your Honor, I notice that 21 is not the

24   complaint. This is Plaintiff's 21?

25   MR. ALLCOCK: Yeah.

25

1   MR. BAHLER: It's not the complaint.

2   MR. ALLCOCK: It's the complaint and a cover letter.

3   It's a cover letter enclosing the complaint.

4   MR. BAHLER: We have on objection to the cover letter.

5   The complaint is in evidence. We don't have a problem with

6   that. But we have an objection to 21 as it exists.

7   THE COURT: So 174, 177, 168. Counsel will be kind

8   enough to get those out for me so I could look at them.

9   Subject to the admissibility or not of those exhibits, do you

10   have any other witnesses?

11   MR. BAHLER: No, your Honor. We rest.

12   THE COURT: Members of the jury, I'm going to give you

13   a break. I'm obliged to tell you that the Pentagon has been

14   bombed. So during the break, those of you who care to, I

15   think some prayers for the country may be in order. Anyway,

16   y'all are recessed.

17   (Recess.)

18   THE COURT: All right, counsel. On the -- let's go

19   back on the record. All right. On Plaintiff's 21, it is

20   already in evidence. It would be duplicative, although I'm

21   sure we've got duplicates. But the letter of March 3rd, 2000

22   is not relevant to anything, so I will deny the admission of

23   21.

24   168 are Chaparral's original answer to plaintiffs.

25   It, like 177 and 174, is full of objections and whatnot. As

26

1   exhibits, I'm not going to permit any of them. I deny 174,

2   177, 21 and 168 for any reason a specific interrogatory answer

3   is germane and relevant. Counsel can put that in the record.

4   But as an exhibit, all it shows is that you two can get along

5   in discovery and objected to every single interrogatory in

6   every single exhibit.

7   All right. You have the lectern.

8   MR. ALLCOCK: Yes, your Honor. We have a motion.

9   MR. BAHLER: Your Honor, with that caveat, I'd like to

10   read, at least, the relevant portions of 174 into the record.

11   THE COURT: You have that right.

12   MR. BAHLER: All right. If we're going to do a

13   motion, we haven't rested yet. Is that okay --

14   THE COURT: You have rested. You want me to bring the

15   jury in for one interrogatory and take them out?

16   MR. BAHLER: No.

17   THE COURT: I didn't think so. I'll permit you to

18   read the interrogatory when they come back. But as far as the

19   record's concerned, the record will show if I let it in -- I

20   don't know if I'll let it in or if it's objected to. Why

21   don't you show counsel so that we can get that out of the way.

22   MR. ALLCOCK: Your Honor, we have no objection as long

23   as the supplemental answers are also being read.

24   THE COURT: You have the right to read the

25   supplemental if he doesn't want to.

27

1   MR. BAHLER: Well, your Honor, if they want to have

2   the supplementals in, I think they should be on their time,

3   too.

4   THE COURT: Pardon me?

5   MR. BAHLER: If the supplementals are to come in, it

6   should be on their time, it should be on their case.

7   THE COURT: Well, I'm sure that Ms. Sims also put it

8   on their time. When they're up, they're running, when you're

9   up, you're running. Not going to take but a few seconds to

10   read.

11   MR. BAHLER: Thank you, your Honor.

12   THE COURT: All right. So the record is clear, the

13   defendant will have the opportunity when the jury comes in to

14   read whatever interrogatory and answer counsel wishes in

15   Exhibit 174 and 177. The plaintiff may read any supplemental

16   answer, but the record should and does show that all of this,

17   then, occurred prior to the time of the resting of the

18   plaintiff -- I mean, the defendant. And defendant has now

19   rested, and so, I'll hear motions while the jury is out.

20   MR. ALLCOCK: Thank you, your Honor. We would move

21   for judgment as a matter of law that Chaparral has literally

22   infringed all claims of the 972 patent, that they've infringed

23   them under the doctrine of equivalents, that they've

24   contributorily infringed Claim 7 through 14, that they've

25   induced the infringement of Claim 7 through 14, that they

28

1   willfully infringed all claims of the 972 patent, that the

2   patent is not anticipated, that the patent is not obvious,

3   that the patent is not indefinite, and that Crossroads did not

4   commit inequitable conduct.

5   There's no legally sufficient evidentiary basis to

6   rule in Chaparral's favor on any of these issues. We filed

7   for the Court's benefit a written motion directed to this

8   issue that sets fourth some of the evidence and the arguments

9   in most detail -- in more detail.

10   I think, in particular, your Honor, the evidence on

11   the willful infringement question is overwhelming, and we're

12   entitled to a judgment as a matter of law on that issue.

13   Yesterday, we heard Mr. Stephens admit that there is

14   one mode of operation of the device that infringes. Under the

15   law, that is all that is legally sufficient, and we've heard

16   testimony yesterday from Mr. Zinger and earlier, from Mr.

17   Walker that they have no opinion on the products that contain

18   LUN zoning.

19   There is no opinion. And we heard testimony that, in

20   fact, they avoided getting an opinion on that subject by not

21   telling Mr. Zinger that they were selling products. That, I

22   believe the record is clear, he clearly earlier suggested to

23   them what were problems with infringement, the LUN zone

24   products and, in specific, the ones that they pulled out of

25   the product, the feature that they pulled out of the product

29

1   as a result of his advice to them.

2   In addition, I don't believe there's been any evidence

3   on the 972 patent on definiteness issue. Mr. Stephens --

4   THE COURT: I'm going to ask counsel on that. I've

5   got that down. While you're up there, tell me what evidence

6   you've got on inducement and contributory.

7   MR. ALLCOCK: Yes, your Honor. Claim 7 is a system

8   claim, and that requires evidence that the router is placed in

9   a system. The evidence on that is uncontradicted and

10   overwhelming. Page 7-12 of Exhibit 230 is the -- one of the

11   users manuals, the one that has been referenced most

12   frequently.

13   It shows the RAID products and the router products

14   squarely set in the middle of a fiber-optic network, which is

15   what Claim 7 calls for. Dr. Hodges testified that that was

16   the only reasonable use for the products that is to be put

17   into such a system.

18   And so, we have overwhelming, indeed, uncontradicted

19   evidence that the only use of the products is in a system,

20   according to the language of Claim 7. With respect to the

21   inducement claim, the same is true. There's overwhelming

22   evidence that with respect to the LUN zoning mode of

23   operation, there's no way to do that mode of operation other

24   than according to the claim of Claim 11 of the patent.

25   And Dr. Hodges testified to that. In addition, the

30

1   users manuals, 230 is just one example, but there are other

2   examples, instruct the user exactly how to perform the method

3   of Claim 11. And so, not only is there an instruction in the

4   users manuals, there's testimony that the only reasonable way

5   of performing the method of -- the only reasonable way of

6   using the product when it's in the LUN zoning mode is

7   according to the elements of Claim 11.

8   So there's overwhelming, indeed, uncontradicted

9   evidence of inducement of infringement.

10   THE COURT: All right.

11   MR. BAHLER: Your Honor, we, too, have a motion for

12   judgment as a matter of law, but, first, I'd like to address

13   Mr. Allcock's motion and, at the same time, renew our motion

14   for noninfringement and no willful infringement.

15   With respect to the willfulness issue, first, your

16   Honor, it's clear that Mr. Zinger's opinion expressed an

17   opinion of invalidity. That is where the reliance,

18   independent of the issue of infringement, your Honor, if the

19   patent is invalid --

20   THE COURT: Save the jury argument for the jury. I'm

21   going to submit the issue of willfulness. I'm going to keep

22   it under wraps. I can't comprehend the jury not finding

23   willfulness in this case on this record, but I believe that we

24   will give them the opportunity.

25   The only thing I'm concerned about, and I would like

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1   for you to speak on your motion, is what evidence of

2   indefiniteness do you have?

3   MR. BAHLER: Your Honor, that was one of the reasons I

4   was going to read in the interrogatory evidence is that

5   indefiniteness issue. In the spring of 2000, the plaintiffs

6   did a study. Mr. Middleton talked about the study. They

7   enlisted the assistance of the inventor and this Mr.

8   Wanamaker, an inventor in the field, employees of Crossroads,

9   they concluded the patent covered the 4100 product.

10   And they proceeded along. One of the interrogatories

11   I'm going to submit to your Honor is an interrogatory which is

12   June of 2000. We asked them which of their products are

13   covered. At that time, June of 2000, they said they don't

14   know. And later on, they said we don't make --

15   THE COURT: So the evidence that you're relying on

16   with regard to the defense of indefiniteness is all going to

17   be contained in these interrogatories?

18   MR. BAHLER: Yes, your Honor.

19   THE COURT: All right. I'll listen to them and I'll

20   make --

21   MR. BAHLER: With respect to inducement and

22   contributory, your Honor, the elements of both of those passes

23   the infringement requirement shows the infringement by

24   customer. There's been no evidence of any customer at all.

25   THE COURT: Circumstantial evidence, you want me to

32

1   believe that they just buy the product and put it in the

2   garage?

3   MR. BAHLER: Well, your Honor, on that issue with

4   respect to the -- substantial noninfringing uses each of the

5   claims identified by Mr. Allcock require plurality of

6   workstations, more than one. In other words, the Fibre

7   Channel side has to have more than one computer, and there's

8   no requirement whatsoever that there be more than one computer

9   on that side.

10   I mean, there's no evidence that how these are applied

11   in the marketplace, anybody uses them with more than one

12   computer on this thing.

13   THE COURT: You want to present your renewed motion?

14   MR. BAHLER: Yes, your Honor. I renew the previous

15   motions and I have a new motion. This is a motion for

16   judgment as a matter of law on the issue of anticipation and

17   obviousness, definiteness, which, of course, depends on the

18   evidence that's going to come in through these interrogatories

19   and then, unenforceability.

20   Your Honor, the evidence is uncontroverted that, for

21   example, the Adaptec Coronado, which is prior -- under Section

22   102(g), includes all of the elements of those claims including

23   the workstation.

24   THE COURT: Well, I've ruled on that so many times.

25   It just amazes me that the evidence came in like that, but it

33

1   came in unobjected. It's a fact issue. I'll overrule all

2   Rule 50 motions. They're all on file, they're all a matter of

3   record with the one exception on the -- defense of indefinite,

4   I will hear the interrogatory, and I'll allow you to reopen

5   and read that into the record.

6   And then, are you ready to proceed?

7   MR. ALLCOCK: Yes, your Honor. May I inquire as to

8   what our time is?

9   THE COURT: It's just right there for the world to

10   see. Both of you are well on your time. You both have plenty

11   of time. Fourteen minutes of cross left and you've got, looks

12   like, 50 minutes. All right. Bring the jury in.

13   (Jury present.)

14   THE COURT: Mr. Bahler, you may have the lectern.

15   MR. BAHLER: Thank you, your Honor. I'd like to read

16   into the record responses to interrogatories filed by

17   Crossroads.

18   THE COURT: Members of the jury, an interrogatory is a

19   question in writing, submitted under the Rules of Civil

20   Procedure by one party to another that requires an answer or

21   an objection or an explanation, and that's what an

22   interrogatory is. So this is an interrogatory that was

23   prepared by Chaparral that went to Crossroads. You may

24   proceed.

25   MR. BAHLER: Thank you, your Honor. Actually, there's

34

1   two interrogatories. These are interrogatories originally

2   served June 20th, 2000, and they were responded to on July 26,

3   2000. Interrogatory No. 3 reads as follows: Quote, for each

4   claim of the 972 patent, describe on an element-by-element

5   basis any and all bases for any and all contentions of

6   Crossroads concerning each apparatus or method of Chaparral

7   that Crossroads contends infringes that claim.

8   Literally, your Honor, the doctrine of equivalents

9   identify any and all documents and the relevant pages thereof

10   or other facts, law or evidence relied upon to support such

11   contention. Crossroads responded as follows -- Crossroads

12   answers as follows:

13   Crossroads' infringement contentions are set forth in

14   its concise statement of alleged infringement, and in the

15   complaint filed against defendant, such documents are herein

16   quoted by reference. Interrogatory No. 6, same date, response

17   is the same date, reads as follows.

18   Question: For each claim of the 972 patent, identify

19   by name and model number each device manufactured, offered for

20   sale or sold at any time including prior to the issue date by

21   Crossroads that embodied one or more of the claims in the 972

22   patent, including for each such devices a state of which claim

23   or claims of the 972 patent embodies, the date when Crossroads

24   began accepting any such device, selling quantity of

25   manufacturing of any such device and Crossroads' sales in

35

1   units and dollars and prices of such devices. Crossroads

2   responded as follows.

3   Crossroads answers as follows: Crossroads is still

4   investigating its sale of products which incorporates the

5   invention of the 972 patent. Those are those two

6   interrogatories, your Honor, and with that, plaintiff rests --

7   I'm sorry, defendant rests.

8   THE COURT: Any supplemental reading to the answers at

9   this time?

10   MR. ALLCOCK: Yes, your.

11   THE COURT: All right. You may.

12   MR. GIUST: Your Honor, we would read the supplemental

13   answers to Interrogatory No. 3, dated July 6, 2001, just

14   excerpts from that answer.

15   A, basis for infringement. Chaparral's offer for sale

16   of LUN zoning features in connection with its Fibre

17.   Channel-to-SCSI routers constitutes infringement of the 972

18   patent.

19   MR. BAHLER: Your Honor, may we have a date for this

20   supplementation?

21   MR. GIUST: I said July 6, 2001.

22   MR. BAHLER: Okay. Thank you.

23   MR. GIUST: Additionally, Chaparral's making, using,

24   selling and offering for sale of its Fibre Channel-to-SCSI

25   RAID controllers constitutes infringement of the 972 patent.

36

1   Chaparral's accused RAID products include all of Chaparral's

2   Fibre Channel-to-SCSI RAID controllers that: (a) implement

3   Chaparral's LUN zoning, either directly or through Chaparral's

4   application interface, CAPI, and (b) are capable of operating

5   as JBOD, meaning the commonly understood configuration: just a

6   bunch of disks.

7   To the best of Crossroads' knowledge, as testified to

8   by Chaparral employee Ian Davies, all current Chaparral Fibre

9   Channel-to-SCSI RAID controllers implement LUN zoning,

10   including models G7324, G7313, G7413 and A8526. See Davies

11   transcript at 83-84, 150-151, parenthesis, 2-21-2001; Davies

12   Exhibit 10, Crossroads Exhibit 224, CNS 185195 to 185403,

13   parenthesis, CNS 185275 and CNS 184734.

14   To the best of Crossroads' knowledge, all such RAID

15   controllers are operable as JBOD.

16   Continuing with interrogatory answer, other similar

17   products in further infringement. To the best of Crossroads'

18   knowledge, Chaparral continues to introduce new products

19   substantially similar to the above-listed products in willful

20   disregard of Crossroads' patent rights.

21   Such products are Fibre Channel-to-SCSI RAID

22   controllers and routers which include Chaparral's LUN zoning

23   features and/or which are offered for sale with such LUN

24   zoning features. All other such products are infringing in

25   the 972 patent for the reasons stated above.

1   THE COURT: All right. I'll have counsel up here,

2   please.

3   (At the Bench, on the record.)

4   THE COURT: Does defendant rest?

5   MR. BAHLER: Yes, your Honor.

6   THE COURT: Does defendant renew its motions?

7   MR. BAHLER: Yes, your Honor, it does.

8   THE COURT: The motions are overruled. Plaintiff wish

9   to renew their motion?

10   MR. ALLCOCK: Yes.

11   THE COURT: Your motion is overruled with the

12   exception of indefiniteness. There's no evidence of

13   indefiniteness which will be submitted to the jury.

14   MR. ALLCOCK: Thank you, your Honor.

15   THE COURT: You may proceed.

16   MR. ALLCOCK: Yes, your Honor. We would recall to the

17   stand Dr. Hodges.

18   THE COURT: You're still under oath, sir.

19   THE WITNESS: Yes, sir.

20   RE-DIRECT EXAMINATION

21   BY MR. ALLCOCK:

22   Q. Morning, Dr. Hodges. I'm going to ask you about some of

23   the prior art we talked about yesterday. Let me start off by

24   asking you about Exhibit 602. This is this LUN mapping mode

25   implementation based on the SCSI standards.

38

1   First of all, is there anything like 602 shown in the

2   SCSI standards?

3   A.   No, there is not.

4   Q.   Have you ever seen a product built like this?

5   A.   No.

6   Q.   Do you have -- is there a diagram in the standards that

7   even remotely resembles figure 602?

8   A.   No, there's not.

9   Q.   Okay. Let me ask you a few questions about 602. Is there

10   anything in the SCSI standards that talks about this material

11   on this side being Fibre Channel?

12   A.   Not in the context of the LUN mapping.

13   Q.   So there's no Fibre Channel in the context of the LUN

14   mapping?

15   A.   No, not on that side.

16   Q.   And here, this says device. Is there anything in the

17   standards that suggests a Fibre Channel-to-SCSI router?

18   A.   Not in reference to LUN mapping.

19   Q.   Okay. Now, is there any reference in the SCSI standards

20   to access controls whatsoever?

21   A.   No.

22   Q.   Let me show you briefly -- the -- this is a page from

23   Exhibit 88. It is the SCSI standards. You were in the

24   courtroom yesterday. Did we see this actual standards

25   displayed ever?

1   A.   I don't believe so.   I don't remember.

2   Q.   And is this standard only about SCSI devices?

3   A.   Yes, this is only about SCSI parallel devices.   It

4   specifically talks about things that conform to the SCSI three

5   interlocutory protocol which is the SCSI bus.

6   Q.   So does it have anything to do whatsoever with the Fibre

7   Channel?

8   A.   No, it does not.

9   Q.   Doctor, does the patent talk about the SCSI standards?

10   A.   Yes, it does.

11   Q.   Let me show you column one, around lines 14 through 18.

12   It talks about SCSI-1, SCSI-2 and SCSI-3.   What are those?

13   A.   The SCSI-1 is a very old standard.   SCSI-2 is a successor.

14   SCSI-3 is the latest one, which has been published as standard

15   but is continually being worked on by the standards committee,

16   but it is the current SCSI standard.

17   Q.   Okay.   And is that the information that's being relied

18   upon as prior art?

19   A.   Yes, it is.

20   Q.   So the Patent Office considered it?

21   A.   Yes.

22   Q.   Can you combine these SCSI LUN mapping standards with any

23   other piece of prior art to get the invention?

24   A.   Not as far as I could see.

25   Q.   Now, let's turn to the Adaptec information.   First of all,

40

1   is there any actual evidence that Adaptec actually used

2   reserve release prior to March of 1997?

3   A.   No, there's not.

4   Q.   And you've heard all the evidence?

5   A.   I've heard all the evidence.

6   Q.   What's the best they got?

7   A.   The best that I heard was that Adaptec was -- had

8   evaluation units available in the fall -- late fall of '97,

9   that there were sales in 1998. I don't believe there was any

10   public knowledge of that.

11   Q.   Are you familiar with the reserve release?

12   A.   Yes, I am.

13   Q.   Have you prepared some graphics to explain it?

14   A.   Yes, I have.

15   Q.   Okay. Let me show you Exhibit 549.

16   A.   This is a -- using an analogue of a storeroom for a disk

17   storage device. Here we've shown three storerooms labeled

18   drive 1, drive 2 and drive 3. Each one of them has some data

19   in it represented by a filing cabinet and an attendant that

20   represents the disk controller.

21   One of these storerooms is already reserved to

22   someone, the door is closed, and it has a reserved sign on it.

23   Q.   Okay. Let me show you Exhibit 550. Can we reserve

24   another door?

25   A.   Yes. Here is a man in the green shirt representing a

41

1   particular computer, goes to drive 1 and says, you're reserved

2   to me. And the attendant inside says, okay, you're now

3   reserved, closes the door, pushes off the reserve sign.

4   Q. Does that keep somebody from coming in?

5   A. No, it doesn't.

6   Q. Let me show you Exhibit 556. What does this show?

7   A. This is a sequence of actions. The left-hand diagram

8   shows a man in a white shirt that is someone who didn't

9   reserve drive 1, approaching drive 1 and looking for access.

10 And if he does that, he'll be told that it's reserved. But he

11 has -- he doesn't have to be kept out. All he has to do is

12 pull out of his pocket the reset key, insert it in the key

13 hole and open the door.

14   So in the second one, he opens the door and the --

15 you'll see the sign on the door that says it's being reset,

16 and then, the reserve is gone and he has access to it. Now,

17 this key as shown here is equivalent of issuing to the router

18 the SCSI operation of reset LUN, reset the logical unit.

19 Q. Okay. And let me see -- let me show you Exhibit 551.

20 What does this describe?

21 A. This is essentially the same thing with a slight

22 variation. Man in the white shirt approaches, finds that he

23 can't -- that the door is shut and he's not -- it's not

24 reserved to him. He pulls out a different reset key in this

25 case. Unlocks that door and you'll notice that not only drive

42

1   1 became unlocked but drive 2, as well, became unlocked.

2   That's the equivalent of issuing to the router the function of

3   reset target, which would be a reset of all of the LUNs on the

4   router.

5   Q. Okay. And let me show you Exhibit 589 and ask you why is

6   this reserve release not access controls of the -- according

7   to the patent?

8   A. Reserve release doesn't really limit access. It's not

9   designed to limit access. There are many -- a number of ways

10   in which the reservation can be cancelled. And basically, the

11   reserve is designed to facilitate the coordination of

12   operations where multiple computers are sharing data on the

13   same drive.

14   And, therefore, it is -- it has the capability for

15   somebody to break in if somebody fails to release the

16   reservation, and the programming support for this would be

17   included in any system in which multiple computers are sharing

18   data on a particular storage device.

19   Q. Okay. Let me flip back to the patent. Did the Patent

20   Office specifically consider prior art on this reserve release

21   feature?

22   MR. BAHLER: Objection. Requires speculation.

23   THE COURT: Sustain the objection to the question

24   asked.

25   Q. (BY MR. ALLCOCK) Okay. Was there prior art before the

43

1   Patent Office cited on the front page of the patent?

2   A. Yes, there was.

3   Q. And does that Judd patent talk about reserve release?

4   A. Yes, it does.

5   MR. BAHLER: Objection. Leading.

6   Q. (BY MR. ALLCOCK) Moving you to page --

7   THE COURT: It's all right. I overrule the objection.

8   Q. (BY MR. ALLCOCK) Moving to Exhibit D-4. Have you reviewed

9   the Judd patent?

10   A. Yes, I have.

11   Q. Let me direct your attention to column 8, lines 54.

12   There's a reference there to the SCSI reserve command. Do you

13   see that?

14   A. Yes, it is.

15   Q. Is that the same SCSI reserve command that they're

16   asserting as prior art?

17   A. Yes, it is.

18   Q. Does this SCSI reserve command have anything to do with

19   access controls?

20   A. No, it does not.

21   Q. Okay. Let's now turn to the Exhibit D-104, which is the

22   771 patent. Have you analyzed that?

23   A. Yes, I have.

24   Q. Is the patent prior art?

25   A. No, it's not prior art.

44

1   Q. And what is the date that you used for that?

2   A. The date this patent was filed was August 18th of 1997.

3   That becomes the date when this is effective as prior art, and

4   that is well after the March date of conception of this -- of

5   the 972 patent.

6   MR. BAHLER: Objection, your Honor. This is beyond

7   the scope of his expertise, what constitutes an invention.

8   MR. ALLCOCK: He's analyzed it. Part of his expert

9   report.

10   MR. BAHLER: Then he's an expert.

11   THE COURT: He may testify as to facts but not his --

12   Q. (BY MR. ALLCOCK) Have you reviewed the invention

13   disclosure form that's Plaintiff's Exhibit 7?

14   A. Yes, I have.

15   Q. Does that show access controls?

16   MR. BAHLER: Objection, your Honor. This is opinion.

17   THE COURT: Well, it is opinion on an expert that has

18   testified to access control. I'll overrule that objection.

19   You may answer.

20   A. Yes, it does show access controls.

21   Q. (BY MR. ALLCOCK) Okay. And Exhibit 7 is -- we'll get the

22   date later. Now, let's assume for the moment that the 771

23   patent is somehow prior art. Does it disclose access -- does

24   it disclose the invention?

25   A. No, it does not.

45

1   Q.   Well, what does this 771 patent disclose?

2   A.   The 771 patent discloses a means of doing certain kind of

3   control of access from a host, a multiple host addressing

4   something that's referred to as a disk apparatus, which has

5   one data storage unit in it and there is -- it has the ability

6   to test for the host address to see whether it should have

7   access to that single data storage unit.

8   Q.   Where is the storage router in this picture?

9   A.   There is no storage router in this picture.

10   Q.   So what is a disk apparatus?

11   A.   Disk apparatus is, in general, something that you can

12   address to access a single disk, and this could be included in

13   the controller for the disk itself.

14   Q.   So the 771 patent doesn't describe a storage router?

15   A.   No, it does not describe a router.

16   Q.   Does it describe mapping?

17   A.   No, it does not describe mapping.

18   Q.   Does it describe access controls?

19   A.   Not in the sense of the 972 patent.

20   Q.   Could you combine this 771 patent with some of this other

21   prior art?

22   A.   I'm sure you could. It's -- it doesn't lead you to the

23   972 patent.

24   Q.   Would it be reasonable for one of skill in the art to

25   combine any of these references?

46

1   A.   I believe that one of skill in the art taking this

2   reference would probably not get to the 972 patent.

3   Q.   And so, Dr. Hodges, of all the prior art you have

4   reviewed, have you seen anything that combines a storage

5   router with access controls such as the patent?

6   A.   No, I have not.

7   Q.   No further questions of the witness at this time, your

8   Honor.

9   RECROSS-EXAMINATION

10   BY MR. BAHLER:

11   Q.   Dr. Hodges, I direct your attention to the 771 patent.

12   Why don't we call that up, first. I have page 1 up here on

13   the screen. See that, sir?

14   A.   Uh-huh.

15   Q.   And right about down here, it says -- so on receipt, it

16   says -- so on receipt of a command from a host device, a

17   command interpreted and executed only after access is

18   authorized by the address verification unit. See that, sir?

19   A.   I see that.

20   Q.   That contemplates multiple hosts, doesn't it?

21   A.   It does include multiple hosts.

22   Q.   So we got that part of it -- the 771 has multiple hosts,

23   right?

24   A.   (Moving head up and down.)

25   Q.   Take a look at the -- at columns 5 and 6 of that patent,

47

1   particularly column 5, right around 41 -- line 41. Now, it

2   says there that the disk apparatus can be a disk array on the

3   disk drive. Do you see that?

4   A. I see that.

5   Q. And that means more than one disk, doesn't it?

6   A. It does, it means more than one disk, but it does not mean

7   more than one address, and particularly, they expect to see

8   only one address. Only one storage device, logically

9   speaking.

10   Q. You recall your deposition, right, Mr. Hodges?

11   A. Yes, I do.

12   Q. And that was taken August 29th, 2000?

13   A. May have been.

14   Q. And when you were asked this question, question, okay, but

15   the path between the host on one side would exist to the

16   multiple disks within that array, no matter whether they saw

17   it or not, correct, and to that you answered in this case, as

18   a generic path, yes, you answered that, right?

19   A. I don't remember that question. I don't remember what the

20   -- what preceded that, so I can't tell what question I was

21   answering.

22   Q. You were talking about the 771 patent, weren't you, sir?

23   A. I don't know with that answer.

24   Q. Okay. Now, you said that the SCSI reserve command does

25   not deal with access control, correct?

48

1   A.   That's correct.

2   Q.   Do you recognize Exhibit 89, don't you, sir?

3   A.   Yes, I do.

4   Q.   SCSI three primary commands, November 13th, 1996?

5   A.   Yes.

6   Q.   That's one of the SCSI standards, correct, sir?

7   A.   Yes.

8   Q.   Okay.

9   A.   This actually is a draft of the standard, but it's just

10   the one we can -- both sides have been working from.

11   Q.   And it existed on November 13th, '96?

12   A.   Yes.

13   Q.   And on page -- well, Section 7.21 of that document, it

14   describes the SCSI reserve commands, right, sir?

15   A.   Yes, it does.

16   Q.   And down here, this is how it describes it, right? Right,

17   sir?

18   A.   Yes. I haven't had a chance to read it.

19   Q.   It says, if the extent -- this is kind of complicated, but

20   it says, the extent bit is zero, this command shall request

21   that the entire logical unit -- this command will return to

22   the SCSI reserve commands right there, sir?

23   A.   Yes.

24   Q.   Reserve the entire logical unit, that means storage device

25   or part thereof, right, sir?

49

1   A. Yes.

2   Q. Be reserved?

3   A. It actually may mean more than one storage device. It may

4   mean a disk array.

5   Q. Right. It says be reserved for the exclusive use of the

6   initiator, right, sir?

7   A. Yes.

8   Q. Initiator is the host computer that issued the reserve

9   command, right?

10   A. Yes.

11   Q. And so, there is access control in the SCSI reserve

12   command?

13   A. Not in the sense of the 972 patent.

14   Q. That paragraph continues and it says until the reservation

15   is and then, it continues on, right?

16   A. Yes.

17   Q. And that's one reason in your opinion that it's -- those

18   are the reasons why in your opinion the SCSI reserve is not

19   access control, right?

20   A. That's one of the reasons.

21   Q. Okay. And it lists a bunch of things there including

22   target reset and that sort of stuff, right?

23   A. Yes.

24   Q. Now, the initiators used, for example, in the Adaptec

25   Coronado, Dr. Hodges, are workstations, right?

50

1   A.   They can be.

2   Q.   And workstations can be personal computers, right, sir?

3   A.   They can be.

4   Q.   And those are programmable machines, right, sir?

5   A.   Yes.

6   Q.   And programmable machines, personal computers were

7   invented by IBM, right?

8   A.   I think so. I'm not sure that's true, but they get credit

9   for it.

10   Q.   Right. Exactly. And a personal computer could be

11   programmed to do these target resets or inquiries, or any of

12   that stuff, right, sir?

13   A.   Yes.

14   Q.   And, also, they could be programmed not to do that, right?

15   A.   Programmed to do quite a variety of things.

16   Q.   They're capable of being programmed to not perform those

17   functions, right, sir?

18   A.   I don't know how you program something to not perform a

19   function.

20   Q.   You just don't program it, right?

21   A.   You not program to perform those functions. There's a

22   difference. I can't program it to prohibit those functions.

23   Q.   You can eliminate the programming that causes those

24   functions, right?

25   A.   I do not have to put the programming in to cause those

51

1   functions.

2   Q. All right, sir. In that case, a system using the Adaptec

3   Coronado SCSI reserve could have a number of hosts, all but

4   one are programmed to prohibit doing any of the stuff that

5   would eliminate reserve, right?

6   A. That would be possible.

7   Q. And that wouldn't -- and that would be access controls,

8   right?

9   A. That would be access -- well, I'm not sure it would be

10 access control. I think you'd have to look at the specifics,

11 but this is definitely not the way that the SCSI standard

12 presents reserve, and it does not -- is not presented as a

13 method of doing this.

14   If you read the paragraph about two or three

15 paragraphs above the one you have highlighted, it says that

16 it's a way from coordinating the operations between multiple

17 hosts that want to share storage and --

18 Q. All right, Dr. Hodges. We don't have much time. I'm

19 sorry for interrupting. The question was, the prior art is

20 capable of being programmed the way I described it, right?

21 A. With invention.

22 Q. Pardon?

23 A. With some invention.

24 Q. Okay. Pass the witness.

25   MR. ALLCOCK: No further questions of this witness,

52

1   your Honor.

2   THE COURT: You may step down, sir.

3   MR. GIUST: Your Honor, we recall Jeff Russell.

4   THE COURT: Come forward, please. Have a seat. Mr.

5   Russell, you're still under oath, sir.

6   THE WITNESS: Okay.

7   RE-DIRECT EXAMINATION

8   BY MR. GIUST:

9   Q. Mr. Russell, I'm going to hand you a notebook. I want you

10   to take a look at it. Mr. Russell, just to reacquaint

11   yourself with the jury, you're one of the inventors of the 972

12   patent; is that right?

13   A. Yes, I am.

14   Q. And let me show you Exhibit 6 already in evidence. You

15   testified about this exhibit before, didn't you?

16   A. Yes, I did.

17   Q. And does this exhibit show conception of the hardware

18   concepts of the 972 patent?

19   MR. GARRETT: Objection, your Honor. This is opinion

20   testimony about conception. I think it's proper for him to

21   testify about facts. He's trying to jump to a legal

22   conclusion.

23   THE COURT: Sustain the objection to the question

24   asked.

25   Q. (BY MR. GIUST) Does this exhibit show how you arrived at

                                                              53

1   · the hardware aspects of the 972 patent?

2   MR. GARRETT: Objection, your Honor. This is just a

3   back door to the same result.

4   THE COURT: Well, that question is fine. I'll

5   overrule the objection. You may answer that.

6   A.   Could I hear it again?

7   Q.   (BY MR. GIUST) Does this exhibit show how you arrived at

8   hardware concept of the 972 patent?

9   A.   Yes, it does.

10 Q.   But you continued to work on the invention after the date

11 of this Exhibit?

12 A.   Yes.

13 Q.   What's the date of this exhibit?

14 A.   This one's dated January 22nd and, also, January 31st,

15 1997.

16 Q.   Okay. And as part of that continued work, do you

17 recognize Exhibit 7 already in evidence?

18 A.   Yes, I do.

19 Q.   Does this reflect continued work on the invention up until

20 the date of this exhibit?

21   MR. GARRETT: Your Honor, objection. If we could just

22 be clear about what invention means in this context. This is,

23 again, opinion testimony. He could testify --

24   THE COURT: He actually asked if this document

25 represented something.

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1   MR. GARRETT: No, your Honor. He asked if this

2   reflects work on the invention. And I think that's --

3   THE COURT: He said it represents work on the thing.

4   Restate your question.

5   Q. (BY MR. GIUST) Mr. Russell, does this document reflect

6   additional work done on the concepts that you worked on

7   related to the 972 patent?

8   MR. GARRETT: Same objection, your Honor.

9   THE COURT: I'll sustain the objection to the question

10   asked.

11   Q. (BY MR. GIUST) Mr. Russell, what is this document?

12   A. This document's an early draft of some concepts related to

13   the invention.

14   Q. Okay. What's the date of this document?

15   A. This cover sheet's dated May 28th, 1997, and then, some of

16   the content pages have a date stamp of -- from March and May

17   of 1997.

18   Q. Did you review this document with Mr. Hoese?

19   A. Yes, this was an initial kind of write-up of the ideas,

20   the main points of the invention, main point of discussion.

21   Q. Was this document communicated to your patent attorneys?

22   A. Yes, it was.

23   Q. Let me show you Exhibit 267, already in evidence. Flip to

24   that in your binder. What is this document?

25   A. It's the CP 4100 product specification, so it's kind of

1   the write-up of some of the design work that had been going on

2   of the CP 4100.

3   Q.   When you say "write-up of the design," does that include

4   the hardware of the design that you inflect in your

5   specification?

6   A.   Some aspects, yes.

7   Q.   What date range does this document cover?

8   A.   From looking at the third page, there's a revision

9   history, so from mid-1997 through '98.

10   Q.   Does it cover the date from March of '97 -- I'm sorry,

11   from mid-'97 up until the filing date of the patent

12   application?

13   A.   Yes, its does.

14   Q.   Did you continue to work in re-filing the hardware

15   concepts up through that time?

16   A.   Yes.

17   Q.   Let me show you -- flip in your binder to 276. Sorry,

18   266. Tell us what Exhibit 266 is.

19   A.   This is an early draft of the patent application.

20   Q.   Is this the type of document that's retained by Crossroads

21   in the ordinary course of its business?

22   A.   Yes.

23   Q.   Have you seen this document before?

24   A.   Yes.

25   Q.   Offer 266.

56

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1              MR. GARRETT:  Your Honor, no objection.

2              THE COURT:  266 is received.

3    Q.  (BY MR. GIUST) Mr. Russell, flip to the second page of

4    Exhibit 266.  Okay.  Again, Mr. Russell, Exhibit 266, could

5    you explain to the jury what it is?

6    A.  This is an early draft of the patent application.  I

7    believe it's the first one that had been written up to be, you

8    know, first draft of the whole thing being there.

9    Q.  Okay.  And was this prepared after the transmittal to the

10   patent attorney of Exhibit 7, the invention disclosure?  I'm

11   sorry, Exhibit 6.  Wait, 7, yeah.

12   A.  Yes, this has kind of got a lot more detail compared to

13   Exhibit 7.

14   Q.  Let me show you -- if you'd flip to 276 in your binder.

15   What is Exhibit 276?

16   A.  276 is an intermediate draft of an application.

17   Q.  It's the type document that's retained in the ordinary

18   course of business at Crossroads?

19   A.  Yes.

20   Q.  Have you seen this document before?

21   A.  Yes.

22   Q.  Offer 76.

23             MR. GARRETT:  No objection, your Honor.

24             THE COURT:  It's received.

25   Q.  (BY MR. GIUST) And at what point in time did Exhibit 276
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1   come about in relation to the prior draft that we just

2   discussed?

3   A. It came about sometime after.

4   Q. Flip in your binder to Exhibit 275. Do you know what

5   Exhibit 275 is?

6   A. Yes.

7   Q. What is it?

8   A. It's the final draft of the patent application, so I guess

9   it is the patent application.

10   Q. Is this the type of document retained in the ordinary

11   course of business by Crossroads?

12   A. Yes.

13   Q. Have you -- did you receive this document on or about the

14   dates indicated therein?

15   A. I received a copy of it.

16   Q. How do you know?

17   A. I found it in my files.

18   Q. Offer 275, your Honor.

19   MR. GARRETT: No objection.

20   THE COURT: It's received.

21   Q. (BY MR. GIUST) Up until the date of -- filing date of this

22   patent, did you work on numerous drafts of the application?

23   A. Yes.

24   Q. Did you continue to work on the hardware aspects disclosed

25   in the patent application?

58

1   A.   Yes.

2   Q.   Did there ever come a point in time when you stopped work

3   on these things?

4   A.   No.

5   Q.   Did there ever come a time when the project was put on

6   hold to file the patent application?

7   A.   No.

8   Q.   Did you ever hide the fact that you were going to file the

9   patent application from anyone at Crossroads?

10   A.   No.

11   Q.   Did other people other than yourself and Mr. Hoese review

12   the design work you had done on hardware aspects of the system

13   disclosed within the patent application?

14   A.   Yes.

15   Q.   And those includes the exhibits we looked at today?

16   A.   Yes, especially the schematic one.

17   Q.   And why did other people look at that?

18   A.   Well, to get the circuits made, circuit boards made, we

19   need the hardware made, they'd have to go through review with

20   other engineers, we'd have to turn to manufacturing, data get

21   manufacturing people to make it.

22   Q.   Given the time constraints and your other work at

23   Crossroads, did you obtain this application as fast as you

24   could?

25   A.   Yes.

1   Q. No further questions.

2   RE-CROSS EXAMINATION

3   BY MR. GARRETT:

4   Q. Couple of quick questions, Mr. Russell. 276, is there a

5   date on this document?

6   A. No, I don't see a date.

7   Q. Can you give me a specific date or time when you worked on

8   this?

9   A. Well, from looking at the content, I can see it occurred

10   after that first application and before the last one.

11   Q. Okay. But no specific date or time?

12   A. No.

13   Q. Okay. Can't give me a specific amount of time that you

14   worked on it?

15   A. No.

16   Q. And you're a hardware guy, right?

17   A. Yes, I am.

18   Q. So you worked on hardware stuff in 1997?

19   A. Yes, I did.

20   Q. And access controls is software, right?

21   A. Yes, it is.

22   Q. So you didn't work on software. You don't work on access

23   controls; is that right?

24   A. I didn't work on writing software, but I worked on

25   specifying what it would have to do for this invention.

60

1   Q. Right. But you didn't work on creating whatever it was

2   that would actually do access control?

3   A. I believe I worked on creating it in the sense that it's

4   described here in this application.

5   Q. Okay. But I'm stepping back from the application. I'm

6   talking about a device. You didn't do anything to actually

7   create access controls, right, because you're a hardware --

8   A. I designed hardware that would execute the software would

9   implement that.

10   Q. Right. But you didn't code the software?

11   A. I did not code software, no.

12   Q. So you didn't write the code that does access controls?

13   A. Correct.

14   Q. And, in fact, nobody did in 1997, did they?

15   A. I don't know.

16   Q. But is it -- the 4100 isn't the only thing everyone was

17   working on, right?

18   A. That's what I was working on and the people immediately

19   around me.

20   Q. And that, according to you, doesn't have access control,

21   does it?

22   A. I'm not aware of having access controls, right.

23   Q. No further questions.

24   MR. GIUST: No further questions.

25   THE COURT: You may step down, sir.

61

1   MR. ALLCOCK: Recall to the stand Mr. Hoese.

2   THE COURT: If you'll have a seat, please, sir. Mr.

3   Hoese, you're still under oath. Do you understand that?

4   THE WITNESS: Yes, I do.

5   RE-DIRECT EXAMINATION

6   BY MR. ALLCOCK:

7   Q. Okay. Mr. Hoese, we're moving things a little quick here.

8   There's not much time left.

9   A. Okay.

10 Q. So let me show you Exhibit 7, and ask you from, roughly,

11 May of the year 1997 through when the patent application was

12 filed December of 1997, what were you working on?

13 A. A large variety of things towards the business of creating

14 storage routers with Crossroads.

15 Q. Okay. Now, if you'll look at Exhibit 263 and 274, can you

16 tell me what those are?

17 A. Do you have the Exhibits? Are they here?

18 Q. They're right in front of you, yes, sir.

19 A. 263 is a copy of a notebook I kept.

20 Q. Did that record some of your activity during that time

21 period?

22 A. Yes, definitely. It appears to start at the date of

23 February '97.

24 Q. Okay. And how about 266, what is that -- I mean, 274,

25 what is that?

62

1   A.   274 is a copy of another notebook starting in -- well,

2   10-31 of '97, it appears.

3   Q.   So do those record some of your activities during this

4   seven-month period?

5   A.   Certainly.

6   Q.   Offer Exhibits 263 and 274 into evidence, your Honor.

7   MR. BAHLER: Objection, relevance.

8   THE COURT: Well, the relevance objection is

9   overruled.   263 and 274 are in.

10   Q.   (BY MR. ALLCOCK) Let me ask you, Exhibit 275, could you

11   take a look at that, please?

12   A.   Okay.

13   Q.   What is Exhibit 275?

14   A.   It's a copy of a draft application of the patent

15   application.

16   Q.   Okay. Now, from when you first came up with this idea

17   through when you filed, did you go through a number of draft

18   applications?

19   A.   Yes.

20   Q.   Were you diligent in responding to drafts that you got?

21   MR. BAHLER: Objection, your Honor. Calls for a legal

22   conclusion. It's opinion testimony.

23   THE COURT: No, it does not require, but rephrase your

24   question.

25   Q.   (BY MR. ALLCOCK) Okay. Did you respond to the request

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1   from the patent lawyer reasonably promptly?

2   A.   Certainly, yes.

3   Q.   Now, you were in charge of the patent program at this

4   time, right?

5   A.   Correct.

6   Q.   And so, was one of your responsibilities to make sure

7   these got filed?

8   A.   Yes.

9   Q.   In fact, were there some applications that you did

10   back-burn?

11   A.   Yeah, we had a number of applications that we generated

12   during this period, number of patent disclosures and concepts,

13   and there were those that we deliberately did not work on and

14   did not put time into.

15   Q.   How about this one?

16   A.   This was not one of those. We definitely put the time

17   into this one.

18   Q.   Were you familiar with the SCSI commands when you made the

19   972 invention?

20   A.   Yes.

21   Q.   How were you familiar with that?

22   A.   I'd spent a number of years programming SCSI systems both

23   device drivers that use SCSI commands, as well as target

24   devices that responded to those commands.

25   Q.   Were you familiar with this reserve release command?

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1   A. Yes, definitely.

2   Q. How were you familiar with it?

3   A. Well, I had written programs that used it -- device

4   drivers that passed it through as well as target devices that

5   responded to the command and effected the reservations for

6   storage devices.

7   Q. Okay. In the abstract, could this reserve release be

8   considered some form of prohibiting access?

9   MR. BAHLER: Objection, your Honor. Calls for an

10   opinion.

11   THE COURT: It does require an opinion.

12   MR. ALLCOCK: Your Honor, there's -- unless Mr. --

13   unless Chaparral's willing to dismiss their inequitable

14   conduct charge, this witness' state of mind is directly

15   relevant.

16   THE COURT: Well, it's not on rebuttal, and I sustain

17   the objection.

18   MR. ALLCOCK: Your Honor, this is our first

19   opportunity to respond to their case.

20   THE COURT: I understand that, but to that question,

21   I'm sustaining the objection.

22   Q. (BY MR. ALLCOCK) Well, were you familiar with the reserve

23   release?

24   A. Yes.

25   Q. And does it have anything to do with the access control of

65

1   your invention?

2   MR. BAHLER: Objection, your Honor. This is right on

3   the money; this is opinion testimony.

4   THE COURT: I'll permit the witness to explain why

5   something was not in the patent or why something was in the

6   patent, but his opinion, he's not down as an expert. Now, as

7   far as his personal belief is concerned, it may go to

8   inequitable conduct, but I think we'll handle it that way.

9   MR. ALLCOCK: Very well, your Honor.

10   Q. (BY MR. ALLCOCK) So what was your belief at the time you

11   filed the patent as to what this reserve command was as it

12   relates to your invention?

13   A. The reserve command is -- in context to the invention is

14   just another SCSI command like any other SCSI command. It has

15   nothing to do with the access controls or the router

16   implements. It's subject to those access controls.

17   In fact, all SCSI commands are prohibited from

18   interacting with devices, are allowed to -- per the access

19   controls including reserve release, so it's really just

20   another command as far as that goes.

21   Q. So how would you consider access controls as it relates to

22   reserve release?

23   MR. BAHLER: Objection, your Honor. Calls for an

24   opinion.

25   THE COURT: Well, that objection's overruled.

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1   A.   It's just not directly relevant to that access controls.

2   Q.   (BY MR. ALLCOCK) Can't say it any other way, huh?

3   A.   No, it's another command just like any other command. You

4   have, you know, SCSI command that consists of, you know, a

5   large number of commands. They all get issued to devices by

6   hosts. And if, you know, if the router can route those

7   commands to devices, they work just like they do. If they

8   can't, they don't. That's true for reserve release as well

9   as, you know, read, write, all the SCSI commands.

10   Q.   And where does access controls fit in?

11   A.   In the storage router. It's a transport level access

12   control. So the visibility of the device, the storage device

13   being able to interact with the host, it's either cut off or

14   allowed such that, you know, those commands as a whole just

15   can't reach the target devices.

16   Q.   In your mind, was it completely different?

17   A.   Oh, absolutely.

18   Q.   No further questions of the witness, your Honor.

19   MR. BAHLER: No questions, your Honor.

20   THE COURT: You may step down. You may call your next

21   witness.

22   MR. ALLCOCK: We rest.

23   THE COURT: Do you have any surrebuttal?

24   MR. BAHLER: No, your Honor.

25   THE COURT: Plaintiff close?

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1   MR. ALLCOCK: Yes, your Honor.

2   THE COURT: Defendant close?

3   MR. BAHLER: Defendant closes.

4   THE COURT: I'd like to have counsel up here, please.

5   (At the Bench, on the record.)

6   THE COURT: In all probability, I can work y'all and

7   have you ready for at least reading of the charge this

8   afternoon, get that down. On the other hand, I'm not so sure

9   that everybody's mind is going to be on trial with everything

10   happening. I can also recess, bring the jury back in the

11   morning. We can start all -- we'll work today.

12   The federal building is closed as the recommendation

13   that federal buildings be closed. I do not ever close this

14   courthouse. Nobody's going to force us to close. But I limit

15   access. I also can give that option to the jury, but before I

16   decide what to do, I wanted to find out what your druthers

17   are.

18   MR. ALLCOCK: Your Honor, from our point of view, it's

19   a fairly lengthy charge. I believe if we could get that out

20   of the way today.

21   THE COURT: Well, there's no question.

22   MR. ALLCOCK: That would be fabulous.

23   MR. BAHLER: And we close tomorrow?

24   THE COURT: Is that what y'all wish?

25   MR. BAHLER: That would be fine.

1   THE COURT: All right. Members of the jury, all that

2   closing means that you've heard all the evidence that you're

3   going to hear. We're going to have to go through the

4   exhibits. It's going to be my obligation to prepare the legal

5   instructions, which I fear are going to be 50, 60 pages long

6   because of the nature of the case.

7   Then, I have to give the draft to the lawyers, and

8   they have the right to make suggestions and make objections,

9   if they wish, and then, they will know what the legal

10   instructions are for the first time. I am also required to

11   read you those legal instructions, but I give them to you in

12   verbatim in writing in typewritten form so you'll have that,

13   too.

14   But it's going to take time. And in view of what's

15   happened today, I just have a hunch that many of us aren't

16   going to be thinking about patents and the testimony of what's

17   occurred, so what I'm going to do is recess you till tomorrow,

18   go home, check with your family members if any of them are

19   there.

20   Every aircraft in the country has been grounded.

21   Washington is closed. It is a bad day, and hopefully tomorrow

22   will be better. So I'd like for you to be here tomorrow at a

23   quarter of 9:00. I'll give you an extra ten minutes, quarter

24   of 9:00. Please remember the instructions, be able to answer

25   these questions.

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1   And I will see you a quarter of 9:00 tomorrow.

2   (Jury not present.)

3   THE COURT: Mr. Bahler, you want to renew your

4 motions?

5   MR. BAHLER: Yes, your Honor. At this time, we renew

6 our motions for, first of all, noninfringement and no willful

7 infringement and, also, for -- on the issues of validity both

8 anticipation and obviousness, inequitable conduct.

9   However, we do withdraw our motion on diligence. That

10 was part of the validity motion. You've already ruled on

11 that, so --

12   THE COURT: You mean indefinite, not on diligence.

13   MR. BAHLER: I'm sorry.

14   THE COURT: That's all right. Everybody's thinking

15 of --

16   MR. BAHLER: I'm thinking about something else.

17   THE COURT: It was such a red flag, I knew you didn't

18 mean that. That's all right.

19   MR. BAHLER: I don't have any relatives in New York.

20 Your Honor, the evidence that was presented on cross-exam --

21 in rebuttal --

22   THE COURT: I don't need argument. Just cover the

23 bases you want to cover. All right. Those motions are

24 overruled.

25   MR. BAHLER: Thank you.

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1   MR. ALLCOCK: Your Honor, we would renew our motions

2   to the extent --

3   THE COURT: But with the exception of the

4   indefiniteness, your motions are overruled. Now, counsel, how

5   long do you wish to argue this case?

6   MR. ALLCOCK: Your Honor, between opening and closing,

7   I believe an hour and a half.

8   MR. BAHLER: Your Honor, I have about 55 minutes last

9   time I checked.

10   THE COURT: No. Your time's over.

11   MR. BAHLER: No, no. Closing.

12   THE COURT: No. Your time is over. Closing arguments

13   don't count on your time. He wants an hour and a half. How

14   much do you want?

15   MR. BAHLER: Fifty-five minutes.

16   THE COURT: All right. Can you argue in an hour?

17   MR. ALLCOCK: I'd prefer an hour and 15 minutes, your

18   Honor. I may not use it.

19   THE COURT: All right. I'll give you both an hour and

20   15 minutes. And you have the privilege of telling the jury, I

21   will tell them that you have it, and if you want to give it

22   back, be sure and tell them and you'll get credit for it. In

23   a case like this, you may get a lot of credit. You never can

24   tell.

25   I have a couple of questions for you, and then, I will

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1   get you the first draft of the instructions that I am

2   contemplating. I note from both of your requests -- with

3   regard to the prior art, I don't think the jury's going to

4   have any problem with what is referred to as the 771 patent.

5   What about the 006 patent?

6   MR. ALLCOCK: There's no evidence of it, your Honor.

7   I don't think it should be in the instruction.

8   MR. BAHLER: We apparently didn't present any evidence

9   on that.

10   THE COURT: I didn't think so, but I goes both of you

11 anticipated it, because it's in the requested instructions,

12 but that's what I -- I couldn't see it, so I will remove it.

13 And then, in the last instruction, in the last case,

14 apparently, we have an issue of abandonment, suppression or

15 concealment. Does the defendant still think that's in this

16 case?

17   MR. DELLETT: That has to do with the Adaptec prior

18 art.

19   THE COURT: Third party, yes.

20   MR. DELLETT: 102(g) prior art.

21   MR. BAHLER: We don't think it's there. I mean,

22 that's not good for us.

23   THE COURT: Well, you know, and I know both of you

24 used the preceding case's --

25   MR. BAHLER: Right.

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1   THE COURT: -- instructions and this was in there.

2   MR. BAHLER: Technically, your Honor, the Adaptec is

3   one of the G issues and one of the G says that, although I

4   don't know any evidence of abandonment and concealment.

5   THE COURT: All right. Counsel, it's 10:30. I'd like

6   you back. I'll have a draft charge for you at 1:30 this

7   afternoon, and you may recess until then.

8   (Recess.)

9   THE COURT: Okay. Mr. Dellett, are you going to

10 handle it for the --

11   MR. DELLETT: Yes, sir.

12   THE COURT: -- defendant? All right. Mr. Allcock.

13   MR. ALLCOCK: Mr. Albright.

14   THE COURT: Mr. Albright. All right. Mr. Albright,

15 you've got the lectern.

16   MR. ALBRIGHT: I'm just handling the offensive part.

17 I think Mr. Giust is going to handle the responses.

18   THE COURT: Well, whoever's handling anything, have

19 you had sufficient time to review the proposed legal

20 instructions to the jury?

21   MR. ALBRIGHT: We have, yes, sir, your Honor.

22   THE COURT: And I'll be glad to hear your suggestions,

23 objections, comments about the proposed charge.

24   MR. ALBRIGHT: Your Honor, Crossroads has but one. If

25 you would turn to page 37, please, sir.

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1   THE COURT: All right.

2   MR. ALBRIGHT: If you would go down to the eighth line

3   on your paragraph, sir.

4   MR. DELLETT: I'm sorry, which line?

5   MR. ALBRIGHT: The eighth. We believe, your Honor,

6   that it would be more appropriate and compliant with the law

7   if you would make it clear that the invention had to be filed

8   in the United States, and therefore, we would recommend a

9   change to line 8.

10   We would recommend the deletion of the word "the

11 inventor" and the deletion of the words "conceived of his

12 invention," and we would replace those with "was filed in the

13 United States." So that first half of the sentence would

14 read: "If you find, one, the inventors of the 972 patent

15 conceived the invention before the 771 patent was filed in the

16 United States," we believe that complies with the law, your

17 Honor, because this patent was filed in Japan, as well, but

18 they would be relevant here, and we believe it would confuse

19 the jury.

20   THE COURT: The 771 was filed in Japan?

21   MR. ALBRIGHT: Yes, sir.

22   THE COURT: Was there any evidence of that in the

23 record?

24   MR. ALBRIGHT: I believe we think it's on the face of

25 the patent.

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1   THE COURT: Well, may be. If you find, one, the

2 inventors of the 972 conceived of the invention before the 771

3 patent was filed in the United States. Okay.

4   MR. DELLETT: We disagree with that change because of

5 a -- we believe there is a problem with that section which

6 entitled anticipation by a prior invention, and based on what

7 is in the instruction right now, it appears to be this

8 instruction relates to one of 102(g) of the patent statute

9 which is, indeed, prior invention.

10   However, what we are claiming that the 771 patent is

11 in terms of prior art is prior art under Section 102(e), and

12 in our proposed instruction, we included a 102(e) instruction.

13   The 771 patent is not something we were even asserting

14 is 102(g). In fact, what we are asserting is 102(g) prior

15 art, and we believe the evidence is all in the record that it

16 is 102(g) prior art is the Adaptec Coronado.

17   And so, when we get an opportunity to go through this

18 -- when I have the lectern, I could go through it in more

19 detail as exactly how you would want to change this

20 instruction, your Honor.

21   THE COURT: Okay.

22   MR. ALBRIGHT: Your Honor, that's all we have.

23   THE COURT: Okay, sir. Mr. Dellett.

24   MR. DELLETT: First, before I talk specifically about

25 the changes that Chaparral proposes in your Honor's

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1   instructions, there are two issues that I believe need to be

2   addressed in a broader sense rather than page-by-page, and the

3   first of those is that Chaparral has requested an instruction

4   and renews its request for an instruction on -- that the jury

5   consider infringement of the original Chaparral products and

6   the modified Chaparral products separately.

7   The evidence came into the record. Indeed, our

8   experts and our opening and our closing was based on that

9   understanding -- based on the evidence that those products had

10   separate issues of -- there were separate issues of

11   infringement for the modified products as opposed to the

12   original products.

13   And the modified products were sold. They're in this

14   case, and without any jury instruction in that regard, I think

15   the jury's going to be left in the dark about what our case

16   was all about. And we'll be handicapped not only based on the

17   evidence but in closing.

18   THE COURT: Well, you know, I thought I'd crossed this

19   bridge a couple of times in summary judgment. What makes your

20   modified products if the jury finds infringement not

21   infringing?

22   MR. DELLETT: These modified products were modified in

23   such a way that they do not have a mode that can operate in an

24   infringing manner.

25   THE COURT: That's not the evidence I've heard.

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1   MR. DELLETT: The evidence came in through Mr.

2   Stephens that these products -- and Mr. Permut that the only

3   mode that Crossroads argues infringes has been disenabled. It

4   cannot work. It is not a default mode or anything. It is not

5   a mode that a user can ever go to in those products.

6   That is the evidence that we have offered in this

7   case. It's in the record. In fact, the only expert that

8   testified on this on behalf of Crossroads said he didn't even

9   test whether that possibility existed. So we have evidence in

10   the record that that mode operates in a different manner

11   because -- that modified product operates in a different

12   manner because the mode that is accused of infringement has

13   been turned off. It cannot be turned on by any customer.

14   MR. GIUST: Your Honor, the evidence was that there

15   was one mode of operation in all the products. That could be

16   used in an infringing way. The mode that Chaparral's bringing

17   up now is an additional mode. If you download forgetting the

18   password and other information off of the Chaparral web site

19   that doesn't come with the product, they're contending that

20   mode has some relevance it.

21   Mr. Stephens on his direct testimony said that both

22   modes were -- both versions of the product were noninfringing

23   for the same reasons, didn't distinguish between them. So the

24   evidence is there's at least a mode in the products, and it

25   wasn't distinguished in the relevant parts.

1   MR. GARRETT: Could I speak to that, your Honor?

2   THE COURT: Sure.

3   MR. GARRETT: So that we're clear, the modes in the

4   original unmodified products, there is a mode where the CAPI

5   commands and the pass-through commands are not useful, and you

6   cannot achieve either partial access from a computer or --

7   THE COURT: This is the first modification.

8   MR. GARRETT: Right. So we have -- we have the

9   original product and it has two different modes, and one of

10 the two modes is such that the user seeing his computer can no

11 longer get access to something that he's zoned out of. And

12 Crossroads has argued that that clearly infringes.

13   Now, the flip side of that is the other mode in that

14 original product and that is a mode in which when it's on --

15 when it's in existence, computers can, with the items that Mr.

16 Giust mentioned, the CAPI application and knowledge about the

17 pass-through commands break through into off-limits stuff.

18   And so, we have those two modes in the original

19 products. And the modified products, we no longer have the

20 first mode that I spoke about. And what I mean by that is

21 CAPI commands and pass-through commands are always useful. A

22 user can always, if he has the information, use those commands

23 to break into his own devices and to get access to things that

24 he would normally not have access to.

25   It's Crossroads' argument that because those CAPI

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1   specifications and the information that tells the user about

2   the pass-through commands doesn't come with the products it's

3   sold, none of the users know about them, and they can't

4   benefit from them.

5   But we've established through fact witnesses that that

6   material is available if the customers ask for them. And so,

7   the issue that I think Crossroads is trying to raise and

8   trying to make the point doesn't infringe --

9   THE COURT: They're saying you're selling an

10 infringing product, but if your customers take a shotgun and

11 shoots it where it doesn't work, well, it won't infringe. I

12 don't follow the logic there.

13   What you're saying is if they do follow what your

14 salespeople urge them to do, if they want this machine to work

15 and to get the password and get in and download the software,

16 then you don't believe it's infringing.

17   MR. GARRETT: That's accurate, your Honor, and the

18 point that we're trying to make overall is that the prior art

19 suffers from the same deficiency.

20   In other words, you can set up reserve management so

21 that nobody can break in, but then, if a user comes along and

22 he acquires the right information, then he can break in. In

23 the same sense that you can set up LUN zoning so that nobody

24 can break in, but if the user acquires the right information,

25 he, too, can break in.

1   So the overarching concern is that they're trying to

2 have their cake and eat it, too. In other words, they're

3 saying the prior art fails for this reason because users can

4 get this information and break in using resets, power cycles,

5 and that sort of thing, but the same logic doesn't apply to

6 Chaparral's customers. Who cares if Chaparral's customers can

7 get this information from Chaparral's web site. It doesn't

8 come with the product, so it infringes.

9   And we're saying, well, in the same sense, the prior

10 art doesn't have to come with that information. The user has

11 to go out and get it. And so, that's why we're struggling to

12 bring this modified product to life so that that issue is all

13 the more clear.

14   THE COURT: All right. Anybody else want to say

15 anything on this issue?

16   MR. DELLETT: The next issue, again, is something that

17 I'm not referring to a specific page in the instruction

18 because it would basically rearrange some of the instructions,

19 and that is that the instruction on damages should and we ask

20 that it be moved after invalidity and unenforceability

21 instructions.

22   And same with the verdict form. It would be

23 misleading to the jury to think that they can award damages,

24 even if the patent is invalid, and the way it's set up right

25 now, it appears that the jury could award damages and then,

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1   move on and later, decide if the patent's valid or not.

2   THE COURT: Well, not if they read any instructions,

3   they can't. I clearly tell them. But I want to have a

4   determination on damages. I don't want to go through this for

5   two more weeks. I'm going to have a determination on damages,

6   no matter what the jury answers the questions.

7   And I thought about putting it at the last because

8   that's the way y'all requested it. But I'm going to keep it

9   in.

10   MR. DELLETT: The next thing that I'd like to bring up

11 is on page 8 of the instructions, and there are a list of

12 items at the top of the page. And item No. 5 refers to

13 whether Chaparral's proof by clear and convincing evidence

14 that the 972 patent as a whole. The law is inequitable

15 conduct even on one claim of the patent makes that patent as a

16 whole unenforceable.

17   So we propose to change item No. 5 that whether

18 Chaparral has moved by clear and convincing evidence that

19 Crossroads committed inequitable conduct -- I'm sorry, that

20 the 972 patent is unenforceable based on inequitable conduct

21 with respect to any claim of that patent.

22   And I can cite a case for that. That is Baxter vs.

23 McGaw, M-C-G-A-W, 149 F. 3d, 1321. It is a Federal Circuit

24 case for --

25   THE COURT: Is 321?

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1   MR. DELLETT: I'm sorry, yes. 1321, Federal Circuit,

2   1998.

3   THE COURT: All right.

4   MR. DELLETT: The question of the original modified

5   products are also on page 7. I'm not sure your Honor's

6   interested in going through each instance where we propose

7   that the original and modified products be specified for the

8   jury, but that's the first instance.

9   THE COURT: All right.

10   MR. DELLETT: The second instance where we ask that

11 originally modified products be specified is on page 9, the

12 second full paragraph. There's two instances there where --

13 the first instance says, in this case, Crossroads contends

14 that Chaparral -- and we propose to add original products and

15 modified products. The second instance on page 9, where it

16 says in the same paragraph, you must determine based on any

17 interpretation of these claims whether Chaparral, and there we

18 insert original products and modified products.

19   THE COURT: All right.

20   MR. DELLETT: Next, on page No. 15, the second full

21 paragraph, about the term comprising. Based on the evidence

22 in the record, thus far, this paragraph is not something that

23 is in issue on the evidence. I don't believe that Crossroads

24 or Chaparral brought up evidence as to whether or not

25 Chaparral's products have additional elements or not, and so

1   that is --

2   THE COURT: Surplus?

3   MR. DELLETT: Surplus, yes.

4   MR. GIUST: No, your Honor, it's not. The additional

5   element is the step of going to their web site, downloading

6   this CAPI stuff and trying to use it, using CAPI -- okay. I'm

7   just looking for an agreement. It was too much to ask, but

8   that's all right. All right. Go ahead, sir.

9   MR. DELLETT: The last paragraph on page 15, we

10   propose to change the first sentence there to say, "If an

11   accused product has several different modes of operation, you

12   must examine each mode to determine whether the product

13   infringes" instead of mode.

14   The concern we have there, it has to do with that

15   issue being the same for validity of a patent. In other

16   words, if a prior art product -- or if a prior art -- piece of

17   prior art has several different modes of operation, you must

18   examine each mode to determine whether it anticipates the

19   patent.

20   Now, that instruction concerning the prior art having

21   different modes of operation we believe would best be put on

22   page 30, but I want to raise it right now that there is a --

23   the same, the very same issue as to different modes of

24   operation covers the prior art. This is an important issue

25   for Chaparral here because the different modes of operation is

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1   something that we're addressing in our modified product by

2   eliminating the mode of operation just as the prior art did.

3   MR. GARRETT: And the reason we feel this is relevant,

4   your Honor, is simply the law that says you can't construe

5   claims differently for infringement than you do for validity.

6   I'll leave it at that.

7   MR. DELLETT: Thank you.

8   THE COURT: Well, I understand your argument with

9   regard to the modified products, but I'm not understanding how

10   it is different between validity and infringement.

11   MR. DELLETT: I'll let Mr. Garrett handle that.

12   MR. GARRETT: Okay. My best attempt.

13   THE COURT: Because I'm pretty well instructing it is

14   the same.

15   MR. GARRETT: All right. Actually, I think --

16   THE COURT: And those instructions are instructions

17   that are in every form book that I've got.

18   MR. GARRETT: Right. Actually --

19   THE COURT: On page 15, the last paragraph.

20   MR. GARRETT: Your Honor, if I could talk to Mr.

21   Dellett for a minute.

22   MR. DELLETT: Our concern is this. I guess we can

23   propose an instruction on it, too, is that the term different

24   modes of operation is something that we believe should be

25   included in the instruction on anticipation, and that is on

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1   page 30. And the sentence that Chaparral proposes similarly,

2   "If prior art has several different modes of operation, you

3   must examine each mode to determine whether it anticipates the

4   patent."

5   And we propose that to include that after the first

6   sentence, on the last paragraph on page 30, following the

7   sentence, the test for anticipation is similar to the test for

8   infringement. In fact, we have -- when we got to page 30, I

9   have some other changes to that paragraph, as well.

10   THE COURT: You want to add what now? Go slow.

11   MR. DELLETT: Similarly, if prior art has several

12   different modes of operation, you must examine each mode to

13   determine whether it anticipates the patent.

14   THE COURT: Similarly if prior art has different --

15   MR. DELLETT: Several.

16   THE COURT: Several modes you must examine each mode?

17   Is that what you're --

18   MR. DELLETT: Each mode to determine whether it

19   anticipates the patent.

20   MR. GIUST: Where do you want to put that?

21   MR. DELLETT: Following the sentence if an accused

22   product has several -- I'm sorry. I misspoke there.

23   Following the sentence the test for anticipation is similar to

24   the test for infringement on page 30.

25   THE COURT: What says the plaintiff?

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1   MR. DELLETT: I'm sorry?

2   MR. GIUST: Your Honor, our only objection is if there

3   has been evidence the prior art actually worked in those

4   different modes. There's been a lot of speculation, Mr.

5   Hodges up here and it was asked to him, could you program

6   something to remove this, could you delete this out of the

7   program? And I don't -- unless there was evidence someone

8   actually did those things, I don't believe there's need for

9   this instruction.

10   THE COURT: I'm not writing a textbook, although I'm

11   sure the jury is going to think we've got a textbook. All

12   right. I have that one. What's next?

13   MR. DELLETT: Again, on page 17, there are two

14   instances where we ask that original products and modified

15   products be separately specified under Question No. 1, we ask

16   that it be modified to read: Do you find from a preponderance

17   of the evidence that Chaparral's original products literally

18   infringed any claim of the 972 patent? And then, in our

19   proposed instruction, I believe we had a Question 1B

20   concerning modified products.

21   I don't know if you want me to read that into the

22   record.

23   THE COURT: Well, you've got it requested. I just had

24   to laugh at it because the jury would have absolutely no idea

25   what you're talking about, absolutely. Which are the modified

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1   products, which is the first modified, which is the second

2   modified. You've got some that have never been changed.

3   You've got some that have changed. That's the reason I

4   rejected the request.

5   I sat down and tried to figure, one, if it had any

6   substance, I couldn't come up with any substance, and two,

7   some way I could instruct the jury, assuming it had substance

8   because I've got confidence that y'all are awful good lawyers,

9   but in some way, that wouldn't make sense to the jury, and I

10 couldn't come up with anything that made sense including your

11 suggestion.

12   So it's going to probably occur to you pretty soon I'm

13 going to deny that --

14   MR. DELLETT: I understand.

15   THE COURT: -- and let you have your objection. But

16 we tried. But I couldn't -- you know, you've got some with

17 zone -- LUN zoning, you've got some without, you've got

18 different products. I couldn't figure out a good way to

19 define modified products. You've got too many modified

20 products. I'm going to let the jury decide what they want to.

21 They've heard the evidence.

22   So you'll have that, Mr. Dellett, running through all

23 of that, so you can -- right now, I've got it down on pages 7,

24 9 and 17, whatever pages should have modification if you're

25 right, you'll have that objection to the charge.

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1   MR. DELLETT: All right. That might make it go a

2   little faster. On page 22, instruction for Question 4. The

3   first two numbered points could create some confusion, so we

4   ask that the order be reversed.

5   In our proposed instruction, we indicated that the

6   point number two be moved up to number one so that point

7   number one referred to someone else who had obtained the

8   product from Chaparral because as it reads right now, there's

9   potential, I suppose, for somebody to misread it to believe

10   that the someone else directly infringing the claim had

11   nothing to do with Chaparral.

12   So we wanted to qualify point number one by indicating

13   that someone else who obtained a Chaparral product directly

14   infringed the claim rather than somebody else who, you know,

15   may have no relationship whatsoever to Chaparral.

16   THE COURT: All right, sir.

17   MR. DELLETT: Next, we get to Question No. 5 regarding

18   damages, and that's what we ask, again, to move to the end.

19   Question No. 6, on page 26 --

20   THE COURT: Well, your moving to the end is twofold,

21   as I understand it: One is you wanted an instruction if

22   you've answered any of these defensive questions, you didn't

23   have to answer it?

24   MR. DELLETT: Right.

25   THE COURT: Go ahead. Next question.

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1   MR. DELLETT: Question 6 on page -- excuse me. That

2   was an original and modified one again. Page 28, the last

3   full paragraph, second sentence. The sentence starting with

4   the word "prior art means." The term publicly available in

5   that sentence is misleading because some types of prior art

6   are not publicly available, so we ask that that term publicly

7   available be modified to read in existence.

8   MR. GARRETT: Specifically, your Honor, we're speaking

9   of the Adaptec Coronado product is actually a prior invention.

10   MR. DELLETT: Even though it wasn't publicly available

11   at the time it became prior art.

12   MR. GARRETT: For the record, now that I think about

13   it, your Honor, 102(e) patent, the 771 patent is in that same

14   category in that publicly available information.

15   THE COURT: Well, if they're not publicly available,

16   how can there be prior art?

17   MR. DELLETT: Well, the statute is --

18   THE COURT: Well, I know, the statute's made by people

19   like myself that don't have any idea where their rear-ends

20   are, but that's not the point. The point is how could anybody

21   find it if prior art, if it's not publicly available?

22   I took out and maybe I'll have to put in the -- you

23   know, if you make it secret, it's not prior art. I took that

24   whole paragraph out because there was no evidence in this

25   whole record that anybody was making something secret or

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1   abandoning anything, and I took it out because, you know, I'm

2   all interested in getting a jury to give a verdict.

3   If I put this back in, I'm going to have to put that

4   whole instruction back in. I guess I can go do that, but I'm

5   not sure that the law is if it's in existence, in existence --

6   it could be in existence in my garage.

7   MR. GIUST: Or in Japan, like the 771 patent was in

8   existence in Japan, it stayed on the cover.

9   THE COURT: Or in Pakistan.

10   MR. GIUST: Right. Doesn't qualify as prior art.

11   THE COURT: And there's no evidence of it.

12   MR. DELLETT: We're not seeking to use it because it

13   was filed in Japan, your Honor.

14   THE COURT: No, but I haven't heard any evidence.

15   MR. DELLETT: That is not an issue in this case. I

16   can assure you. What is an issue is that 102(e), which is,

17   you know --

18   THE COURT: I don't know. That's why we're here.

19   MR. DELLETT: 102(e) creates prior art out of a

20   somewhat unusual situation which is exactly what we have here,

21   and that is that something was filed in the Patent Office

22   before the 972 patent was filed in the Patent Office. It is

23   secret then. It is in the Patent Office. Nobody knows about

24   it.

25   We didn't know about it until the 771 patent issued,

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1   after the 972 patent had already issued. And 102(e), it

2   doesn't happen in every case, but in this case, that is what

3   happened. And the 102(e) prior art was not publicly available

4   until a couple of months ago.

5   MR. ALLCOCK: Your Honor, maybe I can cut through

6   this. The only date I'm going to argue is the filing date of

7   the patent, and so, this is all very interesting, you know,

8   academic discussion.

9   THE COURT: Well, you have more confidence perhaps in

10   the --

11   MR. ALLCOCK: I mean, the only way this comes up is

12   if --

13   THE COURT: We're talking about something so minute,

14   it's not going to make any difference to the jury at all. So

15   it's only the appellate court that I am concerned about if

16   they come in on some technicality in this very complex case on

17   whether or not it's public or in existence. You're going to

18   have to assume you get the verdict, you're going to have to

19   live with it. Which one do you want to live with?

20   MR. ALLCOCK: Well, my only point, your Honor, was the

21   only way it would become material is if someone would have

22   somehow argued that the patent isn't prior art because it

23   issued in 2000, or something, and no one's going to say that.

24   THE COURT: I doubt that 25 percent of these 46 pages

25   are material, in any way, at all in the determination of this

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1   verdict. I'm going to repeat: Assuming you get a verdict,

2   which way do you want it? Do you want it publicly available

3   or in existence?

4   MR. GIUST: Your Honor, I think I can fix it. They

5   have three kinds of prior art, publicly available is one of

6   them, one of them is filed earlier in the U.S. Patent Office

7   is the other kind, and then, third kind is previously

8   invented. So if we just live those three, I think there won't

9   be a problem.

10   THE COURT: They're already listed.

11   MR. GIUST: Okay. Then, we want to go with publicly

12   available.

13   THE COURT: All right.

14   MR. GIUST: Because in existence is wrong.

15   THE COURT: You're not going to have the argument that

16   would be so -- the argument is so subtle that no jury's going

17   to catch it unless y'all make it, then we'll have to see where

18   we are. But I'm sure I've got confidence that counsel is not

19   going to make any of this. All right. Next objection.

20   MR. DELLETT: Next objection that Chaparral has is on

21   page 29, paragraph No. 6, near the top of the page. The last

22   word before the semicolon is controlled. Looks like that may

23   have been a typo, the word is concealed in the statute, I

24   believe. I think that's from 102(g). Right. 102(g).

25   THE COURT: All right, sir.

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1   MR. DELLETT: Next on the same page, we ask that a --

2   the jury be instructed that the filing date of the 972 patent

3   is December 31st, 1997. I do recall that being in the earlier

4   instruction and we ask that it stay in.

5   THE COURT: Where do we put it?

6   MR. DELLETT: Between the paragraph starting with the

7   word "known" and the next paragraph that starts with "for

8   prior art." It could be a one-sentence paragraph there.

9   THE COURT: Does that relate to anything other than

10   the conception argument?

11   MR. DELLETT: Yes, it relates to whether or not other

12   things, for example, the Adaptec prior art. Well, it has to

13   do with the introduction to practice which is important to

14   consent for the Adaptec product as well as the 771 patent.

15   THE COURT: So I just put it at one place, you're just

16   putting it in this relatively obscure place, and they'll just

17   pick it up for both of them.

18   MR. DELLETT: Right.

19   THE COURT: All right. Good. What's next?

20   MR. DELLETT: We'll take our chances. Now, the next

21   item is on page 30, and that has to do with the paragraph that

22   we referred to a little bit earlier, and that paragraph starts

23   with the words "the test for anticipation." Mr. Garrett, I

24   think, has a proposed substitution for that entire paragraph.

25   MR. GARRETT: Not for the entire paragraph, your

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1   Honor. My only concern with it was in the sentence beginning,

2   for example, where you describe the situation, we would like

3   something broader than just reference to a product. And so,

4   getting to that end, we would propose these two sentences in

5   place of the last two sentences in that paragraph.

6   For example, if you find that technology such as a

7   product or a description in a publication meets the claims of

8   the 972 patent and was invented before the subject matter

9   claimed within the 972 patent, you must find that the

10   technology anticipates the claim because it is prior art. But

11   if that same technology were invented after the subject matter

12   contained within the 972 patent, it would infringe the patent.

13   It's basically just broadening the concept you're

14   expressing a little bit.

15   THE COURT: All right. Give it to me again. For

16   example, if you find the technology.

17   MR. GARRETT: If you find that technology such as a

18   product or a description in a publication -- and that phrase

19   could be set off by parentheses or commas.

20   THE COURT: Such as a product or publication, okay.

21   MR. GARRETT: Meets the claims of the 972 patent.

22   THE COURT: Okay.

23   MR. GARRETT: And was invented before the subject

24   matter.

25   THE COURT: Can you invent a publication?

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1   MR. GARRETT: Well, what I meant to say was -- no, I

2   don't think you can, your Honor, but you can invent

3   technology. And so --

4   THE COURT: That's described in the publication.

5   MR. GARRETT: Yes. Maybe instead of a product or a

6   publication or product, a description in a publication would

7   be a better way.

8   THE COURT: Okay. Before the subject matter.

9   MR. GARRETT: Before the subject matter claimed within

10   the 972 patent, you must find that the technology anticipates

11   the claim because it is prior art.

12   THE COURT: Well, we've got claims in the first part

13   of your suggestion and claim in the singular in the second

14   part.

15   MR. GARRETT: You could say meets a claim of the 972

16   patent instead of meets the claims.

17   THE COURT: Uh-huh. Okay.

18   MR. GARRETT: And then, your last sentence would

19   almost verbatim remain the same. It would just change to

20   instead of but if that same product were invented would go to

21   but if that same technology were invented. And then, instead

22   of a reference to the technology contained within the 972

23   patent, it would be subject matter contained within the 972

24   patent.

25   THE COURT: Better read that last sentence that you

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1   want.

2   MR. GARRETT: But if that same technology were

3   invented after the subject matter -- I'm sorry, claimed within

4   the 972 patent, it would infringe the patent.

5   THE COURT: Okay.

6   MR. GIUST: Your Honor, that's not a correct statement

7   of the law as the change that they requested. This is a

8   for-example phrase. It's supposed to give an example. The

9   example in here isn't in compliance with the law.

10   THE COURT: Well, it's a stock instruction. I mean,

11   I've given it before. It's been there before.

12   MR. GIUST: Right, as it is is fine, but with the

13   example that poses technology does not qualify as prior art,

14   for example. I mean what are they talking about? It's vague,

15   it's making it more confusing. I just think we just want the

16   original.

17   MR. DELLETT: The prior art that may be in a product

18   that's in this sentence, prior art doesn't necessarily have

19   claims, first of all, and the -- we're concerned with claims

20   in the patent, not claims in the prior art.

21   MR. GARRETT: Just to beat a dead horse, your Honor,

22   just to address one issue you said. The sentence begins, if

23   technology was invented or if technology meets the claimed

24   subject matter and it was invented before, then it's prior art

25   and has to anticipate. That's accurate.

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1   MR. GIUST: No, it's not. Technology in the United

2   States qualifying under 102(b). I mean, you're just assuming

3   that anything in the world existed and qualifies as prior art.

4   That's not an accurate statement.

5   THE COURT: What's the problem if I just change the

6   word "claims" to "technology"?

7   MR. GIUST: No problem, your Honor.

8   THE COURT: Then, it reads: If you find that a

9   product that contains the same technology as the 972 patent

10   was invented before the technology contained within the 972,

11   et cetera.

12   MR. DELLETT: Just one more issue there and that has

13   to do with the -- instead of the technology contained within

14   the 972 patent, we need to have that read technology claimed

15   in the 972 patent.

16   MR. GARRETT: Yeah, that would be our only suggestion

17   if you made that modification, your Honor.

18   THE COURT: You want to instruct the jury that all

19   they have to do is claim it?

20   MR. DELLETT: No, no.

21   THE COURT: That's the way the English language reads.

22   To just say before the technology contained, well, that's

23   pretty simple. If you say the technology claimed in the 972.

24   All right. I'm trying to understand, really, what you're

25   complaining about. You're not really doing it.

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1   MR. DELLETT: Can I try one more time?

2   THE COURT: You may.

3   MR. DELLETT: I don't want to -- this isn't splitting

4   hairs, I don't believe, because we're looking at the

5   technology claimed, we're looking at the claims of the 972

6   patent, and we're looking to see if that technology existed in

7   the prior art, whether the prior art claimed it or not, so

8   that's the reason that we have a dispute over this particular

9   sentence.

10   For example, if you look at the 771 patent, the jury

11   may look at the claims of the 771 patent, which are -- aren't

12   really something that anybody's argued here, as far as I could

13   tell, but whatever the 771 patent claimed doesn't matter.

14   What the technology exists in the 771 patent is important,

15   whether it's in the abstract or the drawings, or whatever.

16   But then, you look at the 771 patent and you compare it to

17   what the 972 patent claimed.

18   MR. GIUST: Nothing to add, your Honor.

19   THE COURT: Well, if I change the word "claims" to

20   "technology" and change the word "contained" to "claimed,"

21   does that affect the plaintiff?

22   MR. GIUST: No.

23   THE COURT: All right.

24   MR. DELLETT: We're happy.

25   MR. GARRETT: We're happy, your Honor.

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1   THE COURT: Oh, good, somebody's happy. All right.

2   MR. DELLETT: Made my day.

3   THE COURT: All right.

4   MR. DELLETT: Page 31.

5   THE COURT: Haven't you gone through a couple of more

6   pages? Go ahead.

7   MR. DELLETT: Didn't want any page to feel left out.

8   The third sentence -- I'm sorry, the fourth sentence has to do

9   with inherent disclosure in prior art. That is a surplus

10   because I don't believe that the issue of inherency is

11   something that has been argued or put into evidence. So we

12   would delete that sentence that's starting with "a party

13   asserting that."

14   MR. GIUST: Fine. If they want to delete it, delete

15   it.

16   THE COURT: Fine. I'll take out the sentence and

17   then, leave in determining.

18   MR. DELLETT: Right.

19   THE COURT: Okay.

20   MR. DELLETT: The next paragraph on page 31, that has

21   a list of four types of prior art, and the one that is missing

22   is the 102(e), and we propose that be listed in that group as

23   an earlier filed patent application, and that's a -- about as

24   few words as we can put 102(e) into, your Honor. It's

25   something we'll address again in more detail. But it needs to

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1   be in that list there as a separate type of prior art.

2   MR. GIUST: We would only add that it should be an

3   earlier filed U.S. patent.

4   MR. DELLETT: That's fine.

5   THE COURT: Okay.

6   MR. DELLETT: In that same sentence, your Honor, the

7   third item --

8   THE COURT: What same sentence? The one you're

9   adding?

10   MR. DELLETT: No. In the sentence that says a patent

11   claim may be anticipated by several categories -- I'm sorry.

12   The sentence that starts with in this case, Chaparral alleges

13   the 972 patent claims were anticipated by and either item No.

14   1 or -- it didn't really matter which order they're in, I

15   suppose, but one of those items should be added to be an

16   earlier filed U.S. patent application.

17   Continuing in that same list, the term public sale is

18   not what this statute refers to. The statute refers to on

19   sale, and it could be even a secret sale to be -- and still be

20   on sale and be prior art under Section 102(b). So we propose

21   deleting the term public from that and put the word on instead

22   because that's what the statute says.

23   THE COURT: Well, we're sure going to make the statute

24   look good, but what is a jury going to think when they see on

25   sale? They're going to think there's a typographical error in

1   the charge. How about sale of a product?

2   MR. DELLETT: Well, then, you know, I guess perhaps

3   the jury's not going to appreciate that difference, but the

4   statute says on sale, and the statute -- I'm sorry, the case

5   law interprets the term on sale to mean something fairly

6   specific which is an offer for sale or an actual sale.

7   So rather than dice it too fine, I say the term on

8   sale is about as few words as we can get and still hopefully

9   be in compliance with 102(b).

10   MR. GIUST: Your Honor, I would just say to make it

11   simpler, just say subject to a commercial sale because that's

12   what the instructions later talk about, a commercial sale.

13   THE COURT: Well, that's what I've got, and then, I

14   have it defined as -- actually, I think the defendant is

15   hurting himself by making this argument because if you read on

16   sale or public sale or any sale, you don't get offer for sale.

17   MR. GIUST: So commercial sale is --

18   THE COURT: Define it later on, but not here. What's

19   wrong with commercial sale?

20   MR. DELLETT: Well, again, there are cases that say an

21   offer for sale is on sale. So the term commercial there is

22   too narrow.

23   THE COURT: Let me tell you. I'll bet you all the

24   money my children have, which isn't much probably, that

25   there's not a single juror over there that knows what the

1   patent statute says, and I'm not writing this for the law

2   professors or the Federal Circuit. And if they want to

3   reverse me on that, they can learn Texas language.

4   But this is your defense. And if you want on sale,

5   I'm going to put it there. But I tell you if I was in your

6   position, I would not want it. And if anybody says to the

7   jury "on sale," I don't know what that is, and they look up at

8   me, I'm going to go, "I don't know."

9   All right. We've got that now. That's on the

10   paragraph before the anticipation by printed publication in

11   which has the additional four, right?

12   MR. DELLETT: I'm sorry.

13   THE COURT: I just want to make sure. The earlier

14   filed U.S. patent application goes in where?

15   MR. DELLETT: I would list that as No. 1 and then, No.

16   2 is printed publication, No. 3, public use, No. 4, on sale,

17   and No. 5, prior invention.

18   THE COURT: All right.

19   MR. DELLETT: And then, the next sentence, of course,

20   would say anticipate under any of these five categories.

21   THE COURT: All right.

22   MR. DELLETT: The next objection that Chaparral has

23   concerns the 102(e) instruction, and that was in our proposed

24   instructions at pages 36 and 37, and, again, this relates

25   specifically to the 771 prior art. And that paragraph should

102

1   be modified slightly from what we proposed earlier to read,

2   anticipation by an earlier filed U.S. patent application. And

3   I could continue reading on there.

4   Chaparral contends that Claims 1 through 4 and 7

5   through 14 of the 972 patent were anticipated because the

6   invention defined in those claims was described in U.S. patent

7   No. 6219771, paren, the 771 patent, close paren, and because

8   the application for the 771 patent was filed before inventors

9   of the --

10   THE COURT: Where are you reading from? I'm looking

11   at your requested instructions.

12   MR. DELLETT: There were supplemental jury

13   instructions earlier version, it's on page 30.

14   THE COURT: All right.

15   MR. DELLETT: I'm not sure where I left off, but I

16   will continue at the top of the continued jury instructions.

17   The claim of the 972 patent would be invalid if the invention

18   defined by that claim is described in a United States patent

19   issued on a patent application that was filed before the

20   invention was made by Crossroads.

21   You must determine the date of the invention for the

22   claims of the 972 patent. If you determine the date of

23   invention for those claims as not earlier than the filing date

24   of the earlier filed patent application, then the earlier

25   filed patent application is prior art and can anticipate or

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1   render obvious the claims of the 972 patent.

2   To show anticipation of a claim of the 972 patent,

3   Chaparral must show by clear and convincing evidence that the

4   earlier filed patent application described each and every

5   element of the claim.

6   THE COURT: You know, I seem to be the only person in

7   this whole trial that tries to get the issue to the jury so

8   they can understand it and they can resolve it based on the

9   evidence they hear, no matter how technical. You patents

10 lawyers make it impossible.

11   I could put what you're asking, Mr. Dellett, in that

12 charge. No one will understand it, not a soul. They won't

13 pay any attention to it, and you, who have a defense perhaps

14 in the evidence, lose that defense.

15   You put me in a position where I don't know if it's

16 reversible error or not. It would not be in the Fifth

17 Circuit, but you don't know what the Federal Circuit's going

18 to do. I don't have enough familiarity with them although

19 I've only been reversed once and that's because I gave too

20 small a verdict.

21   But a jury's not going to understand that, not a word

22 of it. And, you know, you can sit there and smile, but if you

23 put it in English where they understand it, they might find

24 for you. But you eliminate that chance because you're so

25 committed to the worship of the patent statute that you lose

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1   forest from the trees.

2   Now, I followed you when you were dictating that, but

3   you changed from your supplemental requested instructions

4   filed yesterday, this mere 50-something-page supplemental. So

5   why don't you just tell me the changes you made. You dropped

6   Geoffry Hoese and Jeffry Russell and you made Crossroads.

7   MR. DELLETT: Right.

8   THE COURT: And then, you changed --

9   MR. ALLCOCK: Your Honor, if I could weigh in on this

10   for just a second.

11   THE COURT: Sure. Why not.

12   MR. ALLCOCK: I've tried a number of cases on this

13   conception reduction of practice stuff. The instruction that

14   you have on pages 36 and 37 is as clear, I think, as you can

15   state it.

16   THE COURT: Well, it's as clear as I can state it.

17   That's correct. We worked on it. And the problem is it's not

18   in the structure as the same place that it was. That's one of

19   the problems. And then, the second is -- the other is just

20   going to go just -- maybe that's to your advantage, though.

21   What are you going to want me to do when I get over

22   there -- let's just assume that we ever get through all of

23   page 31, which, I think, is a bad assumption, but let's just

24   assume that we do, what's wrong with the one I have?

25   MR. DELLETT: That's the 102(e) versus 102(g) issue.

1   Now, as a patent lawyer, that is something that so -- we're

2   stuck with in the statute. Unfortunately, those are very

3   difficult --

4   THE COURT: I'm going to unstick you because I'm going

5   to require them to find a date, and if they find the date, all

6   of these arguments are immaterial, aren't they?

7   MR. DELLETT: I'm sorry, as far as the prior art being

8   actual prior art or not?

9   THE COURT: No. The patent. If you'll look on my

10 verdict form, I'm having them find the date of the invention

11 under the instructions. If they find that date, the letter to

12 the lawyer, you know, we're just looking at how many angels

13 are on the top of a pin.

14   But, you know, this is your issue, and I -- I'm not

15 mad, I just took a lot of time to try to write something that

16 I thought maybe these seven jurors would understand so that

17 your defense would be there. But if you want it in this other

18 way, it is your choice.

19   All right. So the last sentence, if you determine the

20 date of the invention for those claims is not earlier than the

21 filing of the earlier filed patent application, that asserted

22 patent is prior art and can anticipate or render obvious the

23 claims of the 972 patent.

24   MR. DELLETT: Right.

25   THE COURT: All right. While we're on it, does the

106

1   plaintiff have objections to that?

2   MR. GIUST: Except it adds to the confusion, your

3   Honor, but there's no objection.

4   THE COURT: All right. The next objection. Then,

5   we'll have to renumber.

6   MR. DELLETT: Page 32, the second paragraph, starting

7   with the word "an element is inherently disclosed." That,

8   again, is not in the evidence or in the case, so we ask that

9   that paragraph be deleted.

10   MR. GIUST: No objection.

11   THE COURT: All right.

12   MR. DELLETT: The last full paragraph on page 32,

13   starting with the words "public use." We ask that it read,

14   "Public use is any use by the inventor or a person other than

15   the inventor."

16   MR. GIUST: We have no objection, your Honor.

17   THE COURT: All right. Public use is any use by an

18   inventor. Is it just changing that 100 percent?

19   MR. ALBRIGHT: Your Honor, we would just leave out the

20   word -- just say "any use by any person who is under no

21   limitation."

22   MR. DELLETT: That's fine. So we're taking out the

23   words "other than the inventor."

24   THE COURT: It's not objected to. All right.

25   MR. DELLETT: Next, on page 33, there we have three

1   instances where the word "commercial sale" is used.

2   MR. ALBRIGHT: Your Honor, if we could just go back

3   for a second. If you read that sentence, I don't know if it

4   makes sense.

5   THE COURT: Well, I don't think that has anything to

6   do with it, Mr. Albright.

7   MR. ALBRIGHT: I think the sentence -- and, John,

8   check me here, but I think the sentence would end at the word

9   "secrecy."

10   MR. GIUST: By the inventor.

11   MR. ALBRIGHT: By the inventor. I stand corrected.

12   Thank you, sir.

13   THE COURT: All right. Then, page 33.

14   MR. DELLETT: Let me back up there. I think we'll

15   accept the word "commercial sale." We'll withdraw that

16   objection.

17   THE COURT: Well, you didn't make it, so it's all

18   right.

19   MR. DELLETT: All right.

20   THE COURT: What's your next objection?

21   MR. DELLETT: On page 35, the first paragraph, last

22   sentence. We ask that the word "has begun" and instead -- I'm

23   sorry. Delete the word "has begun which" and instead, have

24   the word "continuous" be before the word "diligence." The

25   reason we ask that that change be made is that diligence, just

                                                                     108

1   beginning diligence isn't enough under the law. Continuous

2   diligence is required.

3   THE COURT: All right.

4   MR. GIUST: Your Honor, we object to the change. The

5   law requires only reasonable diligence. And this would appear

6   to give you a higher burden -- give us a higher burden than

7   the law requires.

8   MR. DELLETT: We can agree to reasonable diligence as

9   long as we delete the words "has begun which."

10   THE COURT: Reasonable continuous diligence or --

11   MR. DELLETT: Reasonable diligence is fine.

12   THE COURT: And I thought your objection was because

13 of the lack of continuous, even though I've instructed it

14 somewhere.

15   MR. DELLETT: No. I'm concerned about the "has begun

16 which."

17   THE COURT: All right. So reasonable diligence

18 would --

19   MR. DELLETT: I'm sorry, it should say reasonable

20 diligence which results.

21   THE COURT: All right. Okay. Next.

22   MR. DELLETT: Page 36, the full paragraph in the

23 middle of the page, first sentence, instead of the words

24 "after his conception date," we ask the words be inserted "for

25 the time period preceding the prior invention." We withdraw

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1   that objection.

2   THE COURT: Okay. Next.

3   MR. DELLETT: Last page of objections, 37. That page

4   refers to the 771 patent on several occasions, and since we

5   are not asserting the 771 patent as 102(g) anticipation prior

6   to the invention, but we're asserting it as 102(e), we would

7   -- instead of the word "771 patent" on each instance, we would

8   have the words "Adaptec" or "Adaptec Coronado."

9   And I could go through each instance, but as sort of a

10   global change. This section of the jury instruction bears on

11   the Adaptec Coronado prior art, not on the 771 patent. And,

12   of course, provided that your Honor allows -- instructs the

13   jury on Section 102(e), then that will take care of the 771

14   prior art issue.

15   THE COURT: All right. So you're sucking out 771,

16   placing it back in the first paragraph on page 30. And you

17   want me to simply substitute Adaptec Coronado on the 771

18   notations. Is that what you're telling me?

19   MR. DELLETT: Basically, with one slight difference.

20   I think the proposed instruction that relates to the 771

21   patent would be on page 31, and then, there are -- I guess,

22   maybe, the easiest way for me is to read exactly the language

23   that we would substitute. And that is, specifically, at the

24   top of the page, second line: "Specifically, Chaparral has

25   argued that the Adaptec Coronado" --

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1   THE COURT: Do you have this in your requested

2   instructions --

3   MR. DELLETT: It was in --

4   THE COURT: -- because I don't know how --

5   MR. DELLETT: I think we refer to it generically in

6   our proposed instruction as a third party -- third party's

7   prior invention, and since this instruction now we're at the

8   771 patent --

9   THE COURT: Well, why isn't Adaptec already covered in

10 the prior art instructions?

11   MR. DELLETT: Because Adaptec is only prior art under

12 Section 102(g). It was -- we are not asserting that it was

13 publicly used or offered for sale -- I'm sorry. We are not

14 asserting that it was offered for sale more than one year

15 before the filing date. We're not asserting that it's 102(e).

16 And so, this section of the jury instructions deal very

17 specifically with the Adaptec product and why it's prior art

18 under the statute.

19   THE COURT: All right. Read it out and Lily will type

20 it up for me if I need it. You're about to come out of your

21 seat. Is there something you want to say?

22   MR. GIUST: Yes, your Honor. This section we want to

23 make sure whatever happens in the 771, something like this

24 section goes with it if they're going to move it somewhere

25 else. All this law is applicable to the 771.

                                                              111

1   THE COURT: Well, he's basically going to say -- he's

2   saying that he's not offering 771 under G.

3   MR. GIUST: It doesn't matter that under 102(e), all

4   this conception of reduction of practice law still would apply

5   to it, and we want the instruction to be as it is here for

6   that section.

7   THE COURT: All right.

8   MR. ALLCOCK: Maybe I'll articulate, your Honor. The

9   same -- it's up to him if he wants to do it twice. That's his

10   problem. But this is really an excellent statement of exactly

11   what needs to be proven under either E or G. And so, if he

12   wants it in both places, that's fine. But this really lays it

13   out extremely well so that in one -- three sentences you can

14   tell the jury what they need to decide.

15   MR. DELLETT: I don't have any argument with

16   specifying the conception of reduction practice applies to --

17   and diligence, for that matter, applies to both this 102(e)

18   and 102(g) prior art.

19   Now, exactly how that would be arranged, you know, we

20   could have it in twice or have it in once. I guess I'd prefer

21   to have it in once, but if -- that's just juggle the

22   paragraphs a little bit. The proposed Section 102(e) part on

23   page 31, perhaps we could move that instead of being the very

24   first of the four or five types of prior art, we could move it

25   to the bottom of page -- or perhaps an even easier way to say

112

1   that the discussion on pages 35 through 37 apply to both prior

2   art anticipation by prior invention and anticipated by earlier

3   filed patent application.

4   THE COURT: Just dawned on me that you're adding back

5   in the language on the 006 patent that you agreed could be

6   taken out on your anticipation argument by earlier filed U.S.

7   application, you start referring to it in your instructions as

8   a 006, which I've taken all of that out because you agreed

9   that it wasn't in the case. Now you're putting it back in the

10 case.

11   MR. DELLETT: I certainly didn't intend to.

12   THE COURT: Well, it says so if you look at page 30 of

13 your supplemental instructions. The last sentence says,

14 Chaparral also asserts that claims are anticipated by the

15 United States patent, the 006 patent.

16   MR. DELLETT: Sorry, your Honor. I may have

17 misspoken, but I -- what I meant to read in was limited to

18 that section to the 972 patent. So any reference to the 006

19 patent we ask to be deleted.

20   THE COURT: All right.

21   MR. DELLETT: I can read in the specific changes that

22 we would have on page 37 where we specified the Adaptec

23 Coronado instead of the 771 patent that reads: Specifically,

24 Chaparral has argued that the Adaptec Coronado constitutes

25 prior art. Crossroads had argued that this is not prior art

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1   because -- that the Adaptec Coronado is not prior art because

2   Crossroads conceived of the invention embodied in the 972

3   patent prior to the date the invention in the Adaptec Coronado

4   was made.

5   You must determine the date the inventors of the 972

6   patent conceived of the invention embodied within the patent.

7   Then, you must decide whether Crossroads was reasonably

8   diligent in reducing its invention to practice. If you find,

9   one, inventors of the 972 patent conceived of the invention

10   before Adaptec conceived of his invention or its invention,

11   and, two, the inventors of the 972 patent were reasonably

12   diligent in reducing the invention to practice, you must

13   conclude that the Adaptec Coronado cannot invalidate the 972

14   patent.

15   If you conclude Crossroads did not conceive of its

16   invention prior to the date the Adaptec Coronado was invented

17   or Crossroads was not reasonably diligent in reducing its

18   invention to practice, you must then determine whether the

19   Adaptec Coronado -- you must then determine whether the

20   Adaptec Coronado constitutes prior art before invalidating

21   Crossroads' patent. That is all the objections.

22   THE COURT: Plaintiff wants me to include not only

23   Adaptec Coronado, but still include the 771 in that

24   instruction.

25   MR. ALLCOCK: Yes, your Honor.

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1   THE COURT: So I have to put both of them in there?

2   MR. ALLCOCK: If they want two separate sections, I

3   think that's the only way to do it.

4   THE COURT: All right. Counsel, for the record --

5   MR. GIUST: One more thing, your Honor, on page 37,

6   five lines down, it says the 771 patent was conceived, and

7   that's just another one of these places where it should be 77

8   patent -- 771 patent was filed in the U.S.

9   THE COURT: Okay. All right. On the first objection

10   with regard to the modification and the subsequent

11   modification and all of the products being sold, those are

12   overruled. The second objection with regard to the damage

13   issue being last is overruled.

14   The third objection on page 8, making the fifth

15   category of inequitable conduct with respect to any claim, I

16   didn't hear from the plaintiff on that. Do y'all agree that

17   is the law? Or do I need to read this Baxter case?

18   MR. GIUST: Sounds good to us, your Honor.

19   THE COURT: All right. We'll sustain that objection.

20   I'll make that change on page 8. Fourth objection, page 15,

21   it is agreed that the comprising surplus -- no, it's not

22   agreed the comprising surplus, that objection is overruled.

23   Page 15, the next objection changing made to product and

24   adding the sentence is overruled.

25   The next objection, page 22 to invert two and one, I

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1   will grant, and I will make that inversion. The eighth

2   objection on page 23, moving the damage issue to the end,

3   again, will be denied. I started to grant one and overrule

4   the other, but I don't want to confuse the Federal Circuit.

5   The tenth objection on page 28, changing, quote,

6   publicly available, end quote, to in existence, end quote, I

7   overrule. Next objection, on page 29, changing the word

8   "controlled" to "concealed," I grant.

9   The next objection on page 29, placing the undisputed

10   instruction the filing date was December 31, 1997, I grant.

11   Page 30, I'm going to overrule with the objection, with the

12   exception, and I will change the word "claim" to "technology"

13   and the word "contained" to "claimed."

14   Page 31, the next objection, I will grant, and I will

15   delete the sentence that begins, quote, a party. Next

16   objection, on page 31, I will add the paragraph earlier filed

17   United States patent application and will place the requested

18   instruction in the supplemental proposed instructions made by

19   the defendant.

20   Page 31, I will also change the word public to on in

21   worship of the statute. The eighteenth objection is on page

22   32, add the first paragraph which I have already granted. The

23   nineteenth objection, page 32 to eliminate the sentence that

24   begins, an element, I grant as not disputed. The next

25   objection, on page 32, to delete, quote, other than the

1   inventor, end quote, I grant as undisputed.

2   The next objection, on page 35, I will change the

3   words "has begun which" to "reasonable diligence which

4   results." And on page 37, the last and final objection, which

5   I had down about 25, is that I will try to reword page 37 to

6   contain both the 771 and the Adaptec Coronado product, which

7   is going to take us a little while, so make yourself at home.

8   (Recess.)

9   THE COURT: Okay. Mr. Dellett.

10   MR. DELLETT: Your Honor, I believe it was Wednesday,

11   September 5th of the trial, that Mr. Middleton was on the

12   witness stand and Mr. -- after Mr. Albright had direct

13   examination of Mr. Middleton about marking patent numbers on

14   Crossroads' product, Mr. Bahler asked this question: Mr.

15   Middleton, I've handed you what's been marked into evidence as

16   defendant --

17   THE COURT: It's 123, label applied to the 4100 and

18   4200 product. Right, he mentions that.

19   MR. DELLETT: And he asks Mr. Middleton --

20   THE COURT: Page 6 he asked him. The label product by

21   the 972.

22   MR. DELLETT: Mr. Middleton indicated that is what, in

23   fact, Crossroads applied to as its product. Examination of

24   Mr. Middleton went on for several pages in the transcript.

25   I'm not going to read it at this time, but Mr. Middleton --

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1   Mr. Middleton certainly authenticated that document, indicated

2   it was what Crossroads did apply to its products.

3   The objection or the exhibit was before the jury

4   without objection by Crossroads' attorneys, and, in fact, it

5   appears that after Mr. Middleton said it appears to have been

6   admitted -- I handed you what's been marked into evidence and

7   continued to examine Mr. Middleton about it, there was no

8   objection by Crossroads.

9   It appears, as far as I can tell, that there was an

10   omission as to formally asking the Court to admit it into

11   evidence because Mr. Bahler was under the impression that it

12   had been admitted into evidence.

13   We didn't find out until our paralegal, sometime at

14   noon, checked with Margaret about the exhibit lists that her

15   list showed it was not admitted into evidence. So we ask that

16   that exhibit -- Defendant's Exhibit 123 be admitted into

17   evidence based on the examination of Mr. Middleton about that

18   without objection by Crossroads and --

19   THE COURT: Of course, there was no objection because

20   there was never any offer. My notes do show that he did talk

21   to it extensively about 123, Defendant's 123. Particularly

22   page 26 of 123 by my notes clearly show he never moved for the

23   introduction. Is there any objection to reopening and

24   entering that exhibit?

25   MR. ALBRIGHT: Yes, your Honor, we would object to it.

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1   THE COURT: All right. It will remain not admitted.

2   (Proceedings adjourned.)

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1   UNITED STATES DISTRICT COURT   WESTERN DISTRICT OF TEXA

2   WESTERN DIVISION

3   CROSSROADS SYSTEMS,   ) Docket No. A 00-CA-217 SS(TEXAS), INC., A TE

     CORPORATION   )   )

     vs.   ) Austin, Texas   )

     CHAPARRAL NETWORK   )STORAGE, INC., A   )

     DELAWARE CORPORATION   ) September 10, 2001

              TRANSCRIPT OF TRIAL ON THE MERITS

         BEFORE THE HONORABLE SAM SPARKS   Volume 4 of 6

11   APPEARANCES:

12   For the Plaintiff: Mr. Alan D. Albright

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                                Mr. John Giust

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17   For the Defendant: Mr. David D. Bahler

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25   Proceedings recorded by mechanical stenography, transcriptproduced by c

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		Offered	Admitted
1	E X H I B I T S		
2		Offered	Admitted
3	Plaintiff's		
4	#11 Billing Records	122	123
5	#608-610 Demonstratives	75	75
6	#611-612 Demonstratives	76	76
7	#613 Demonstrative	76	76
8	#614 Demonstrative	76	77
9	#615 Demonstrative	77	77
10			
11	Defendant's		
12	#1 972 Certified U.S. Patent	146	146
13	#21-29	146	146
14	#31,34-57,84,87-102,104,	146	146
15	#130 Draft Development Agreement	94	94
16	#220,228,249,263	146	146
17			
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1   THE COURT: All right, counsel. Anything before we

2   bring in the jury?

3   MR. ALLCOCK: Yes, your Honor. There's a couple of

4   items. I'll hand up to the Court a letter I received

5   yesterday from Mr. Bahler with a couple of -- well, with some

6   additional bills attached from Mr. Zinger. Exhibit 11, your

7   Honor, is a collection of bills of -- that relate to the work

8   Mr. Zinger did on the opinion letter.

9   And I understand -- basically, this goes to what we

10   may get into today with some of the witnesses. Certainly, Mr.

11   Zinger but, also, some of the earlier witnesses, because I

12   just don't know what their testimony's going to be. And as

13   you can see from the two entries that I've highlighted there,

14   it's going to be, I think, practically impossible for me to

15   avoid directly or indirectly getting into the potentially --

16   the joint representation.

17   I'll tell the Court that there are a few other entries

18   in the -- in Exhibit 11 that aren't before you. Those are

19   just the entries that we received yesterday at 4:00, or so.

20   And I mean, aside from the issue of -- we deposed him in July

21   of this year. We didn't have that information when we deposed

22   Mr. Zinger.

23   The course of the case and the course of the trial may

24   have taken a quite different tact had we had those, but

25   putting that aside, I just wanted to bring it to the Court's

4

1   attention that we would be getting into that area. And I just

2   don't see how I can avoid at least potentially getting into --

3   THE COURT: Well, these bills don't say anything one

4   way or the other except they conferred with Fulbright &

5   Jaworski lawyers. It's just a level playing field. It

6   doesn't make it a mountain --

7   MR. ALLCOCK: Okay. I'm not going to -- one of those

8   entries does kind of imply --

9   THE COURT: You don't plan on putting it in, do you?

10   MR. ALLCOCK: These?

11   THE COURT: Yes.

12   MR. ALLCOCK: Absolutely because, your Honor, what

13   they show --

14   THE COURT: No. I understand the implication of it.

15   MR. ALLCOCK: Well, forget about the Fulbright issue.

16   THE COURT: No, no. I understand the implication of

17   $195 plus another 100 to give a safe harbor letter. I

18   understand well what you're putting it in there for, but I

19   just never have seen anybody put anybody else's attorney's

20   fees on it that are hearsay in, but I guess you can.

21   MR. ALLCOCK: Well, your Honor, the point they show

22   what information the lawyer -- they show what information

23   Zinger considered or --

24   THE COURT: Well, I understand. I understand. All of

25   that's good and fair. I just -- I don't see why you have to

5

1   get into it, but if you have to get into it, we'll just have

2   to see.

3   MR. BAHLER: Your Honor, we obviously object to this

4   exhibit. We haven't seen the complete exhibit yet, but Mr.

5   Allcock has told us he's just stacking the ones that we found

6   recently on the back of the existing exhibit. We had

7   objections to the original one, it's objected to. So this

8   comes up, we'll approach.

9   THE COURT: Okay. You're going to put Mr. Zinger on?

10   MR. BAHLER: Yes, sir.

11   THE COURT: It's going to be wide open on cross on his

12   own duels on what he put down there. And whether or not it

13   comes in as an exhibit is a separate question, but he's

14   certainly going to have to -- I would anticipate he's going to

15   be crossed on these.

16   MR. BAHLER: Well, your Honor, the most sensitive

17   issues are the dealings with Fulbright. I mean, they moved

18   for a limine instruction that --

19   THE COURT: Well, it's just like my grandmother said,

20   it's not my problem, it's your problem, you'll handle it one

21   way or the other. I learned early in life it wasn't my

22   problem, stay out of it.

23   MR. BAHLER: Your Honor, I have one issue, also, and

24   that is with respect to the consent judgment, your Honor gave

25   a limiting instruction to the jury that they would only be

6

1   permitted for willfulness after a certain day and would not

2   be --

3   THE COURT: No, on notice on the issue of willfulness.

4   MR. BAHLER: Right. Exactly. Notice for the issue of

5   willfulness after a certain date and would not be considered

6   for validity or infringement in this case. And now I have

7   several witnesses that I'm going to be calling today who

8   testified in that previous case: Mr. Davies testified, Mr.

9   Kalwitz testified by deposition, Mr. Stephens and Dr. Flamm,

10   and what I would like is a motion in limine or -- I move in

11   limine to prohibit the fact that they testified in that

12   previous case. I don't see how that's relevant to any issue

13   that's in this case.

14   THE COURT: My hunch is they have a transcript of that

15   testimony, and they may use it. What's the --

16   MR. BAHLER: Your Honor, using the transcript as a

17   deposition I think is fine, but just cross-examining them with

18   respect to whether or not they actually submitted testimony in

19   front of a jury, the jury made that decision.

20   MR. ALLCOCK: Your Honor, I'm not examining all the

21   witnesses today. With respect to the witnesses I am

22   examining, particularly Stephens, depending upon what he says

23   on direct is very possible I would examine him on the

24   substance of his testimony in the earlier case.

25   THE COURT: Well, the question is, don't -- well, I'll

7

1   just make a ruling. Don't go into the fact they testified in

2   the earlier case unless you approach the bench.

3   MR. ALLCOCK: Okay. Very well.

4   MR. BAHLER: Thank you.

5   THE COURT: Anything else?

6   MR. BAHLER: We have -- in accordance with the Court's

7   suggestions, we have the supplemental jury instructions with

8   our additions -- shall I hand them to your clerk -- with a

9   disk.

10   MR. ALLCOCK: We have the same, your Honor.

11   THE COURT: All right.

12   MR. ALLCOCK: And, your Honor, what we did is we just

13   took the Pathlight charge and said here's what should be --

14   the one the Court gave us and said here's what changes and

15   additions we need.

16   THE COURT: Bring them in.

17   (Jury present.)

18   THE COURT: Members of the jury, since we last met,

19   has anybody attempted to talk to you about this case?

20   THE JURORS: No.

21   THE COURT: Have you talked to anybody about the case?

22   THE JURORS: No.

23   THE COURT: And have you learned anything at all about

24   the case outside the present of each other and this courtroom?

25   THE JURORS: No.

8

1   THE COURT: Show negative responses to all questions

2 by all jurors. And you may call your next witness.

3   MR. BAHLER: Thank you, your Honor. Your Honor,

4 defendant calls Ian Davies.

5   (Witness was sworn.)

6   THE COURT: Walk around this column and have a seat up

7 here in this blue chair. And if you'll tell us your full name

8 and spell your last, please.

9   THE WITNESS: Ian Robert Davies, D-A-V-I-E-S.

10   IAN R. DAVIES, called by the Defendant, duly sworn.

11   DIRECT EXAMINATION

12 BY MR. BAHLER:

13 Q. Mr. Davies, where do you work, sir?

14 A. Chaparral.

15 Q. What do you do for Chaparral?

16 A. I'm a software developer.

17 Q. How long have you worked there, sir?

18 A. Three years.

19 Q. Did you ever work at a company called Adaptec?

20 A. Yes.

21 Q. And when was that?

22 A. 1996 through '98.

23 Q. Would you please tell the members of the jury your

24 education, college education?

25 A. Yeah, I have a Bachelor of Science Degree in Electrical

1   Engineering from North Carolina State University. I have a

2   Master's Degree in Electrical Engineering from U.T. Austin.

3   Q. And did you take a job right after college, sir?

4   A. Yes.

5   Q. And could you just describe as briefly your work

6   experience leading up to your working in Adaptec beginning in

7   February '96?

8   A. Sure. First worked at Digital Equipment at Colorado

9   Springs for five years. And then, I took a job at Hewlett

10 Packard in Levlen, Colorado for a year, and then, I worked at

11 Cirrus Logic for two years.

12 Q. Could you just generally describe your responsibilities in

13 those three jobs that you just told us about?

14 A. Sure. They were all in storage-related industries. I

15 wrote software for storage products in all three of those

16 jobs.

17 Q. Mr. Davies, how long have you been working in the computer

18 storage industry?

19 A. Since 1988.

20 Q. And how long have you been working with SCSI, S-C-S-I?

21 A. Since '91; ten years.

22 Q. And how long have you been working with Fibre Channel?

23 A. Since '96, five years.

24 Q. Do you have any patents that are issued that name you as a

25 co-inventor?

10

1   A. I have one issued and, I believe, two pending.

2   Q. Okay. Just generally, what are those -- what areas are

3   those in?

4   A. They're all storage-related patents.

5   Q. Okay. Computer storage?

6   A. Computer storage, some are SCSI-related.

7   Q. Sir, now while at Adaptec, did you work on a product

8   called the Coronado product?

9   A. Yes, I did.

10   Q. And when did you start working on Adaptec Coronado?

11   A. 1996.

12   Q. What generally was the Adaptec Coronado product?

13   A. It was Adaptec's first Fibre Channel-to-SCSI RAID

14   controller.

15   Q. Mr. Davies, I'm going to put up on the screen Defendant's

16   Exhibit 28 and, particularly, a page within that bearing

17   production No. CNS 178642. Can you identify that for us, sir?

18   A. Sure. That's a high-level block diagram of the Coronado

19   product.

20   Q. All right. What is the date on the bottom right-hand

21   corner?

22   A. Right.

23   Q. What date does that refer to?

24   A. That's the date that document was created.

25   Q. What does that block diagram show generally?

11

1   A.   Generally what are the components in it.

2   Q.   We'll get to components in a second.   Just generally what

3   it is?

4   A.   It's a RAID storage controller, Fibre Channel-to-SCSI.

5   Q.   Does it connect Fibre Channel hosts to SCSI storage

6   device?

7   A.   Yes, it does.

8   Q.   Does that block diagram accurately depict the date at the

9   bottom, December 15, 1996?

10   A.   Yes.

11   Q.   I'd like you to go into detail about the individual blocks

12   and, your Honor, with your permission, may Mr. Davies step

13   down?

14   THE COURT: He may.

15   Q.   (BY MR. BAHLER) Mr. Davies, would you please explain to

16   the members of the jury what the individual blocks are that

17   are in that block diagram?

18   A.   Sure.   The main blocks are right here.   This is the

19   Emerald Fibre Channel control -- Fibre Channel interface chip,

20   and right here is the Excalibur-to-SCSI interface chip.   This

21   is the AMD processor, the supervisor unit for the whole board.

22   This is a memory controller right here, and this is the data

23   buffer, the data cache.

24   Q.   All right, sir.   Now, let's concentrate just for a second

25   on the buffer.   What does the buffer do?

12

1   A.   The buffer serves as kind of a temporary storage location

2   for data as it's moving from the Fibre Channel interface to

3   the SCSI interface or vice versa.   It goes into the buffer,

4   first.

5   Q.   What does the Fibre Channel controller do, that Emerald?

6   A.   It basically interfaces the whole board to the Fibre

7   Channel interface which is connected to the host systems, and

8   so, it speaks the Fibre Channel language.

9   Q.   All right, sir.   And what does the SCSI controller, the

10   7895 Excalibur, what does that do?

11   A.   It connects to the SCSI disk drives on the back end.   It

12   speaks SCSI, and it talks to the disk drives and transfers

13   data to and from those disk drives.

14   Q.   Let's back up just a second to the Fibre Channel

15   controller. ·And let me show you what's been marked as exhibit

16   -- Defendant's Exhibit 47.   What is that, sir?

17   A.   That's the front page of the Emerald Fibre Channel chip

18   data book.

19   Q.   And does that accurately describe the Fibre Channel -- the

20   Emerald Fibre Channel chip that is used in the Adaptec

21   Coronado product?

22   A.   Yes.

23   Q.   Okay.   Did that have parts within it that permitted it to

24   do the Fibre Channel controlling function?

25   A.   Yes, definitely.

13

1   Q.   Could you describe those for us, please?

2   A.   Sure. It has a FIFO, a DMA unit.

3   Q.   What's a FIFO, F-I-F-O?

4   A.   F-I-F-O, first in, first out buffer. It was a way to

5   basically speed match data transfer between the Fibre Channel

6   interface and the internal interface.

7   Q.   What else is there?

8   A.   A DMA unit, which is direct memory access. That's

9   actually a little machine that moves the data automatically

10   from the Fibre Channel to the internal interface.

11   Q.   All right, sir. Let's go back to Exhibit 28. Okay.

12   Let's take a look at the SCSI controller. What does that do

13   in little bit more detail, 7895?

14   A.   It, again, has very similar components to the Emerald chip

15   that has a DMA and a FIFO and a SCSI protocol unit which

16   actually connects to the SCSI bus.

17   Q.   All right, sir. Please take a look at Defendant's Exhibit

18   46. What is that?

19   A.   That's the Excalibur SCSI chip data book.

20   Q.   And does that accurately describe the SCSI controller that

21   was used in the Adaptec Coronado that was on the previous

22   exhibit?

23   A.   Yes.

24   Q.   Okay. Turn back to the drawing, which is the fourth page

25   of Exhibit 28. You mentioned that it has an AMD

14

1   microprocessor. That's up in this area.

2   A. Right.

3   Q. What does that do?

4   A. That kind of runs the whole show. It supervises the data

5   transfer between the fibre and the SCSI interfaces.

6   Q. Okay. Would you please describe just briefly the flow of

7   data, let's say, from a Fibre Channel host to a SCSI storage

8   device and back again?

9   A. Sure. What will happen is the host, which sits over here

10   somewhere off of the picture, will send a SCSI command packet

11   over the Fibre Channel interface, and it will be received by

12   this Emerald chip. That will take in the packet, enter up the

13   AMD processor and say, hey, we've got that command to process.

14   The AMD chip will decide where in this data cache,

15   this data buffer, data that will program the Emerald to DMA,

16   that means transfer the data, and then, the Emerald will

17   communicate with the host system. The data will flow through

18   here, through memory controllers into the data cache, and once

19   that's done, the AMD chip will then program the Excalibur in a

20   similar way so that it DMAs or transfers the data from the

21   data cache through this line here over to SCSI bus, to the

22   disk drives.

23   Q. All right, sir. Does -- did the Adaptec Coronado keep

24   track of the SCSI reserve command?

25   A. Yes.

15

1   Q.   And how did it do that?

2   A.   It has a table stored in this DRAM block right here.

3   Q.   Okay. And how would that work with respect to data

4   flowing from the Fibre Channel host to SCSI storage device?

5   A.   Every command that comes into the controller is checked

6   against this table. What happens is the idea of host can slip

7   up into the table to see if there's a reservation active, and

8   a reservation basically says, you know, that host has reserved

9   that storage. And so, any other host that came in and wanted

10   that storage would be denied.

11   Q.   Now, Mr. Davies, have you prepared a demonstrative exhibit

12   that shows how this SCSI reservation table works?

13   A.   Yes.

14   Q.   Let me put up --

15   MR. GIUST: Your Honor, we object to this as calling

16   for opinion testimony from a lay witness.

17   MR. BAHLER: It's just describing how this machine

18   works.

19   MR. GIUST: The demonstrative is not something that

20   was in existence at the time, and this person wasn't an

21   employee there. It calls for expert opinions.

22   THE COURT: At this point in time, I'll overrule the

23   objection. You bring it to my attention if you think he's

24   getting into opinions if he hasn't been designated as an

25   expert. I take it he has not been designated as an expert.

16

1   MR. BAHLER: No, your Honor.

2   THE COURT: All right.

3   Q.   (BY MR. BAHLER) I'll put up here, Mr. Davies, Defendant's

4   Demonstrative Exhibit -- that's the wrong one -- 545. All

5   right. With reference to Exhibit 545, could you describe for

6   the members of the jury how the Adaptec Coronado kept track of

7   and used the SCSI reserve command?

8   A.   Sure. This block right here represents the Coronado,

9   which is this larger picture right here. Well, actually, the

10   whole thing because the table is inside the controller. So

11   these two blocks together. These represent the SCSI storage

12   devices on the right side over here, and these represent the

13   workstations.

14   And, for example, in this case, it's color-coded, so

15   you can see this red workstation right here is you have a

16   reserve command to the controller which has put the red host

17   workstation in its table here and said it's reserved storage

18   device No. 3.

19   Similarly, for the green workstation, it's done the

20   same for storage device No. 2. The blue workstation doesn't

21   -- isn't in the table, and all workstations have access to

22   this global data right here. But what would happen, for

23   example, if the red workstation, for example, wanted to access

24   storage device No. 2, the Coronado right here would consult

25   with the table --

17

1   MR. GIUST: Objection. This is getting into opinion

2   testimony, your Honor.

3   MR. BAHLER: He's describing the function of the

4   machine, your Honor.

5   THE COURT: Well, he's not describing the functions.

6   He's saying what would happen if certain things, and I sustain

7   the objection.

8   Q.   (BY MR. BAHLER) All right, sir. Now, I'd like to address

9   the SCSI inquiry command and request sense command just for a

10   second?

11   A.   Okay.

12   Q.   How were they conditioned by the Coronado product in 1996?

13   A.   Inquiry and request sense?

14   Q.   Yes, sir.

15   A.   They're handled entirely within the controller. They're

16   not passed through to the storage devices.

17   Q.   All right.

18   A.   And, also, they're permitted when a reservation is in

19   effect. So, in other words, if the red workstation --

20   MR. GIUST: Objection, your Honor. He's getting into

21   opinion testimony, again. If certain things happened, it

22   doesn't relate to the actual product.

23   THE COURT: Sustain the objection.

24   Q.   (BY MR. BAHLER) When the Adaptec Coronado was used with

25   multiple hosts -- first of all, did that ever happen?

18

1   A.   Yes.

2   Q.   Okay. When it was used with multiple hosts and one of

3   those hosts sent an inquiry command, how is that conditioned

4   by the Adaptec Coronado?

5   A.   Inquiry command was always permitted, like I said, and it

6   wasn't sent back to the storage devices. It was handled in

7   the controller, the data would be -- the command would be

8   interrupted and sent back to the workstation.

9   Q.   Let me make sure we're clear about this. The inquiry

10   command, would that ever get through to any of the storage

11   devices?

12   A.   No, never.

13   Q.   Would -- were there any commands from the Fibre Channel

14   host that would get through to the storage devices?

15   A.   Read and write data.

16   Q.   Okay.

17   A.   Unless a reservation was in effect.

18   Q.   Okay. And what would happen if a reservation were in

19   effect?

20   A.   Those commands would be denied.

21   Q.   Okay. Please take your seat. Please take a look in your

22   book at Exhibits 49 and 50.

23   A.   Okay.

24   Q.   Defendant's.

25   A.   49 and 50?

19

1   Q.   Yes.

2   A.   It says 55 here. Oh, I'm sorry. Yeah, they're not here.

3   Okay.

4   Q.   First of all, what is Exhibit 49?

5   A.   This is some source code I wrote for the -- I believe the

6   Coronado controller.

7   Q.   And when did you write that?

8   A.   On or before the date at the top, which is August 8th,

9   '96.

10   Q.   Okay. And let's take a look at Exhibit 50.

11   A.   Okay.

12   Q.   What is that?

13   A.   That's some more source code I wrote for the controller.

14   Q.   Okay. Is the function that you described with reference

15   to the SCSI reserve command, is that included in this source

16   code?

17   A.   Yes.

18   Q.   Okay. And when did it exist, sir?

19   A.   On or before the date at the top, August 8th, '96.

20   Q.   Did you test it at that time?

21   A.   Yes.

22   Q.   Where did you do that test?

23   A.   In -- that would have been in Boulder -- in our Boulder

24   Adaptec office.

25   Q.   Okay. Let's take a look at Exhibit 48. What's that?

20

1   A.   Oh, that's some of the code in the Coronado that handles

2   the mapping between the SCSI devices and the host Fibre

3   Channel addresses.

4   Q.   Okay. And did that code exist -- when did that code

5   exist?

6   A.   In 1996, this was certainly there, parts of it were

7   written before that, so it was 1995 up at the top.

8   Q.   Was this the code that was used in the Adaptec Coronado

9   that we had up there this morning?

10   A.   Yes, it was.

11   Q.   Okay. And you mentioned mapping. What do you mean by

12   mapping?

13   A.   Well, what the controller basically needs to do is assign

14   what's called a logical unit number LUN, the back-end storage

15   devices, and it also -- so when host commands come in, they

16   can be directed to the appropriate storage and that's the

17   mapping, we call it.

18   Q.   Mr. Davies, I'm going to hand you what's in evidence as

19   Exhibit 31, Defendant's Exhibit 31.

20   A.   Yeah.

21   Q.   Can you tell us what that is, sir?

22   A.   Yeah, this is an Emerald board. I'm sorry, not an Emerald

23   board. This is a Coronado board with the Emerald chip on it

24   right there.

25   Q.   As of what date?

21

1   A. This -- well, it's representative of what we had in 1996.

2   Q. Okay.

3   A. Exactly when this was made.

4   Q. Now, did -- when you started at Adaptec in beginning in

5   '96, what product -- what project did you start working on?

6   A. I started working on the Coronado and the Brooklyn product

7   which was a related product.

8   Q. Eventually, the Coronado was released and sold to the

9   public?

10   A. Yes, it was.

11   Q. Okay. Do you know when that was?

12   A. I believe in '97.

13   Q. Okay. Did you work continuously on that project during

14   that entire time?

15   A. Yes.

16   Q. Okay. How many other people were working on that project?

17   A. Pretty large number. I would estimate approximately 50.

18   Q. Okay. And they were working on the Coronado during that

19   entire time?

20   A. Yes.

21   Q. Okay. Now, there came a time when you left Adaptec and

22   went to Chaparral, correct?

23   A. Yes.

24   Q. And why did you do that?

25   A. The group I was in was acquired by Chaparral.

22

1   Q.   Okay.   And when was that, sir?

2   A.   September '98.

3   Q.   Now, what did you start working on when you got to

4   Chaparral?

5   A.   I continued to work on RAID controller products.

6   Q.   Now, what Fibre Channel-to-SCSI products does Chaparral

7   have right now today?

8   A.   It has several.   There's two general families, the RAID

9   products and the writer products.

10   Q.   And what do those do generally?

11   A.   They connect Fibre Channel host systems to SCSI storage

12   devices.

13   Q.   Now, what, if anything, do the present designs of

14   Chaparral Fibre Channel-to-SCSI products have to do with the

15   Coronado product?

16   A.   The basic hardware architecture is the -- is very similar.

17   It's not the same.   But the high-level block diagram's the

18   same and the software or firmware, as we call it, is, again,

19   very similar and derived from the Coronado firmware.

20   Q.   There's been a lot of talk in this room about LUN zoning.

21   What is LUN zoning, first of all, as far as you understand it?

22   A.   It's a way for host systems to associate with certain

23   storage devices.

24   Q.   Okay.   And do the Adaptec -- or do the Chaparral products,

25   at least some of them, have LUN zoning?

23

1   A.   They do.

2   Q.   Okay.   How does LUN zoning compare with reserve --

3   MR. GIUST: Objection. Calls for an opinion, your

4   Honor.

5   THE COURT: It does.   Sustain the objection.

6   Q.   (BY MR. BAHLER) How is the LUN zoning that's within the

7   Chaparral products, how is that set up?

8   A.   There's a table, similar table to the one I showed in the

9   earlier white board right there.

10   Q.   All right.   Now, there's also been testimony about CAPI.

11   What is CAPI?

12   A.   CAPI is -- it stand for configuration API, which is --

13   it's basically a language that -- a computer language for

14   configuring and setting up the monitoring the Chaparral

15   controllers.

16   Q.   What, if anything, does CAPI have to do with LUN zoning?

17   A.   CAPI has several commands that let you do LUN zoning in

18   it.

19   Q.   Now, did the Adaptec Coronado have anything like that?

20   A.   No.   Well, it didn't have LUN zoning.   It has reserve

21   release.

22   Q.   Okay.   And, first of all, where is CAPI -- is CAPI

23   included in every Chaparral product?

24   A.   Yes, it is.

25   Q.   Okay.   Is CAPI kept secret?

24

1   A.   No.

2   Q.   Okay.   Please take a look at Defendant's Exhibit 221.

3   What is that?   It's on the screen.

4   A.   That is the front page of Chaparral's CAPI specification.

5   Q.   Okay.   And what does this specification do?

6   A.   It gives a real complete description of how you would use

7   CAPI to send commands to the controller.

8   Q.   Okay.   Are there commands in Exhibit 221, the CAPI

9   specification, that deal with LUN zoning?

10   A.   Yes.

11   Q.   Okay.   And what are those commands?

12   A.   There's several: Add host, remove host, change zone type,

13   get host table, I think.

14   Q.   Let's take a look within Exhibit 221 to the Roman four, it

15   looks like, bearing production No. 175769.   You mentioned add

16   host.   Let's pull that out.   What does the add host command

17   do?

18   A.   That takes a host identifier and adds it to a list of

19   hosts that can either access or not access storage.

20   Q.   And what does it have to do with LUN zoning?

21   A.   That's --

22   MR. GIUST: Objection.   Calls for opinion testimony.

23   THE COURT: Sustain the objection.

24   Q.   (BY MR. BAHLER) Okay.   Is that used in the Chaparral

25   product to adjust LUN zoning?

25

1   MR. GIUST: Same objection.

2   THE COURT: Members of the jury, I'm going to excuse

3   you to the jury room for a minute.

4   (Jury not present.)

5   THE COURT: I don't understand why this gentleman

6   hadn't been labeled as an expert. It's just beyond me, but

7   he's not, so he can't give any opinions. Now, how the thing

8   worked, even though he invented it, involves opinions. If he

9   says this is a pencil, well, certainly he can say that's a

10   pencil.

11   But if he says, you know, the pencil, in my judgment,

12   can be used as a lock, that's an opinion. And so, he can

13   testify as to how the product runs as a fact, but every one of

14   these questions is subject almost to the same objection, Mr.

15   Bahler.

16   MR. BAHLER: Your Honor, I'll try to be more careful,

17   but I would ask that when their non-experts come to the stand

18   on rebuttal case that we have the same situation.

19   THE COURT: You don't have to ask me anything. I

20   handle it question-by-question, and as far as I know, I'm

21   pretty consistent.

22   MR. BAHLER: All right, your Honor. Thank you.

23   THE COURT: I don't have to draw that out.

24   MR. BAHLER: All right, sir.

25   THE COURT: The rules are very specific now on

26

1   experts, far more specific than they were six months ago, and

2   whether facts are facts and what are now opinions are -- have

3   to be designated. And Mr. Davies obviously is an expert.

4   Obviously, he could testify to all of this. But he's not

5   designated and there's no report. He can't testify to it.

6   MR. BAHLER: Just so we're clear, I can't ask him how

7   the machine that he made works?

8   THE COURT: You ask him anything, but it's subject to

9   these objections. He can't give an opinion because he hasn't

10   been designated. It's that simple. I mean, it's not a big

11   mystery.

12   All right. Bring him back in and bring in the jury.

13   (Jury present.)

14   THE COURT: Members of the jury, anybody called as a

15   witness can testify to what we call the facts; that is what

16   you see, what you hear, your impressions as to something that

17   occurred or did not occur. In federal court, only an expert

18   can give an opinion, and to be an expert, you have to be

19   designated as an expert, give a report and qualified as an

20   expert.

21   Mr. Davies has not been designated as an expert, so

22   he's what we call a lay witness. He can testify as to facts

23   but not opinions, and that's the reason for it. It's a very

24   difficult area, it's in the gray areas, but that's the reason

25   the recess was entirely my responsibility, not the lawyers.

27

1   You may proceed, sir.

2   MR. BAHLER: All right, sir. Thank you, your Honor.

3   Q. (BY MR. BAHLER) Mr. Davies, please refer within Exhibit

4   221 to figure 1-2 in that document.

5   A. Okay.

6   Q. Do you have it, sir?

7   A. Yes.

8   Q. What is shown in that figure?

9   A. That's a high-level diagram showing how a host system's

10   connected, the Chaparral controller and how it might send CAPI

11   commands to the controller.

12   Q. Okay. This -- on the left-hand side, there's the second

13   thing down is called -- something called CAPI. What is that

14   exactly?

15   A. That's the configuration API layer that actually builds

16   the commands that send to the controller.

17   Q. Okay. And is this -- can that host system be -- can that

18   CAPI user application be included in any host?

19   A. Yes.

20   MR. GIUST: Objection. Calls for expert opinion.

21   THE COURT: Sustained.

22   Q. (BY MR. BAHLER) Other than CAPI, do Chaparral's products

23   provide any other mechanism for -- for computers to manage

24   their own access?

25   MR. GIUST: Objection.

28

1   THE COURT: Sustained.

2   Q.   (BY MR. BAHLER) What is pass-through?

3   A.   Pass-through is a mechanism that lets host systems send

4   any command they like to any storage device connected behind

5   the controller.

6   Q.   And did the Chaparral products have that pass-through

7   capability?

8   A.   Yes.

9   Q.   Okay. How does pass-through work with -- in the Chaparral

10   products?

11   MR. GIUST: Objection. Calls for an opinion.

12   THE COURT: "How" is an opinion. I sustain the

13   objection.

14   Q.   (BY MR. BAHLER) Please take a look at Defendant's Exhibit

15   332. 232, I'm sorry. What is that, sir?

16   A.   That's a document I wrote that describes how pass-through

17   commands are built.

18   Q.   Okay. And is this provided to Chaparral customers?

19   A.   It is.

20   Q.   Okay. Have you worked with Chaparral customers with

21   respect to Chaparral pass-through?

22   A.   Yes.

23   Q.   Okay. And is pass-through affected at all by LUN zoning?

24   MR. GIUST: Objection. Calls for an opinion.

25   THE COURT: Sustain the objection.

29

1   Q. (BY MR. BAHLER) Are the --

2   THE COURT: Excuse me, Mr. Davies, when the lawyer

3   stands, don't answer.

4   THE WITNESS: Okay.

5   THE COURT: All right.

6   Q. (BY MR. BAHLER) Now, are the CAPI commands, are they kept

7   secret from Chaparral customers?

8   A. No.

9   Q. How are they made available?

10 A. Through tech support.

11 Q. Using the CAPI commands that we just discussed, can any

12 host access any storage devices at any time?

13   MR. GIUST: Objection.

14   THE COURT: Sustained.

15 Q. (BY MR. BAHLER) Is pass-through kept secret from

16 customers?

17 A. No.

18 Q. How do they know about it?

19 A. Again, through tech support.

20 Q. Now --

21   THE COURT: When you say tech or text?

22   THE WITNESS: Technical support. I was using

23 abbreviation for technical support.

24   THE COURT: Okay. I went to plan two. Tech support.

25 Q. (BY MR. BAHLER) Now, the current -- there are Chaparral

30

1   products that have the ability to turn the so-called bridge

2   LUN off, correct?

3   MR. GIUST: Objection.

4   THE COURT: Sustained.

5   Q.   (BY MR. BAHLER) There is a modification made to the

6   Chaparral products relatively recently, correct?

7   A.   Yes.

8   Q.   And what was the result of that modification?

9   A.   The result was that the controllers that were modified --

10   MR. GIUST: Objection. He's getting into opinion now.

11   THE COURT: No. This is a fact. He can answer.

12   A.   The controllers that were modified were changed so that

13   the controller LUN could not be disabled, and that's the LUN

14   that commands are sent through such as pass-through commands.

15   Q.   (BY MR. BAHLER) Okay. And as a result of that

16   modification, how were CAPI commands conditioned?

17   MR. GIUST: Objection.

18   THE COURT: I sustain the objection to that question.

19   MR. BAHLER: Pass the witness, your Honor.

20   CROSS-EXAMINATION

21   BY MR. GIUST:

22   Q.   How are you doing, Mr. Davies?

23   A.   Good.

24   Q.   Okay. You worked at Adaptec. You just testified to this

25   on direct, right?

31

1   A.   Yes.

2   Q.   And you're familiar with Adaptec's products?

3   A.   Yes.

4   Q.   And you work at Chaparral presently?

5   A.   Yes.

6   Q.   You're familiar with Chaparral's products?

7   A.   Yes.

8   Q.   Okay. Let me show you Exhibits 12 already in evidence.

9   I'll just draw your attention to page 33594 of that exhibit.

10   THE COURT: Plaintiff's Exhibit 12 or Defendant's 12.

11   MR. GIUST: Plaintiff's 12.

12   Q.   (BY MR. GIUST) On direct, you mentioned something to do

13   with SCSI reserve. Do you recall that?

14   A.   Yes.

15   Q.   And the Chaparral's products have the -- within those

16   products, they handle this reserve the command; is that right?

17   A.   Yes.

18   Q.   And that's what's being shown on this page here?

19   A.   Yes.

20   Q.   Okay. Another feature you mentioned on your direct

21   examination was this LUN zoning feature. Do you recall that?

22   A.   Yes.

23   Q.   Okay. Go to page 33597. This LUN zoning feature is

24   generally depicted on the page; is that correct, Mr. Davies?

25   A.   Yes.

32

1   Q. Okay. So the Chaparral products have within them both

2   this reserve feature that you mentioned as well as this LUN

3   zoning feature; is that right?

4   A. Right.

5   Q. And you discussed Adaptec's products earlier. Adaptec's

6   products only had this reserve feature in them; is that right?

7   A. Right.

8   Q. You began working on the LUN zoning feature after you had

9   already left Adaptec?

10   A. Right.

11   Q. Now, you left Adaptec and went to Chaparral. A number of

12   employees at Chaparral worked at Adaptec; is that right?

13   A. Yes.

14   Q. Mr. Lavan, is he one person?

15   A. Yeah.

16   Q. Mr. Kalwitz?

17   A. Yes.

18   Q. Mr. Selinger?

19   A. Yes.

20   Q. Victor Pico?

21   A. Yes.

22   Q. Aaron Daily?

23   A. Yes.

24   Q. At the time -- let me ask you this: What department

25   within Chaparral do you work in?

33

1   A.   Engineering.

2   Q.   And how many ex-Adaptec employees from your own personal

3   knowledge work in that department currently at Chaparral?

4   A.   I think approximately eight. I may be off. I'm trying to

5   go through it mentally, but I think approximately eight.

6   Q.   Approximately eight. Okay. And certainly it's no secret

7   that there are a lot of Adaptec employees at Chaparral?

8   A.   Well, there's -- I think eight, yeah. That's not a

9   secret.

10   Q.   Okay. And you're familiar with Mr. David Zinger, correct?

11   A.   Yes.

12   Q.   And what's your understanding of who he is?

13   A.   He's our -- we work with him when we file patents.

14   Q.   Okay. He's your patent attorney?

15   A.   Yeah.

16   Q.   And certainly you don't keep your prior employment at

17   Adaptec a secret from Mr. Zinger, do you?

18   A.   Certainly not. I mean, I don't recall I mentioned that to

19   him, but it's not a secret.

20   Q.   Okay. Now, you mentioned this -- these CAPI functions

21   earlier today. Do you recall that?

22   A.   Yes.

23   Q.   And you discussed certain functions within CAPI, do you

24   recall that?

25   A.   Yes.

34

1   Q. CAPI has many, many functions; is that right?

2   A. Yes, it does.

3   Q. And many of those functions are unrelated to this LUN

4   zoning I'm showing here; is that right?

5   A. Right.

6   Q. So CAPI can be really used to do many things in addition

7   to LUN zoning?

8   A. Right.

9   Q. No more questions, your Honor.

10   RE-DIRECT EXAMINATION

11   BY MR. BAHLER:

12   Q. Mr. Davies, Mr. Giust talked about LUN zoning. How many

13   lines of code are used for LUN zoning in the Chaparral

14   products?

15   A. Approximately 3500.

16   Q. And how many lines of code are there in the entire

17   product?

18   MR. GIUST: Objection, your Honor. Beyond the scope

19   of the cross-examination.

20   THE COURT: I sustain the objection. There was

21   nothing on cross.

22   MR. BAHLER: No further questions, your Honor.

23   THE COURT: You may step down, sir. You may call your

24   next witness.

25   MR. BAHLER: Plaintiff calls George Kalwitz.

35

1   THE COURT: Be sworn, sir.

2   (Witness was sworn.)

3   THE COURT: If you'll walk around this column, have a

4   seat up here, please. If you'll tell us your full name,

5   please, sir, and spell your last.

6   THE WITNESS: George Alexander Kalwitz, K-A-L-W-I-T-Z.

7   GEORGE A. KALWITZ, called by the Defendant, duly sworn.

8   DIRECT EXAMINATION

9   BY MR. BAHLER:

10   Q. Mr. Kalwitz, where do you work right now?

11   A. Chaparral.

12   Q. What do you do for Chaparral?

13   A. I'm a software engineer.

14   Q. How long have you worked there, sir?

15   A. Since 1998, September.

16   Q. Now, did you -- did there come a time when you worked for

17   a company called Adaptec?

18   A. Yes.

19   Q. And when was that?

20   A. November of 1995.

21   Q. Okay. Until September '98?

22   A. Yes.

23   Q. Okay. Would you please tell the members of the jury your

24   educational background?

25   A. I have a Bachelor of Science in Computer and Electrical

36

1   Engineering from Purdue University in 1986.

2   Q. And would you please tell us your work experience since

3   graduating from Purdue?

4   A. My first job was with a company called MAI Basic Four,

5   where I worked on the intelligent data terminals. After that,

6   I went to Western Digital, where I worked on local area

7   network products. After that, I went to Codenal Technologies,

8   where I worked on fiber-optic networking. Following that, I

9   went to Cannon Information Systems, where I worked on network

10   printers, and that's where I got my introduction to SCSI.

11   After that, I went to Racal Data Com, where I

12   continued working on networking, and following that, I went to

13   Pola IO, where I started working on Fibre Channel. We were

14   then acquired by Adaptec and then, Chaparral.

15   Q. All right, sir. How long have you been working in the

16   computer storage industry?

17   A. I'd say about ten years.

18   Q. And how long have you been working with Fibre Channel?

19   A. Eight years.

20   Q. And how long have you been working with SCSI?

21   A. Ten years.

22   Q. Okay. Do you have any patents issued in your name, sir?

23   A. Yes, I do.

24   Q. How many?

25   A. Thirteen.

37

1   Q. Are any in the computer storage industry or area?

2   A. Mainly with networking. It was with the network printer.

3   There's a little bit of storage in there.

4   Q. All right, sir. Now, while at Adaptec, did you work on a

5   project called the Coronado product?

6   A. Yes, I did.

7   Q. And when did you start working on that product?

8   A. That was in spring of '96.

9   Q. Okay. And when did you -- did you ever finish your work

10   on that?

11   A. Actually continued to do so.

12   Q. Today?

13   A. Well, the Coronado isn't a product anymore, but it's

14   ancestor or previous name.

15   Q. What generally was the Coronado product as far as you

16   understand?

17   A. An external storage controller, RAID controller, Fibre

18   Channel-to-SCSI.

19   Q. Okay. Please take a look at Defendant's Exhibit 31, which

20   is up there. It's the board.

21   A. Yes.

22   Q. Can you hold that up for the jury, please? What is that,

23   sir?

24   A. This is the Coronado product.

25   Q. Okay. When was that made, that particular board?

38

1 A. Late 1996.

2 Q. Okay. What specifically -- did you work on that board or

3 did you work on that product?

4 A. Yes, I did.

5 Q. What specifically did you do in your work on the Coronado

6 product?

7 A. I helped a little bit with the hardware, but I was mainly

8 a software person designing the software interface to the

9 Fibre Channel chip.

10 Q. Okay. Please take a look at the screen at Defendant's

11 Exhibit 55. What is that?

12 A. This is a status report from my colleague, Phil Colline,

13 to our manager, Mark O'Dell.

14 Q. What is your working relationship -- what was your working

15 relationship at the time with Mr. Colline?

16 A. I was the senior software engineer. He was the junior

17 software --

18 Q. Were you two working together?

19 A. Yes, we were.

20 Q. This e-mail is from Mr. Colline, right?

21 A. Yes.

22 Q. And it's to MO. Who's MO?

23 A. That would be an acronym for Mark O'Dell.

24 Q. What were you and Mr. Colline working on at this point in

25 time, this is the beginning of January 1996?

1 A. We were working on the software to drive the Fibre Channel

2 interface for the Coronado.

3 Q. Is that on the board in front of you?

4 A. Yes, it is.

5 Q. Can you point that part out to the jury?

6 A. That would be this chip here.

7 Q. Okay. Please take a look at within Exhibit 55 at bates

8 No. 182510. First of all, that's dated, spans the dates March

9 17th through March 21st.

10 A. Yes.

11 Q. Correct? The second paragraph in that e-mail says I've

12 spent a fair amount of time also working with George. Is that

13 you?

14 A. Yes, it is.

15 Q. Okay. What is Mr. Colline reporting to Mr. O'Dell in this

16 e-mail?

17 A. He's talking about the interface with this Fibre Channel

18 controller.

19 Q. Okay. And, first of all, Mr. O'Dell was your boss?

20 A. Yes.

21 Q. Both you and Mr. Colline reported to Mr. O'Dell?

22 A. Yes.

23 Q. Okay. Does this accurately reflect the activity that was

24 going on at that time?

25 A. Yes, it does.

40

1   Q. Okay. It says that you -- are you working with George?

2   That's you on the target side. What does that mean?

3   A. The software that drove this chip was acting as a target

4   mode as opposed to an initiator.

5   Q. Okay. And it says to see him, targeting initialization

6   appears to be working as of Friday. What does that mean, sir?

7   A. It means that we were successfully initializing this chip

8   and we were starting to talk with the Fibre Channel interface.

9   Q. And we have -- it continues and says, we have received an

10   initial command from the wire. What's the wire, first of all?

11   MR. BERNSTEIN: Objection, your Honor. This document,

12   he's not the author or the recipient. He's never seen this

13   document before or contemporaneously with the creation of this

14   document.

15   THE COURT: What is your objection?

16   MR. BERNSTEIN: Foundation. Document's hearsay or his

17   testimony is hearsay.

18   THE COURT: I assume this document is in evidence.

19   MR. BAHLER: It is in evidence, your Honor. In

20   addition, he stated that --

21   THE COURT: Well, when I need help, I usually ask for

22   it.

23   MR. BAHLER: Thank you.

24   THE COURT: Has this gentleman been designated as an

25   expert in any way?

41

1   MR. BAHLER: No, sir.

2   MR. BERNSTEIN: No, your Honor.

3   THE COURT: I'll overrule the objection to the

4   question asked. You may repeat the question.

5   Q. (BY MR. BAHLER) In that sentence, it says, we have

6   received an initial command from the wire. What is the wire?

7   A. That is the Fibre Channel medium.

8   Q. Okay. Where did that command come from?

9   A. From --

10   MR. GIUST: Objection, your Honor. Calls for expert

11 opinion.

12   THE COURT: He may answer that.

13 A. It came from an MT initiator connected to the Fibre

14 Channel.

15 Q. (BY MR. BAHLER) Okay. That's a computer connected to the

16 Fibre Channel?

17 A. Yes.

18 Q. Okay. And it says, we are now debugging the indication

19 path. What does that mean?

20 A. When the command comes in, we send it up to the RAID

21 controller, and when it has a response, that's the indication

22 that comes back down and we send it up on to the Fibre

23 Channel.

24 Q. Now, what was the significance of this effort with respect

25 to the Coronado product?

42

1   MR. GIUST: Objection, your Honor. Calls for expert

2 opinion.

3   THE COURT: That is an opinion. I sustain the

4 objection.

5 Q. (BY MR. BAHLER) All right. Please take a look at the next

6 page. This is, once again, from Mr. Colline to Mr. O'Dell,

7 right?

8 A. Yes.

9 Q. Does this accurately reflect the reporting activity that

10 you and Mr. Colline were doing at this time?

11 A. Yes.

12 Q. Okay. The second sentence says, we have successfully

13 completed one block IO's to the target side. First of all,

14 who's we?

15 A. That would be Phil, myself and Mark O'Dell.

16 Q. Okay. We have successfully completed one block IO's to

17 the target side and are now working on larger IO's. What does

18 that mean?

19 A. It means that, at this point, we are doing all the SCSI

20 commands, and we still are working on some issues with larger

21 transfers.

22 Q. Now, what, if anything -- what, if anything, did this

23 event tell you with respect to the ability of the Coronado to

24 handle Fibre Channel commands?

25   MR. BERNSTEIN: Objection. Calls for expert opinion.

43

1   THE COURT: It does.

2   Q. (BY MR. BAHLER) Mr. Kalwitz, you started working on the

3   Coronado product at what time, sir?

4   A. Spring of '96.

5   Q. And the e-mails that we have here are in the beginning of

6   '97, right?

7   A. Yes.

8   Q. Did you work on the Coronado product continuously between

9   those two dates?

10   A. Yes, I did.

11   Q. Okay. And the Coronado, what -- was the Coronado product

12   ever commercialized as far as you know?

13   A. Yes.

14   Q. Okay. When was it commercialized?

15   A. In late '97.

16   Q. Okay. Did you continue working on the Coronado product

17   after this date until it was commercialized?

18   A. Yes.

19   Q. Okay. Did Mr. Colline do the same?

20   A. Yes.

21   Q. Mr. Colline actually started in January '97, right?

22   A. Yes.

23   Q. So between January '97 and the date that it was

24   commercialized, what was Mr. Colline doing?

25   A. He was working with me on this software interface.

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1   Q. Now, the test that you were doing here with respect to

2   this e-mail that's up right now, which is Defendant's Exhibit

3   182511, within Exhibit 55, where were those tests done, sir?

4   A. In our lab in Irvine, California.

5   Q. Pass the witness, your Honor.

6   CROSS-EXAMINATION

7   BY MR. BERNSTEIN:

8   Q. Good morning, Mr. Kalwitz.

9   A. Good morning.

10   Q. My name is Matt Bernstein, and I just have a few questions

11   for you. Just getting back into your employment history, you

12   were employed at Adaptec from when?

13   A. November '95 through September '98.

14   Q. And then, you and several other Adaptec employees left

15   Adaptec and went to work at Chaparral?

16   A. Yes. It was part of a spin-off.

17   Q. And what was the date that that occurred?

18   A. I believe it was September 17th of '98, something like

19   that.

20   Q. And you're still currently employed at Adaptec?

21   A. Chaparral.

22   Q. Chaparral, excuse me. Exhibit 31 that you have, the

23   actual board.

24   A. Yes.

25   Q. Is there a date 1996 actually on that board?

45

1   A. I'm not sure. Do you want me to look for one?

2   Q. No. That's okay. What was the date of the first

3   commercial sale of the Adaptec product?

4   A. I'm not sure. I believe it was late '97, but I'm not

5   sure.

6   Q. Do you remember having your deposition taken in this case?

7   A. Yes.

8   Q. And do you remember testifying that the first commercial

9   sale took place in early 1998?

10   A. Perhaps.

11   Q. I'm going to -- for the Court's information, I'm in

12   Defendant's Exhibit 55, and this document is dated March 24th,

13   1997; is that correct?

14   A. Yes.

15   Q. And are you the author of this document?

16   A. No.

17   Q. Were you the recipient of the document?

18   A. No.

19   Q. And I'm turning to page to CNS 182511. Is this document

20   dated March 31st, 1997?

21   A. Yes.

22   Q. And are you the author of this document?

23   A. No.

24   Q. Were you the recipient of this document?

25   A. No.

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1   Q. Nothing further. Pass the witness.

2   THE COURT: Do you have any further questions?

3   MR. BAHLER: No, your Honor.

4   THE COURT: You may step down, sir. You may call your

5   next witness.

6   MR. BAHLER: Plaintiff calls Stan Manzanares by

7   deposition.

8   THE COURT: State the full name and spell the last of

9   the witness, please.

10   MR. DELLETT: First name is Stanton, S-T-A-N-T-O-N,

11   Michael Manzanares, M-A-N-Z-A-N-A-R-E-S.

12   THE COURT: You may proceed, sir.

13   MR. BAHLER: Starting on page 5, line 11.

14   Q. "Good morning, Mr. Manzanares. Would you please tell us

15   your full name?

16   A. Stanton Michael Manzanares."

17   Moving to page 6, line 21.

18   Q. "How long did you work for Adaptec?

19   A. About two and a half years.

20   Q. Could you give me a starting date and an end date, if you

21   remember?

22   A. I believe, let's see, I believe it was probably about '95

23   through, probably, November of '98."

24   Okay. Moving to page 7, line 25.

25   Q. "Could you just tell me -- what I would like to do is

47

1 start the day -- you started at Adaptec and could you just

2 tell me in 1995, whether that was -- could you just tell me

3 generally what you did for Adaptec while you worked there just

4 generally?

5 A. The whole time I was product management marketing.

6 Initially responsible for SSA, host adapter project of which

7 was later cancelled and with the restructuring the business

8 called ESS, external storage sub-system, and it was that group

9 that embarked on external RAID controllers."

10   Moving to page 8, line 19.

11 Q. "Did there come a time when you got involved with a

12 product called Coronado?

13 A. Yes.

14 Q. What was Coronado?

15 A. Coronado was a derivative of Brooklyn, which put a Fibre

16 Channel daughterboard on the Brooklyn motherboard to create a

17 Fibre-to-SCSI external RAID controller."

18   Okay. Page 9, line 9. Question:

19 Q. "Okay. What was your responsibility in connection with

20 those products?

21 A. Again, product management and marketing which would have

22 required the development of market requirements in addition to

23 working with sales, sales support to bring products to market,

24 work with manufacturing and engineering. So life cycle

25 planning for the product."

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1   Moving to page 10, line 4.

2   Q.   "Let me show you what was marked in Mr. Lavan's deposition

3   as Lavan Deposition Exhibit No. 1. Do you know what that is,

4   sir?

5   A.   Yes.

6   Q.   What is it?

7   A.   Its was an engineering proposal based on market

8   requirements that I had put together, so this was a proposal

9   from engineering to develop a RAID controller.

10   Q.   Okay. You mentioned Brooklyn and Coronado, although

11   Brooklyn is on this page, Coronado is not on this page. The

12   product which ultimately became Coronado, is that mentioned?

13   A.   Yes. There's a SCSI-to-SCSI Brooklyn, then there's a

14   third bullet Fibre-to-SCSI discussion. The Fibre-to-SCSI

15   eventually was code named Coronado."

16   Page 21, line 15. Question:

17   Q.   "At this time, beginning of April 1996, how important was

18   the Coronado product to Adaptec?

19   A.   It was extremely important" --

20   MR. ALBRIGHT: Your Honor, I have an objection. Can I

21   show you?

22   THE COURT: Let me have you up here, Mr. Bahler.

23   (At the Bench, on the record.)

24   THE COURT: I take it this man is admitted as an

25   expert. And the objection is that he is giving an opinion?

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