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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF UTAH, CENTRAL DIVISION

NOVELL, INC.,

Plaintiff,

v.

MICROSOFT CORPORATION,

Defendant.

COMPLAINT

JURY DEMANDED

Judge Ted Stewart
DECK TYPE: Civil
DATE STAMP: 11/12/2004 @ 10:20:40
CASE NUMBER: 2:04CV01045 TS

Plaintiff Novell, Inc. ("Novell") hereby states its claims for relief against Defendant Microsoft Corporation ("Microsoft") and alleges on knowledge regarding itself, and otherwise on information and belief, as follows:

I. NATURE OF THIS ACTION

1. This is an action under Section 4 of the Clayton Act, 15 U.S.C. § 15, for damages suffered by Novell by reason of the anticompetitive conduct of Microsoft in violation of Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1, 2. "Novell" also refers to the WordPerfect Corporation, which merged with Novell in June 1994.

2. Until March 1996, Novell owned the rights to develop and distribute the WordPerfect word processing application, which historically had been by far the most popular word processing application in the global market, as well as other office productivity applications, including the Quattro Pro spreadsheet.

3. At all pertinent times Microsoft possessed monopoly power in the relevant market for personal computer ("PC") operating systems, which control PCs and provide the basic "platform" for developing applications such as WordPerfect.

4. To protect its valuable Windows monopoly and to extend its operating systems monopoly into other software markets, including word processing, spreadsheets, presentations, databases, e-mail, office suite, and other office productivity applications, Microsoft engaged in a series of anticompetitive activities, including integrating other Microsoft software products, such as its browser technologies, into Microsoft's Windows operating system in an exclusionary manner, and entering into exclusionary agreements precluding companies, such as Original Equipment Manufacturers ("OEMs"), from distributing, promoting, buying, or using products of,

or providing services or resources to, Microsoft's software competitors, like Novell. *See United States v. Microsoft Corp.*, Government Complaint ("Gov't Compl.") ¶ 5.

5. Microsoft abused its monopoly power in the PC operating systems market to suppress the sales of WordPerfect and Novell's related office productivity applications. Microsoft targeted these applications because of their potential to provide Microsoft's competitors with a way across the barriers to entry that protected Microsoft's existing operating systems monopoly. In addition, and just as importantly, WordPerfect and Novell's other applications were leaders in the additional markets that Microsoft sought to monopolize.

6. Microsoft thus attacked Novell with some of the same anticompetitive acts for which Microsoft was held liable in *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000), *aff'd in part, rev'd in part*, 253 F.3d 34 (D.C. Cir.), *cert. denied*, 534 U.S. 952 (2001) (the "Government Suit"). Those anticompetitive acts include integrating browsing functions into the Windows operating system in an exclusionary manner, entering agreements in restraint of trade, and otherwise using the Windows monopoly to exclude competing applications from important channels of distribution.

7. Bill Gates, Microsoft's Chairman and Chief Executive Officer, targeted Novell's applications by name in documents recording Microsoft's anticompetitive schemes, in which he explained that the integration of browsing functions into Windows, coupled with Microsoft's refusal to publish certain of these functions, was a primary strategy for excluding Novell's applications from the markets. He candidly admitted that Microsoft's own products could not compete without the benefit of these anticompetitive acts.

8. By reason of Microsoft's anticompetitive acts, WordPerfect's share of the word processing market, which was nearly 50 percent in 1990, fell to approximately 30 percent in 1994, and to less than 10 percent by the time Novell sold WordPerfect and the related applications in 1996. Over the same period of time, and due to the same anticompetitive acts, Microsoft Word's share of the word processing market rose from less than 20 percent prior to 1990 to a monopoly share of approximately 90 percent by 1996. As a result, Novell suffered lost profits and goodwill during the period in which it owned the rights to WordPerfect and related office productivity applications, and the value of these assets declined by approximately $1 billion between May 1994 and their sale in March 1996.

II. PARTIES

9. Plaintiff Novell is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at 1800 South Novell Place, Provo, Utah. During times pertinent to this Complaint, Novell licensed and sold office productivity applications, including the WordPerfect word processing application, throughout the United States and the world.

10. Defendant Microsoft is a corporation organized and existing under the laws of the State of Washington, with its principal place of business at One Microsoft Way, Redmond, Washington. Microsoft licenses its operating systems and applications software throughout the United States and the world.

III. JURISDICTION, VENUE, AND COMMERCE

11. This Court has jurisdiction over this matter pursuant to Sections 4 and 16 of the Clayton Act, 15 U.S.C. §§ 15, 26 and 28 U.S.C. §§ 1331, 1337.

12. Venue is proper in this judicial district under Section 12 of the Clayton Act, 15 U.S.C. § 22, and 28 U.S.C. § 1391 because Microsoft transacts business and is found within this district.

13. Microsoft sells and licenses PC and workgroup server operating systems and applications throughout the United States and the world and delivers copies of them across state lines and international borders. Microsoft is engaged in, and its activities substantially affect, interstate and foreign commerce.

IV. LIMITATIONS: *UNITED STATES V. MICROSOFT CORP.*

14. The United States brought an antitrust action against Microsoft on May 18, 1998 under Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1, 2, alleging, *inter alia,* that "[t]o protect its valuable Windows monopoly against such potential competitive threats [from alternative platforms], *and to extend its operating system monopoly into other software markets,* Microsoft has engaged in a series of anticompetitive activities. Microsoft's conduct includes agreements tying other Microsoft software products [such as those providing browsing functions] to Microsoft's Windows operating system; exclusionary agreements precluding companies from distributing, promoting, buying, or using *products of Microsoft's competitors or potential competitors;* and exclusionary agreements restricting the right of companies to provide services or resources to *Microsoft's software competitors or potential competitors.*" Gov't Compl. ¶ 5 (emphasis added).

15. The United States District Court for the District of Columbia entered judgment substantially in favor of the United States, and the U.S. Court of Appeals for the District of Columbia Circuit largely affirmed the District Court's findings and

conclusions regarding Microsoft's liability under Section 2 of the Sherman Act, 15 U.S.C. § 2. A final judgment (to which Microsoft consented) was entered against Microsoft on November 12, 2002 and is no longer subject to appellate review.

16. Pursuant to 15 U.S.C. § 16(i), the running of the statute of limitations for the present action was tolled between May 18, 1998 and November 12, 2003, because the present action is based in part on matters complained of in the Government Suit. *See, e.g.*, Gov't Compl. ¶¶ 2-5, 7-8, 13, 24-25, 27, 37, 42-44, 54-55, 57-59, 66-68, 93, 95, 97, 99, 131. This Complaint alleges the same operating systems monopolization count as alleged and proved in the Government Suit; the anticompetitive schemes employed by Microsoft that are alleged herein and in the Government Suit are similar and have the same objectives; and the word processing, spreadsheet, and other applications markets alleged herein fall within the broad software product markets alleged in the Government Suit.

17. In fact, the Government Suit applied to the whole spectrum of non-operating system software, like WordPerfect, that competed against Microsoft products. For example, as contemplated by the allegations in the Government Suit and as found by the District Court, Microsoft's anticompetitive conduct targeted competing office productivity applications during the relevant period alleged herein. For example, Microsoft threatened to withhold from IBM a license for Windows 95 in retaliation for IBM's decision to distribute its SmartSuite office productivity suite on IBM computers sold in the United States. *See United States v. Microsoft Corp.*, 84 F. Supp.2d 9 (D.D.C. 1999) ("Findings of Fact") ¶¶ 115-132. Similar Findings of Fact were made with respect to Microsoft's dealings with other software products that Microsoft perceived as

competitive threats, including Native Signal Processing (Intel Corporation), QuickTime (Apple Computer, Inc.), and Real Networks Corporation's streaming software. *See id.* ¶¶ 93-114.

18. In addition, the Government Suit demonstrates how Microsoft's monopolization of the office productivity applications markets is critical to Microsoft's maintenance of its monopoly in the operating systems market. According to the Declaration of Rebecca M. Henderson, filed on behalf of the United States in the remedies phase, Microsoft Office, in its own right, has the potential to become cross-platform middleware. Like Navigator, Microsoft Office exposes application programming interfaces ("APIs"), which are a set of routines, protocols, and tools for building software applications, and many applications are already written directly to Office. "Office could also provide a valuable distribution channel for complementary middleware." *United States v. Microsoft Corp.*, Declaration of Rebecca M. Henderson ¶ 23, at 8-9.

19. Thus, "Microsoft's strong position in applications also gives it a potent weapon in its attempt to thwart any potential middleware threat . . . [and its] control of its applications gives it a number of powerful tools that taken together greatly reduce the likelihood that any competing middleware, including Office, might emerge as an attractive PC applications development platform." *Id.* ¶¶ 65-66, at 22. For example, Microsoft "can keep Office unavailable on alternative platforms and can ensure that it does not develop into cross-platform middleware. Microsoft can also ensure that its applications support only Microsoft-controlled or compliant interfaces and can use preferential access to Office as both a carrot and a stick in working with OEMs, other

distributors, and ISVs." *Id.* ¶ 66, at 22-23. Indeed, Microsoft used this weapon to force Office users to use Internet Explorer. *Id.* ¶ 68, at 23.

20. In addition, because Microsoft was successful in monopolizing the markets for office productivity applications with Microsoft Office and its constituent applications (such as Microsoft Word and Excel, Microsoft's spreadsheet application), Microsoft was able to use that monopoly in order to exclude Netscape from the market for browsers, maintain and indeed strengthen the applications barrier to entry against other operating systems, and thereby protect the Microsoft operating systems monopoly. For example, the District Court in the Government Suit found that Microsoft threatened to cancel Mac Office, the Microsoft Office product for Apple, Inc.'s Macintosh operating system ("Mac OS"), unless Apple agreed to bundle Internet Explorer with Mac OS and to make Internet Explorer the default browser. Because Apple's business was in steep decline in 1997 and many ISVs questioned the wisdom of continuing to develop applications for Mac OS, Apple knew that if Microsoft stopped development of Mac Office, that would signal the death knell for Apple. Within a month of Microsoft's threat, the two companies entered into an exclusive agreement in which Apple agreed to these terms, among others, and Microsoft agreed to continue releasing up-to-date versions of Mac Office for at least five years. Findings of Fact ¶ 350. Thus, Microsoft's incentive to monopolize the office productivity applications markets was the same as its incentive to monopolize the browser market: to preserve its operating systems monopoly.

21. In the Government Suit, the government alleged and the courts ruled that Microsoft was liable for integrating certain browsing technologies with the Windows

operating system in an anticompetitive manner. *See* 253 F.3d at 64-66; Findings of Fact ¶¶ 155-160; Gov't Compl. ¶¶ 5, 22-23, 36-38, 108. Here, Novell alleges that Microsoft integrated these same technologies into Windows to exclude WordPerfect and other Novell applications from the relevant markets. Further, preventing applications that threatened Microsoft's Windows monopoly from running properly on the operating system by withholding critical technical information concerning Windows was among the anticompetitive tactics that Microsoft was found to have employed to harm competitors in the Government Suit. *See* Findings of Fact ¶¶ 90-93. "[I]t is Microsoft's corporate practice to pressure other firms to halt software development that either shows the potential to weaken the applications barrier to entry or competes directly with Microsoft's most cherished software products." *Id.* ¶ 93. This is precisely one of the anticompetitive tactics Microsoft employed to destroy WordPerfect. Moreover, the government alleged and the courts ruled that Microsoft was liable for using its monopoly power in the operating systems market to prevent OEMs from distributing applications that competed with Microsoft's own applications. WordPerfect and Novell's other office productivity applications were among the victims of this anticompetitive conduct. These and other anticompetitive acts that were the focus of the Government Suit are described below in the context of the damages they caused to Novell.

22. By agreement, the parties further tolled the running of the statute of limitations as of November 7, 2003 through the time this action was filed. Novell's claims are also tolled because Microsoft's entire course of conduct constitutes a continuing violation in pursuit of a single anticompetitive objective, namely the

destruction of Novell and its office productivity applications in order to eliminate competition in the office productivity applications markets and to maintain its monopoly in the PC operating systems market. Microsoft's avowed campaign to "slaughter" Novell dates to at least the early 1990s and each pattern, practice, and overt act by Microsoft alleged herein took place as part of that single continuous campaign. Novell has suffered harm within the applicable limitations period from every act that Microsoft has undertaken in furtherance of that campaign prior to the limitations period.

23. Among others, the following findings and conclusions of the District Court in the Government Suit are binding on Microsoft in the present action under principles of collateral estoppel, having become final on their affirmance by the Court of Appeals:

(a) At all pertinent times (continuing at least until the date of the Court of Appeals' decision of August 2, 2001), Microsoft has held a monopoly in the market for Intel-compatible PC operating systems, which is a relevant market for antitrust purposes, including Section 2 of the Sherman Act. Findings of Fact ¶¶ 18-67.

(b) Microsoft's integration of browsing functionality with Windows prevented Netscape Navigator and other middleware products from weakening the applications barrier to entry, rather than serving any procompetitive purpose. *Id.* ¶¶ 155-160.

(c) Microsoft lacked any technical justification for refusing to license Windows 95 to OEMs without such browser functionality. *Id.* ¶¶ 175-176.

(d) By inducing, threatening, and/or forcing OEMs to take Microsoft's browser functionality with Windows and imposing additional technical restrictions on them, Microsoft increased the OEMs' cost of pre-installing and promoting Netscape Navigator. This foreclosed Navigator from one of the distribution channels that leads most efficiently to the use of browsing software. *Id.* ¶ 241.

(e) To protect the applications barrier to entry, Microsoft, through inducements and restrictive agreements, also foreclosed Navigator from other distribution channels, hampering consumers' ability to choose browser products based on their features, and forcing content providers to focus on Microsoft's browsing technologies to the exclusion of Netscape. *Id.* ¶¶ 247, 307-308, 311-312.

(f) To further protect the applications barrier to entry, Microsoft targeted and encouraged individual developers and independent software vendors ("ISVs") to rely on specific browsing technologies found only in Windows for their Web-centric applications. *Id.* ¶¶ 337, 340.

(g) An "applications barrier to entry" protected Microsoft's monopoly power in the operating systems market. *Id.* ¶¶ 36-52.

(h) Microsoft launched a campaign of anticompetitive acts targeting competitors and aspiring competitors that developed or threatened to develop products "that either show[ed] the potential to weaken the applications barrier to entry or compete[d] directly with Microsoft's most cherished software products." *Id.* ¶¶ 93-94.

(i) Microsoft chose to forego the short term benefits of having more applications available to run on Windows and, instead, chose to create incompatibilities that obstructed the development of certain applications that otherwise might run on

both Windows and other platforms, because such applications threatened the applications barrier to entry. *Id.* ¶ 407.

(j) Through its conduct toward competitors and OEMs, "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," such as Windows, Office, Word, and Excel. *Id.* ¶ 412.

(k) "[Microsoft] charges different OEMs different prices for Windows, depending on the degree to which the individual OEMs comply with Microsoft's wishes." *Id.* ¶ 64.

(l) OEMs lack a commercially viable alternative to licensing Windows for pre-installation on their PCs. *Id.* ¶¶ 53-55.

(m) Microsoft used inducements such as reductions in the royalty price of Windows to entice OEMs not to pre-install competitors' applications. *Id.* ¶¶ 230-234.

(n) Microsoft punished OEMs that pre-installed office productivity applications competing with Microsoft's applications, by charging them higher prices for Windows and withholding technical and marketing support. *Id.* ¶¶ 115-132.

(o) "Because of the importance of 'time-to-market' in the software industry, ISVs developing software to run on Windows products seek to obtain beta releases and other technical information relating to Windows as early and as consistently as possible. Since Microsoft decides which ISVs receive betas and other technical support and when they will receive it, the ability of an ISV to compete in the

marketplace for software running on Windows products is highly dependent on Microsoft's cooperation." *Id.* ¶ 338.

(p) Microsoft withheld crucial information regarding Windows as part of its strategy to injure firms that threatened to weaken the "applications barrier to entry." *Id.* ¶¶ 90-93.

(q) Microsoft employed a strategy of giving away its software products for free. *Id.* ¶¶ 136-142.

(r) Microsoft entered into anticompetitive arrangements with OEMs that foreclosed competing products from the OEM distribution channel. *Id.* ¶¶ 144-241.

(s) Microsoft used Microsoft Office to maintain the applications barrier to entry that protected its operating systems monopoly. *Id.* ¶¶ 341-356.

V. THE RELEVANT MARKETS

24. Three markets are relevant to this action: the market for Intel-compatible PC operating systems, the market for word processing applications, and the market for spreadsheet applications. Word processing and spreadsheet applications are sometimes referred to herein as "office productivity applications." The word processing and spreadsheet markets are sometimes referred to herein as the "office productivity applications markets."

A. The Intel-compatible PC Operating Systems Market

25. An Intel-compatible PC operating system is software that controls the PC's resources, such as the processor, memory chip, and storage devices, and manages the execution of software applications, such as word processors and spreadsheets. The operating systems at issue here are designed to control PCs that feature

microprocessors designed and manufactured by Intel Corporation ("Intel") or other companies whose processors are compatible with Intel's. Computers featuring such processors are referred to as "Intel-compatible PCs," and are intended for use by one person at a time. Intel-compatible PCs account for over 90 percent of all PCs sold worldwide. Because an operating system for non-Intel-compatible PCs will typically not run on Intel-compatible PCs, such an operating system is not a substitute for one that runs on Intel-compatible PCs. There are no practical substitutes for Intel-compatible PC operating systems. The geographic market for Intel-compatible PC operating systems is worldwide. The courts held in the Government Suit that the market for Intel-compatible PC operating systems is a relevant market for antitrust purposes. 253 F.3d at 51-54; Findings of Fact ¶¶ 18-67.

26. Microsoft has possessed monopoly power in the market for Intel-compatible PC operating systems at all times relevant to this Complaint.

B. The Word Processing And Spreadsheet Markets

27. Word processing applications are software that creates, edits, prints, and stores text-based documents. There are no practical substitutes for word processing applications. The geographic market for word processing applications is worldwide.

28. Spreadsheet applications are software that electronically organizes, displays, and manipulates numerical and other data. There are no practical substitutes for spreadsheet applications. The geographic market for spreadsheet applications is worldwide.

VI. BRIEF HISTORY OF OPERATING SYSTEMS AND OFFICE PRODUCTIVITY APPLICATIONS

29. Microsoft introduced the Microsoft Disk Operating System ("MS-DOS") in 1981 (having reportedly purchased its rights a year earlier for less than $100,000). MS-DOS was a command-driven system that required users to type specific instructions at a command prompt. MS-DOS became the exclusive operating system for Intel-compatible PCs and came to be the dominant platform for personal computers as the market share of competing alternatives (such as Apple's) shrank.

30. In 1985, borrowing substantially from Apple's operating system technology, Microsoft introduced Windows 1.0, which laid "graphical user interfaces" over MS-DOS. When run on top of MS-DOS, Windows provided personal computer users with the ability to invoke many operating system functions, like starting other programs or organizing files, by selecting elements on a graphical display or using a pointing device, such as a mouse. Windows also had its own programming interfaces that became very popular for writing graphical applications, like word processors and spreadsheets. In 1987, Microsoft released Windows 2.0 and, along with a development partner, IBM, co-introduced the first version of an alternative operating system known as "OS/2." Neither of these products met with much market success, and MS-DOS continued to be the dominant PC operating system.

31. While Microsoft thereafter purported to be working with IBM to replace both Windows and MS-DOS with an improved version of OS/2, in fact, Microsoft was secretly devoting considerably more resources to developing a much-improved version of Windows. In 1990, Microsoft ceased any pretext of support for OS/2 and introduced Windows 3.0, which met with considerable market acceptance, as did its immediate

successor, Windows 3.1. During the next several years, Windows displaced MS-DOS and achieved monopoly power in the PC operating systems market, as found by the District Court in the Government Suit. OS/2 never emerged as a viable alternative, even though IBM continued to develop and market the system after Microsoft abandoned the effort.

32. WordPerfect Corporation introduced the WordPerfect word processing application for the MS-DOS platform in 1981. By 1986, WordPerfect had achieved 18 percent of the word processing market, which included several competing products with smaller market shares (including Microsoft Word for MS-DOS, with 8 percent market share). By 1990, WordPerfect possessed a 47 percent market share and was by far the most popular word processing application. Microsoft did not have significant office productivity applications of its own for MS-DOS, and, to attract customers to the platform, cooperated with WordPerfect Corporation to ensure that the superior WordPerfect applications would run on the platform.

33. WordPerfect for OS/2 was also introduced in 1990, because WordPerfect Corporation, like many other ISVs, relied on Microsoft's assurances that it was still developing OS/2 as the principal PC operating system and successor to MS-DOS.

34. Microsoft's change in position with regard to Windows and OS/2, known in the industry as the "head fake," delayed WordPerfect's introduction of a version of its applications for the Windows platform until 1991. Shortly after its introduction, WordPerfect for Windows captured a significant portion of sales of word processors for the new platform, with approximately 35 percent of such sales by 1993, notwithstanding

the handicap that it suffered as a result of the "head fake" and other obstacles created by Microsoft.

35. During the same 1990-1991 time period, Microsoft introduced its first "office suite," known as Microsoft Office, initially consisting only of Microsoft Word and Excel, which were bundled in a single marketing package. Sales of Office increased substantially after Microsoft released version 4.0 in 1993, which integrated the functionality of the separate applications by making use of Microsoft's simultaneously released Object Linking and Embedding ("OLE") standards, which are discussed below.

36. In 1993, WordPerfect Corporation introduced a comparable office suite in cooperation with Borland International Inc. ("Borland"); the new suite included WordPerfect and Borland's Quattro Pro spreadsheet. An improved version of WordPerfect for Windows was also introduced in 1993.

37. On June 24, 1994, Novell purchased the rights to Quattro Pro from Borland for $120 million and acquired WordPerfect Corporation for 51 million Novell shares valued at $740 million (not including the value of Novell options issued to WordPerfect employees). At this time, WordPerfect's share of the word processing market was approximately 30 percent.

38. Netscape Corporation's ("Netscape") Navigator application was also introduced in 1994.

39. In August 1995, Microsoft introduced Windows 95, which integrated certain new browsing functions that were a primary focus of the Government Suit. The United States alleged and the Court held that Microsoft perpetrated the integration of the browsing functions in an anticompetitive manner and committed other

anticompetitive acts to exclude competitors from the markets at issue here. The resulting damage to Novell and its applications is the primary focus of this case.

VII. MICROSOFT'S ANTICOMPETITIVE ACTS AGAINST WORDPERFECT AND OTHER NOVELL OFFICE PRODUCTIVITY APPLICATIONS

40. Microsoft intentionally excluded Novell's office productivity applications from the markets by means of the anticompetitive acts described below, for at least two reasons.

41. First, as the United States alleged in the Government Suit, Microsoft sought to extend its monopoly in the operating systems market into the large and growing markets for applications. Using many of the same anticompetitive acts alleged and condemned in the government case, Microsoft finally attained its long-sought monopolies in the office productivity applications markets and in the process destroyed Novell's office productivity applications business.

42. Second, as the government alleged and the courts found, Microsoft sought to protect the "applications barrier to entry," which protected Microsoft's monopoly in the Intel-compatible PC operating systems market, by excluding applications that could threaten the barrier by supporting alternative operating systems.

43. As found by the courts in the Government Suit, an end-use application written for one operating system typically cannot run on another operating system, and applications developers generally will not incur the expense of modifying their products for an additional operating system that does not already have a significant number of users. Because an operating system, in turn, cannot attract a significant number of users unless desirable applications are already available to run on it, the

applications barrier to entry protects the dominant operating system. Thus, Microsoft's monopoly share of the Intel-compatible PC operating systems market is protected by a barrier to entry arising out of the much greater number of applications that operate only with Windows personal computer operating systems.

44. As the U.S. Court of Appeals for the District of Columbia Circuit held in affirming the district court's essential findings, Microsoft's Windows monopoly was threatened by "middleware" such as Netscape's Navigator, which is a browser application, and Sun Microsystems' implementation of the "Java" technologies, both of which were not only able to function on multiple operating systems, but were potentially able to provide platforms for end-use applications, which made them a threat to replace Windows itself as such a platform. Once written to Navigator and/or Java, end-use applications could function on any operating systems on which Navigator or Java functioned, thereby "erod[ing] the applications barrier to entry." 253 F.3d at 55. Microsoft engaged in anticompetitive conduct designed to exclude such middleware from installation on PCs using the dominant Windows operating system, on which any middleware would depend for survival until sufficient competing operating systems could emerge. Microsoft thereby violated Section 2 of the Sherman Act "by preventing the effective distribution and use of products that might threaten [its] monopoly." *Id.* at 58.

45. For related reasons, Novell's WordPerfect and other office productivity applications posed a significant threat to the applications barrier to entry that protected the Windows monopoly. As discussed in Section VII.A.1. below, Microsoft excluded from the markets the "OpenDoc" technology for sharing information among

applications, by using its monopoly power to force a different standard upon the industry. Microsoft thus suppressed a vigorous, ongoing competition between its own proprietary OLE technology and the more widely admired OpenDoc technology developed by Novell and others. These competing technologies allowed a user, for instance, to embed and edit a portion of a spreadsheet inside a word processing document.

46. Novell was instrumental in initiating this competition when, in 1993, Novell, Borland, and other Microsoft competitors established a consortium called the Component Integration Laboratories ("CIL") to create OpenDoc as an "open-source" standard for cross-platform linking and embedding. The computer code of open source standards such as OpenDoc is freely available for use and modification by numerous developers who compete to maximize its potential. OpenDoc was widely considered to be both easier to use and more robust than OLE. One reviewer stated that "[c]omparing OpenDoc with [OLE] is like comparing a modern human with a Neanderthal." Cliff Reeves, *Open Doc vs. OLE/COM*, Computerworld (Jan. 30, 1995).

47. Novell's efforts to develop OpenDoc were part of Novell's strategy to provide cross-platform functionality to applications (including its office productivity applications). In combination with the popularity and functionality of WordPerfect, this strategy posed a viable threat to Microsoft's operating systems monopoly that was similar to the Netscape and Java threat discussed extensively in the Government Suit. Indeed, at the time of the merger, Novell intended to further develop and market WordPerfect as a "network application" that would ultimately be independent of the desktop operating system.

48. The District Court defined middleware as software that "relies on the interfaces provided by the underlying operating system while simultaneously exposing its own APIs to developers." Findings of Fact ¶ 28. In the Government Suit, Netscape, when coupled with Java, is described as having "the potential" to become a middleware platform on which applications could be written to run on multiple operating systems. Such cross-platform functionality undermines the applications barrier to entry that helps protect Microsoft's operating system dominance.

49. OpenDoc allows users to view and edit information across applications, directly in competition with Microsoft's OLE standard. Particularly during the period at issue, OpenDoc was viewed as superior to OLE because it permitted sharing information across multiple operating systems, among other reasons. As CIL wrote in its marketing plan: "If OpenDoc is adopted by the Internet, it will become a de facto standard on all major OS platforms, and execute a brilliant end-run around Microsoft's stronghold on Windows." CIL, Marketing Plan 3 (Feb. 9, 1995).

50. AppWare, like OpenDoc, was another technology developed by Novell for cross-platform use. AppWare was Novell's high-level software development tool for rapid application development using pre-written, reusable software components. While AppWare had several attractive features, the most important was providing a new set of APIs. Programmers could write programs using these APIs that could function on any AppWare installation regardless of the operating system. Thus, AppWare presented a serious threat to Microsoft. Writing to the AppWare APIs and not to the Windows APIs would enable applications to run not only on Windows, but also on Macintosh and other operating systems at no additional cost.

51. This Novell portfolio of OpenDoc, AppWare, and WordPerfect software posed a competitive threat to Microsoft's operating systems monopoly similar to that described in the Government Suit. In the Government Suit, the United States claimed that Microsoft's operating systems monopoly was threatened by a popular application, Netscape, supporting a system-neutral programming language, Java. Like the Netscape-Java combination, the combination of WordPerfect, a popular application, with the system-neutral OpenDoc-protocol and AppWare development environment, threatened Microsoft's operating systems monopoly. Microsoft employed an array of tactics to minimize that threat, including preventing OpenDoc's compatibility with Windows 95 and requiring OLE-compatibility as a condition of Windows 95 certification. It pursued these and other tactics directly and indirectly, through its campaign to minimize WordPerfect's market share. *See* 87 F. Supp. 2d at 43. Furthermore, by monopolizing office productivity application markets and removing WordPerfect as a viable competitor, Microsoft also eliminated the potential cross-platform threat to Microsoft's operating systems monopoly posed by AppWare: AppWare's success in the market depended upon the availability of applications, such as WordPerfect, that were compatible with the AppWare development environment.

52. In other ways, Novell's WordPerfect and other office productivity applications also posed a significant threat to the applications barrier to entry that protected the Windows monopoly. The principal use of PCs during the relevant period was word processing. To become a viable alternative to Windows, another operating system would need compatibility with a popular word processing application. Because WordPerfect historically was the most popular word processing application, a new

operating system could attract a significant number of users upon entering the market if WordPerfect was available to run on it. "If application programs could be written to run on multiple operating systems, competition in the market for operating systems could be revitalized." Gov't Compl. ¶ 7. WordPerfect was historically available on many different operating systems, and Novell was a likely ally of potential competitors to Microsoft's operating systems monopoly. WordPerfect, like Navigator and Java, was thus a "product[] that might threaten [the Windows] monopoly" by "erod[ing] the applications barrier to entry." 253 F.3d at 55, 58. As the District Court found, Microsoft pursued a strategy of injuring firms whose technologies threatened the applications barrier to entry, by perpetrating anti-competitive acts such as withholding information that was needed to develop applications to run on Windows. Findings of Fact ¶¶ 90-93.

53. The District Court's original remedy, subsequently reversed on procedural grounds, also recognized that the availability of a widely-used word processing application on alternative operating systems was critical to the viability of potential operating system competitors. This remedy was designed to eliminate Microsoft's control over word processing and other office productivity applications that protected the Windows monopoly by splitting Microsoft into two separate Applications and Operating Systems Companies. Microsoft's word processing application, Microsoft Word, would have been the principal product of the Applications Company. As Dr. Carl Shapiro, a leading antitrust economist who served as the Government's expert in the original remedies phase, explained: "The improved availability of the Application Company's products as complements to rival platforms will thus help those actual and potential rivals to Windows overcome the applications barrier to entry that currently

protects the Windows monopoly." *United States v. Microsoft Corp.*, Declaration of Carl Shapiro, at 9.

54. Microsoft's effort to exclude the WordPerfect applications from the markets increased dramatically upon Novell's merger with WordPerfect Corporation, which occurred during the crucial period of Microsoft's development of Windows 95. Upon Novell's merger with WordPerfect, Microsoft's executives decided to intensify the anticompetitive campaign of withholding technical information that Novell needed to develop WordPerfect and other applications for Windows 95.

55. 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, while actually "pulling the trigger" and killing Novell. Indeed, Microsoft's Chairman and CEO, Bill Gates, instructed his executives to develop plans to retaliate against Novell for its cooperation with the government authorities investigating Microsoft. As explained below, Microsoft fulfilled these instructions by withholding technical information about the ever-changing functions of Windows, including the integrated browsing functions in Windows 95, and by excluding Novell's office productivity applications from the major channels of distribution and other potential platforms.

A. Microsoft's Scheme To Injure Novell By Withholding Technical Information About Its Monopoly Windows Platform

56. Microsoft periodically introduced changes to its Windows operating system that repeatedly degraded the functionality of Novell's office productivity applications, including WordPerfect and Quattro Pro. As explained below, Microsoft then withheld the information that was necessary for Novell to restore the degraded

functionality, causing Novell's applications to fail to reach the markets in the timely manner that was necessary to compete with Microsoft's own applications.

57. For an application to run, it must invoke certain core functions provided by the operating system, such as ways to find, open, close, and save documents. Applications invoke these functions by communicating with the operating system's exposed APIs or "extensions." For instance, an ISV wishing to develop a word processing application with the basic ability to find, open, close, and save documents would write its software code to "call" the relevant extensions into service on behalf of the application.

58. Windows contains thousands of different APIs providing numerous functions, and ISVs need documentation published by Microsoft to know how to make the necessary calls to the APIs. Without the documentation, an ISV must expend a tremendous amount of resources to recreate functions that are already built into Windows; indeed, without the documentation, an ISV might never be able to recreate the functions at all. As the District Court found in the Government Suit, the ability of an ISV to compete in the marketplace for software running on Windows is highly dependent on Microsoft's cooperation. Findings of Fact ¶ 338.

59. Microsoft's top executives testified in the Government Suit that an important purpose of documenting programming interfaces or extensions is to free ISVs from "re-inventing the wheel," so they can devote their resources to innovating new features that will work in addition to, instead of merely in place of, extensions. Microsoft "evangelized" the use of its extensions because, among other reasons, it

wanted Windows to have a consistent "look and feel," no matter what ISV's application might have been running on top of Windows.

60. In the absence of anticompetitive motives, Microsoft had powerful economic incentives to cooperate with third-party software and hardware vendors such as Novell during the development of upgrades to the operating system, such as Windows 95, and to inform these vendors of recent innovations in the programming interfaces or extensions. Microsoft benefits from this cooperation by ensuring that a large number of compatible applications will be available in new versions that will call new Windows APIs into service, so users will experience the value of the Windows upgrade. Indeed, Microsoft has devoted substantial resources to facilitating the efforts of others to develop products that complement its own. Microsoft employs large organizations devoted to providing technical information and support to third-party software and hardware vendors. These organizations create and supply documentation about programming interfaces and other features of Microsoft operating system products, and can assist third-party vendors with technical support questions that arise during development of their products. Microsoft makes these resources generally available to third-party developers on a subscription basis. Accordingly, as its witnesses testified in the Government Suit, Microsoft has routinely cooperated with thousands of ISVs -- with almost any ISV in the world, in fact, except major competitors such as Novell. Indeed, as noted, Microsoft cooperated with WordPerfect with respect to Microsoft's prior MS-DOS platform, precisely because at that time Microsoft did not have strong office productivity applications of its own for that platform.

61. ISVs also benefit from this cooperation, when they can obtain it, by having compatible applications ready for sale in conjunction with their customers' decisions to upgrade to the newest version of Windows. "[B]ecause of the importance of 'time-to-market' in the software industry, ISVs . . . seek to obtain beta releases and other technical information relating to Windows as early and as consistently as possible." Findings of Fact ¶ 338. A beta release of an operating system is a version that is still under development and has not been released for sale to the general public. An operating systems developer such as Microsoft will release beta versions to certain individual users, who volunteer as "beta testers," and to ISVs, who use betas to begin developing their own applications to run on the forthcoming version of the operating system. Because Microsoft decides when and which ISVs will receive betas, an ISV's ability to compete in the applications markets depends on Microsoft's cooperation. *Id.*

62. Although Microsoft's efforts to promote third-party support for its operating system products have been pervasive, they have not been universal. On repeated occasions, and even at the cost of diminishing the immediate consumer appeal of its own products, Microsoft has acted to prevent rather than promote development of complementary products, like WordPerfect, that threaten the applications and other compatibility-related barriers to entry that protect Microsoft's operating system dominance. Microsoft's Jeff Raikes would later articulate this strategy in a 1997 e-mail to investor Warren Buffet: "If we own the key 'franchises' built on top of the operating system, we dramatically widen the 'moat' that protects the operating system business."

63. Novell was one of the most important of the independent developers of applications for Microsoft's operating systems. Microsoft was willing to sacrifice the

short-term benefits of having compatible Novell applications running on Windows, however, for the sake of achieving the longer-term benefits of excluding WordPerfect from competition. These benefits included monopolizing the markets for office productivity applications and protecting the applications barrier to entry into the operating systems market. Microsoft thus refused to continue the parties' long-standing, mutually profitable practice of exchanging technical information. Microsoft's real and only purpose in pursuing these ends was to widen the "moat" protecting its monopoly in the PC operating systems market by extending that monopoly into the markets for word processing and spreadsheet applications.

64. Microsoft's own applications developers always had complete access to the technical information that was necessary to develop applications to run on Windows. They could and did simply talk to Microsoft's operating systems engineers to obtain information about the operating system's proprietary code, whenever necessary to expedite their work. This discriminatory access and other anticompetitive acts gave Microsoft applications significant "time-to-market" leads over Novell.

1. Microsoft's Anticompetitive Withholding of Technical Information Concerning Windows 95

65. Although WordPerfect had previously suffered a decline in market share as a result of Microsoft's prior but similar anticompetitive acts, WordPerfect remained a popular and highly regarded word processing application during the period when Windows 95 was under development.

66. Windows 95 was a significant improvement over earlier versions of Windows. Microsoft announced with much fanfare that this platform would be "the first operating system for Intel-compatible PCs that exhibited the same sort of

integrated features as [Apple's Macintosh operating system] running PCs manufactured by [Apple]." Findings of Fact ¶ 8. Consumers and ISVs eagerly awaited the increased functionality that Microsoft promised to provide through new APIs, including extensions for the newly integrated browsing functions that would control an entirely new file management system and enable a user to find and access information in the user's computer, on the network, or even on the Internet. "Browsing" relates both to this navigational functionality and to the graphical shell used for presenting the information to the user. Access to the newly integrated browsing functions would be necessary, for instance, to allow an application to find, open and save documents created on the application, such as a legal brief written on WordPerfect, because these functions essentially act as a navigational bridge for the user to access various files, storage devices, printers, and network resources, among other directories.

67. This newly integrated browsing technology is the same browsing technology at issue in the Government Suit. As James Allchin, then Senior Vice President in charge of Microsoft's Personal and Business Group, testified in the Government Suit: "The Internet Explorer technologies in Windows enable customers to view information on the Internet--as well as on other networks, hard drives, floppy disks, and other information sources. Accessing and viewing information on the Internet is widely referred to as 'Web browsing,' but it is the same in principle as accessing and viewing information stored anyplace else. In short, treating information stored on the Internet in a radically different way than other kinds of information makes no sense as a matter of software engineering and is potentially confusing to

customers." *United States v. Microsoft Corp.*, Direct Testimony of James Allchin ¶ 73, at 30. As Allchin further testified:

- "We want to unify the browsing of all types of information–regardless of whether that information is stored on the Internet (or the Web) or someplace else." *Id.* ¶ 3, at 3.

- "I would like to be very clear on the following point: *The very same software code in Windows 98 that provides Web browsing functionality also provides (i) platform support to developers, (ii) user interface software (for Windows itself and other software products) and (iii) access to information stored in locations other than the Internet. That software code is called Internet Explorer.*" *Id.* ¶ 9, at 6-7 (emphasis in original).

- "Browsing generally connotes the process of accessing and viewing (or managing) information in a common way, such as having a single program that can let you view file folders, text files, drawings, spreadsheets, and so on. Web browsing generally connotes accessing and viewing information in display formats such as HTML that has been transferred over the Internet using protocols such as TCP/IP and HTTP. There is no definitive line, however, between Web browsing and the more general concept of browsing." *Id.* ¶ 28, at 14.

- "[Microsoft made a] decision in early 1994--before Netscape was incorporated--to include comprehensive support for the Internet, including Web browsing functionality, in Windows." *Id.* ¶ 79, at 32.

- "Microsoft developed a new approach in which the various functions performed by Internet Explorer technologies could be used by Windows itself or by other software programs designed to run on Windows. And Microsoft had to design Windows to unify the inconsistent ways in which customers would otherwise have had to interact with information depending on where that information was found." *Id.* ¶ 84, at 33.

- "Thus, Microsoft set about the task in early 1995, before the first version of Windows 95 was even released, of tearing apart and then rebuilding Internet Explorer as a series of software components. Microsoft then 'exposed' the functionality performed by these components in the form of hundreds of APIs. *This is a very important point.* Today the entire developer community benefits from Microsoft's inclusion of Internet support in Windows because

all developers can call upon this built-in functionality in creating their own products." *Id.* ¶ 85, at 33-34 (emphasis in original).

- "Internet Explorer is the name for a set of technologies in Windows that provides essential functionality *both* to Windows *and* to other software developers. Our vision of deeper levels of technical integration is highly efficient and provides substantial benefits to customers and developers." *Id.* ¶ 94, at 36.

- "Certain files . . . form the core of Internet Explorer technologies in Windows 98 (and Windows 95 starting with the OSR 2.0 version). Here is a very brief overview of the functions performed by these six important files, the first four of which listed below are collectively known as the 'Web browser control.' . . .

    - SHDOCVW.DLL is a powerful system service that allows any software publisher to embed browsing functionality deep in its own programs without showing the Internet Explorer user interface. This file provides basic functionality associated with browsing, such as 'Back' and 'Forward' buttons, for use throughout Windows (whether or not browsing Web pages) and in third party software products. It also provides the user interface for a Windows 98 browser window (whether called 'Internet Explorer' or 'Windows Explorer') as well as the Windows 98 'Start' menu. This is true whether or not the customer is viewing information on the Internet, on a local area network or on the hard drive of the computer, and whether or not the customer is viewing information presented in HTML.

    - MSHTML.DLL 'parses' and 'renders' information in the HTML display format--both within Windows and in third party software products. This file provides functionality that is similar to the 'Rich Text Control,' another part of Windows 95 that provides display functionality.

    - URLMON.DLL enables Windows and third party software programs to work effectively with URLs (addresses on the Web). URLMON extends the functionality of a file called WINSOCK (short for 'Windows Sockets'), which provides a variety of networking functions within Windows and to third party software developers.

    - WININET.DLL (short for 'Windows Internet') provides the capability to Windows and third party software programs of retrieving data from the Internet or other locations (such as a local area network) using various Internet protocols, such as HTTP. WININET also extends the functionality of WINSOCK.

- SHLWAPI.DLL reads and processes Internet addresses and links.

- COMCTL32.DLL performs a wide range of functions that are central to the operation of the operating system. To the extent relevant here, this file provides toolbars, the 'Favorites' menu, and related features in Windows 98 browsing windows."

Id. ¶ 100, at 38-39.

- "Two other files, IEXPLORE.EXE and EXPLORER.EXE, are of particular note. One or the other of these two files is invoked when a customer invokes the Web browsing functionality in Windows 98." *Id.* ¶ 101, at 39.

68. Many internal Microsoft documents written in 1994 and 1995 were cited as support for Allchin's testimony. According to Allchin, these documents describe Microsoft's vision "to lead the market by unifying the mechanisms for finding, viewing and managing information of all types. This was simply the next step in Microsoft's efforts to make it easier to access and use information without regard to where it is stored, a key element of Microsoft's advocacy of the concept of *Information at Your Fingertips* that started in 1990." *Id.* ¶ 213, at 79. For example:

- A January 25, 1994 memorandum entitled 'Windows: The Next Killer Application on the Internet,' discussed the benefits of making Windows an "Internet navigation tool" and advocated a strategy in which "[d]istributed information on the Internet . . . [could be] browsed using the [Windows] Explorer across thousands of information servers worldwide . . . . *Windows becomes the global infostructure explorer.*" According to Allchin, this is the strategy Microsoft adopted. *Id.* ¶¶ 221-222, at 82 (emphasis in original).

- Also, in "a June 2, 1995 slide presentation used at a meeting of senior Microsoft executives . . . where Microsoft's Internet strategy and goals were discussed, Internet Explorer was defined to be a 'Win95 integrated web browser' that was focused 'on making the Internet easy to use.' . . . Internet Explorer was also described as the '[f]oundation for [a] universal viewing client' and the '[b]asis for future Windows shell direction.' Thus, two months before the commercial release of Windows 95, Microsoft anticipated that Internet Explorer technologies would be more tightly integrated

into future versions of the operating system, providing a new user interface." *Id.* ¶ 245, at 92.

- Allchin also cited an October 23, 1995 memorandum entitled "Web-like Shell," in which "Chris Brown described the primary goal for what became the Windows 98 user interface as 'enhanc[ing] navigation and file management in the shell by adopting the best aspects of the World Wide Web.' . . . He stated that the focus would be on making 'the shell both easier to use (via new web-like navigation commands and single-click interaction) and more visually appealing (by implementing rich, graphical document views for any folder).' Among the list of benefits he enumerated were 'easier browsing,' 'more engaging visuals,' and 'unified browsing for the Shell, Internet and Office.' As to this last benefit, he stated that '[i]ncorporating the Microsoft Internet Explorer into the Windows Explorer bridges the gap between local containers and URLs. Users benefit because interaction will be identical, and simplified (thus minimizing retraining costs).' The word "container" in this context refers to an information source, such as a folder or file stored on the hard drive of a personal computer or a page stored on the Web." *Id.* ¶ 253, at 96.

- "In a memorandum written in September 1995 and updated in November 1995, entitled 'Web-like Shell: Architecture,' Satoshi Nakajima referred to Chris Brown's Web-like shell concept and stated that Microsoft 'will improve the Shell Explorer by making it very easy to 'navigate'--with the navigation toolbar and the single-click page-view. We will also integrate the Shell Explorer and the Internet Explorer, so that the user can navigate documents on local volumes, [local area networks] and [World Wide Web] as seamless as possible.' . . . In general the seamless navigation he was discussing was achieved in Internet Explorer 4.0, which provides the Windows 98 user interface." *Id.* ¶ 254, at 96-97.

- Finally, "[i]n an e-mail dated December 6, 1995, Brad Silverberg stated that the 'new Windows shell unifies folders (file system directories) with the web and document-navigation metaphor.' . . . He described this new user interface as a 'very friendly way to view and navigate your local [personal computer] and your corp[orate] net, as well as the [I]nternet.'" *Id.* ¶ 256, at 97.

69. As the United States alleged in the Government Suit, Bill Gates recognized that "the development of competing Internet browsers -- specialized software programs that allow PC users to locate, access, display, and manipulate

content and applications located on the [web] -- posed a serious potential threat to Microsoft's Windows operating system monopoly." Gov't Compl. ¶ 6. To respond to this competitive threat, Microsoft embarked on an extensive campaign to market, distribute, and integrate Microsoft's own browsing functions into the operating system. *See id.* ¶ 10.

70. For these and other reasons, some applications written for earlier versions of Windows, and WordPerfect in particular, would not be compatible with Windows 95. As a consequence, it was critical for Novell and other ISVs to have access to technical information regarding the browsing functions and other new features, so the development of applications could proceed simultaneously with Microsoft's development of Windows 95. Otherwise, ISVs' applications could not reach the market at the same time as Windows 95, and would surrender time-to-market leads to Microsoft's own applications. Both parties knew that consumers quickly would replace their existing operating systems with Windows 95 and almost simultaneously switch to applications designed to take advantage of its new extensions.

71. During the development of Windows 95, Microsoft's executives schemed to integrate the browsing functions into Windows 95 in a manner designed to cause the maximum possible damage to competitors. Microsoft's executives specifically targeted WordPerfect by name in the documents that recorded the scheme. Microsoft decided to proceed with the scheme even at the risk of negatively impacting its corporate image and alienating its important ISVs. For instance, Microsoft intentionally made the use of any browsing technology other than Microsoft's browser a "jolting experience" for its own Windows customers, solely to create the false impression that other browsers were

not effective. The purpose and effect of this conduct was to maintain its operating systems monopoly and "to preclude potential competition with Microsoft's operating system from competing browsers and from other companies and software whose use is facilitated by these browsers." *Id.* ¶ 38.

72. As a result of Microsoft's integration of the browsing functions into Windows, ISVs needed documentation of the browsing extensions to design their applications to perform the most basic file management functions. Microsoft initially documented the browsing extensions in the beta releases of Windows 95 and otherwise appeared to cooperate with ISVs in developing applications for release with Windows 95.

73. Microsoft "evangelized" the benefits of using the browsing extensions. In the early stages of developing WordPerfect for Windows 95, Novell thus devoted significant resources to ensuring compatibility with and otherwise exploiting the benefits of Windows' integrated browsing functions. Further, as encouraged by Microsoft, Novell expended additional resources to expand upon the extensions, providing still greater functionality for its own customers and potentially for other ISVs and their customers. For example, Novell designed its software programs and products to utilize the programming interfaces in Microsoft's main file management utility (called the Explorer) to display rich directory information about Novell-managed network resources.

74. In an e-mail dated October 3, 1994, however, Bill Gates ordered his top executives to retract the documentation of the browsing extensions, but only until Microsoft's own developers of the Office suite of applications had sufficient time to

work with the hidden extensions to build an insurmountable advantage over competitors such as WordPerfect. Gates further explained that without this advantage, Office could not compete with the major ISVs.

75. In public test versions of Windows 95 released a few months before the final product shipped to consumers, Microsoft ripped out these programming interfaces without warning to Novell. After Microsoft withdrew the documentation of the browsing extensions, Novell was suddenly unable to provide basic file management functions in WordPerfect; in many instances, a user literally could not open a document he previously created and saved. Indeed, WordPerfect could no longer use the functions that Novell had innovated atop the extensions, while Microsoft Word could still take advantage of such innovations.

76. When Novell asked Microsoft why it removed the Explorer interfaces and browsing extensions, Microsoft claimed that it did not have the time and resources to complete their development. But in fact, the Explorer interfaces and browsing extensions had been complete and functional before Microsoft removed them. Microsoft's real reasons for pulling the interfaces and browsing extensions were twofold: to delay the development of Novell's software programs and products, including WordPerfect, which had to be reworked to function through a different set of interfaces designed for Microsoft's software programs and products; and to hide the more advanced capabilities of Novell's office productivity applications from users of Windows 95. Novell had no choice but to spend more than a year recreating the functionality of Windows' integrated browsing functions. As Gates knew and intended, withdrawing the documentation of the browsing APIs caused Novell, in

Microsoft's own words, to re-invent the wheel and divert resources from innovations on behalf of consumers. Microsoft's applications developers, by contrast, had unfettered access to the integrated browsing extensions all along.

77. Thereafter, when Microsoft released Windows 95 and Office 95, at virtually the same time, Microsoft suddenly reversed course and documented the programming interfaces. Doing so voided the alternatives that Microsoft previously forced Novell to expend an entire year developing and, at the precise moment when WordPerfect needed to enter the market, forced Novell to spend additional time designing basic functions of WordPerfect all over again.

78. Microsoft's anti-competitive integration of browsing functions into Windows delayed the release of Novell's office productivity applications for Windows 95. These acts also degraded the functionality of Novell's applications, which never were able to provide Novell's customers with as robust an implementation of the browsing extensions as they otherwise could have provided. In short, "Microsoft's conduct with respect to browsers is a prominent and immediate example of the pattern of anticompetitive practices undertaken by Microsoft with the purpose and effect of maintaining its PC operating system monopoly and extending that monopoly to other related markets," including the office productivity applications markets alleged herein. Gov't Compl. ¶ 13. By virtue of Microsoft's anti-competitive integration of browsing functions into Windows 95, for which Microsoft was held liable in the Government Suit, Novell's applications were delayed in reaching the markets and provided consumers with less value.

79. In addition to documentation of the crucial browsing extensions, Microsoft withheld other technical specifications concerning Windows 95, and in some instances affirmatively misrepresented the specifications, further delaying Novell's delivery of WordPerfect and related applications for the Windows 95 platform.

80. Microsoft refused to publish the APIs that were used to place items on the Windows Clipboard, although its own developers had the documentation. The Clipboard provided a location for storing information until it was "pasted" into another application. Novell ultimately had to forgo this functionality in its applications because the expenditure of time and resources required to duplicate the hidden APIs was prohibitive, so Novell could not provide the same richness of data integration that Microsoft's applications could provide.

81. Further, Microsoft misrepresented that Windows 95 would operate as an exclusively "32-bit" system, meaning it would process 32 bits of data at once. A bit -- short for binary digit – is the smallest unit of information a computer can hold. The beta versions of Windows 95 indicated that it would be an entirely 32-bit system, rather than a 16-bit system, as all previous versions of Windows were. This representation was critical, because applications written for a 32-bit operating system would not function properly on a 16-bit system. Novell relied upon Microsoft's representations and developed its applications to run on an entirely 32-bit system. After Novell completed its PerfectOffice 3.0 suite of office productivity applications, including WordPerfect and Quattro Pro, Microsoft disclosed that Windows 95 would not be a purely 32-bit system. Microsoft's deception forced Novell to expend considerable time and resources to redesign its applications, significantly delaying their release.

Microsoft's own applications developers knew that Windows 95 would not be an entirely 32-bit operating system and, as a consequence, Microsoft was able to release its office productivity applications almost immediately upon the release of Windows 95.

82. Through these and other anticompetitive acts, Microsoft put Novell "on a treadmill," forcing Novell's developers to expend significant time obtaining information and creating functionalities that Microsoft gave to its own applications developers through secret documentation of hidden APIs.

83. In addition to withholding technical information, Microsoft created and controlled new "industry" standards and established unjustified certification requirements to delay the release of Novell's applications and to impair their performance for Novell's customers.

84. First, as discussed above, Microsoft excluded from the markets the "OpenDoc" technology for sharing information among applications, by using its monopoly power to force a different standard upon the industry. Because CIL was designing OpenDoc to run across multiple platforms, including MS-DOS, DR-DOS, Windows, OS/2, and Macintosh, OpenDoc threatened the applications barrier to entry that protected Microsoft's Windows monopoly.

85. Microsoft responded to this competitive threat by preventing CIL from making OpenDoc compatible with Windows 95. For example, Microsoft routinely required all ISVs to execute nondisclosure agreements as a condition of receiving the information they needed to develop their applications. These agreements, however, contained terms that uniquely targeted ISVs who were members of CIL, by preventing their employees who worked on OpenDoc from receiving Windows 95 betas or

specifications, which effectively prevented CIL from initially developing OpenDoc for Windows 95. In addition, Microsoft required ISVs working with a Windows 95 beta to agree that they would not work on OpenDoc for two years. While Microsoft eventually dropped this requirement, its impact had immediate anticompetitive effects on OpenDoc's development.

86. Further, Microsoft unilaterally announced that OLE would be incorporated directly into Windows, instead of existing independently of the operating system as a technology to be adopted or rejected by ISVs, depending on their assessments of its technical merit. Microsoft then required OLE-compatibility as a condition of Microsoft's certification of an application's compatibility with Windows 95. This certification requirement was a significant barrier to entry into the applications markets, because Microsoft represented to the industry that any application lacking the certification could not be trusted to run on Windows 95. By exploiting this barrier to entry, Microsoft forced ISVs to make their applications OLE-compatible. Furthermore, Microsoft ensured that only applications using its tools, and not those of its competitors, would reach customers. This anticompetitive behavior by Microsoft is similar to the behavior described in the Government Suit with respect to Microsoft's efforts to force ISVs to use Microsoft's implementation of Java. "Specifically, in the First Wave agreements that it signed with dozens of ISVs in 1997 and 1998, 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 [Java virtual machines] as the 'default.'" Findings of Fact ¶ 401.

87. There was no valid technical or business reason for requiring OLE-compatibility as a condition of the Windows 95 certification; OpenDoc was even more capable of providing the same linking and embedding functions, and in the absence of the certification requirement and other anticompetitive acts, OpenDoc and OLE would have continued to compete on their technical merits. Indeed, Microsoft initially announced that applications using OpenDoc would be deemed OLE-compatible, and would receive Microsoft's certification for Windows 95, because OpenDoc was a "superset" of OLE, meaning it provided every function of OLE, and more. Later, after Novell, other ISVs and CIL were far advanced in their efforts to develop and use OpenDoc, Microsoft announced that applications using OpenDoc would not receive automatic certification, and might not receive certification at all.

88. Seeing that Microsoft's anticompetitive acts would ensure the demise of OpenDoc, ISVs were left with no choice but to adopt Microsoft's proprietary OLE protocol as the de facto industry standard for linking and embedding. Even after making OLE the industry standard, however, Microsoft still withheld specifications and final, debugged versions of OLE until after Microsoft released its competing applications. Microsoft's anticompetitive acts concerning OLE further increased the "time-to-market" lead that Microsoft's office productivity applications unlawfully achieved over Novell's applications.

89. Second, Microsoft required office productivity applications seeking Windows 95 certification to be compatible with the very different Windows NT, which is an operating system for larger and more powerful computers that are used as "servers" to link numerous PCs (and peripherals) across an organization into a

network. There was no justification for this requirement. Further, Windows 95 and Windows NT were so dissimilar that an application running on one system could not run on the other without substantial modification. Novell expended significant development resources to make its applications compatible with Windows NT, resulting in further delay in the release of Novell's applications for Windows 95.

90. Third, Microsoft unilaterally made the proprietary Rich Text Format ("RTF") of Microsoft Word the standard file format for text-based documents in applications developed for Windows. Upon capturing the standard, Microsoft strategically withheld the specification to injure competitors, including Novell.

91. As Microsoft knew, a truly standard file format that was open to all ISVs would have enhanced competition in the market for word processing applications, because such a standard allows the exchange of text files between different word processing applications used by different customers. A user wishing to exchange a text file with a second user running a different word processing application could simply convert his file to the standard format, and the second user then could convert the file from the standard format into his own word processor's format. Thus, a law firm, for instance, could continue to use WordPerfect (which was the favorite word processor of the legal profession), so long as it could convert and edit client documents created in Microsoft Word, if that is what clients happened to use. Microsoft knew that if it controlled the convertibility of documents through its control of the RTF standard, then Microsoft would be able to exclude competing word processing applications from the market and force customers to adopt Microsoft Word, as it soon did.

92. The specifications for RTF were readily available to Microsoft's applications developers, because RTF was the format they themselves developed for Microsoft's office productivity applications. Microsoft withheld the RTF specifications from Novell, however, forcing Novell to engage in a perpetual, costly effort to comply with a critical "industry standard" that was, in reality, nothing more than the preference of its chief competitor, Word. Indeed, whenever Word changed its own file format, Microsoft unilaterally and identically changed the RTF standard for Windows, forcing Novell and other ISVs constantly to redevelop their applications. In this manner, Microsoft gave Word a permanent, insurmountable lead in time-to-market, and made document conversions difficult for users otherwise interested in running non-Microsoft applications. Many WordPerfect users were thus forced to switch to Microsoft Word, which predictably monopolized the word processing market.

93. Fourth, Microsoft unilaterally announced that other features of Word were to be considered Windows standards. One important example is the "tool bar," which typically runs across the top of the PC's screen in applications operating on Windows. Microsoft's tool bar originated in the Microsoft Office applications, such as Word and Excel, while ISVs such as Novell developed competing features, such as WordPerfect's more widely admired "button bar." Unable to design a better feature than WordPerfect's, Microsoft simply declared its toolbar to be the Windows standard, supplanting WordPerfect's button bar and other competitors' offerings. As in the case of RTF, Microsoft forced Novell to delay its time-to-market while redeveloping its applications to an inferior standard. Because these standards were lifted directly from

Microsoft's own applications, those applications, by definition, were always "compatible" with the standards.

94. Fifth, Microsoft made other inferior features de facto industry standards, by preventing Novell and other competitors from presenting certain of their own features, such as Novell's QuickFinder, on the desktop. The government alleged and the Court held in the Government Suit that Microsoft was liable for excluding the features of certain other ISVs from the desktop in the same manner. *See* 253 F.3d at 62, 64; Findings of Fact ¶¶ 212-214; Gov't Compl. ¶¶ 24-25.

95. QuickFinder, Novell's search technology, was faster and more advanced than Microsoft's own "find" capability. QuickFinder enabled users to create search criteria across the computer's different storage devices and to search files by name, text, and date. Because Microsoft prevented Novell from presenting QuickFinder on the desktop, QuickFinder could only be used when running WordPerfect; Microsoft's own finder technology, with exclusive display on the desktop, could be used anywhere in the computing environment, gaining an unfair advantage over Novell's otherwise superior technology.

2. Microsoft's Anticompetitive Withholding of Technical Information Concerning Earlier Versions of Windows

96. Microsoft withheld critical information concerning earlier versions of the Windows operating system, thereby giving itself a time-to-market lead in the applications markets. Microsoft held and extended this lead following Novell's merger with WordPerfect by virtue of the anticompetitive acts alleged above. Microsoft's anticompetitive acts, both pre- and post-dating Novell's merger with WordPerfect, were committed as part of a continuing violation designed to maintain Microsoft's monopoly

in the operating systems market and to achieve and maintain monopolies in the office productivity applications markets. Independent, overt acts during the period in which Novell owned the rights to WordPerfect inflicted new and accumulating harm on Novell.

97. Microsoft refused to disclose technical specifications that were required to overcome an operating system flaw known as the "64k (meaning 64,000 bytes of) memory limitation," which adversely affected critical features of WordPerfect. Specifically, the menu feature in WordPerfect consumed well in excess of 70 percent of the operating system's limited memory. Using such an inordinate amount of memory could cause a PC to crash.

98. Microsoft's API documentation did not disclose sufficient information to cure this limitation. In addition, the Microsoft support personnel, who were assigned to help Novell solve such problems pursuant to a paid subscription to Microsoft's support program, simply refused to provide the information. The denial of this crucial information forced Novell to develop a costly and difficult solution, delaying the shipment of WordPerfect for Windows, just when Windows was replacing the MS-DOS platform, on which WordPerfect was the dominant word processing application. Microsoft's denial of information also increased the risk of performance problems with Novell's products, and it created programming difficulties for ISVs who wished to develop applications compatible with WordPerfect, thereby diminishing the commercial appeal of WordPerfect.

99. By contrast, because Microsoft's own applications developers had access to complete specifications for the operating system, comparable features of Microsoft

Word consumed only a small percentage of the limited memory, and Microsoft experienced no delay in reaching the market.

100. The 64k memory limitation also caused degrading functionality in WordPerfect's dialog boxes, which guide the user through the execution of certain functions, such as the "save as" function. Opening multiple dialog boxes in WordPerfect consumed a significant amount of memory, which could cause the PC to crash. Microsoft was aware of the problem, and incorporated into Windows a solution called Dialog Box Manager ("DBM"). Microsoft refused to document this feature of Windows to competing ISVs, however, making it available exclusively to Microsoft's own applications developers.

101. As a consequence, Novell had to reduce the functionality of its application and split its more complex dialogs into several boxes, making WordPerfect more difficult to use. As always, the effort to overcome the lack of information cost WordPerfect crucial time-to-market.

102. Microsoft Word's developers had access to the required information all along. They "solved" the problem by making undocumented calls to the secret DBM in Windows. Indeed, when WordPerfect's developers first encountered the problem, they observed Word in operation, to see if it was consuming the same amount of memory; using developers' tools that monitor the interactions between applications and operating systems, the WordPerfect developers saw Word making calls to the undocumented DBM. Even when confronted with this information, Microsoft's ISV "support" personnel would not tell the WordPerfect's developers how to call the DBM.

103. Microsoft also harmed Novell by hiding the computer-based training ("CBT") "hooks," or interfaces, in Windows, which Microsoft Word and Excel employed to train their users. Novell's developers requested information regarding these undocumented hooks, but they were advised that no information was available to ISVs. Microsoft's ISV support personnel acknowledged, however, that Microsoft's own applications developers were using the hooks.

104. Microsoft's refusal to document the CBT hooks made Novell's applications more difficult to use, thereby providing less value to consumers and increasing Novell's customer support costs, further impairing Novell's sales efforts and delaying the release of Novell's applications.

105. Microsoft also refused to resolve Windows-related bugs affecting Novell's WordPerfect, Quattro Pro, and related applications as aggressively as it resolved bugs affecting its own applications. This discriminatory treatment adversely affected the performance of Novell's applications, causing consumers to believe that Novell's applications were inferior to Microsoft's competing applications.

106. Further, Microsoft excluded WordPerfect and Quattro Pro developers from technical conferences and porting labs, which are opportunities for developers to "debug" their Windows applications and otherwise ensure integration with Windows. As a result of Novell's exclusion from these conferences, its applications suffered a greater incidence of malfunctions, which were often caused by Windows itself, prolonged development efforts, increased customer frustration, and reduced sales. In contrast, Microsoft's applications developers routinely had access to the developers of

Windows, whenever convenient to resolve technical problems or incorporate new functions into their applications.

107. Microsoft also refused to provide a simple remedy for a phenomenon referred to as "DLL Hell," which adversely affected non-Microsoft applications running on the Windows platform. "Dynamic Link Libraries" ("DLLs") are files containing specific lines of code that must be present in specific places on the PC if applications are to operate properly on Windows. Microsoft often changed the functions of the DLLs from one version of Windows to the next, without changing the documentation provided to ISVs. As a result, Novell was forced to implement elaborate procedures, which degraded the performance of WordPerfect and sometimes required WordPerfect's users to "double reboot" their computers. This phenomenon is commonly referred to as "DLL Hell."

108. Since Microsoft Office developers had timely access to information concerning the changing DLLs, installing their software did not result in "DLL Hell." Because of this advantage, OEMs had additional incentive to distribute Word and not WordPerfect to avoid the technical support issues "DLL Hell" raised.

109. To prevent "DLL Hell," Microsoft needed merely to document "version" information whenever it changed a DLL. Microsoft was fully aware of the problem and this simple solution, but refused to implement it.

110. The above-described anticompetitive acts during the development of successive versions of Windows, including Windows 95 and its integrated browsing functions, unlawfully hindered the efforts of Novell to develop word processing and other office productivity applications to compete against applications developed by

Microsoft. They lacked any legitimate business justification. The only purpose of this conduct was to maintain and/or achieve monopolies in the operating systems and office productivity applications markets.

111. The above-described anticompetitive acts had their intended effect. Hidden features of each successive version of Windows, including Windows 95 and its integrated browsing functions, substantially delayed the release of Novell's office productivity applications, giving Microsoft's own applications a significant time-to-market lead. It was the perpetual nature of this lead, and Microsoft's exercise of its unilateral power to protect its lead by strategically withholding information and otherwise abusing its operating system monopoly during development of Windows 95, that ultimately forced Novell to sell the WordPerfect assets at a staggering loss.

B. Microsoft's Exclusion of Novell's Office Productivity Applications From The Major Channels of Distribution

112. In addition to delaying development and degrading operation of Novell's office productivity applications, Microsoft has substantially foreclosed all of the efficient methods for their distribution as well, including the OEM channel, independent retailers, independent or loosely-affiliated resellers, direct sales, and other platform technologies.

1. The OEM Channel

113. Fully aware that the OEM distribution channel was critical to the continued success of WordPerfect and other competing applications, Microsoft used a variety of tactics to eliminate the applications of Novell and other ISVs from this channel, while "handcuffing" OEMs to Microsoft's operating system and office productivity applications.

114. OEMs manufacture and distribute PCs, typically bundling them with the latest version of Windows along with applications such as word processors and spreadsheets. OEMs are a principal distribution channel for this software, because most individuals and small businesses desire to have both an operating system and applications pre-installed on their PCs.

115. As the District Court found in the Government Suit, OEMs lack a commercially viable alternative to licensing Windows for pre-installation on their PCs. Findings of Fact ¶¶ 53-55. Without a license on favorable terms for the pre-installation of Windows, an OEM cannot survive. By using its resulting dominance over OEMs to control the applications that they pre-install, Microsoft directly controls the markets for applications. Microsoft's executives schemed to use the power of their Windows monopoly to force OEMs such as IBM to stop supporting applications that competed with Microsoft's applications. Microsoft's internal correspondence records the scheme.

116. Microsoft perpetrated numerous anticompetitive acts to destroy its competitors' access to the OEM channel.

117. Microsoft refused or threatened to refuse to grant OEMs licenses for Windows if the OEMs distributed non-Microsoft office productivity applications. Faced with a choice between offering non-Microsoft office productivity applications and obtaining a Windows license, most OEMs had no alternative but to carry exclusively Microsoft applications. Microsoft forbade OEMs from pre-installing both Novell and Microsoft products on their machines, and gave OEMs discounts for refusing to sell other vendors' office productivity suites, such as Novell's PerfectOffice.

118. Microsoft also increased or threatened to increase the price of Windows and/or took or threatened to take other retaliatory action against OEMs who distributed non-Microsoft applications. The competitive PC market is characterized by many competing OEMs earning narrow profit margins, and an increase in the price of Windows is a direct threat to an OEM's profitability. In the face of likely retribution by Microsoft, in the form of higher prices for Windows, most OEMs refused to distribute WordPerfect and other Novell office productivity applications.

119. Microsoft entered into anticompetitive arrangements with OEMs to foreclose competing products from the distribution channel, as found in the Government Suit. "Virtually every new PC that comes with Windows, no matter which OEM has built it, presents users with the same screens and software specified by Microsoft." Gov't Compl. ¶ 25. These restrictions deprive OEMs "of the freedom to make competitive choices about which browser or other software product should be offered to their customers," (*id.*) "substantially reduce OEMs' incentives and abilities to innovate and differentiate their products in ways that could facilitate competition between Microsoft products and competing software products, and enhance Microsoft's ability to use the near-ubiquity of its Windows operating system monopoly to gain dominance in both the Internet browser market and other software markets." *Id.* ¶ 27.

120. The express terms of Microsoft's "Distributor Licenses" intimidated and punished distributors who sold competing office productivity applications, such as WordPerfect, while providing financial rewards to distributors who exclusively sold Microsoft Office. For instance, Microsoft paid its distributors a pro-rata "rebate" for each sale of Microsoft Office over a certain minimum quarterly threshold. Conversely,

a distributor would be monetarily penalized for each sale of a competing application, such as WordPerfect and Novell's other office productivity applications. Under these licenses, Microsoft literally paid its distributors to stop doing business with competitors such as Novell.

121. Further, to qualify for the rebate program, the distributor was required to provide Microsoft with detailed weekly and monthly reports of its sales, including sales of competing applications, such as WordPerfect. The reporting requirements for competing applications were different from and well in excess of the reporting requirements for sales of Microsoft's applications. These requirements sent an intimidating message concerning Microsoft's intolerance of competition. Merely by asking how many competing applications a distributor might sell, Microsoft communicated that "zero" was the only number it would tolerate. Distributors of competing applications were forced to incur the extra administrative costs of tracking, accounting for, documenting, and reporting all competing sales. These burdens were anticompetitive.

122. Microsoft's licenses also forced OEMs to divulge confidential and proprietary information about Microsoft's competitors, including WordPerfect. The OEMs' reports were to include total pre-installations of WordPerfect, in both absolute and percentage terms, the times of the sales, and even the specific geographic regions of the sales. In many instances, the reported information would be sufficient to allow Microsoft to identify and target markets and even specific customers served by Novell through an OEM. Neither the competitors nor the OEMs would have provided this information absent Microsoft's monopoly power in the operating systems market.

123. Microsoft also engaged in other anticompetitive licensing practices with OEMs. It provided substantial inducements to license Microsoft Office on a per-processor basis, rather than a per-copy basis, by setting the price of the per-copy license significantly above the per-processor price. Under the per-processor licensing scheme, an OEM paid Microsoft for a copy of Microsoft Office, including Word and Excel, for every PC it sold, regardless of whether Microsoft Office was actually pre-installed on the PC.

124. Since the OEM was obligated to pay for Microsoft Office whether or not Office was pre-installed, the marginal cost of shipping Microsoft Office was effectively zero. The OEM who wished to pre-install Novell's applications, however, was required to pay a royalty to both Microsoft and Novell. The per-processor licensing scheme effectively levied a tax (the payment for unwanted Microsoft applications) on OEMs who sold Novell's office productivity applications. This practice excluded Novell's applications from the OEM distribution channel.

125. Microsoft's OEM licenses also based payment terms upon minimum sales commitments. By making minimum commitments, OEMs received volume-discounts, but were required to make lump sum payments in advance, reflecting the commitments. If actual units shipped were less than the committed number, the OEM was not entitled to a refund. Instead, Microsoft accumulated these overpayments in a "prepaid balance."

126. While Microsoft usually did not refund these balances, it was often willing to credit portions of the balance against minimum obligations under a renewed

license. Thus, Microsoft locked OEMs into successive licenses and made it prohibitively expensive to sell competing software.

127. Microsoft also withheld or threatened to withhold Market Development Funds ("MDFs") from OEMs that sold applications competing with Microsoft's applications. MDFs are payments to OEMs that help fund their advertising and marketing efforts. Because of the competitive nature of the PC market, Microsoft's threats regarding MDFs had their intended anticompetitive effect. Faced with the prospect of losing these funds, OEMs refused to distribute competing office productivity applications, as found in the Government Suit.

128. Microsoft also punished OEMs that pre-installed Novell's applications by withholding or threatening to withhold technical support concerning Windows. Customers experiencing technical problems with their PCs are generally instructed to contact the manufacturer for assistance. Because the operating system controls the PC, the customers' problems generally involve Windows. Microsoft's support is therefore critical to OEMs, who compete fiercely on the basis of their ability to resolve problems caused by Windows. An OEM that provides poor support will lose sales quickly. Fearing the denial of technical support from Microsoft, OEMs refused to distribute competing office productivity applications, as found in the Government Suit.

129. Further, Microsoft charged smaller OEMs, who were more likely to pre-install Novell's applications, higher prices for Windows, as compared to the prices charged to larger OEMs. By charging the smaller OEMs higher prices, Microsoft increased the prices of their PCs and limited their sales, restricting this market for Novell's applications.

130. Microsoft's control over applications distributed through the OEM channel is self-perpetuating. Consumers are less likely to consider a competing application if they are never exposed to it, and tend to continue using the applications on which they are initially trained and eventually proficient. Microsoft's control of the OEM channel thus protected Microsoft's monopolies in the operating systems and office productivity applications markets. Further, Microsoft's ability to control pre-installations of its applications locked users into Microsoft's upgrades, which are subsequently purchased through other channels and have accounted for approximately 40 percent of office productivity applications revenues.

131. The above-described anticompetitive acts unlawfully hindered the efforts of Novell to distribute word processing and other office productivity applications in competition with applications developed by Microsoft. Collectively, these practices have foreclosed Novell from a large and growing portion of the distribution channel for office productivity applications. In foreclosing Novell products from distribution, Microsoft's conduct has harmed competition, as it has in similar circumstances, by "inhibiting Microsoft's competitors that nevertheless succeed in developing promising innovations from effectively marketing their improved products to customers" and "reducing the incentive and ability of [distributors] to innovate and differentiate their products in ways that would appeal to customers." Gov't Compl. ¶ 37. These acts lacked any legitimate business justification. Their only purpose was to maintain and/or achieve monopolies in the operating systems and office productivity applications markets.

2. Other Distribution Channels

132. Other than through OEMs, office productivity software can be distributed through the following channels: independent retailers that sell to individuals and small businesses; independent or loosely affiliated resellers that sell to larger organizations, including government agencies, larger businesses, professional associations, etc.; and direct sales to government agencies, large corporations, and other large organizations.

133. Microsoft engaged in predatory behavior in these channels, as well. As with the OEM channel, Microsoft engaged in similar anticompetitive tactics designed to monopolize the office productivity applications markets and strengthen the barriers to entry into the monopolized operating systems market. These anticompetitive acts unlawfully hindered the efforts of Novell to distribute office productivity applications to compete against Microsoft's applications. They lacked any legitimate business justification. Their only purpose was to maintain Microsoft's operating systems and office productivity applications monopolies.

3. Internet Browser and Other Platforms

134. "Java is designed in part to permit applications written in it to be run on different operating systems," which threatens to reduce or eliminate the applications barrier to entry. Gov't Compl. ¶ 7. "Netscape's browser was itself a 'platform' to which many applications were being written -- and to which (if it thrived) more and more applications would be written. Since Netscape's browser could be run on any PC operating system, the success of this alternative platform also threatened to reduce or

eliminate" this key barrier to entry protecting Microsoft's operating systems monopoly. *Id.* ¶ 9.

135. In 1995, "Microsoft attempted to eliminate competition from Netscape by seeking an express horizontal agreement not to compete." *Id.* ¶¶ 14, 70-71. Microsoft attempted "to induce Netscape not to compete with Microsoft to divide the browser market, with Microsoft becoming the sole supplier of browsers for use with Windows 95 and successor operating systems and with Netscape becoming the sole supplier of browsers for operating systems other than Windows 95 or its successors." *Id.*

136. Upon Netscape's refusal to participate in the alleged scheme, Microsoft set about to exclude Netscape and other browser rivals from access to the widespread distribution, promotion, and resources they needed to offer their browser products to OEMs and PC users. *Id.* ¶¶ 15, 72-74.

137. "Microsoft invested hundreds of millions of dollars to develop, test, and promote Internet Explorer, a product which it distributes without separate charge." *Id.* ¶ 16. But Microsoft "did not stop at free distribution. Rather, Microsoft purposefully set out to do whatever it took to make sure significant market participants distributed and used Internet Explorer instead of Netscape's browser -- including paying some customers to take [Internet Explorer] and using its unique control over Windows to induce others to do so." *Id.* ¶ 17.

138. Microsoft also entered into agreements unlawfully tying its Internet Explorer software to Windows 95 and Windows 98. It "unlawfully required PC manufacturers, as a condition of obtaining licenses for the Windows 95 [and Windows

98] operating system[s], to agree to license, preinstall, and distribute Internet Explorer on every Windows PC such manufacturers shipped. By virtue of the monopoly position Windows enjoys, it was a commercial necessity for OEMs to preinstall Windows 95 [and Windows 98] -- and, as a result of Microsoft's illegal tie-in, Internet Explorer -- on virtually all of the PCs they sold." *Id.* ¶¶ 18, 103-123.

139. Microsoft also misused its operating systems monopoly by requiring "OEMs to agree, as a condition of acquiring a license to the Windows operating system, to adopt the uniform 'boot-up' sequence and 'desktop' screen specified by Microsoft. . . . Microsoft's exclusionary restrictions forbid, among other things, any changes by an OEM that would remove from the PC any part of Microsoft's Internet Explorer software (or any other Microsoft-dictated software) or that would add to the PC a competing browser (or other competing software) in any more prominent or visible way (including by highlighting as part of the startup sequence or by more prominent placement on the desktop screen) than the way Microsoft requires Internet Explorer to be presented." *Id.* ¶¶ 24, 93-102.

140. Moreover, Microsoft entered into agreements with Internet Service Providers ("ISPs"), which allowed "Microsoft to leverage its operating system monopoly by conditioning . . . [ISPs] to offer Microsoft's Internet Explorer browser primarily or exclusively as the browser they distribute; not to promote or even mention to any of their subscribers the existence, availability, or compatibility of a competing Internet browser; and to use on their own Internet sites Microsoft-specific programming extensions and tools that make those sites look better when viewed through Internet Explorer than when viewed through competing Internet browsers." *Id.* ¶¶ 29-30; 75-86.

141. Microsoft also entered into anticompetitive agreements with Internet Content Providers ("ICPs"). Microsoft conditioned the ICPs' placement on one of the prominent "channel buttons" that provided direct Internet access on the ICPs' agreement "to not pay or otherwise compensate Microsoft's primary Internet browser competitors (including by distributing their browsers) for the distribution, marketing, or promotion of the ICP's content; to not promote any browser produced by any of Microsoft's primary browser competitors; to not allow any of Microsoft's primary browser competitors to promote and highlight the ICP's 'channel' content on or for their browsers; and to design its web sites using Microsoft-specific, proprietary programming extensions so that those sites look better when viewed with Internet Explorer than when viewed through a competing browser." *Id.* ¶¶ 33, 87-92.

142. Microsoft's contracts with OEMs, ISPs, and ICPs have unreasonably restrained competition in the market for Internet browsers. "They artificially increase[d] the share of the market held by Microsoft's Internet Explorer, and they threaten[ed] to 'tip' the market permanently to Internet Explorer, not because OEMs or PC customers ha[d] freely chosen Microsoft's product in a competitive marketplace, but because of the illegal exercise of monopoly power by Microsoft." *Id.* ¶ 35.

143. Microsoft also used its office productivity applications monopoly as an additional means to foreclose Netscape and other competing browsers from access to customers by ensuring that PC users with Microsoft Office already had Internet Explorer installed.

144. Microsoft's suppression of such potential middleware, as alleged and shown in the Government Suit, of competing and potentially competing operating

systems (such as Novell's own DR-DOS, IBM's OS/2, Micrografx's Mirrors, and Go's Penpoint), and of other technologies that could have supported competition in the operating systems market (such as Borland's development tools and Intel's Native Signal Processing) deprived Novell of alternative platforms for its office productivity applications, increasing Novell's reliance upon Windows.

145. Microsoft engaged in numerous anticompetitive acts to achieve this result, such as causing Microsoft software to display bogus error messages when detecting competing operating systems on a PC; withholding technical specifications in the manner alleged above; and locking ISVs into the Windows APIs and thereby preventing them from developing applications for the APIs in competing operating systems.

146. Microsoft's office productivity applications benefited from unique, anticompetitive advantages in the markets for applications running on Microsoft's monopoly Windows platform, as described above. Microsoft's office productivity applications had no such advantages on platforms that competed with Windows, and Microsoft's ability to take market share from Novell's applications would have been greatly reduced, if not eliminated, on these other platforms. Thus, Novell's overall market share would have been higher if there had been a free market for operating systems.

147. Microsoft caused Novell to lose market share by excluding these other platforms from the operating systems market and forcing Novell increasingly to limit its applications to the Windows platform, where Microsoft's own applications unlawfully benefited from the anticompetitive acts described above.

148. The above-described anticompetitive acts unlawfully hindered the efforts of Novell to distribute office productivity applications to compete against Microsoft's applications. They lacked any legitimate business justification. Their only purpose was to maintain Microsoft's operating systems and office productivity applications monopolies.

VIII. THE DEMISE OF WORDPERFECT AND RELATED APPLICATIONS: INJURY TO COMPETITION AND NOVELL

149. The foregoing conduct has directly and proximately harmed competition by suppressing innovation and foreclosing choice in the markets for Intel-compatible personal computer operating systems and for word processing and spreadsheet applications. The foregoing conduct has caused antitrust injury to Novell, specifically by, without limitation: delaying and interfering with Novell's product development and sales efforts; limiting the functionality and degrading the performance of Novell's products; increasing the costs associated with Novell's product development, sales and marketing, and customer support; foreclosing Novell from distributing its products through OEMs; restricting the development efforts of ISVs in ways that were detrimental to Novell's product offerings and that favored Microsoft's product offerings; and coercing consumers who would have otherwise preferred Novell's office productivity applications to purchase Microsoft's office productivity applications instead.

150. The financial harm to WordPerfect caused by Microsoft's anticompetitive acts described above is substantial. In 1993, WordPerfect's market share was approximately 40 percent, with annual sales of approximately $700 million. By 1996, WordPerfect's market share had plummeted to less than 10 percent, with

annual sales of approximately $200 million -- even though the computer software and office productivity applications markets had continued to grow substantially during this period. The financial harm to Novell, however, is not limited to the amount of profits lost by WordPerfect during the period 1994-1996 because of Microsoft's anticompetitive actions. As a result of the dramatic decline in WordPerfect's sales and profits, Novell sold WordPerfect to Corel Corporation in March 1996 for approximately $170 million -- a precipitous decline in WordPerfect's value relative to its value of approximately $1.2 billion as of May 1994. This substantial drop in the value of the WordPerfect business due to Microsoft's anticompetitive actions is in stark contrast to the continued increase in the value of other software companies (such as Microsoft) during this time period and represents additional direct financial harm to Novell.

IX. CLAIMS FOR RELIEF

A. Count I: Monopolization Of The Intel-Compatible Operating Systems Market

151. Novell incorporates the allegations in paragraph 1 through 150 above.

152. Microsoft possessed monopoly power in the market for Intel-compatible PC operating systems software.

153. Microsoft willfully and wrongfully obtained and maintained its monopoly power in the Intel-compatible operating systems market by engaging in anticompetitive conduct to thwart the development of products that threatened to weaken the applications barrier to entry, including Novell's WordPerfect word processing application and its other office productivity applications, in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

154. Through this misconduct, Microsoft has harmed consumers and competition by, without limitation, depriving consumers of the lower prices and more rapid pace of innovation that competition would have brought.

155. As a direct, foreseeable, and proximate result of Microsoft's misconduct, Novell was damaged by, without limitation, lost sales of office productivity applications and a diminution in the value of Novell's assets, reputation, and goodwill in amounts to be proven at trial. Novell's injury is of the type the antitrust laws are intended to prohibit and thus constitutes antitrust injury.

B. Count II: Monopolization Of The Market For Word Processing Applications

156. Novell incorporates the allegations in paragraphs 1 through 155 above.

157. Microsoft unlawfully obtained and possessed monopoly power in the market for word processing applications.

158. Microsoft willfully and wrongfully obtained and maintained its monopoly power in the market for word processing applications by engaging in anticompetitive conduct to thwart the development and distribution of Novell's word processing applications in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

159. Through this misconduct, Microsoft has harmed consumers and competition by, without limitation, depriving consumers of the lower prices and more rapid pace of innovation that competition would have brought.

160. As a direct, foreseeable, and proximate result of Microsoft's misconduct, Novell was damaged by, without limitation, lost sales of its applications and a diminution in the value of Novell's assets, reputation, and goodwill in amounts to be

proven at trial. Novell's injury is of the type the antitrust laws are intended to prevent and thus constitutes antitrust injury.

C. Count III: Monopolization Of The Market For Spreadsheet Applications

161. Novell incorporates the allegations in paragraphs 1 through 160 above.

162. Microsoft unlawfully obtained and possessed monopoly power in the market for spreadsheet applications.

163. Microsoft willfully and wrongfully obtained and maintained its monopoly power in the market for spreadsheet applications by engaging in anticompetitive conduct to thwart the development and distribution of Novell's spreadsheet applications in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

164. Through this misconduct, Microsoft has harmed consumers and competition by, without limitation, depriving consumers of the lower prices and more rapid pace of innovation that competition would have brought.

165. As a direct, foreseeable, and proximate result of Microsoft's misconduct, Novell was damaged by, without limitation, lost sales of its applications and a diminution in the value of Novell's assets, reputation, and goodwill in amounts to be proven at trial. Novell's injury is of the type the antitrust laws are intended to prevent and thus constitutes antitrust injury.

D. Count IV: Attempted Monopolization Of The Market For Word Processing Applications

166. Novell incorporates the allegations in paragraphs 1 through 165 above.

167. Microsoft willfully and wrongfully attempted to obtain and maintain monopoly power in the word processing applications market by engaging in

anticompetitive conduct to thwart the development and distribution of Novell's word processing applications in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2. Microsoft acted with a specific intent to monopolize the word processing applications market. Microsoft's anti-competitive conduct has had a dangerous probability of success, and Microsoft has in fact achieved a dominant position in the market for word processing applications.

168. Through this misconduct, Microsoft has harmed consumers and competition by depriving consumers of the lower prices and more rapid pace of innovation that competition would have brought.

169. As a direct, foreseeable, and proximate result of Microsoft's misconduct, Novell was damaged by, without limitation, lost sales of its applications and a diminution in the value of Novell's assets, reputation, and goodwill in amounts to be proven at trial. Novell's injury is of the type the antitrust laws are intended to prevent and thus constitutes antitrust injury.

E. Count V: Attempted Monopolization Of The Market For Spreadsheet Applications

170. Novell incorporates the allegations in paragraphs 1 through 169 above.

171. Microsoft willfully and wrongfully attempted to obtain and maintain monopoly power in the market for spreadsheet applications by engaging in anticompetitive conduct to thwart the development and distribution of Novell's spreadsheet applications in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2. Microsoft acted with a specific intent to monopolize the spreadsheet applications market. Microsoft's anti-competitive conduct has had a dangerous probability of

success and Microsoft has in fact achieved a dominant position in the market for spreadsheet applications.

172. Through this misconduct, Microsoft has harmed consumers and competition by depriving consumers of the lower prices and more rapid pace of innovation that competition would have brought.

173. As a direct, foreseeable, and proximate result of Microsoft's misconduct, Novell was damaged by, without limitation, lost sales of its applications and a diminution in the value of Novell's assets, reputation, and goodwill in amounts to be proven at trial. Novell's injury is of the type the antitrust laws are intended to prevent and thus constitutes antitrust injury.

F. Count VI: Exclusionary Agreements In Unreasonable Restraint Of Trade

174. Novell incorporates the allegations in paragraphs 1 through 173 above.

175. Microsoft's agreements with OEMs and others not to license or distribute Novell's office productivity applications or to do so only on terms that materially disadvantaged these products unreasonably restrained trade by restricting the access of Novell's office productivity applications to significant channels of distribution in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

176. Through this misconduct, Microsoft has harmed consumers and competition by depriving consumers of the lower prices and more rapid pace of innovation that competition would have brought.

177. As a direct, foreseeable, and proximate result of Microsoft's misconduct, Novell was damaged by, without limitation, lost sales of its applications and a diminution in the value of Novell's assets, reputation, and goodwill in amounts to be

proven at trial. Novell's injury is of the type the antitrust laws are intended to prevent and thus constitutes antitrust injury.

X. JURY DEMAND

178. Novell demands a trial by jury of all its claims.

XI. PRAYER FOR RELIEF

WHEREFORE, Novell respectfully requests that:

1. The Court adjudge and decree that Microsoft:

(a) unlawfully obtained and maintained its Intel-compatible PC operating system software monopoly in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2;

(b) unlawfully attempted to and did obtain and maintain a word processing applications monopoly in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2;

(c) unlawfully attempted to and did obtain and maintain a spreadsheet applications monopoly in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2; and

(d) entered into exclusionary agreements in unreasonable restraint of trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

2. Novell be awarded its actual damages in an amount to be determined at trial, trebled pursuant to Section 4 of the Clayton Act, 15 U.S.C. § 15, along with interest on such damages.

3. Novell be awarded its costs, including reasonable attorney fees, as provided in Section 4 of the Clayton Act, 15 U.S.C. § 15.

4. Novell be granted such further relief as the Court may deem just and proper.

DATED this 12th day of November, 2004.

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