

# TABLE OF CONTENTS

## Volume 1

<b>I.</b>	<b>Background</b> .....	<b>1</b>
<b>II.</b>	<b>Microsoft Possesses Monopoly Power Over Operating Systems</b> .....	<b>8</b>
<b>A.</b>	<b>Microsoft’s monopoly power is established by direct evidence of its existence and exercise</b> .....	<b>9</b>
<b>B.</b>	<b>Microsoft’s monopoly power is also demonstrated by a structural analysis</b>	<b>20</b>
<b>C.</b>	<b>Microsoft’s ability to control the price of Windows evidences its monopoly power</b> .....	<b>62</b>
<b>D.</b>	<b>Dean Schmalensee’s contrary analysis is unreliable</b> .....	<b>75</b>
<b>III.</b>	<b>Alternative Platform-Level Technologies, Especially Internet Browsers and Java, Threaten Microsoft’s Operating System Monopoly</b> .....	<b>125</b>
<b>A.</b>	<b>Middleware technologies have the potential to reduce the applications barrier to entry and facilitate operating system competition</b> .....	<b>125</b>
<b>B.</b>	<b>The widespread use of non-Microsoft Internet browsers threatened to erode the applications barrier to entry and Microsoft’s monopoly power</b> .....	<b>127</b>
<b>C.</b>	<b>Cross-Platform Java also presented a middleware threat to Microsoft’s operating system monopoly</b> .....	<b>137</b>
<b>D.</b>	<b>The threats to Microsoft’s monopoly posed by Internet browsers and Java are mutually reinforcing, and they could be essential to the emergence of other platform-level threats to Microsoft’s operating system monopoly</b> .....	<b>147</b>
<b>IV.</b>	<b>Microsoft Attempted To Enter Market-Division Agreements To Eliminate Platform-Level Software That Threatened Its Operating System Monopoly</b> .....	<b>151</b>

A.	<b>Microsoft tried to eliminate the browser threat by proposing a naked market-division agreement to Netscape</b> .....	151
B.	<b>Microsoft’s proposal of market-division agreements to eliminate other potentially threatening middleware confirms the anticompetitive character of its course of conduct against the browser</b> .....	192
V.	<b>Microsoft Engaged In A Predatory Campaign To Crush The Browser Threat To Its Operating System Monopoly</b> .....	217
A.	<b>After Netscape refused Microsoft’s offer to divide the browser market, Microsoft embarked on a predatory campaign to eliminate the browser threat</b> .....	217
B.	<b>Microsoft tied its Internet Explorer browser to Windows 95 and Windows 98 in order to impede browser rivals such as Netscape, and for no legitimate purpose</b> .....	218
C.	<b>Microsoft imposed a variety of other anticompetitive restraints on the OEM channel in order to impede rivals such as Netscape</b> .....	382
D.	<b>Microsoft entered into anticompetitive and exclusionary agreements with OLSs and ISPs</b> .....	460
E.	<b>Microsoft entered into anticompetitive, exclusionary agreements with Internet Content Providers</b> .....	524
F.	<b>Microsoft entered into exclusionary agreements with other firms that restricted their ability to promote, support, and distribute non-Microsoft browsers</b> .....	553
G.	<b>Microsoft set a predatory price for Internet Explorer</b> .....	577
VI.	<b>Microsoft Used Predatory and Anticompetitive Conduct to Impede Other Platform Threats as Well, Thereby Further Entrenching Its Operating System Monopoly</b> .....	634
A.	<b>Microsoft responded to the threat that Java posed to the applications barrier to entry by engaging in predatory and anticompetitive conduct</b> .....	634
B.	<b>Microsoft engaged in anticompetitive conduct to induce Intel to abandon or restrict platform-level software</b> .....	688

<b>VII.</b>	<b>Through its predatory and anticompetitive conduct, Microsoft has maintained its operating system monopoly, dangerously threatened monopolization of the browser market, and inflicted substantial and far-reaching consumer harm . . . . .</b>	<b>710</b>
<b>A.</b>	<b>Microsoft’s campaign to blunt the browser threat further entrenched Microsoft’s operating system monopoly . . . . .</b>	<b>711</b>
<b>B.</b>	<b>Microsoft’s anticompetitive conduct created a dangerous probability that Microsoft would monopolize the market for Internet browsers . . . . .</b>	<b>817</b>
<b>C.</b>	<b>AOL’s acquisition of Netscape will not undo the harm to competition caused by Microsoft’s predatory and anticompetitive conduct . . . . .</b>	<b>829</b>
<b>D.</b>	<b>Microsoft’s entire course of conduct has caused, and will continue to cause, substantial and far-reaching harm to competition . . . . .</b>	<b>846</b>
<b>E.</b>	<b>Microsoft’s conduct has caused, and will continue to cause, substantial and far-reaching consumer harm . . . . .</b>	<b>856</b>

# TABLE OF CONTENTS

## Volume 1

<b>I.</b>	<b>Background</b>	<b>1</b>
<b>II.</b>	<b>Microsoft Possesses Monopoly Power Over Operating Systems</b>	<b>8</b>
<b>A.</b>	<b>Microsoft’s monopoly power is established by direct evidence of its existence and exercise</b>	<b>9</b>
<b>B.</b>	<b>Microsoft’s monopoly power is also demonstrated by a structural analysis</b>	<b>20</b>
1.	Operating systems for Intel-compatible PCs comprise a relevant market	21
2.	Microsoft possesses a dominant, persistent, and increasing share of the market for operating systems for Intel-compatible PCs	31
3.	Microsoft’s dominant market share reflects monopoly power because its position in operating systems is protected by high barriers to entry	34
a.	Definition of barriers to entry	34
b.	The applications barrier to entry protects Microsoft’s dominant position in operating systems	35
(1)	Microsoft possesses a dominant market share because software developers have powerful incentives to write applications first and foremost to Windows	36
(2)	The same factors that reinforce Microsoft’s large market share inhibit other operating systems from challenging Windows	46
(3)	The persistence of Microsoft’s huge market share is itself evidence of high entry barriers	52
(4)	The testimony of Apple and IBM illustrates the strength of the	

	applications barrier to entry . . . . .	53
c.	Other entry barriers reinforce the applications barrier to entry . . . . .	59
<b>C.</b>	<b>Microsoft’s ability to control the price of Windows evidences its monopoly power . . . . .</b>	<b>62</b>
1.	Microsoft does not consider rival operating systems in pricing Windows 95 or Windows 98 . . . . .	62
2.	Microsoft raised the prices of obsolete versions of Windows . . . . .	62
	a. Microsoft increased the Windows 95 price when it released Windows 98 . . . . .	62
	b. Microsoft used the threat of withholding discounts on Windows 95 to double the price charged IBM for Windows 3.1 following the release of Windows 95 . . . . .	65
3.	Other aspects of Microsoft’s pricing of Windows are consistent with monopoly power . . . . .	68
<b>D.</b>	<b>Dean Schmalensee’s contrary analysis is unreliable . . . . .</b>	<b>75</b>
1.	Dean Schmalensee’s approach to market definition is flawed . . . . .	75
2.	Dean Schmalensee’s opinion that Microsoft lacks monopoly power because of low barriers to entry is flawed . . . . .	81
	a. Dean Schmalensee is wrong that the applications barrier to entry is low . . . . .	81
	b. Dean Schmalensee’s contention that entry into the microcomputer software industry is easy is a red herring . . . . .	96
	c. Dean Schmalensee is wrong in arguing that the existence of potential threats to Windows shows that barriers to entry are low . . . . .	100
3.	Dean Schmalensee’s contention that “long term threats” prevent Microsoft from exercising monopoly power today is flawed . . . . .	107

4.	Dean Schmalensee is wrong that Microsoft’s other behavior is inconsistent with monopoly power . . . . .	120
<b>III.</b>	<b>Alternative Platform-Level Technologies, Especially Internet Browsers and Java, Threaten Microsoft’s Operating System Monopoly . . . . .</b>	<b>125</b>
<b>A.</b>	<b>Middleware technologies have the potential to reduce the applications barrier to entry and facilitate operating system competition . . . . .</b>	<b>125</b>
<b>B.</b>	<b>The widespread use of non-Microsoft Internet browsers threatened to erode the applications barrier to entry and Microsoft’s monopoly power . . . . .</b>	<b>127</b>
1.	The nature of the browser threat . . . . .	127
2.	Microsoft recognized the threat that Internet browsers, in particular Netscape Navigator, posed to its operating system monopoly . . . . .	132
<b>C.</b>	<b>Cross-Platform Java also presented a middleware threat to Microsoft’s operating system monopoly . . . . .</b>	<b>137</b>
1.	The nature of the Java threat . . . . .	137
2.	Microsoft recognized the Java threat . . . . .	142
<b>D.</b>	<b>The threats to Microsoft’s monopoly posed by Internet browsers and Java are mutually reinforcing, and they could be essential to the emergence of other platform-level threats to Microsoft’s operating system monopoly . . . . .</b>	<b>147</b>
<b>IV.</b>	<b>Microsoft Attempted To Enter Market-Division Agreements To Eliminate Platform-Level Software That Threatened Its Operating System Monopoly . . . . .</b>	<b>151</b>
<b>A.</b>	<b>Microsoft tried to eliminate the browser threat by proposing a naked market-division agreement to Netscape . . . . .</b>	<b>151</b>
1.	Microsoft first unsuccessfully sought to purchase or license Netscape’s browser software code . . . . .	151
2.	When Microsoft recognized the threat that Netscape’s browser posed to its monopoly, Microsoft set out to eliminate the threat by seeking Netscape’s agreement not to compete and to divide the browser market . . . . .	152

- a. Microsoft recognized that it could cripple the browser threat by eliminating Netscape as a browser supplier for Windows 95 . . . 152
  - b. Microsoft first suggested that Netscape not compete with it in the Windows 95 browser business at a June 2, 1995, meeting . . . . 154
  - c. At a June 21, 1995, meeting Microsoft expressly proposed a naked market-division agreement to stop Netscape from offering a competing platform . . . . . 157
3. Microsoft’s after-the-fact assertion that its market division proposal was simply exploring forms of legitimate cooperation is pretextual and contrary to the evidence . . . . . 166
- a. Microsoft’s contention that it was not trying to get Netscape out of the browser business is erroneous and rests on a misleading play on words . . . . . 166
  - b. Rosen’s other testimony, both regarding the June 21, 1995, meeting and more generally, is evasive and misleading . . . . . 172
  - c. Microsoft’s contention that it engaged in legitimate joint venture discussions with Netscape is contrary to the evidence . . . . . 176
4. Acceptance of Microsoft’s market-division proposal would have resulted in both the maintenance of Microsoft’s operating system monopoly and a Microsoft monopoly in the browser market . . . . . 189

**B. Microsoft’s proposal of market-division agreements to eliminate other potentially threatening middleware confirms the anticompetitive character of its course of conduct against the browser . . . . . 192**

1. Microsoft similarly attempted to divide markets with Apple . . . . . 192
- a. Apple’s QuickTime multimedia software, like the browser, is platform-level software that Microsoft viewed as a potential-threat to its operating system monopoly . . . . . 192
  - b. Just as with Netscape, Microsoft sought to divide markets with Apple in order to eliminate the threat that QuickTime’s platform-level components might pose . . . . . 194

c.	Microsoft’s purpose in proposing a division of markets to Apple was to ensure Microsoft’s continued control over platform-level interfaces	199
d.	Microsoft retaliated against Apple, just as it did with Netscape, when Apple refused to accept Microsoft’s proposal	202
e.	Just as with Netscape, Microsoft’s proposal was unrelated to any efficiency-enhancing sharing of technology	207
2.	Microsoft also attempted to divide markets with RealNetworks, using the same carrot and stick approach it used with other potential platform rivals	210
<b>V.</b>	<b>Microsoft Engaged In A Predatory Campaign To Crush The Browser Threat To Its Operating System Monopoly</b>	<b>217</b>
<b>A.</b>	<b>After Netscape refused Microsoft’s offer to divide the browser market, Microsoft embarked on a predatory campaign to eliminate the browser threat</b>	<b>217</b>
1.	Microsoft made obtaining browser share a central corporate objective	217
2.	Microsoft embarked on a predatory and anticompetitive course of conduct designed to gain browser share	219
3.	Microsoft’s efforts to pressure Intel to stop developing or supporting platform-level software illustrate Microsoft’s predatory intent and tactics	221
a.	In an August 1995 meeting, Microsoft pressured Intel into not resuming platform-level software and not supporting Netscape and Java	221
b.	In subsequent meetings in the Fall of 1995, Microsoft explained to Intel that its strategy would be to kill Netscape and control Internet standards	224
<b>B.</b>	<b>Microsoft tied its Internet Explorer browser to Windows 95 and Windows 98 in order to impede browser rivals such as Netscape, and for no legitimate purpose</b>	<b>228</b>
1.	Internet Explorer and Windows operating systems are separate products	230



a.	Browsers and operating systems are universally recognized by industry participants to be separate products . . . . .	230
	(1) An Internet browser supplies web browsing . . . . .	230
	(2) Industry participants view a browser as an application, and not as part of an operating system . . . . .	231
	(3) In its ordinary commercial conduct, Microsoft treats Internet Explorer as a separate product . . . . .	234
	(a) Microsoft promotes Internet Explorer as a product, positions it in competition with other Internet browsers, and tracks its market share relative to those of other browsers . . . . .	235
	(b) Microsoft treated Internet Explorer and Windows separately until the issue arose in litigation . . . .	238
	(1) Before litigation, Microsoft called Internet Explorer a browser in its ordinary commercial conduct . . . . .	238
	(2) Since litigation began, however, Microsoft has made a concerted effort to change its language in order to aid its legal position . . . . .	240
b.	The recognition that browsers and operating systems are separate products reflects the marketplace reality that consumers, for a wide variety of reasons, demand operating systems and Internet browsers separately . . . . .	241
	(1) Some consumers demand browsers and operating systems separately because different browsers have different features and they prefer to obtain a PC containing only the desired browser . . . . .	244
	(2) Some consumers, particularly corporate customers, demand browsers and operating systems separately because they prefer to standardize on the same browser across many PCs and	

	across different operating systems . . . . .	244
(3)	Some consumers demand browsers and operating systems separately because they may wish to upgrade one without upgrading the other . . . . .	248
(4)	Some customers demand browsers and operating systems separately because they want no web browsing capability . . . . .	249
(5)	OEMs are surrogates for end users; and thus, for the above reasons, they too demand browsers and operating systems separately . . . . .	253
c.	To satisfy this separate demand, firms — including Microsoft — have found it efficient to supply browsers and operating systems separately . . . . .	254
(1)	Internet Explorer and other browsers have been, and continue to be, supplied separately from operating systems . . . . .	254
(2)	Operating system vendors — at least those which, unlike Microsoft, lack market power — supply operating systems separately from browsers . . . . .	256
(a)	Some operating system vendors offer consumers the choice of licensing the operating system without a browser . . . . .	256
(b)	Operating system vendors other than Microsoft sometimes bundle one or more browsers with their systems but allow VARs, OEMs, or end users to remove them or not to install them . . . . .	257
(c)	Until recently, Microsoft likewise accommodated this separate demand by enabling users to remove Internet Explorer from Windows . . . . .	272
2.	Microsoft tied Internet Explorer to Windows in order to impede browser rivals and protect its operating system monopoly . . . . .	272
a.	Before it decided to blunt the browser threat, Microsoft did not plan to	

	tie its browser to Windows . . . . .	272
b.	Microsoft changed its plans, and decided to tie its browser to Windows, in order to impede Netscape . . . . .	276
c.	Microsoft used its operating system monopoly to compel OEMs licensing Windows 95 also to license Internet Explorer 1 and 2 . . . . .	284
d.	Microsoft next tied Internet Explorer 3 and 4 to Windows 95 . . . . .	287
	(1) Microsoft concluded that merely tying Internet Explorer to Windows was not sufficient to defeat Netscape and that, to win the browser war, it must make Windows and Internet Explorer difficult to separate . . . . .	287
	(2) In furtherance of this objective, Microsoft tied Internet Explorer 3 to Windows by commingling the code that supplies web browsing with the code that supplies operating system functions, forcing OEMs to license that product, and refusing to supply an unbundled option . . . . .	288
	(a) Software routines and files need not be developed or distributed together to achieve seamless integration of their functions . . . . .	289
	(b) Although recognizing it could have chosen a different approach, Microsoft made Internet Explorer 3 and Windows difficult to separate and offered only a bundled version to OEMs and end users . . . . .	294
	(3) Microsoft similarly tied Internet Explorer 4 to Windows . . . . .	295
	(4) Microsoft also tied the browser to the operating system by refusing to license OEMs, and refusing to permit OEMs to offer their customers, Windows with Internet Explorer “uninstall” . . . . .	297
	(a) Microsoft configured Internet Explorer to “uninstall” in response to demand for Windows without Internet . . . . .	297

	Explorer . . . . .	297
	(b) “Uninstalling” Internet Explorer removes the Internet browser product . . . . .	299
	(c) Microsoft used its operating system monopoly to deny OEMs the ability to license or sell Windows with Internet Explorer uninstalled . . . . .	309
e.	Microsoft also tied Internet Explorer to Windows 98 . . . . .	310
	(1) Microsoft concluded that defeating Netscape required it to tie its browser more tightly to the operating system . . . . .	310
	(2) To accomplish this objective, Microsoft made the browser and the Windows 98 operating system more difficult to separate by, among other things, eliminating the “uninstall” capability and hindering users from making other browsers the default . . . . .	315
3.	There is no technical or economic justification for Microsoft’s tying of Internet Explorer and Windows . . . . .	318
	a. Microsoft’s “welding” of its browser thwarted the substantial demand for Windows without an Internet browser . . . . .	319
	b. There is no technical reason for Microsoft’s refusal to meet demand for Windows without web browsing . . . . .	319
	(1) Microsoft easily could have supplied Windows 95 without web browsing . . . . .	319
	(2) Microsoft easily could have supplied Windows 98 without web browsing and enabled OEMs and users to “uninstall” the browser . . . . .	322
	c. There is no technical reason for Microsoft not to meet demand for Windows 95 or Windows 98 without web browsing by offering further separation between the browser and the operating system . . . . .	330

(1)	Microsoft easily could supply versions of Windows 95 and Windows 98 without the routines that provide web browsing and still offer users the same alleged benefits of its “integrated” features and design . . . . .	330
(a)	Bundling the browser with the operating system is inefficient for users that do not want the browser . . . . .	331
(b)	Tying the browser to the operating system is not necessary to achieve the benefits sought by users who want both the operating system and the Internet Explorer browser . . . . .	335
(2)	Microsoft’s forced licensing of its browser is not necessary to provide OEMs and users with other benefits, such as new file formats and data protocols . . . . .	345
d.	The <u>post hoc</u> economic justifications Microsoft’s witnesses have advanced for tying Internet Explorer to Windows are contrary to the evidence . . . . .	348
(1)	Microsoft’s conduct was not plausibly designed or intended to increase demand for Windows . . . . .	348
(2)	Microsoft’s tie-in and related restrictions were not reasonably necessary to preserve the integrity of the Windows platform . . . . .	350
(3)	Microsoft’s quality-related justifications are pretextual . . . . .	359
4.	Microsoft’s tying of Internet Explorer to Windows has caused significant exclusionary effects and consumer harm . . . . .	362
a.	Installing a second product in a software category imposes costs on OEMs . . . . .	362
(1)	Increased technical support costs . . . . .	362
(2)	Additional testing costs . . . . .	364
(3)	Opportunity costs . . . . .	365

b.	Microsoft’s tie-in and associated contractual restrictions raised the costs to OEMs of, and thus deterred OEMs from, preinstalling Netscape and other non-Microsoft browsers . . . . .	366
c.	Microsoft’s conduct similarly raised the costs to end users of employing non-Microsoft browsers . . . . .	366
(1)	It is undesirable for a consumer who wants one type of browser to have a different browser pre-loaded on his PC . . . . .	367
(2)	The hard-coding of Internet Explorer makes users less likely to use Netscape with Windows 98 . . . . .	371
d.	Microsoft’s conduct has caused other significant inefficiencies and consumer harm . . . . .	375
(1)	Microsoft’s commingling of the browser and operating system reduces system performance . . . . .	375
(2)	Microsoft’s commingling of the browser and operating system causes undesirable system complexity, incompatibilities and security concerns . . . . .	377
e.	Dean Schmalensee’s testimony that Microsoft’s conduct did not result in significant competitive and consumer harm is unreliable . . . . .	379
<b>C.</b>	<b>Microsoft imposed a variety of other anticompetitive restraints on the OEM channel in order to impede rivals such as Netscape . . . . .</b>	<b>382</b>
1.	Microsoft imposed exclusionary restrictions on OEMs’ ability to modify the Windows desktop and start-up sequence . . . . .	382
a.	Microsoft imposed the “Windows Experience” restrictions in response to, and in order to stop, OEMs’ featuring Netscape Navigator more prominently than Internet Explorer . . . . .	382
b.	Microsoft’s restrictions significantly increased the costs to OEMs and end users of preinstalling or using non-Microsoft	

browsers .....	388
(1) Microsoft intended its restrictions to facilitate winning the browser war .....	388
(2) Microsoft's restrictions significantly raised the costs of its browser rivals, thereby impairing their ability to compete and harming consumers .....	392
c. Microsoft's recent relaxation of some of its restrictions eliminates neither the most anticompetitive restrictions nor the restrictions' past effects .....	404
d. Microsoft's justifications for its restrictions are pretextual and belied by the evidence .....	406
(1) Microsoft's purported concern with consistency of the user experience cannot explain its restrictions .....	406
(2) Microsoft's purported concern with protecting product quality and goodwill cannot explain its restrictions .....	408
(3) Microsoft's restrictions are unrelated to its purported concern of preventing fragmentation of the Windows platform ..	413
(4) Microsoft's copyright over aspects of Windows cannot justify its restrictions .....	414
2. Microsoft used its monopoly power to force OEMs into taking actions to hinder products or industry developments that threatened its operating system monopoly .....	415
a. Microsoft used threats and bribes to induce OEMs to help entrench its operating system monopoly .....	415
(1) Microsoft used its monopoly power to secure Compaq's assistance in its exclusionary strategy .....	415
(2) Microsoft used MDA discounts to induce other OEMs to take exclusionary actions .....	436

(a)	Microsoft offered discounts for making Internet Explorer the default browser . . . . .	437
(b)	Microsoft offered discounts for preserving the Microsoft-dictated Windows interface . . . . .	437
(c)	Microsoft offered discounts to OEMs that designed PCs in accordance with the Microsoft Hardware Design Guide (“HDG”) and subject to validation testing at Microsoft’s Windows Hardware Quality Labs (“WHQL”) . . . . .	438
b.	Microsoft used its monopoly power to punish OEMs that refused to facilitate its exclusion of rivals . . . . .	440
(1)	Microsoft threatened “MDA repercussions” if IBM continued to bundle Netscape . . . . .	440
(2)	Microsoft threatened to harm Gateway if it supported or bundled Netscape . . . . .	442
(3)	Microsoft repeatedly penalized IBM for competing against Microsoft . . . . .	443
(a)	Microsoft withheld a Windows 95 license from IBM until 15 minutes before the product’s launch because of IBM’s preloading of competing products . . . . .	443
(b)	Microsoft conditioned access to critical marketing support, and other terms and conditions for Windows provided to other OEMs, on IBM’s not preloading competing products with the PCs it shipped . . .	450
(c)	Microsoft sought to condition substantial MDA price reductions on IBM’s ceasing to support competing products . . . . .	455
c.	Microsoft’s anticompetitive intent is evidenced by the clear contrast in its treatment of IBM and Compaq . . . . .	459



<b>D.</b>	<b>Microsoft entered into anticompetitive and exclusionary agreements with OLSs and ISPs</b> .....	460
1.	Microsoft determined that securing distribution for Internet Explorer, and limiting Netscape’s distribution, through leading access providers was critical to gaining browser usage share .....	460
2.	In furtherance of its goal of gaining browser usage share, Microsoft entered into exclusionary agreements with the most important ISPs and OLSs . . . .	463
	a. Microsoft’s exclusionary OLS agreements .....	463
	b. Microsoft’s exclusionary ISP agreements .....	466
	c. Microsoft’s Exclusionary “Internet Explorer preferred” agreements .....	467
	d. Microsoft anticipated that its exclusionary agreements would wrest significant browser share from Netscape .....	468
3.	The importance of the exclusionary terms is evidenced by how much Microsoft paid ISPs and OLSs to enter into the agreements .....	471
	a. Microsoft paid significant value other than promotion through Windows to induce ISPs and OLSs to agree to its exclusionary terms . . .	471
	b. Microsoft also bribed ISPs and OLSs by offering what both access providers and Microsoft viewed as valuable promotion through Windows .....	474
	(1) Promotion in Windows is valuable to ISPs and OLSs because Windows is ubiquitous and users tend to select Internet access providers promoted through Windows .....	475
	(2) Microsoft created, and gave away, prominent desktop placement for ISPs and OLSs that agreed to its exclusionary terms .....	477
	(3) As Microsoft predicted, OLSs and ISPs agreed to its exclusionary restrictions to obtain valuable desktop placement .....	480

(4)	AOL viewed promotion through Windows as particularly valuable and would not have agreed to Microsoft's exclusionary restrictions absent placement in the Windows OLS Folder .....	481
c.	Microsoft unsuccessfully attempted at trial to minimize the value of distribution and promotion through Windows .....	485
d.	Microsoft's assertion that it lacks monopoly power over software distribution is immaterial .....	488
e.	Microsoft's contention that it simply offered ISPs and OLSs a better product is erroneous and misplaced .....	490
4.	Microsoft's agreements have caused substantial competitive harm . . . .	493
a.	Microsoft's agreements raised rivals' costs .....	493
b.	Microsoft's contracts substantially excluded rival web browsers .....	496
(1)	Microsoft's internal analyses evidence the impact of its restrictions .....	497
(2)	The exclusionary impact of Microsoft's agreements is confirmed by the AdKnowledge data .....	498
(3)	The exclusionary impact of Microsoft's agreements is confirmed by Internet Explorer's comparative lack of success in other channels .....	503
c.	Microsoft's arguments that its ISP and OLS agreements did not have a significant exclusionary impact are belied by the evidence .....	504
(1)	Microsoft's restrictions were not ineffective .....	504
(2)	Microsoft's agreements frustrated access providers' desire to offer customers a choice of browsers .....	509
(3)	Microsoft witnesses' testimony that its ISP and OLS	

agreements did not have an exclusionary impact is unreliable

(4)	Microsoft’s failure to enforce certain restrictions, and its partial waiver of them on the eve of this litigation, do not eliminate the agreements’ anticompetitive effects . . . . .	514
(5)	Microsoft’s agreements were exclusionary and anticompetitive notwithstanding the small number of subscribers ISPs and OLSs garnered from the referral server . . . . .	517
5.	Microsoft’s justifications for its agreements are pretextual . . . . .	518
<b>E.</b>	<b>Microsoft entered into anticompetitive, exclusionary agreements with Internet Content Providers . . . . .</b>	<b>524</b>
1.	Microsoft determined that ICPs could help it win the browser war . . .	524
a.	Internet Content Providers . . . . .	524
b.	Microsoft determined that inducing leading ICPs to favor Internet Explorer and disfavor rivals would facilitate winning the browser war . . . . .	526
2.	To achieve its objective of gaining browser usage share, Microsoft entered into exclusionary agreements with ICPs . . . . .	528
a.	Microsoft developed the Channel Bar believing that it would generate substantial revenue . . . . .	528
b.	Microsoft nonetheless decided not to charge ICPs for placement on the Channel Bar, but rather to use such placement as “strategic barter” . . . . .	531
(1)	Microsoft’s exclusionary agreements . . . . .	531
(2)	ICPs agreed to these restrictions in order to get placement on the Windows desktop . . . . .	536
3.	Microsoft’s ICP agreements were exclusionary . . . . .	538
a.	Microsoft specifically intended and anticipated that its ICP agreements	

would deprive Netscape of revenue, exclude Netscape and other browser rivals, and protect Microsoft's operating system monopoly

- b. Microsoft's contention that its ICP agreements were not capable of causing significant anticompetitive effects is unfounded . . . . . 543
- 4. Microsoft's ICP agreements lacked justification . . . . . 547

**F. Microsoft entered into exclusionary agreements with other firms that restricted their ability to promote, support, and distribute non-Microsoft browsers 553**

- 1. Microsoft used its leverage over office productivity suites to coerce Apple to enter into an exclusionary agreement that favored Internet Explorer and severely disadvantaged browser rivals . . . . . 553
  - a. To facilitate winning the browser war, Microsoft sought to obtain default status for Internet Explorer on the Macintosh . . . . . 553
  - b. To accomplish its objective, Microsoft used its leverage over Apple, specifically Apple's dependence on Microsoft's Office productivity suite, to coerce Apple to enter into an exclusionary agreement that favored Internet Explorer and disfavored rivals 554
    - (1) Microsoft's Office productivity suite ("Mac Office") was and remains vital to Apple's business . . . . . 555
    - (2) Microsoft used the threat of stopping development of and support for Mac Office to extract Apple's agreement to favor Internet Explorer and to restrict its distribution of rivals 557
  - c. The restrictions Microsoft coerced Apple into accepting had significant exclusionary effects . . . . . 563
  - d. Microsoft's coercion of Apple to agree to exclusionary restrictions lacks justification . . . . . 566
- 2. Microsoft also induced RealNetworks not to support Netscape . . . . . 572
- 3. Microsoft conditioned access to early beta releases of Windows and other technical assistance on ISVs' agreeing to make Internet Explorer the default

	browser and to adopt Microsoft-controlled Internet standards . . . . .	575
<b>G.</b>	<b>Microsoft set a predatory price for Internet Explorer . . . . .</b>	<b>577</b>
1.	Microsoft set a zero price for its browser for the purpose of depriving Netscape of revenue and protecting its operating system monopoly . . .	577
2.	Microsoft incurred hundreds of millions of dollars in costs in its effort to gain browser usage share . . . . .	586
3.	Microsoft also sacrificed revenue from other products to gain browser usage share . . . . .	597
4.	At the time it incurred its immense browser-related costs, Microsoft did not anticipate recoupment except through weakening browser rivals and thereby protecting its operating system monopoly . . . . .	598
5.	The effect of Microsoft's predatory pricing of Internet Explorer has been to impede rivals, harm consumers, and facilitate Microsoft's objective of blunting the browser threat . . . . .	604
	a. Microsoft's predatory pricing injured competition . . . . .	604
	b. Microsoft's predatory pricing facilitated monopoly recoupment and injured consumers . . . . .	608
6.	The after-the-fact justifications Microsoft offered for its better-than-free pricing of Internet Explorer are pretextual and inconsistent with the evidence .	609
	a. Microsoft's assertion that it reasonably expected its browser-related expenditures to be profitable because of expanded demand for Windows is pretextual . . . . .	609
	b. Microsoft's argument that ancillary revenues explain its better-than-free pricing of Internet Explorer is pretextual . . . . .	617
	c. Dean Schmalensee's argument that predation is implausible is flawed . . . . .	625
	(1) Dean Schmalensee greatly underestimates the costs, and overstates the legitimate benefits, of Microsoft's predatory	

strategy . . . . . 625

- (2) Dean Schmalensee is wrong that successful predation required eliminating Netscape . . . . . 628
- (3) Dean Schmalensee is wrong that predation is implausible on the ground that AOL “holds the key” to the browser market 628
- (4) Dean Schmalensee is wrong that predation is implausible because other threats to Microsoft’s operating system monopoly might exist or arise . . . . . 629

**VI. Microsoft Used Predatory and Anticompetitive Conduct to Impede Other Platform Threats as Well, Thereby Further Entrenching Its Operating System Monopoly 634**

**A. Microsoft responded to the threat that Java posed to the applications barrier to entry by engaging in predatory and anticompetitive conduct . . . . . 634**

- 1. Microsoft “polluted” Java by developing and distributing a version that is not cross-platform . . . . . 635
- 2. Microsoft’s purpose in polluting Java was to reduce the threat that cross-platform Java posed for the application barrier to entry . . . . . 645
- 3. Microsoft engaged in anticompetitive conduct to exclude cross-platform Java . . . . . 650
  - a. Microsoft used predatory means to weaken the principal distribution vehicle for cross-platform Java, Netscape . . . . . 659
  - b. Microsoft used its monopoly power to force widespread distribution and usage of its Windows-specific version of Java . . . . . 662
    - (1) Microsoft entered into exclusionary “First Wave” agreements with ISVs . . . . . 662
    - (2) Microsoft misled developers into using proprietary extensions to develop Windows-specific programs . . . . . 663
  - c. Microsoft induced third parties not to support cross-platform Java . . . . . 666

(1)	Microsoft pressured Intel not to support cross-platform Java . . . . .	666
(2)	Microsoft pressured Apple and IBM not to support cross-platform Java . . . . .	674
(3)	Microsoft entered into agreements with ISVs that limited their ability to support cross-platform Java . . . . .	676
4.	Microsoft’s efforts to impede cross-platform Java facilitated the maintenance of Microsoft’s operating system monopoly, hindered innovation, and harmed consumers . . . . .	678
<b>B.</b>	<b>Microsoft engaged in anticompetitive conduct to induce Intel to abandon or restrict platform-level software . . . . .</b>	<b>688</b>
1.	Microsoft repeatedly objected to Intel’s efforts to develop platform-level software . . . . .	688
2.	Microsoft engaged in predatory conduct designed to block Intel from distributing its platform-level NSP software . . . . .	690
a.	Microsoft viewed Intel’s platform-level NSP software as a potential threat to its operating system monopoly . . . . .	690
b.	Microsoft blocked platform-level NSP through predatory conduct . . . . .	691
3.	Microsoft used its monopoly power to ensure that Intel did not resume developing or supporting platform-level software . . . . .	695
4.	The effect of Microsoft’s conduct was further to entrench its operating system monopoly, hamper innovation, and deprive consumers of the benefits of Intel’s platform-level software . . . . .	700
5.	Microsoft’s contention that technical considerations explain its objections to NSP is pretextual, and the testimony of its witnesses regarding NSP is not credible . . . . .	702

**VII. Through its predatory and anticompetitive conduct, Microsoft has maintained its**

**operating system monopoly, dangerously threatened monopolization of the browser market, and inflicted substantial and far-reaching consumer harm . . . . . 710**

**A. Microsoft’s campaign to blunt the browser threat further entrenched Microsoft’s operating system monopoly . . . . . 711**

1. Microsoft could maintain its operating system monopoly without monopolizing the browser market because, by gaining merely a substantial share of browsers (and denying a large share to rivals), it was able significantly to reduce the likelihood that its monopoly power would be eroded . . . . . 711
2. Microsoft’s conduct significantly hindered rivals’ ability to obtain and retain browser usage . . . . . 719
  - a. The OEM and ISP/OLS channels are the most efficient channels for obtaining usage . . . . . 719
  - b. Microsoft’s anticompetitive and predatory conduct substantially raised the cost to browser rivals of obtaining usage through the OEM and ISP/OLS channels . . . . . 726
  - c. The channels to which Microsoft relegated Netscape are markedly inferior and cannot compensate for Netscape’s substantial exclusion from the OEM and ISP/OLS channels . . . . . 732
  - d. Microsoft’s other exclusionary and predatory conduct reinforced the impact of excluding Netscape from the most important distribution channels . . . . . 743
3. As a result of Microsoft’s predatory and anticompetitive conduct, Microsoft’s share of browsers has risen dramatically at rivals’ (principally Netscape’s) expense . . . . . 746
4. Microsoft’s garnering of a substantial position in browsers through its predatory and anticompetitive conduct has succeeded in blunting the browser threat and maintaining its operating system monopoly . . . . . 754
5. Dean Schmalensee’s conclusion that Microsoft’s predatory and anticompetitive conduct neither materially hindered browser rivals nor harmed competition is flawed and unreliable . . . . . 757



a.	Dean Schmalensee improperly analyzes the impact of Microsoft’s predatory practices. . . . .	757
b.	Dean Schmalensee’s conclusion that Microsoft’s practices did not have a material impact on Netscape or other browser rivals is unreliable because it rests on flawed methodology and unreliable MDC survey data . . . . .	758
	(1) The MDC data measure only the number of users of a primary browser . . . . .	760
	(2) Survey data in general suffer from intrinsic difficulties, including biased questioning and methodology, that Dean Schmalensee did not take care to avoid . . . . .	761
	(3) The MDC data in particular cannot be relied upon for the purposes for which Dean Schmalensee uses them . . . . .	763
	(4) Dean Schmalensee presented the MDC data in a misleading way . . . . .	781
	(5) Dean Schmalensee compounded the flaws in the MDC survey data by improperly combining them with other data . . . . .	783
	(6) Microsoft’s proposed findings mistakenly rely on MDC data in other ways as well . . . . .	785
	(7) Microsoft’s defense of Dean Schmalensee’s reliance on the MDC data is misplaced . . . . .	787
c.	Dean Schmalensee’s conclusion that Microsoft’s conduct did not materially raise rivals’ costs or predatorily hinder rivals is flawed . . . . .	789
	(1) Dean Schmalensee’s contention that rivals’ costs have not been raised is contrary to the evidence . . . . .	789
	(2) Dean Schmalensee’s conclusion that quality increases explain Internet Explorer’s rise and Netscape’s decline is inaccurate and ignores the impact of Microsoft’s predatory campaign . . . . .	801

(3)	Dean Schmalensee’s criticisms of the Adknowledge data, and of the inferences plaintiffs’ economists drew from that data, are misplaced . . . . .	806
6.	Microsoft’s formalistic response is unsound . . . . .	815
<b>B.</b>	<b>Microsoft’s anticompetitive conduct created a dangerous probability that Microsoft would monopolize the market for Internet browsers . . . . .</b>	<b>817</b>
1.	Internet browsers comprise a relevant antitrust market . . . . .	817
2.	Microsoft specifically intended to monopolize the browser market . . .	819
3.	Microsoft’s predatory and exclusionary conduct was reasonably likely to result in Microsoft’s obtaining monopoly power over Internet browsers . . . . .	820
a.	Microsoft anticipated that its conduct would result in its obtaining a dominant position in Internet browsers . . . . .	820
b.	Because browsers exhibit network effects, it was likely that Microsoft’s initial gains in browser market share would lead to further increases . . . . .	822
c.	Microsoft already has more than half the browser market, and its share is increasing . . . . .	823
d.	Substantial barriers to entry would ensure that Microsoft could exercise monopoly power in browsers . . . . .	825
e.	Microsoft was reasonably likely to acquire monopoly power in Internet browsers . . . . .	827
4.	Microsoft’s monopolization of the browser market would increase the harm to competition already caused by Microsoft’s effort to blunt the browser threat . . . . .	828
<b>C.</b>	<b>AOL’s acquisition of Netscape will not undo the harm to competition caused by Microsoft’s predatory and anticompetitive conduct . . . . .</b>	<b>829</b>
1.	AOL acquired Netscape for reasons other than its browser . . . . .	829

2.	AOL will not, in the wake of Microsoft’s predatory campaign, seek to resuscitate the browser threat; indeed, Microsoft remains likely to achieve dominance in browsers . . . . .	832
3.	AOL is unlikely to challenge Microsoft’s monopoly in other ways, and the other devices it may develop would not affect Microsoft’s operating system monopoly . . . . .	841
<b>D.</b>	<b>Microsoft’s entire course of conduct has caused, and will continue to cause, substantial and far-reaching harm to competition . . . . .</b>	<b>846</b>
1.	Microsoft’s anticompetitive conduct aimed at blunting middleware threats reinforced the applications barrier to entry by extending Microsoft’s ability to influence or control standards . . . . .	846
2.	Microsoft has achieved its objective of retaining significant influence over network-based standards and application development . . . . .	850
3.	Microsoft’s effort to blunt threats to its control over standards, and to extend that control, will inhibit the emergence of other possible paradigm shifts . . . . .	851
<b>E.</b>	<b>Microsoft’s conduct has caused, and will continue to cause, substantial and far-reaching consumer harm . . . . .</b>	<b>856</b>
1.	Microsoft’s maintenance of its operating system monopoly has deprived, and will continue to deprive, consumers of the benefits of greater competition in operating systems. . . . .	856
a.	Microsoft has deprived consumers of the possible development of greater choice in operating systems . . . . .	856
b.	Microsoft has deprived consumers of lower prices that might have resulted from greater choice in operating systems . . . . .	857
c.	Microsoft has deprived consumers of benefits from innovation in markets related to operating systems . . . . .	858
d.	Microsoft has deprived consumers of benefits from other potential paradigm shifts that Microsoft’s conduct deters . . . . .	859

e.	Microsoft’s obtaining of a monopoly over browsers would result in further harm to consumers . . . . .	859
f.	Microsoft’s claimed consumer benefits could have been achieved, and would have been even greater, absent Microsoft’s anticompetitive and predatory campaign to maintain its operating system monopoly	860
2.	The tactics Microsoft has employed in its anticompetitive and predatory course of conduct harmed consumers . . . . .	862
3.	Microsoft’s incentive to distort innovation to protect its operating system monopoly will continue to harm consumers . . . . .	867
a.	Microsoft’s maintenance of its operating system monopoly preserves its control over innovation, to the detriment of consumers . . . . .	867
b.	Microsoft distorted innovation in order to protect its operating system monopoly, thereby harming consumers . . . . .	869
c.	Microsoft’s continued incentive to protect its operating system monopoly can be expected to result in further strategic innovation that does not serve the interests of consumers . . . . .	872