

1 THE COURT: Let's get the jury.

2 (Jury brought into the courtroom.)

3 THE COURT: You can cross.

4 MR. TULCHIN: Thank you, Your Honor.

5 Q. BY MR. TULCHIN: Professor Noll, am I correct, sir,
6 that with respect to the installed base that you've talked
7 about earlier, that the WordPerfect word processing software
8 that had been written for the DOS platform did not have any
9 of the shared code functionality included in it?

10 A. Well, WordPerfect was cross-platform for a long time,
11 so I don't know -- I don't know when the concept of shared
12 code and PerfectFit as to technologies for creating
13 cross-platform operations, I don't know -- I don't recall
14 when that was created.

15 Q. That's what I'm asking you.

16 A. I don't remember when that was -- when they decided
17 that was the way they would achieve cross-platform
18 functionality.

19 Q. So, just to be clear about this, you don't know whether
20 or not WordPerfect, written for the DOS platform, had any of
21 the PerfectFit or shared code functionality in it, correct?

22 A. Well, the shared code is simply the mechanism for
23 making it plug into the operating system, so making that
24 distinct from the software content itself, when that decision
25 was made as a way to facilitate creating cross-platform

1 functionality for a software program, I don't know when that
2 took place. I can't remember.

3 Q. Now, Professor, it wasn't until 1995, am I right, that
4 Novell and Netscape entered into an agreement for the
5 possible distribution of Netscape with Novell's products,
6 correct?

7 A. I believe -- I believe the agreement is early '95,
8 yes.

9 Q. February '95; isn't that right?

10 A. I think so. I'll accept that, if you assert so.

11 Q. I do say so. It's Exhibit 268, Plaintiff's 268?

12 A. I think it's right, but I don't want to rely on memory
13 about dates.

14 Q. All right. Now, would you agree with me, sir, that, as
15 a result, no one in Microsoft, in October, 1994, knew that
16 Netscape might be distributed with any of Novell's
17 products?

18 A. That's correct. Well, I assume so. I mean, I don't
19 know if people knew secretly that things were going on, but,
20 obvious, it wasn't -- it hadn't happened yet, and as far as
21 I know it wasn't public yet, so they probably didn't know
22 about it, but I don't know that for sure.

23 Q. All right. Now, I wonder if we can look at slides 111,
24 12 and 13. This is testimony from Mr. Frankenberg, just at
25 the end of the cross examination on November 8. And

1 Mr. Frankenberg says that, in his view, Windows 95 was a
2 significant step forward. Do you see that, sir?

3 A. Yes.

4 Q. And from the evidence that you've looked at, would you
5 say, as well, that you're aware that Novell was very excited
6 about Microsoft's impending release of Windows 95?

7 A. Of course.

8 Q. And what Novell wanted to do with PerfectOffice was to
9 build PerfectOffice in such a way as to take advantage of the
10 features, the capabilities of Windows 95, correct?

11 A. Well, that's the question that you asked, or somebody
12 asked. His answer is below that.

13 Q. Yes. And I'm trying to compress the question and
14 answer together. It was my question. But, we'll do it
15 separately if you want. Mr. Frankenberg said that,
16 generally, he says, it certainly would have taken advantage
17 of the capabilities in Windows 95. It would give it an
18 advantage in the marketplace.

19 Do you see that?

20 A. I see that.

21 Q. And that's what Novell wanted to do was to take
22 advantage of the features of Windows 95. It would give
23 Novell an advantage in the marketplace?

24 A. That's correct. Every applications software vendor,
25 independent software vendor, is in fact trying to produce a

1 better product than its competitors, and to do that, you have
2 to take advantage of as many capabilities in the platform as
3 you can possibly do.

4 Q. And then, if you look at the next slide, just going
5 on -- and you have looked at Frankenberg's --
6 Mr. Frankenberg's testimony in this respect, sir?

7 A. Yes. I've seen this before.

8 Q. And I asked him: "Was it your view, in 1994 and '95
9 that, if PerfectOffice had been released by Novell, that that
10 would have made Windows 95 even more desirable in the
11 marketplace than it otherwise would have been?"

12 And he said: "Definitely. It would have made
13 Windows 95 more desirable in the marketplace."

14 You have no basis for disagreeing with
15 Mr. Frankenberg, the former CEO, do you, sir?

16 A. I completely agree with everything on this page. I see
17 no reason to disagree with it.

18 Q. And it would have made Windows 95 even more desirable
19 if PerfectOffice had come out in 1995, correct?

20 A. Well, he's saying two things. The first is that it
21 would have made PerfectOffice better, and, secondly, it would
22 have made Windows 95 more desirable because they are
23 compliments. If one is better, then the demand for the other
24 goes up.

25 Q. And then looking at slide 113, the last one, I asked:

1 "If anything, that would have increased the sales of Windows
2 95, correct?"

3 And he says, "Yes."

4 Do you see that?

5 A. Yes.

6 Q. "Having a good PerfectOffice product out there would
7 make Windows 95 even more popular than it turned out to be,
8 true?"

9 And his answer was: "True."

10 And, again, you have no reason to disagree with what
11 Mr. Frankenberg says?

12 A. This is just confirmation of the complimentary argument
13 I made in my testimony.

14 Q. And right at the end of the cross -- this is pages 1227
15 to 1228 -- I asked him: "And that would have made Windows
16 95's market share even higher than what it turned out to be,
17 correct?"

18 And he answered: "Yes."

19 A. That's correct.

20 Q. And you have no reason to disagree with?

21 A. I think in the short run, that's exactly right.

22 MR. TULCHIN: Nothing else, Your Honor.

23 THE COURT: Mr. Johnson?

24 MR. JOHNSON: Thank you, Your Honor.

25

1 REDIRECT EXAMINATION

2 BY MR. JOHNSON:

3 Q. Professor Noll, you agreed with everything
4 Mr. Frankenberg said there, and what is the -- what, in your
5 view, is the economic conclusion to be reached with respect
6 to whether Microsoft's conduct in this case was
7 anticompetitive from that evidence?

8 A. That's precisely why it was anticompetitive, that they
9 rejected the opportunity to have a timely product introduced
10 into the market that would have increased their short-term
11 profits.

12 THE COURT: In the operating system side?

13 THE WITNESS: In the operating system market, yes.
14 That's exactly right. The short-term profits of Windows 95
15 would have been higher had they facilitated the entry of
16 WordPerfect in a timely fashion.

17 THE COURT: Well -- go ahead.

18 Q. BY MR. JOHNSON: There were quite a few questions to
19 you, and just a couple at the end there, too, with respect to
20 the cross-platform nature and history of WordPerfect. Is it
21 your understanding -- and I believe you testified from
22 personal experience -- that WordPerfect was cross-platform
23 going all the way back, certainly into the days of DOS; is
24 that true?

25 A. That's correct.

1 Q. So, whether or not they had -- had identified shared
2 code as a separate entity or not underneath WordPerfect, it's
3 certainly true that WordPerfect, going back in time, was
4 cross-platform?

5 A. Yes.

6 MR. TULCHIN: Objection. Leading.

7 THE COURT: Overruled.

8 THE WITNESS: Yes. I mean, the technical details of
9 how you do it are important in the sense that they will --
10 they will affect the cost and the ease with which you become
11 cross-platform, but the reality is they were cross-platform
12 as long as I knew about the product.

13 Q. I'd like to return, if we could, Mr. Goldberg, to slide
14 54 of Dr. Noll's direct examination, which was also used by
15 Mr. Tulchin. Has that come up on your screen yet?

16 A. Yes, it did.

17 Q. Okay. Good. So, I'd like to return to this slide that
18 was used by Mr. Tulchin on cross examination. On cross you
19 testified that you were only relying on Mr. Alepin for the
20 proposition that Microsoft's business justification was
21 unsupported by the evidence. Can you tell us, Dr. Noll,
22 however, what is your basis for asserting that Microsoft's
23 business justification with respect to Microsoft's conduct
24 regarding MAPI is irrelevant for purposes of your economic
25 analysis?

1 A. The irrelevance arises from the fact that the
2 characterization of the justification is simply an argument
3 that the costs were lower than they otherwise might have
4 been; whereas if there's any cost at all, it's still not a
5 business justification. It still means there was a cost and,
6 therefore, it was anticompetitive.

7 Q. Mr. Tulchin asked you some questions about OS/2,
8 claiming that OS/2 was not a very -- I think he used
9 "effective product". And you --

10 A. I'm sorry. I didn't hear you.

11 Q. It was not an effective product or something along
12 those lines?

13 A. Effective competitor.

14 Q. Effective competitor. You're absolutely right. And
15 you responded that, part of the reason for that, was because
16 of Microsoft's anticompetitive conduct?

17 A. That's correct.

18 Q. With respect to OS/2, can you detail that conduct to
19 us?

20 A. Yes. Basically, the conduct was a series of
21 contracting requirements that Microsoft imposed on personal
22 computer OEM's that basically required that they have a high
23 market share of their personal computers in -- that had the
24 Microsoft operating system on it, so that, if you -- you were
25 faced with choosing between OS/2 and Microsoft's products,

1 rather than being able to sell personal computers that had
2 them both.

3 Q. I think you also testified with respect to the fact
4 that, apparently, at one point in time, Microsoft was working
5 with IBM on OS/2. And can you tell me whether there was, if
6 any, anticompetitive conduct in connection with Microsoft's
7 evangelizing OS/2 to ISV's at the time?

8 A. Yes. The history of OS/2 is that Microsoft and IBM
9 entered a partnership to develop an operating system that
10 would replace Microsoft DOS, D-O-S, and then, a version of
11 Microsoft DOS that IBM sold, which is called PC DOS. So they
12 decided to get together to create, jointly, a product to
13 replace it. And for Microsoft, along about late '88 or early
14 '89, exact date not clear, decided that it was not actually
15 going to go through with the partnership, but it didn't
16 announce that until 1991.

17 So, for that interregnum between those two dates,
18 Microsoft was telling people that the long-term operating
19 system that they -- that independent software vendors should
20 be focusing on was OS/2, and the component of -- one of the
21 components of OS/2 that Microsoft was responsible for
22 developing was the product that eventually became Windows
23 3.0.

24 And so, that product, and then Windows 3.1 as well,
25 when Windows 3.0 was introduced in 1990, Microsoft claimed it

1 was just a temporary phenomenon, that they were still
2 completely committed to OS/2, and then they announced, almost
3 a year later, that that wasn't the case, and they went
4 forward with Windows 3.1. So, what that did was cause a
5 bunch of independent software vendors, including WordPerfect,
6 to write their applications for the new innovation in
7 microprocessors that was coming out at the time for the wrong
8 operating system.

9 Q. I'd like to return, for a moment, to something you just
10 said about the fact that, agreeing with Mr. Frankenberg's
11 testimony, Microsoft in fact decreased its short-term profits
12 and, thereby, in the long-term, increased its monopoly power.
13 Can you explain to the jury --

14 MR. TULCHIN: This is not a case about monopolizing
15 another market. That's not at issue here.

16 THE COURT: Let me hear the question first, and then
17 I'll rule.

18 Q. BY MR. JOHNSON: Professor Noll -- and I'll try to
19 restate it. I was in the middle -- you talked a minute ago
20 about the fact that Microsoft, in the operating systems
21 market, essentially gave up short-term profits for a
22 long-term goal. Can you discuss with us and explain to us
23 what economic significance that has in terms of a company
24 with monopoly power giving up short-term profits long-term
25 gain?

1 THE COURT: Wait a second. You've got to rephrase
2 this. And I don't want to ask this in front of the jury, but
3 there's a difference. You just said the company, and that is
4 not necessarily the same as losing short-term profits on the
5 operating system side.

6 MR. JOHNSON: I'm talking only about the operating
7 system side.

8 THE COURT: But the company had another side.

9 MR. JOHNSON: Sure. Of course. The company has
10 lots of other markets.

11 THE COURT: But it had -- okay.

12 MR. TULCHIN: Your Honor, I object to -- this is
13 leading.

14 THE COURT: Well, I think you can cross examine on
15 this. I think that's the way to do it. Go ahead.

16 THE WITNESS: The issue, as I understand, is the
17 short-term sacrifice of profits in operating systems, that
18 has the effect of increasing long-term profits in operating
19 systems. And the reason that we think of this kind of
20 behavior as anticompetitive in this kind of case is twofold.
21 All right.

22 The first point is that, consumers are sacrificing,
23 as well, because they are losing functionality of a new
24 product that's being at least delayed and perhaps canceled,
25 so there is harm to consumers arising from the very fact that

1 Windows 95 was less attractive than it otherwise could be.

2 And then, secondly, we can apply the same logic that
3 Mr. Frankenberg was walked through with respect to Windows 95
4 to Linux, which is, okay, now you're done. You're running on
5 Windows 95. All the same things are true, that if you port
6 PerfectOffice with all these characteristics, these features,
7 these advanced features made possible by the 32-bit
8 microprocessor onto the Linux platform, that's going to have
9 the same effect.

10 It's going into increase the demand for Linux, and
11 it's, indeed, going to increase the degree of competition
12 between Linux and Windows 95 which, because these products
13 are compliments, the PerfectOffice in compliment with the
14 operating system, a reduction in the price and an increase in
15 the competition in the operating system market is going to,
16 on the one hand, clearly benefit Novell because a lower price
17 for the operating system means increased demand for their
18 product.

19 But, secondly, it's going to benefit consumers
20 because the combined cost of the applications plus the
21 operating system are going to be lower.

22 Q. And are -- in antitrust economics, are benefits to
23 consumers an important part of the analysis?

24 A. The benefits to consumers are the only part of the
25 analysis for determining whether the conduct is

1 anticompetitive. You only get to the effects on particular
2 firms in the market if you've already passed the test that
3 consumers were harmed.

4 Q. There was quite a bit of cross examination with respect
5 to whether or not full-featured applications had been written
6 to middleware during various time periods, and I'd ask you,
7 sir, if applications were writing to middleware that still
8 had to rely, in some senses, on operating systems beneath,
9 does that have any effect on increasing competition?

10 A. Well, the effect on competition in the operating system
11 market depends on the degree to which the middleware is
12 reducing the porting costs of becoming cross-platform, that
13 if middleware is exposing a certain number of API's, you can
14 write to those API's and be on -- and access functions in
15 multiple operating systems. You may have to write additional
16 code separately for each operating system, but if the
17 middleware reduces the amount of code you have to write to be
18 cross-platform, then it makes being cross-platform more
19 attractive.

20 And, obviously, it's a continuous relationship, that
21 the higher the fraction of functions that can be accessed
22 through the middleware, the more the porting costs have been
23 reduced and, hence, the more the middleware affects
24 competition. So that's why it's a continuous process. It's
25 not an either/or process. Middleware can begin to have an

1 effect on competition in the operating system market if it
2 starts to be used because it's reducing porting costs and,
3 therefore, increasing the number of applications that are
4 cross-platform, and thereby reducing the applications barrier
5 to entry.

6 Q. There were a number of questions in which Mr. Tulchin
7 tried to limit you with respect to the installed base to just
8 PerfectOffice. I want to make sure we got this straight.
9 During the relevant time period, did WordPerfect, whether it
10 be a stand-alone product or bundled into a suite, have the
11 largest installed base in word processors on PC operating
12 systems?

13 A. Yes, it did. And, not only that, for -- WordPerfect
14 was sold primarily as a stand-alone product, and so, you
15 know, to limit its market in word processors simply to the
16 suites is to create a bias in how you think how successful it
17 is, because Word was being sold almost completely in suites,
18 whereas WordPerfect was being sold primarily as a stand-alone
19 product.

20 Q. Is it necessary to eliminate the applications barrier
21 to entry in order to increase competition in the operating
22 systems market?

23 A. No. I mean, if you completely eliminate the
24 applications barrier to entry, that makes the maximum
25 possible degree of competition. You could still have a

1 dominant operating system if there was a company that was
2 just inherently better at making operating systems, so you
3 could still have the superior efficiency reason for not
4 having complete competition, but the maximum amount of
5 competition you can get is if you completely eliminate the
6 applications barrier to entry.

7 But it's also true that the -- that, again, it's a
8 continuous relationship, that the -- that the greater the
9 applications barrier to entry, the less the degree of
10 competition for operating systems.

11 MR. JOHNSON: One moment, Your Honor. Nothing
12 further, Your Honor.

13 THE COURT: Mr. Tulchin?

14 RE CROSS EXAMINATION

15 BY MR. TULCHIN

16 Q. Professor Noll, I wonder if we could look at slide 120
17 again. This is the chart that we prepared using the data in
18 your report about Microsoft's market share in the PC
19 operating system market. Do you recall this?

20 A. That's correct. I see it.

21 Q. And you'll see that, with the introduction of Windows
22 95, Microsoft's market share went up, correct?

23 A. That's correct.

24 Q. That's because consumers liked Windows 95, right?

25 A. Well, there was no real substitute for Windows 95

1 available. Consumers did buy it in large numbers, yes.

2 Q. And Linux, you've testified, was only being introduced
3 around 1996 in any meaningful way?

4 A. That's not what I said. It was actually introduced in
5 '93, but '96 is when it became a full-fledged, commercial
6 product, and I believe the first version of WordPerfect for
7 Linux was released in, like, May of '96 or something like
8 that.

9 Q. Have you done any work, any analysis, whatsoever, to
10 try to determine what you think Microsoft's market share
11 would have been in the PC operating system business in any of
12 the years, 1996 through 2001, had Novell been able to get
13 PerfectOffice, WordPerfect, and Quattro Pro out into the
14 market in 1995 instead of what actually occurred, which is
15 Corel getting those products out in 1996?

16 MR. JOHNSON: Your Honor, asked and answered and
17 beyond the scope.

18 THE COURT: Overruled.

19 THE WITNESS: I can't tell what the tradeoff would
20 have been in Microsoft between lowering the price and
21 experiencing a decline in market share. I think that the --
22 the potential of Linux to be a competitive operating system
23 was comparable to the operating systems that had caused
24 Microsoft's share to be 80 percent in the early 1990's. You
25 can see in 1992. So, they might have prevented that from

1 happening by simply lowering the price, so I can't tell you
2 what the long-term effect on market shares would be without
3 knowing what Microsoft's pricing strategy would have been.

4 Q. So, the answer to my question is, you don't have any
5 opinion that Microsoft's market share would have been lower
6 than what it turned out to be, had these events occurred, had
7 Novell's products come out in '95 instead of Corel bringing
8 the same products out in '96?

9 A. No, because their market share would have been a
10 function of their price, and I don't know what their price
11 would have been.

12 Q. Thank you.

13 MR. TULCHIN: Nothing else, Your Honor.

14 THE COURT: I guess I've got a question. Ladies and
15 gentlemen, the fact that I'm asking, I just don't want to
16 send you out and bring you back.

17 Again, in terms of this -- and this relates to an
18 issue I have to understand and to decisions I have to make,
19 and it may be relevant to it, too.

20 In terms of -- I understand that, ordinarily, it
21 is -- you know, if you sacrifice short-term profits for
22 long-term gain, that could be an indication of
23 anticompetitive intent. That makes sense. Does it not
24 complicate the issue if Microsoft or the company
25 manufacturers not only operating systems, where it may be

1 sacrificing short-term profits, but also is manufacturing
2 applications products -- now, it wouldn't be very nice to do
3 this, but that's not the claim being asserted here -- that
4 if, in fact, you're making up for -- you know, by hurting
5 Word, you're benefiting -- by hurting WordPerfect, you're
6 benefiting Word, because you -- and that you may, all right,
7 and there's no evidence one way or the other -- but you may
8 be making up the profits you're losing on the operating
9 system side on the applications side.

10 I mean, isn't, as a matter of -- doesn't that
11 complicate the analysis from an antitrust point?

12 The WITNESS: The answer is no. And the reason for
13 it is that the increased profitability in market share of
14 Microsoft Office also has to be decomposed into that part,
15 which is superior efficiency, and that part which is the
16 result of anticompetitive conduct, and so the question that
17 has to be asked is a simple one.

18 Did that increase in profitability arise because of
19 superior efficiency or did it arise because --

20 THE COURT: Assume with me, which is the case, that
21 there is no claim here for monopolization or attempted
22 monopolization of the applications market. That claim is not
23 here.

24 THE WITNESS: It doesn't -- see, you're -- I think
25 that the problem here is that there is a set of legal

1 arguments about what is in the case and what isn't, but the
2 antitrust economics and the antitrust policy would require
3 analysis of the spill-over effects in the markets, regardless
4 of whether it was in claim, because that's part of the story
5 of whether there were pro-competitive or anticompetitive
6 benefits in general through this act.

7 When you have complimentary products, you simply
8 can't analyze one in isolation of all the others. And that's
9 where -- the problem you're having. Indeed, we all have this
10 problem. This is a very hard case to understand because of
11 the high degree of complementarity between the products. And
12 that's why you have to get into this issue of, well, why did
13 this happen in the other market? Even though it's not -- I
14 realize, as a matter of law, it's not an issue in the case,
15 but as a matter of analyzing, what was the net effect on
16 consumers, you have to take into account the complementarity
17 effect.

18 THE COURT: But I'm asking you a question of fact.
19 If Microsoft was willing to sacrifice short-term profits on
20 the operating system side, but made a business judgment,
21 yeah, we know we're doing this, but we're going to increase
22 the sale of Word over WordPerfect, and we're going to
23 increase the profits on the applications side, simply as a
24 matter of fact, is that -- doesn't that remove what, from
25 antitrust analysis, would be the general principle if you

1 sacrifice short-term profits for long-term gains, you're
2 violating the antitrust laws?

3 A. No, because that's exactly the test we would use if it
4 were a different case, which is, if this were an exclusionary
5 conduct case with respect to another market where the
6 monopoly power to exclude competitors had been used in
7 another market, that's exactly the same test we would use is,
8 was that increase in sales in the other market that was
9 affected by the exclusionary conduct, was that due to
10 their -- the superiority of the product, or did it, in fact,
11 eliminate efficient competitors or, indeed, the more
12 efficient competitors?

13 THE COURT: But the only claim here is for
14 monopolization in the operating system market.

15 Q. And I think it's important to make a distinction
16 between, what is the conduct that Novell is complaining
17 about, which is obviously conduct about Novell, and how do
18 you analyze whether this conduct harmed consumers or
19 benefitted consumers. All right? They are separate issues.

20 The legal issues of what -- what are the
21 antitrust -- potential antitrust violations at issue in this
22 case is a separable issue from, what is the effect of this
23 conduct on consumers? And if the conduct, on balance, harmed
24 consumers, taking into account all the markets, that's the
25 right test.

1 THE COURT: I don't think that was my question, but
2 that's the answer. Thank you.

3 Go ahead. Anything further?

4 MR. JOHNSON: I'm done, Your Honor. Thank you very
5 much.

6 THE COURT: Thank you very much, Dr. Noll.

7 THE WITNESS: Okay.

8 THE COURT: What was your next?

9 MR. JOHNSON: We're going to go to some film, Your
10 Honor. Do you want to take a little break so we can get it
11 set up, or do you want us to start something else?

12 THE COURT: How long is it going to take to set up?

13 MR. JOHNSON: He says he's ready to go.

14 THE COURT: He's quick.

15 MR. JOHNSON: If Mr. Goldberg says he's ready to go,
16 he's ready to go.

17 THE COURT: Okay. We'll go to around 20 of 11 --
18 excuse me -- 20 of 12. Excuse me. A quarter to 12.

19 MR. JOHNSON: We are going to play for you portions
20 of the deposition of Cameron Myhrvold taken February 12,
21 2009. He was a Microsoft executive. This is 37 minutes
22 long.

23 * * *

24 THE DEPOSITION OF CAMERON MYHRVOLD WAS PLAYED AS FOLLOWS:

25 Q. Am I correct that, in the spring of 1988, you joined

1 what was called the developer relations group at Microsoft?

2 A. The spring of '88. So, I joined Microsoft first in
3 1986. Microsoft bought a start-up company that my brother
4 and I had started. Then I left Microsoft, went back to Cal
5 and finished my degree and rejoined -- I would have rejoined
6 in the fall of '87, in the spring of '88 took over the
7 developer relations group, yeah. That's right.

8 Q. Okay. I may sometimes use "DRG" to refer to the
9 developer relations group today.

10 A. That's what I do, too, so that's fine.

11 Q. I understand you had two different affiliations over
12 time with that group, and we'll talk about each.

13 A. Okay.

14 Q. Was -- at that time was WordPerfect one of the top
15 independent software vendors?

16 A. Yes. Absolutely.

17 Q. Were they one of the most important independent
18 software vendors on Microsoft platforms?

19 MS. WHEELER: In October of '88?

20 Q. BY MR. ENGELHARDT: In the spring of '88 when you took
21 on responsibilities at the DRG?

22 A. They were a very important, you know, potential
23 customer for us, yes. They had, of course, the world's
24 leading word processor on MS DOS. We didn't really -- you
25 know, that was not our responsibility to go and help

1 companies on MS DOS. It was to get them to try and write to
2 Windows. So, from a potential ISV perspective, absolutely,
3 they were one of the top ISV's we spent time with.

4 Q. You referred to them as a potential customer. Why did
5 you refer to them that way?

6 A. Well, I would, in my role in DRG, which was to go out
7 and support third-party software vendors to help their
8 efforts in writing products for Microsoft platforms,
9 specifically Windows and then later NT and then later a few
10 other things. I would think of them as my customers. There
11 was no money that necessarily changed hands. I'm sure they
12 bought some development tools from Microsoft, but my -- my
13 role was not a sales role, it was a technical support role
14 primarily.

15 Q. And it was part of Microsoft's normal business to
16 provide that technical support?

17 A. Yes, which you could do -- which you could purchase, if
18 you were, you know, anybody. Or, on occasion, was given away
19 in -- in hopes of encouraging companies to -- to develop
20 products on top of Microsoft platforms.

21 WordPerfect certainly would have been one that
22 got -- would have been one that got access to free support
23 from time to time. I'm sure there's probably times when they
24 paid for it as well. And access to the development team at
25 Microsoft, which you can't do -- you can't purchase.

1 Q. Why were you encouraging WordPerfect to develop a
2 product for the Windows platform?

3 A. Because that's the way you sell operating systems. If
4 you want a popular operating system, it is pretty much wholly
5 dependent on what applications run for it and how compelling
6 those applications are.

7 Q. Did you have personal interaction with WordPerfect
8 employees during this period?

9 A. Absolutely.

10 Q. Do you recall the names?

11 A. Well, so I would arrange meetings with their senior
12 management, so Alan Ashton, Pete Peterson. On a day-to-day
13 basis, I would work with some of their development managers.
14 There's a couple guys in particular. I can only remember one
15 name, and that's Eric Meyers, but, yeah, I had a lot of
16 contact with -- with wordPerfect. I would visit them, you
17 know, probably two or three times a year. They would come
18 out to Redmond, you know. Allen would see Bill Gates
19 probably every 18 months or so, and -- and then their
20 technical folks were on site, you know, at least a half a
21 dozen times a year.

22 Q. Okay. And that was all part of the effort to encourage
23 WordPerfect to write products for the Windows platform?

24 A. Correct. Well, you know, to be -- to be strictly
25 accurate, it was Windows OS/2 and Windows NT.

1 Q. Did you, yourself, advise ISV's as to which of the two
2 platforms to prioritize?

3 A. Well, certainly in the period of 1989, my job was OS/2,
4 my job was not Windows. So when I went to talk to them, I
5 talked to them about OS/2. That said, I was always very
6 clear about what I -- microsoft's own applications group was
7 doing because that was always a question that would come up
8 with ISV's. And I would explain that they were on a Windows
9 strategy first and then supporting OS/2, which is what they
10 did.

11 Q. Do you recall discussing that with anyone from
12 WordPerfect?

13 A. I'm sure that came up. Specific conversations, no, but
14 I'm sure that would have come up with Alan Ashton, Pete
15 Peterson, and certainly with Eric Meyers, and I'm sure other
16 folks whose names I can't recall.

17 Q. Do you know what I mean by the term "evangelize"?

18 A. You bet. They use that term a lot.

19 Q. Can you give me your understanding so we can get it on
20 the record because we'll use it a lot today, perhaps.

21 A. Um -- it -- you know, it was a term invented by Apple
22 computer when they went out to try and get software vendors
23 to write for the Macintosh. I believe it was coined by Mike
24 Murray, who later went to Microsoft. And so it's to describe
25 the process of going out and, you know, selling, but it's not

1 really selling because there's no money that changes hands,
2 there's no contract. It's getting companies to produce
3 products for your particular operating system or computer.

4 Q. Just to go a little more general, then, when you were
5 evangelizing for OS/2 and pointing out that one of its
6 benefits was the ability to support larger programs, do you
7 recall there being any specific programs that could take
8 advantage of that?

9 A. Generally, I think that was things like databases.
10 That's where I think you'd have the -- the clearest
11 advantage. Yeah.

12 Q. Staying in 1988, was it difficult, at that time, to get
13 applications developers interested in developing for
14 Windows?

15 A. Sure. That was absolutely a challenge.

16 Q. Why was that a challenge?

17 A. Well, the market was primarily based on DOS, so there
18 weren't -- there wasn't a huge market for -- for Windows, so
19 we had a few ISV's, but, you bet it was a challenge.

20 Q. Was it more of a challenge to get ISV's to develop for
21 Windows, as compared to developing for OS/2?

22 A. Yeah. I think that's accurate. I think the support of
23 IBM made people believe that OS/2 was going to be a winner.

24 Q. Is it correct that, by about the end of 1990, that
25 situation was reversed and it was easier to get people

1 interested in developing for Windows?

2 A. I'd say probably by early 1990, certainly mid-1990.

3 Q. Why was that?

4 A. Windows 3.0 came out and was a blockbuster success, and
5 Windows 3.0 removed the so-called 640-K barrier, which made
6 it much easier to develop applications for Windows and
7 larger, more sophisticated applications for Windows.

8 Q. Did you see that popularity of Windows 3.0 coming?

9 A. I -- I think it was -- it was evident that, you know,
10 from the pre-releases, from the Beta versions of Windows,
11 that it was going to be a good product. I don't think it was
12 a mystery to any ISV's. WordPerfect would have had access to
13 early versions of Windows 3.0 in 1989.

14 Q. When did you first become aware that Windows 3.0 was
15 becoming a commercial success?

16 A. Well, I guess it would have been in -- you know, a
17 month after it shipped. I believe it shipped in May, so I
18 think it was pretty evident that -- you know, that -- you
19 know, it would have been pretty evident by the end of June,
20 for sure, that this thing was taking off really well. I
21 think probably there would have been OEM commitments that
22 were announced, you know, before -- before the OS shipped,
23 so, I think in early 1990, certainly second quarter of 1990,
24 you know, it would have been evident that this thing was
25 going to be a force to reckon with.

1 Q. Now, at that time, say second quarter of 1990, were you
2 evangelizing Windows?

3 A. I did not technically take on responsibility again for
4 Windows until June of 1990. I worked closely with Sherry on
5 that, and so, quite often, at conferences and other things,
6 we would give kind of a joint message, so I'm sure, from time
7 to time I did talk to ISV's about Windows, but that was
8 not -- that's not -- that's not how my job was measured,
9 until June.

10 Q. Was it following the commercial success of Windows that
11 ISV's began to increase their interest in writing for the
12 platform?

13 I -- I'd say that it started much earlier, with the
14 pre-release copies. There was a very, very broad Beta
15 program for Windows 3.0 that went out to thousands and
16 thousands and thousands of people, and I'm sure, you know,
17 all of the top 500 ISV's in the world were looking at -- at
18 Windows 3.0 in 1989. So, I -- I think, you know, the success
19 of the platform probably predated the actual announcement.

20 Q. This increase in popularity of Windows, did you
21 understand that that hurt certain ISV's who had previously
22 been writing for OS/2 instead of Windows?

23 A. Well, for people who wrote for OS/2 and didn't write
24 for Windows, they were -- they would have been -- they would
25 not have been able to sell into the Windows base, so they

1 would have had to, you know, change and write for Windows.
2 So I think there probably are some ISV's that -- that made
3 the OS/2 bet and, in retrospect, may have felt they were --
4 they were penalized by that.

5 Q. Would one of the -- you used the term "penalized," so
6 I'll use the term "penalties." Would one of the penalties of
7 having bet on OS/2 for these ISV's been getting to market
8 late on the new Windows 3 platform?

9 A. Depending upon their development strategy, yes. Some
10 people supported both and had products in market relatively
11 quickly. Some people, I think, were developoing for OS/2 in
12 1989 and made, you know, quick about-faces and developed for
13 Windows. Companies like Lotus Development went out and
14 bought at least two ISV's that had Windows products so they
15 could have Windows products in market when Windows -- Windows
16 3.0 launched.

17 So there's a number of responses to that. I'm sure
18 some people were late because they focused on OS/2.

19 Q. Okay. I'm going to introduce what we'll mark as
20 Exhibit 20, and I'll explain the odd numbering in that a
21 couple of the exhibits we'll use today were used previously,
22 and I'll stick to that old number to avoid confusion. When
23 we introduce our first totally new exhibit, I'll start at
24 101, just to keep clear of the old numbering.

25 Do you recall ever seeing this document before?

1 A. No.

2 Q. In fact, I was about to say before we took a break, so,
3 Mr. Myhrvold can read it, that this appears to be a string or
4 a portion of a string of emails dated 1991, the top one of
5 which you, yourself, appear to have written. Does that
6 appear correct?

7 A. Yes, it does.

8 Q. Down below, actually about the middle of the page,
9 there is a "From Sherry"?

10 A. Yep.

11 Q. It says on -- do you know the Sherry?

12 A. Sherry is Sherry Richardson.

13 Q. Okay. She wrote: "SPC, WordPerfect and Lotus, seeing
14 as how they have been most damaged by that shift in strategy
15 to Windows."

16 Do you see that?

17 A. Yep.

18 Q. Do you have any understanding of the shift in strategy
19 that she's referring to?

20 A. Uh, I -- I think what she's referring to there is the
21 success of Windows and the complete lack of success of OS/2.
22 I wouldn't characterize it as a strategy shift as much as a
23 market reality.

24 Q. Are you aware of any shift in strategy on Microsoft's
25 part, leading to the market reality that you just mentioned?

1 A. Well, we pushed both products really hard. We got a
2 lot of customers -- well, software vendors and corporate
3 customers to commit to OS/2. We introduced Windows 3, and it
4 was a blockbuster, and so, by this time, almost a year after
5 the release of Windows 3, I'm sure we would have been pushing
6 Windows 3 like crazy. I mean, you support your winners, and
7 Windows 3 was a winner.

8 Q. Now, by that time, by the time that Windows 3 became a
9 winner -- strike that. Were you aware, by way of working
10 with ISV's, that they would begin developing well in advance
11 of a commercial launch of a product -- of a platform?

12 A. Sure.

13 Q. Were you aware that that was the case with WordPerfect?

14 A. Well, that the case with almost every ISV, so, yes.

15 Q. Through your work with WordPerfect, did you gain any
16 understanding what they expected would be the lead time they
17 would need to deliver a word processor for Windows?

18 A. No. I mean, again, these guys, you know, because of --
19 because of the fact that they competed with the applications
20 division at Microsoft, they just didn't talk to me about
21 stuff like that. And I didn't ask because, you know, I -- I
22 wanted them to do their work. I wanted to support their work
23 as much as I could, but, you know, I didn't -- I didn't pry.
24 And they were not in the habit of volunteering that kind of
25 information.

1 Q. In the email at the top of this string that you wrote,
2 you conclude your first paragraph with a sentence that
3 begins: "There may be a wariness or even a nebulous lack of
4 trust," you say, "but is not measured by abandoned OS/2
5 development."

6 Do you --

7 A. Well, sure. I mean, you go out, and I was telling
8 people to write for OS/2, and OS/2 never caught on in the
9 marketplace, despite Microsoft's efforts and IBM's efforts,
10 and Windows did -- I was, you know, out there evangelizing
11 Windows in 1990, and I was early on, but I wasn't, you know,
12 during the period of time in '89 when I focused on -- on
13 OS/2. So, you know, you go and talk to somebody about a new
14 platform and they say: Hum, what did you tell me last time,
15 and what happened?

16 And OS/2 was not a good story.

17 Q. Why, in your view, did OS/2 not succeed?

18 A. There's a lot of reasons why it didn't succeed. There
19 were a lot of problems with the -- with OS/2. I -- I would
20 conclude at a high level and say it was a bad product.

21 Q. How was it that you were able to make calls on
22 customers on behalf of the bad product?

23 A. Well, that was my job. You know, look, nobody thought
24 it was a bad product at -- well, we certainly knew there were
25 tremendous issues. I mean, we worked very closely with

1 Altus. They developed PageMaker for OS/2 and with Lotus
2 Development that did 1-2-3/G for OS/2, and neither company
3 could get the thing to print. So, printing, I mean, a fairly
4 fundamental thing. It wouldn't seem like, you know, that
5 would be rocket science. And we couldn't get OS/2 to print.
6 It took my group nine months of kicking and screaming with
7 the development group first in Redmond, then later at IBM in
8 Boca Raton, to get them convinced that it had to print and
9 that it just wasn't. The problem was -- well, I don't know
10 how detailed you want to get, but there were a lot of
11 problems like that.

12 Q. Did you, yourself, communicate those problems to the
13 customers you called on?

14 A. Well, I worked very closely with -- well, actually the
15 selling group at Microsoft, Lotus Development, and -- and
16 with Altus to document the printing issues and help them get
17 resolved with the development group. So, I mean, sure they
18 were aware of that. Did I lie to people or hide the fact
19 that it couldn't print? No. Of course not. That's just --
20 that's just going to hurt your credibility.

21 Q. Who, if anyone, within DRG was primarily responsible
22 for supporting WordPerfect in this period of time -- no, the
23 period when you're evangelizing OS/2.

24 A. It probably -- well, at times it was me, personally.
25 I'm -- I'm not going to remember who specifically. I'm

1 trying to remember who would go out to Utah with me. I don't
2 remember.

3 Q. Now, staying with this period of time when you were
4 evangelizing OS/2, was it difficult to write programs for
5 both platforms simultaneously?

6 A. It -- was it difficult? It certainly wasn't easy.
7 Some companies did do it, but there were some things that
8 were just almost arbitrarily different between OS/2 and --
9 and Windows, so I would not call it easy, no.

10 Q. Can you recall any of those differences?

11 A. Sure. The graphics engines were entirely different,
12 and, if I recall correctly, where you had the origin point on
13 Windows was directly opposite what it was on OS/2, so just
14 doing coordinates for vectors and things was completely
15 opposite. Just, you know, maddeningly different. I'm sure
16 there were other issues, too. Those are the -- that's --
17 that was the one that -- well, the graphic systems were --
18 were different, too; one was vector graphics and one was
19 raster, so, yeah, they were pretty different. Certainly the
20 graphics subsystem would have been an area where they were
21 quite different.

22 Q. And did that make it difficult to program from one to
23 the other?

24 A. Yes, but if you're -- if you're talking about different
25 platforms, there's a lot of different platforms in the world,

1 you know. Was it harder to write an application that
2 supports -- that was on Windows and UNIX than Windows and
3 OS/2? No, I don't think that's true. I think that probably
4 would have been the same.

5 Q. Do you recall whether Microsoft offered to support the
6 movement of any WordPerfect programs from OS/2 to Windows?

7 A. Well, of course, as we would have for any ISV. I mean,
8 at this period of time, there was always someone from
9 Microsoft talking to them about Windows. So that was true in
10 '88. That was true in '89. That was certainly true in 1990
11 and later. So, it's -- it's not like, you know, we decided,
12 oh, we're only going to talk to this ISV about OS/2 and this
13 one about Windows. We talked to -- we talked to all the top
14 ISV's about both platforms.

15 Q. Did there ever come a time when you were in DRG that
16 Microsoft began to tell ISV's to stop supporting OS/2?

17 A. So, we had a -- a split with IBM over OS/2, 2.0, and
18 they took that on, and we no longer supported that. That
19 became an -- that became an IBM product. And, post that --
20 that split, I'm sure I did not -- I'm sure I told people the
21 virtue of Windows over OS/2.

22 Q. Do you recall ever telling ISV's flat out, just don't
23 use OS/2 anymore or don't write for it?

24 A. I don't recall that specifically. I'm --

25 Q. Can you think of applications that were developed to

1 run on Office in this period of time?

2 A. No, not specifically.

3 Q. And are these -- are these developers that you're
4 referencing here, are they ISV's in the sense we've been
5 using that term?

6 A. Sometimes they are ISV's. I think, more accurately,
7 for most applications written on top of Office, that they
8 would be corporate developers. So, a corporation,
9 internally, would develop some kind of a -- you know -- I
10 don't know, some application that used Excel or used Word or
11 used them both.

12 Q. Okay. Those applications, then, would not be
13 commercially available, right?

14 A. As I said, I think some were, but I think the
15 preponderance of development for Office happened inside of
16 companies.

17 Q. Right. That's what I was getting at, the --

18 A. So -- so not available for commercial resale.

19 Q. For internal consumption only, if you will?

20 A. Yeah.

21 Q. Okay. Would it be fair to say that, in this period of
22 time, Microsoft was developing Office as a platform?

23 A. I -- I disagree with that. They always did a terrible
24 job.

25 Q. Did they want to develop it as a platform?

1 A. From time to time they'd get ideas about -- you know, I
2 think once I attended a product review with Bill on Office,
3 and, you know, they were touting all their development
4 capabilities, yet, in the next version, they broke all the
5 type libraries, so every international application written on
6 top of Office broke. So, I mean, that's just not what you do
7 when you're serious about that kind of stuff.

8 Q. The next question you may have already answered, so I'm
9 going to ask, other than what you've already said, what did
10 you mean by "they did a terrible job"?

11 A. I don't think the applications division at Microsoft --
12 and I'm sure there may be people who disagree with me -- but
13 I never believed they took third-party development as a -- as
14 an important thing for their -- for their products.

15 Q. By "their products," now you're talking about their
16 applications?

17 A. Their applications, yes. The first macro lines that
18 were put in the applications were horrible. And, like I
19 said, sometimes it would be priority, sometimes it wouldn't.
20 You know, they'd break things. No, I don't think they ever
21 took it terribly seriously as a platform. My personal
22 opinion, perhaps, but --

23 Q. Was PerfectOffice middleware at this time, in your
24 understanding of the term?

25 A. No.

1 Q. Why do you say that?

2 A. You know, at least for Office, there were, I know,
3 people around the world who programmed for that stuff. I --
4 I don't know of a single instance -- now, I was not as close
5 to it, so I'm not saying it didn't exist, but I certainly
6 wasn't aware of a single instance of an application written
7 on top of WordPerfect.

8 Q. Did you understand, at the time of writing this
9 document, that WordPerfect had a strategy of competing with
10 Microsoft in seeking development atop their productivity
11 applications?

12 Q. Only by inferences of this document. If you asked
13 me -- if you hadn't shown me the document, I would have said
14 no, they never did that.

15 Q. You don't have any independent recollection --

16 A. No.

17 Q. Are you familiar with a Novell technology known as
18 AppWare?

19 A. AppWare? No.

20 Q. Are you familiar with a technology known as OpenDoc?

21 A. Yes, I am.

22 Q. And what was OpenDoc?

23 A. OpenDoc was a competitor to object linking and
24 embedding to OLE, I believe. It was championed by Lotus
25 Development. I remember that. And Apple -- it was

1 Apple-derived technology, I believe. And I don't know who
2 else supported it. I would guess -- well, the typical sub --
3 suspects in that would be Borland and -- Borland and
4 WordPerfect. That's my recollection.

5 Q. Was OpenDoc middleware?

6 A. Yeah. I'd say OpenDoc was middleware.

7 Q. Why do you believe OpenDoc was middleware?

8 A. I believe it was something that you wrote for with an
9 app -- from your application to perform certain functions,
10 and I believe that it was pitched -- well, it was developed
11 by, you know, a platform company, Apple, and it was promoted
12 by some of the leading applications developers.

13 Q. Do you recall whether OpenDoc was cross-platform?

14 A. Well, coming from Apple, I've got to believe it was. I
15 don't remember -- it must have been.

16 Q. Again, just so we have a common understanding on the
17 record, could you just give me a lay person's definition of
18 cross-platform?

19 A. Well, it's an API technology that is supported across
20 more than one operating system. So, in this case, it would
21 have supported the Macintosh and -- and Windows and perhaps
22 more than that.

23 Q. Was OLE cross-platform?

24 A. No.

25 Q. It was available only on Windows platforms?

1 A. Correct.

2 Q. Do you know why that was the case?

3 A. Well, sure. It was a Microsoft technology developed to
4 extend the functionality of Microsoft platforms. Why would
5 it support anybody else?

6 Q. It gave an advantage, in that sense, to the Windows
7 platforms?

8 A. To the degree that it was successful, yes. Obviously
9 if, you know, you produce an API and nobody writes for it, it
10 doesn't do you any good.

11 Q. If you produce an API and make it available to multiple
12 operating systems, then it doesn't uniquely advantage any one
13 operating system; is that right?

14 A. Not necessarily. I think that depends upon the market
15 environment. You know, in things like networking -- well,
16 you've got to networks that support multiple platforms, or
17 they are fundamentally not very useful because you're not
18 connecting a diverse enough audience, so I think that
19 depends.

20 Take a look at ODBC, open database conductivity. I
21 think it was very important for Microsoft to get other
22 database vendors other than Microsoft to support that, or it
23 wouldn't be very useful to a software vendor.

24 Q. Mr. Myhrvold, this is likely be our last exhibit of the
25 day.

1 A. Okay.

2 Q. Number 110. It's quite a lengthy series of emails.
3 I'm going to start in about the middle. Actually, on the
4 second page, there's an email from yourself to Doug Henrich,
5 John Lazarus, a CC to Mr. Kruger, and you ask there: "Do you
6 guys have someone analyzing AppWare?"

7 And you move on to discuss AppWare a little bit.

8 A. Uh-huh.

9 Q. If you can take a moment to read that particular email,
10 my question will be as to whether this refreshes your
11 recollection as to what that particular AppWare was.

12 A. I don't -- I don't recall AppWare. I mean, I can read,
13 I'm sure the -- there's a press release here. Gupta was an
14 ISV we worked with, so --

15 Q. The first sentence of your second paragraph says:
16 "These guys are clearly building a tool strategy and
17 architecture around AppWare with Borland and now with Gupta."

18 Do you know what you meant by "architecture" there?

19 A. No. I'm sorry, I don't. I mean, it talks about an
20 AppWare developer kit, so I presume AppWare is some kind of
21 development platform or --

22 Q. You don't have any recollection of an AppWare developer
23 kit?

24 A. I'm sorry, I don't.

25 Q. Returning to your first paragraph after the question as

1 to whether anyone is analyzing AppWare, you write: "You
2 should look at it carefully, pull it apart and have
3 intelligent responses to developers and press about why it is
4 not competitive/useful."

5 Do you know whether you had any understanding as to
6 whether AppWare was or was not competitive/useful at the time
7 you were asking people to pull it apart?

8 A. I -- I'm sure I would have thought it was potentially
9 competitive, or I wouldn't have sent the email suggesting the
10 analysis.

11 Q. You wrote: "Get some ISV's to test it and then get
12 them to talk to the press about how it does not meet their
13 needs."

14 Did you have any expectation that AppWare would not
15 meet the needs of ISV's?

16 A. I -- I don't know whether I know that or I'm hoping
17 that or -- but I'm -- I'm suggesting that we invest some time
18 and effort to figure that out.

19 Q. How was it that you would get ISV's to test it and then
20 talk to the press about it?

21 A. Well, I don't -- I don't know that we -- that we ever
22 did. Um -- you know, I -- certainly, in talking to ISV's, we
23 would hear solicited or unsolicited feedback about other
24 platforms. All the time, I would hear about things that
25 people wanted add to Windows or, you know, why UNIX was

1 better to write for than Windows, and, you know, vice
2 versa.

3 Q. You conclude that first paragraph stating: "It would
4 be great to give it the stigma that it is not any good for
5 Windows development."

6 Did you have any understanding at this time whether
7 AppWare was, in fact, any good for Windows development?

8 A. This is '93. Well, no. I -- I don't remember, so I
9 certainly don't remember -- I don't remember AppWare. I
10 don't remember what I thought about AppWare. I don't even
11 know if it's used to create Windows applications.

12 Q. Can you tell, by your review of this email, whether you
13 considered AppWare to be competing with some Microsoft
14 technology?

15 A. I definitely think it's a potential competitor, that's
16 why I'm suggesting -- that's why I would send the email.

17 Q. Do you know what Microsoft technology it may be
18 potentially in competition with?

19 A. I -- I don't know. I don't know. I mean, it could be
20 anything.

21 Q. This email is dated October 5, '93. Were you holding
22 your position in Paris at this time?

23 A. Yeah. Sure was.

24 Q. Do you know in what capacity you were addressing these
25 issues?

1 A. Yeah. In -- in Europe, I was director of -- at the
2 European headquarters helping to coordinate the launch
3 of Windows NT, and NT Server, and I presume -- and for NT
4 Server, a key competition was Novell Netware. So, I am -- I
5 am sending this email, I believe, on that basis.

6 Q. Now, one email up -- and the caption to the email is on
7 the preceeding page, but the text is all on this page, it
8 would appear. Mr. Henrich responds to you: "We are
9 following their announcements and doing some spying."

10 Do you know what is meant there by "spying"?

11 A. I presume that means going to -- I don't know. I mean,
12 I -- I would take that to mean, you know, going and chatting
13 with people in booth at trade shows and trying to figure out
14 what's really up, what success they have or not -- have not
15 had.

16 Q. Do you recall discussing these issues with
17 Mr. Henrich?

18 A. No, I don't.

19 Q. Okay. Now, at this time, do you know what
20 Mr. Henrich's role was?

21 A. He was running DRG.

22 Q. He succeeded you when you went to Paris?

23 A. Correct.

24 (Whereupon the playing of the deposition was concluded.)

25 THE COURT: I know this is a logical time to break,

1 but I'm not sure if the lunches are here yet. What did you
2 have planned? Do you have something that is quick?

3 MR. JOHNSON: That is logical. I think we have a
4 16-minute clip --

5 THE COURT: Perfect.

6 MR. JOHNSON: -- that might be just right.

7 THE COURT: You are -- you're right on the money, as
8 always.

9 MR. JOHNSON: Thank you, Your Honor.

10 We are now going to show a brief portion of John
11 Ludwig, also a Microsoft executive, taken January 21, 2009,
12 and, as I mentioned, 16 minutes.

13 * * *

14 THE VIDEO DEPOSITION OF JOHN LUDWIG WAS PLAYED AS FOLLOWS:

15 Q. Did you, at one time, work for Microsoft Corporation?

16 A. Yes, I did.

17 Q. What years did you work for Microsoft?

18 A. I started working for Microsoft in 1988, and I left the
19 firm in late '99.

20 Q. Okay. Rather than me ask you a series of questions
21 drawing you out year-by-year, can you just give me a -- sort
22 of a -- your job duties throughout that time period?

23 A. Sure. I started in the networking group as a program
24 manager, working on various network products. After a little
25 while doing that, I ran the Windows For Work Groups team,

1 which was a networking product that Microsoft shipped. Then
2 I co-managed Windows 95 development; notably, all the
3 networking and communications features.

4 Then I ran the Internet Explorer team, and then
5 slowly I morphed into managing all the communications and
6 email clients. And then my last major assignment at
7 Microsoft was managing the MSN online services.

8 Q. Okay. And where do you work now?

9 A. I work at Ignition Partners.

10 Q. And what's that?

11 A. It's a venture capital partnership.

12 Q. Okay. Through that work, do you have any ongoing
13 relationship with Microsoft?

14 A. We invest in a variety of technology start-ups, and
15 many of them have their own relationships with Microsoft, and
16 so we do meet people at Microsoft occasionally, but
17 no regular business arrangement with Microsoft.

18 Q. Okay. So I have this list of your jobs here. Could we
19 put a finer point in terms of what years you were working --
20 well, strike that. What years were you doing each of the
21 jobs for? So, for network program manager, for how long did
22 you have that job and when did you stop?

23 A. Well, I started that in '88, when I joined the firm,
24 and I'm thinking I did that for a couple years, maybe.

25 Q. Okay.

1 A. Until about -- it's hard to remember at this point --
2 until about maybe '90 or '91. Then I started managing the
3 Windows For Work Groups team, and I did that until we shipped
4 that product, which would have been in late '92, I think.
5 And then I started co-managing Windows 95 development and did
6 that from that point until Windows 95 shipped, which was in
7 August of '95. Then I started running the Internet Explorer
8 team and did that, I think, up until about, oh, gosh, '97,
9 maybe, managed all the mail clients and communications
10 clients for another year, until, lilke, '98, and then did the
11 online services for another year, until '99.

12 That's roughly speaking. There could be six months
13 off easily in any one of those boundaries.

14 Q. What were your job duties with the Windows 95 product,
15 more specifically?

16 A. I co-managed the development of that product, so I
17 managed developments and test and user education teams, and
18 my teams were focused on networking features and
19 communications features that were in the product.

20 Q. What kind of networking features?

21 A. Network card drivers, network transport stacks, file
22 redirectors, print redirectors, pier file server, the whole
23 collection of things that had to do with connecting the
24 machine up to a network.

25 Q. And was your focus on implementing those network

1 features to make sure that the Windows 95 product could
2 operate on networks?

3 A. Yes. That was the primary goal.

4 Q. We'll mark Ludwig-1 as MS 7089438 through 42. And if
5 you could just take a second, look that over. You are
6 identified as a recipient of this email, which includes a set
7 of notes. Okay. Do you have any recollection of discussions
8 among Microsoft executives relating to moving features from
9 Microsoft Word into the operating system in order to enable
10 Microsoft applications to sell more product?

11 A. No. I have no recollection of that.

12 Q. Okay. If you could turn two more pages, it's at the
13 bottom corner. It says 41.

14 A. Okay.

15 Q. Do you see that?

16 A. Yes.

17 Q. The very last bullet point says: "Ship extensible
18 shell in Office," with three exclamation points. "Wire the
19 features we need for Chicago into the explorer, e.g., mail
20 integration, Printman, CPanel, Fonts, etc." End quote.

21 Do you see that?

22 A. Yes, I do.

23 Q. Do you have an understanding of what the reference to
24 the extensible shell in Office is?

25 A. I have no idea what that is.

1 Q. Do you have any recollection of discussions
2 regarding -- well, strike. What's a shell?

3 A. Well --

4 Q. And if it helps you, let me ask it a little bit
5 differently so I can try and make it a little bit more
6 focused. Do you have any recollection of what a shell was,
7 as it relates to Windows 95?

8 A. Yes.

9 Q. Okay. And what was that?

10 A. The shell was the collection of software that presented
11 the user -- interface to the user and interacted with lower
12 systems to control and maintain that user interface and was
13 responsible for showing the file browsers, so you could
14 browse files; for showing the control panel, so you could
15 configure the machine; for showing the print manager, so you
16 can configure printers and print jobs. And it was that whole
17 collection of software that managed that -- that presentation
18 to the user.

19 Q. Okay. Office was the suite of applications that
20 included Microsoft Word and several other business
21 application products; is that right?

22 A. Yes.

23 Q. Do you have any recollection of discussions regarding
24 whether or not -- strike that. Do you have any recollection
25 of discussions regarding the extent to which the Windows 95

1 shell should be included in Office?

2 A. No.

3 Q. Do you have any recollection of discussions regarding
4 the degree to which the Office shell should take advantage of
5 Windows 95 shell features?

6 A. I don't even know what the Office shell is.

7 Q. Okay.

8 A. I used Office. There is no such thing in office that I
9 know of, so, no, I don't know what that is.

10 Q. Okay. And do you have any recollection of discussions
11 relating to providing a shell with Office back during that
12 1993 time period?

13 A. No, I don't.

14 Q. Do you have any recollection of discussions among
15 Microsoft executives relating to wiring features into its
16 operating system to benefit Microsoft applications?

17 A. No, I don't.

18 Q. Okay. Let me give you what's marked as Exhibit 3,
19 which is MS 0185884. And both sides are copied. If you
20 could just take a look at that.

21 A. Okay.

22 Q. This is an email chain made up of three separate
23 emails; is that right?

24 A. That is how I read it.

25 Q. Okay. And the first two parts are from Mr. Brad

1 Silverberg, and the first part is from Mr. Cole; is that
2 right?

3 A. Yes.

4 Q. And do those two sections refresh your recollection at
5 all about discussions regarding moving the shell from Chicago
6 into Office?

7 A. No.

8 Q. Do you have any recollection of the term "shell
9 wars"?

10 A. No.

11 Q. Okay. And then the top part of that email is from you
12 to Messrs. Cole, Silverberg and Maritz; is that right?

13 A. Yes.

14 Q. And you have copied Mr. Sinofsky; is that right?

15 A. Yes. He was on the original mail.

16 Q. Okay. Do you have any recollection of writing this
17 email?

18 A. No.

19 Q. Okay: You write in the first sentence: "I'm feeling
20 pretty queasy about it, too."

21 Do you have any understanding what you meant when
22 you wrote that?

23 A. Nope.

24 Q. Do you have any reason to doubt that you wrote this
25 email?

1 A. No. I don't have any reason to doubt it.

2 Q. Okay. The next sentence is: "Our worst nightmare is
3 Novell/Lotus being successful at establishing their
4 'middleware' as a standard."

5 Do you see that?

6 A. Yes, I do.

7 Q. Do you have any understanding of what you meant when
8 you wrote that?

9 A. I was concerned about Novell or Lotus or someone
10 beginning to establish a successful middleware platform that
11 would be more attractive to ISV's than the Microsoft
12 platform.

13 Q. And what was the basis for that concern?

14 A. I don't remember.

15 Q. Why did you phrase it, "our worst nightmare"?

16 A. I don't know. I'm not sure it really would have been
17 our worst nightmare.

18 Q. Does that accurately reflect your view at the time?

19 A. I don't remember.

20 Q. We had a discussion earlier about what "standard"
21 meant, and you said it had a lot of meanings. What did you
22 mean when you wrote "standard" in this sentence?

23 A. Again, I was concerned about a lot of ISV's deciding to
24 write their applications to this middleware layer instead of
25 a Microsoft operating system product.

1 Q. Okay. So was it was your concern that Novell or Lotus
2 would be able to establish their middleware as a standard and
3 thereby limit the competitive advantages that Microsoft
4 operating systems had?

5 A. My concern was that software developers would find this
6 middleware platform more attractive than a Microsoft product
7 and would spend more time writing applications to this
8 middleware platform than to a Microsoft product.

9 Q. What would happen if the ISV's did write to middleware
10 rather than to Microsoft operating systems?

11 A. Well, I don't know. I don't think this happened, so
12 I'm not sure what would have happened.

13 Q. Okay. What was the basis of your concern that
14 middleware would be established as a standard?

15 A. Well, as someone who is in the operating system
16 business, certainly I wanted to see software developers rely
17 on our technologies. That meant we were doing a good job.

18 Q. Uh-huh?

19 A. That they were interested in what we had to offer, that
20 they were compelled by the opportunity to write into the
21 Windows platform. And if they started writing to other
22 platforms it would -- it was an indicator to me that we must
23 not being doing a good job, that we were failing to address
24 their needs or their concerns. They were finding other
25 platform products more compelling, more attractive to them

1 and, therefore, we were doing a bad job. That was my
2 concern.

3 Q. Okay. Was there a concern that if ISV's began writing
4 to middleware, then other operating systems might be more
5 successful in selling in competition with Microsoft operating
6 systems?

7 A. I think that's one possible outcome. I don't remember
8 exactly what I was concerned about at the time. I just know
9 I was concerned about losing the attention of software
10 developers because our product wasn't as compelling as an
11 alternative.

12 Q. Okay. Do you remember any discussions among Microsoft
13 executives, including Mr. Gates, regarding concerns about
14 middleware and the incentive for ISV's to write to
15 middleware, as opposed to Microsoft operating systems?

16 A. I remember that it was a discussion topic. I can't
17 remember any specific discussions.

18 Q. Do you have any general recollection of what was
19 discussed on that topic?

20 A. No.

21 Q. Okay. In that next sentence you write: "Ours ought to
22 be ubiquitously available to forestall this."

23 Do you see that?

24 A. Yes, I do.

25 Q. What did you mean when you wrote that?

1 A. I can -- I can guess at what I mean -- meant by reading
2 this is that -- I don't remember.

3 Q. I don't want you to guess, but I want you to use your
4 experience and your knowledge from working at that time
5 period to tell me what you believe you meant when you wrote
6 that.

7 A. I -- so, I don't remember exactly what I meant.

8 Q. Uh-huh.

9 A. My guess is that I was concerned about some of our
10 technologies not being as widely available as -- as some of
11 this middleware from competitors was going to be.

12 Q. Okay. And what is that guess based on?

13 A. Reading this.

14 Q. Anything else?

15 A. No.

16 Q. You write, then: "Our huge advantage, vis-a-vis
17 Novell, is our end-user franchise. We shouldn't cast aside
18 this advantage."

19 Do you see that?

20 A. I do.

21 Q. Do you have any understanding of what you meant when
22 you wrote that?

23 A. I understand end-user franchise. We spoke about that
24 earlier. I honestly don't understand, though, the whole
25 logic chain that I was writing here.

1 Q. Okay. Do you recall whether any other Microsoft
2 executives shared your view that Novell/Lotus being
3 successful at establishing their middleware as a standard was
4 a concern to them?

5 A. I don't remember.

6 Q. Do you recall anybody else using the term "worst
7 nightmare" in the context of that concern?

8 A. No, I don't.

9 Q. Do you have any recollection, whatsoever, other than
10 what we've gone through here, on the topic of your concerns
11 about Novell/Lotus being successful at establishing their
12 middleware as a standard?

13 A. No, I don't.

14 MR. JOHNSON: Right on time, Your Honor.

15 THE COURT: Great. See everybody in 20 minutes.

16 THE COURT: Do we have full day left?

17 MR. JOHNSON: You know, Your Honor, I'm not sure.

18 We may not have a totally full day.

19 THE COURT: Okay.

20 MR. JOHNSON: I'll take a look at the --

21 THE COURT: That's fine. That's fine. We'll just
22 let the jury know when we come back.

23 MR. JOHNSON: Okay. Thank you, Your Honor.

24 (Short break.)

25