1	UNITED STATES DISTRICT COURT		
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3	DISTRICT OF CONNEC		
4	BRISTOL TECHNOLOGIES, INC.,	Volume III	
5	Plaintiff,		
6	v.	No. CV-98-1657 October 19, 1998	
-	, ALTOPOGO DE GOD DOD MILLON		
7	MICROSOFT CORPORATION,	915 Lafayette Blvd. Bridgeport, CT	
8	Defendant.		
9	COURT HEARING		
10	BEFORE:	•	
11	THE HONORABLE JANET C. HALL	, U.S.D.J.	
12	APPEARANCES:		
13	FOR THE PLAINTIFF:		
14	O'MELVENY & MYERS, LLP John L. Altieri, Jr., Esquire		
15	Patrick Lynch, Esquire Anthony Clapes, Esquire		
16	400 South Hope Street Los Angeles, CA		
17	FOR THE DEFENDANT:		
18	SULLIVAN & CROMWELL		
19	David Tulchin, Esquire	•	
20	Elizabeth Martin, Esquire Marc DeLeeuw, Esquire		
21	Michael Tomaino, Esquire 125 Broad Street		
22	New York, New York 10004		
23	Steve Aeschbacher, Microsoft		
	Kathleen Sweeney Norton, RPR		
24	Official Court Rep 915 Lafayette Boul		
25		6604	

- 1 in a given market?
- 2 A Yes.
- 3 Q What is that definition?
- 4 A It's the power to hold price substantially above
- 5 competitive levels and doing that for a long period of
- 6 time necessarily entails the ability to prevent injury.
- 7 Q Where does that definition come from?
- 8 A That definition, although not necessarily exactly
- 9 those words, but that definition in substance appears in
- 10 essentially every reputable textbook.
- 11 Q How does an economist such as yourself go about
- 12 determining whether a seller of a product has monopoly
- 13 power in a given product market?
- 14 A There are a number of approaches depending on the
- 15 availability of data. The traditional and most common
- 16 approach is an instance where one can define a relevant
- 17 market in the anti-trust sense to first look at shares of
- 18 that market and then, if shares are large, to move on to
- 19 considered conditions of entry.
- 20 Q In your opinion, Dr. Schmalensee, does Microsoft
- 21 currently have monopoly power in the market for work
- 22 station operating systems as that market has been defined
- 23 by Professor Langlois?
- 24 A No, it does not.
- 25 Q And what is the basis for that?

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- 1 Q All right. Do you have an opinion as to whether or
- 2 not there is a dangerous probability that Windows NT will
- 3 achieve monopoly power in the market for departmental
- 4 server operating systems?
- 5 A Yes, I do.
- 6 Q And what is that opinion?
- 7 A Well, a combination of Professor Langlois' own data
- 8 and the trade press, the Langlois data shows Microsoft's
- 9 market share rising relatively gradually, does not show
- 10 UNIX or alternatives disappearing in either of these
- 11 tables, and the trade press generally concludes that UNIX
- 12 alternatives to Microsoft will be viable for some time to
- 13 come.
- 14 Q Are you familiar with the concept of network
- 15 effects?
- 16 A Yes.
- 17 Q Would you please explain.
- 18 A Network effects or network externality are a set of
- 19 related terms, appear in the theoretical literature in
- 20 economics, and they're referred to a situation in which
- 21 the more users adopt a technology or product or standard,
- 22 the more attractive that technology or product or standard
- 23 becomes to other users.
- 24 Q Are you familiar as well with the concept of
- 25 tipping?

- between UNIX and Windows NT.
- Q And the number is actually a bit less than
- 3 two-tenths of 1 percent because we threw out Table 30
- 4 completely and you testified at least some of Table 30
- 5 should be included, correct?
- 6 A Yes, although we're now somewhere in the second
- 7 decimal place or second digit.
- 8 Q All right. Dr. Schmalensee, in your opinion, is
- 9 there any realistic way of thinking of Bristol as a
- 10 competitor of Microsoft in the market for departmental
- 11 server or technical work station operating system?
- 12 A No. Bristol doesn't produce an operating system.
- 13 Q As an economist, how do you normally identify the
- 14 competitors in a given market?
- 15 A I look for substitutes. I look for products or
- 16 firms that do or could exert discipline on pricing.
- 17 Q Do you consider Bristol or WIND/U to be a
- 18 substitute under that analysis for an operating system?
- 19 A No.
- 20 Q Now, Professor Langlois has said that Bristol could
- 21 be considered a competitor of Microsoft in the operating
- 22 system market because WIND/U enhances UNIX and UNIX
- 23 competes with Microsoft in the operating system markets;
- 24 therefore, WIND/U can be viewed as competing with
- 25 Microsoft in the operating system markets. You are

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1 familiar with that opinion as expressed by Professor

- 2 Langlois?
- 3 A I have read it, yes. I'm familiar with it.
- 4 Q Do you agree that under this theory Bristol ought
- 5 to be considered a competitor of Microsoft in the various
- 6 operating system markets that we're dealing with here?
- 7 A No. I have never actually before seen anybody
- 8 analyze competition in quite that way, and under that view
- 9 of the world, essentially everybody that is writing
- 10 software is competing with everybody else that is writing
- 11 software, and I just don't think that's useful. My
- 12 declaration goes through, again, a quantitative exercise.
- 13 If everybody that writes software competes with Microsoft,
- 14 then Microsoft has, depending on what you include in the
- market, between 9 and 12 percent of that market. If it's
- not on the market, I'm not quite sure what the analysis is
- 17 pointing to.
- 18 Q And the basis for that 9 to 12 percent that you
- 19 just stated is set forth in your declaration?
- 20 A Yes, it is.
- 21 MR. TOMAINO: Okay. Thank you. Nothing
- 22 further.
- THE COURT: Do you wish to inquire?
- 24 Attorney Altieri, do you wish to inquire?
- MR. ALTIERI: Yes, your Honor.

- 1 Q So you would not dispute a relevant market that
- 2 consisted of the market for operating systems for personal
- 3 computers, the market for operating and work stations and
- 4 departmental servers, except it might be a little too
- 5 broad on the high end; is that correct?
- 6 A Well, it might be a little too broad in the sense
- 7 it would include things with different capability, but I
- 8 wouldn't dispute it as being too narrow, no.
- 9 Q Now, sir, have you studied Microsoft's market share
- 10 in that market?
- 11 A I wasn't asked to and I haven't.
- 12 Q Now, sir, neither that market nor the departmental
- 13 server market that Professor Langlois defined includes
- 14 enterprise servers; is that correct?
- 15 A That's correct.
- 16 Q And enterprise servers perform a major of the
- 17 server operating systems market? Excuse me. Strike that.
- 18 Have you gone through the materials that you
- 19 were shown on your direct examination, and I guess you
- 20 were shown on Saturday morning last? Have you gone
- 21 through those to weed out which of those numbers pertain
- there to software in the enterprise server market?
- 23 A No. I have the same problem that Professor
- 24 Langlois had indicated in his declaration that the data
- 25 don't split easily that way, and these data don't seem to

- 1 market; isn't that correct?
- 2 A I was clear one can conclude some things from
- 3 looking only at market share, but under some circumstances
- 4 it's definitely not enough.
- 5 Q And I believe you have previously testified, have
- 6 you not, that in looking at a particular historical market
- 7 share data, that there is no fixed number that one can use
- 8 to determine whether or not there is dominance in the
- 9 marketplace by a particular competitor; is that correct?
- 10 A There is no generally accepted right line in
- 11 economics, that's correct. It's a continuum.
- 12 Q Haven't you said, sir --
- 13 A To be clear, may I correct something? I don't
- 14 believe we talked about dominance. I believe we talked
- 15 about monopoly power. I treat those as being roughly
- 16 having the same meaning. I'm not sure the law does. I
- 17 just want to be clear.
- 18 Q Now, haven't you previously testified that in at
- 19 least some areas such as the merger guidelines that you
- were involved with, that the 35 percent number has been a
- 21 threshold for concern about single-firm market power?
- 22 A In the context of the merger guideline and the
- 23 anti-trust law adopted by the Russian Federation in 1991,
- 24 that number appears, so in that sense, yes, indeed, it has
- 25 been a concern, a threshold.