

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

STATE OF NEW YORK, et al.,	.	
	.	
Plaintiffs,	.	
	.	
v.	.	CA No. 98-1233(CKK)
	.	Washington, D.C.
MICROSOFT CORPORATION,	.	April 10, 2002
	.	9:04 a.m.
Defendant.	.	

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VOLUME 15  
MORNING SESSION  
TRANSCRIPT OF TRIAL RECORD  
BEFORE THE HONORABLE COLLEEN KOLLAR-KOTELLY  
UNITED STATES DISTRICT JUDGE

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24 Proceedings reported by machine shorthand, transcript produced  
by computer-aided transcription

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P R O C E E D I N G S

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THE COURT: Good morning everyone.

As I indicated, we have a couple of issues to discuss this morning. Let me deal with the press issue briefly.

Why don't you call the case.

THE DEPUTY CLERK: Civil Case 98-1233. State of New York, et al. versus Microsoft Corporation.

Counsel, would you please identify yourself for the record?

MR. WARDEN: John Warden for Microsoft.

MR. KUNEY: Good morning, Your Honor. Steve Kuney for the plaintiffs.

THE COURT: Is there anybody here from the press, representing the press?

MR. BROWN: Jay Brown on behalf of the media.

THE COURT: Mr. Brown, if you would come forward. I just had a couple of questions.

My understanding is that there are two requests -- or requests for two witnesses depositions that have already been conducted: Gates and Brock that you're still seeking.

MR. BROWN: That's correct, Your Honor.

THE COURT: And what's the need for these depositions? I mean, I issued my order on this issue almost two months ago, and now we're in the middle of trial.

MR. BROWN: Correct, Your Honor. And it is because of

1 the events at trial that the news organizations and the editors  
2 at them here have concluded that these two deposition  
3 transcripts have become newsworthy at this point sufficient to  
4 justify requesting their release.

5 THE COURT: In what way?

6 MR. BROWN: Well, for example, with respect to  
7 Mr. Gates' deposition, among the many mentions of Mr. Gates and  
8 his role in events that are being tried here, Palm's Michael  
9 Mace testified in several respects regarding Mr. Gates, and  
10 although I haven't been here for all of the proceedings, my  
11 understanding is that the testimony in several respects, and  
12 certainly in Mr. Sullivan's opening remarks on behalf of the  
13 plaintiff states, Mr. Gates' role was described in several ways  
14 as relevant to the factual issues in dispute.

15 At the time that the media intervenors originally  
16 moved for access to attend depositions, it was unclear whether  
17 Mr. Gates would be deposed.

18 As Your Honor may recall, the parties had declined to  
19 share with the media intervenors information about who would  
20 and would not be deposed or when.

21 Mr. Gates was identified on the parties' trial witness  
22 list as a conditional witness, someone who might be called,  
23 depending upon what happened at trial.

24 I understand that there's still some question about  
25 whether he will be called as a witness, but as the testimony

1 has unfolded, editors of these news organizations, in their  
2 exercise of their editorial discretion, have concluded that his  
3 deposition testimony is sufficiently newsworthy to warrant  
4 reporting at this time, and it's for that reason that they made  
5 the request to the parties that his deposition transcript be  
6 voluntarily released.

7 Similarly, Ms. Brock's has been the subject of  
8 testimony by several witnesses, principally those testifying  
9 for or about Gateway, Tony Fama and Peter Ashkin.

10 My understanding is that Ms. Brock and her role in  
11 these events has also come up in connection with other  
12 testimony before the court.

13 The media intervenors, heeding Your Honor's admonition  
14 that they should narrowly confine their requests to matters  
15 which they truly believe implicate the public interest and  
16 concern, have tried to do just that here.

17 And when Your Honor indicated in the ruling on the  
18 original motion that the media intervenors were not entitled to  
19 access to all deposition transcripts on a blanket basis, they  
20 have focused closely on those portions of the depositions --  
21 or, rather, those deponents whose testimony appears to be most  
22 newsworthy and have not come back to the parties or the court  
23 requesting them unless and until they concluded that there is  
24 significant public interest and concern in the likely content  
25 of those depositions.

1           THE COURT: All right. Let me just ask. In terms  
2 of -- I'm not requiring you to file a new motion. Are you  
3 adding -- apart from indicating what you view as the need for  
4 these two particular people and why you've selected them and  
5 why you're asking them, is there anything that you want to  
6 raise in terms of either the court's order or what you  
7 originally filed? If not, I will deal with it in that context.

8           MR. BROWN: Your Honor, we would not have any  
9 additional legal authorities to cite to the court.

10           We believe that the showing with respect to the Gates  
11 and Brock's deposition meets the standard articulated by Your  
12 Honor in the ruling on the original motion. And we don't  
13 believe that Microsoft can carry its burden of demonstrating  
14 any reason why, under the standard setting in Your Honor's  
15 order, it would be unduly burdensome, unreasonable, and  
16 embarrassing or annoying to release these depositions, redacted  
17 to move confidential information pursuant to the operative  
18 protective order.

19           THE COURT: I would say that a lot of that had to do  
20 with access to the depositions. There's really no authority  
21 lurking out there, which as I pointed out, that discusses  
22 getting -- ordinarily getting discovery where the rules now  
23 don't require you to have it filed. Having said, that I'll go  
24 back.

25           Let me hear from Microsoft at this point, since

1 they've given a more specific discussion of what they view as  
2 their need. You had argued, Mr. Warden, yesterday that you  
3 thought it was burdensome. Perhaps you can elaborate at this  
4 point, either in response to what he has said or tell me why it  
5 is particularly burdensome.

6 Have you done, for instance, the designations of  
7 confidential and highly confidential? Has that process taken  
8 place or not?

9 MR. WARDEN: I don't believe it has, Your Honor.

10 THE COURT: Okay. Well, is there anything else you  
11 want to add?

12 MR. WARDEN: Yes, there is something else I'd like to  
13 add.

14 Mr. Brown did not articulate any reason for this  
15 beyond the desire to have it when he requested it. This  
16 morning he's articulated grounds which I believe the court will  
17 have to find are inherently incredible. That is, that the  
18 editors of these publications, who apparently exercised some  
19 kind of unreviewable-by-anyone-else discretion, had no idea  
20 that Bill Gates had some role in the matters being tried before  
21 this court.

22 He was deposed for three days before the liability  
23 trial, and he was designated as a witness, as was Ms. Brock,  
24 two months ago.

25 So the idea that something happened in Mr. Sullivan's

1 opening statement or in the testimony of a witness who happened  
2 to mention Mr. Gates' name, now these -- these editors up on  
3 Mount Olympus have figured out that he has something to do with  
4 the case is ridiculous.

5 That completes my statement.

6 THE COURT: I'm sorry, I wasn't able to keep a  
7 straight face, but --

8 (Laughter in the courtroom.)

9 MR. BROWN: Your Honor, could I respond briefly?

10 THE COURT: Yes.

11 MR. BROWN: In defense of the editors whom I  
12 represent, I think they were aware that Mr. Gates had an  
13 involvement in the case.

14 My point, Your Honor, is that heeding the court's  
15 admonition not to overextend requests for access, the editors  
16 waited until it became apparent from the testimony unfolding at  
17 trial that these particular witnesses would have more than a  
18 background role to play in the events that are at issue in this  
19 particular proceeding.

20 As Justice Marshall famously observed, Editing is a  
21 task best left to editors and not one in which the courts are,  
22 generally speaking, entitled to interpose themselves.

23 Having formed the professional judgment that these  
24 deposition transcripts are now of significant public interest  
25 and concern, the news organizations involved came to the

1 parties and requested those deposition transcripts.

2 We don't believe Microsoft can show any substantial  
3 reason why it would be burdensome or unreasonable to release  
4 the redacted versions of those transcripts at this time on a  
5 schedule that would make them available to the public before  
6 those witnesses testify here, if in fact they do testify.

7 THE COURT: All right. Mr. Warden, the one thing you  
8 did not address, and I don't know whether there's anything you  
9 want to say more specifically, but in the aspect of the  
10 burdensomeness, et cetera.

11 MR. WARDEN: The burdensomeness arises from the fact,  
12 as I said the other day, Your Honor, that we are engaged in a  
13 trial. Everyone is busy already doing the business of trying  
14 the case, and the more collateral matters we have to deal with,  
15 the less time we can spend working on the case or the longer  
16 our young colleagues have to stay up at night.

17 And I don't think -- Mr. Brown may want to talk about  
18 editorial discretion and judgment. There's no evidentiary  
19 filing by the press that the editor of some particular  
20 publication -- and we know why there isn't -- all of a sudden  
21 decided that Bill Gates had something to do with this case  
22 after some witness testified. I don't see any affidavit  
23 advising the court that, you know, "I started thinking about  
24 this and all of a sudden last week I realized Bill Gates was at  
25 Microsoft."

1 THE COURT: All right. I'll give some further thought  
2 to this. I just wanted to make sure I had the arguments set  
3 out.

4 Let me move to another issue. Mr. Brown, I will let  
5 you know. I just wanted to make sure I had a fuller record.  
6 And, as you know, the case law in this area is nill, and so it  
7 makes it very difficult to do this in terms of trying to  
8 balance it. So I'm not going to leap forward without looking  
9 it at very carefully.

10 MR. BROWN: I appreciate that. Thank you, Your Honor.

11 THE COURT: Now, let's move on to one other order of  
12 business.

13 And before I get into the last issue about the  
14 deposition designations and the designations from the liability  
15 trial, let me just bring something up that Microsoft had put in  
16 in one of their footnotes of their motion, which was that the  
17 states had exceeded the court's three-page limit in responding  
18 to Microsoft's informal motions which have been these almost  
19 daily motions in limine.

20 I did set a three-page limit. The purpose of setting  
21 it was to ensure that I did not get a lot of additional  
22 rhetoric that I didn't need, didn't have time to read, you  
23 didn't have time to write. I wanted you focused on what the  
24 issue was and they would be in the nature that you would have  
25 as a preliminary issue.

1           There have been a couple of instances where I've  
2 received a longer than three-page, although it hasn't been  
3 particularly excessive, and in part I think it's in response to  
4 my pointing out that I was not getting detailed responses, and  
5 this was your record, and so if you didn't put it in there, I  
6 was going to make rulings without, you know, having a very full  
7 record from each of you. So I have asked that you do that.

8           And so I think some of the responses have turned out  
9 to be longer than the three pages. I haven't complained about  
10 it or said something about it because, frankly, when you have  
11 done it, it's been useful, and you've pointed things out that  
12 I've needed in order to make a ruling whichever way I went on  
13 it. So, I haven't considered it as excessive.

14           I am not lifting my three-page limit, but I am  
15 indicating that if there are occasions, you don't need to ask  
16 leave of the court. As long as you use it judiciously in terms  
17 of when it goes over the three pages, I will not -- I will  
18 accept them and look at them, and that goes for your end, too,  
19 in terms of doing it.

20           If I find that you're starting to go, wander off into  
21 rhetoric I don't need to read and making them longer  
22 unnecessarily, you will definitely hear from me. But at this  
23 point they have been focused and have helpful to the court in  
24 making my rulings. So let me deal with that issue first.

25           Let's move to the more serious issue. There are two

1 issues that Microsoft raised in their motion. One is the  
2 additional deposition designation of 18 witnesses, and the  
3 other part was designations of witnesses' testimony in the  
4 liability portion. I'm going to deal with them separately  
5 because they have separate issues.

6 I want to point out that I waited until today because  
7 I wanted to take yesterday evening to go through very carefully  
8 my court orders, the transcripts of the proceedings, and notes.  
9 There have been a few meetings that we've had that have not  
10 been on the record. They've been all sort of procedural. But  
11 in all cases I have done orders that have clearly set out --  
12 I've set deadlines in every instance, I've done an order that  
13 sets out what those deadlines are, so everything that's been  
14 discussed one way or the other has wound its way up into an  
15 order of one sort or another. So we've had a record. So I  
16 went back to look at it. So let me set this out to put it into  
17 context to deal with these issues.

18 Now, the defendant's motion that was filed was filed  
19 after the defendant evidently was notified this Saturday of 18  
20 deposition witnesses. The notification consisted of the  
21 designation of the portions of deposition testimony they wanted  
22 to use. This is the first the defendant and the court has  
23 heard about these additional witnesses.

24 These 18 individuals have never been identified as  
25 plaintiff witnesses before this letter evidently to Microsoft

1 and the motion, which is in the first notification I've had of  
2 it.

3 Now, let me go back historically. The order dated  
4 September 28, 2001, indicates that the witness lists are to be  
5 finalized by February 8th, 2002.

6 The final witness lists were exchanged by that date  
7 which prompted the plaintiffs to file their emergency motion to  
8 strike 18 belatedly-named Microsoft witnesses.

9 On February 13th, 2002, the parties submitted a joint  
10 status report at the court's request regarding the nature of  
11 the evidentiary hearing.

12 Notably, plaintiffs proposed in the joint status  
13 report, quote, each side should be permitted to call no more  
14 than 20 witnesses live or by deposition, unquote.

15 So the witnesses from the beginning have been intended  
16 and it was my understanding that witnesses included live and  
17 deposition.

18 Ultimately, I didn't impose the limitation of the 20  
19 witnesses. But the proposal is important in that it reflects  
20 the manner which the parties were dealing with the introduction  
21 of deposition testimony as evidence. Such introduction would  
22 be treated as the presentation of a witness.

23 And this view is again reflected in the parties'  
24 proposal for the, quote, presentation of witnesses by  
25 deposition, unquote, which appeared in section 3 of that joint

1 report.

2 Now, following that submission the court had a meeting  
3 with the parties on February 20th, 2002, to discuss outstanding  
4 issues relating to the evidentiary hearing. One of the major  
5 topics of discussion at the meeting was the time to be allotted  
6 to each side for the presentation of evidence.

7 The court was careful to double-check with the parties  
8 to ensure that the time proposals included the presentation of  
9 any deposition testimony; in particular, through the  
10 presentation of witnesses by videotape, which is what my  
11 understanding was, so it would be counted as a witness and  
12 would be included in the time frame.

13 The court held a follow-up conference call to this  
14 meeting on February 25th. That meeting and the ensuing  
15 conference call were memorialized in an order dated February  
16 27th.

17 In the February 27th order the court denied the  
18 plaintiffs' motion to strike and allowed the plaintiffs to  
19 continue to seek discovery from and to depose the 18 newly-  
20 added Microsoft witnesses up until March 18th. At this point  
21 the trial was supposed to have started on March 11th.

22 In this regard the February 27th order noted that  
23 plaintiffs had listed 16 witnesses to be presented during their  
24 case in chief and Microsoft had listed 31 witnesses to be  
25 offered in its response.

1           In the February 27th order the court also finalized a  
2 number of the procedures for the evidentiary hearing. Among  
3 other things, that order memorialized the parties' agreement on  
4 the hour limitation of 100 hours for each side with the  
5 possibility that additional hours may be available in specific  
6 circumstances.

7           I also adopted a number of the procedures that had  
8 been offered by the parties in their February 13th status  
9 report.

10           As an oversight, the February 27th order was silent as  
11 to the parties' procedure outlined in section 3 of the February  
12 13th joint status report which related to the presentation of  
13 witnesses by deposition.

14           This oversight was pointed out by the parties during a  
15 later conference call with the court. In response to that, I  
16 issued an order dated March 2nd where I specifically adopted,  
17 without exceptions, since none had been noted to me, the  
18 procedure for the presentation of witnesses by deposition that  
19 have been set out in section 3 of the February 13th joint  
20 status report.

21           Now, on March 1st in the joint pretrial statement,  
22 without exception, the parties reiterated their intent to  
23 comply with section 3 of the February 13th joint status report.

24           In their revised pretrial statement -- and this is at  
25 40 in the joint pretrial statement -- the parties reiterated

1 their intent to comply with section 3 without exception, and  
2 this revised pretrial statement was filed on March 3rd.

3 And in that it indicated: Neither side will call by  
4 deposition, rather than as live witness, any witness, other  
5 than a hostile witness or a representative of an opposing  
6 party, as specified in rule 32(a)(2). Witnesses to be called  
7 by deposition shall be identified to the other side by Monday,  
8 March 4th.

9 Now this was done the day before it was due. No  
10 exception was put in. Nothing was put in that indicated there  
11 was a problem with this.

12 On March 4th, one week prior to March 11th, when the  
13 date for the evidentiary hearing was supposed to start,  
14 plaintiffs filed a revised version of their proposed remedy,  
15 but no deposition designations.

16 In response, Microsoft the next day filed an emergency  
17 motion seeking to continue the March 11th trial date so that it  
18 could conduct limited discovery with regard to the revisions to  
19 plaintiffs' remedy. They asked for two weeks.

20 At the prehearing conference on March 8th I granted  
21 Microsoft's motion to continue in part and delayed the start of  
22 the hearing for one week to March 18th instead of the two weeks  
23 they asked for.

24 Microsoft was granted leave to conduct limited  
25 discovery regarding the changes to the plaintiffs' remedy, and

1 plaintiffs were ordered to produce for deposition 30(b)(6)  
2 witnesses as soon as possible.

3 Just this past Thursday I met with counsel in the jury  
4 room to discuss when we would be breaking this Monday in a few  
5 other issues, housekeeping things. I was told by plaintiffs'  
6 counsel that Carl Shapiro would be the last witness. No  
7 mention was made of 18 deposition witnesses by designation, nor  
8 that there were any other issues with this.

9 I would have expected to have, frankly, had them  
10 presented by videotape deposition and they certainly would have  
11 counted toward the time that would have been allotted. So I  
12 was told that was the end of it.

13 Now, as I view this history, the schedule contemplates  
14 that all witnesses will be identified by February 8th the  
15 universe of witnesses, whether you ultimately call them or not,  
16 whether they are to be presented by deposition or in court,  
17 live. On March 4th the parties were to indicate which  
18 witnesses, already identified on the witness list, would be  
19 presented by deposition rather than live in court. Although by  
20 deposition, by practice that is generally presented. It's not  
21 handed up as an exhibit. It's generally either read into the  
22 record. If it's videotape, you're shown or whatever.

23 After that, the parties agreed that the specific  
24 portions of testimony to be presented must be designated five  
25 days before the deposition testimony was to be presented to the

1 court and counter-designations were to be provided two days  
2 before the testimony was to be presented. And that was  
3 basically the way it was set out, for witnesses deposition,  
4 identifying them and then working on the specific portions of  
5 the deposition.

6 Now, I would note plaintiffs never amended their final  
7 witness list, which listed 16, not 34, nor did plaintiffs ever  
8 amend their March 4th designation of deposition testimony, nor  
9 did plaintiffs add any witnesses to the joint pretrial  
10 statement which is the day before you would have been required  
11 to set out these witnesses.

12 Plaintiff clearly had time to do all of this before  
13 the trial started belatedly on March 18th. At some point  
14 before the trial started something should have been said.

15 In late February, I would note that the court  
16 discussed with plaintiffs and Microsoft at great length the  
17 difference between the size of their witness lists and made  
18 arrangements in the hour limitations to compensate for this  
19 difference.

20 We had a couple of phone calls about this because of  
21 the disparity and whether this was fair to have the time be  
22 equal, et cetera. Nobody said anything about reserving or the  
23 possibility or any issue about additional deposition witnesses  
24 that might be counted into it. It was presented, as of last  
25 Thursday, as 16 witnesses, period.

1           Certainly, once deposed, if plaintiffs plan to present  
2 any of the testimony of the 18 witnesses as part of their case  
3 in chief -- and I don't know where these witnesses come from  
4 and I'll get to that in a minute -- I mean, they should have  
5 amended their witness list to add them somewhere along the  
6 line; should have indicated in their pretrial statement, the  
7 first one or their revised one, that was there was an issue  
8 with this; and should have amended in some way their March 4th  
9 designation of these hostile witnesses to be presented via  
10 deposition testimony. All of this should have been done before  
11 the trial started or certainly at the very beginning. Certainly  
12 at that point all of the discovery would have been completed.

13           Now, specifically with regard to the March 4th  
14 deadline. The parties included in their joint pretrial  
15 statement filed on March 1st, revised on March 3rd, well after  
16 they've resolved the issue of the 18 additional witnesses, so  
17 they are certainly on notice about the witnesses and whether  
18 they wanted to add them at this point or not.

19           So I'm responding to a particular argument that the  
20 plaintiffs made. I don't think there's any merit to  
21 plaintiffs' argument that my March 2nd order somehow didn't  
22 adopt the March 4th deadline, although it has it in there.

23           If that deadline had not been feasible or had needed  
24 some amendment, then the plaintiffs should have indicated in  
25 some way, when you pointed out that I had not included it --

1 you all set the March 4th deadline which I adopted. In the  
2 pretrial statement, which was the day before it needed to be  
3 designated, it should have certainly put you on notice that  
4 there might have been a problem. Nothing was said.

5 So plaintiffs were well aware of these deadlines.  
6 They never amended the witness list. You don't just send off  
7 the designation. The issue is to put people on notice about  
8 the witnesses. And they gave no hint that you planned to  
9 introduce the deposition testimony of 18 additional witnesses  
10 during your case in chief. As I said, until this past Saturday  
11 we didn't know this.

12 And certainly the parties and I have had countless  
13 discussions revolving around deadlines in the case. If there  
14 were problems, adjustments were made. They never -- you never  
15 brought up this issue.

16 It's easier to do these adjustments prior to trial, as  
17 I have done, in order to balance out so nobody is prejudiced.  
18 People get to present their case, who they want, and if there  
19 are problems for the other side, either in depositions, I have  
20 allowed both sides to be able to do this.

21 They put it additional 18 witnesses I extended  
22 discovery for you. You did revisions, I allowed them to have  
23 discovery. You had some witnesses that you had on your list,  
24 you deposed, they deposed. You wanted to substitute people for  
25 the same companies, but put different people in. I let you do

1 it. I let them depose them.

2 I mean, we could do this in advance. Once you get  
3 into the trial it is much more difficult to make these  
4 adjustments. None of this was brought up.

5 And certainly we've had a number of discussions. It  
6 isn't as if I'm not accessible and have not been willing to  
7 discuss it. And I've learned -- I've been a judge for a long  
8 time -- I've learned you set deadlines. If people need  
9 extensions, they come discuss it. So everybody is on the same  
10 page, knows exactly what's happening.

11 And these pretrial deadlines are standard in any civil  
12 trial and they serve an important purpose. This isn't  
13 something I invented. These are in the local rules. This is  
14 the way trials are done.

15 And the purpose of having the deadlines is so both  
16 parties are on notice at the start of the trial as to the  
17 entire universe of witnesses that the parties will call,  
18 excluding rebuttal, of course. And they can plan a strategy  
19 for the case. This ensures an orderly trial. And the court is  
20 on notice of what the parties are presenting. I'm able to make  
21 decisions about how I want to manage the trial.

22 It also avoids problems with a party making arguments  
23 when you make changes in the middle of the trial. They would  
24 have used their time differently. They would have done a  
25 different cross. They would have done something differently.

1 It avoids all of this.

2 And I would like to point again that I cannot believe  
3 we had these long discussions about the disparity between the  
4 number of witnesses, 16 and 31, when it now turns out to be 34  
5 and 31.

6 I even went so far as to give you extra time, the  
7 plaintiffs, because of this disparity. I factored in some of  
8 these things. And if there were changes, particularly ones so  
9 substantial, I would have expected to have been notified.

10 And, frankly, if I had known that there were going to  
11 be this many witnesses from both sides I might have made a  
12 different set of rules and procedures about how these witnesses  
13 were going to get presented.

14 I was left with the impression you would call people  
15 and that the deposition designations would be done through the  
16 videotape, presentations to the court, both sides, would have  
17 counted towards the time and would have been presented as part  
18 of the case.

19 I've set out what I view -- I've gone back and looked  
20 at all of the orders, transcripts. So, if you disagree with  
21 this, you know, my statement of the history, please bring it  
22 up. I do have a few questions I want to ask and then I'll let  
23 you get into whatever argument you want to present to me.

24 For the plaintiffs, I'd like to find out. These 18  
25 additional people, are they -- it's not clear to me whether

1 you're presenting them as witnesses. In other words, are they  
2 going to be presented through videotape? Are you just going to  
3 try and do these as exhibits? Or I'm just going to get  
4 transcripts?

5           It seems to me that in terms of the timing, the  
6 expectation was that they would be part of the time so that all  
7 of this would count for both sides, would count in the,  
8 whatever hours we set. And the hundred hours were set with the  
9 expectation. Nobody left a caveat that there might be some  
10 additional witnesses.

11           We discussed this in the universe of 16 and 31, not in  
12 some other, you know, possibility of having different  
13 witnesses.

14           You're also, if you're planning on doing it in terms  
15 of exhibits, then planning on transcripts, you're basically  
16 going to be at the end of your case in chief, since we are near  
17 the end, we've -- we're in the next to last witness and you've  
18 got one other witness.

19           You're going to dump all of this stuff on me I'm  
20 supposed to read before, you know, the end of your case and  
21 they start their case? I can do it. I've been looking at the  
22 stuff in the evenings. But it then is an end run around the  
23 time of the time allocations because you're doubling up the  
24 witnesses.

25           The other question I have -- I'd like to know how you

1 plan on presenting them. It wasn't clear to me. I can't  
2 figure out who these 18 witnesses are. I know some of the  
3 names, but not all of them.

4 I mean, are they all, you know, representatives of  
5 Microsoft? You've indicated that 13 of the 18 are on  
6 Microsoft's witness list. Who are the other five?

7 And, as I said, part of the reason I wanted to know  
8 how you were presenting them, because one part you say it's not  
9 going to take any time in the court. I'm not quite sure what  
10 that means.

11 So I'd like to know who they are, when you heard about  
12 them, et cetera, and how you're planning on presenting them.  
13 And I have some questions of Microsoft.

14 MR. KUNEY: I'll see if I can't answer the court's  
15 questions, Your Honor.

16 First of all, I appreciate the court's recitation of  
17 the history. We certainly didn't ignore what we understood to  
18 be a deadline. I heard you say that you were not impressed  
19 with the argument that we did not understand the March 4th  
20 deadline.

21 But I think the one piece of the history that perhaps  
22 seemed more salient to us, although we may have not acted  
23 completely prudently in terms of the court's sort of  
24 retrospective, is the fact that depositions in fact were still  
25 going on on March 4th.

1           Part of the reason that we did not perceive that to be  
2 a binding part of what had been carried forth in to the court's  
3 orders is because the aftermath of the addition of so many  
4 additional witnesses and the need for us to take so many  
5 depositions was still playing out, even as the pretrial  
6 statement was being submitted.

7           THE COURT: Okay. So are all of these 18 witnesses  
8 people that you deposed later?

9           MR. KUNEY: Yes.

10          THE COURT: Or earlier people?

11          MR. KUNEY: Seventeen of the designated depositions  
12 are from people who are deposed, the earliest date is -- let me  
13 just count. Looks like five of them had been previously  
14 deposed.

15          THE COURT: Previously deposed?

16          MR. KUNEY: I'm looking at the dates. There's one or  
17 two in January, a number in early February, and then a  
18 significant number of them are in the 20s of February.

19                 There are one, two, three -- three of them that do not  
20 occur until March. The last was March 5th.

21          THE COURT: Okay. But that's my point. Why didn't  
22 you -- I mean, you know, courts don't put dates in orders for  
23 just no good reason. And if you needed an extension of it we  
24 could have done it, particularly where we pushed it back a  
25 week.

1           MR. KUNEY: Let me see if I can explain what we  
2 thought we were doing with the information. You asked about  
3 our plan and it may help explain how we have dealt with this  
4 process, including the comment that we made about not expecting  
5 to take up a significant, or perhaps, any court time.

6           These are depositions that were taken during the  
7 remedy phase where we asked people pointed questions about the  
8 various remedy proposals.

9           Our intention was not to show much video from this;  
10 half an hour, perhaps at most. We were, in fact, still  
11 debating whether we even wanted a half an hour. But this is  
12 material that we wanted in the record so that when it came time  
13 to do post hearing findings we could make reference to these  
14 depositions of managerial-level Microsoft employees. That's  
15 who all these people are.

16           These are not third parties. These are all Microsoft  
17 employees who were deposed during the remedy phase. Most of  
18 them and most of the depositions taken during that kind of last  
19 crush of discovery that was necessitated by the expansion of  
20 the Microsoft witness list. Thirteen of the 18 people for whom  
21 we have submitted designations in fact are on the Microsoft  
22 witness list.

23           We submitted designations because we believed, given  
24 the rules about admissions and the use of depositions by a  
25 party, that we could simply insert into the record statements

1 by those people, have it of record for purposes of our post  
2 trial findings; perhaps expedite the cross-examination of those  
3 people because those points would be established.

4 To the extent Microsoft wanted to respond they would  
5 have counter-designations. They could have the people address  
6 the issues in their written testimony.

7 So we saw that as not an imposition on the court's  
8 time, not a naming of additional witnesses, but an introduction  
9 into the record of admissions by Microsoft employees that would  
10 be useful with respect to our post hearing findings.

11 And given that this process continued until a lot  
12 later than any of us wanted, we had understood, perhaps  
13 incorrectly, but we had understood that the operative deadline  
14 was the five-day deadline, which is why when the Microsoft  
15 counsel informed us that they expected their cross-examination  
16 to run through the end of the week, this week, we counted back  
17 five days and said, "Well, before we close our case, to the  
18 extent we're interested in having these designations be of  
19 record so that we can make reference to them and the court can  
20 make use of them if you find them helpful with respect to our  
21 findings, we would make sure that we did that before we rested  
22 our case."

23 And it was on that counting, five days back from this  
24 Thursday, that we perceived that the deadline for providing the  
25 designations was this Saturday, not because we are expanding

1 our witness list in the conventional sense, not because we  
2 expected to come in and take 10 hours showing videotape, but  
3 because we had admissions by representatives of a party that we  
4 wanted to make of record for purposes of supporting our  
5 findings when the hearing is over.

6 THE COURT: Well, the issue of using depositions is  
7 not a problem. Deposition designations are used commonly.  
8 Pretrial statements include a particular provision where you're  
9 supposed to set it out. I mean, the issue is not that you  
10 can't do this in the sense of doing depositions. The problem  
11 here is twofold.

12 One. You didn't discuss any of this with the court or  
13 it sounds like with Microsoft. You dealt with this in a way  
14 that I gave you an opportunity in all of this case setting out  
15 what you wanted, sometimes you got it, sometimes you didn't,  
16 but I at least heard from you.

17 You all started this out, which is I think an  
18 appropriate way of doing it, of considering them as witnesses.  
19 Now, you label -- that's why I went back to look historically  
20 so that they would be put on the list as a witness and then  
21 later you would make a decision as to whether you wanted to  
22 actually call them or they were simply portions of whatever  
23 their deposition testimony was.

24 And since the depositions have to be statements of the  
25 party opponent of some sort, they can't just be anybody unless

1 you go by a different set of rules as to availability, but  
2 nobody raised that issue. You were talking strictly about  
3 witnesses in terms of admissions or however you want to put it.  
4 They would -- you would make a decision closer to trial  
5 relating to that.

6 Nobody discussed -- and the step that's missed here is  
7 putting people on notice that there were going to be these  
8 designations. There were going to be these witnesses.

9 In terms of the date, the March 4th date, you prompted  
10 me -- this isn't sort of I picked it up and it got lost in the  
11 order -- we had a conference call -- I believe it was a  
12 conference call, either that or we were discussed it in  
13 person -- but it was brought to my attention that I had left it  
14 out.

15 MR. KUNEY: That's correct.

16 THE COURT: And that I should pick it up, and I picked  
17 it up and put the date in as presented to me. I didn't come up  
18 with this date. I didn't pull it out of the thin air, as I  
19 recall.

20 MR. KUNEY: Your Honor, I think you put in a one-line  
21 reference to incorporating the February 13th stipulation.

22 THE COURT: Right, which is exactly what you asked me  
23 to do. You did not say to me, This isn't a good date. Okay?  
24 You've had several opportunities to do this. And this is what  
25 concerns me.

1 MR. KUNEY: No.

2 THE COURT: You didn't say it when we put the order  
3 in. You evidently decided I didn't really mean March 4th, but  
4 never came back to discuss it with me so that we could have  
5 picked another date.

6 In the pretrial, when you had to present something,  
7 you found March 3rd. You indicate that it's due March 4th.  
8 There's no caveat in there. I went back -- I was astounded. I  
9 went back and looked at it. It doesn't say anything in there  
10 that you're still doing depositions, you may have a problem.

11 Certainly, if you deposed some of these people back in  
12 January and February, that's early enough to have figured out  
13 you wanted these people and could have either put them on the  
14 list or at least have started to do some of these designations.

15 March 5th is the last one. At that point it seems to  
16 me that, you know, we had two weeks in there before trial  
17 started, even if you had brought it up at least just before  
18 trial.

19 The concern that I have with this is that by doing it  
20 in advance, nobody can claim that they've got -- that they  
21 weren't on notice and therefore, you know, they would have done  
22 something different.

23 MR. KUNEY: Understood.

24 THE COURT: To create a problem with this.

25 MR. KUNEY: I appreciate that. Just one slight

1 clarification.

2 The pretrial statement does not mention March 4th.  
3 Under plaintiffs' deposition designations at page 9 we do  
4 reference you're incorporating the hearing procedures in our  
5 February 13th stipulation.

6 So, for better or worse, that merely carried forward  
7 our misapprehension about the deadline. We certainly didn't  
8 submit something on March 3rd that says we know we have to name  
9 people by March 4th.

10 THE COURT: Let me take a look at the revised. I  
11 don't have it out here. I will pull it out -- are you looking  
12 at 40?

13 MR. KUNEY: I'm looking at page 9 of the revised joint  
14 pretrial.

15 THE COURT: Is it paragraph 40?

16 MR. KUNEY: Let me get it back. Actually, in mine  
17 it's under Roman 6, plaintiffs' deposition designations.

18 THE COURT: I will go back and look at it because it  
19 seemed to me that we had -- I thought it had the date in there,  
20 but I could be wrong about that.

21 MR. KUNEY: The previous paragraph makes reference to  
22 exchanging exhibits on March 4th, but this designation  
23 paragraph is just a single sentence.

24 And, Your Honor, all I can tell you is that we were --  
25 our not bringing it to the court's attention merely reflects

1 our misunderstanding of where we were procedurally. We  
2 certainly did not perceive that we were hiding something from  
3 someone or evading a deadline that we understood to be a  
4 deadline.

5 We don't normally make it a practice to let court  
6 deadlines go by knowingly and not do something about them. And  
7 you're quite right, that you were very accessible to us. And  
8 had we recognized this problem, we would have brought it to the  
9 court's attention before the time we submitted the  
10 designations.

11 But as you just went through what you thought we were  
12 doing a few moments ago, if I heard you correctly, you said  
13 we're either going to have these people deposed -- brought in  
14 as witnesses by deposition or merely have portions of their  
15 testimony utilized as designations.

16 Rightly or wrongly, we perceived those as distinctive  
17 processes. We did not believe we are expanding the witness  
18 list. We did not believe that we are doing anything  
19 inappropriate consistent with the timing deadlines the court  
20 had set.

21 We simply thought we were putting into the record  
22 admissions by Microsoft managerial employees that could be  
23 useful for post hearing findings.

24 THE COURT: Let me just indicate. I'm not sure what  
25 you're relating to in terms of indicating -- I mean, the

1 witness list was a witness list that indicated they would  
2 either be live or by deposition, and then the second deadline  
3 was to be when you would indicate which witnesses would be done  
4 by deposition, and then we worked out a different deadline as  
5 to when you would actually exchange the designation.

6 So the deadlines that are missed are not the  
7 designations. The deadlines that are missed is noting them as  
8 witnesses by deposition.

9 MR. KUNEY: No. I understand that. And I think -- I  
10 mean, Microsoft, and maybe we should have objected to this as  
11 well. We got a letter last week about Mr. Greene's deposition.

12 Now, Mr. Greene's deposition hadn't been taken by  
13 March 4th, but there was no other deadline established for  
14 designating later-taken depositions.

15 THE COURT: Then, as I said, I don't know when, and  
16 one of the questions I had was when Mr. -- he was deposed.

17 MR. KUNEY: He was deposed in the week that the court  
18 postponed the trial.

19 THE COURT: Okay. He was deposed sometime after March  
20 4th.

21 MR. KUNEY: That's correct.

22 THE COURT: In terms of -- but certainly it was done  
23 not later than the commencement of the trial on March 18th.

24 And I would simply say that obviously this one would  
25 have -- there would have been no, clearly no way that they

1 would have been able to do it certainly by March 4th deadline.

2 MR. KUNEY: No, I agree with that. I was really  
3 suggesting two things.

4 Number one, to me, that confirms some question about  
5 the applicability of the March 4th deadline. But in terms of  
6 orderly trial process, we are providing the designations in  
7 advance. There's an opportunity for counter-designation.  
8 There's an opportunities for these witnesses, most of whom are  
9 on their witness list, to shape their written testimony as they  
10 deem necessary to respond to whatever may be in the  
11 designations.

12 On the contrary, we get a letter days before our case  
13 is to close telling us that they intend to play Mr. Greene's  
14 video, with very little opportunity, if any, for us to adjust  
15 our trial presentation, when they had certainly taken  
16 Mr. Greene's deposition before the delayed commencement of the  
17 hearing. And if the deadline is before the hearing begins,  
18 there ought to be notification, then it seems to us at a  
19 minimum that deadline should apply to both sides. And if our  
20 designations --

21 THE COURT: It will apply to both sides. I'm going to  
22 be even handed on this. You're both going to either wind up  
23 not having people in or we will make some other adjustments.

24 But what I don't understand is if you deposed people  
25 back in January and February, that's well before the March 4th

1 date, why were they not designated at least?

2 MR. KUNEY: Because our -- I guess I'll repeat myself  
3 in part.

4 We thought it made sense to complete the deposition  
5 process, see what the witnesses had said, and select a refined  
6 and narrowed version of designations.

7 We had not completed the deposition process. And  
8 again, we had the misapprehension about the binding nature of  
9 the March 4th deadline. We understood, perhaps incorrectly,  
10 that the five-day deadline was the binding deadline, and so we  
11 submitted the designations as a package after we had completed  
12 the entire discovery process and could make what we thought  
13 were refined, limiting decisions about how much of this  
14 material we needed to submit to the record.

15 THE COURT: All right.

16 MR. KUNEY: So we did it as a package consistent with  
17 what we understood to be the five-day rule.

18 THE COURT: All right. Then let me hear from  
19 Microsoft.

20 And from Microsoft, the question I have is obviously  
21 an issue relating to Mr. Greene. And is there any prejudice to  
22 Microsoft by the plaintiffs doing this late designation of  
23 these 18 additional witnesses?

24 MR. WARDEN: Well, there's tremendous prejudice in two  
25 respects.

1           One is if these depositions are to be played or read  
2 into the record, which is what we assumed, as Your Honor did,  
3 that will require, we believe, about 24 hours, and we believe  
4 that our counter-designations, just assuming that they are only  
5 half, would be another 12 hours, which will put off the  
6 commencement of our case by approximately a week and a half.

7           THE COURT: Let me just ask. Are these that  
8 extensive?

9           MR. WARDEN: Yes. They are quite extensive.

10           We had a table prepared of the amount of time in  
11 minutes designated in each of these designations and it totals  
12 24 hours and 28 minutes. That's the depositions. That doesn't  
13 include the prior -- we are not on to the prior trial testimony  
14 and the old --

15           THE COURT: Let's leave that one out for a second.  
16 I'm going to deal with that separately.

17           MR. WARDEN: I know. That's 24 hours and 28 minutes.

18           In addition, Your Honor, you know, that forces us to  
19 reschedule everyone that we've been trying to line up to  
20 testify in our case.

21           In addition, the amount of time required to do these  
22 counter-designations is substantial. The order contemplated 48  
23 hours but, you know, that was on the notion that when Mr. X's  
24 deposition designations were made, then you would have Mr. X to  
25 deal with, not 18 Mr. Xes.

1           And just preparing our counter-designations is going  
2 to take a lot of work; will not, if we are required to do it,  
3 be able to be completed by the time the plaintiffs should be  
4 resting their case, and we will be submitting our motion for  
5 judgment as a matter of law at the close of their case as we  
6 advised the court in chambers.

7           This just disrupts everything. We would have  
8 organized our trial presentation on cross-examination of their  
9 witnesses differently had we had notice of all of this.

10           We would have used our time differently. We would  
11 have asked for a greater amount of time to try the case. We  
12 would have not lined our witnesses up to begin next Monday. We  
13 would have lined them up to begin at some much later time. So  
14 there is a tremendous amount of prejudice here.

15           THE COURT: In terms of the timing, let's assume we  
16 can do something with that, I'm not sure what. But let's  
17 assume we work something with that out.

18           In terms of from your perspective, you've indicated  
19 that you would have organized the trial differently or done  
20 cross-examinations differently, et cetera. Can you be more  
21 specific?

22           MR. WARDEN: Well, it's a little difficult because I  
23 haven't read these 24 hours worth of designations, Your Honor.  
24 You know, I've had other things to do and I haven't done that.  
25 So it's hard to be more specific.

1           But if we had been with the 100 hour limit and we had  
2 known we had all these people to deal with, we certainly would  
3 have expended our cross-examination time differently. We may  
4 have conducted those examinations differently. The directs that  
5 we're working on as we speak we would obviously be writing  
6 differently.

7           I think that there's obviously a clear prejudice when  
8 the number of witnesses is more than doubled just before the  
9 other side plans to rest its case or has told us it plans to  
10 rest its case.

11           Your Honor, I'd like to respond to this notion that  
12 there's something different about admissions of a party. It's  
13 quite clear that the procedure for presentation of witnesses by  
14 deposition involves representatives of an opposing party. It  
15 says so in the first sentence.

16           (Reading) Won't call, other than as a live witness,  
17 anyone except hostile or a representative of an opposing party.  
18 Witnesses to be called should be identified by March 4th and  
19 with respect to such witnesses -- that is, those identified by  
20 March 4th, including representatives of an opposing party, then  
21 the designation procedure starts.

22           It couldn't be clearer on its face. I'm not -- by the  
23 way, I do not suggest to the court any subjective bad faith by  
24 the other side. That's not -- but we're dealing with trial  
25 procedures, and the court -- the parties' joint submissions and

1 the court's orders have to be read objectively. And I think  
2 the only objectively fair reading is the one that I've just  
3 given.

4 Does Your Honor have any other questions?

5 THE COURT: Well, the other question is to address the  
6 Tom Greene thing in terms of -- Greene, of course, was done  
7 later and I gave you an additional time and we moved it back.  
8 So, obviously, it would have been after the March 4th date.

9 MR. WARDEN: In fact, it was after March 11th, Your  
10 Honor, because it was on March the 8th that you granted us the  
11 one-week extension and authorized us to take the deposition.  
12 And I believe it was on the following Tuesday, the 12th --  
13 might have been Wednesday, the 13th, I just don't remember --  
14 one of the other of those days that Mr. Greene was deposed, and  
15 we gave them notice -- I don't know. About ten days ago?  
16 Yeah, about ten days ago.

17 THE COURT: Can you be more specific about exactly  
18 when you gave notice?

19 MR. WARDEN: I can have someone check that while I'm  
20 speaking here to Your Honor because I don't have it in mind.

21 Fourteen days ago, Your Honor. And they did not  
22 object and they gave us their counter-designations. Had they  
23 objected, we would have filed a motion with the court, and I  
24 submit we could have shown good cause for not making the March  
25 4th deadline for a witness deposed on March 12th in a totally

1 new circumstance. That was the reason Your Honor gave us the  
2 opportunity to take the deposition. And it's one person.

3 THE COURT: Anything else you want to add? I asked  
4 for two questions.

5 MR. WARDEN: Your Honor, I have nothing more to add  
6 unless Your Honor has questions, further questions for me.

7 THE COURT: In terms of the timing of this, I mean, I  
8 did not figure out how long. Is it 24 hours, roughly?

9 MR. KUNEY: Just to clarify a couple of things, if I  
10 could.

11 First of all, the letter we got with the designations  
12 for Mr. Green is dated April 5th.

13 THE COURT: Okay.

14 MR. KUNEY: Which by my count would not be 14 days  
15 ago.

16 We had not intended, as I indicated in my earlier  
17 comments, to spend more than an hour of actual court time on  
18 playing video of the depositions.

19 So in terms of -- for sure, we would have said  
20 something to everyone about scheduling if we had anticipated 25  
21 or 30 hours of video presentation in the court. That was never  
22 our expectation.

23 THE COURT: But what you've done is, instead of having  
24 it as court time, you have it as judge time. So -- I mean, I'm  
25 willing to do this. You know, this is what happens. That's

1     why I'm here as a judge.

2             But as a practical matter, what you've done is you've  
3     shifted the timing, which should have been included and  
4     discussed, and I'm not interested in making this longer, so I'm  
5     not going to do it that way.

6             But I mean, basically, what you've done is you've  
7     shifted it so it doesn't come out of your time. It is part of  
8     the record. It's not the usual way, frankly, to have  
9     deposition designations. I've never had it simply presented.

10            Now, granted, most of them are jury trials, but even  
11    in bench trials you either read it into the record, you do  
12    something else. I mean, it becomes part of it. It's viewed as  
13    a witness and generally you don't just hand it in, certainly  
14    not without having a discussion with the court about it.

15            But I mean in terms of the way we worked out -- the  
16    way the case was to be handled, the way the witnesses were to  
17    be handled -- frankly, if somebody discussed this with me, I  
18    can think of lots of different ways that I would have managed  
19    this trial so that we would have, you know, done it in a  
20    different way; certainly at an earlier point in terms of  
21    getting this information so that it could have been filtered  
22    along the way as well as, you know, how the number of witnesses  
23    and how you've done this.

24            I mean, Judge Jackson evidently required to you do  
25    some summary witnesses. It was a whole series of different

1 ways of doing it. And, you know, I didn't have that  
2 opportunity to do it.

3 So, basically, what you've done is, if -- let's say it  
4 adds up to 24 hours, I don't know whether it does or not, but  
5 let's suppose it does. I get one hour in here. You've got 23  
6 hours and whatever it is that they come up with in terms of  
7 their designations that neither of you take out of your hundred  
8 hours, but yours may be longer than they wind up as their  
9 designations.

10 So it's not really totally even handed in terms of how  
11 we do -- I could probably work out some way of doing the timing  
12 of it. What concerns me more is that if you're coming up at  
13 the end, they already, you know, within two days have to come  
14 up with their direct, which may make a difference in terms of  
15 how they want to present this now that they are getting it at  
16 the end. It creates a problem if they would have done  
17 something differently in their cross-examination.

18 I mean, you create an issue of prejudice for them.  
19 Time we can fool around with, but the prejudice issue of how  
20 they would have presented their case when you bring it up in  
21 the last week of a four-week presentation does make a  
22 difference and does concern me in terms of how this is done.

23 They haven't evidently sat down and gone through all  
24 of these depositions and counter depositions to figure out, you  
25 know, what might have been different. But I'll be frank with

1 you, I mean, that's why you set all of these deadlines in  
2 advance.

3 Civil cases are not criminal. Criminal, you can bring  
4 witnesses in and, you know, be Perry Mason or whatever. It  
5 doesn't happen in civil cases. Civil cases, everybody knows  
6 who's coming. You've deposed them. Every once in while  
7 there's surprises, but, you know, generally it comes out, you  
8 know, the way there's expectations of it and you plan your  
9 cases to begin with.

10 And I've learned that you set these deadlines. You  
11 get them so we are not in this position where -- the choice is  
12 they claim prejudice, so I go forward and put them in what they  
13 claim is a prejudice or I keep you from presenting it. That's  
14 the choice as opposed to coming back to the court, discussing  
15 it and setting it up early enough so we could have all gotten  
16 this worked out without having a prejudice to either side.

17 MR. KUNEY: No. I appreciate that, Your Honor. And I  
18 apologize on our behalf for our misunderstanding and our  
19 contribution to the situation.

20 With respect to the prejudice point, let me just make  
21 one observation if I could. Thirteen of the people are on  
22 their witness list.

23 THE COURT: They may not call them. They may decide  
24 not to in terms of their decision, their strategy at the end of  
25 the case about who they wanted to call, who they didn't want to

1 call.

2 The designations at the end may force them frankly to  
3 put people on in response to things that they might have asked  
4 at an earlier point of the witnesses you had. I mean, there's  
5 lots of different things that could have happened.

6 If they are on their list, that's true, but the list  
7 is so that we all know what the universe of witness is. It  
8 doesn't necessarily mean that they would call them.

9 MR. KUNEY: I understand. But I just think in terms  
10 of the practicality of there being actual prejudice to them  
11 from our introducing as deposition --

12 THE COURT: It's not a prejudice if they are going to  
13 call them and they are going to get up on the stand and they  
14 would have this information. That's fine.

15 The prejudice that they brought up, without being  
16 totally specific, but they haven't looked at it, but I can't  
17 say that I disagree with them necessarily, and am not -- don't  
18 see that there could be a problem here, is the fact that they  
19 didn't know when they were doing the cross. That's the  
20 problem; is whether they would have handled something in a  
21 different way in presenting it.

22 They can probably scramble around, or I can give them  
23 additional time to do so, in order for them to now get their  
24 case together, having a different contour from you at the end  
25 of your case. I'll have to give some thought to that. The

1 issue is, is what's already gone past.

2 MR. KUNEY: Your Honor, if I may, I just want to ask a  
3 question about a comment you made earlier so we don't end up in  
4 the same situation later.

5 THE COURT: Okay.

6 MR. KUNEY: You made a comment about notification with  
7 respect to rebuttal witnesses. I'm not sure I heard exactly  
8 what you said. And we don't want to get to May and again be  
9 told that somehow we should have done something on a different  
10 time.

11 THE COURT: In the rebuttal area -- and since I don't  
12 have it in front of me I'm not going to do it off the top of my  
13 head.

14 Rebuttal is a little different because you don't know  
15 what's going to happen. Things come out at trial that you wish  
16 to respond specifically to. And so if you know -- the way I  
17 left it, I believe, certainly if you know in advance you're  
18 going to put them on in rebuttal -- in other words, you figured  
19 out the case because you've done the depositions and you know  
20 that if they -- you're planning -- unless they put no case  
21 on -- that you're planning in response to do this rebuttal,  
22 then you should list them.

23 You're not supposed to sandbag them by not letting  
24 them know. But there are instances where something comes up in  
25 the course of the trial you did not anticipate, didn't expect,

1 or it came out stronger, whatever, and so you come up with a  
2 witness. That's always been done. And I have some language  
3 that gives you leeway.

4 That's why I said to you, you know, on the list I  
5 excluded the rebuttal issue because I don't think it's in the  
6 same position. You have to get through the trial to figure out  
7 what you're going to put on in rebuttal. And that is a  
8 tactical decision people make, usually near the end of whatever  
9 defense case they have or certainly after the close of it, and  
10 I don't have a problem with that. That's why I excluded that.

11 We're talking about the universe of whatever you  
12 present going forward in your case and in the defense case.  
13 And the defense case, they can shift around, depending on what  
14 you say and never call these people.

15 In your case the expectation is that you probably will  
16 call, you know, whoever they are. You can drop witnesses if  
17 you decide to do that, but that's not -- you can always take  
18 people away, it's adding them that's the problem in terms of  
19 people planning for it and doing their -- you know, their  
20 strategies around what their case is going to be presented as.  
21 So rebuttal, you know, I've left it to the side.

22 Let me, before I get, add the one additional thing  
23 about the trial, the liability issue. In terms of the liability  
24 issue, I need to get the materials.

25 You have indicated certain transcripts and, frankly,

1 I'm not going to try and hunt and peck for this stuff, so you  
2 need to put that material together so I can look at it. And I  
3 need, frankly, Microsoft's counter-designations of whatever it  
4 is -- you know, they don't have to be the same witnesses --  
5 whatever you think -- and hopefully this isn't going to be a  
6 like a whole new trial -- but, at any rate, in terms of what  
7 you have, and then I will take a look at it and hear argument.

8 But I can't make a decision in the abstract. I see it  
9 as different. It is a record of the case. I told you it was  
10 the record of the case. The findings, you know, were not  
11 touched.

12 You know, there's a few little problems about how  
13 things were handled, but I'm certainly willing to consider it,  
14 and I don't see it in the same position at all. It is part of  
15 the record and -- I just need to look at it so I can figure out  
16 how you're using it, what's presented what the counter-  
17 designations are. If I have questions or arguments I'll bring  
18 that back to you.

19 So you need to get that together at some point before  
20 you do your findings so that we can make a decision if there's  
21 issues that I think need to be clarified about their use.

22 MR. KUNEY: Is it necessary that we do that before we  
23 officially close our case?

24 THE COURT: You mean in terms of -- this part of the  
25 case or the whole case?

1 MR. KUNEY: Yes, this part.

2 THE COURT: No.

3 MR. KUNEY: Okay.

4 THE COURT: That's all part of the record and I  
5 don't -- I don't see -- probably -- you gave the designations,  
6 as I recall. Microsoft is on notice of what they are, so they  
7 can go look and see if there's something there they want to  
8 address in their case.

9 I don't really see -- I'll listen to Microsoft if  
10 there's some issue, but I think if they were told, they can go  
11 and look and figure out if they want to add something. So I  
12 don't see a problem with that.

13 You can do this, you know, take the time to put it  
14 together. But I do need it before we do closings and findings,  
15 because if there's an issue about it I want to rule on it  
16 beforehand so that, you know, you're not including it or  
17 relying on it. So if there's some other way of dealing with it  
18 you are given that opportunity to do so.

19 MR. KUNEY: Your Honor, just a final comment. If it  
20 would help alleviate some of the circumstance that has been  
21 created, that we have helped create by the designations; if it  
22 would help resolve that problem by considering that the  
23 plaintiffs would be willing to withdraw designations from  
24 anyone who does not appear as a witness, we would be willing to  
25 do that. That is really consistent with our view that we are

1 not, quote, adding witnesses, notwithstanding the prior  
2 comments.

3 THE COURT: Let me see if I understand.

4 You would leave the designations in if Microsoft calls  
5 them as witnesses?

6 MR. KUNEY: That seems -- to the extent there's a  
7 concern about prejudice, that seems to maximize the opportunity  
8 for them to address any points in the designations, to take  
9 care of the counter-designations in a reasonable period of time  
10 knowing that these people are coming to court later, be  
11 consistent with our aspiration to make the cross-examinations  
12 hopefully more efficient, and just eliminate a potential  
13 argument later that they were unduly prejudiced or prejudiced  
14 in any way by a, quote, late addition of a name.

15 THE COURT: All right. Mr. Warden, so what the  
16 proposal presumably would be is that neither one of you  
17 would -- well -- or you would make a choice as to whether you  
18 wanted to use as part of your hundred hours showing some of the  
19 depositions to the court; otherwise, presumably, you will just  
20 give them to me and I will be left reading them. So that we  
21 don't create a time problem.

22 MR. KUNEY: Correct. Correct.

23 THE COURT: So that presumably is part of the  
24 proposal.

25 And the other part of it is that they would only use

1 the designations for witnesses that you would be calling. If  
2 you don't call them --

3 MR. KUNEY: The witnesses that they would call.

4 In other words, they would be conditionally tendered,  
5 and if it turned out that Microsoft decided as its case  
6 unfolded not to call Mr. X, then Mr. X's designations would not  
7 be treated as part of the record.

8 THE COURT: All right. And then you would be able to  
9 address -- you would know in advance which ones, what the  
10 designations were, make decisions about whether you want to  
11 call them and what you wanted to address as part of that.

12 MR. KUNEY: Correct. And the only thing we would need  
13 with respect to the one or two short videos that we had  
14 anticipated playing before we rested our case, we would need to  
15 confirm with Microsoft counsel that those individuals are  
16 coming to trial to make sure that it was consistent with this  
17 position that I outlined.

18 THE COURT: All right.

19 MR. WARDEN: Your Honor, that's fine.

20 We are delighted they are withdrawing the designation  
21 of anyone not being called at trial. That by our count is  
22 already five people.

23 But with respect to those who do appear at trial we  
24 are entitled to have their cross-examination conducted in open  
25 court. They may use these deposition transcripts for that

1 purpose. It will come out of their time. We don't want half  
2 of the cross done while the witness is on the stand and the  
3 other half submitted in writing. That's not proper trial  
4 procedure.

5 THE COURT: I'm not sure precisely what you're getting  
6 at. For those who -- so are you indicating that they would  
7 not -- I mean, they are presenting them as what they view as  
8 admissions. The rules are broader. They talk about statements  
9 against -- statements of party opponents, and they are not  
10 admissions in the same way of admissions -- let's put it this  
11 way -- is broadly defined in the rules as to what it is.

12 So are you indicating that -- let's say you call  
13 witness X. You would have gotten their designation from the  
14 deposition as to what was involved with it. If it's not  
15 impeachment -- if it's impeachment, it's another matter. They  
16 can obviously use it that way. If it's not impeachment, then  
17 what are you proposing that they can and cannot do with it?

18 MR. WARDEN: What I'm proposing is that anything they  
19 want to bring in through a witness who is called as a live  
20 witness at trial, they should bring in through their  
21 cross-examination or by properly following the procedures  
22 established that we have discussed at length this morning and  
23 have designated those people on their witness list and call  
24 them as part of their case and play them in the courtroom.

25 This idea that -- there's no exception for party

1 opponent deponents in the procedure that the parties agreed to  
2 and submitted to the court and the court adopted for the  
3 presentation of depositions.

4 It doesn't say there's some alternate thing where they  
5 can be used under the rules that deal with admissions.  
6 Depositions of party opponents are dealt with in the  
7 established procedure.

8 Now, they can certainly use those depositions in the  
9 course of cross-examination, but we strenuously object to some  
10 kind of bastardized procedure where half of the cross-  
11 examination is conducted live on the witness stand and the  
12 other half is putting in a transcript of the witness's  
13 deposition supposedly as an admission.

14 THE COURT: Okay.

15 MR. WARDEN: I accept Your Honor's statement that we  
16 will have notice. Of course, we will.

17 THE COURT: All right. Let's see if I understand what  
18 you're proposing and then I'll hear from the plaintiffs on  
19 this.

20 As I understand it, what you would be proposing is  
21 that you would indicate to them who -- because they would have  
22 to know if it's going to be part of their case -- they would  
23 have to know who you're calling at this point.

24 MR. WARDEN: Oh, I'm not sure I quite understood  
25 Mr. Kuney to say that, but maybe I wasn't listening closely

1 enough.

2 THE COURT: You indicated that you -- they were  
3 withdrawing, as I understood it, anybody that you were not  
4 going to call. Am I correct?

5 MR. KUNEY: You're correct, Your Honor. But when I  
6 made reference to we would conditionally submit them, it was to  
7 not oblige Mr. Warden to indicate now what his final choices  
8 are so they would be admitted to the record subject to  
9 basically being eliminated later if they decide during the  
10 course of their trial presentation not to call a certain  
11 person. So they wouldn't be forced to give up any information  
12 ahead of time.

13 THE COURT: So they would be conditionally admitted as  
14 part of your case.

15 I have to say, this is -- well, I'll deal with that  
16 later. It's going to make it a little difficult to figure --  
17 in time for their -- you know, for the end portion of your  
18 first presentation here. I'm not going to be reading these  
19 until later because I don't want to read them -- leaving out  
20 the time issue -- I don't want to read something that's not  
21 going to be part of the record. I would prefer not to do that  
22 as the trier of fact.

23 So you would conditionally admit them into the record  
24 now. You would then, once they called them, do what?

25 MR. KUNEY: That would eliminate the condition.

1 THE COURT: Okay. So at that point -- so nothing  
2 would be played in court.

3 MR. KUNEY: With the possible exception of this  
4 half-hour or hour that we might like to do before we rest.

5 THE COURT: Okay. And so you would play the half-hour  
6 or an hour conditionally because you don't know --

7 MR. KUNEY: I had suggested it with respect to those  
8 people, we might be able to consult and see if we could  
9 determine whether they are prepared to tell us, which they may  
10 or may not be, that those individuals will in fact attend.

11 THE COURT: And then presumably if they called a  
12 witness during their case, then it would no longer be  
13 conditionally admitted in the record, it would be admitted. Is  
14 that correct?

15 MR. KUNEY: That's the suggestion.

16 THE COURT: What is -- Mr. Warden, what is your  
17 proposal -- or what is your response to this?

18 MR. WARDEN: My response to that is to adopt  
19 everything I've said heretofore this morning, and to say that  
20 this -- this procedure doesn't make any sense.

21 If we are calling a witness, anything they want to  
22 elicit from that witness, including admissions, should come  
23 while that witness is on the witness stand. If they have  
24 admissions from the person, they can be used in  
25 cross-examination.

1           We're not talking here about the designation of, you  
2 know, 50 specific questions and answers from the totality of  
3 the depositions that were taken that are then proffered,  
4 despite the procedures set forth in the order and submission,  
5 as admissions. We're talking about 18, now 13, because they've  
6 cut out five aren't on our trial witness list, witnesses.

7           THE COURT: Let me just ask a question.

8           Let us assume -- obviously, these are all depositions,  
9 so they are under oath so they can be used both in the context  
10 of impeachment as well as substantive evidence.

11           So, if they call them on the stand, you would be in a  
12 position to ask them about issues that came up in their  
13 deposition. This is the question I had for Mr. Warden for a  
14 minute.

15           If they agree, then you have it. If they don't, it  
16 can be admitted and the court can still consider it both for  
17 impeachment as well as substantive evidence. So, in essence,  
18 it comes in as substantive evidence.

19           Now, the only caveat to this is, let us assume that  
20 you in your direct don't touch these issues so there's no  
21 reason for them on cross to basically bring it up. Ordinarily,  
22 you would -- you know, you would stay away from areas that are  
23 not -- if they are clear, I don't know that that's going to  
24 happen, but I want to raise it anyway.

25           Let's assume, would you be willing under those

1 circumstances to allow them to ask the question and to bring it  
2 out in that way?

3 MR. WARDEN: Your Honor --

4 THE COURT: Knowing in advance what these are going to  
5 be, so it's not as if you're going to be surprised.

6 MR. WARDEN: We, of course, don't know whether this --  
7 whether or, if so, to what extent this issue will ever arise.

8 But they conducted these depositions and we didn't  
9 conduct cross-examination of these witnesses at the depositions  
10 on whatever subjects they may have examined the witnesses on.  
11 These were discovery depositions.

12 So you get into this sort circular thing. If it isn't  
13 in our direct and they want to bring it up in the fashion Your  
14 Honor just suggested as a possibility, then we would have to go  
15 back into that subject as well, without having done so at the  
16 deposition.

17 But it does seem to me that whatever they do they  
18 should by when the witness is on the stand and if they have  
19 limited amounts of material that fall into the category that  
20 Your Honor is talking about -- and I mean genuinely limited --  
21 so that what they are doing is not, in effect, calling the  
22 witness as their own witness, because it's on some totally  
23 different subject and it goes on and on, perhaps practicality  
24 and good sense suggest Your Honor could accommodate that.

25 But, you know, in my mind, that's a very, very limited

1 situation and not something that's equivalent to their adding  
2 the individual as their witness.

3 THE COURT: All right. Anything you want to say,  
4 Mr. Kuney?

5 MR. KUNEY: Yes, just two or three quick points.

6 Your Honor, I do believe we ought to be entitled to  
7 have the information introduced as substantive evidence and not  
8 just as impeachment.

9 I do think there will be disputes later about whether  
10 we have gone beyond the scope of the written direct testimony,  
11 and one of the virtues, it seems to me, of having the material  
12 even conditionally admitted now is that know it's there. If  
13 they need to respond to it, they can do it in the context of  
14 the direct testimony instead of getting into a lot of argument  
15 later about the need for, you know, redirect, recross, et  
16 cetera, et cetera, et cetera.

17 So it seems to me that we will get to where we are  
18 trying to get more expeditiously and fairly if we allow us to  
19 make substantive use of the evidence, which I think we are  
20 entitled to do, and put it in the record conditionally now and  
21 then it's in and they know it, and if they need to respond,  
22 they can respond.

23 MR. WARDEN: Well, Mr. Kuney is back where he started  
24 with 13 additional witnesses by deposition. He got rid, I  
25 believe, of the five who aren't on our trial witness list.

1           And I repeat, Your Honor, that the designation of  
2 these people as witnesses by them could have affected our  
3 cross-examinations of their witnesses over three weeks.  
4 Nothing can now be done about that.

5           And it seems to me that the proper procedure is for  
6 them to cross-examine these witnesses and then if they have  
7 specific material that is beyond the scope of the direct, and  
8 we object to it, Your Honor can consider whether it should be  
9 admitted under other rules of evidence and our then given an  
10 opportunity to conduct redirect on it when, as, and if it is  
11 not equivalent to calling these people as witnesses, which is  
12 what he's back to now, because the extent of the designations  
13 makes every one of these people a witness.

14           THE COURT: Let's deal with Mr. Greene.

15           MR. WARDEN: Okay. I wanted to correct the record in  
16 one respect there.

17           THE COURT: Okay.

18           MR. WARDEN: The letter of April 5th that Mr. Kuney  
19 referred to I believe is our letter designating the portions of  
20 Mr. Greene's testimony. Is that right?

21           MR. KUNEY: That's correct.

22           MR. WARDEN: We sent an earlier letter, 14 days ago  
23 today, designating Mr. Greene as an addition to our witness  
24 list.

25           THE COURT: Do you have the letter or something so I

1 can be a little more specific about what the date is? It would  
2 help.

3 MR. WARDEN: I'm told by Mr. Smith it was literally 14  
4 days ago today, but we don't seem to have this letter in the  
5 courtroom. I'm sorry.

6 THE COURT: If you can get it.

7 MR. KUNEY: I have the designation letter, but I don't  
8 have the other one.

9 MR. WARDEN: But we did take the step of formally  
10 notifying them of his addition to the witness list  
11 approximately three weeks prior to the beginning of our case  
12 and then supplying them later with the designations, and we  
13 received no objection to the addition of him to the witness  
14 list, which was not surprising.

15 THE COURT: I'm assuming that it's the -- you're  
16 talking about a straight count of 14 days; right?

17 MR. WARDEN: That's exactly what Mr. Smith advises me.

18 THE COURT: And the deposition of Mr. Greene that's  
19 being -- is it deposition or is he just being shown as a  
20 videotape witness, period?

21 MR. WARDEN: Video.

22 THE COURT: So it's his full deposition?

23 MR. WARDEN: Well, we designated and they counter-  
24 designated so there will be some omissions from the deposition.

25 THE COURT: I'm just trying to figure out. This is --

1 so it's basically a deposition witness?

2 MR. WARDEN: That's correct, Your Honor.

3 THE COURT: All right. Anything else. I need to give  
4 some thought to this and we need to give a break.

5 MR. KUNEY: Just one last comment that maybe I haven't  
6 said already.

7 Our failure to object to Mr. Greene is only further  
8 conduct consistent with our misapprehension about what  
9 deadlines were applicable and what deadlines were not.

10 We did not view him as untimely in that sense, again  
11 we did not understand that there had been this deadline in  
12 effect.

13 THE COURT: All right. Let me take 20 minutes and  
14 give some thought to this, and if I can come back and figure  
15 out what I'm going to do, I'll let you know at that point and  
16 then we will begin at least the witness.

17 (Recess from 10:27 a.m. until 10:54 a.m.)

18 MR. WARDEN: Your Honor, I have the letter at this  
19 point.

20 THE COURT: If we could just hand that up.

21 MR. WARDEN: And I also have our estimate of the 24  
22 hours. The withdrawal of the five witnesses who aren't on our  
23 witness list will cut that by three and a half hours, roughly.

24 I call Your Honor's attention to the fact that in our  
25 letter we said that we were at the procedures in place as

1 requiring the designation of witnesses by deposition by March  
2 4th, and that was on March 27th that we sent that to the  
3 plaintiffs.

4 THE COURT: All right. I think the way I'm going to  
5 handle it -- I will do a written order -- but in terms of sort  
6 of leaping to the bottom line here.

7 In balancing the equities, I think the way I'm going  
8 to handle it is I'm not going to do a conditional admission of  
9 the material. I think that that doesn't make sense as a way of  
10 dealing with this.

11 I will work with what the plaintiffs have offered in  
12 terms of using only the designations for witnesses that  
13 Microsoft actually calls.

14 If they call them, you can obviously use this on  
15 cross-examination, either to impeach or if it comes in,  
16 obviously it's for substantive evidence as well as for  
17 impeachment, and you can use the videotapes. I don't have any  
18 problem. You can use whatever you want. If you want to use it  
19 with transcripts or you want to use the videotape to use it,  
20 however. There's certainly no limitation on that.

21 If we do have an instance where there's an argument  
22 that it's going beyond direct or that you're making the witness  
23 your own witness and there's an objection, then what I'll do is  
24 have you -- for whatever piece of testimony that you have  
25 designated already, if you would indicate whatever it is that

1 you have not been able to get through into the record at this  
2 point with the counter-designation and then I'll a make a  
3 decision in context.

4 And I think that way I'll have a better record, and it  
5 will be -- you will have narrowed it down, and hopefully it  
6 won't happen. It may be that we won't have an issue come up  
7 about it, or if we do, it will be certainly a more limited one,  
8 and I can make a decision in the context of the examination of  
9 the witness themselves and how it's coming out or not coming  
10 out, and the need and prejudice of admitting it if it's totally  
11 apart from whatever this witness has testified to.

12 So I think that way you can use this information, and  
13 if for some reason it doesn't come in, then I'll make a  
14 decision about whether it can or cannot come in in context.

15 In terms of Mr. Greene. I would just simply say that  
16 he was deposed, evidently either the 12th or the 13th, and as I  
17 understand it, he was put on -- with the letter, he was put on  
18 the witness list on March 27th.

19 So the Microsoft did it correctly in the sense that  
20 they noted that it was supposed so have been done by the 4th,  
21 but obviously the deposition was after that. They put him on  
22 the witness list and then they indicated they would be doing  
23 the designations at a later date which is what they've done.

24 I would point out that we're talking about the  
25 notification to the plaintiffs within roughly 14 or 15 days

1 after the deposition and about a week and a half into the  
2 plaintiffs' case out of a four-week trial.

3 So I think under those circumstances, there was no  
4 objection on March -- after March 27th to adding him to the  
5 list, and I didn't hear any prejudice that was presented by the  
6 plaintiff this morning for the court to consider in terms of  
7 using it. So I'll allow them to go forward with that.

8 All right. Let's move to the next witness. And that  
9 witness is -- let's see, we are still with?

10 MR. HOLLEY: Professor Appel, Your Honor.

11 THE COURT: So if we can get Professor Appel up here.

12 MR. HOLLEY: Your Honor, there's one housekeeping  
13 matter from yesterday.

14 I sought to admit the transcript of Jonathan  
15 Schwartz's comments to a meeting of analysts on February 7th  
16 and Ms. Fulton objected on the basis that the transcript was  
17 not certified by the court reporter.

18 I now have a version of that transcript, Defendant's  
19 Exhibit 1427, that has been certified by the court reporter,  
20 and in light of that I would move for the admission of  
21 Defendant's Exhibit 1427.

22 THE COURT: Okay. She's not here, so I don't know --  
23 is somebody prepared to --

24 MR. HODGES: We have no objection.

25 THE COURT: I'm sorry?

1 MR. HODGES: No objection.

2 THE COURT: Then I will go ahead and admit 1427.

3 (Defendant's Exhibit No. 1427 was received into evidence.)

4 MR. HOLLEY: Your Honor, just for the sake of the  
5 record, could I give Ms. Patterson the copy of the exhibit that  
6 now has the certification attached to it?

7 THE COURT: Yes. Please.

8 ANDREW W. APPEL, Plaintiff's witness, RESUMES

9 CROSS-EXAMINATION (Cont'd.)

10 BY MR. HOLLEY:

11 Q. Good morning, Professor Appel.

12 A. Good morning.

13 Q. You testified yesterday that one of the parts of what you  
14 would think of as the kernel of Windows XP is the TCP/IP stack;  
15 is that correct?

16 A. I believe there is support for TCP/IP networking in the  
17 kernel.

18 THE COURT: Can we slow down? I know you are all  
19 familiar with the acronym, but we need to make sure. They are  
20 very close in some instances. To do them slowly so we make  
21 sure on the record we have the right ones designated. If you  
22 could repeat it then.

23 THE WITNESS: All right.

24 A. Yes, I believe there is support for the TCP/IP protocol in  
25 the kernel of Windows XP.

1 Q. Does TCP/IP stand for transmission control protocol slash  
2 Internet protocol?

3 A. Yes.

4 Q. If you look, sir, at Defendant's Exhibit 1447. Is that  
5 still up there with you? It's the list of files.

6 A. Yes.

7 Q. Can you tell me where in the Windows directory and in the  
8 system 32 subdirectory the portions of TCP/IP support that are  
9 in the kernel appear?

10 A. No. I don't remember which file they would be in.

11 Q. Well, if you look about nine-tenths of the way through the  
12 document, at a page where the first file is listed, WOWFAX dot  
13 DLL, and tell me when you're there, sir. I think it's about 10  
14 pages from the end.

15 A. Yes.

16 Q. The third file down there is called WS2 underline 32 dot  
17 DLL, and the description of that file is Windows socket 2.0, 32  
18 bit DLL.

19 Do you know, Professor Appel, whether that is the  
20 portion of the TCP/IP stack in Windows XP that runs in kernel  
21 mode?

22 A. No, I don't.

23 Q. What is your understanding, Dr. Appel, of what is contained  
24 in the Windows directory of Windows XP Professional?

25 A. I guess the Windows directory has subdirectories, not all

1 of whose names I remember. The Windows slash system 32  
2 directory has executable files for the core of the operating  
3 system and various other components.

4 Q. Now, do you also have with you there, sir, Defendant's  
5 Exhibit 1446, which is the Mac OS 10 overview for developers  
6 that we were looking at just before we finished yesterday  
7 evening?

8 A. Yes.

9 Q. And directing your attention again, sir, to the page  
10 numbered 8, which is headed at the top interoperability. Do  
11 you see that, sir?

12 A. Yes.

13 Q. Now, if, under section 1 of the nonsettling states'  
14 proposed remedy, an OEM or a third-party licensee exercised its  
15 right to remove Internet Explorer from the operating system,  
16 which of the protocols listed here, starting with TCP/IP and  
17 PPP would be removed from Windows XP?

18 A. I would say the HTTP protocol.

19 Q. Is that the only one, sir?

20 A. I believe that's the only one.

21 Q. And if an OEM or a third-party licensee did elect to remove  
22 the support for that protocol from Windows XP, the operating  
23 system would be at a competitive disadvantage vis-a-vis Mac OS  
24 10 because it would have less protocol support for industry  
25 standard protocols than one of its leading competitors?

1 A. I would imagine that many OEMs, if they were to choose to  
2 remove the support for this protocol, would provide perhaps a  
3 non-Microsoft implementation of the support for that protocol.

4 Q. Is there anything in section 1 of the nonsettling states'  
5 proposed remedy that requires an OEM or a third-party licensee  
6 to replace anything that they remove from the operating system  
7 with a substitute?

8 A. No. There's no such requirement. Presumably OEMs will do  
9 what they think will sell computers.

10 Q. And if the OEM or the third-party licensee elects not to  
11 replace the components of the operating system that it elects  
12 to remove, then Windows will be less functional and therefore  
13 less competitive with products like Mac OS 10; correct?

14 A. Windows as it's shipped by that OEM.

15 Q. Is that a yes, sir?

16 A. Yes. But I don't know that, as a computer science expert I  
17 can use the word competitive maybe in the same sense that  
18 you're using it.

19 Q. But you have no doubt that if an OEM or a third-party  
20 licensee elects to remove functionality from Windows XP and not  
21 replace it with anything, the operating system has thereby  
22 become less attractive to developers?

23 A. No, I don't think that's necessarily the case.

24 Some developers may wish to use a different  
25 implementation of the HTTP protocol because a different

1 implementation has the characteristics they want.

2 Q. Right. And in that case, if they don't know that it's in  
3 the operating system, it's up to them to distribute it to all  
4 of their potential customers; correct?

5 A. Yes. I think that would be easy for them to do.

6 Q. Have you talked to any ISV's about their views of the need  
7 to ship things like HTML rendering engines or protocol support  
8 for HTTP in their products?

9 A. No, I have not.

10 Q. Did you read the testimony of the gentleman from Rational  
11 Software who testified during the liability phase of this trial  
12 about his views of having to ship those sorts of components  
13 with his products?

14 A. No, I didn't.

15 Q. Now, you also believe, do you not, Professor Appel, that  
16 another option that Microsoft would have technically for  
17 complying with section 1 would simply be to hide access to APIs  
18 exposed by optionally removable components of the operating  
19 system so that although those components remained in Windows,  
20 they could not be called upon by third-party applications?

21 A. If there's an optionally-removable Microsoft middleware  
22 product and another part of the operating system relies upon  
23 some fragment of that product that may be shared between the  
24 different products, then one technical option available to  
25 Microsoft is to include that fragment internally to other parts

1 of the operating system in such a way that it's not middleware.

2 Q. Well, I think I asked you a slightly different question,  
3 sir.

4 Is it your view that one way that Microsoft could  
5 comply with section 1 is to say that when something is removed  
6 from the operating system the code stays but the APIs exposed  
7 to developers are obscured?

8 A. You said in your question "component."

9 Now, a component may be a very tiny thing, may be a  
10 very large thing.

11 Microsoft is required to make fairly large things,  
12 such as Microsoft middleware products, removable and if there's  
13 some component of one of those products necessary for the  
14 operation of another product because perhaps it's shared, then  
15 one of the options Microsoft has is to make that component, as  
16 you put it, that fragment of the Microsoft middleware product  
17 inside another Microsoft middleware product or operating  
18 system.

19 Q. Let's take the Microsoft middleware product called Internet  
20 Explorer under the states definition X1.

21 A. Yes.

22 Q. You believe that one way that Microsoft could comply with  
23 section 1 is to leave all of the two dozen or so components of  
24 Windows that you believe are associated with Internet Explorer  
25 in the operating system and simply hide from developers the

1 APIs exposed by those components; correct?

2 A. I don't think I said it -- it would be appropriate to leave  
3 all the components of Internet Explorer in.

4 I said, if there's some material fragment of that,  
5 some particular subcomponent that's shared, then one of the  
6 ways Microsoft could comply is to handle that share in a  
7 different way.

8 Q. Well, the biggest component of Internet Explorer is a file  
9 called MSHTML.DLL, the HTML rendering engine; correct?

10 A. I'm not sure. That may be the biggest individual component  
11 it handles, the display of letter and so on in different fonts  
12 and paragraphs on the screen. It's one of the several  
13 functions of the browser.

14 Q. And you believe, sir, that if a licensee or an OEM under  
15 section 1 of the nonsettling states' proposed remedy elected to  
16 remove MSHTML.DLL it would be sufficient for Microsoft to hide  
17 from developers the APIs exposed by that component but leave  
18 MSHTML.DLL in the operating system for other parts of the  
19 operating system to utilize.

20 A. As long as the APIs of that library are not accessible to  
21 developers either of Microsoft middleware or third-party  
22 developers, then it would be a purely internal API and it would  
23 not constitute a middleware platform in itself. So, yes.

24 Q. So the answer to my question is, yes, you believe that  
25 under section 1 it would be sufficient for Microsoft to permit

1 licenses to hide from developers the APIs exposed by Microsoft  
2 middleware products but leave those Microsoft middleware  
3 products in the operating system?

4 A. No. That's exactly what I didn't say.

5 I said if there are components of those products that  
6 are shared and therefore necessary for use by other products,  
7 you might do that to some components.

8 Q. Okay.

9 A. I don't know that it would be appropriate to take entire  
10 Microsoft middleware products and do that.

11 Q. Well, if you don't know whether it would be appropriate,  
12 how is Microsoft supposed to figure out under section 1 what is  
13 appropriate?

14 A. Because the context in a lot of this discussion is the case  
15 where there's some subcomponent of Microsoft middleware product  
16 that's shared among several Microsoft middleware products and  
17 the core operating system.

18 And the example that keeps coming up is MSHTML.DLL.  
19 And this case of shared subcomponents has been much discussed  
20 by the Microsoft expert witnesses in their report and much  
21 discussed in depositions. And so in the case where I answered  
22 you about keeping a copy of the code and hiding the API, it was  
23 with respect to a particular component, a fragment of a  
24 Microsoft middleware product.

25 Q. Well, look at your deposition, sir, in the second volume,

1 at page 268, line 19, and tell me when you're there.

2 Do you recall being asked the following question?

3 "But in your second scenario, although hidden from both end  
4 users and ISVs, the code for the Microsoft middleware would  
5 remain in the operating system and be relied on by other parts  
6 of the operating system, correct?

7 "Answer: That's right."

8 Were you asked that question and did you give that  
9 answer, Professor Appel?

10 A. Yes. This answer is about Microsoft middleware, not  
11 Microsoft middleware product.

12 MSHTML is a components of Microsoft middleware. It  
13 does not constitute an entire Microsoft middleware product.

14 Q. Okay. Of the two dozen components that comprise Internet  
15 Explorer that you testified about yesterday afternoon, how many  
16 of them fall within this category of Microsoft middleware that  
17 could remain in the operating system under section 1 and be  
18 hidden from both end users and ISVs?

19 A. It depends on how those fragments of the middleware provide  
20 individual functionalities that are relied upon by other  
21 Microsoft middleware products.

22 Q. Well --

23 A. By the operating system.

24 Q. Let's take them one at a time.

25 You said there are 24 of them. And can you tell the

1 court which of them fall within the category of your second  
2 scenario, which is things that can stay in the operating system  
3 under section 1 but be hidden from both end users and ISVs?

4 A. No. As I explained yesterday, I didn't study each one of  
5 those components to sufficient depth to be able to tell you now  
6 what each one does, and I certainly didn't analyze the inter-  
7 dependencies between every Microsoft middleware product and  
8 every other Microsoft middleware product. So, I can't do that  
9 right now for you.

10 Q. Can you do it as to any of the two dozen components that  
11 you say comprise Internet Explorer?

12 A. Yes. I think that, for example, the support for the HTTP  
13 protocol is a functionality that may be used, and maybe even  
14 shared, by several different parts of the operating system, and  
15 so very likely support for the HTTP protocol in whichever DLL  
16 it happens to reside would be appropriate for this treatment.

17 Q. And if that DLL is called WININET.DLL does Microsoft get to  
18 keep all of WININET.DLL or does Microsoft in six months have to  
19 rewrite that dynamically-linked library to somehow isolate the  
20 support for the HTTP protocol under your view of section 1?

21 A. I believe that WININET contains commingled, if you will,  
22 support for a few different Internet protocols, such as HTTP  
23 and FTP.

24 And I think that, in general, we can draw a line  
25 around the Microsoft Internet Explorer product that falls

1 neatly on DLL boundaries, but in a few cases there is browser-  
2 related code commingled with code that is either not browser  
3 related or not solely browser related, and WININET may be one  
4 of the files where there's commingled code.

5 So in that case, Microsoft could comply with the  
6 remedy, I believe, although I haven't given it a great deal of  
7 thought, by making WININET removable.

8 And I think Microsoft could comply with the remedy by  
9 providing a DLL that has the nonbrowser-related  
10 functionalities, but not the HTTP browser-related API.

11 Q. Well, you're surely not testifying to this court that  
12 support for the file transfer protocol is not properly a part  
13 of Web browsing software, are you, sir?

14 A. The file transfer protocol is very commonly used in Web  
15 browsing. However, the file transfer protocol has been in use  
16 since at least 1980. I have used it since about 1980. And as  
17 such, it's a protocol that is sure not exclusive to Web  
18 browsing because Web browsing was only invented after 1990.  
19 So, I would not say that Microsoft under the states' remedy  
20 would have to remove support for FTP.

21 Q. And so your testimony that the code is commingled is that  
22 although FTP is a very common protocol used in Web browsing, it  
23 existed before Tim Burnesley (ph) invented Web browsers and  
24 therefore Microsoft would have to rewrite WININET to isolate  
25 FTP. Is that what you're saying, sir?

1 A. One of the technical options Microsoft has is to split that  
2 DLL. I don't think this would be a rewrite. It might be done  
3 without touching any source code at all conceivably, but -- and  
4 it's certainly within Microsoft's discretion to remove all of  
5 WININET.

6 I believe, although I'm not sure of the history, that  
7 Microsoft built the WININET.DLL in the mid-'90s to support Web  
8 browsing.

9 And I'm not sure that Microsoft provided support for  
10 FTP before they tried to support Web browsing, but I won't hold  
11 that against Microsoft. I don't recall FTP as a browsing-  
12 specific protocol. And I don't think that the states' remedy  
13 would require it to be made removable.

14 Q. Is XML a browsing-specific protocol?

15 A. I think not.

16 Q. Have you looked at WININET to make any assessment of how  
17 much engineering effort would be required to design, develop,  
18 and test a version of that DLL that isolated support for the  
19 hypertext transfer protocol from the file transfer protocol?

20 A. I have not read the source code of the WININET.DLL, but  
21 based on my experience developing software, including  
22 developing software that interoperated via networks and those  
23 protocols, I think it would not be difficult.

24 Q. When you used the word "commingled" in your prior answers,  
25 your understanding is that something is commingled if it is

1 used for any purpose other than Web browsing; is that correct?  
2 Even if it is used for Web browsing, if it is used for any  
3 other purpose, it is commingled if it appears in the same files  
4 as HTTP support.

5 A. Let me explain what I meant by the word commingled in that  
6 context.

7 Q. First of all, sir, I think you could explain after, but can  
8 you answer my question?

9 A. Okay. Can you repeat the question, please?

10 Q. Sure.

11 When you say commingled, do you mean that if software  
12 code appears in a file and provides a functionality that is not  
13 exclusively used in Web browsing -- for example, FTP -- it is  
14 commingled?

15 A. I don't know that the term commingled is specifically  
16 related to Web browsing, so I'm still not sure I understand the  
17 question.

18 Q. Well, are you using the word commingled the way the Court  
19 of Appeals for the District of Columbia Circuit used it in its  
20 opinion or are you using it in some other way, sir?

21 A. I believe that the Court of Appeals used commingled in its  
22 opinion specifically in reference, I think, to a different DLL  
23 in which there were clearly marked browser-related functions  
24 and nonbrowser-related functions.

25 And I'm not completely sure that in WININET there are

1 functions related to, you know, specifically nonbrowser use.  
2 So I can't be quite sure at this point that I used the word  
3 commingled exactly as, and exactly in the same context that the  
4 Court of Appeals used it.

5 Q. And then back to my question. In your use of the word  
6 commingled, is it sufficient to say that code provides  
7 functionality that is sometimes not used in Web browsing to say  
8 that it's commingled?

9 A. In my use of the word commingled in that context, what I  
10 was referring to is the fact that in this case the same DLL  
11 contains code that would need to be made removable under the  
12 remedy and code that would not need to be made removable.

13 I believe that this kind of case is the exception  
14 rather than the rule, but it does occur in this case.

15 Q. And the reason that you think that the FTP support in  
16 Windows would not have to be removable under section 1 is that  
17 it is sometimes used for a purpose other than Web browsing; is  
18 that correct?

19 A. No. It's because the HTTP protocol was invented for the  
20 purpose of Web browsing. It's clearly identified as a browsing  
21 functionality.

22 The FTP protocol predates Web browsing and certainly  
23 was not invented for that purpose.

24 Q. So the test is not whether it's sometimes used for  
25 something other than Web browsing, but whether it was invented

1 before Web browsers. Is that the test?

2 A. That's the test I'm using in this particular case. I was  
3 trying to use the appropriate test and this seems to be a  
4 reasonable test.

5 Q. Is the test context sensitive?

6 In every instance that I look at a file in Windows XP,  
7 am I going to be applying a different test to determine whether  
8 something is removable under section 1?

9 A. What is necessary for the purpose of section 1 is to draw  
10 the boundaries of the Microsoft middleware products, and I  
11 believe that this will be possible to do in a reasonable way.  
12 And I have given examples of the procedure and criteria one  
13 could use to draw these boundaries.

14 And in the particular case of the Web browser which,  
15 although I'm not sure, I think is a more complicated case than  
16 most Microsoft middleware products, it has a longer history  
17 than many of the Microsoft middleware products. There is maybe  
18 more sharing of subcomponents. All right?

19 So even in this more complicated case, I still  
20 believe that the criteria I explained yesterday are one  
21 reasonable way to draw the boundary.

22 Q. I'm trying to understand what test in the case of the  
23 Microsoft middleware product that the nonsettling states  
24 referred to as Internet Explorer were going to apply to  
25 determine whether or not something is optionally removable

1 under section 1. Can we know focus on that question?

2 A. Sure.

3 Q. And in that instance, are we always looking to see whether  
4 that particular technology existed before Tim Bernesley and his  
5 colleagues at Sern (ph) in Switzerland invented the first Web  
6 browser. Is that our test?

7 A. No. Surely that is not the only test.

8 Q. What test are we going to apply in the instances where  
9 history is not the test?

10 A. Well, I think the...

11 So one way to do it would be to identify  
12 functionalities that are clearly, you know, Web browser  
13 functionalities.

14 And as I've explained, another way to do it -- I don't  
15 think we need to rely on just one method. I think that various  
16 criteria can be used together to draw an appropriate boundary  
17 line between the Microsoft middleware products.

18 And as I explained yesterday, another way that largely  
19 correlates with the first way is to see how Microsoft itself  
20 has categorized these subcomponents.

21 Q. Well, FTP support is part of what Microsoft in Windows XP  
22 Embedded refers to as Internet Explorer, isn't it?

23 A. I believe that FTP support is in the category called  
24 WININET and that category may contain just the one DLL,  
25 WININET.

1           And as I explained yesterday, there are approximately  
2 four categories that together draw an approximately appropriate  
3 boundary and one of them is Internet Explorer, one of them is  
4 HTML rendering, and one of them is WININET which contains the  
5 communications protocol support for the browser.

6 Q. Have you --

7 A. So it's not in Internet Explorer.

8 Q. Have you studied the relationship of the component  
9 definition files in Windows XP Embedded for those different  
10 components that you just described to see to what extent they  
11 are subsets or supersets of one another?

12 A. Yes. It is my belief that after one -- what I've done is I  
13 have built a configuration with Internet Explorer in it;  
14 therefore, it must contain all the components that are part of  
15 the browser and other components that are not part of the  
16 browser but upon which the browser relies, like the core  
17 operating system.

18           And then in that configuration I examined the  
19 different categories of files that the Windows XP Embedded  
20 Target Designer says are in my configuration.

21           I believe that in that view of my configuration these  
22 different categories don't overlap so that I've been able to  
23 identify the component files in that way.

24 Q. You are aware that Windows XP Embedded has a SQL database  
25 of component definition files, are you not?

1 A. Yes.

2 Q. And have you looked at the different component definitions  
3 in that SQL database to determine the extent to which the  
4 component called Internet Explorer contains the functionality  
5 of WININET?

6 A. No, I haven't.

7 Microsoft in its XP Target Designer tool provides a  
8 user interface for that database that is meant to be convenient  
9 for OEMs who are configuring embedded operating systems, and I  
10 did find it relatively convenient as a way to access the data  
11 in the database. So I didn't feel the need at this point to go  
12 underneath the hood and look directly in the SQL database.

13 Q. Now, when you say that one test for determining what is  
14 encompassed by section 1 is something that is clearly Web  
15 browser functionality, I take it that you think that FTP  
16 support fails that test?

17 A. I think that's clearly Web browser and nonWeb browser  
18 functionality.

19 Q. And so if it is in the category of things that are both  
20 clearly Web browser functionality, but also clearly some other  
21 sort of functionality, then it doesn't have to be removable,  
22 but if it's clearly Web browser functionality and not any other  
23 kind of functionality, then in your view it must be removable  
24 under section 1?

25 A. In the case of HTTP, the hypertext transfer protocol, this

1 is a protocol that was invented specifically for the purpose of  
2 Web browsing and is used largely for the purpose of Web  
3 browsing. It's found in every Web browser. And so I thought  
4 it would be appropriate to say that this is part of the Web  
5 browser product. This is core Web browsing functionality.

6 Q. I'm trying to understand, Professor Appel, how my client is  
7 going to interpret section 1 based on your views.

8 Now, if something is both clearly Web browser  
9 functionality in your mind but also performs other  
10 functionality, I take it that your view, based on what you've  
11 said about FTP, is that it can stay in the operating system;  
12 correct?

13 A. I think that if Microsoft in its arrangement of  
14 functionalities into subcomponents has mixed functionalities  
15 that are clearly part of the Microsoft middleware product with  
16 other functionalities, then Microsoft cannot leave that entire  
17 component in if the OEM specifies that Microsoft middleware  
18 product is to be removed.

19 But if Microsoft discovers that this subcomponent has  
20 capabilities, exposing APIs that are clearly not related to Web  
21 browsing, then I guess in its discretion it could choose to  
22 split the file. As I said, I think this would be the  
23 exception.

24 Q. Let's hang with FTP, please.

25 A. All right.

1 Q. FTP is our example. You've told me already that FTP is  
2 clearly Web browser functionality because every Web browser in  
3 the world has FTP support; right?

4 A. Yes, every Web browser has FTP support.

5 Q. But FTP was invented before the folks at Sern invented the  
6 first Web browser. It's used for all sorts of file transfer  
7 functions in operating systems unrelated to Web browsing, and  
8 therefore the fact that it is clearly Web browser functionality  
9 does not, in your view, include it within section 1. Am I  
10 understanding you?

11 A. Yes. I guess something like that would be the case.

12 Q. Now, what about the file called SHDOC -- D-O-C, V2 or shell  
13 document view dot DLL in Windows XP?

14 One of the things that it does is implement an in-  
15 place navigation system where there's a Back button, a Forward  
16 button, history of where the user has been and a list of  
17 favorites.

18 That wasn't invented for the first time in Switzerland  
19 in 1991, was it, that notion of in-place navigation?

20 A. I don't know what you mean by in-place navigation.

21 Q. In-place navigation where in a single frame on the screen  
22 the user can go where they just were, where they have been over  
23 the last 10 views of the Window.

24 You're familiar with in-place navigation in Web?

25 A. If that's what you mean by in-place navigation.

1 Q. If we understand that terminology.

2 That concept of navigation, with Back and Forward  
3 buttons, a list of favorites, and a history of where the user  
4 has been was not invented by anyone at Sern in 1991, was it?

5 A. I guess not.

6 Q. So to the extent that SHDOC view dot DLL implements ideas  
7 that existed long before Web browsing software was invented, is  
8 that DLL something that is removable under section 1 by an OEM  
9 or a third-party licensee?

10 A. I have not recently studied in detail that DLL. But my  
11 recollection is that in this case, in this court case, that DLL  
12 has been a focus of attention as one in which there are  
13 different unrelated functionalities commingled.

14 So I think that by focusing on this particular DLL  
15 you're painting an unrepresentative picture of the general task  
16 of separating browser functionality from nonbrowser  
17 functionality or of drawing boundaries between Microsoft  
18 middleware products.

19 This is a particular file that Microsoft chose several  
20 years ago to mix different functionalities, for reasons about  
21 which I can only speculate, and to imply that the decisions to  
22 be made in this case are representative in their difficulty of  
23 all of the other boundaries that have to be drawn I think is  
24 misrepresenting.

25 Q. Dr. Appel, I'm not painting pictures, sir. I'm asking

1 questions and I would ask that you answer them, please.

2 Can you tell me whether the file SHDOCVW.DLL is one  
3 that can stay in the operating system or one that has to be  
4 removable optionally under section 1? Can you answer that  
5 question?

6 A. Yes, I think it has to be removable optionally.

7 But just as in the DLL that we had been discussing  
8 before, WININET, if there are clearly nonbrowsing functions in  
9 that DLL, I think Microsoft could arrange for those functions  
10 to remain behind when the OEM removes the Microsoft middleware  
11 product.

12 Q. And when Microsoft --

13 A. The analogy of functionality and functions in DLLs has been  
14 likened to groceries in grocery bags.

15 Q. By Professor Farber. I remember it very well.

16 Now, have you gone through that particular DLL, the  
17 one called SHDOCVW.DLL to make an assessment of which parts of  
18 that you think belong in which of Professor Farber's grocery  
19 bags?

20 A. No, I have not.

21 Q. Now, do you still have Defendant's Exhibit 1021 up there  
22 with you, sir?

23 A. Which one is that?

24 Q. This is the nonsettling states' proposed remedy.

25 A. Yes, I do.

1 Q. Now, if you look at section 1, sir, in the first paragraph?

2 A. Yes.

3 Q. It says that all APIs that Microsoft -- excuse me.

4 It says that Microsoft must create an unbound version  
5 of Windows operating systems from which the binary code for  
6 each Microsoft middleware product may be readily removed.

7 Do you see those words?

8 A. Yes.

9 Q. May be readily removed.

10 Your interpretation of section 1, either your scenario  
11 one that we talked about yesterday under which certain features  
12 are moved into what you call the core operating system, or  
13 replicated in other Microsoft middleware products, or your  
14 scenario 2 that we discussed about today where things are  
15 hidden from ISVs; those scenarios are impossible to square, are  
16 they not, with the words "may be readily removed"?

17 A. No. I don't think they are at all.

18 I think that a configuration tool, such as the Windows  
19 XP Embedded Target Designer which Microsoft now provides to  
20 OEMs, could be adjusted, modified, and improved to allow OEMs  
21 to specify which Microsoft middleware products should be  
22 removed and then to make the necessary adjustments of APIs.

23 I think that that could be done automatically by a  
24 tool that Microsoft could provide to OEMs so that OEMs would be  
25 readily able to do it using the tool, and it would be able to

1 implement any of the different methods I described that are  
2 technical options open to Microsoft.

3 Q. Well, in your first scenario, sir, nothing is being  
4 removed; right? It's just being moved, not removed. It's  
5 being moved.

6 A. I didn't say at all that nothing is being moved.

7 As I explained, if the OEM specifies to this tool to  
8 remove a Microsoft middleware product, that doesn't mean that  
9 Microsoft has the option of saying nothing will be removed.

10 I said if there are certain shared subcomponents, then  
11 their APIs -- then those subcomponents could be put into other  
12 places in such a way that their APIs don't serve as a platform.

13 Q. Now, have you studied your colleague, Edward Felten's work  
14 in the earlier phase of this trial in which he determined how  
15 much of Internet Explorer was shared and, therefore, not  
16 removable from the operating system?

17 A. I have studied Professor Felten's work, and I would say  
18 that the focus of his investigation, of his experiments, was  
19 much more -- it's technically possible to make Microsoft  
20 Windows 98 respect the user's choice of Web browser; that only  
21 a secondary aspect of what he did was to see how much of the  
22 binary code could be removed and leave the operating system  
23 still functioning.

24 I think that may be because he had a limited amount of  
25 time to make all of his experiments. And I read his testimony

1 and when I read the discussion of his testimony in cross-  
2 examination, I see that it's primarily about the technical  
3 feasibility of making Microsoft operating system respect the  
4 user's choice of Web browser.

5 Q. So I take it from your prior answer that you've read his  
6 cross-examination during the rebuttal phase of the trial?

7 A. Yes.

8 Q. And presumably you know that he told me six or seven times  
9 on a particular afternoon that he had removed Internet Explorer  
10 from the operating system when, in fact, he had not. Is that  
11 correct? Do you recall that in the cross-examination?

12 A. He said he removed Web browser functionality. And I can  
13 explain.

14 What he did in making the operating system respect the  
15 user's choice of default Web browser was to attempt to identify  
16 all of the approximately two dozen places where the Microsoft  
17 Windows 98 operating system invoked a Web browser.

18 And then what he did is for each of those places, he  
19 modified the Microsoft operating system to look up what is the  
20 user's choice of default Web browser and to invoke that Web  
21 browser.

22 And then Microsoft found two more places where the  
23 Windows 98 operating system invoked the Web browser that  
24 Professor Felten had overlooked and discovered he had not  
25 modified those two additional places where Windows 98 invoked

1 the Microsoft Internet Explorer Web browser instead of the  
2 user's choice of default browser.

3 Q. Have you had occasion since I asked you at your deposition  
4 whether you knew, to look and see how Professor Felten  
5 implemented the Windows update functionality in his version of  
6 Windows 98?

7 A. I have read the testimony, and I think I have an idea from  
8 the testimony.

9 Q. Did you look at the exhibits to the testimony to see the  
10 source code for the program that Professor Felten called  
11 W update?

12 A. No, I didn't.

13 Q. Do you know of a Microsoft foundation class called C-HTML  
14 Create?

15 A. No.

16 Q. Do you know whether Professor Felten used that Microsoft  
17 foundation class call to create an instance of Internet  
18 Explorer in order to run his Windows update program?

19 A. I don't know if it would be an instance of Internet  
20 Explorer. He may have relied upon a shared functionality in  
21 the Internet Explorer DLLs.

22 Q. Are you familiar with an OCX which is called the Web  
23 browser OCX in Windows XP?

24 A. No, I'm not.

25 Q. Do you know whether it is invoked by a command in MSC

1 called C-HTML Create?

2 A. I've already told you that I'm not familiar with the  
3 C-HTML.Create.

4 Q. In your first and second scenarios for Microsoft's  
5 potential compliance with section 1, what is being removed from  
6 the operating system if Microsoft migrates the functionality  
7 that used to be in a Microsoft middleware product into the core  
8 of the operating system?

9 A. As I've said, if there's some part of the functionality of  
10 a Microsoft middleware product that's needed by another part of  
11 the operating system, that can be migrated so long as it  
12 doesn't expose APIs. So what is removed are the parts that are  
13 not specifically required by some specific other part of the  
14 operating system.

15 Q. What if the percentage is 99.9999 percent of the  
16 functionality of a Microsoft middleware product that is relied  
17 on by other parts of the operating system, is there a limit to  
18 doing that? Can Microsoft move all of that functionality to  
19 the core?

20 A. I think that would be inappropriate. Are you using 99.9999  
21 percent to indicate some realistic hypothetical?

22 Q. I absolutely am. I'm talking about the distinction between  
23 a file called IEXPLORE.EXE, which is 64 kilobytes of code in  
24 relation to the balance of the 24 files that comprise Internet  
25 Explorer which are multiple megabytes of code?

1           And my question to you, sir, is: Is it all right  
2 under your view of section 1 for Microsoft to migrate into the  
3 core of the operating system all of the functionality that the  
4 other files in Internet Explorer provide to Windows, to Windows  
5 Help, to the Windows update facility, to the multiple monitor  
6 support in Windows, is it all right to migrate all of that into  
7 the core of the operating system and take out nothing but  
8 IEXPLORE.EXE?

9           A. No, I don't think it would be all right. And let me  
10 explain.

11           There's been much discussion of the 64 kilobyte file  
12 IEXPLORE.EXE in this trial relative to many other components of  
13 the Internet Explorer Web browser.

14           In particular, there's been discussion of the fact  
15 that the binary code for those files, except for IEXPLORE.EXE,  
16 was not removed by Professor Felten from the code installed on  
17 the Windows operating system. And, as I've explained, I believe  
18 that's because Professor Felten's investigation was mainly on  
19 the technical feasibility of respecting the user's choice of  
20 Web browser.

21           And I think he could have made the further  
22 investigation of now that the Web browsing functionality has  
23 been removed from the operating system so that the user's  
24 choice of Web browser is respected, what of the other software  
25 files are no longer needed?

1           He did not have time to do that investigation, and he  
2 conformed with Microsoft's stated policy on deinstalling  
3 software applications. And that policy is: If you're not sure  
4 which of these DLLs may be used by other parts of the operating  
5 system, then leave them in.

6           And this is the policy -- even though that could cause  
7 DLLs to be left in even though no other part of the operating  
8 system is using them.

9           And the Microsoft add/remove procedures of that time  
10 were not able to identify which other parts -- which other  
11 applications and other parts of the operating system were using  
12 a particular DLL.

13           So Microsoft had to adopt this policy that they  
14 recommended to independent software vendors of: When you  
15 remove your application, there may be DLLs that your  
16 application depended on. You may even have provided those DLLs  
17 when you shipped your application, but if you're not sure  
18 whether other applications might also be using them, leave them  
19 in. And so that's what Professor Felten did.

20           With a tool to analyze -- to better analyze the  
21 dependencies between software modules, it would have been  
22 possible to do a more accurate job and remove more of those  
23 DLLs and not compromise any functionality of the operating  
24 system or of any other middleware product, but Professor Felten  
25 didn't undertake that investigation.

1 Q. Everything you just said about what Professor Felten did is  
2 based on your speculation because Professor Felten is subject  
3 to a nondisclosure agreement with the Antitrust Division of the  
4 Department of Justice that prevents him from talking to you  
5 about what he did. Is that correct, sir?

6 A. Everything I've told you -- none of what I've told you is  
7 based on what he told me personally.

8 All of what I've told you is based on my careful  
9 reading of his testimony and the appendix of his testimony and  
10 both of his cross-examinations, and from that I can understand  
11 as a computer scientist what was going on there technically.

12 Q. So you can understand Professor Felten's motivation,  
13 intentions, and time constraints based on what you read?

14 A. Yes. He testified about when he started the technical  
15 experimental work and what he had to build in that amount of  
16 time.

17 He testified a lot about removing Web browser  
18 functionality, not removing the software code. He testified  
19 about all the efforts.

20 When I read the appendix to his written direct  
21 testimony, he describes what his prototype removal program  
22 does. And I can see that almost all of the things that he had  
23 to implement in that prototype removal program had to do with  
24 making the operating system respect the user's choice of  
25 default browser. And so I can infer from that what the primary

1 purpose of his tool was.

2 Q. Look at the second paragraph of section 1 of the  
3 nonsettling states' proposed remedy, which says: "With respect  
4 to the unbound Windows operating system product that Microsoft  
5 must make available within six months of the entry of this  
6 final judgment, Microsoft shall make available a Windows  
7 operating system product that permits the removal of the  
8 Microsoft middleware products identified in definition X1  
9 below."

10 Am I correct, sir, that you believe that Microsoft can  
11 comply with that command in this proposed final judgment by  
12 taking large blocks of what used to be Microsoft middleware  
13 products and moving them to other parts of the operating system  
14 and such that they do not disclose APIs to third-party software  
15 developers?

16 A. Basically, yes.

17 If those blocks were to become so large they  
18 constituted practically the entire Microsoft middleware  
19 products I would begin to wonder whether this was an  
20 appropriate way to comply.

21 Q. Is this one of those I-know-it-when-I-see-it tests or do  
22 you have a percentage test that you can give me about how much  
23 of any given Microsoft middleware product can be migrated into  
24 what you call the core of the operating system before Microsoft  
25 would have violated section 1?

1 A. I have given you a criterion. That is, if there's specific  
2 functionality in a Microsoft middleware product that is needed  
3 by some other part of the operating system it would be  
4 permissible to migrate that functionality so long as it did not  
5 serve as middleware.

6 Q. Have you ever had occasion to read the transcript of the  
7 oral argument in the Court of Appeals in the first appeal of  
8 this case where Judge Randolph was talking about a robot that  
9 could weld and rivet? Have you ever seen that?

10 A. No, I have not.

11 Q. What conceivable benefit is there, Professor Appel, to  
12 having functionality present in Windows operating systems that  
13 is hidden both from end users and software developers writing  
14 applications on top of Windows?

15 A. At this point, you know, this may have to do with a kind of  
16 economic or competitive analysis, so I will speculate that it's  
17 related to giving producers of non-Microsoft middlewares an  
18 opportunity to compete on a level playing field in getting  
19 their middlewares installed by OEMs and distributed in other  
20 ways.

21 Q. And it's your belief that as long as the Microsoft  
22 functionality is present in the operating system and available  
23 to be called upon by developers, other people will not be able  
24 to get the sort of distribution that they need?

25 A. In that case the Microsoft middleware is distributed by

1 every OEM who would distribute the Microsoft operating system  
2 if Microsoft requires by license that the OEMs do so, and so  
3 that's a particular kind of distribution channel. But I think  
4 I'd rather not testify in great depth about the economics of  
5 distribution channels.

6 Q. Now, when you were deposed on the 13th of March of 2002 you  
7 had not seen the source code for Windows XP. That is correct?

8 A. That is correct. I had -- I believe at that point I had  
9 begun directing an investigation of that source code.

10 Q. So when you told me, then, that you were making inferences  
11 based on your familiarity with other products in deciding that  
12 the amount of technical difficulty that would be entailed in  
13 making components optionally removable from five different  
14 Windows operating systems, that was correct as of the 13th of  
15 March; correct?

16 A. As of the 13th of March I had not personally inspected the  
17 Windows operating system source code.

18 Q. And even as you sit here today you have not done the sort  
19 of study that you would want to do before you testified under  
20 oath to this court about the cross-dependencies that exist in  
21 Windows XP between various components of the operating system?

22 A. That's right. I have not specifically studied cross-  
23 dependencies of that kind.

24 Q. Now, there is a parenthetical that appears in section 1  
25 that says that Microsoft has to make an unbound version of the

1 operating system from which the binary code for each Microsoft  
2 middleware product, including any code providing similar  
3 functionality that has been included in any other Microsoft  
4 middleware product, may be readily removed.

5 Do you see that, sir?

6 A. Yes.

7 Q. Now, yesterday afternoon -- and correct me if I am wrong  
8 because I do not want to misstate your testimony -- I  
9 understood you to say that one of Microsoft's options would be  
10 to take the code in a Microsoft middleware product -- any given  
11 one like the HTML rendering engine -- and move it in copies to  
12 other Microsoft middleware products. Did I understand you  
13 correctly?

14 A. If you're characterizing the HTML rendering engine as a  
15 Microsoft middleware product, I would disagree. It's a  
16 component. It's a fragment of a Microsoft middleware product.

17 So could you restate the question?

18 Q. Sure. It's clearly a Microsoft middleware product under X  
19 sub I, but it could become its own Microsoft middleware product  
20 under --

21 A. You mean it's clearly not a Microsoft middleware product?

22 Q. I misspoke. You're right. It's clearly not on its own a  
23 Microsoft middleware product under X sub I, but it could be  
24 become one in the future under X sub 2, correct, if it met the  
25 test?

1 A. I guess if it met the test of X sub 2 it might become one.

2 Q. And assume for me for present purposes that it does become  
3 one, the HTML rendering engine in Windows which has its own  
4 code name, is distributed separately and becomes a Microsoft  
5 middleware product.

6 If Microsoft then decided to move copies of that HTML  
7 rendering engine into the Outlook Express e-mail client and  
8 into the Windows media player to show album, art and various  
9 other things from the Internet, wouldn't that violate that  
10 parenthetical in section 1?

11 A. I think the intent of that parenthetical is that in moving  
12 the binary code, that any binary code providing similar  
13 functionality to developers, that is through APIs. I  
14 understand it doesn't say, "including any code providing  
15 similar functionality to, or through APIs to ISVs." I think  
16 that's the intent of the word "providing."

17 Q. But, sir, you think that the Windows Help system is an  
18 application, don't you?

19 A. I said it's application level software that's  
20 conventionally considered part of the operating system.

21 Q. Well, what if the Windows Help system as application level  
22 software is calling upon multiple Microsoft middleware  
23 products, is that code providing similar functionality to an  
24 application? Does it have to be a third-party application?

25 A. I'm not sure exactly what the context of your question.

1 Q. I'm just -- I'm trying to make sense of the parenthetical  
2 in section 1 in light of your testimony that one option  
3 available to Microsoft would be to move the functionality of  
4 Microsoft middleware products into other Microsoft middleware  
5 products. That's the context.

6 A. And your question is?

7 Q. If we agree, for purposes of my question, that the Help  
8 system in Windows XP is an application level program.

9 A. Yeah, but I'm not sure that's the same thing as an  
10 application, so let me give you an example of what I mean by  
11 that.

12 There are certain requirements in the states' remedies  
13 about the boundaries between applications and the platform  
14 software.

15 I don't think the intent is that the Help system is  
16 considered an application, and therefore those disclosures are  
17 not required on Microsoft, disclosures of APIs on the boundary  
18 between the -- between the Help system and other parts of the  
19 operating system.

20 I think we are considering the Help system as part of  
21 the Microsoft operating system. If you would like to say that  
22 it's an application --

23 Q. Why don't we look at Exhibit B to your testimony, sir? Do  
24 you have that up there? Your colored chart.

25 A. Colored chart?

1 Q. It's entitled: Software and Hardware Components on a PC.

2 A. Yes.

3 Q. Now, as I understand it, the block labeled app number 9 in  
4 yellow is the Windows Help system, for example.

5 A. I'm see something like Notepad. This Exhibit B probably  
6 can't express all of the detailed inter-relationships and  
7 layers of a fairly complex operating system. It's meant as an  
8 overview.

9 Q. It's a gross over simplification, is it not, sir?

10 A. It's a simplification. I simplified it so it could convey  
11 the general arrangement of the components in an operating  
12 system.

13 I think that if I put every particular boundary,  
14 category, and layer to illustrate every possible point about  
15 operating systems, then it would have been incomprehensible.

16 Q. Wouldn't it have had to have been on a piece of paper the  
17 size of the mall running between the Capitol and the Washington  
18 monument in order to express all of the relationships in the 38  
19 million lines of code in Windows XP?

20 A. I don't know if I can do that calculation.

21 Q. It would be a very, very large diagram, would it not, sir?

22 A. It would be a large diagram.

23 Q. Okay. Let's focus on app block 9, which I take it from  
24 being in yellow in the key is both an app, an application, and  
25 part of the operating system. Is that what you meant, sir?

1 A. Right.

2 Q. Okay. And there is an API numbered 13 which runs between  
3 what you call the operating system kernel and app number 9.

4 A. That's right.

5 Q. And one of the things that you believe Microsoft would be  
6 required to disclose under section 4(a) of the nonsettling  
7 states' proposed remedy is the interface between the block app  
8 9 and the operating system kernel. Is that correct?

9 A. Yes, basically.

10 Q. Now, when you tell the court that the APIs numbered 13 are  
11 the Windows APIs, that isn't quite right, is it?

12 A. In what way do you mean?

13 Q. Well, if I went to a book at Barnes & Noble's or borders,  
14 and there are such books, that describe the Windows 32 API set,  
15 that would list a bunch of APIs of which the ones numbered 13  
16 here would comprise roughly 2 percent. Is that correct?

17 A. Yes. I guess -- one every the many things that I didn't  
18 show in this diagram for the purpose of keeping it to an  
19 overview is the what we call the library liar implemented by  
20 DLLs that provide API -- provide platform services. We could  
21 say that -- I'm trying to figure out how to explain this in a  
22 way that doesn't add need less answer of complexity because  
23 it's a complex issue. RPTR'S NOTE amounts RPTR'S NOTE.

24 The Windows -- the Win32 API set is what I would put  
25 between the core operating system which includes many of the

1 DLLs in the system 32 folder. And the core operating system  
2 comprises, the operating system kernel and some library  
3 functionality. And that library functionality might be between  
4 the API layered 13 and the box layered 14.

5 Q. But there are also interfaces, are there not, sir, between  
6 the box labeled 14 which says operating system kernel and all  
7 of the DLLs or dynamic /KALly linked libraries that you are now  
8 telling me are part of the core operating situation tell?

9 A. There is an interface there, the kernel interface. It  
10 might be more better classified as an A B I, an application  
11 binary interface, and an application programmer interface.  
12 But, yeah, there would be internal interfaces.

13 Q. So, this diagram is incorrect to the extent that the API  
14 numbered 13 really doesn't belong sitting right on top of the  
15 operating system kernel, it ought to be sitting on top of  
16 roughly 5,000 DLs that sit on top of the operating system  
17 kernel that themselves expose APIs to what you call middleware  
18 in applications; is that correct, sir?

19 A. I would say that the -- at the level of detail of this  
20 diagram, those DLLs would be in the box labeled 14 which is why  
21 it's a fairly big box as drawn on this diagram.

22 Q. Well, you didn't see fit, did you, sir, to explain to the  
23 court that when you labeled this box "operating system kernel,"  
24 you didn't mean that. You didn't mean just the kernel of the  
25 operating system, you meant a much, much bigger block of code

1 comprised of thousands of different files, all of which expose  
2 APIs both to what you call middleware and to applications?

3 A. But I think if I -- that just reinforces my point; that of  
4 the thousands of DLLs you're talking about, my point in  
5 appendix C -- right -- the block labeled 14 labeled "operating  
6 system kernel," if we talk also about the thousands of DLLs of  
7 the Microsoft core operating system, I've drawn lots of little  
8 dotted lines in the blocks 14, those are internal APIs. And  
9 those thousands of DLLs themselves contain internal DLLs, APIs.

10 And the point that I'm trying to make -- that I was  
11 making in my direct testimony with respect to these figures is  
12 that the states' remedy does not require the disclosure of  
13 these internal APIs.

14 So if you're saying that there are thousands of other  
15 things, these DLLs, in which the internal APIs also need not be  
16 disclosed by the states' remedy, then I will agree with you.

17 Q. Let's be clear here, Professor Appel.

18 Your testimony is not talking about, as you said to me  
19 in your deposition, cutting up the core, you are talking about  
20 in Exhibit C cutting of the kernel; right? Isn't that what  
21 your direct testimony says?

22 A. My testimony was that the states' remedy would not require  
23 cutting up the kernel.

24 Q. That's correct.

25 A. And that is entirely true.

1 Q. Okay?

2 THE COURT: Wait a minute. If you both talk we are  
3 not going have a record and I'm not going to be able to keep  
4 track. Keep in mind this is for my benefit.

5 MR. HOLLEY: I apologize.

6 THE COURT: It's not a private conversation.

7 A. The Windows core operating system comprises the kernel and  
8 these library DLLs. And one way I think that the states'  
9 remedy is not unduly burdensome on Microsoft is that it does  
10 not require the disclosure of all of the internal APIs of these  
11 components; not -- so the states' remedy does not require the  
12 disclosure of internal APIs in the kernel and the states'  
13 remedy does not require disclosure of internal APIs of all  
14 these other components.

15 And my estimate of those 39 million lines of source  
16 code, I would estimate that perhaps a quarter of those lines of  
17 code are the source code just for these internal APIs, these  
18 boundaries between internal components of the Microsoft core  
19 operating system and an internal components of Microsoft  
20 middleware products. And the states' remedy requires the  
21 disclosure of none of these internal APIs. That was the point  
22 that I was trying to make in my testimony with respect to these  
23 two diagrams.

24 Q. So on reflection, sir, in order to be accurate, if you had  
25 it to do over again, you would scratch out the word "kernel" on

1 both Exhibits B and C and write "core operating system." Is  
2 that your testimony?

3 A. With respect to this point, yes.

4 Q. Now, let's look back at Defendant's Exhibit 1447, which is  
5 the list of the files that appear in these system 32  
6 subdirectory of the Windows directory.

7 How many of these files are part of what we are now  
8 calling the core operating system of Windows XP as to which you  
9 say there is no section 4 obligation to disclose interfaces?

10 A. I don't think I can go through this list and based on these  
11 file names tell you exactly what's what. I am not prepared to  
12 do that.

13 Q. Now, if you look back at Exhibit B, sir, of your testimony.  
14 If I'm standing in the aisle at Barnes & Noble's looking at  
15 this book we were talking about earlier about the 32 bit of  
16 Windows API set. Among those APIs will be the ones listed in  
17 the box numbered 2, 7 and 8; is that correct?

18 A. I'm not sure which book you're referring to.

19 Q. Well, have you ever seen a book, sir, which describes all  
20 of the Windows 32 bit APIs?

21 A. I'm not sure I've seen a book. I tend to read this kind of  
22 thing on line. I think we could refer to 13 as the Windows  
23 core IAP set, and clearly the states' remedy talks about the  
24 interfaces between -- that Microsoft middleware products  
25 exposed to their applications, such as line 7, and the API that

1 the underlying operating system exposes to middleware  
2 applications.

3 Q. So if we're relabeling the operating system kernel as "core  
4 operating system," it is not your testimony, is it, sir, that  
5 the only things comprised within the 32 bit Windows API set are  
6 in the block numbered 13?

7 A. Box number 13 is the core API set. And it's -- I guess we  
8 can say that of all the APIs that I'm aware of that Microsoft  
9 documents, some are the device driver APIs in box 15, and we  
10 certainly know which ones those are. It's very easy to  
11 distinguish what the device driver API. Some are the APIs  
12 exported by Windows media player, and we can certainly identify  
13 what those are.

14 Some are the APIs exported by the specific other  
15 Microsoft middleware products, and we can certainly identify  
16 each one of those.

17 And perhaps the remainder are the ones in box -- in  
18 line 13.

19 Q. But Microsoft, in promoting its operating system platform  
20 to developers, draws no distinction, for example, between APIs  
21 exposed by what you're now calling the core operating system  
22 and APIs made available to developers by things that you choose  
23 to call middleware; isn't that right?

24 A. Yes. That failure to make a distinction in Microsoft's  
25 documentation is a form of binding the middleware to the

1 operating system. It's not a form that will be regulated by  
2 the states' remedy, but it is related.

3 Q. Those things that the states choose to call middleware  
4 Microsoft promotes to developers as integral functionality that  
5 developers can call upon when building Windows applications;  
6 correct?

7 A. That may well be true.

8 Q. Now, have you considered the application of paragraph 4(a)  
9 little Roman two? And maybe you should go there. We can look  
10 at it now.

11 A. Yes.

12 Q. Which talks about disclosing the APIs technical information  
13 and communications interfaces that Microsoft employs to  
14 enable -- maybe we should look at sub 1 first.

15 Each Microsoft application to interoperate with  
16 Microsoft platform software installed on the same computer.

17 Do you interpret the phrase "each Microsoft  
18 application" to refer to what you call application level  
19 programs in Windows operating systems?

20 A. No, I don't.

21 Q. And why don't you, sir? Aren't they Microsoft  
22 applications? I guess they might be considered Microsoft  
23 applications.

24 A. That's not how I've been interpreting this sentence.

25 Q. It's certainly a plausible interpretation, is it not, sir?

1 A. It's a plausible interpretation, and in fact it's a  
2 technically reasonable interpretation.

3 Q. If that interpretation is the correct one, then, isn't it  
4 wrong to say that Microsoft would have no obligation under  
5 section 4(a) to disclose interfaces inside what you call the  
6 core operating system?

7 A. I guess if the interpretation of "application" included the  
8 Help system, then the interface between the Help system and  
9 other parts of the core operating system would need to be  
10 disclosed. But, as I said, that had not been my interpretation  
11 of Microsoft application.

12 Q. And wouldn't it extend much more broadly than just the Help  
13 system?

14           Wouldn't it apply to everything outside the kernel  
15 based on your testimony that we looked at yesterday that  
16 everything outside the kernel is a species of application?

17 A. I didn't say that. I said application level. And what I  
18 meant by that is that it happens to run in an unprivileged mode  
19 on the hardware where it doesn't get carte blanche to access  
20 every hardware device and those accesses must be mediated  
21 through the operating system. This is what I referred to in my  
22 direct testimony as a useful rule of thumb.

23 Q. Yes. And I'm trying to apply that useful rule of thumb to  
24 section 4(a) little Roman 1.

25           If one plausible reading of this is that references to

1 Microsoft applications refer not only to things like Word and  
2 PowerPoint and Age of Empires, but also apply to application  
3 level programs in the operating system, that would include  
4 everything outside the kernel, would it not?

5 A. I don't think so.

6 I think that, you know, something like the Help system  
7 which the user can directly execute and interoperate with may  
8 have a different -- there are other things, such as libraries,  
9 which certainly don't constitute complete applications and  
10 which are used only, you know, as parts of applications.

11 Not every interface between such libraries would need  
12 to be disclosed, these would remain internal interfaces that  
13 Microsoft is not under obligation to disclose under the states'  
14 remedy.

15 There's a difference between an application and a  
16 chunk of library service code that may be useful to  
17 applications. It may be true that that chunk of library  
18 service code runs in unprivileged mode. So, following my  
19 useful rule of thumb, it's more at the application level than  
20 at the kernel level and so that means it can be a component of  
21 an application. But I wouldn't say that it's an application.

22 So, let me continue here and point out in section 2,  
23 we talk about each Microsoft middleware product. That's a  
24 fairly large chunk. And so section 2 draws a boundary around  
25 the entire Microsoft middleware product and says that at that

1 external boundary the APIs need to be disclosed.

2 Section 4(a)2 doesn't say "each fragment of each  
3 Microsoft middleware product." It doesn't say "each piece of  
4 Microsoft middleware." Okay? And although in section 4(a)1  
5 the word "application" is not capitalized, so I understand  
6 there's no definition for it, I think we can all understand  
7 that an application is a complete product. It's not a product  
8 in the sense of what's, you know, individually sold at retail,  
9 it's a complete set of coherent functionality. It's not just a  
10 fragment that can, such as a library, that can be used in the  
11 construction of an application.

12 Q. Do you have your deposition in front of you?

13 A. Yes.

14 Q. Can you look at page 16, please?

15 THE COURT: Is that the first or second one?

16 MR. HOLLEY: The first one, Your Honor.

17 BY MR. HOLLEY:

18 Q. Starting at line 19, Professor Appel, your answer is as  
19 follows, is it not?

20 "So that's the purpose of an operating system. And  
21 roughly speaking, most other things are applications."

22 You said that, didn't you?

23 A. Right. So let me give you an analogy.

24 If I said that most things that I see out there on the  
25 street are cars and you point to a tire and say, "Is that a

1 car?" I would say, "No. It's a component of a car."

2 Most of those application level libraries are, in  
3 fact, useable by applications and in applications and, you  
4 know, an application is not the same as any individual  
5 fragment.

6 Q. Okay. Well, I'm happy to go back to Defendant's Exhibit  
7 1447 and have you tell me -- give me any example of what you  
8 think is an application whose interfaces would have to be  
9 exposed under section 4(a) little Roman 1 of the nonsettling  
10 states' proposal.

11 And I would direct your attention, if it assists you,  
12 to any of the executable files, approximately 300 of them, all  
13 of which under the heading type say: Application.

14 A. First of all, I would say that the typical kind of API that  
15 we're talking about here in section 4(a)1, the kind of API by  
16 which an application interoperates with the Microsoft platform  
17 software is not an API exposed by the application to serve as a  
18 platform for something else, then it would be middleware.

19 It's a platform exposed by the platform -- excuse  
20 me -- it's an API exposed by the platform software through  
21 which the application itself can get services.

22 So, it's really not asking the right question to say,  
23 "Of these things, some of which may be applications, which of  
24 their APIs need to be exposed?"

25 The point is that these applications call upon

1 services from the underlying platform software, the operating  
2 system and the middleware. And to the extent that the  
3 Microsoft applications can receive services from the operating  
4 system, then non-Microsoft applications ought to be able to  
5 receive similar services, the same services from the operating  
6 system.

7 And the APIs that Microsoft applications use to get  
8 those services need to be disclosed and documented so that  
9 developers of non-Microsoft applications can use those.

10 So, section 4(a)1 is not really about APIs that might  
11 be exposed by applications, it's about APIs that applications  
12 use.

13 Q. I couldn't agree with you more. And let me ask my question  
14 again.

15 Of the 300 executable files, approximately, that  
16 appear in Windows system 32, in Windows XP Professional, how  
17 many of them are subject to the disclosure obligations of  
18 section 4(a) little Roman 1 such that Microsoft would be  
19 required to expose the interfaces between these files and lower  
20 levels of the operating system?

21 A. I have not studied these files specifically or -- nor can I  
22 infer exactly always what these files are from their names in a  
23 three-word summary. So I don't think I'll be able to answer  
24 that question right now.

25 Q. Conceivably the answer to my question, given the plausible

1 reading of section 4(a)1, is every interface between every one  
2 of the 300 files listed as applications here and the balance of  
3 the operating system. Is that right, sir?

4 A. I guess it's possibly conceivable, but I think the fact  
5 that the word "application" is printed here in the document is  
6 just a consequence of the fact that the name of the file ends  
7 with dot XE. And I don't think that that's a particular  
8 criterion for whether this is a part of the core Microsoft  
9 operating system or not.

10 It's certainly the case that there are dot XE files  
11 that I consider part of the core operating system, but I can't  
12 go through this list and categorize each one and -- so I'm not  
13 going to do that.

14 Q. I appreciate that, sir. Put yourself in the position of  
15 James Allchin, the senior vice president for Windows at the  
16 Microsoft Corporation, when section 1 and section 4(a) come  
17 into operation.

18 I take it from your testimony that he won't be able to  
19 rely on the notion that something is called an application in  
20 the system 32 subdirectory of the Windows directory in  
21 determining how to comply with the nonsettling states' proposed  
22 remedy, because sometimes that might lead him to the wrong  
23 answer.

24 A. I have no confidence -- in general, it's a good rule. I  
25 would not rely on the particular name of the file to make that

1 distinction. That is right.

2 Q. Now it's your belief, is it not, sir -- returning to  
3 section 1. In the first iteration of the so-called unbound  
4 versions of Windows that we talked about yesterday, Microsoft  
5 would only have to make the components listed in 22 X1 that  
6 definition of middleware optionally removable.

7 A. That's my understanding.

8 Q. And then in any subsequent unbound version the 22 X2  
9 definition of middleware gets kicked in and it's both the  
10 listed categories in 22 X1 and the 22 X2 definition that  
11 determines what has to be made optionally removable. Is that  
12 right, sir?

13 A. I don't specifically see the words "any subsequent unbound  
14 operating system," but that's basically my belief.

15 Q. And what -- is that based on your reading of section 1 or  
16 based on something that you have been told?

17 A. I guess it's based on my reading of section 1 where it  
18 says, "distributes beginning six months after." So,  
19 presumably -- so what you said is approximately correct and  
20 substantially correct.

21 If Microsoft releases an operating system more than  
22 six months after the date of judgment, then it must make all of  
23 the middlewares in both parts of definition X removable.

24 Q. Now, let's look at the basic prohibition of section 1. It  
25 says: "Microsoft shall not, in any Windows operating system

1 product, excluding Windows 98 and Windows 98 SE, it distributes  
2 beginning six months after the date of entry of this final  
3 judgment."

4 Now let's stop there. That can't sensibly mean any  
5 operating system that Microsoft starts for the very first time  
6 to distribute six months after the date of entry of this final  
7 judgment, or otherwise the words "excluding Windows 98 and  
8 Windows 98 SE" are pure surplusage; correct?

9 A. Yes, I think I would agree with you.

10 Q. So the prohibition is that Microsoft shall not in any  
11 existing operating system that it distributes beginning six  
12 months after the date of entry of this final judgment bind any  
13 Microsoft middleware product to the Windows operating system  
14 unless Microsoft also has available to the licensee an unbound  
15 version.

16 Am I correct that this prohibition is unaffected by  
17 the second paragraph of section 1?

18 A. It appears to be the case.

19 Q. And Microsoft middleware product, as used in this basic  
20 prohibition, is both 22 X1 and 22 X2; is that correct, sir?

21 A. Yes.

22 Q. Now, yesterday we talked about all of the different  
23 configurations that would be in any given unbound version of  
24 Windows. Do you recall that, sir?

25 A. Yes.

1 Q. And it is your belief that Microsoft would not be obligated  
2 under section 1 to test every conceivable permutation and  
3 combination of those different configurations that would result  
4 from removing what were called Microsoft middleware products  
5 from the unbound version of Windows XP?

6 A. It's my belief that Microsoft's obligation is to do  
7 sufficient testing to assure that the different permissible  
8 configurations of the operating system work well to the same  
9 extent that Microsoft does sufficient testing to ensure that  
10 the different configurations of the operating systems that it  
11 already sells or that it would sell as the bound version would  
12 work well.

13 And I've explained, at present and in any conceivable  
14 future, Microsoft can't test every possible configuration of  
15 its operating system product, whether that's the bound version  
16 or the unbound version, because even the bound version has many  
17 different configurations that the OEMs can choose with respect  
18 to which hardware device drivers are installed and so on.

19 So what Microsoft does in testing the bound version is  
20 to choose a representative sample of configurations to test,  
21 and in that way, based on engineering judgment, Microsoft has  
22 assurance that it's products work well.

23 And the same kind of procedure could be followed by  
24 Microsoft to ensure that it's unbound version would work well  
25 in any configuration; that it should devote the same level of

1 attention or achieve the same level of assurance that the  
2 different configurations of its unbound version work well as it  
3 does for the different configurations of its unbound version.  
4 But in neither case would that be done by installing every  
5 possible one of the two to the end configurations and testing  
6 that configuration.

7 Q. I thought you told me yesterday that you were basically  
8 ignorant of the way in which Microsoft tests its operating  
9 systems?

10 A. I said I don't know in detail the procedures it uses. But  
11 since I know it would be impossible to test the operating  
12 system in every possible configuration of device drivers that  
13 Microsoft currently supplies, then it must be based on some  
14 engineering judgment of some other method of testing.

15 Q. Well, you're familiar with the concept of beta testing, are  
16 you not, sir?

17 A. Yes.

18 Q. And one of the things that Microsoft does is, in addition  
19 to its 5 million hours of internal testing, is to send a new  
20 operating system out to beta test it with as many different  
21 hardware configurations as it can to see whether bugs come up;  
22 right?

23 A. Right.

24 And let's assume that there are 30 different device  
25 drivers that one could install in a Microsoft operating system,

1 which I think is a conservative assumption, then there would  
2 be, let's say, a billion different hardware configurations that  
3 one could run the Microsoft operating system on.

4 And I doubt that in the beta testing that Microsoft  
5 does it makes sure that every one of those billion possible  
6 configurations is tested. So, in fact the beta testing is also  
7 an example of a representative sample of hardware  
8 configurations.

9 Q. There is a material difference, is there not, between  
10 testing an operating system that is for the most part stable  
11 and consistent and has an Lexmark printer driver as opposed to  
12 a Hewlett-Packard printer driver than the sort of ala carte  
13 operating system that you are talking about. You will admit  
14 that there is a totally different sort of testing burden;  
15 right?

16 A. First of all, they are not just different printer drivers,  
17 there are many other kinds of devices.

18 Second of all, as I explained, I believe, that when  
19 you run the Microsoft operating system -- when a user runs the  
20 Microsoft operating system -- and, of course, it's the user  
21 experience that you want to make sure is free from bugs -- the  
22 user will usually do so with some combination of application  
23 level software.

24 And so Microsoft presumably has some testing  
25 methodology, including beta test, by which representative

1 combinations of the application level software is also tested  
2 running on the Microsoft operating system platform.

3 And the application software is very varied, probably  
4 much more so even than the device drivers. So, once again,  
5 it's mathematically impossible to test every possible  
6 configuration, you know, within the age of the universe, so  
7 Microsoft tests a representative sample of configurations.

8 Q. Now, you just used the phrase in that answer "application  
9 level software" as a synonym for "application," didn't you? Or  
10 did you mean something else?

11 A. I may have meant application level software.

12 Q. Okay. And by using the phrase "application level  
13 software," did you mean to suggest that Microsoft ships its  
14 operating systems with different applications like Word and  
15 PowerPoint and Excel or did you mean Microsoft ships its  
16 operating systems with different application level software of  
17 the sort that we were looking at in Defendant's Exhibit 1447?

18 A. I meant neither. I meant that a user who purchases or who  
19 beta tests the Microsoft operating system will purchase  
20 applications from independent software vendors, some of those  
21 70,000 applications that the trial court referred to, and try  
22 out the Microsoft application. The beta tester will test the  
23 Microsoft operating system and the user will attempt to use the  
24 Microsoft operating system with some combination of the 70,000  
25 independently-developed applications for the Microsoft

1 operating system product.

2           And the thing about an operating system is that its  
3 job is to support those applications so that if those  
4 applications can cause the operating system to crash or to have  
5 other problems, then that's a problem that Microsoft wants to  
6 discover during tests.

7           Now, Microsoft probably can't go out and purchase each  
8 of those 70,000 applications to test whether they run well on  
9 its operating system, but I imagine it purchases some of them.

10           And Microsoft certainly can't test every combination  
11 of those 70,000 applications because there would be  
12 two-to-the-70,000 of them, which is a number larger than the  
13 number of atoms in the universe, but Microsoft can test a  
14 representative sample of those applications on its operating  
15 system.

16           And I'm sure that it must do that in order to make  
17 sure that its operating system is doing its main job, which is  
18 to provide a platform for those applications.

19           And my point is that those applications are quite  
20 varied, and Microsoft can't test every combination of them. It  
21 has to choose a representative sample and use other testing and  
22 engineering methodology.

23 Q. And if it is hellishly complex, time-consuming and  
24 expensive to support all of those 70,000 applications, it would  
25 only become exponentially more difficult if Windows was no

1 longer a stable and consistent operating system but was instead  
2 under section 1 of the nonsettling states' proposed remedy, a  
3 moving target from which any of a long list of Microsoft  
4 middleware products in any combination could be removed at the  
5 behest of any OEM. Is that not right, sir?

6 A. That is not right. You used exponential and that's a  
7 technical term. It refers to the mathematical degree of  
8 increase in the difficulty. I do not believe it would be  
9 exponentially more difficult.

10 Yes, it will add some to the testing burden that  
11 Microsoft has. Microsoft will need to do somewhat more testing  
12 to support the bound and the unbound version of the operating  
13 system than it does to support just the bound version.

14 Q. So will it go --

15 A. It's not the case that there will be no cost to Microsoft  
16 in providing the unbound version of the operating system.

17 Q. Will the internal test time go from 5 million person hours  
18 to 20 million person hours, to 100 million person hours, to  
19 1,000 person hours? Do you know?

20 A. No, I don't know.

21 THE COURT: At one point you talked about 70,000  
22 applications and you, I believe, mentioned a name. The court  
23 reporter didn't pick it up.

24 THE WITNESS: A name?

25 THE COURT: It sounded like a name.

1 THE WITNESS: I referred to the 70,000 applications  
2 mentioned in Judge Jackson's finding of fact.

3 THE COURT: Okay. I didn't hear what the word was. It  
4 sounded like a name.

5 THE WITNESS: I may have said trial court.

6 THE COURT: Trial court. He's changing his paper.

7 Okay. All right. He's ready. Go ahead.

8 BY MR. HOLLEY:

9 Q. Now, Professor Appel, it is your belief that if a  
10 third-party application, one of these 70,000 applications that  
11 Judge Jackson found existed calls upon a specific Microsoft  
12 middleware product under section 1 and that Microsoft  
13 middleware product is removed by an OEM or a third-party  
14 licensee and no substitute is put in its place, then Microsoft  
15 is not responsible for the consequences of what happens to the  
16 application; is that right?

17 A. When an application attempts to use functionality that's  
18 been removed, Microsoft is not responsible for supporting the  
19 removed functionality.

20 So some of the functionality relied upon by some of  
21 those applications may be removed by the OEM, that's right.

22 Q. Have you determined how many of those 70,000 applications  
23 will crash if any one of the listed Microsoft middleware  
24 products in 22 X1 is removed?

25 A. No, I haven't.

1 Q. If a third-party application calls upon APIs exposed by a  
2 Microsoft middleware product and an OEM or a third-party  
3 licensee replaces that Microsoft middleware product with a  
4 defective substitute, what happens?

5 A. You're suggesting that an application would call upon an  
6 API that is supported by a substitute middleware product that  
7 doesn't work as well?

8 Q. That's correct.

9 A. Then the performance of that application will suffer.

10 Q. How many independent software vendors have you talked to  
11 since you were retained by the nonsettling states to get their  
12 views concerning the situation that would be created by  
13 allowing every OEM in the world to remove different  
14 combinations of Microsoft middleware products that expose APIs  
15 to third-party products?

16 A. I don't recall specifically posing that question to them.  
17 I have not talked to very many independent software vendors  
18 about this kind of issue.

19 Q. If an OEM or a third-party licensee under section 1 removed  
20 Internet Explorer, whatever we decide that is in the end, from  
21 Windows XP and replaced it with Netscape Navigator, it's your  
22 understanding that there are applications that call upon APIs  
23 exposed by Internet Explorer and that will not run on Netscape  
24 Navigator; is that right?

25 A. It is currently the case, I believe, that Netscape

1 Navigator does not support all of the same APIs that Internet  
2 Explorer supports.

3           However, I believe that were the states' remedy to go  
4 into effect there might be an incentive for non-Microsoft  
5 browser developers to make their browsers support some of those  
6 same APIs because there would be an opportunity for them to  
7 have their browser substituted in this way and used as a  
8 platform.

9 Q. How would the creation of perfect replicas of components of  
10 Windows lead to greater competition in the market for  
11 Intel-compatible PC operating systems?

12 A. I can explain.

13           First of all, I think perfect replica is not really  
14 relevant. If we have a non-Microsoft middleware product that  
15 can support many of the same APIs as a Microsoft middleware  
16 product, it might have additional kinds of functionality in  
17 other ways.

18           First of all, it might support other APIs, innovative  
19 new APIs, so that it could support many of the existing  
20 applications for Microsoft middleware products but it could  
21 support new kinds of applications. It might support those same  
22 APIs in a more efficient or effective way. So I think there is  
23 lots of room for innovation.

24           The fact that another middleware product supports some  
25 of the Microsoft APIs certainly doesn't mean that that's all it

1 does.

2 Q. Well, in the current state of the world, there is all sorts  
3 of room for innovation, isn't there, because developers of  
4 non-Microsoft middleware products can call upon as much or as  
5 little functionality of something like Internet Explorer as  
6 they want?

7 A. The point is, I think, that developers of non-Microsoft  
8 middleware products may have in certain ways been excluded from  
9 the market in ways that I'm not expert about, and so -- and in  
10 order to give non-Microsoft middleware products an opportunity  
11 to compete as platform software, they might like to support  
12 some of the same applications that are interoperable with  
13 Microsoft platform software. So the states' remedy is  
14 attempting to do that.

15 Q. Doesn't it have sort of a blinkered focus?

16 I mean, what about all of the developers of Microsoft  
17 middleware products -- excuse me -- of non-Microsoft middleware  
18 products, such as RealNetworks with its RealOne Player, or  
19 various other companies who elect to call upon Internet  
20 Explorer because they don't want to do the work necessary to  
21 create their own HTML rendering engine?

22 In making life easier for Netscape Navigator aren't  
23 you hurting those people?

24 A. I believe that an OEM who is trying to sell computers will  
25 try to sell computers in such a way that somebody wants to buy

1 them. And, therefore, I think in the case, for example, of  
2 HTML rendering, the OEM is likely, instead of just to remove  
3 HTML rendering, to either leave it in or replace it. This is  
4 giving options to the OEM. But I doubt that there are OEMs who  
5 will choose unprofitable options.

6 Q. You think it's very unlikely that any OEM is going to  
7 remove Internet Explorer from Windows if it knows that the real  
8 media player called Internet Explorer, don't you?

9 A. I think that if -- if there started to be other browsers  
10 that supported many of the same APIs as Microsoft Internet  
11 Explorer -- not necessarily all of them -- and if those became  
12 established in the market, and I think I'm a little bit beyond  
13 my technical expertise, that RealNetwork might either target to  
14 the API supported in common by different browsers or target  
15 variously to the APIs supported by different browsers.

16 There are lots of technical options open to  
17 RealNetworks and to the OEMs and to the independent browser  
18 developers.

19 Q. But let's focus on the current state of the world.

20 Let's say that this document gets signed on Tuesday of  
21 next week, which is highly unlikely, but let's assume that for  
22 purposes of this question, and then six months later section 1  
23 comes into effect.

24 By that point in time, RealNetworks has already  
25 written its software to rely on IE, and I think you told me

1 earlier that as far as you understand there is no other Web  
2 browser in the world that can substitute for all of the  
3 functionality of Internet Explorer.

4 So in those circumstances, if an OEM like Dell decided  
5 to remove Internet Explorer under section 1, RealNetworks would  
6 be in a world of hurt; is that correct?

7 A. I think what would be a path to the end result of having  
8 multiple middleware platforms is that once this goes into  
9 effect, not six months after but on the day of, there would be  
10 an incentive for the developers of other browsing software to  
11 begin supporting some of the same APIs to provide the same  
12 kinds of services to their applications as are now provided by  
13 Internet Explorer.

14 Right now, there's less incentive for them to do that  
15 because they don't have a distribution path, and I won't, you  
16 note, get further than that because I think this is beyond the  
17 scope of my testimony.

18 But beginning on the date of the judgment, there is  
19 the incentive for that software development by different  
20 browser companies. And because they know that now the OEMs  
21 will be able to substitute their browser for the Microsoft  
22 browser, provided that their browser is competitive and that  
23 will be the OEMs' market decision to make.

24 Q. On June 21 of 1995, at a meeting in Mountain View,  
25 California, Microsoft told Netscape that it was developing

1 platform level Web browsing software which would expose its  
2 functionality to third-party products. That was almost seven  
3 years ago.

4 What is your understanding of what Netscape has been  
5 doing since then to try to comply with the same programming  
6 model?

7 Why does the incentive only begin when section 1  
8 becomes effective?

9 A. First of all, I cannot, you know, judge anything that you  
10 say about what Microsoft told Netscape at a given period of  
11 time. I have not followed that.

12 Why is it that Netscape might not provide all of the  
13 same APIs as Internet Explorer? Well, some of the platform  
14 functionality by which Internet Explorer supports things are  
15 not disclosed and documented, so it's difficult for Microsoft  
16 to find out exactly what -- for Netscape to find out exactly  
17 what Internet Explorer is providing.

18 Some of the ways in which Internet Explorer supports  
19 applications are not portable or not safe and so Netscape may  
20 choose not to interoperate in that way. So there may be many  
21 reasons related partly to lack of disclosure that this judgment  
22 is attempting to remedy that Microsoft has not done that.

23 And finally, in recent years, there may be a lack of  
24 incentive to do a lot of development in the Netscape browser  
25 because of market and distribution issues that I will only

1 speculate on.

2 Q. Netscape is owned by AOL Time Warner, one of the largest  
3 corporations in the world; is that correct?

4 A. I believe that's correct.

5 Q. And AOL Time Warner among its many, many assets owns AOL,  
6 the largest on-line service provider in the world, by a very  
7 substantial margin; is that correct?

8 A. I'm not sure, but it may be correct.

9 Q. And if AOL Time Warner chose to distribute Netscape  
10 Navigator to each and every one of its 38 million subscribers,  
11 it can do that tomorrow, can it not?

12 A. I think if it did that, then it's browser would still be  
13 installed on fewer desktops than the Microsoft Internet  
14 Explorer browser is because Microsoft requires every one of the  
15 Windows operating system desktop licensees to have that browser  
16 on it.

17 Q. How many developers -- excuse me. How many platforms in  
18 your installed base do you need before you can attract  
19 developers? More than 38 million?

20 A. I don't think I can answer that kind of question. I think  
21 it's beyond my expertise.

22 Q. Well, Palm doesn't have 38 million users and yet it has a  
23 lot of developers. You would agree with that, would you not,  
24 Professor Appel?

25 MR. HODGES: Objection, Your Honor. We are now

1 getting into the issues of economics and distribution. This is  
2 not within the scope of direct testimony.

3 THE COURT: All right. If he's not in a position to  
4 answer, then I will sustain it.

5 MR. HOLLEY: Your Honor, then I would move to strike  
6 his testimony about distribution obstacles. He either knows  
7 about distribution of software or he doesn't. He's the one who  
8 opened the door to this line of questioning, Your Honor.

9 MR. HODGES: He was questioned on that, Your Honor. I  
10 don't believe that's true. If the last few questions about how  
11 big is AOL and could they develop and distribute is what  
12 Mr. Holley is speaking about, then I don't disagree with that.

13 THE COURT: Is that what you're talking about or are  
14 you talking about some other answer?

15 MR. HOLLEY: I'm talking about an answer he gave about  
16 the reasons why Netscape over the last seven years has not  
17 emulated Microsoft's model with Internet Explorer. And I  
18 understood him to say that they didn't have an incentive to do  
19 so because they didn't have distribution channels, and I was  
20 just responding, Your Honor, to that assertion.

21 THE COURT: I think he had some caveats around that,  
22 however, in giving his answer. I think we are getting somewhat  
23 afield.

24 It also seems to me is about time to break for lunch.  
25 Let me break at this point. We will see you back at 2:00

1 o'clock.

2 (Morning Proceedings concluded at 12:58 p.m.)

3

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CERTIFICATE

6

I, EDWARD N. HAWKINS, Official Court Reporter, certify

7

that the foregoing pages are a correct transcript from the

8

record of proceedings in the above-entitled matter.

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Edward N. Hawkins, RMR

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I N D E X

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WITNESS

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ANDREW W. APPEL

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CROSS-EXAMINATION

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