IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,
                    Plaintiff,
 	
                    v.
 	
MICROSOFT CORPORATION,
                    Defendant.
	Civil Action No. 98-1232 (TPJ)
	
	PUBLIC REDACTED VERSION

STATE OF NEW YORK *ex rel.*
Attorney General ELIOT SPITZER, *et al.*,
                    Plaintiffs,
 	
                    v.
 	
MICROSOFT CORPORATION,
                    Defendant.
	Civil Action No. 98-1233 (TPJ)

PLAINTIFFS' MEMORANDUM IN SUPPORT OF PROPOSED FINAL JUDGMENT

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Plaintiffs' Memorandum in Support of Proposed Final Judgment

This Court's Findings of Fact and Conclusions of Law demonstrate that Microsoft has

engaged in a wide-ranging series of predatory and exclusionary activities that have inflicted

significant harm on consumers and on the software industry. In the Court's words, "Microsoft

has demonstrated that it will use its prodigious market power and immense profits to harm any

firm that insists on pursuing initiatives that could intensify competition against one of Microsoft's

core products" (Findings ¶ 412).[1] Microsoft's anticompetitive actions have already restricted

consumer choice and deterred "innovations that would truly benefit consumers" (Id.). Unless

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[1]References to Findings are to paragraphs of this Court's Findings of Fact dated
November 5, 1999.

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effectively remedied, its actions threaten an enormous toll on competition and innovation in the computing and information technology industries.

A strong remedy is thus essential on the record of this case. Plaintiffs accordingly propose a structural remedy that relies on market-based incentives to protect competition and innovation, supplemented by a series of interim, conduct-based remedies that are necessary to deter further harm until the structural remedy can be implemented and given a reasonable opportunity to take hold.[2] This remedy, which is supported by affidavits from three distinguished economists, an expert computer science professor, two leading investment bankers, and an experienced computer and technology consultant to large businesses, has the best chance of preventing future competitive harms and ameliorating some of the harm already done by Microsoft. At the same time, it avoids burdensome regulation and minimizes on-going judicial supervision and involvement. And it can be reasonably implemented and will not impair the non-anticompetitive interests of Microsoft or its shareholders.

The Final Judgment has two basic sets of provisions. The first would require a reorganization of Microsoft, pursuant to a detailed plan to be prepared by Microsoft itself, into two separate, independent companies; one would own Microsoft's operating system businesses, and the other would own its applications and other businesses. This reorganization would separate Microsoft along functional lines that are generally reflected in its current organization. It promises to have significant benefits for competition in general and innovation in particular. And,

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[2]Two of the plaintiff states, Illinois and Ohio, have a somewhat different position and have prepared a separate Memorandum in Support of the Proposed Final Judgment, which is attached as an Appendix hereto.

like countless other corporate reorganizations, it can be implemented with only modest cost to Microsoft, a cost that is not disproportionate to the unlawful conduct found in this case.

The Final Judgment also includes several restrictions on Microsoft's conduct that are intended to protect competition until the reorganization is fully implemented. These restrictions, including those prohibiting contractual tying, prohibit Microsoft from continuing in the future certain of the illegal conduct it undertook in the past. Certain provisions, such as the requirements about disclosing interface information to third parties, will both prohibit Microsoft from engaging in anticompetitive behavior in the future and reduce entry barriers to counteract the effects of Microsoft's past illegal behavior. The cases provide abundant authority for remedies of this type.

The remainder of this Memorandum should be read in conjunction with the accompanying proposed Final Judgment and supporting affidavits. Part I below sets forth an introduction and overview. Part II reviews the Court's Findings of Fact and Conclusions of Law insofar as they are relevant to the remedy issues. Part III addresses legal standards for equitable antitrust remedies. Part IV discusses the proposed Final Judgment in detail.[3]

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[3]Each Plaintiff State is authorized to seek appropriate injunctive relief for violations of state law, as well as federal law. Cal Bus. & Prof. Code §§ 17203; Conn. Gen. Stat. § 35-32; D.C. Code §§ 28-4507, 28-4508; Fla. Stat. chs. 501.207, 542.23; 740 Ill. Comp. Stat. ch. 10/7; Iowa Code §§ 553.12; Kan. Stat. §§ 50-801; Ky. Rev. Stat. §§ 367.190, 367.175; La. Rev. Stat. §§ 51-128, 51-129; Md. Com. Law II Code Ann. § 11-209; Mass. Gen. Laws ch. 93A, § 4; Mich. Comp. Laws §§ 445.777; Minn. Stat. § 325D.58; N.M. Stat. §§ 57-1-8; N.Y. Gen. Bus. Law § 342; N.C. Gen. Stat. §§ 75-14; Ohio Rev. Code §§ 109.81, 1331.11; Utah Code § 76-10-918; W.Va. Code §§ 47-18-8; Wis. Stat. § 133.16. The injunctive relief entered in this case thus ought to be entered pursuant to both federal law and the relevant state laws.

Many of the relevant state antitrust laws also authorize the court to impose other remedies, including civil forfeitures or revocation of corporate charter. Such claims are clearly supportable on the basis of this court's Findings of Fact and Conclusions of Law. However,

I. Introduction

The evidence at trial showed, and this Court has found, that

(a)   Microsoft has monopoly power in the market for personal computer operating

systems (Conclusions[4] p. 7; Findings ¶ 33);

(b)   Microsoft has "maintained its monopoly power by anticompetitive means"

(Conclusions p. 2); and

(c)   Microsoft has "attempted to monopolize the Web browser market (id.) and there is

a "dangerous probability that Microsoft will attain monopoly power" in that

market (Conclusions p. 24).

In particular, the Court found that "middleware threatened to demolish Microsoft's

coveted monopoly power," that "Microsoft strove over a period of approximately four years to

prevent middleware technologies from fostering the development of enough full-featured, cross-

platform applications to erode the applications barrier," and that "Microsoft's campaign

succeeded in preventing -- for several years, and perhaps permanently -- Navigator and Java from

fulfilling their potential to open the market for Intel-compatible PC operating systems to

competition on the merits" (Conclusions p. 9).

Because of the monopoly Microsoft has with respect to personal computer ("PC")

operating systems, and because of the critical and essential role the operating system plays in all

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because such claims could detract attention from the compelling need for immediate, forward-
looking injunctive relief to address Microsoft's unlawful conduct, the Plaintiff States are not
seeking remedies other than those contained in the proposed Final Judgment.

[4]References to Conclusions are to pages of this Court's Conclusions of Law dated April 3,
2000.

functions involving a PC, all industry participants (including OEMs, IAPs, ICPs, ISVs) require

access to Windows and the assurance that their products or services will work well with

Windows. Knowing this, Microsoft has repeatedly, and in a variety of ways, used the monopoly

power of its operating systems to prevent the development, distribution, and success of

middleware products that had the potential to reduce barriers to entry into the operating systems

business:

> (a)   Microsoft has used its power over OEMs to force OEMs to agree to use,
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> distribute, and promote Microsoft software products and to limit their use,
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> distribution, and promotion of competitive products;
>
> (b)   Microsoft has withheld, threatened to withhold, and discriminated in the disclosure
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> of the APIs, interfaces, and technical information required to enable ISVs, IHVs,
>
> and OEMs to make their products interoperate with Windows so that competitive
>
> middleware cannot connect to Windows in a timely way, or at all, or so that use of
>
> such competitive middleware will be a "jolting experience" to the user;
>
> (c)   Microsoft has used its power to discriminate in the disclosure of information
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> required for interoperability in order to force ISVs and IHVs not to support
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> competitive middleware;
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> (d)   Microsoft has used its power over industry participants (including ISVs, IHVs,
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> OEMs, ICPs and IAPs) to force such participants to enter into exclusive dealing
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> arrangements with Microsoft, to limit their distribution or promotion of non-
>
> Microsoft platform software, and to degrade the performance of non-Microsoft
>
> platform software;

(e)   Microsoft successfully obtained Intel's agreement not to compete in offering

middleware and sought agreements not to compete with numerous other

competitors including Netscape, Real Networks, Apple, and IBM;

(f)   Microsoft has contractually tied its middleware to its monopoly operating system

and thereby frustrated OEM and customer choice of, and competition among,

browsers;

(g)   Microsoft has combined the software code of separate middleware products with

the code of its monopoly operating system -- again with the purpose and effect of

foreclosing customer choice and excluding competition;

(h)   Microsoft has refused to license, or has increased the price of, existing operating

systems when new operating systems were announced in order to prevent older

operating systems from competing with newly announced operating systems; and

(i)   Microsoft has engaged in a pattern of predatory conduct by spending large sums of

money to limit the distribution of competitive middleware without any way to

recover, or expectation of recovering, such sums except by increasing barriers to

entry and thus maintaining Microsoft's monopoly power.

It is, of course, settled that the remedy for a violation of the antitrust laws should

(1) prevent the continuation or recurrence of conduct found to be unlawful and (2) repair the

damage to competition in the affected markets. The proposed Final Judgment serves the first

objective by restricting Microsoft from engaging in much of the conduct of the type found to be

unlawful in this case. Some of these restrictions will not only prohibit future harm but also, over

time, should help restore the prospect of competition that was destroyed by Microsoft's violations.

There are, however, important limitations on what conduct remedies can accomplish. First, it may not be possible effectively to prohibit certain future misconduct, or to do so without excessive regulatory burden, by conduct remedies. To take one example, the evidence showed, and the Court found, that Microsoft combined the browser and operating system code with no technical or other legitimate justification and prohibited OEMs (and, to a significant extent, end-users) from turning off the Microsoft browser. A decree might appropriately require Microsoft to redesign its existing and planned products to remove browser code that is not required for non-browsing functions, but the cost and burden of implementing and enforcing such a provision could be significant. A narrower requirement, like that in section 3.g., of the proposed Final Judgment, that Microsoft offer a version of its operating system with the browser uninstalled does not impose substantial costs or burdens, but that remedy addresses only part of the problem because it does not address the anticompetitive effects that can result from binding the browser code to the operating system in order to deter distribution of competing browsers.

Second, conduct remedies can do little to rectify the harm done to competition by Microsoft's illegal conduct in the past. For example, the evidence shows and the Court found that Microsoft's illegal conduct prevented Navigator and Java from eroding the applications barrier to entry "for several years, and perhaps permanently" (Conclusions p. 9) because they could not facilitate entry unless they became almost ubiquitous and thus became attractive platforms for ISVs. A conduct remedy cannot undo the demise of Navigator and the concomitant rise of

Internet Explorer, nor can it ensure that there will be other middleware threats comparable to Navigator in the future.

Therefore, a remedy that is likely to restore competition and prevent recurrence of illegal conduct without imposing huge regulatory burdens on the industry must go beyond conduct restrictions. One possible alternative would be to divide Microsoft into two or more operating system companies, each with access to the Windows operating systems (including successors now under development). This alternative would have the advantage of immediately creating operating system competition by converting Microsoft's monopoly into an oligopoly. But it would also have disadvantages. There could be efficiency losses because the division of all operating system personnel among multiple companies might disrupt engineering units and could result in unnecessary duplication; in addition, particularly in an industry characterized by network effects, rivalry among identical products tends to offer less long-run competition and consumer choice than that among differentiated products.

A far preferable alternative is the reorganization required by the proposed Final Judgment. That reorganization, which will be implemented by a detailed plan that Microsoft itself will prepare, would separate into different, independent companies Microsoft's monopoly operating systems (the Operating Sytems Business) and its other businesses (the Applications Business). The reorganization would (i) preserve Microsoft's existing business units; (ii) increase incentives for them to be used in efficient, innovative ways; and (iii) thereby lower entry barriers that were raised by Microsoft's unlawful conduct.

By separating the Operating Systems Business from the Applications Business, the reorganization will reduce entry barriers to the PC operating system market in two ways. First, it

will increase the likelihood that competing operating systems will have access to needed

applications and other complements. The Applications Business will own critical applications like

Office and will have market incentives to make those applications available for alternative

operating systems (e.g., Office for Linux) without the counter-incentive -- when owned by the

same company that owns the Windows monopoly -- to deprive alternative operating systems of

the complements needed to be successful.

Second, Office exposes APIs and, like the browser before Microsoft's illegal conduct, has

significant potential to become an alternative platform that could erode the applications barrier to

entry. A firm that owned Office and did not also own the Windows monopoly would have the

incentive to develop Office into an alternative platform, to encourage ISVs to write to its APIs,

and to make Office (together with the applications written to it) available for non-Microsoft

operating systems. Like the Netscape browser before Microsoft's illegal conduct, Office is the

dominant software program in its critical area -- with market penetration that rivals that of

Windows. Office thus has an ability to attract ISVs to write cross-platform applications similar to

the ability that Navigator would (Microsoft feared) have had in the absence of Microsoft's illegal

conduct.

A separation of Microsoft's Operating Systems and Applications Businesses does not raise

the efficiency concerns that a division of Microsoft's operating system business might entail.

Microsoft's Applications and Operating Systems Businesses involve different divisions with

largely different personnel and assets, and Microsoft has long maintained that they were run

independently. Separating those Businesses will not impede the development of either company's

products (see Declaration of Carl Shapiro ("Shapiro") pp. 14-16) and in fact will increase

efficiency (including by removing anticompetitive incentives not to make the applications and other non-operating system products more widely available on non-Microsoft operating systems), increase consumer choice, increase innovation (including by giving the new independent management of the Applications Business the incentive to optimize their applications for all operating systems), and increase competition (including by enabling non-Microsoft operating systems to compete on the merits of their systems). That, in turn, will increase innovation in a broader sense by making it harder for Microsoft to destroy rivals like Navigator and Java, thus encouraging potential rivals to invest and innovate in the future.

The need for a remedy that will restore competitive conditions and mitigate Microsoft's ability and incentive to use its monopoly power to disadvantage potential competition is well documented in the trial record. Neither mere conduct remedies like the earlier consent decree, nor this Court's Findings of Fact and Conclusions of Law, will prevent unlawful conduct by Microsoft in the future or restore competition injured by it in the past. Indeed, on July 11, 1999, less than thirty days after the conclusion of the trial in this action, Bill Gates wrote an e-mail directing that Microsoft redesign its software in order to harm competitors. This time, the products in question were the Personal Digital Appliances that Microsoft heralded at trial as one of the products that might someday undo its monopoly. After discussing the Palm computing platform, Mr. Gates concluded in his e-mail:

"

[REDACTED]

" (Remedy GX 1; see also Remedy GX 2).

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The Court is well aware from the trial record of Microsoft's proclivity for using its control over both its applications and operating systems to undertake product and marketing schemes that have no legitimate justification and serve merely to perpetuate Microsoft's monopoly:

- Microsoft decided to delay the release of Windows 98 to include IE "even if OEMs suffer" (Findings ¶ 167);

- Microsoft "delayed the debut of numerous features . . . that Microsoft believed consumers would find beneficial, simply in order to protect the applications barrier to entry" (Findings ¶ 168);

- Microsoft designed Windows 98 to prevent users from having a choice of which browser to make their default browser and "to make the use of any browser other than Internet Explorer on Windows 'a jolting experience'" (Findings ¶ 172);

- Microsoft tied IE 1.0 and 2.0 to Windows 95 in "the absence of any technical reason" (Findings ¶ 175);

- "[T]here is no technical justification for Microsoft's refusal to meet consumer demand for a browserless version of Windows 98" (Findings ¶ 177);

- Microsoft exchanged "valuable consideration for an OEM's commitment to curtail its distribution and promotion of Navigator" (Findings ¶ 232; see also Findings ¶¶ 232-238);

- In exchange for inclusion in Microsoft's Internet Sign-up Wizard, Microsoft insisted that IAP's "refrain from promoting non-Microsoft browsing software" and ensure "that they distributed non-Microsoft browsing software to only a limited percentage of their subscribers" (Findings ¶ 244);

- In exchange for placement in the Online Services Folder, Microsoft insisted that the leading OLSs agree "to distribute and promote Internet Explorer, to refrain from promoting non-Microsoft Web browsing software, and to distribute non-Microsoft browsing software to no more than fifteen percent of their subscribers" (Findings ¶ 245);

- Microsoft agreed to give preferential support to ISVs who agreed to "use Internet Explorer as the default browsing software for any software they develop with a hypertext-based user interface" (Findings ¶ 339);

- "Recognizing the importance of Mac Office to Apple's survival, Microsoft threatened to cancel the product unless Apple compromised on a number of outstanding issues between the companies. One of these issues was the extent to which Apple distributed and promoted Internet Explorer, as opposed to Navigator, with the Mac OS" (Findings ¶ 345);

- "Microsoft conditioned early Windows 98 and Windows NT betas, other technical information, and the right to use certain Microsoft seals of approval on the agreement of those ISVs to use Microsoft's version of the Windows JVM as 'default'" (Findings ¶ 401); and

- "Microsoft used threats to withhold Windows operating-system support from Intel's microprocessors and offers to include Intel technology in Windows in order to induce Intel to stop aiding Sun in the development of Java classes that would support innovative multimedia functionality" (Findings ¶ 404).

Microsoft's conduct past and present is not merely (as Mr. Ballmer would have it) "bad social graces" (Remedy GX 4). Microsoft's conduct demonstrates its ability and intent to manipulate the boundaries and interrelationships between operating systems and applications for anticompetitive purposes. It is to eliminate the ability and incentive to engage in such conduct, and to restore competitive conditions, to which the proposed Final Judgment is directed.

II.   Microsoft Engaged in a Pattern of Illegal Conduct that Injured Competition, Raised Entry Barriers and Requires Meaningful Equitable Relief

Microsoft engaged in a pattern of conduct that directly excluded competing software and thereby raised entry barriers to the PC operating system market. As the Court put it, Microsoft has wielded its operating system monopoly to "place[] an oppressive thumb on the scale of competitive fortune, thereby effectively guaranteeing its continued dominance in the relevant market" (Conclusions p. 20).

An effective Sherman Act remedy must end the unlawful conduct, prevent its recurrence, and restore the possibility of competition in the market. See National Soc'y of Eng'rs v. United States, 435 U.S. 679, 697 (1978). Because, as in any case invoking the equitable powers of the court, the remedy must be reasonably related to the wrong, we first review the means Microsoft employed to maintain its monopoly power by depriving rivals of competitively significant complements to the operating system and the harm it thereby inflicted on consumers and competition.

A. Microsoft possesses monopoly power over PC operating systems which is protected by high barriers to entry

The central fact of this action -- and, indeed, of the computer industry -- is Microsoft's durable and substantial monopoly power over Intel-compatible personal computer ("PC") operating systems ("OSs") (Findings ¶¶ 33-34; Conclusions pp. 3-6). Telling direct evidence of that monopoly is the fact that "[n]either Microsoft nor its OEM customers believe that the latter have -- or will have anytime soon -- even a single, commercially viable alternative to licensing Windows for pre-installation on their PCs" (Conclusions p. 6). Equally significant, "over the past several years, Microsoft has comported itself in a way that could only be consistent with rational behavior for a profit-maximizing firm if the firm knew that it possessed monopoly power, and if it was motivated by a desire to preserve" that power. Id. Many of the means Microsoft used to maintain its monopoly power decreased rather than increased the value of Windows to Microsoft's customers.

Entry barriers are central to the persistence of Microsoft's monopoly power. A PC operating system is valuable largely to the extent that it enables users to access valuable applications and other complements, and Microsoft's operating system monopoly is protected by a formidable "applications barrier to entry" which "ensures that no Intel-compatible PC operating system other than Windows can attract significant consumer demand, . . . even if Microsoft held its prices substantially above the competitive level for a protracted period of time" (Conclusions p. 5).

The applications barrier to entry arises from the number and value of applications and other complements available for Windows operating systems. The availability of such

complements and the assurance that they will remain available make Windows operating systems valuable to users and thus ensure that there will be great demand for those operating systems (Findings ¶ 37). The large Windows market share, in turn, induces independent software vendors ("ISVs") to continue to write first and foremost to Windows (for they enjoy a larger and more certain return from writing to the dominant operating system than from writing to one with a small market share). This feedback loop between complementary applications and demand for operating systems thus perpetuates Windows' superior access to complements and creates a formidable barrier to entry for operating system competitors. A potential operating system competitor cannot get applications without a large market share, yet it cannot get a large market share without a set of complementary applications that rivals Windows' (Findings ¶¶ 40-41). "The vendor of a new operating system cannot effectively solve this problem by paying the necessary number of ISVs to write for its operating system, because the cost of doing so would dwarf the expected return" (Findings ¶ 41).

B.   Microsoft used anticompetitive means to increase barriers to operating system competition

These characteristics of the operating system market would themselves give Microsoft considerable market power. But, not content to rely on the inherent advantages of its position and its ability to compete on the merits, Microsoft raised entry barriers by engaging in unlawful conduct to prevent potential rivals from gaining access to needed complements, including applications, that might allow them to contest Microsoft's operating system monopoly. In particular, Microsoft used unlawful means to crush other types of software -- like Netscape's Navigator, Sun's Java, and Intel's NSP -- that might themselves have become important

complements to competing operating systems or enabled such operating systems to have access to large numbers of applications that at present interoperate only on or with Windows operating systems (see Shapiro pp. 7-8).

The competitive threats of greatest concern to Microsoft arose at the dawn of the Internet era, which marked a paradigm shift in computing and ushered in a new type of threat to Microsoft's hegemony in the form of network-oriented "middleware" products, most prominently the Netscape Navigator browser and Java cross-platform technologies. These technologies threatened to facilitate competition in operating systems by creating a large stock of cross-platform applications that could run not only on Windows, but also on other operating systems. Microsoft responded to this threat by "mount[ing] a deliberate assault upon entrepreneurial efforts that, left to rise or fall on their own merits, could well have enabled the introduction of competition into the market for Intel-compatible PC operating systems" (Conclusions p. 20).

1.   Network-oriented middleware threatened to lower entry barriers

"Microsoft early on recognized middleware as the Trojan horse that, once having, in effect, infiltrated the applications barrier, could enable rival operating systems to enter the market for Intel-compatible PC operating systems unimpeded" (Conclusions p. 9). Netscape's browser in particular had three features that made it a particularly potent threat. First, the browser could support application programming interfaces ("APIs") and could, therefore, develop into an alternative platform to which ISVs could write applications. Second, the browser could function on multiple operating systems; therefore, applications written to the browser could run on, and thereby increase the attractiveness of, other operating systems. Third, the browser was a "killer application" -- one that everyone needs in the Internet age because it is essential to navigate and

browse the Internet's World Wide Web -- and was thus valuable to users and to competing operating systems in its own right, independent of its potential as a platform competitor to Windows.

The combination of these three features made Netscape's browser an especially pointed threat to Microsoft in ways that non-Microsoft Intel-based PC operating system vendors were not (Findings ¶ 69). Because "in contrast to non-Microsoft" operating systems, "a browser can gain widespread use based on its value as a complement to Window's," Netscape's browser potentially offered ISVs access to a vast range of users -- including Windows' users -- and, therefore, significant incentives to write applications to Netscape's APIs rather than Windows'. Had ISVs done so, users would no longer require Windows in order to avail themselves of their applications, and meaningful competition among Intel-based PC operating systems could arise. Similar threats were posed by other Internet-oriented middleware technologies, including Sun's cross-platform Java technologies, IBM's Lotus Notes and Apple's and Real Networks' multimedia playback technologies. "Microsoft feared all of these technologies because they facilitated the development of user-oriented software that would be indifferent to the identity of the underlying operating system" (Findings ¶ 78).

2.   Microsoft set out to eliminate these middleware threats

Because "middleware threatened to demolish Microsoft's coveted monopoly power," Microsoft "strove over a period of approximately four years to prevent middleware technologies from fostering the development of enough full-featured, cross-platform applications to erode the applications barrier" (Conclusions p. 9). Its anticompetitive campaign had a number of different components, all designed to "convince developers to concentrate on Windows-specific APIs and

ignore interfaces exposed by the two incarnations of middleware that posed the greatest threat, namely, Netscape's Navigator Web browser and Sun's implementation of the Java technology" (id.), and thereby to increase entry barriers. Microsoft's campaign included the following:

a.   <u>Discriminating against OEMs that did not favor Microsoft over its rivals</u>. Microsoft took a range of steps that directly prevented OEMs from distributing software of, or otherwise collaborating with, other software vendors. But for its anticompetitive incentive to increase entry barriers, Microsoft would not have engaged in such conduct, which both reduced the value to OEMs of dealing with Microsoft and distributing its products and impeded complements to the Windows operating system, like Navigator and Java, that would have made Windows more valuable to users.

(i)   Microsoft rewarded OEMs that favored Internet Explorer over Netscape Navigator and punished those that did not. These rewards and punishments took many forms. For instance, in exchange for a more favorable Windows royalty rate, Microsoft induced Compaq to enter into a "Frontline Partnership" pursuant to which "Compaq agreed to ship Internet Explorer as the default browser product on all of its desktop and server systems" and eventually "committed itself to promote Internet Explorer exclusively for its PC products" (Findings ¶¶ 231-235). Similarly, Microsoft told IBM that, if it did not "pre-load and promote Internet Explorer 4.0 to the exclusion of Navigator on its PCs, it would suffer 'MDA repercussions'" (Findings ¶ 237). Microsoft told Gateway that "its decision to ship Navigator with its PCs could affect its business relationship with Microsoft," and Gateway has in fact suffered by being required to pay "higher prices for Windows than its competitors" (Findings ¶ 236). "The substantial inducements that Microsoft held out to the largest OEMs" to favor Internet Explorer

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over Netscape Navigator contributed to Microsoft's "prevent[ing] Navigator from being the vehicle to open the relevant market to competition on the merits" (Conclusions p. 11).

(ii)   Microsoft also sacrificed some of Window's value to consumers by prohibiting OEMs from featuring Netscape in the "boot-up" sequence that is displayed to users the very first time they turn on their PCs and are likely to select a browser (Findings ¶¶ 202-203) and refusing to permit OEMs to remove the Internet Explorer icon, even when their customers wanted them to do so (Findings ¶ 204).

(iii)   Microsoft coerced OEMs into pressuring Intel not to develop software. Intel's Native Signalling Process software ("NSP") would have enhanced the video and graphics performance of Intel's microprocessors and thus likely would have enhanced the value of the Windows systems that use Intel microprocessors. But NSP exposed APIs, so Microsoft, fearing that it might ultimately render developers and consumers less dependant on Windows, both directly and through OEMs pressured Intel to abandon NSP (Findings ¶¶ 95-98, 101-102).   Intel ultimately capitulated, knowing that it could not risk the threatened reluctance of Microsoft and the OEMs to support its new chips (Findings ¶¶ 102-103). As Bill Gates reported to other Microsoft executives in 1995, "Intel feels we have all the OEMs on hold with our NSP chill" (Findings ¶ 103).

(iv)   Microsoft was even willing to sacrifice revenues from its own complements as part of its effort to increase entry barriers. Microsoft coerced Apple to favor Internet Explorer and disfavor Netscape by threatening to cancel a new release of Office for the Mac. "The predominant reason Microsoft was prepared to make this sacrifice, and the sole reason that it required Apple to make Internet Explorer its default browser and restricted Apple's freedom to

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feature and promote non-Microsoft browsing software, was to protect the applications barrier to entry" (Findings ¶ 355; Conclusions pp. 17-18).

b. <u>Deliberate interference with operation of competing software</u>. In a related effort to eliminate the threat that Netscape's browser or Java would enable competing operating systems to have access to applications and other valuable complements, Microsoft deliberately designed Windows to frustrate attempts to substitute Netscape Navigator for Internet Explorer, creating a "jolting experience" for the end user (Findings ¶ 160; <u>see</u> Declaration of Rebecca M. Henderson ("Henderson") ¶¶ 31, 46-48). Netscape had sought access to crucial technical information, including certain APIs, that it needed in order to ensure that Navigator would work well on systems running Windows 95. Knowing how crucial that information was to Netscape's completion of its Windows 95 version of Navigator in time for the retail release of Windows 95, Microsoft declared that Netscape could have it if Netscape would forswear any platform ambitions it might have for Navigator (Findings ¶¶ 4, 90). When Netscape refused the offer, Microsoft delayed releasing the information. After Internet Explorer was bolted to Windows, Netscape never received access to the interfaces necessary to permit Navigator to interoperate with Windows in all the ways that Internet Explorer does. Users were thus more likely to opt for browsing with Internet Explorer (Findings ¶¶ 133-135), and Netscape was thereby deprived of some of its potential force as an alternative platform for ISV's efforts.

c. <u>Restrictions on distribution of rivals' products</u>. Microsoft also waged its war against the Netscape platform threat by using exclusionary contracts to block Netscape's principal means of acquiring browser users. In agreements with ISPs, OLSs, ISVs, and ICPs, Microsoft bartered resources of significant value in exchange for a commitment to restrict -- often severely

-- their distribution or promotion of Netscape Navigator (Findings ¶ 139). The exclusionary

features of, and predatory expenditures entailed in, these agreements cannot be explained by

procompetitive purposes, but rather reflect Microsoft's efforts to create obstacles to Netscape's

ability to develop an attractive platform for ISVs (Findings ¶¶ 136-142).

        d.   <u>Contractual tying</u>. Microsoft refused to offer versions of Windows 95/98 without

Internet Explorer or to permit OEMs to delete the browser, despite the fact that Microsoft could

easily and efficiently have met the demand by its customers for Windows without the browser

(Findings ¶¶ 151-153). Microsoft's refusal to do so reduced the value of Windows to its

customers because it denied them a desired product and increased consumer confusion and

support costs. The forced tying also made it more difficult and costly for OEMs to distribute

Navigator and thus impaired Netscape's ability to develop into a robust platform that could

challenge the applications barrier to entry (Findings ¶ 155). No legitimate technical or business

justification explains Microsoft's insistence that OEMs agree to license and install Internet

Explorer along with Windows; "Microsoft's decision to tie Internet Explorer to Windows cannot

be explained as an attempt to benefit consumers and improve the efficiency of the software market

generally, but only as part of a larger campaign to quash innovation that threatened its monopoly

position" (Conclusions p. 12).

        e.   <u>Anticompetitive product bundling</u>. Prior to the release of Windows 98,

Microsoft's unlawful tying was effected by contract. Upon the release of Windows 98, however,

Microsoft not only refused to provide to OEMs and end-users a version of Windows without

Internet Explorer, but also bundled the two together in a way that prevented users from

"uninstalling" Internet Explorer. No technological benefit was created by this bundling; to the

contrary, it reduced the value of Windows to end users (and thus to OEMs as well) both by requiring them to take unwanted software and by impairing the functionality of the operating system in terms of speed and reliability (Findings ¶¶ 173, 410). Microsoft's sole purpose was to injure Navigator and Java and thereby to deny potential operating system competitors access to applications and other complements in order to increase entry barriers and protect Microsoft's operating system monopoly (Findings ¶ 411).

f.   Agreements with competitors. Microsoft repeatedly sought to induce competitors, like Netscape, Apple, Intel and RealNetworks not to compete with it (Findings ¶¶ 110, 114, 132). These efforts had no purpose other than to allocate markets and insulate Microsoft from competition.

C.   Microsoft succeeded in its objective and harmed both competition and consumers

Through the actions reviewed above and others, all of which lacked legitimate competitive purpose (Conclusions pp. 19-21), Microsoft unlawfully increased entry barriers protecting its PC operating system monopoly in violation of Section 2 of the Sherman Act. In so doing, Microsoft harmed both consumers and competition.

First, Microsoft's "actions designed to protect the applications barrier to entry . . . have harmed consumers in ways that are immediate and easily discernible" (Findings ¶ 409). The means Microsoft used to wage its campaign against menacing middleware harmed consumers by reducing browser choice and depriving customers of software innovations "that they very well may have found valuable, had the innovation been allowed to reach the marketplace" (Findings ¶ 410). Microsoft even degraded the value and performance of its own monopoly product,

Windows, to ensure the preservation of that monopoly. Microsoft's actions increased consumer confusion, forced users to "content themselves with a PC system that ran slower and provided less available memory," and "increased technical support costs for business customers." Id.

Second, Microsoft's elimination of middleware threats also inflicted significant harm to the competitive process. "Microsoft's campaign succeeded in preventing -- for several years, and perhaps permanently -- Netscape and Java from fulfilling their potential to open the market for Intel-compatible PC operating systems to competition on the merits" (Conclusions p. 9). This deprived consumers not only of the innovations these technologies represented, but also of the increased likelihood of competition in PC operating systems their success could have facilitated (Findings ¶ 411). Microsoft "has demonstrated that it will use its prodigious market power and immense profits to harm any firm that insists on pursuing initiatives that could intensify competition against one of Microsoft's core products" (Findings ¶ 412; see also Conclusions p. 20). This "deliberate assault upon entrepreneurial efforts" (Conclusions p. 20) will likely deter future attempts to challenge the applications barrier to entry and, in this way too, has raised entry barriers.

The consequence is not merely a lower likelihood of future competition in operating systems, but a lasting distortion in the path and pace of innovation to the detriment of American consumers. In an industry in which the greatest benefit for consumers consists not so much of price competition but of innovation, "the message that Microsoft's actions have conveyed to every enterprise with the potential to innovate in the computer industry" is the "[m]ost harmful of all" the consequences of Microsoft's anticompetitive campaign (Findings ¶ 412). "Microsoft's past success in hurting" firms that threaten the applications barrier to entry and "stifling

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innovation deters investments in technologies and businesses that exhibit the potential to threaten

Microsoft. The ultimate result is that some innovations that would truly benefit consumers never

occur for the sole reason that they do not coincide with Microsoft's self-interest." Id.

III.   Legal Standard For Crafting An Effective Sherman Act Remedy

Permanent injunctive relief ordered in a Sherman Act case must be both forward-looking

and remedial. The decree must (i) end the violation, (ii) "avoid a recurrence of the violation" and

others like it and (iii) restore competition in the market. National Society of Professional

Engineers v. United States, 435 U.S. 679, 697 (1978); Ford Motor Co. v. United States, 405 U.S.

562, 573 (1972); E. I. DuPont de Nemours & Co., 366 U.S. 316, 326 (1961).

Forbidding the continuance of the violation -- here, for example, the anticompetitive

bundling of Internet Explorer with the Windows operating system -- is necessary but not sufficient

to rectify the harm caused and threatened by Microsoft's illegal conduct. Indeed, "[a] trial court

upon a finding of a conspiracy in restraint of trade and a monopoly has the duty to compel action

by the [wrongdoer] that will, so far as practicable, cure the ill effects of the illegal conduct, and

assure the public freedom from its continuance." United States v. United States Gypsum Co., 340

U.S. 76, 88 (1950); accord United States v. Glaxo Group Ltd., 410 U.S. 52, 64 (1973); Schine

Chain Theatres, Inc. v. United States, 334 U.S. 110, 128-29 (1948); International Salt Co. v.

United States, 332 U.S. 392, 400-401 (1947).

After halting the specific violation, an effective Sherman Act decree must prevent "a

recurrence of the violation" found. National Soc'y of Eng'rs, 435 U.S. at 697. In doing so,

however, the court is not limited to imposing "a simple proscription against the precise conduct

[the violator] previously pursued." Id. at 698. "'A federal court has broad power to restrain acts

which are of the same type or class as the unlawful acts which the court has found to have been

committed or whose commission in the future, unless enjoined, may fairly be anticipated from the

defendant's conduct in the past.'" Zenith Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 132

(1969) (quoting NLRB v. Express Pub. Co., 312 U.S. 426, 435 (1941)); see also Gypsum,

340 U.S. at 89 (relief may "range broadly through practices connected with acts actually found to

be illegal"); United States v. Bausch & Lomb Optical Co., 321 U.S.707, 727 (1944) ("Of course,

a mere prohibition of the precise scheme would be ineffectual to prevent restraints.").

Moreover, in cases such as this, injunctive relief must ensure that the defendant cannot

benefit in the future from the harm to competition caused by its illegal conduct in the past:

> The District Court is not obliged to assume, contrary to common experience, that
> a violator of the antitrust laws will relinquish the fruits of his violation more
> completely than the court requires him to do. And advantages already in hand may
> be held by methods more subtle and informed, and more difficult to prove, than
> those which, in the first place, win a market. When the purpose to restrain trade
> appears from a clear violation of law, it is not necessary that all of the untraveled
> roads to that end be left open and that only the worn one be closed. The usual
> ways to the prohibited goal may be blocked against the proven transgressor and
> the burden put upon him to bring any proper claims for relief to the court's
> attention.

International Salt Co., 332 U.S. at 400-401. Injunctive relief which simply "forbid[s] a repetition

of the illegal conduct" is not sufficient because the monopolist "could retain the full dividends of

their monopolistic practices and profit from the unlawful restraints of trade which they had

inflicted on competitors." Schine Theatres, 334 U.S. at 128. Thus, the Court may prohibit

otherwise lawful conduct if it "represents a reasonable method of eliminating the consequences of

the illegal conduct" or preventing its resumption. National Soc'y of Prof. Eng'rs, 435 U.S. at

698. Accord International Salt, 334 U.S. at 400; DuPont, 366 U.S. at 327.

Indeed, "[a] public interest served by [Sherman Act equity] suits [brought by the United States] is that they effectively pry open to competition a market that has been closed by defendants' illegal restraints. If th[e] decree accomplishes less than that, the Government has won a lawsuit and lost a cause." International Salt, 332 U.S. at 401; see also Ford, 405 U.S. at 572 n.8 (rejecting contention court entitled only to restore status quo ante and explaining "[t]here is no power to turn back the clock").

The means a court uses to restore the competition eliminated by an antitrust violator's conduct depend on "the special needs of the individual case." Ford, 405 U.S. at 573 (internal quotations omitted). The special need in this case is for a remedy that will reduce the entry barriers that Microsoft's illegal conduct erected and make it less likely that Microsoft will have the incentive or ability to increase them in the future. And the means for lowering entry barriers embodied in the proposed Final Judgment -- which include divestitures, see, e.g., United States v. Crescent Amusement Co., 323 U.S. 173 (1944); disclosure of proprietary information, see, e.g., Glaxo, 410 U.S. 52; Hartford-Empire Co. v. United States, 323 U.S. 386 (1945); prohibitions on exploiting monopoly power, see, e.g., International Salt, 332 U.S. 392, and provisions designed to create and foster new competitors, see, e.g., Ford, 405 U.S. at 572-574 -- have all been used in the past to ensure that the antitrust violator is "so far as practicable . . . denied future benefits from [its] forbidden conduct," Gypsum, 340 U.S. at 89; accord Schine, 334 U.S. at 128, and to "pry open to competition" the market "that has been closed by [the wrongdoer's] illegal restraints." Glaxo Group, 410 U.S. at 62 (internal quotations omitted). Whatever the method chosen, "equity has the power to uproot all parts of an illegal scheme -- the valid as well as the

invalid -- in order to rid the trade or commerce of all taint" of the illegal conduct. United States

v. Paramount Pictures, Inc., 334 U.S. 131, 148 (1948).

The usual factors that guide a court's exercise of its equitable discretion should be

considered in creating an antitrust decree. Those factors, however, bear only on the choice

"among two or more effective [antitrust] remedies. If the remedy chosen is not effective, it will

not be saved because an effective remedy would entail harsh consequences. This proposition is

not novel; it is deeply rooted in antitrust law and has never been successfully challenged."

Du Pont, 366 U.S. at 327; see also United States v. AT&T, 552 F. Supp. 131, 150-151 & n.82

(D.D.C. 1982) ("When choosing between effective remedies, the court should impose the relief

which impinges least upon other public policies," but "where only one form of relief will

effectively remedy the antitrust violation, it is that relief which must be imposed, regardless of the

impact on other interests."). And "'it is well settled that once the Government has successfully

borne the considerable burden of establishing a violation of the law, all doubts as to remedy are to

be resolved in its favor.'" Ford, 405 U.S. at 575 (quoting Du Pont, 366 U.S. at 334); see also

Hartford-Empire, 323 U.S. at 409.

In crafting an effective Sherman Act remedy, a court must use the record of a backward-

looking trial to fashion forward-looking relief. Looking forward, the Court must anticipate that

Microsoft, unless restrained by appropriate equitable relief, likely will continue to perpetuate its

monopoly by the same anticompetitive methods revealed at trial, although directed at whatever

new competitive threat arises. Neither the Netscape browser nor Java continues to have the

prospect of lowering the applications barrier to entry, and it is not certain where future threats to

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Microsoft's operating system will arise. But there are several possibilities that ought to be taken

into account in crafting an appropriate remedy for Microsoft's violations:

(1)   There are several new desktop applications that could become important

middleware technologies. These include voice recognition software, media streaming technology

and e-mail software, at least two of which Microsoft executives have themselves identified as

platform threats. See, e.g., GXs 510, 511 (e-mail software); GX 1576 (streaming rival Real

Networks "is just like Netscape. The only difference is we have chance to start this battle earlier

in the game."). Microsoft thus has the same incentive to control these technologies as it did

browsers -- even at the expense of consumer well-being and technological efficiency -- if they

threaten its operating system monopoly; and Microsoft has already bundled both its e-mail

software and its streaming software with its PC operating systems. See GX 1700 at 3, 18-19

(Add/Remove entry for e-mail and streaming software in Windows 98; Felten Declaration ¶¶ 12,

93 (both bound to Windows 2000 Professional with no add/remove available).

(2)   Entry barriers could be eroded by the emergence of a multiplatform, so-called

"killer" application of sufficient importance to give credibility to and attract users for a competing

operating system. Microsoft's own Office product could be such an application. Office is a suite

of knowledge applications -- including the Word word processing program and the Excel

spreadsheet program -- each of which is a "category leader[]." See Henderson ¶ 65. Office itself

has been dominant in its category since 1993, and about 80 percent of all electronic information in

most companies is stored in Office documents (id.). But, of course, Microsoft will not develop

Office in a way that would lower entry barriers by, for example, porting it to competing operating

systems because doing so would undermine its operating system monopoly (see Shapiro pp. 9-10;

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Henderson ¶¶ 102-106). In spite of Microsoft's claims at trial about the vitality of Linux, it has

refused to port Office to Linux; by contrast, competitor Corel, unconstrained by a need to protect

an operating system monopoly, has found it profitable to port its Office suite to Linux.

(3)   As computing continues to move off the desktop and into the Internet, middleware

threats could develop on servers, in either server operating systems or server applications.

Microsoft cannot defeat these threats by bundling its own version of such software into its PC

operating systems, but it could use its operating system monopoly in other ways to crush any such

middleware threats. For example, Microsoft's new Windows 2000 operating system, to which

Microsoft intends to migrate its existing Windows users, is designed with proprietary features and

interfaces that enable Microsoft's server operating systems to interoperate with PCs more

effectively than other server operating systems (Henderson ¶¶ 38-39, 49-51; see Declaration of

Paul M. Romer ("Romer") ¶¶ 35-36). If Microsoft were in a competitive market, it would

disclose its confidential interface information to other server software developers so that their

complementary software would work optimally with, and thereby enhance the value of,

Microsoft's PC operating systems. But, if faced with a middleware threat on the servers,

Microsoft is likely to continue to withhold that information from competitors in order to protect

its operating system monopoly (Henderson ¶¶ 38-40, 48).

(4)   Competition could come, as Microsoft itself has predicted, from non-PC devices,

like handheld computers (Henderson ¶ 16). But Microsoft is positioned to crush that threat to its

operating system monopoly because those devices, like server-based middleware, need to be able

to interoperate effectively with Microsoft's products, and Microsoft is able to prevent or hinder

that interoperation (Henderson ¶¶ 45-48).

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The remedy in this case should of course not try to select which if any of these paths to competition is the most likely or the most desirable. That is for the market to decide. But the remedy should reduce Microsoft's ability and incentive to use its monopoly power to inhibit or distort that market choice.

IV. The Proposed Final Judgment Effectively Remedies The Violations Found

Restoring competition is the "key to the whole question of an antitrust remedy," <u>DuPont</u> at 326. Competition was injured in this case principally because Microsoft's illegal conduct raised entry barriers to the PC operating system market by destroying developments that would have made it more likely that competing operating systems would gain access to applications and other needed complements. Thus, the key to a remedy in this case is to reduce Microsoft's ability to erect or maintain entry barriers.

The proposed Final Judgment will do just that. The centerpiece of the remedy is a reorganization of Microsoft into independent applications and operating systems companies. This reorganization will directly lower entry barriers because, by separating ownership and control of Microsoft's operating system business from its other businesses, it will create incentives for Microsoft's Office and its other uniquely valuable applications to be made available to competing operating systems when that is efficient and profitable -- in other words, in response to ordinary market forces -- instead of being withheld strategically, at the sacrifice of profits and to the detriment of consumers -- in order to protect the Windows operating system monopoly. <u>See</u> Romer ¶ 6; Shapiro pp. 9-11; Henderson ¶¶ 19-25.

The proposed Final Judgment also includes so-called "conduct" relief, which is designed to prevent certain types of anticompetitive conduct until the two independent companies are up

and running (Romer ¶ 8; Shapiro pp. 16-17; Henderson ¶ 26). These conduct remedies are

necessary to prevent further competitive harm prior to implementation of the reorganization and

are especially appropriate in light of the fact that the reorganization should properly be stayed

pending appeal.[5]

A.   The proposed reorganization will restore competition that Microsoft's unlawful conduct eliminated (§§ 1 and 2)

1.   Reorganization is appropriate in the circumstances presented by this case

Divestiture is "the most important of antitrust remedies. It is simple, relatively easy to

administer, and sure." United States v. E.I. Du Pont Nemours & Co., 366 U.S. 316, 330-31

(1961).

To be sure, divestitures and reorganizations are used most often in merger cases. They

are also used, however, to remedy monopolization violations. In United States v. AT&T,

552 F. Supp. 131, for example, the court upheld a consent decree requiring AT&T to divest its

lawfully acquired interests in local telephone companies because AT&T's "integrated structure"

enabled it "for many years to undermine the efforts of competitors to enter the

telecommunications market" through improper use of its "local [telephone] monopoly." Id. at

222-23. Similarly, in United States v. Paramount Pictures, Inc., 85 F. Supp. 881 (S.D.N.Y.

1949), the court ordered separation of distribution and production activities because a remedy not

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[5]If the court orders the reorganization, plaintiffs suggest, as reflected in the proposed Final Judgment (§ 6.a.), that, while the planning process should begin immediately, the implementation of the reorganization should be stayed pending appeal. In addition, in light of the significance of the reorganization for both Microsoft and the computer industry, the appeals process should be expedited to the maximum extent possible. Any decision to seek direct review by the Supreme Court pursuant to the Expediting Act will, of course, be made by the Solicitor General after the Final Judgment is entered and any notice of appeal is filed.

involving divestiture had been deemed unworkable to remedy the defendants' attempted

monopolization by the Supreme Court and because "vertical integration" served "to furnish the

incentive for carrying out" the illegal conduct. Id. at 895-96; see also Crescent Amusement,

323 U.S. at 188-90 (upholding divestiture when a combination's exercise of power, although not

its creation, violated the Sherman Act, and the combination's continued existence created a

"tempting opportunity" for further anticompetitive conduct). Indeed, in United States v. United

Shoe Corporation, 391 U.S. 244 (1968), the Supreme Court reversed a district court's denial of a

request for divestiture in a monopolization case. The district court there had initially entered a

conduct decree. Ten years later, plaintiff United States petitioned the court to modify the decree

to require United Shoe "to submit to the Court a plan, pursuant to which United's business would

be reconstituted so as to form two fully competing companies in the shoe machinery market."

391 U.S. at 247. The district court denied the petition, but the Supreme Court reversed and

remanded for consideration whether the proposed modification was appropriate to restore

competition. The result was a negotiated divestiture.

In all of these cases, as here, the reorganization or divestiture involved separate,

complementary businesses. AT&T, for example, involved long distance and local phone service;

Paramount involved production and distribution; and this case involves operating systems and

applications.

2. The reorganization will lower entry barriers that were increased by Microsoft's illegal conduct

Divestiture is "necessary and appropriate" in this case to "cure the ill effects of the illegal

conduct, and assure the public freedom from its continuance." Ford, 403 U.S. at 572 n.8. Here,

that "cure" entails reversing the harm caused by Microsoft's destruction of middleware -- like Netscape's Navigator -- that would have lowered entry barriers by making it more likely that rival PC operating systems would have access to needed complements; access to such complements would have enabled them to attract more users; and that, in turn, would have induced ISVs to make other complements for them, and so on. See Romer ¶¶ 20-23, 39; Henderson ¶¶ 20-23. An appropriate remedy in this case should thus increase the likelihood that such an event will occur in the future.

The proposed reorganization (Section 1 of the Final Judgment) will have precisely that effect. The reorganization will divide Microsoft into two companies: The first ("Ops Co") will own the Windows operating systems (including Windows 95, Windows 98, Windows 2000, Windows NT, and Windows CE) and have a perpetual license to Internet Explorer. The second ("Apps Co") will own all of Microsoft's other businesses, including its dominant Office suite of desktop applications (Word, Excel, etc.), its critical tools business, and Internet Explorer.

The purpose and effect of the reorganization are not to impair or interfere with Microsoft's assets, but rather to restructure the businesses so that they will be run by companies whose incentives are to maximize their economic efficiency and innovate for the benefit of customers, instead of using them strategically to maintain monopoly power (Shapiro pp. 9-11, Henderson ¶ 20 ("ensure that the competitive energies of both firms are focused on creating value in the marketplace"). As explained above, and as this Court has already found, Microsoft repeatedly sacrificed profit opportunities and disadvantaged consumers in order to raise entry barriers (Shapiro p. 2; Henderson ¶¶ 1-11). After the reorganization, however, Apps Co -- because it will be separated from the operating system business -- will have no incentive to pass

up profitable opportunities that benefit consumers in order to protect the Windows operating system monopoly (Romer ¶¶ 38-40; Shapiro pp. 9-10; Henderson ¶¶ 23-24). It can be expected, therefore, to take advantage of profitable opportunities to port applications like Office to other operating systems, to make available its tools to ISVs that cooperate with other operating systems, and otherwise to take steps that will lower entry barriers to the PC operating system market (Romer ¶¶ 25-27, 34; Shapiro p. 9; Henderson ¶¶ 21-23, 102-106). Those steps by Apps Co could increase usage of competing operating systems; that, in turn, could induce other ISVs to write applications and develop complements to those operating systems; and a snowball effect leading to real operating system competition could ensue.

Consider for example, Apps Co's incentives with Office. Office has all three of the characteristics that made Netscape such a potent threat to Microsoft's operating system monopoly: It can support APIs and thus be a platform for other applications; it could function on multiple operating systems (Declaration of Edward W. Felten ("Felten") ¶¶ 36-39; Henderson ¶ 9); and it is a "killer application" in that it provides functions that nearly everyone needs. Thus, just as entry barriers would have been lowered if Netscape had been able to flourish apart from the Windows operating system, so entry barriers will be lowered if Office is separated from Windows (Henderson ¶¶ 22-23).

There is, of course, no guarantee that such competition will result, just as there was no guarantee that Navigator and Java would create competition for Windows operating systems. But the reorganization will approximate the competitive conditions in the operating system market on the eve of Microsoft's campaign to eliminate Netscape, Java, and associated middleware technologies (Romer ¶ 21; Henderson ¶ 102). Just as Microsoft's anticompetitive destruction of

the Navigator and Java threats raised entry barriers and reduced the likelihood of such competition, so the reorganization will lower entry barriers and increase the likelihood of such competition.

3. The reorganization will promote competition in other ways

At present, Microsoft has every incentive to use its applications and other products strategically, to protect its operating system monopoly. Apps Co, however, will have no such anticompetitive incentive. If not controlled by Windows, for example, Office is likely to develop in response to market forces. It will be ported to other operating systems when that is profitable; it will gain additional APIs if that will be profitable; and it will be designed in order to satisfy user needs, instead of protecting the Windows monopoly. See Henderson ¶¶ 102-103.

Even if separating Apps Co from the operating system business does not lead directly to operating system competition, it is likely to provide a useful discipline on Ops Co's Windows monopoly. Just as Microsoft inhibits Intel's ability to exercise market power, for example, by cooperating and threatening to cooperate with AMD or other chip manufacturers, so Apps Co would inhibit Ops Co's market power by dealing or threatening to deal with other operating systems (see Romer ¶ 26; Shapiro pp. 11-13). And Apps Co will provide an alternative ally and means of distribution to software innovators in the future who, because of that alternative, might be less vulnerable to the Windows monopoly than was Netscape (Romer ¶¶ 5, 11-12, 38-40; Henderson ¶¶ 101-104).

Ops Co's incentives, too, will become more market-oriented. Because it will not control Office, it will not be able to prevent it and Apps Co's other products from being used to enhance competition. Thus, of necessity, Ops Co will have new incentives to develop and market

Windows in procompetitive ways, for the benefit of consumers. Faced with the prospect of competition, Ops Co will be less likely to encumber its operating systems with bloated or buggy designs intended to exclude rivals like Netscape or to reduce the attractiveness of its products to OEMs by insisting on burdensome contractual restrictions. And it will be more likely to take actions that will erode the market power of Office and Apps Co's other powerful products.

Apps Co and Ops Co will not be direct competitors in the sense of selling the same products at the outset, but they will have strong incentives to compete with each other in other ways (Romer ¶ 20). Each will seek to maximize its own profits and will have incentives to ensure that its products interoperate with operating systems and applications produced by others. Each will have products that expose APIs and will likely develop into full-featured cross-platform middleware to which ISVs can write applications (Romer ¶¶ 19-27), and each will have incentives to enter the other's businesses. Moreover, each will endeavor to promote sufficient competition for the other to drive down prices of the other's products as far as possible because cheaper complements will increase demand for its own products (Romer ¶¶ 23-27; Findings ¶ 37).

This fostering of competition is further bolstered by Section 2 of the Final Judgment, which protects against the possibility of collusion and other anticompetitive alliances between Apps Co and Ops Co. Section 2 prohibits both companies and their board members from acquiring any securities or assets of the other company and prohibits anyone from serving as an employee, officer, or director of both companies (§ 2.a.). It also bans the companies from combining, entering into product development or distribution agreements with the other, sharing technical information with the other unless they also share it with third parties, and giving each other more favorable terms when providing products or services than others get (§ 2.b.). And

Section 2 requires the companies to file with Plaintiffs copies of any agreements between them (§ 2.c.). In short, Apps Co and Ops Co should be unable by cooperating to thwart the burgeoning competition likely to be created by the reorganization.

4.   Reorganizations are common corporate transactions

Reorganizations like the one proposed for Microsoft are commonly pursued by corporations that seek to maximize shareholder value. Indeed, the proposed reorganization is "similar to a number of transactions that have been successfully accomplished in recent business history" (Declaration of Robert F. Greenhill and Jeffrey P. Williams ("Greenhill") ¶ 4).

Although there are one-time costs associated with all corporate restructurings, such costs are in this instance modest relative to metrics such as Microsoft's revenue, operating income and market capitalization (see Romer ¶¶ 64-65). Additionally, because Microsoft's business units "are thriving entities with well-established products" (Henderson ¶ 124), the restructuring should not result in any ongoing costs, such as a significant degradation of efficiencies (Shapiro pp. 14-16; see Greenhill ¶ 88).

Historically, corporate reorganizations undertaken voluntarily have created significant value to shareholders (Greenhill ¶ 55). Even court-ordered separations, such as those that resulted from the Standard Oil and the AT&T cases, have produced significant long term capital appreciation to shareholders that retained original shareholdings (id.). In light of all these and other considerations, the proposed reorganization should not result in a "material decrease in the market value" of Microsoft shares in the intermediate to long term, and "the impact of the proposed separation on the market value of the current Microsoft shareowners' holdings could be positive" (Greenhill ¶ 6).

B.   The conduct restrictions are necessary to protect competition until the reorganization becomes effective

Although the proposed divestiture is critical to restoring competitive conditions, it cannot do so immediately and is therefore by itself insufficient to the task. Conduct restrictions are necessary to protect competition until the reorganization becomes effective and to ensure that the Ops Co's inheritance of Microsoft's operating system monopoly does not enable it to replicate Microsoft's illegal monopolization (Romer ¶ 8; Shapiro pp. 16-17; Henderson ¶¶ 26, 112-114). Such conduct remedies are especially necessary in light of the fact that the reorganization should be stayed pending appeal (§ 6.a.).

Some of the conduct restrictions are explicitly transitional and are intended only to prevent Microsoft from taking action in the meantime to frustrate the reorganization (§ 1.d.). The other conduct remedies are proposed to be in effect until three years following the reorganization in order to ensure that Microsoft cannot harm competition irretrievably before the reorganization's benefits are realized (Romer ¶ 45; Henderson ¶¶ 20, 112).

1.   Provisions regarding OEM relations (§ 3.a.)

a.   Ban on Adverse Actions for Supporting Competing Products (§3.a.i). This provision prohibits Microsoft from taking any adverse actions against any OEM because that OEM dealt in a product that competes with a Microsoft product. Microsoft's practice of penalizing OEMs that favored Netscape and rewarding OEMs -- such as Compaq -- that favored Internet Explorer, highlights the potential for misuse of monopoly power that must be prevented if potential rivals to Windows and new innovations in software can be expected to emerge (Romer ¶¶ 46-48; Shapiro pp.17-20). The provision is intended both to prevent subtle or varied forms of

coercion and to avoid difficulties in determining the scope of the restriction in an enforcement proceeding. "[A]dvantages already in hand may be held by methods more subtle and informed, and more difficult to prove, than those which, in the first place, win a market." International Salt, 334 U.S. at 400 (barring an antitrust violator from price discriminating for precisely these reasons).

b.   Uniform Terms for Windows Operating System Products Licensed to Covered OEMs (§3.a.ii). This provision requires transparent and uniform pricing to the largest OEMs for the same purpose -- so that Microsoft cannot retaliate against an OEM for supporting non-Microsoft software (Romer ¶ 48). It terminates Microsoft's practice of charging substantially different prices for Windows licenses to reward cooperative OEMs, effected in part by its market development allowances, and will thus make it easier for OEMs to promote non-Microsoft products in response to consumer demand (Shapiro pp. 17-20).

c.   OEM Flexibility in Product Configuration (§3.a.iii). Microsoft prohibited OEMs from innovating in ways that featured Netscape and thereby threatened Microsoft's monopoly. Microsoft also refused to permit OEMs to remove the Internet Explorer icon, even when their customers wanted them to do so. This provision of the Final Judgment thus prohibits Microsoft from preventing OEMs from undertaking competitively valuable alterations to the first screen, bootup sequence, and icon display and will help open the OEM channel for distribution of non-Microsoft software, thereby giving consumers greater choices not only in how their computers look, but in what innovative software OEMs can offer them (Shapiro pp. 17-20, 24).

2.   Provision regarding information disclosure (§ 3.b.)

In order to succeed in the market, middleware must interoperate effectively with the operating system. Microsoft's operating system monopoly thus gives it the power to cripple middleware threats by interfering with or not facilitating their interoperation with Windows (Shapiro ¶¶ 21-22; Henderson ¶¶ 31-33, 48). Microsoft's bundling of Internet Explorer with Windows 98 interfered with user access to and interoperation with Navigator, and its proprietary extensions to the Kerberos security software threaten to have the same effect on competing server operating systems (Henderson ¶ 50). Microsoft also withheld information needed by Netscape in order to enable its browser to interoperate with the Windows operating system (Henderson ¶¶ 31, 46; Findings ¶¶ 90-93).

Microsoft's ability to injure competing middleware by withholding or manipulating information about and interfaces to its operating systems will become increasingly important in the future, especially in light of the increasing likelihood that middleware threats will emerge on servers or on other non-PC devices (Henderson ¶¶ 13, 42). This provision of the Final Judgment addresses that problem by requiring Microsoft to disclose to ISVs information and interfaces used by its own application and middleware developers so that the ISVs will have a reasonable opportunity to make their software run as well with Windows as Microsoft's software does.

This provision has been crafted to require disclosure only of information that Microsoft's own developers use and that is necessary to ensure that ISVs will be able to compete on a level playing field. Because Microsoft's own developers use the interfaces that are the subject of the required disclosure, the provision will not require Microsoft to stabilize interfaces or other aspects of product design that it does not otherwise stabilize for its own developers. And Microsoft

already routinely documents and distributes technical information, so the provision will not place a significant burden upon it in that regard either.

3. Knowing interference with performance of rival software (§ 3.c.)

This provision is a complement to the information disclosure requirement. It prohibits Microsoft from knowingly interfering with ISV's software without notifying the ISV so that the ISV can endeavor to protect its consumers from having "a jolting experience" (Shapiro pp. 24-25).

4. Provision regarding software developers (§ 3.d.)

Like the provisions regarding OEMs, this provision bans Microsoft from punishing ISVs or IHVs that promote non-Microsoft software or decline to favor Microsoft products. This provision will help ensure that Microsoft does not use its operating system monopoly to nip new competitive threats in the bud (Shapiro pp. 17-20).

5. Ban on Exclusive Dealing (§3.e.)

Microsoft coerced and bribed OEMs, ISVs, and other third parties into becoming, whether willingly or unwillingly, participants in its efforts to bolster the applications barrier to entry protecting the operating system monopoly. To prevent a recurrence of that conduct, this provision prevents Microsoft from entering into or enforcing exclusive dealing contracts with third parties that require them to limit their dealing in -- or to degrade the performance of -- non-Microsoft platform software, to deal solely in Microsoft platform software, or (in the case of IAPs and ICPs) to exchange promotion of Microsoft products for placement in the Windows OS (Shapiro pp. 17-19, 20-21).

6. **Ban on contractual tying (§3.f.) and restriction on binding certain middleware to the operating system (§3.g.)**

A critical piece of Microsoft's strategy to eliminate challengers to its operating system hegemony involved forcing its own browser on consumers even when those consumers would have preferred another browser or none at all. The prohibition on contractual tying prevents Microsoft from conditioning the grant of a Windows license on the licensee's agreeing to take some other, separate Microsoft product. The prohibition on binding certain types of middleware to the operating system unless the operating system is also made available without the middleware prevents Microsoft from using product design to force users to take certain types of middleware that are most likely to provide a threat to the applications barrier to entry (Shapiro pp. 25-26). These provisions will not prevent Microsoft from affording consumers the option of whatever software bundles or packages they desire. The provisions should preserve consumer choice, prevent Microsoft from excluding competing middleware by tying, and reduce Microsoft's incentives to make inefficient and anticompetitive product design changes.

7. **Ban on agreements limiting competition (§ 3.h.)**

This provision prohibits Microsoft from entering into agreements with actual or potential competitors allocating markets or otherwise not to compete like those it attempted to enter into with Netscape and others (Shapiro pp. 17-20).

8. **Continued licensing of earlier operating system versions (§ 3.i.)**

This provision requires Microsoft to continue for a short time (three years) to license predecessor versions of Windows after releasing a new version. It is intended to prevent Microsoft from continuing its practice of increasing the prices for licenses of predecessor versions

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when releasing a new Windows operating system, thus pressuring users to migrate to the new version (Shapiro p. 27). This provision will reinvigorate innovative efforts by ISVs by assuring them that any complement to a Windows operating system they develop will continue to enjoy a market even after the introduction of a newer operating system, and it is likely to increase Microsoft's incentives to innovate for the benefit of consumers (Shapiro pp. 24-38). This provision is especially important at this time, in light of Microsoft's announced plan to migrate users to Windows 2000 and thereby to use its PC operating system monopoly to gain an anticompetitive advantage in the server operating system market (Henderson ¶ 39).

9. Compliance requirements (§§ 4 and 5)

These provisions require Microsoft to take, and permit Plaintiffs to take, steps to ensure compliance with the other provisions of the decree. Microsoft is required to establish a compliance committee of its board of directors, to hire a compliance officer, to inform appropriate personnel of the requirements of the decree, to maintain certain records and upon appropriate request to provide certain information and documents to the plaintiffs.

Conclusion

The United States and seventeen of the Plaintiff States request that the Court, after appropriate proceedings, enter the proposed Final Judgment.

Dated: April 28, 2000   Respectfully submitted,
     (corrected as of May 2, 2000)

_____

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Appendix I

MEMORANDUM OF THE STATES OF ILLINOIS AND OHIO
IN SUPPORT OF THE PROPOSED FINAL JUDGMENT SUBMITTED BY THE
U.S. DEPARTMENT OF JUSTICE AND SEVENTEEN STATES

_____

This Court's Findings of Fact and Conclusions of Law eloquently point out the harm caused by Microsoft's illegal, anti-competitive conduct which needs to be addressed by the remedies which this Court will impose. The record, and the Court's Findings of Fact, are replete with examples of stifled innovation, increased costs, unnecessary consumer confusion, forestalled technological advances, and thwarted competition caused by Microsoft's conduct.

Microsoft imposed burdensome restrictions on its customers to augment and prolong its monopoly power - such as restricting OEMs from promoting non-Microsoft software (Findings ¶ 66), and punished them if they refused to cooperate (Findings ¶ 132). Microsoft refused to license its operating system without a browser, and imposed restrictions on both OEMs' and end users' ability to remove the browser from the operating system (Findings ¶ 155). By interspersing browser-specific routines throughout various files containing routines relied upon by the operating system, Microsoft caused the operating system to run more slowly, degraded its performance, increased the risk of incompatibilities, and introduced bugs, for customers who did not want a browser (Findings ¶ 173). By constraining the freedom of OEMs to implement certain software programs in the Windows boot sequence, Microsoft foreclosed an opportunity for OEMs to make Windows PC systems less confusing and more user-friendly, as consumers desired (Findings ¶ 410). And many of the tactics that Microsoft employed also harmed consumers indirectly by unjustifiably distorting competition as well (Findings ¶ 411).

Such substantial, pervasive, anti-competitive and ultimately illegal conduct requires strong conduct limitations and restrictions and affirmative requirements, in order to right the wrongs, address the resultant damaging market effects, and redress the consumer harm.

At this time, the Attorneys General of the States of Illinois and Ohio (the "Supporting States") are reluctant to propose the imposition of structural relief before there is an opportunity to determine whether significant restrictions upon Microsoft's behavior would alone be sufficient to significantly eliminate Microsoft's anti-competitive conduct, and create a market environment where OEMs, ISVs, and others are able to compete more freely and to innovate without fear of losing their lifeline, *i.e.,* access to Windows, technical support, and fair treatment from Microsoft. However, the Supporting States further believe that if the restrictions and mandates in the Proposed Final Judgment are to be adequate, they must be imposed immediately and in their entirety, and remain in effect for the full ten years that the decree is in effect, including those that are contained in ¶ 3 of the proposed Final Judgment.

The Supporting States are mindful that the repeated, pervasive anti-competitive acts in which Microsoft has engaged for many years, and which it continues to deny, may reflect a corporate culture which would prevent Microsoft from effectively adjusting its behavior to comply in good faith with all the conduct requirements that the proposed Final Judgment imposes as a necessary remedy. Or, it may be that the monopoly is so entrenched that the changes in conduct, even if implemented as proposed, do not sufficiently address the competitive injury and provide adequate protection that allows the software industry to be fully competitive and innovative.

In light of these concerns, the Supporting States propose that the Court implement a procedure to evaluate Microsoft's compliance with the terms and provisions of the decree at the earlier of three years after implementation of the conduct restrictions and affirmative mandates, or at the conclusion of appeals in this litigation, in order to evaluate the competitive effects of the decree. We recommend that the Court review the results of this evaluation in order to determine whether the decree has deterred Microsoft from engaging in continued violations of federal and state antitrust laws, and whether the conduct remedies imposed by the Court have been sufficient to alleviate the substantial competitive harms caused by Microsoft's violations of the antitrust laws as detailed in the Court's Conclusions of Law, and if not, whether the Court should impose further remedial conditions on Microsoft, including, but not limited to, the reorganization outlined in the proposed Final Judgment.

Respectfully Submitted,

Plaintiff State of Illinois   Plaintiff State of Ohio
James E. Ryan, Attorney General   Betty Montgomery, Attorney General

By _____/s/_____   By_____/s/_____
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Appendix II

<u>List of Supporting Affidavits</u>

1.   Edward W. Felten, Assistant Professor of Computer Science, Princeton University

2.   Robert F. Greenhill, Chairman and Chief Executive Officer, and Jeffrey P. Williams, Managing Director, Greenhill & Co., LLC

3.   Rebecca Henderson, Eastman Kodak LFM Professor of Management, MIT

4.   Paul M. Romer, STANCO 25 Professor of Economics, Stanford University

5.   Carl Shapiro, Transamerica Professor of Business Strategy, University of California at Berkeley

6.   Ernest Von Simson, computer consultant to large global enterprises