

March 31, 2009

Microsoft

**A History of Anticompetitive Behavior and
Consumer Harm**

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I. INTRODUCTION

On January 15, 2009, the European Commission issued a new Statement of Objections to Microsoft, outlining the Commission's "preliminary view that Microsoft's tying of its web browser Internet Explorer to its dominant operating system Windows infringes the EC Treaty rules on abuse of a dominant position (Article 82)" and "distorts competition on the merits between competing web browsers."¹ The European Commission's recent Statement of Objections validates the ongoing and urgent need to address Microsoft's practices that affect the openness of the Internet, consumer choice, and competition in general. This paper provides a brief history of Microsoft's misconduct and demonstrates that, in light of Microsoft's long and continuing use of anticompetitive tactics, the Commission's concerns are well justified.²

* * *

"This anti-trust thing will blow over. We haven't changed our business practices at all."
— Bill Gates, Microsoft founder and then-CEO (1995)³

For more than two decades, Microsoft has engaged in a carefully designed and extremely successful campaign to protect and extend its monopolies. Microsoft has repeatedly made market allocation proposals to its competitors and has used a broad range of other anticompetitive and unlawful tactics to eliminate potential rivals, including tying, predatory product design, and intentional deception.

Microsoft owns several monopoly products, including its Windows operating system and Office suite of productivity applications.⁴ These monopolies are extremely lucrative: Microsoft

¹ Press Release, European Commission, Antitrust: Commission Confirms Sending a Statement of Objections to Microsoft on the Tying of Internet Explorer to Windows (Jan. 17, 2009), *available at* <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/15>.

² For a similar view by Microsoft's only significant rival in the browser market, see Mitchell Baker, Chairperson, Mozilla Foundation, *The European Commission and Microsoft*, Mitchell's Blog, Feb. 6, 2009, <http://blog.lizardwrangler.com/2009/02/06/the-european-commission-and-microsoft/> (reflecting on the EC's most recent Statement of Objections and noting that "Microsoft's business practices have fundamentally diminished (in fact, came very close to eliminating) competition, choice and innovation in how people access the Internet").

³ Government Exhibit 940, Handwritten Notes of Intel's Steven McGeady, *United States v. Microsoft*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), *available at* <http://www.usdoj.gov/atr/cases/exhibits/940.pdf>; *see also* Transcript of the Direct Examination of Intel's Steven McGeady, Nov. 10, 1998, at 18:8–20:6, *United States v. Microsoft*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), *available at* <http://cyber.law.harvard.edu/msdoj/trial.html> ("November 10, a.m." link) (testifying that Mr. Gates further indicated the one thing Microsoft might change was its document retention policies).

⁴ *See United States v. Microsoft Corp.*, 253 F.3d 34, 54-58 (D.C. Cir. 2001); *see also Competition on the Internet: Hearing of the House Competition Policy and Antitrust Laws Task Force of the House Judiciary Committee*, 110th Cong. 49 (2008) (remarks of Bradford L. Smith, Senior Vice President, General Counsel and Corporate Secretary, Microsoft Corporation) (acknowledging that as of July 2008, "we know that we have a dominant position, for example, in the market for personal computer operating systems").

generates more than \$60 billion each year, largely from Windows and Office.⁵ It has profit margins of 77% and 65% for these two monopoly products.⁶ Over the years, Microsoft has carefully cultivated and expanded the barriers to entry protecting these monopolies. As the D.C. Circuit explained in discussing the barrier to entry protecting Windows:

*That barrier—the “applications barrier to entry”—stems from two characteristics of the software market: (1) most consumers prefer operating systems for which a large number of applications have already been written; and (2) most developers prefer to write for operating systems that already have a substantial consumer base. This “chicken-and-egg” situation ensures that applications will continue to be written for the already dominant Windows, which in turn ensures that consumers will continue to prefer it over other operating systems.*⁷

Indeed, Microsoft originally gained its Office monopoly for the express purpose of strengthening the applications barrier that protects Windows. As one of Microsoft’s senior executives wrote in an internal document:

*If we own the key “franchises” built on top of the operating system, we dramatically widen the “moat” that protects the operating system business.... We hope to make a lot of money off these franchises, but even more important is that they should protect our Windows royalty per PC.... And success in those businesses will help increase the opportunity for future pricing discretion.*⁸

Microsoft recognized, however, that owning Office and other applications would not alone be sufficient. In particular, Microsoft saw a serious potential threat in the form of so-called “middleware” products. Middleware products are software products that, like Windows, expose application programming interfaces (“APIs”) that software developers can use in writing other applications. Microsoft recognized that, if any middleware product gained widespread popularity, “developers might begin to rely upon APIs exposed by the middleware for basic routines rather than relying upon the API set included in Windows.”⁹ Microsoft has therefore crushed middleware threats, such as Netscape’s web browser.

Although Microsoft has paid many multimillion-dollar settlements for its antitrust violations over the years, these settlements have proven a small price for such a large ongoing revenue stream. Microsoft’s past conduct demonstrates its ability and willingness to engage in

⁵ See Microsoft Corp., Annual Report (Form 10-K), at 20, 23, 26 (Jul. 31, 2008), available at <http://idea.sec.gov/Archives/edgar/data/789019/000119312508162768/d10k.htm>.

⁶ See *id.* at 23, 26.

⁷ *United States v. Microsoft Corp.*, 253 F.3d 34, 55 (D.C. Cir. 2001) (internal citations omitted).

⁸ *Novell, Inc. v. Microsoft Corp.*, No. JFM-05-1087, 2005 U.S. Dist. LEXIS 11520, at *6 (D. Md. June 10, 2005) (quoting email from Jeff Raikes at Microsoft to Warren Buffet at Berkshire Hathaway (Aug. 17, 1997)).

⁹ *United States v. Microsoft Corp.*, 253 F.3d 34, 53 (D.C. Cir. 2001) (“If middleware were written for multiple operating systems, its impact could be even greater.... Ultimately, if developers could write applications relying exclusively on APIs exposed by middleware, their applications would run on any operating system on which the middleware was also present.”).

unlawful acts to the detriment of consumers, and awareness of its history is valuable today in understanding Microsoft's ongoing business practices and strategies.

II. MICROSOFT'S HISTORY OF ANTICOMPETITIVE CONDUCT

This section reviews a number of Microsoft's past actions to extinguish potential competitive threats. These include Microsoft's: (a) campaign against DR-DOS; (b) anticompetitive per processor license fees; (c) retaliation against IBM; (d) threats and retaliation against Intel; (e) elimination of Word Perfect; (f) deceptive WISE software program; (g) elimination of Netscape; (h) deception of Java developers; (i) elimination of rival media players; and (j) campaign against rival server operating systems. While not comprehensive, these examples of Microsoft's past misconduct provide a clear illustration of the types of acts that Microsoft has taken to protect and extend its monopolies.

A. Microsoft's Campaign To Destroy DR-DOS

"[W]e need to make sure Windows 3.1 only runs on top of MS DOS."
—David Cole, Microsoft Senior Vice-President¹⁰

"The approach we will take is to detect dr [DOS] 6 and refuse to load. The error message should be something like 'Invalid device driver interface.'"
—Phillip Barrett, Microsoft Windows Development Manager¹¹

In the early 1980s, Microsoft purchased an early version of a standard disk operating system ("DOS") that became known as MS-DOS.¹² At the time, a number of rival operating systems offered features, such as the ability to run multiple programs at the same time, that Microsoft's operating systems would not offer until years later.¹³ At the time, operating systems were just beginning to move from a command-based interface to a graphical user interface.¹⁴ Microsoft developed a graphical user interface known as Windows.¹⁵ Early versions of Windows did not actually "run" the computer – rather, they were a shell surrounding the underlying DOS program, which in turn ran the computer.¹⁶ Initially, Windows embraced the DOS standard, which meant that Windows would run on top of any DOS, including DR-DOS, Microsoft's principal rival in the DOS market.¹⁷

¹⁰ Consolidated Statement of Facts in Support of Its Responses to Motions for Summary Judgment by Microsoft Corporation ¶ 246, *Caldera, Inc. v. Microsoft Corp.*, 72 F. Supp. 2d 1295 (D. Utah 1999) (No. 2:96-CV-645 B).

¹¹ *Id.* ¶ 251.

¹² *See Caldera, Inc. v. Microsoft Corp.*, 72 F. Supp. 2d 1295, 1298 (D. Utah 1999). The disk operating system was one of the earliest operating systems developed for computers, controlling the computer's interaction with other software through a command-based standard. *See id.* at 1297.

¹³ *See* Jon Pepper, *Like MS-DOS, Only Better*, SOFTWARE MAG., Oct. 1990, http://findarticles.com/p/articles/mi_m0SMG/is_n12_v10/ai_9560823.

¹⁴ *See Caldera, Inc. v. Microsoft Corp.*, 72 F. Supp. 2d 1295, 1298 (D. Utah 1999).

¹⁵ *See id.*

¹⁶ *See id.*

¹⁷ *See id.* at 1303.

This initial interoperability came to be known as part of Microsoft’s now-classic “embrace, extend, and extinguish” strategy, which Microsoft has subsequently and successfully employed in many other product areas.¹⁸ This strategy has three phases: First, Microsoft “embraces” a competing product by developing software or implementing standards that are compatible with the competing product.¹⁹ Microsoft then “extends” its own offering by creating features or standards that are interoperable only with Microsoft’s proprietary technologies.²⁰ Finally, when Microsoft’s proprietary software or standards have achieved widespread adoption, Microsoft “extinguishes” its competitors by dropping any remaining pretense of compatibility.²¹

In the case of DR-DOS, Microsoft’s initial decision to make Windows interoperable helped promote rapid adoption of the Windows shell. At the same time, however, it meant that many consumers chose the superior DR-DOS over MS-DOS. In an email to then-Vice President Steve Ballmer, Microsoft founder and then-CEO Bill Gates wrote:

*“Our DOS gold mine is shrinking and our costs are soaring—primarily due to low prices, IBM share, and DR-DOS.... I believe people underestimate the impact that DR-DOS has had on us in terms of pricing.”*²²

Microsoft “extended” Windows by making changes so that Windows would no longer interoperate with DR-DOS smoothly.²³ For example, Microsoft designed Windows to display an ominous error message when used in conjunction with the DR-DOS software.²⁴ Microsoft also

¹⁸ See Direct Examination of Steven McGeedy, Vice President of Intel, at 53–54, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://cyber.law.harvard.edu/msdoj/transcripts/1109b.doc> (testifying that a Microsoft executive used the phrase “embrace, extend and extinguish” in a 1995 meeting to describe Microsoft’s strategies towards its competitors).

¹⁹ See, e.g., *United States v. Microsoft Corp.*, 253 F.3d 34, 74–75 (D.C. Cir. 2001) (“Microsoft, too, agreed to promote the Java technologies—or so it seemed.... Microsoft made a large investment of engineering resources to develop a high-performance [Java implementation].” (internal quotations omitted)).

²⁰ See Findings of Fact ¶¶ 387–90, *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9 (D.D.C. 1999) (98-1232) [hereinafter “Findings of Fact”], available at <http://www.usdoj.gov/atr/cases/f3800/msjudge.pdf>. Microsoft’s Thomas Reardon urged, “[W]e should just quietly grow j++ [Microsoft’s [Java] developer tool] share and assume that people will take more advantage of our classes without ever realizing they are building win32-only java app[lication]s.” *Id.* ¶ 394.

²¹ See *id.* ¶ 390 (“Far from being the unintended consequence of an attempt to help Java developers more easily develop high-performing applications, incompatibility was the intended result of Microsoft’s efforts.”).

²² Graham Lea, *Unsealed Caldera Documents Expose MS’ DR-DOS Moves*, THE REGISTER UK, May 24, 1999, http://www.theregister.co.uk/1999/05/24/unsealed_caldera_documents_expose_ms/.

²³ See *Caldera, Inc. v. Microsoft Corp.*, 72 F. Supp. 2d 1295, 1303 (D. Utah 1999). Internal discussions at Microsoft revealed a strategy to make Windows 3.1 incompatible with DR-DOS. *Id.* at 1313 (citing an email in which two Microsoft top executives instructed employees to “make sure [DR-DOS] has problems in the future”).

²⁴ See *id.* at 1311. Microsoft included a “Readme” text file in Windows 3.1 that stated that “running Microsoft Windows 3.1 with an operating system other than MS-DOS could cause unexpected results or poor performance.” Kenneth C. Baseman, Frederick R. Warren-Boulton, and Glenn A. Woroch, *Microsoft Plays Hardball: The Use of Exclusionary Pricing and Technical Incompatibility to Maintain Monopoly Power in Markets for Operating System Software*, ANTITRUST BULL., Summer 1995, at 13, available at <http://elsa.berkeley.edu/~woroch/hardball.pdf>; see also Andrew Schulman, *The Caldera v. Microsoft Dossier*, O’REILLY NETWORK, Feb. 7, 2000, <http://www.oreillynet.com/pub/a/network/2000/02/07/schulman.html>

disseminated false information about DR-DOS “so people [would] make judgments against it without knowing details or fa[c]ts.”²⁵ By 1994, Microsoft had effectively extinguished DR-DOS as a threat to Microsoft’s own operating system.²⁶

B. Microsoft’s Anticompetitive Per Processor License Fees

“Another [DR-DOS] prospect bites the dust with a per-processor DOS agreement.”

—Microsoft sales employee in an internal email²⁷

Most operating systems are purchased by original equipment manufacturers (“OEMs”), such as Dell and HP. OEMs preinstall operating systems on the computers they manufacture before selling the computers to consumers. In the late 1980s, Microsoft began requiring OEMs to pay Microsoft a “per processor license fee” for each computer they shipped, regardless of whether they installed Windows on the computer.²⁸ This arrangement gave OEMs a powerful incentive not to pay for and install competing operating systems.

In 1994, the U.S. Department of Justice (“DOJ”) filed an antitrust suit against Microsoft challenging this conduct, resulting in a consent decree under which Microsoft agreed to stop using per processor license fees.²⁹ But the anticompetitive practice had already been quite effective in reducing competitors’ share, particularly when combined with Microsoft’s other actions directed against DR-DOS.³⁰ The DOJ consent decree also sought to impose some

(Microsoft “allegedly leveraged its Windows monopoly to crush” DR-DOS by “including intentionally misleading product pre-announcements, vaporware and FUD (‘fear, uncertainty, and doubt’) announcements, exclusionary licensing, beta-test blacklists, building deliberate incompatibilities into Windows to hinder it from running with DR-DOS, and trying to create the misperception that DR- DOS couldn’t work properly with Windows.”).

²⁵ *Caldera, Inc. v. Microsoft Corp.*, 72 F. Supp. 2d 1295, 1303 (D. Utah 1999). For example, Microsoft executives began conducting interviews with trade press to highlight the issue. Microsoft Vice President Brad Silverberg asked rhetorically in one interview: “Why take the risk with all the compatibility problems that DR-DOS has had?” See Consolidated Statement of Facts in Support of Its Responses to Motions for Summary Judgment by Microsoft Corporation ¶ 383, *Caldera, Inc. v. Microsoft Corp.*, 72 F. Supp. 2d 1295 (D. Utah 1999) (No. 2:96-CV-645 B).

²⁶ See *Caldera, Inc. v. Microsoft Corp.*, 72 F. Supp. 2d 1295, 1304 (D. Utah 1999). Caldera, the owner of DR-DOS, filed suit against Microsoft in 1996 and, after the district court denied Microsoft’s motions for summary judgment, Microsoft settled the case for an undisclosed amount. See Andrew Schulman, *The Caldera v. Microsoft Dossier*, O’REILLY NETWORK, Feb. 7, 2000, <http://www.oreillynet.com/pub/a/network/2000/02/07/schulman.html>.

²⁷ Dan Goodin, *Microsoft Defends DOS Licensing*, CNET NEWS, May 27, 1999, <http://www.news.com/2100-1001-226467.html>.

²⁸ See *United States v. Microsoft Corp.*, 56 F.3d 1448, 1451 (D.C. Cir. 1995); Complaint ¶ 26, *United States v. Microsoft Corp.*, No. 94-1564 (D.D.C. July 15, 1994), available at <http://www.usdoj.gov/atr/cases/f0000/0046.htm>.

²⁹ See Final Judgment, *United States v. Microsoft Corp.*, No. 94-1564, 1995 U.S. Dist. LEXIS 20533, at *8 (D.D.C. Aug. 21, 1995), available at <http://www.usdoj.gov/atr/cases/f0000/0047.htm>. Section § IV(C) of the court’s order prohibits Microsoft from entering into per processor licenses. *Id.*

³⁰ See *United States v. Microsoft Corp.*, 56 F.3d 1448, 1451–52 (D.C. Cir. 1995); Complaint ¶ 36(b)-(c), *United States v. Microsoft Corp.*, No. 94-1564 (D.D.C. July 15, 1994), available at

forward-looking relief by prohibiting Microsoft from bundling other products into its now-dominant Windows operating system. The decree included a proviso that permitted Microsoft to build “integrated” products, however, and Microsoft later took the position that, under the decree, it could bundle “‘a ham sandwich’ in the box with a PC preinstalled with Windows 95” and “require OEMs to take the whole package.”³¹

C. Microsoft’s Retaliation And Price Discrimination Against IBM

“As long as IBM is working first on their competitive offerings and prefers to fiercely compete with us in critical areas, we should just be honest with each other and admit that such priorities will not lead to a most exciting relationship....”

*—Joachim Kempin, Microsoft Senior Vice-President*³²

Also in the mid-1990s, Microsoft took a series of steps to punish IBM for promoting a competing operating system and personal productivity application suite. At the time, in addition to developing software in competition with Microsoft, IBM was also a major OEM, selling personal computers. As such, IBM was a major customer of Microsoft’s. Microsoft retaliated against IBM for developing competing software products by charging IBM discriminatorily high license prices for Windows, delaying licensing negotiations with IBM for Windows 95, and withholding technical support.³³ Microsoft informed IBM executives that it would only stop treating IBM less favorably than other OEMs when IBM ceased competing with Microsoft’s software offerings.³⁴ This resulted in \$180 million in lost revenue for IBM,³⁵ and other damages IBM eventually brought suit against Microsoft and Microsoft settled the claim for \$775 million.³⁶

<http://www.usdoj.gov/atr/cases/f0000/0046.htm> (describing how these licensing practices deprived competitors of sales).

³¹ Reply Brief of Petitioner United States of America at 5, *United States v. Microsoft Corp.*, 147 F.3d 935 (D.C. Cir. 1998) (No. 94-1564), available at <http://www.usdoj.gov/atr/cases/f1200/1277.htm>.

³² Findings of Fact, *supra* note 20, ¶ 126.

³³ *See id.* ¶ 116. Microsoft refused to license Windows 95 to IBM under the guise of an audit of IBM’s past royalty payments. *Id.* ¶ 122. Joachim Kempin, Microsoft’s executive in charge of sales to OEMs, offered to close the audit if IBM agreed not to bundle its office productivity suite with its PCs. *Id.* ¶ 124. IBM refused and it was not granted a license to pre-install Windows 95 until fifteen minutes before the start of Microsoft’s official product launch. *Id.* ¶ 125.

³⁴ *Id.* ¶ 126.

³⁵ *Id.* ¶ 128.

³⁶ *See* Press Release, Microsoft, Microsoft and IBM Resolve Antitrust Issues (July 1, 2005), available at <http://www.microsoft.com/presspass/press/2005/jul05/07-01msibmsettlepr.mspx>.

D. Microsoft’s Organized Collective Boycott Against Intel

“Intel has to accept that when we have a solution we like that is decent that that is the solution that wins.”

*—Bill Gates, Microsoft founder and then-CEO*³⁷

Microsoft used a similar approach in 1995, when it forced Intel to drop development of Native Signal Processing (“NSP”), a set of instructions that would have allowed a computer’s processor to directly support audio, video, and 3D graphics. Intel is a manufacturer of microprocessor chips that are purchased by OEMs to use in the computers they manufacture. With NSP, Intel hoped to create a platform for multimedia applications that would run on any operating system, not just Windows. Microsoft thus viewed NSP as a serious threat to its Windows monopoly. In order to extinguish NSP, Microsoft told Intel that it would make Windows incompatible with Intel chips if Intel did not abandon the technology, and Microsoft forced its OEM customers into a collective boycott of Intel’s microprocessor chips.³⁸ Bill Gates reported to other senior Microsoft executives, “Intel feels we have all the OEMs on hold with our NSP chill.”³⁹ Intel ultimately ceded to Microsoft’s pressure and abandoned its NSP development efforts.⁴⁰

Shortly thereafter, Microsoft again put pressure on Intel. This time around, Microsoft wanted Intel to stop assisting Sun Microsystems in the promotion of its Java technology. As Bill Gates wrote in a 1997 email message,

*“If Intel has a real problem with us supporting [Intel’s microprocessor rival, AMD] then they will have to stop supporting Java Multimedia the way they are.”*⁴¹

As a district court subsequently found, Microsoft’s campaign to induce “*Intel to stop helping Sun create Java Multimedia APIs, especially ones that run well ... on Windows*” was a successful one.⁴²

E. Microsoft’s Elimination Of Word Perfect

“If we own the key ‘franchises’ built on top of the operating system, we dramatically widen the ‘moat’ that protects the operating system business.... We hope to make a lot of money off these franchises, but even more important is that

³⁷ Government Exhibit 276, Email from Bill Gates, *United States v. Microsoft*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/exhibits/276.pdf>.

³⁸ See Findings of Fact, *supra* note 20, ¶¶ 101–02.

³⁹ *Id.* ¶ 103.

⁴⁰ See *id.* ¶ 101. Microsoft’s leverage over the OEMs forced Intel to abandon its software development ambitions. In relating the success of the OEM boycott to Microsoft executives, Gates added, “we should let OEMs know that some of the new software work Intel is doing is OK. If Intel is not sticking totally to its part of the deal let me know.” *Id.* ¶ 103.

⁴¹ *Id.* ¶ 406.

⁴² See *id.* ¶ 406.

they should protect our Windows royalty per PC.”
—Jeff Raikes, Microsoft President⁴³

“I have decided that we should not publish these [Windows 95 user interface] extensions. We should wait until we have a way to do a high level of integration that will be harder for likes of Notes, WordPerfect to achieve, and which will give Office a real advantage.... We can't compete with Lotus and WordPerfect/Novell without this.”

—Bill Gates, Microsoft founder and then-CEO⁴⁴

Beginning in 1994, Microsoft launched an anticompetitive campaign to extinguish WordPerfect, an office productivity application owned by Novell and competing with Microsoft's Office suite. Office productivity applications (including word processing, spreadsheet, and presentation applications) are one of the most important groups of applications and contribute substantially to the applications barrier to entry protecting Microsoft's operating system monopoly.

When Microsoft began this campaign, WordPerfect enjoyed widespread popularity. In order to eliminate its competitor, Microsoft withheld crucial technical information about Windows, going so far as to extend the Windows API, the set of commands a program uses to communicate with the operating system, to ensure that WordPerfect did not work smoothly with Microsoft's monopoly operating system.⁴⁵ Microsoft also used its monopoly power to control industry standards, thus requiring WordPerfect to implement proprietary technology or risk incompatibility with Windows.⁴⁶ And it excluded WordPerfect from the major channels of distribution for office productivity applications.⁴⁷ For example, Microsoft forbade OEMs from pre-installing Novell products and gave discounts for refusing to sell other developers' office productivity applications.⁴⁸ As part of Microsoft's strategy to eliminate Novell, “[a] top Microsoft executive wrote that Microsoft should ‘smile’ at Novell, falsely signifying Microsoft's willingness to help the two companies' common customers integrate their various products,

⁴³ *Novell, Inc. v. Microsoft Corp.*, No. JFM-05-1087, 2005 U.S. Dist. LEXIS 11520, at *6 (D. Md. June 10, 2005) (quoting email from Jeff Raikes at Microsoft to Warren Buffet at Berkshire Hathaway (Aug. 17, 1997)).

⁴⁴ Transcript of the Deposition of Microsoft Chairman Bill Gates, Sept. 2, 1998 at 662:7-13, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.washingtonpost.com/wp-srv/business/longterm/microsoft/documents/gates0902p4.htm>; see also Dave Methvin, *Novell Hasn't Forgotten Microsoft's Jab At WordPerfect*, INFO. WK., Mar. 19, 2008, http://www.informationweek.com/blog/main/archives/2008/03/novell_hasnt_fo.html.

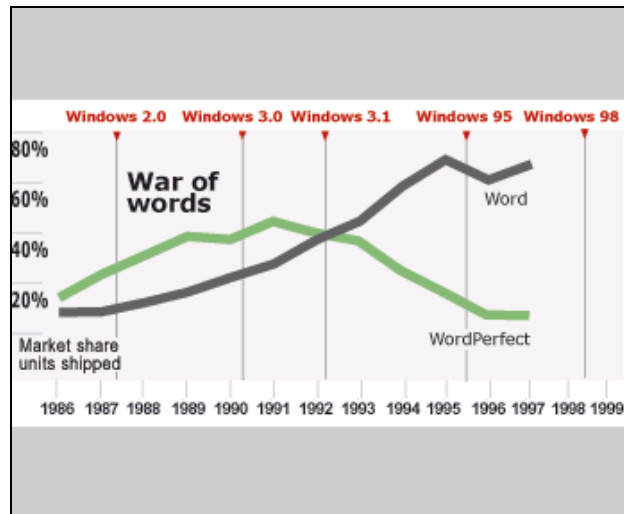
⁴⁵ See Complaint ¶¶ 56, 69–72, *Novell, Inc. v. Microsoft Corp.*, No. JFM-05-1087, 2005 U.S. Dist. LEXIS 11520 (D. Md. June 10, 2005).

⁴⁶ See *id.* ¶¶ 84–94.

⁴⁷ See *id.* ¶ 112.

⁴⁸ See *id.* ¶ 117.

while actually ‘pulling the trigger’ and killing Novell.’⁴⁹ Microsoft’s tactics were, again, extremely successful, as shown in the graphic below.⁵⁰



Microsoft extinguished WordPerfect and gained a monopoly in office productivity application suites, accomplishing its goal of “dramatically widen[ing] the moat” protecting its lucrative Windows monopoly.

F. Microsoft’s Deceptive WISE Software Program

“Please give me one good reason why we should even consider [enabling Microsoft technology to work on competing systems]. (Hint: any good answer needs to include making more money and helping kill Unix, Sybase or Oracle.)”
 —James Allchin, Microsoft Senior Vice-President⁵¹

In 1994, Microsoft engaged in similarly deceptive conduct to combat the growing popularity of the UNIX operating system within corporate networks. Microsoft faced a choice: whether to “love it to death (invest a lot of money and kill it slowly) or ignore it (invest no money on the expectation it will die quickly).”⁵² Microsoft chose initially “to invest in interoperating” with UNIX,⁵³ by promoting its Windows Interface Source Environment

⁴⁹ See *id.* ¶ 55.

⁵⁰ Fred Vogelstein, *Search and Destroy*, FORTUNE, May 2, 2005, at 74, available at http://money.cnn.com/magazines/fortune/fortune_archive/2005/05/02/8258478/index.htm (showing “Microsoft’s Battles” market share graphics). In 1993, WordPerfect accounted for more than 40% of word processing software sales, with annual sales of \$700 million. See Complaint ¶ 150, *Novell, Inc. v. Microsoft Corp.*, No. JFM-05-1087, 2005 U.S. Dist. LEXIS 11520 (D. Md. June 10, 2005). By 1996, WordPerfect’s share of sales had dropped to less than 10%, with annual sales of only \$200 million. See *id.*

⁵¹ Steve Lohr, *In an Antitrust Suit, a Tiny Ex-Partner Is Taking Aim at Microsoft*, N.Y. TIMES, May 31, 1999, <http://query.nytimes.com/gst/fullpage.html?res=940DE7D81530F932A05756C0A96F958260>.

⁵² Case COMP/C-3/37.792 Microsoft, Commission Decision Mar. 24, 2004, ¶ 575, available at <http://ec.europa.eu/comm/competition/antitrust/cases/decisions/37792/en.pdf> (citing Microsoft internal e-mail from Mark Ryland to Jim Allchin, dated April 18, 1996) [hereinafter “EC Decision”].

⁵³ *Id.*

(“WISE”), a program that purportedly allowed developers to write software to Windows APIs and run the resulting programs on Macintosh and UNIX systems.⁵⁴

Microsoft’s plan was successful. By 1996 Microsoft had captured a large share of the corporate market. Microsoft then took the next step in its standard “embrace, extend, extinguish” playbook and extended the Windows API without copying its changes to the WISE program. This meant that developers could no longer smoothly port applications to UNIX and Macintosh.⁵⁵ In public, however, Microsoft continued to lead developers into believing that this software was still fully cross-platform.⁵⁶ In 1997, Bill Gates noted in an internal email that those developers who wrote applications for the then-available software without realizing that it would not port all APIs to UNIX and Macintosh were “just f*****.”⁵⁷ He was right: Microsoft had successfully extinguished the cross-platform threat to its operating system monopoly. In a subsequent antitrust suit, a district court called this move “a classic ‘bait-and-switch’ tactic.”⁵⁸

G. Microsoft’s Elimination Of Netscape

“Microsoft first proposed to Netscape that, rather than compete with each other, the two companies should enter an illegal conspiracy to divide up the market. When Netscape refused, Microsoft then used its Windows monopoly to, in Microsoft’s own words, ‘cut off Netscape’s air supply.’”

—Joel Klein, Assistant Attorney General (quoting Paul Maritz, Microsoft’s then-Group Vice President of the Platform Applications Group)⁵⁹

⁵⁴ See *Bristol Tech., Inc. v. Microsoft Corp.*, 114 F. Supp. 2d 59, 64–65 (D. Conn. 2000); John Lettice, *How Microsoft Used the WISE Trojan Horse Against Unix*, THE REGISTER, July 18, 1999, http://www.theregister.co.uk/1999/07/18/analysis_how_ms_used/ (“Microsoft had originally identified WISE as a mechanism which would help it get [Windows] NT established in corporate networks. In the early days of the OS Microsoft needed to accept that there would be co-existence (NT’s market share was then vanishingly small), so WISE was useful. It also acted as a mechanism for controlling that coexistence. Microsoft then saw Sun-backed efforts such as WABI and PWI as real threats that could wrest control of Windows APIs from it, so it favoured WISE as an ‘official,’ controllable version.”).

⁵⁵ See *Bristol Tech., Inc. v. Microsoft Corp.*, 114 F. Supp. 2d 59, 73–74 (D. Conn. 2000). Internal Microsoft communications explained that “[t]he risk of going cross-platform with our server technology” – *i.e.*, permitting developers to port application seamlessly between Windows NT and UNIX or Macintosh – “is that we might undermine the market for NT.” *Id.* at 71.

⁵⁶ See *id.* at 72–74. Although Microsoft had internally decided to limit the software source code, in 1996 Bill Gates delivered a keynote address at the UNIX Expo meant to ensure confidence in the WISE program and stressing that the WISE developers had the “very latest Windows API technology.” *Id.* at 73.

⁵⁷ *Id.* at 74.

⁵⁸ *Id.* at 83. This judgment was later vacated after the parties settled and Microsoft paid an undisclosed sum. *Microsoft Corp. v. Bristol Tech., Inc.*, 250 F.3d 152, 153–54 (2d Cir. 2001) (noting that the settlement agreement was reached in part with Bristol’s promise that it would not oppose Microsoft’s motion to vacate the district court’s order).

⁵⁹ Press Release, Department of Justice, Statement by Assistant Attorney General Joel I. Klein: Filing of Antitrust Suit Against Microsoft at 2 (May 18, 1998), available at http://www.usdoj.gov/atr/public/press_releases/1998/1770.htm; see also Plaintiffs’ Joint Proposed Findings of Fact ¶ 91.3.1, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/f2600/2613-1.htm> [hereinafter “Plaintiffs’ Joint Proposed Findings of Fact”].

In 1996, Microsoft began a series of steps to eliminate a threat to its operating system monopoly from Netscape's web browser. Web browsers are "middleware" products, meaning that they expose APIs that developers can use in writing other applications. Microsoft recognized that if developers began using the APIs in Netscape's browser rather than the APIs in Windows, consumers might eventually have access to the applications they needed from any computer with Netscape's browser installed and would not be locked into computers running Windows.

Microsoft first sought to deal with this threat through a direct market allocation proposal: Microsoft told Netscape that if Netscape would agree to stop exposing APIs, Microsoft would provide Netscape with special help in developing "value-added" software applications that relied on Microsoft's proprietary technologies.⁶⁰ Netscape rejected Microsoft's proposal.

Microsoft then responded by taking steps to "cut off Netscape's air supply."⁶¹ It developed its own web browser, Internet Explorer, and then technologically and contractually tied Internet Explorer to its monopoly Windows operating system.⁶² To ensure that only Internet Explorer ran well on Windows, Microsoft designed Windows, as its then-Vice President Brad Chase wrote, to make "running any other browser a jolting experience."⁶³ To ensure that Internet Explorer had exclusive access to the primary browser distribution channels, Microsoft also used an extensive set of exclusive-dealing contracts with OEMs, independent software vendors ("ISVs"), Apple, and others.⁶⁴

Microsoft was very aggressive in its campaign to shut Netscape out of all major distribution channels. For example, when Apple resisted distributing Microsoft's Internet Explorer web browser with its Mac OS operating system, Microsoft threatened to stop supplying Microsoft Office for Mac OS.⁶⁵ As the district court found, "*ninety percent of Mac OS users running a suite of office productivity applications [used] Microsoft's Mac Office. In 1997, Apple's business was in steep decline.... Had Microsoft announced in the midst of this atmosphere that it was ceasing to develop new versions of Mac Office, a great number of ISVs,*

⁶⁰ See Findings of Fact, *supra* note 20, ¶¶ 81–83. At a meeting between Microsoft and Netscape executives, Microsoft made it clear that if Netscape attempted to expose its own APIs rather than build off of Microsoft's platform, "Microsoft would view Netscape as a competitor, not a partner." *Id.* ¶ 83.

⁶¹ Plaintiffs' Joint Proposed Findings of Fact, *supra* note 49, ¶ 91.3.1, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/f2600/2613-1.htm>.

⁶² See *United States v. Microsoft Corp.*, 253 F.3d 34, 58 (D.C. Cir. 2001).

⁶³ Findings of Fact, *supra* note 20, ¶ 160. Microsoft did this by placing code specific to web browsing in the same files as code that provided operating system functionality. *Id.* ¶ 161. The district court found that "Microsoft's primary motivation for this action was to ensure that the deletion of any file containing browser-specific routines would also delete vital operating system routines and thus cripple Windows 95." *Id.* ¶ 164.

⁶⁴ The district court found that "no other distribution channel for browsing software even approaches the efficiency of OEM pre-installation and IAP bundling." *Id.* ¶ 145. Microsoft, with the exception of a few months in 1997, never allowed OEMs to ship Windows 95 or Windows 98 without Internet Explorer. *Id.* ¶ 202. By 1998, Netscape was only being shipped on four of the sixty OEM sub-channels. *Id.* ¶ 239.

⁶⁵ See *id.* ¶¶ 341–51.

customers, developers, and investors would have interpreted the announcement as Apple's death notice."⁶⁶

The importance of Office to Apple did not go unnoticed by Microsoft. As Microsoft's then-program manager for Windows, Ben Waldman, explained in an email to Bill Gates and then-CFO Greg Maffei: "*The threat to cancel Mac Office 97 is certainly the strongest bargaining point we have, as doing so will do a great deal of harm to Apple immediately.*"⁶⁷ Or, as one Microsoft Vice President put it in an email to Ben Waldman, "MacOffice is the perfect club to use" to persuade Apple to "*materially disadvantage[] Netscape.*"⁶⁸ Apple capitulated and began pre-installing Internet Explorer as the default (and exclusive) browser on Mac machines. Apple even agreed to push its own employees to use Internet Explorer.⁶⁹

Once Microsoft had achieved wide distribution for its own browser through these tactics, it then moved to "extend" (in effect, customize) industry standards for HyperText Markup Language ("HTML") and Cascading StyleSheets ("CSS") to ensure that users would become reliant on Microsoft's own web browser.⁷⁰ Microsoft also introduced its ActiveX technology extensions, which allowed software written much like traditional computer programs to run in the Internet Explorer browser, but that only worked on Microsoft's monopoly operating system.⁷¹

As shown in the graphic below, Microsoft's campaign was highly successful.⁷²

⁶⁶ *Id.* ¶ 344.

⁶⁷ *Id.* ¶ 346.

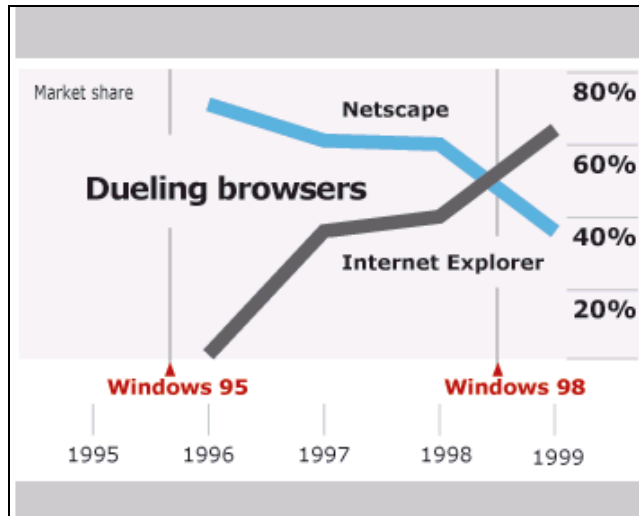
⁶⁸ Government Exhibit 268, Email from Don Bradford, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/exhibits/268.pdf>.

⁶⁹ Findings of Fact, *supra* note 20, ¶ 352.

⁷⁰ See Paul Festa, *IE 5.5 Angers Web Standards Advocates*, CNET NEWS, July 13, 2000, <http://www.news.com/2100-1023-243144.html>.

⁷¹ See *Java Gets a Run for Its Money*, CNET NEWS, Mar. 12, 1996, <http://www.news.com/2100-1023-207269.html>.

⁷² Fred Vogelstein, *Search and Destroy*, FORTUNE, May 2, 2005, at 74, available at http://money.cnn.com/magazines/fortune/fortune_archive/2005/05/02/8258478/index.htm (showing "Microsoft's Battles" market share graphics).



By 1998, Microsoft executives were confident that “*the browser battle is close to over*” and that they had extinguished the threat to the Windows monopoly.⁷³ As Kumar Mehta of Microsoft explained, “*We set out on this mission 2 years ago to not let [N]etscape dictate standards and control the browser [APIs]. All evidence today says they don’t.*”⁷⁴ This conduct was at the heart of the 1998 suit against Microsoft by the DOJ and twenty U.S. States.⁷⁵ The district court found that Microsoft violated the antitrust laws in its conduct to maintain its operating system monopoly against the threat posed by Netscape, and the D.C. Circuit affirmed this conclusion.⁷⁶ Unfortunately, however, as discussed further below and as noted by several prominent commentators, the U.S. browser case was settled with a consent decree that has been wholly ineffective in restoring competition to the state that prevailed prior to Microsoft’s unlawful actions.⁷⁷

⁷³ Findings of Fact, *supra* note 20, ¶ 377.

⁷⁴ *Id.* ¶ 377.

⁷⁵ See *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001). It also served as the basis for a private lawsuit brought by AOL Time Warner, Netscape’s parent company, which Microsoft settled for \$750 million. See Press Release, Microsoft Corp., AOL Time Warner and Microsoft Agree to Collaborate on Digital Media Initiatives and Settle Pending Litigation (May 29, 2003), available at <http://www.microsoft.com/presspass/press/2003/may03/05-29msaolsettlementpr.mspx>.

⁷⁶ See *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 37–51 (D.D.C. 2000); see also *United States v. Microsoft Corp.*, 253 F.3d 34, 61–62, 64–66, 70–72, and 73–74 (D.C. Cir. 2001) (finding that Microsoft’s OEM license restrictions, its tying of Internet Explorer to Windows, and its exclusive dealing contracts with Internet Access Providers (“IAPs”), Independent Software Vendors (“ISVs”), and Apple Computer were all anticompetitive actions that violated the Sherman Act).

⁷⁷ See, e.g., California Group’s Report on Remedial Effectiveness at 15 (Aug. 30, 2007), *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002) (No. 98-1232), available at http://www.naag.org/assets/files/pdf/antitrust.2007-08-30_Filed_CA_Group_Effectiveness_Report.pdf. (“There can be little doubt that Microsoft’s market power remains undiminished and that key provisions of the Final Judgment – those relating to middleware – have had little or no competitively significant impact. One can fairly ask what impact the Final Judgment has had on Microsoft – apart from the cost of developing the still delayed Technical Documentation – that would cause it to refrain from engaging in similar conduct with respect to whatever competitive threat might arise in the future. Consequently, the California Group respectfully submits, Microsoft’s commingling violation has not been effectively addressed, Microsoft remains in

H. Microsoft's Attempts To Extinguish Java

“Kill cross-platform Java by grow[ing] the polluted Java market.”
—Microsoft VJ98 SKUs and Pricing Proposal⁷⁸

“[W]e should just quietly grow j++ share and assume that people will take more advantage of our classes without ever realizing they are building win32-only java apps.”
—Microsoft's Thomas Reardon⁷⁹

In 1996, Microsoft turned its attention to Sun Microsystems' Java middleware technologies as another nascent threat to its operating system monopoly.⁸⁰ Sun Microsystems was at the time promoting its Java technologies with the slogan, “Write-once-run-anywhere” to illustrate the cross-platform benefits of writing Java applications.⁸¹

Microsoft immediately recognized Java as middleware and moved to eliminate this threat. As usual, Microsoft first embraced Java by licensing the technology from Sun Microsystems and investing in building its own Java-related developer tools.⁸² Microsoft then

possession of the fruits of its violation, and the competitive conditions antedating Microsoft's anticompetitive conduct have not been restored.”); Tunney Act Comments of Professor Einer Elhauge on the Proposed Settlement Between the United States and Microsoft at 7 (Jan. 27, 2002), *United States v. Microsoft*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at http://www.usdoj.gov/atr/cases/ms_tuncom/major/mtc-00027209.pdf (criticizing the decree and noting that it would do “nothing effective about technological foreclosure”); *U.S. v. Microsoft: The Experts, The View From Outside: Assessing the Wisdom of a Breakup*, NEW YORK TIMES, Apr. 30, 2000, available at <http://query.nytimes.com/gst/fullpage.html?res=9502EFDA1439F933A05757C0A9669C8B63> (quoting Steven Salop, Professor at Georgetown University Law Center and consultant to the DOJ in the first action against Microsoft, in discussing the Microsoft decree: “Conduct remedies are particularly difficult to enforce against a company bent on exploiting any loopholes”); Carl Shapiro, *Microsoft: Remedial Failure*, ANTITRUST LAW JOURNAL, at 18 (forthcoming), available at <http://faculty.haas.berkeley.edu/shapiro/microsoft2008.pdf> (“Unfortunately, the Final Judgment [in *United States v. Microsoft*] has done little, if anything, to lower the entry barriers facing these threats [to Windows].”).

⁷⁸ Government Exhibit 259, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/exhibits/259.pdf>.

⁷⁹ Government Exhibit 1332, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/exhibits/1332.pdf>.

⁸⁰ See *United States v. Microsoft Corp.*, 253 F.3d 34, 75–78 (D.C. Cir. 2001) (finding that Microsoft's exclusionary agreements with ISVs, its deceptive conduct as it related to Java developer tools, and its threats to Intel to stop supporting Java were all anticompetitive measures taken to protect Microsoft's operating system monopoly). Sun brought a private antitrust action against Microsoft, which Microsoft settled for \$700 million. Press Release, Microsoft, Microsoft and Sun Microsystems Enter Broad Cooperation Agreement; Settle Outstanding Litigation (Apr. 2, 2004), available at <http://www.microsoft.com/presspass/press/2004/apr04/04-02SunAgreementPR.msp>.

⁸¹ See, e.g., *JavaSoft Ships Java 1.0*, AllBusiness.com, Jan. 23, 1996, available at <http://www.allbusiness.com/technology/software-services-applications/7190655-1.html>.

⁸² See, e.g., *United States v. Microsoft Corp.*, 253 F.3d 34, 74–75 (D.C. Cir. 2001) (“Microsoft, too, agreed to promote the Java technologies—or so it seemed.... Microsoft made a large investment of engineering resources to develop a high-performance [Java implementation].” (internal quotations omitted)).

extended its Java developer tools with its own proprietary technology.⁸³ In fact, Microsoft went so far as actively to deceive Java developers into believing that the Microsoft Java tools were platform independent.⁸⁴ In an internal email, Microsoft software engineer Ben Slivka instructed Microsoft's Visual Studio team: "*Don't encourage new cross-platform Java classes; especially don't help get great Win32 implementations written/deployed. Do encourage fragmentation of the Java classlib space....*"⁸⁵

Microsoft also used exclusive agreements to promote its "polluted" version of Java and, as noted above, Microsoft threatened Intel to stop Intel from supporting Sun Microsystems' Java standards.⁸⁶ As the D.C. Circuit later explained, "*Microsoft's Paul Maritz told a senior Intel executive that Intel's [development of software that was compatible with] Sun's Java standards was as inimical to Microsoft as Microsoft's support for non-Intel microprocessors would be to Intel.... Microsoft threatened Intel that if it did not stop aiding Sun on the multimedia front, then Microsoft would refuse to distribute Intel technologies bundled with Windows.*"⁸⁷ Intel capitulated, and dropped its support for Java.

Microsoft's overall plan to neutralize Java as a middleware threat was extremely successful.⁸⁸ As the Fourth Circuit explained in a subsequent private suit brought by Sun Microsystems:

*First, Microsoft "embraced" the Java technology by licensing from Sun the right to use its Java Technology to develop and distribute compatible Products. Second, Microsoft "extended" the Java platform by developing strategic incompatibilities into its Java runtime and development tools products.... Third, Microsoft used its distribution channels to flood the market with its version of the Java Technology in [what Sun characterized as] an attempt to "hijack the Java Technology and transform it into a Microsoft proprietary programming and runtime environment."*⁸⁹

⁸³ See *id.* at 76 ("Microsoft's Java implementation included ... certain keywords and compiler directives that could only be executed properly by Microsoft's version of the Java runtime environment for Windows ... [and produced] Java applications that [ran] only on Windows." (internal quotations omitted)); *id.* at 76–77 ("Microsoft's ultimate objective was to thwart Java's threat to Microsoft's monopoly in the market for operating systems. One Microsoft document, for example, states as a strategic goal: 'Kill cross-platform Java by grow[ing] the polluted Java market.'").

⁸⁴ See *id.* at 76 (observing that "developers who relied upon Microsoft's public commitment to cooperate with Sun and who used Microsoft's tools to develop what Microsoft led them to believe were cross-platform applications ended up producing applications that would run only on the Windows operating system").

⁸⁵ Government Exhibit 518, Email from Ben Slivka, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/exhibits/518.pdf>.

⁸⁶ See Findings of Fact, *supra* note 20, ¶¶ 396, 401.

⁸⁷ *United States v. Microsoft Corp.*, 253 F.3d 34, 77 (D.C. Cir. 2001) (quoting Findings of Fact, *supra* note 20, ¶¶ 404–05).

⁸⁸ See Alex Iskold, *Java: A Retrospective*, READWRITEWEB, Oct. 19, 2007, http://www.readwriteweb.com/archives/java_a_retrospective.php.

⁸⁹ *In re Microsoft Corp. Antitrust Litig.*, 333 F.3d 517, 523 (4th Cir. 2003).

I. Microsoft's Elimination Of Rival Media Players

RealNetworks "is like Netscape. The only difference is we have a chance to start this battle earlier in the game."

—Robert Muglia, Microsoft Senior Vice-President⁹⁰

In 1997, Microsoft recognized that media players also represented a nascent threat to its profitable operating system monopoly. Like web browsers, media players are middleware products that expose APIs to software developers.⁹¹ Fearing that media players might come to support multimedia applications on any operating system, Microsoft took action to eliminate the threat.

Consistent with its previous tactics, Microsoft first embraced the leading media player software, designed by RealNetworks, announcing an agreement to collaborate in streaming media.⁹² The agreement encouraged RealNetworks to make its media player Windows-dependent in return for compensation from Microsoft.⁹³ As Robert Muglia informed RealNetworks' Chief Operating Officer, "anyone who competed against [Microsoft] in the operating system 'lost.'"⁹⁴ When RealNetworks continued to compete against Microsoft,⁹⁵ however, Microsoft became increasingly aggressive in its actions. In particular, as it had done with the browser, Microsoft tied its own media player to Windows.⁹⁶

RealPlayer was, however, not the only multimedia threat to Microsoft. Microsoft took separate action to eliminate another competitor in the multimedia space, Burst.com, Inc.

⁹⁰ Government Exhibit 1576, Email from Jim Durkin, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/exhibits/1576.pdf>.

⁹¹ See Findings of Fact, *supra* note 20, ¶ 78. "RealNetworks' streaming software presents a set of APIs that competes for developer attention with APIs exposed by the streaming technologies in Microsoft's DirectX." *Id.* ¶ 111.

⁹² See EC Decision, *supra* note 52, ¶ 305; see also Findings of Fact, *supra* note 20, ¶ 111 (finding that Microsoft viewed RealNetworks' streaming software "as competitive technology that could develop into part of a middleware layer that could, in turn, become broad and widespread enough to weaken the applications barrier to entry"); *id.* ¶ 114 ("Still, Microsoft's intentions toward RealNetworks in 1997 ... show that decision-makers at Microsoft were willing to invest a large amount of cash and other resources into securing the agreement of other companies to halt software development that exhibited discernible potential to weaken the applications barrier").

⁹³ *Id.* ¶ 113.

⁹⁴ Plaintiffs' Joint Proposed Findings of Fact, *supra* note 49, ¶ 84.2 ii.

⁹⁵ See Findings of Fact, *supra* note 20, ¶ 114 (noting that RealNetworks planned to continue developing competing streaming technologies).

⁹⁶ See EC Decision, *supra* note 52, ¶ 844. The EC Decision noted that "[t]hrough tying [Windows media player ("WMP")] with Windows, Microsoft ensure[d] that WMP is as ubiquitous on PCs worldwide as Windows is. No other distribution mechanism or combination of distribution mechanisms attain[ed] this universal distribution." *Id.* The EC further found that "[t]hrough tying WMP, Microsoft thus create[d] a [network effect] reminiscent of the one that propelled Windows to its quasi-monopoly position in the client PC operating system market." *Id.* ¶ 882. RealNetworks later filed an antitrust suit against Microsoft, which Microsoft settled for \$761 million. Press Release, Microsoft, Microsoft and RealNetworks Resolve Antitrust Case and Announce Digital Music and Games Partnership (Oct. 11, 2005), available at <http://www.microsoft.com/presspass/press/2005/oct05/10-11MSRealPR.mspx>.

(“Burst”), a developer of video delivery software.⁹⁷ And, in 1997, Microsoft targeted Apple’s QuickTime media authoring software, another threat to Microsoft’s operating system monopoly. Like RealNetworks’ multimedia player, Apple’s multimedia technology ran on several platforms and exposed APIs to content developers.⁹⁸ Microsoft saw the Apple product as a particularly serious threat to the applications barrier to entry in light of Apple’s expertise in the operating system market.⁹⁹ Microsoft thus reverted to its standard playbook, first attempting to allocate the market with Apple by offering not to enter the authoring business if Apple stopped developing a Windows 95 version of QuickTime.¹⁰⁰ When Apple refused to participate in Microsoft’s illegal scheme, Microsoft threatened to make its products incompatible with Apple’s products if Apple did not abort its work on its new QuickTime product.¹⁰¹ As one senior Microsoft executive told Apple, if Apple wanted to survive in the broader multimedia software market, it would have to “knife the baby” by killing its own multimedia offering.¹⁰² Again, Apple refused Microsoft’s proposal.¹⁰³

When Microsoft first began bundling Windows Media Player with its monopoly operating system, Microsoft also released a version of its media player for Apple’s Mac operating system. During the period when Windows Media Player was competing with RealPlayer and Apple QuickTime, Microsoft frequently released new versions of its product for the Mac. By 2003, however, Microsoft had gained the upper hand, capturing more users than

⁹⁷ See Complaint, *Burst.com, Inc. v. Microsoft Corp.*, No. JFM-02-cv-2952, MDL Docket No. 1332 (D. Md. dismissed Mar. 11, 2005). Microsoft changed published Windows APIs that Burst’s products were using and told third parties that Burst’s products did not work well on Windows. *Id.* ¶ 29. It then provided Burst with a series of purported solutions to the problem Microsoft had intentionally created, knowing that those solutions were ineffective. *Id.* Burst brought suit, but its suit was frustrated by Microsoft’s destruction of key documents. See Eriq Gardner, *First Bill, Now Steve*, IP LAW & BUS., Apr. 2006, <http://www.burst.com/new/newsevents/articles/IP%20Law&Business.htm>. Burst introduced evidence of Microsoft’s spoliation of evidence, including a 1995 “do-not-save-e-mail directive” and a “30-Day E-Mail Destruction Rule” promulgated by Jim Allchin, Microsoft Group Vice President of platforms. *Id.* Allchin’s directive told employees, “Do not archive your mail. Do not be foolish. 30 days.” *Id.* The suit was settled for a reported \$60 million just before a hearing on Burst’s spoliation claim. *Id.*; see also Robert Cringely, *Bursted Not Busted: Burst Really Did Win Its Case With Microsoft and Here’s Why*, I, CRINGELY, Mar. 17, 2005, http://www.pbs.org/cringely/pulpit/2005/pulpit_20050317_000846.html (positing that “Microsoft’s immediate motivation to settle was the spoliation hearing that could have exposed the company to older cases being re-opened based on the possibility that Microsoft had deliberately destroyed evidence”).

⁹⁸ See Findings of Fact, *supra* note 20, ¶ 78.

⁹⁹ See *id.* ¶ 104. The district court found that “QuickTime competes with Microsoft’s own multimedia technologies, including Microsoft’s multimedia APIs (called ‘DirectX’) and its media player. Because QuickTime is cross-platform middleware, Microsoft perceives it as a potential threat to the applications barrier to entry.” *Id.* ¶ 104.

¹⁰⁰ See *id.* ¶ 105. The specific market allocation proposals discussed herein are only the ones that have come to light through subsequent litigation, and it is highly probable that Microsoft has made market allocation proposals to other nascent competitors that simply have not come to light, or at least have not come to public attention.

¹⁰¹ See *id.* ¶ 106.

¹⁰² Plaintiffs’ Joint Proposed Findings of Fact, *supra* note 49, ¶ 79.2 ii.

¹⁰³ See Findings of Fact, *supra* note 20, ¶ 109. As the district court noted, “Microsoft’s motivation was its desire to limit as much as possible the development of multimedia content that would run cross-platform.” *Id.* ¶ 110.

RealNetworks and Apple.¹⁰⁴ After 2003, Microsoft never released another Mac version of its media player.¹⁰⁵ Instead, Microsoft continued to promise that it would release a new Mac version of Media Player until 2006, when it announced that it was terminating the project.¹⁰⁶

J. Microsoft's Campaign Against Rival Server Operating Systems

“Sun, Oracle and Netscape are all pushing a new model of [almost] centralized computing. They all acknowledge that Microsoft holds tremendous sway over the desktop platform, so they all want to quickly strip as much value and spending as possible off the desktop and onto the server where they can charge premium prices and push their own platform offerings.”

—Aaron Contorer, Microsoft C++ General Manager¹⁰⁷

What we are trying to do is use our server control to do new protocols and lock out Sun and Oracle specifically”

-- Bill Gates, Microsoft¹⁰⁸

In the mid to late 1990s, computer networks were growing in speed and Microsoft sensed a threat to its core operating system monopoly from more centralized, server-based computing. Determined to head off any potential competition, Microsoft decided that it needed to add server operating systems to the “moat” surrounding its Windows operating system monopoly.¹⁰⁹ To gain inroads into this market, Microsoft embraced industry standards for file-and-print sharing, user management, and identity verification so that its products would be compatible with the then-prominent Unix server operating systems.¹¹⁰ But as Microsoft's server systems started to gain a foothold in the market, Microsoft quietly started to “extend” support for industry standard protocols in its Windows operating system so that Windows clients would have a better experience when connected to Microsoft's servers.¹¹¹ Eventually, by changing its Windows personal computer operating system so that Windows computers could not fully connect to any server that did not use Microsoft's proprietary extensions unless the users installed special

¹⁰⁴ Kevin J. O'Brien, *As EU Debated, Microsoft Took Market Share*, INT'L HERALD TRIB., Sept. 16, 2007, <http://www.iht.com/articles/2007/09/16/news/msft17.php>.

¹⁰⁵ See Ina Fried, *Music Stops for Mac Windows Media Player*, CNET NEWS, Jan. 12, 2006, http://www.news.com/Music-stops-for-Mac-Windows-Media-Player/2100-1047_3-6026715.html?part=rss&tag=6026715&subj=news; Kevin J. O'Brien, *As EU Debated, Microsoft Took Market Share*, INT'L HERALD TRIB., Sept. 16, 2007, <http://www.iht.com/articles/2007/09/16/news/msft17.php>.

¹⁰⁶ See Ina Fried, *Music Stops for Mac Windows Media Player*, CNET NEWS, Jan. 12, 2006, http://www.news.com/Music-stops-for-Mac-Windows-Media-Player/2100-1047_3-6026715.html?part=rss&tag=6026715&subj=news.

¹⁰⁷ EC Decision, *supra* note 52, ¶ 771.

¹⁰⁸ EC CFI Judgment, ¶ 771

¹⁰⁹ A server operating system is an operating system for a server, a device that performs services for connected personal computers as part of a client-server architecture. In contrast, a client (or desktop) operating system serves only a personal computer.

¹¹⁰ See Microsoft Corp., *Windows NT and UNIX Interoperability*, Oct. 1, 1997, <http://www.microsoft.com/technet/archive/winntas/deploy/ntunxint.msp?mfr=true>.

¹¹¹ See EC Decision, *supra* note 52, ¶¶ 176–301.

software on their machines, Microsoft established and reinforced its dominance in the work group server operating system market,¹¹² where Microsoft maintains a share of approximately 77%.¹¹³

Microsoft's conduct eventually drew scrutiny from the European Commission, which condemned Microsoft's refusal to release information that would allow other server operating systems to connect to personal computers running Microsoft's Windows operating system.¹¹⁴ In a 2004 decision, the European Commission found that if Microsoft succeeded in eliminating other server operating systems as competitive threats, then innovation would be severely limited.¹¹⁵ And, in fact, after releasing Windows Server 2003 to lukewarm reviews,¹¹⁶ Microsoft failed to release a new server version of Windows until 2008.¹¹⁷ Even then, many reviewers noted that, despite aggressive marketing to small- and midsize-business users and a special edition of the server operating system just for these users, Microsoft had done very little to address their needs, and instead had essentially re-packaged a scaled-down version of an existing enterprise-level product.¹¹⁸

III. MICROSOFT CONTINUES TO ENGAGE IN ANTICOMPETITIVE CONDUCT

Despite international scrutiny of Microsoft's anticompetitive conduct, Microsoft has continued to take similar unlawful actions to eliminate potential competitive threats. The only real difference between Microsoft's more recent practices and its earlier ones is that, as Mr. Gates predicted, Microsoft has now changed its document retention practices.¹¹⁹

¹¹² See *id.* ¶¶ 236–301.

¹¹³ See IDC Workload Tracker 2007 (Worldwide Server Operating System Market Shares -- Based on the IDC Server *Workload Models* in 2000 and 2007).

¹¹⁴ See EC Decision, *supra* note 52, ¶¶ 781–82.

¹¹⁵ See *id.* ¶ 725 (“Microsoft’s research and development efforts are indeed spurred by the innovative steps its competitors take in the work group server operating system market. Were such competitors to disappear, this would diminish Microsoft’s incentives to innovate.”).

¹¹⁶ See Gregg Keizer, *Microsoft Windows Server 2003: Experts Advise Caution*, CHANNELWEB NETWORK, Apr. 19, 2003, <http://www.crn.com/it-channel/18822436> (weighing the pros and cons of migrating to Windows Server 2003 and noting that many companies may want to “hold tight” rather than migrate).

¹¹⁷ See Steven Warren, *Should You Upgrade to Windows Server 2008?*, TECHREPUBLIC, Oct. 15, 2007, <http://blogs.techrepublic.com.com/datacenter/?p=209>.

¹¹⁸ See Jason Brooks, *A Head Full of Windows Server 2008*, EWEEK, Nov. 9, 2007, http://blogs.eweek.com/brooks/content/windows/a_head_full_of_windows_server_2008.html (“Microsoft’s newly minted Windows Essential Business Server offers a very compelling answer to the question, ‘How can a midsize business consume all the same sorts of Microsoft core server products that a large enterprise might consume?’ ... [A]n excellent answer to the wrong question.”).

¹¹⁹ See Burst.com, Inc.’s Motion for Spoliation Instruction, Witness Preclusion, and Related Relief, *In re Microsoft Antitrust Litigation*, No. JFM-02-cv-2952, MDL Docket No. 1332 (D. Md. dismissed Mar. 11, 2005), available at <http://www.groklaw.net/pdf/BurstSpoliation.pdf>. Burst’s motion provides extensive documentation of Microsoft’s revised “short fuse” document retention policy. For example, in a January 2000 email to the Windows Division, Mr. Allchin directed employees: “Do not archive your email. Do not be foolish. 30 days.” *Id.* at 13. As noted above, Microsoft settled with Burst on the courthouse steps just before oral argument on Burst’s spoliation motion.

A. Microsoft's Failure To Comply With The Final Judgment

In 2003, the DOJ discovered that Microsoft had built a feature into Windows that invoked Microsoft's Internet Explorer browser, rather than the user's chosen default browser, contrary to the clear obligations of the Final Judgment.¹²⁰ Similarly, in 2004, Microsoft attempted to require licensees of its middleware offering, the .NET Framework, to obtain Microsoft's prior consent before publishing any benchmark testing results for the software.¹²¹ In 2005, Microsoft demanded that manufacturers of portable music players sign exclusive deals if they wanted integration with Microsoft's Windows Media Player.¹²² And in 2007, Microsoft made changes to allow consumers limited choice of desktop search products in Windows Vista only following an extensive government investigation and pressure from a number of U.S. States. While Microsoft eventually made changes to its conduct in each of these instances, these incidents all demonstrate Microsoft's willingness to use its monopoly products aggressively first and make changes later only when confronted about its behavior. This is particularly striking coming, as it does, within the very limited range of issues covered by the Final Judgment.¹²³ In fact, the district court overseeing the Final Judgment extended the decree for two more years, to November 12, 2009, because Microsoft *still* has not come into compliance with its obligations regarding communications protocols.¹²⁴

¹²⁰ See Interim Joint Status Report on Microsoft's Compliance with the Final Judgments at 6 (Oct. 17, 2003), *United States v. Microsoft*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/f201300/201386.pdf>.

¹²¹ See Interim Joint Status Report on Microsoft's Compliance with the Final Judgments at 7-8 (Oct. 8, 2004), *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/f205700/205751.pdf>. After plaintiffs, which included the United States and several state attorneys general, brought this complaint to Microsoft's attention, Microsoft responded that it was willing to require prior *notice*, rather than prior *consent*. See *id.* However, plaintiffs still believed this response was inadequate to comply with the Final Judgment and continued to demand modification of this requirement until Microsoft eventually gave in, agreeing to make "additional changes" resolving plaintiffs' concerns. See Interim Joint Status Report on Microsoft's Compliance with the Final Judgments at 6 (June 1, 2005), *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/f209300/209307.pdf>.

¹²² See Interim Joint Status Report on Microsoft's Compliance with the Final Judgments at 12-13, (Oct. 19, 2005), *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232). The DOJ's October 2005 Joint Status Report noted that it was "unfortunate that the draft specification contained the exclusivity provision." *Id.* at 13.

¹²³ The European Commission recently fined Microsoft \$1.35 billion for failure to comply with the Commission's 2004 antitrust ruling. See Peppi Kiviniemi, *EU Fines Microsoft \$1.35 bn*, LiveMint, Feb. 28, 2008, <http://www.livemint.com/2008/02/27210155/EU-fines-Microsoft-135-bn.html?atype=tp>. A lawyer for ECIS expressed a similar regret in regards to Microsoft's conduct in the EC, observing that it is "more profitable [for Microsoft] to reap the anticompetitive benefits of non-compliance with the law and to pay the fines than to comply." *Id.*

¹²⁴ See Memorandum Opinion at 38 (Jan. 29, 2008), *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002) (No. 98-1232), available at <http://www.microsoft-antitrust.gov/pdf/Jan292008MemOp.pdf> ("[I]t is abundantly clear that more than five years after the Communications Protocols and related technical documentation were required to be available to licensees under § III.E, the documentation envisioned by that Section is still not available to licensees in a complete, useable, and certifiably accurate form."). The district court extended the decree "based upon the extreme and unforeseen delay in the availability of complete, accurate, and useable technical documentation relating to the Communications Protocols that Microsoft is required to make available to licensees...." *Id.* at 3. The district court further noted that allowing the provisions

Even today, with its obligations under the consent decree nearing an end, Microsoft has begun testing the waters and taking more aggressive actions to limit the pre-installation of competing software by OEMs. For example, in 2008 Microsoft announced that it would introduce a series of diagnostic tests and requirements for any non-Microsoft software that OEMs wished to preinstall (Microsoft's own equivalent software was not subject to the tests).¹²⁵ Microsoft further announced that marketing dollars it typically granted to OEMs would be linked to compliance with the tests.¹²⁶ This announcement obviously created serious concerns among OEMs, ISVs, and consumer advocates. Among other things, Microsoft's announcement meant that it would gain early access to competing software, and the new program would give Microsoft an easy tool to keep competing middleware products (for example, browsers and media players) from being distributed by OEMs. Steven Houck, counsel to the California Group of plaintiffs, told the U.S. district court at a January 2009 status conference that: "[I]n the six plus years that we've been enforcing the decree, this particular issue is one in which we've gotten the most number of complaints and heard the most anxiety about what Microsoft is doing."¹²⁷ In light of Microsoft's history of anticompetitive conduct, it is perhaps not surprising that, with just a few months of U.S. regulatory oversight remaining, Microsoft has once again begun to ratchet up its anticompetitive tactics.

B. Microsoft's Campaign of Patent FUD against Linux and Open Source Software

"This is not a case of some accidental, unknowing infringement. There is an overwhelming number of patents being infringed."

— *Microsoft General Counsel and Intellectual Property and Licensing Vice President Horacio Gutierrez*¹²⁸

The open source Linux operating system is the principal rival to Microsoft Windows. Linux has been taken up by both corporate customers and, increasingly, by private individuals

of the Communications Protocols to expire jeopardized the "full procompetitive impact" of the Final Judgment. *Id.* at 4.

¹²⁵ See Stephanie Condon, *Vista Marketing Draws Antitrust Complaints*, CNET NEWS, Jan. 28, 2009, at http://news.cnet.com/8301-13578_3-10151757-38.html; Interim Joint Status Report on Microsoft's Compliance with the Final Judgments at 4 (Jan. 29, 2009), *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), available at <http://www.usdoj.gov/atr/cases/f241600/241677.pdf>; see also Microsoft Presentation, "Advancing the Platform," presented at Windows Hardware and Engineering Conference, Nov. 4-7 2008, available at http://download.microsoft.com/download/5/E/6/5E66B27B-988B-4F50-AF3A-C2FF1E62180F/COR-T780_WH08.pptx (describing Project Velocity tests).

¹²⁶ See Stephanie Condon, *Vista Marketing Draws Antitrust Complaints*, CNET NEWS, Jan. 28, 2009, at http://news.cnet.com/8301-13578_3-10151757-38.html. Microsoft denies that marketing dollars will be tied to the test results, but that remains an open issue as the program is undergoing changes. See *id.*

¹²⁷ Transcript of Status Conference at 16, Jan. 28, 2009, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232); see also Stephanie Condon, *Vista Marketing Draws Antitrust Complaints*, CNET NEWS, Jan. 28, 2009, at http://news.cnet.com/8301-13578_3-10151757-38 (quoting Steven Houck).

¹²⁸ See Roger Parloff, *Microsoft takes on the free world*, CNN MONEY, May 14, 2007, available at http://money.cnn.com/magazines/fortune/fortune_archive/2007/05/28/100033867/.

for home use (e.g., with netbooks). In a recent interview with CNET, Steve Ballmer identified Linux as one of the top two competitive threats to Microsoft in the enterprise segment.¹²⁹

Consistent with its behavior in response to other competitive threats, Microsoft has used unfair and anti-competitive tactics to try and slow the uptake of Linux. In particular, Microsoft has made and continues to make broad, unsubstantiated claims that software developers distributing Linux or other open source software, as well as their customers, are infringing Microsoft's patents.¹³⁰ However, although Microsoft has claimed that as many as 235 patents may have been infringed¹³¹, it has consistently failed to identify which patents are at issue.

Microsoft's tactic is to spread fear, uncertainty and doubt ("FUD") as to whether developers and users of open source software may be the target of future patent infringement suits, and thereby chill consumer enthusiasm and demand for Linux and open source solutions. Indeed, Microsoft's unwarranted threats have brought such pressure to bear on Linux users that some have felt compelled to enter into royalty-bearing patent licenses with Microsoft.¹³² Microsoft's campaign of FUD effectively works to impose a "tax" on the use of the most viable alternative software to Windows: faced with an intimidating and powerful potential litigant known for its hardball tactics, Linux users are driven to pay the licensing fee despite the speculative nature of the IP claims. Microsoft's bullying tactics therefore raise the overall cost and slow down market penetration by innovative technologies intended to compete with Microsoft's monopoly products.

Moreover, there is a strong likelihood that Microsoft's patent FUD campaign may be unfounded in law. Recent U.S. jurisprudence clarifies that the scope for patenting business methods, which lie at the heart of many software patents, is much narrower than was previously thought to be the case.¹³³ In addition, one of the thresholds for patentability – that an invention is not obvious to a person skilled in the art – has recently become harder to meet.¹³⁴ As such, many of the patents held by Microsoft are likely to be of questionable validity today. Furthermore, given the myriad of software patents in existence, consumers may often be unable to determine with certainty whether their use or distribution of certain software products actually infringes another company's IP rights. Therefore, contrary to the broad and categorical statements of Mr. Gutierrez as to the intentional nature of any alleged patent infringements, it is widely recognized in the industry that, regardless of whether proprietary or open source software is used, there is a

¹²⁹ See Marguerite Reardon, *Microsoft and EMC renew their vows*, CNET.COM, Feb. 4, 2009, available at http://news.cnet.com/8301-10805_3-10156015-75.html

¹³⁰ See Gavin Clarke, *Royalties are the admission price, Microsoft tells fretards*, THE REGISTER, Mar. 27, 2008, available at http://www.theregister.co.uk/2008/03/27/microsoft_brad_smith_patents_royalties/.

¹³¹ See Parloff, *Microsoft takes on the free world*, *supra*, note 128.

¹³² See, e.g., Matt Asay, *Microsoft continues to prey on the overly cautious with patent deals*, CNET.COM, Mar. 21, 2008, available at http://www.cnet.com/8301-13505_1-9900817-16.html.

¹³³ See *KSR International Co., Petitioner e. Teleflex Inc. et al.*, (2007) US 27, available at <http://www.supremecourtus.gov/opinions/06pdf/04-1350.pdf> and *In Re Bernard L. Bilski and Rand A. Warsaw*, United States Court of Appeals for the Federal Circuit, 2007-1130 (Serial No. 08/833,892), available at <http://www.cafc.uscourts.gov/opinions/07-1130.pdf>.

¹³⁴ See, e.g., *KSR International Co., Petitioner e. Teleflex Inc. et al.*, *supra*, note 133; *Angiotech Pharmaceuticals Inc. v. Conor Medsystems Inc.* [2008] UKHL 49; *Apotex Inc. v. Sanofi-Synthelabo Canada Inc.* [2008] SCC 61.

high likelihood that patent infringements will have been committed inadvertently. Microsoft has sought to exploit the current absence of clarity in patent law in order to deter consumers from taking up offerings competing with Microsoft's own products.

In an apparent escalation of its patent FUD strategy, Microsoft sued the navigational system vendor, TomTom, for patent infringement at the end of February 2009. Three patent claims related to Linux are included in the lawsuit.¹³⁵ At least two of them are related to highly questionable patents on long file name support in Windows, which have been partially invalidated by an EC patent court on the grounds that Microsoft's patent claims were "not based on inventive activity".¹³⁶ While Microsoft has publicly claimed that its action is not directed against Linux or open source, and the case was settled in March 2009 pursuant to a mostly-confidential agreement, this represents an aggressive development of Microsoft's use of spurious or highly questionable patent claims to intimidate and eliminate competition from Linux in order to maintain or strengthen its dominant position in the OS market.

C. Microsoft's Ongoing Misconduct Has Sparked Further European Commission Investigations

As noted at the outset, the European Commission ("EC") is also investigating ongoing misconduct by Microsoft, culminating in its issuance of a Statement of Objections to Microsoft on January 15, 2009, concerning the tying of the Internet Explorer web browser to the Windows operating system.¹³⁷ In addition, the EC continues to investigate a number of other actions Microsoft has taken to tie products to Windows as well as Microsoft's refusal to enable interoperability with certain of its monopoly technologies, including Sharepoint, Outlook, Exchange, and Office.¹³⁸ The EC is also investigating Microsoft's actions to manipulate the vote of the International Organization for Standardization / International Electrotechnical Commission on the recent standardization of Office "Open" XML ("OOXML"). As reported widely in the press and on the Internet, Microsoft's manipulation of the standards setting process in favor of OOXML included financial inducements, threats, misleading information, and committee-stuffing.¹³⁹ These investigations are compelling examples of Microsoft's continued misconduct related to its monopolies in operating systems and other products.

¹³⁵ See Bruce Perens, *Analyzing Microsoft's TomTom Lawsuit*, DATAMATION.COM, Mar. 1, 2009, available at <http://itmanagement.earthweb.com/osrc/article.php/3807801/Bruce-Perens-Analyzing-Microsofts-Linux-Lawsuit.htm> and Richard Hillesley, *TomTom – The drums of a patent war with Microsoft?* ITPRO.COM, Mar. 5, 2009, available at <http://www.itpro.co.uk/610093/tomtom-the-drums-of-a-patent-war-with-microsoft>.

¹³⁶ See, e.g., *Federal Patent Court declares FAT patent of Microsoft null and void*, HEISE ONLINE, Mar. 2, 2007, available at <http://www.heise.de/english/newsticker/news/86141>.

¹³⁷ See Press Release, European Commission, Antitrust: Commission Confirms Sending a Statement of Objections to Microsoft on the Tying of Internet Explorer to Windows (Jan. 17, 2009), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/15>.

¹³⁸ See Press Release, European Commission, Commission Initiates Formal Investigation Against Microsoft in Two Cases of Suspected Abuse of Dominant Market Position (Jan. 14, 2008), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/19>.

¹³⁹ See Charles Forelle, *Microsoft's Office Push Scrutinized by EU*, WALL ST. J., Feb. 8, 2008, <http://online.wsj.com/article/SB120242867034452081.html> (stating that the EC is examining whether Microsoft's pressure on countries to vote for the Office Open XML standard "amounted to an undue stifling of competition"). "In the months and weeks leading up to the vote, Microsoft resellers and other allies joined

IV. MICROSOFT'S FALSE PROMISES OF INTEROPERABILITY

Although Microsoft has repeatedly promised to support open standards, both with its recent “Interoperability Principles”¹⁴⁰ and its announcements for Internet Explorer 8,¹⁴¹ Microsoft has routinely made similar promises of standards support in the past without fulfilling them.¹⁴² As a result, many observers have greeted Microsoft’s various announcements and orchestrated fanfare with skepticism. For example, following one recent Microsoft interoperability announcement, the European Commission released a short statement noting that Microsoft’s promise of interoperability followed “*at least* four similar statements by Microsoft in the past on the importance of interoperability.”¹⁴³ As the Commission observed, it took Microsoft three years even to approach releasing the amount of interoperability information the European Court of First Instance had *ordered* it to release.¹⁴⁴

Even when Microsoft claims to be implementing a standard, the reality is that Microsoft’s implementations routinely either only partially conform or else somehow extend the standard, so that software developed to work with Microsoft’s version of the standard will not work with other vendors’ implementations of the same standard. As just one example, Microsoft recently announced that Internet Explorer 8 would support a feature called “local storage,” which allows websites to store a limited amount of data on users’ computers so that users can interact with those sites offline, a feature that could help web applications become effective replacements for traditional desktop applications.¹⁴⁵ This feature is part of HTML 5, the next version of the

standards bodies en masse – helping swell the Italian group, for instance, from a half-dozen members to 85.” *Id.*; see also Daniel Goldberg, *Microsoft Pressed Swedish Partners to Vote for Open XML*, PC WORLD, Aug. 30, 2007, <http://www.pcworld.com/article/id,136599-pg,1/article.html> (noting that Microsoft offered “extra marketing contributions” and “extra support in the form of Microsoft resources” to persuade its Swedish business partners to vote for the adoption of Office Open XML).

¹⁴⁰ Press Release, Microsoft, Microsoft Makes Strategic Changes in Technology and Business Practices to Expand Interoperability (Feb. 21, 2008), available at <http://www.microsoft.com/presspass/press/2008/feb08/02-21ExpandInteroperabilityPR.mspx>; Mary-Jo Foley, *All About Microsoft: Reading the Fine Print on Microsoft’s Open-Source Promises*, ZDNET, Feb. 21, 2008, <http://blogs.zdnet.com/microsoft/?p=1208>.

¹⁴¹ See Dean Hachamovitch, *Microsoft’s Interoperability Principles and IE8*, IE BLOG, Mar. 3, 2008, <http://blogs.msdn.com/ie/archive/2008/03/03/microsoft-s-interoperability-principles-and-ie8.aspx>.

¹⁴² See, e.g., Chris Wilson, *Standards and CSS in IE*, IE BLOG, July 29, 2005, <http://blogs.msdn.com/ie/archive/2005/07/29/445242.aspx>; Ted Schadler, *Commentary: IBM, Microsoft’s Web Services Sing-Along*, CNET NEWS, Sept. 22, 2003, http://www.news.com/2030-1069_3-5079712.html; Nick Wingfield, *Microsoft Standards: Windows to W3C*, CNET NEWS, July 1, 1997, http://www.news.com/Microsoft-standards-Windows-to-W3C/2100-1023_3-201106.html.

¹⁴³ Press Release, European Commission, Commission Takes Note of Microsoft’s Announcement of Interoperability Principles (Feb. 21, 2008), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/106> (emphasis added).

¹⁴⁴ Press Release, European Commission, Commission Decision to Impose Penalty Payments on Microsoft—Frequently Asked Questions (Feb. 27, 2008), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/125>.

¹⁴⁵ Microsoft Corp., *Introduction to DOM Storage*, Microsoft Developer Network, <http://msdn2.microsoft.com/en-us/library/cc197062.aspx>.

HTML standard used for writing web pages.¹⁴⁶ Unfortunately, Microsoft's implementation is subtly incompatible with the standard, which could lead web developers who test their sites in Internet Explorer 8 to write their sites in a way that will not work in other browsers.¹⁴⁷ Other, earlier examples of this conduct include Microsoft's approach to the Windows graphical user interface (discussed in section II.A) and Microsoft's approach to Java developer tools (discussed in section II.H). Again, these are just a few examples of Microsoft's hollow interoperability promises. Microsoft's history clearly demonstrates its longstanding practice of making one set of statements about interoperability in public and then implementing a wholly different approach to interoperability in practice.

V. MICROSOFT'S MONOPOLIES HAVE HARMED CONSUMERS

Microsoft's conduct has allowed it to protect its monopolies, which has led to a lack of choice, higher prices, and less innovation than would otherwise have prevailed in a competitive marketplace. The barriers to entry surrounding Microsoft's core monopolies remain very high, and Microsoft's market shares and profit margins in desktop operating systems, office productivity suites, and browsers have continued to reflect its overwhelming monopoly power in these markets.¹⁴⁸ In short, Microsoft's misconduct has harmed and continues to harm consumers significantly.

A. Microsoft's Operating System Monopoly Has Harmed Consumers

For fifteen years, Microsoft's share of desktop operating systems has remained above 90%.¹⁴⁹ In 2002, when the Final Judgment in *United States v. Microsoft* was entered, Windows XP was the most common desktop operating system.¹⁵⁰ Microsoft did not release a successor to Windows XP until 2007, when it released Windows Vista.¹⁵¹ Even then, the "Vista" that

¹⁴⁶ See World-Wide Web Consortium, HTML 5: A Vocabulary and Associated APIs for HTML and XHTML § 4.10 (Working Draft, June 10, 2008), available at <http://www.w3.org/TR/html5/#storage>.

¹⁴⁷ Compare *id.* (documenting a standard set of storage related events and synchronous operations) with Microsoft Corp., *Introduction to DOM Storage*, Microsoft Developer Network, <http://msdn.microsoft.com/en-us/library/cc197062.aspx> (documenting different storage-related event names and asynchronous operations).

¹⁴⁸ See California Group's Report on Remedial Effectiveness at 2–4 (Aug. 30, 2007), *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002) (No. 98-1232), available at http://www.naag.org/assets/files/pdf/antitrust.2007-08-30_Filed_CA_Group_Effectiveness_Report.pdf; see also Microsoft Corp., Annual Report (Form 10-K) at 67 (July 31, 2008), available at <http://idea.sec.gov/Archives/edgar/data/789019/000119312508162768/d10k.htm>. The profit margin for Microsoft's client segment, which includes its Windows operating system, was 77% in fiscal year 2008. See *id.* at 23. The profit margin for Microsoft's business division, which includes Office, was 65%. See *id.* at 26.

¹⁴⁹ See *Operating System Market Share Survey*, Net Applications, Dec. 2008, available at <http://marketshare.hitslink.com/operating-system-market-share.aspx?qprid=8>; California Group's Report on Remedial Effectiveness at 10 (Aug. 30, 2007), *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002) (No. 98-1232), available at http://www.naag.org/assets/files/pdf/antitrust.2007-08-30_Filed_CA_Group_Effectiveness_Report.pdf.

¹⁵⁰ See California Group's Report on Remedial Effectiveness at 10 (Aug. 30, 2007), *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002) (No. 98-1232), available at http://www.naag.org/assets/files/pdf/antitrust.2007-08-30_Filed_CA_Group_Effectiveness_Report.pdf.

Microsoft released lacked the most significant features that Microsoft had initially promised, and reviewers labeled it as little more than an incremental improvement.¹⁵² CNet News, a leading computer industry publication, ranked Microsoft's Windows Vista in its "Top Ten Terrible Tech Products."¹⁵³ Even Microsoft recognizes that its stronghold on operating systems has harmed consumers:

*The Windows API is ... so deeply embedded in the source code of many Windows apps that there is a huge switching cost to using a different operating system instead. ... It is this switching cost that has given customers the patience to stick with Windows through all our mistakes, our buggy drivers, our high TCO, our lack of a sexy vision at times, and many other difficulties... Customers constantly evaluate other desktop platforms, [but] it would be so much work to move over that they hope we just improve Windows rather than force them to move. In short, without this exclusive franchise called the Windows API, we would have been dead a long time ago.*¹⁵⁴

Microsoft's tactics to prolong its operating system monopoly through means other than competition on the merits go hand-in-hand with its admitted lack of innovation.

B. Microsoft's Office Monopoly Has Harmed Consumers

Microsoft's Office suite likewise maintains a 95% market share.¹⁵⁵ The standard Office suite includes Word (word processing software), Excel (spreadsheets), PowerPoint

¹⁵¹ See *id.*; see also Hadley Stern, *Mac Updates vs. Windows Updates*, O'REILLY NETWORK, May 20, 2004, http://www.oreillynet.com/mac/blog/2004/05/mac_updates_vs_windows_updates.html (contrasting Apple's regular update schedule for its operating system with Microsoft's and noting that "Microsoft's ... approach leaves innovation on a very slow timeframe").

¹⁵² See Robert Vamosi, *Editors' Reviews: Windows Vista*, CNET REVIEWS, Jan. 24, 2007, http://reviews.cnet.com/windows/windows-vista-home-premium/4505-3672_7-32013237.html?tag=prod.2 (labeling Vista a "warmed-over Windows XP Home edition" and noting that after five years of development "there's a definite 'Is that all?' feeling"); Ina Fried & Margaret Kane, *Microsoft Revamps Its Plans for Longhorn*, CNET NEWS, Aug. 27, 2004, http://www.news.com/Microsoft-revamps-its-plans-for-Longhorn/2100-1016_3-5327150.html (noting that Microsoft "has not had a full release of its desktop operating system since Windows XP debuted in October 2001").

¹⁵³ *Top Ten Terrible Tech Products*, CNET CRAVE, Nov. 20, 2007, <http://crave.cnet.co.uk/gadgets/0,39029552,49293700-10,00.htm>.

¹⁵⁴ EC Decision, *supra* note 52, ¶ 463 (citing an internal Microsoft memo drafted for Bill Gates by C++ General Manger Aaron Contorer and dated Feb. 21, 1997).

¹⁵⁵ See *To Pay or Not to Pay: The World of Office Suites Opens Up*, KNOWLEDGE@W.P. CAREY, Arizona State Univ. School of Business, Oct. 10, 2007, <http://knowledge.wpcarey.asu.edu/article.cfm?articleid=1483>; see also Daniel Eran Dilger, *Microsoft's Outrageous Office Profits*, ROUGHLY DRAFTED MAG, Sept. 9, 2007, <http://www.roughlydrafted.com/2007/09/09/microsoft%e2%80%99s-outrageous-office-profits/> ("Microsoft's Office suite represents the third pillar of the company's core trio of monopolies, next to its Windows desktop software and its Windows Server products.").

(presentations), and Outlook (desktop email client),¹⁵⁶ all of which are the *de facto* standards in their respective categories.¹⁵⁷ Microsoft has more than 500 million Office users.¹⁵⁸ The business division at Microsoft, which includes Office, operated on a profit margin of 65% and brought in almost \$19 billion in revenue in 2008.¹⁵⁹

Microsoft's monopoly power in office productivity applications has, likewise, bred complacency that is harmful to consumers. Even Microsoft's founder and former Chief Software Architect, Bill Gates, asserts that the only real competitive pressure on Microsoft to improve Office today is that consumers might not upgrade to the next version.¹⁶⁰ Between 1997 and 2007, Microsoft released only three new versions of Microsoft Office, a very slow pace by software industry standards, and reviewers noted that each release offered only small improvements over the previous ones.¹⁶¹ It was not until 2007, with the advent of competing

¹⁵⁶ See Microsoft Office - Compare the Office 2007 Suites, <http://office.microsoft.com/en-us/suites/FX101635841033.aspx>.

¹⁵⁷ See Kurt Cagle, *Microsoft Office Open XML Fails to Win ISO Vote*, O'REILLY XML BLOG, Sept. 4, 2007, http://www.oreillynet.com/xml/blog/2007/09/microsoft_office_open_xml_fail.html.

¹⁵⁸ See Jefferson Graham, *Google Apps Can Be a Small Firm's Best Friend*, USA TODAY, Feb. 12, 2008, http://www.usatoday.com/tech/products/software/2008-02-12-google-apps_N.htm (calling Microsoft Office "a software behemoth in Corporate America").

¹⁵⁹ See Microsoft Corp., Annual Report (10-K), at 26 (July 31, 2008), available at <http://idea.sec.gov/Archives/edgar/data/789019/000119312508162768/d10k.htm>; see also Daniel Eran Dilger, *Office Wars 3—How Microsoft Got Its Office Monopoly*, ROUGHLY DRAFTED MAG., Sept. 10, 2007, <http://www.roughlydrafted.com/2007/09/10/office-wars-3-how-microsoft-got-its-office-monopoly/> ("Microsoft's Office monopoly gives the company more revenues and delivers nearly as much profit as its Windows software.").

¹⁶⁰ See David Kirkpatrick, *Gates and Ozzie: How to Escape E-Mail Hell*, FORTUNE, June 27, 2005, 169-72, available at http://money.cnn.com/magazines/fortune/fortune_archive/2005/06/27/8263426/index.htm ("Our biggest competitor is always the status quo—people may just do things the way they've been doing them and feel, hey, that's good enough.").

¹⁶¹ See Gregg Keizer, *Microsoft Office System*, CNET REVIEWS, Oct. 21, 2003, http://reviews.cnet.com/4520-3513_7-5092597-1.html?tag=txt (explaining that Microsoft Office "isn't a must-have upgrade for the average home user"); Gregg Keizer, *Microsoft Office XP Suite Reviews*, CNET REVIEWS, Mar. 15, 2001, http://reviews.cnet.com/office-suites/microsoft-office-xp/4505-3524_7-5152705.html?tag=prod.txt.5 (noting that Microsoft Office XP is "not worth the cost, time, and effort for single or home users" and offers only "incremental improvements"); Gregg Keizer, *All About Office 2000: Should You Upgrade?*, CNET REVIEWS, Apr. 12, 1999, <http://web.archive.org/web/20001218073500/home.cnet.com/category/topic/0,10000,0-3670-7-278204,00.html> (follow the "Should You Upgrade?" link on the right) (stating that Office 2000 is not "cost smart" for "small businesses, work-at-homers, or those operating without the infrastructure of an intranet").

online office productivity applications,¹⁶² that Microsoft redesigned the Office user interface and, not coincidentally, introduced new, incompatible file formats.¹⁶³

C. Microsoft's Web Browser Monopoly Has Harmed Consumers

For the past decade, Microsoft has maintained a dominant share in the web browser market.¹⁶⁴ Since Microsoft's success in exterminating Netscape, however, it has invested little in developing its Internet Explorer web browser. During Microsoft's push to destroy Netscape, it released four major new versions of Internet Explorer in two years.¹⁶⁵ But after it successfully excluded Netscape from the market, Microsoft slowed browser development, releasing only two new versions between 1998 and 2001, neither of which was a major upgrade.¹⁶⁶ After 2001,

¹⁶² See Elinor Mills, *Google Combines Word Processing, Spreadsheets*, CNET NEWS, Oct. 10, 2006, http://www.news.com/Google-combines-word-processing,-spreadsheets/2100-1032_3-6124593.html?tag=nefd.top (explaining that Google Docs & Spreadsheets is a free program that allows users to manage and create documents on the Web and noting that Microsoft has responded by "revamping its business"); see also Elsa Wenzel, *Microsoft Office 2007 Office Suite Reviews*, CNET REVIEWS, Jan. 29, 2007, http://reviews.cnet.com/office-suites/microsoft-office-2007/4505-3524_7-32143052.html?tag=prod.txt.1 ("The advent of Office 2007 comes as a growing number of competing tools are simpler, cost less (if they aren't free), and handle the same core features.").

¹⁶³ See Elsa Wenzel, *Microsoft Office 2007 Office Suite Reviews*, CNET REVIEWS, Jan. 29, 2007, http://reviews.cnet.com/office-suites/microsoft-office-2007/4505-3524_7-32143052.html?tag=prod.txt.1 (noting that the average user rating for Microsoft Office 2007 was "mediocre"). With Office 2007, Microsoft switched from its proprietary binary file format for electronic documents to XML file format. *Id.* ("The new era of Office affects even those who don't upgrade, and a conversion tool is needed to let older Office versions open Office 2007's default, Open XML files."). For developers who had spent years reverse engineering the proprietary binary file format in order to allow some level of interoperability with non-Microsoft systems, the switch to XML caused new incompatibility problems with these non-Microsoft users. See Ephraim Schwartz, *ODF vs. OpenXML*, INFO WORLD, May 15, 2007, http://weblog.infoworld.com/realitycheck/archives/2007/05/odf_vs_openxml.html.

¹⁶⁴ See Browser Market Share for YTD 2009, Net Applications, <http://marketshare.hitslink.com/browser-market-share.aspx?qprid=0> (showing Microsoft Internet Explorer market share at almost 70%); California Group's Report on Remedial Effectiveness at 3 (Aug. 30, 2007), *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002) (No. 98-1232), available at http://www.naag.org/assets/files/pdf/antitrust.2007-08-30_Filed_CA_Group_Effectiveness_Report.pdf (noting shares above 85% through 2006). It is worth noting that what little ground Internet Explorer has recently lost to its rival browsers is not due to any success on the part of the consent decree that ended the United States' antitrust suit against Microsoft. As the California Group (the Plaintiff States of California, Connecticut, Iowa, Kansas, Minnesota, and Massachusetts and the District of Columbia) emphasized, even counsel for the United States was not willing to attribute any reduction in Microsoft's web browser market share to the Final Judgment. See *id.* at 9 (quoting counsel for the United States as saying, "It's hard to know what [that reduction is] attributable to, and I wouldn't want to credit the final judgment.").

¹⁶⁵ See Brian Wilson, Browser History Timeline: Overview, <http://www.blooberry.com/indexdot/history/browsers2.htm>.

¹⁶⁶ See *id.*; Rex Baldazo, *Review: Microsoft Internet Explorer 6.0*, CNET REVIEWS, Mar. 31 2003, http://reviews.cnet.com/software/microsoft-internet-explorer-6/4505-3513_7-20832430.html?tag=prod.txt.2; Jim Rapoza, *IE 5.0's Best Surprise Is No Surprise*, EWEEK, Mar. 29, 1999, <http://web.archive.org/web/20010209175240/zdnet.com/products/stories/reviews/0,4161,2227704,00.html>. (stating that as an upgrade, IE 5.0 is "bloated" and "doesn't radically change the product").

Microsoft “effectively disbanded the Internet Explorer group after killing Netscape.”¹⁶⁷ Microsoft did not introduce a new version of Internet Explorer for Windows until 2006, and even then reviewers labeled the new version as an underwhelming catch-up release.¹⁶⁸ One of Microsoft’s .NET program managers acknowledged that “[i]t simply doesn’t make business sense for Microsoft to invest in a technology that d[is]intermediates [its] most popular platform, the Windows operating system.”¹⁶⁹ As one analyst summarized the issue:

The Web browser is probably the most frequently used category of software in the world. But in recent years, the browser most people rely on—Microsoft’s Internet Explorer—has been stagnant, offering very few new features.

*This is a common pattern with Microsoft. The company is aggressive about improving its software when it first enters a market. But once it crushes its competitors and establishes an effective monopoly, as it has in Web browsers, Microsoft seems to switch off significant innovation.*¹⁷⁰

Yet despite Microsoft’s lack of innovation in the browser market, it has been able to maintain its enormous market share.¹⁷¹ Even strikingly superior web browsers like Opera and Mozilla’s Firefox have had great difficulty in gaining widespread adoption. After having been

¹⁶⁷ Charles H. Ferguson, *What’s Next for Google*, TECH. REV., Jan. 2005, <http://www.technologyreview.com/Infotech/14065/> (pointing out that only recently has Microsoft again begun innovation in the browser market once it “realized that Firefox was starting to gain share”). Around the same time, Microsoft also ended development of Internet Explorer for Mac users, redeploying the entire team to work on an unrelated project. See Jorg Brown, *I was on the MacIE 6 Team When It Got Canned*, SLASHDOT, Dec. 18, 2005, <http://apple.slashdot.org/comments.pl?sid=171546&cid=14288661> (“[A]lmost immediately after 5.0 was released, the MacIE team was redeployed to work on a set-top DVR box.”); see also Colin Baker, *Microsoft Drops Mac IE*, CNET NEWS, Dec. 19, 2005, http://www.news.com/Microsoft-drops-Mac-IE/2100-1016_3-6000919.html (stating that Microsoft officially ended support for the Mac IE in 2003 and that it had not updated the software in over three years, meaning that Mac users only had access to IE 5 while Windows users had IE 6).

¹⁶⁸ See Robert Vamasi, *Internet Explorer 7 Browser Review*, CNET REVIEWS, Oct. 18, 2006, http://reviews.cnet.com/browsers/internet-explorer-7/4505-3514_7-32111537.html (“IE 7 was Microsoft’s one chance to leapfrog ahead of the competition, but the company has only barely caught sight of the current front-runners. For more features and greater security, switch to Mozilla Firefox.”). Some changes within IE7 are “merely cosmetic” and the browser is missing the “innovative, cutting-edge features” found on Firefox2. *Id.*; see also Fred Vogelstein, *Search and Destroy*, FORTUNE, May 2, 2005, at 75, available at http://money.cnn.com/magazines/fortune/fortune_archive/2005/05/02/8258478/index.htm (“[T]he recently released Firefox browser, which can be downloaded free, has forced Gates to reconstitute an Internet Explorer development team.”).

¹⁶⁹ Dare Obasanjo, *Mac IE’s Death: A Case for Microsoft Disbanding or Transferring the Windows IE Team*, Dare Obasanjo aka Carnage4Life, Dec. 19, 2005, <http://www.25hoursaday.com/weblog/PermaLink.aspx?guid=ba90f4aa-4a07-4f3e-a318-bc1095c61980>.

¹⁷⁰ Walter S. Mossberg, *For Tabbed Browsing and Other New Tricks, Try Explorer’s Rivals*, WALL ST. J., Jan. 8, 2004, available at <http://web.archive.org/web/20070214035829/http://ptech.wsj.com/archive/ptech-20040108.html>.

¹⁷¹ See California Group’s Report on Remedial Effectiveness at 3 (Aug. 30, 2007), *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002) (No. 98-1232), available at http://www.naag.org/assets/files/pdf/antitrust.2007-08-30_Filed_CA_Group_Effectiveness_Report.pdf (reporting an 85% market share for Internet Explorer in 2006).

starved of innovation by Microsoft for years, technology-savvy jumped at the chance to adopt Firefox upon its release, and reviewers generally identify Firefox (and other browsers including Opera) as far superior to Internet Explorer.¹⁷² Yet, despite their superiority, no major OEM has ever distributed any of these alternative, innovative browsers.¹⁷³ Thus, while IE is guaranteed ubiquity as a result of Microsoft's tying practice, rival browsers face high barriers to entry even if they are technically superior. Beyond their popularity with a limited set of sophisticated consumers, alternative browsers have not been able to make significant inroads.¹⁷⁴ This means that most consumers have gone without features like tabbed browsing and improved security features for years longer than they would have done in a competitive marketplace.¹⁷⁵ Microsoft's persistently high market share despite its noticeably inferior product is proof that OEMs are not selecting web browsers based on consumer demand.

Microsoft's anticompetitive conduct in the browser market has also firmly entrenched Internet Explorer as the super-dominant web browser in the workplace. Among other things, during the years after Microsoft exterminated Netscape and before Firefox came on the scene, many corporate information technology departments built applications and company intranets on

¹⁷² See Robert Vamosi, *Internet Explorer vs. Firefox 2*, CNET REVIEWS, Oct. 30, 2006, http://reviews.cnet.com/4520-10442_7-6656808-7.html?tag=btn (stating that "Firefox 2 still rules the browser roost for now, despite a much improved version of Internet Explorer" and noting that Firefox has "earned its spot at the top of the browsers") (link is to inner page of review); Erik Larkin, *Radically New IE 7 or Updated Mozilla Firefox 2—Which Browser is Better?*, PC WORLD, Oct. 24, 2006, <http://www.pcworld.com/article/id,127309-page,6-c,browsers/article.html> ("Of the two rivals, Firefox remains the better application.").

¹⁷³ See California Group's Report on Remedial Effectiveness at 12 (Aug. 30, 2007), *New York v. Microsoft Corp.*, 224 F. Supp. 2d 76 (D.D.C. 2002) (No. 98-1232), available at http://www.naag.org/assets/files/pdf/antitrust.2007-08-30_Filed_CA_Group_Effectiveness_Report.pdf ("The OEM flexibility provisions of the Final Judgment have not produced competitively significant results because they do not adequately address the persistent disincentives (including Microsoft's advantage of free universal distribution, additional support costs, potential consumer confusion and PC resource constraints) that discourage OEMs from preloading rival middleware products on a Windows PC...."); see also Edward F. Moltzen, *Firefox Gets No Respect from PC Makers, Despite Popularity*, CHANNELWEB NETWORK, Oct. 15, 2007, <http://www.crn.com/software/202402974>.

¹⁷⁴ See Net Applications, Browser Market Share, <http://marketshare.hitslink.com/report.aspx?qprid=0>. As the Chairperson of the Mozilla Foundation put it: "Equally important, the success of Mozilla and Firefox does not indicate a healthy marketplace for competitive products. Mozilla is a non-profit organization; a worldwide movement of people who strive to build the Internet we want to live in. ... I certainly hope that neither the EU nor any other government expects to maintain a healthy Internet ecosystem based on non-profits stepping in to correct market deficiencies." Mitchell Baker, Chairperson, Mozilla Foundation, *The European Commission and Microsoft*, Mitchell's Blog, Feb. 6, 2009, <http://blog.lizardwrangler.com/2009/02/06/the-european-commission-and-microsoft/>.

¹⁷⁵ Paul Festa, *Microsoft Offers Tabbed Browsing—In IE 6*, CNET NEWS, June 8, 2005, available at http://news.cnet.com/Microsoft-offers-tabbed-browsing--in-IE-6/2100-1032_3-5738037.html (explaining that tabbed browsing is a feature, "long offered by IE competitors like Opera, Safari and Firefox," that enables users to open several web pages in a single window and select among them by clicking on a tab at the top of the page, and noting that tabbed browsing would not be standard on Internet Explorer until Version 7).

top of proprietary Microsoft technologies in Internet Explorer. These companies would face significant barriers to switching to a different browser today.¹⁷⁶

VI. CONCLUSION

Microsoft's conduct over the last two decades has demonstrated Microsoft's willingness and ability to engage in unlawful conduct to protect and extend its core monopolies. This conduct has caused real harm to consumers, who continue to pay high prices and use lower quality products than would have prevailed in a competitive market. By understanding Microsoft's history of anticompetitive conduct, developers, consumer groups, and government authorities will be better equipped to recognize current and future Microsoft misconduct at an early stage and intervene to prevent Microsoft from using tactics other than competition on the merits. ECIS remains hopeful that the European Commission's latest Statement of Objections addressing Microsoft's misconduct will finally mark the beginning of the end of Microsoft's two decades of anticompetitive behavior and consumer harm.

¹⁷⁶ See Sara Grant, *Lessons from the Browser Wars: Q&A with Pai-Ling Yin*, HARV. BUS. SCHOOL WORKING KNOWLEDGE, Apr. 10, 2006, <http://hbswk.hbs.edu/item/5288.html> (detailing corporate managers' unwillingness to switch their companies to Firefox).