Order Code RS22670
May 31, 2007



CRS Report for Congress

Exporting Software and the Extraterritorial Reach of U.S. Patent Law: *Microsoft Corp. v. AT&T Corp.*

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Summary

Generally speaking, United States patent law does not have extraterritorial effect. The exception, however, is § 271(f) of the Patent Act, which makes it an act of patent infringement to manufacture within the United States the *components* of a patented invention and then export those disassembled parts for combination abroad into an end product. However, in *Microsoft Corp. v. AT&T Corp.* (550 U.S. ___ , No. 05-1056, decided April 30, 2007), the U.S. Supreme Court held that software companies are not liable for patent infringement under § 271(f) when they export software that has been embodied in machine-readable, physical form (a CD-ROM, for example), with the intent that such software be copied abroad for installation onto foreign-manufactured computers. In this case, AT&T holds a patent on a speech software program upon which Microsoft's Windows operating system infringes. Microsoft ships abroad a "master version" of Windows, either on a disk or via encrypted electronic transmission, which foreign computer manufacturers use to generate copies. Thus, the actual copies of the Windows software that are installed onto the foreign-made computers are made abroad. Consequently, according to the Supreme Court, liability for such unauthorized replication, if any, would have to arise under the patent laws of those foreign countries, not the U.S. Patent Act.

Background

In 1972, the Supreme Court ruled in *Deepsouth Packing Co. v. Laitram Corp.*[1] that, under the Patent Act as it was written at that time, it was *not* an act of patent infringement to manufacture the components of a patented invention in the United States and then ship them abroad for assembly into an end product. In response to this loophole in the patent

[1] 406 U.S. 518 (1972).

law that would have allowed potential infringers to avoid liability, Congress added subsection (f) to § 271 of the Patent Act.[2] This statutory provision now states:

> (1) Whoever without authority supplies or causes to be supplied in or from the United States all or a substantial portion of the components of a patented invention, where such components are uncombined in whole or in part, in such manner as to actively induce the combination of such components outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.
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> (2) Whoever without authority supplies or causes to be supplied in or from the United States any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined in whole or in part, knowing that such component is so made or adapted and intending that such component will be combined outside of the United States in a manner that would infringe the patent if such combination occurred within the United States, shall be liable as an infringer.

Microsoft Corp. v. AT&T Corp.

The patent at issue in *Microsoft v. AT&T* concerned AT&T's patent on a speech coder-decoder (a codec). A speech codec is a software program that is capable of converting spoken words into a compact code, or vice versa.[3] AT&T brought suit against Microsoft in 2001, alleging that the speech codec included in Microsoft's Windows operating system infringes its patent.

Microsoft filed a motion to exclude evidence of alleged liability arising from foreign sales of Windows, pursuant to § 271(f) of the Patent Act. Microsoft exports overseas a limited number of U.S.-made "golden master disks" containing the machine-readable software code of its Windows operating system;[4] foreign computer manufacturers may use these disks to replicate the master disk in generating multiple copies of Windows for installation on foreign-assembled computers that are then sold to foreign customers.[5] In support of its motion to limit liability and any damages award, Microsoft argued that:

> (1) software is intangible information such that it could not be a "component" of a patented invention within the meaning of § 271(f); and
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> (2) even if the Windows software were a "component," no actual "components" had been "supplied" from the United States as required by § 271(f) because the copies of Windows installed on the foreign-assembled computers had all been made abroad.[6]

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[2] Patent Law Amendments Act of 1984, P.L. 98-622, Title I, § 101(a) (1984).

[3] AT&T Corp. v. Microsoft Corp., 2004 U.S. Dist. LEXIS 3340, *1 n.1 (2004).

[4] Microsoft also sends the Windows code to foreign computer manufacturers via encrypted electronic transmission. AT&T Corp. v. Microsoft Corp., 414 F.3d 1366, 1367 (Fed. Cir. 2005).

[5] *Id.* at 1368.

[6] *Id.*

The District Court's Opinion. In considering Microsoft's motion, the U.S. District Court for the Southern District of New York first cited previous Federal Circuit decisions supporting the proposition that software is patentable.[7] Furthermore, the court explained that § 271(f) does not limit "components" to only physical machines or tangible structures, but rather could include intangible information or data. Thus, the district court rejected Microsoft's argument that software could not be a "component" of a patented invention under § 271(f).[8] As for the copies made abroad from the golden master disk sent from the United States, the district court held that such copies still came within the scope of § 271(f) in light of the legislative intent of the statute to prohibit the circumvention of infringement through exportation.[9]

The Federal Circuit's Opinion. After Microsoft appealed, a divided panel of the Federal Circuit affirmed the district court's decision. The appellate court relied on prior Federal Circuit case law that had held that "without question, software code alone qualifies as an invention eligible for patenting, and ... statutory language [does] not limit section 271(f) to patented 'machines' or patented 'physical structures,' such that software [can] very well be a 'component' of a patented invention for the purposes of § 271(f)."[10] The Federal Circuit also ruled that, because "the act of copying is subsumed in the act of 'supplying,'" the exportation of the golden master disks, with the specific intent that they be replicated abroad, is an act that comes within the meaning of § 271(f)'s "supplied or caused to be supplied in or from the United States."[11]

In dissent, Federal Circuit Judge Randall R. Rader objected to the majority opinion's view that "supplies" within the meaning of § 271(f) includes the act of foreign "copying." Judge Rader expressed concerns that such an interpretation is, in effect, an impermissible "extraterritorial expansion" of U.S. patent law because it reaches "copying" activity overseas.[12] In his view, AT&T's remedy lies not in U.S. law, but rather the law of the foreign country in which the infringement due to copying occurred.[13]

The Supreme Court's Opinion. The Supreme Court accepted Microsoft's petition for a writ of certiorari in October 2006,[14] in order to answer two questions:

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[7] AT&T Corp. v. Microsoft Corp., 71 U.S.P.Q.2D (BNA) 1118, at *15-17.

[8] *Id.* at *17-24.

[9] *AT&T,* 414 F.3d at 1368; *AT&T,* 71 U.S.P.Q.2D (BNA) 1118, at *25.

[10] *AT&T,* 414 F.3d at 1369, *citing* Eolas Techs. Inc. v. Microsoft Corp., 399 F.3d 1325, 1339 (Fed. Cir. 2005) (internal quotations omitted).

[11] *AT&T,* 414 F.3d at 1370.

[12] *Id.* at 1372-73 (Rader, J., dissenting). Patent rights are effective only in the United States. Dowagiac Mfg. Co. v. Minnesota Moline Plow Co., 235 U.S. 641, 650 (1915) ("The right conferred by a patent under our law is confined to the United States and its Territories ... and infringement of this right cannot be predicated of acts wholly done in a foreign country.").

[13] *AT&T,* 414 F.3d. at 1373 (Rader, J., dissenting).

[14] Microsoft Corp. v. AT&T Corp., 127 S. Ct. 467 (2006).

> 1. Whether digital software code — an intangible sequence of "1's" and "0's" — may be considered a "component[] of a patented invention" within the meaning of Section 271(f)(1); and, if so,
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> 2. Whether copies of such a "component[]" made in a foreign country are "supplie[d] ... from the United States."

In a 7-1 decision[15] issued in late April 2007, the Court reversed the Federal Circuit's judgment, holding that Microsoft was *not* liable for patent infringement under § 271(f), as the statute is currently written, when foreign-manufactured computers are loaded with Windows software that has been copied abroad from a master disk or an electronic transmission sent by Microsoft from the United States.[16] In regard to the first question posed in the case, Associate Justice Ruth Bader Ginsburg, writing for the majority, explained that there are two ways to conceptualize software:

> One can speak of software in the abstract: the instructions themselves detached from any medium. (An analogy: The notes of Beethoven's Ninth Symphony.) One can alternatively envision a tangible "copy" of software, the instructions encoded on a medium such as a CD-ROM. (Sheet music for Beethoven's Ninth.)[17]

Abstract software code does not qualify as a component, for purposes of triggering liability under § 271(f), because it is an "idea" lacking physical embodiment and thus it cannot be a "usable, combinable part of a computer."[18] Justice Ginsburg analogized software in the abstract to a detailed set of instructions, similar to that of a blueprint.[19] But information sent abroad that instructs someone on how to build the components of a patented invention does not come within the scope of § 271(f); she observed that Congress, in enacting the statutory provision, did not include the export of design tools such as blueprints, schematics, templates, and prototypes.[20] Thus, for the Windows software to be considered a "component" under § 271(f), the software code must be encoded or otherwise expressed in some sort of tangible medium — a computer-readable software "copy" such as a CD-ROM.[21] The Court thus declined to adopt AT&T's characterization of software in the abstract as a combinable component that qualifies for § 271(f) liability.[22]

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[15] Chief Justice John G. Roberts Jr. recused himself from consideration of and the rendering of a decision in this case.

[16] Microsoft Corp. v. AT&T Corp., 550 U.S. ___ , 127 S. Ct. 1746, 1750-51 (2007).

[17] *Id.* at 1754.

[18] *Id.* at 1755-56.

[19] *Id.* at 1755 ("A blueprint may contain precise instructions for the construction and combination of the components of a patented device, but it is not itself a combinable component.").

[20] *Id.* at 1756, 1759.

[21] *Id.* at 1755-56.

[22] Indeed, the Court acknowledged that if it were to accept AT&T's position, "it would not matter that the master copies of Windows software dispatched from the United States were not themselves installed abroad as working parts of the foreign computers." *Id.* at 1754.

In reaching its answer to the second question, the Court largely agreed with Judge Rader's dissent from the Federal Circuit's opinion. The copies of Windows used for installation on the foreign computers had been made abroad; those copies were not "supplied" from the United States, even though the master disk from which they were duplicated had been exported. According to Justice Ginsburg, this distinction is legally relevant for liability purposes under § 271(f); further, such liability is not affected by the ease of copying software.[23] Noting that keys or machine parts may also easily be copied from a master, she observed that § 271(f) "contains no instruction to gauge when duplication is easy and cheap enough to deem a copy in fact made abroad nevertheless 'supplie[d] ... from the United States.'"[24]

Furthermore, Justice Ginsburg argued that the traditional presumption against extraterritorial application of United States law, particularly in patent law, would help favor the Court construing § 271(f) in a manner that excludes intangible software code and copies of software made abroad.[25] Echoing Judge Rader's advice, Justice Ginsburg observed that "[i]f AT & T desires to prevent copying abroad, its remedy lies in obtaining and enforcing foreign patents."[26]

At the end of the opinion, Justice Ginsburg conceded that the Court's decision effectively creates a "loophole" for software makers to avoid liability under § 271(f).[27] However, she explained that the Court would resist using the "dynamic judicial interpretation" that would be needed to adjust the patent law "to account for the realities of software distribution."[28] The majority opinion expressly invited Congress to consider whether this apparent loophole in favor of software companies, to the extent that it may exist, merits closing.[29]

Interestingly, the majority opinion of the Court excluded footnote number 14, which was supported by only four justices (Justices Kennedy, Scalia, Souter, and Ginsburg). This footnote reads as follows:

> Microsoft suggests that even a disk shipped from the United States, and used to install Windows directly on a foreign computer, would not give rise to liability under § 271(f) if the disk were removed after installation. *We need not and do not reach that issue here.*[30]

Associate Justice Samuel Alito, in a concurrence joined by Justices Thomas and Breyer, would have decided that particular issue raised in footnote 14 in favor of Microsoft's assessment of liability under § 271(f). Justice Alito asserted that a "component" of an

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[23] *Id.* at 1757.

[24] *Id.* (internal quotations and citations omitted).

[25] *Id.* at 1758.

[26] *Id.* at 1759.

[27] *Id.*

[28] *Id.* at 1759-60 (citation omitted).

[29] *Id.* at 1759.

[30] *Id.* at 1757 (emphasis added and internal citation omitted).

infringing physical device under § 271(f) "must be something physical";[31] thus, "[b]ecause no physical object originating in the United States was combined with these computers, there was no violation of § 271(f)."[32] He further observed that "[n]o physical aspect of a Windows CD-ROM — original disk or copy — is ever incorporated into the computer itself" because the CD-ROM is removed from the computer after the installation process copies the Windows code to the computer's hard drive.[33] Therefore:

> [I]t is irrelevant that the Windows software was not copied onto the foreign-made computers directly from the master disk or from an electronic transmission that originated in the United States. To be sure, if these computers could not run Windows without inserting and keeping a CD-ROM in the appropriate drive, then the CD-ROMs might be components of the computer. But that is not the case here.[34]

In lone dissent, Associate Justice John Paul Stevens explained that he would affirm the Federal Circuit's majority opinion in the case, because he deemed that judgment to be "more faithful to the intent of the Congress that enacted § 271(f)."[35] In his view, abstract software code, whether embodied in a physical medium or detached from it, should be considered a "component" within the meaning of § 271(f) because it has no other intended use except for installation onto a computer's hard drive; therefore, it is a "component" used for assembly of an infringing machine, and Microsoft would be liable for exporting it.[36] He also objected to the Court's comparison of abstract software to blueprints, because "unlike a blueprint that merely instructs a user how to do something, software actually causes infringing conduct to occur. It is more like a roller that causes a player piano to produce sound than sheet music that tells a pianist what to do."[37]

Concluding Observations. The outcome of the *Microsoft* decision is not unlike that of the *Deepsouth Packing Co. v. Laitram Corp.* opinion in 1972.[38] In *Deepsouth*, the Supreme Court interpreted the Patent Act as it was then written to exclude from infringement liability the making in the United States of the unpatented *parts* of a patented shrimp deveining machine, and exporting such unassembled parts to foreign buyers for combination abroad. Congress then enacted § 271(f) as a specific response to *Deepsouth*, to expand the scope of patent infringement activity to include the supply of a patented invention's component from the United States for combination abroad. Now in *Microsoft,* the Supreme Court has expressly invited Congress to consider whether it is desirable to revise patent infringement liability under § 271(f) to include exporting software with the intent that such product be copied abroad for use on foreign computers.

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[31] *Id.* at 1761 (Alito, J., concurring).

[32] *Id.* at 1762.

[33] *Id.* at 1761-62.

[34] *Id.* at 1762.

[35] *Id.* at 1762 (Stevens, J., dissenting).

[36] *Id.*

[37] *Id.*

[38] 406 U.S. 518 (1972).