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INSTALLED BASE OPPORTUNISM AND THE SCOPE OF INTELLECTUAL PROPERTY RIGHTS IN SOFTWARE PRODUCTS

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In its *Microsoft* decision[2] almost nine years ago, the U.S. Court of Appeals for the District of Columbia made clear that the possession of a copyright does not confer immunity from monopolization liability on acts involving the restrictive licensing of the copyrighted work. Employing a memorable analogy, the court stated:

> Microsoft's primary copyright argument borders upon the frivolous. The company claims an absolute and unfettered right to use its intellectual property as it wishes: "[I]f intellectual property rights have been lawfully acquired," it says, then "their subsequent exercise cannot give rise to antitrust liability." That is no more correct than the proposition that use of one's personal property, such as a baseball bat, cannot give rise to tort liability.[3]

In interpreting the anti-monopolization provisions (Section 2) of the Sherman Act, the courts have been less clear about the potential for liability that may arise from the refusal to license a patented product. A monopolist can sometimes harm competition by refusing patent licenses to would-be customers who do business with the monopolist's competitors.[4] Nevertheless, some courts have gone so

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[2] United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).

[3] *Id.* at 63 (citation omitted). The court did allow one exception, concluding that Microsoft was allowed to prohibit PC manufacturers from altering Windows so drastically as to "automatically prevent[] the Windows desktop from ever being seen by the user…." *Id.*

[4] *See* Seungwoo Son, *Selective Refusals to Sell Patented Goods: The Relationship Between Patent Rights and Antitrust Law*, 2002 U. ILL. J.L. TECH. & POL'Y 109, 147-48.

far as to suggest that unilateral refusals to license a patent are always legal, except where there is a separate basis for legal liability.[5]

The legal ambiguity over patent licensing poses obvious difficulties for antitrust enforcers tasked with prosecuting companies that monopolize markets in high-tech industries. Until recently, however, the Justice Department manifested little interest in pursuing cases that might clarify the law in this area. The agency under Bush brought no monopolization cases, as then-Sen. Barack Obama critically observed during his presidential run.[6]

The Justice Department in 2008 also issued a report, *Competition and Monopoly: Single-Firm Conduct Under Section 2 of the Sherman Act*, which expressed the agency's policy approach of allowing monopolists to engage in unilateral, unconditional refusals to deal, including refusals to license intellectual property, without facing meaningful antitrust scrutiny.[7] The Obama administration's first Assistant Attorney General for the Justice Department's Antitrust Division, Christine A. Varney, signaled a major shift in enforcement policy when she ordered the withdrawal of the agency's Section 2 report on May 11, 2009,[8] barely three weeks into her term of office.[9]

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[5] *See infra* text accompanying note 79.

[6] *See* Senator Barack Obama, Statement to the American Antitrust Institute (Sept. 27, 2007) (transcript available in the American Antitrust Institute Archives) (noting that in the last "seven years, the Bush Justice Department has not brought a single monopolization case").

[7] *See* U.S. Department of Justice, *Competition and Monopoly: Single-Firm Conduct Under Section 2 of the Sherman Act* 129 (2008), *available at* http://www.justice.gov/atr/public/reports/236681.htm (last visited June 19, 2010) (concluding that "antitrust liability for unilateral, unconditional refusals to deal with rivals should not play a meaningful part in [Sherman Act] section 2 enforcement"). Regarding intellectual property licensing, the report states:

> If a monopolist has something that a rival wants to use to make more, different, or better products, it can appear that consumers would be better off if the monopolist were forced to deal with its rival. But if the monopolist is forced to deal with the rival, the monopolist's incentives to spend the necessary time and resources to innovate may be diminished. Moreover, the incentives of other firms to invest and innovate, considering the potential future returns on their investments, may be diminished if they believe they will be forced to share a successful innovation. If the incentives to innovate are diminished, consumers are likely harmed in the long run.

Id. at 119. For an opposing view, *see*, *e.g*., F.M. Scherer, *The Political Economy of Patent Policy Reform in the United States*, 7 J. TELECOMM. & HIGH TECH. L. 167 (2009).

[8] Press Release, U.S. Dep't of Justice, Justice Department Withdraws Report on Antitrust Monopoly Law (May 11, 2009), http://www.justice.gov/opa/pr/2009/May/09-at-459.html.

[9] Press Release, U.S. Dep't of Justice, Attorney General Eric Holder Welcomes

The Antitrust Division's recently reported opening of an investigation into IBM's conduct in the mainframe computer industry[10] appears to confirm this shift in Section 2 enforcement, and raises the possibility that the agency will seek clarification from the courts as to whether and when the restrictive licensing of patented technology can give rise to monopolization liability. The investigation appears to arise from complaints that IBM has blocked competitors from building IBM-compatible mainframes by refusing to license patents needed to achieve compatibility,[11] but may extend to a wider range of conduct.

Should the investigation lead to an enforcement action, the courts will have a further opportunity to clarify the antitrust obligations and intellectual property rights of a monopolist who relies primarily on patents, rather than copyrights, to protect its technology. Given IBM's importance to the information technology industry as the owner of the world's largest patent portfolio,[12] such a case could be accurately described as the patent-oriented sequel to the *Microsoft* litigation, which itself had been cut short in 2001 by a regime change at the Justice Department.[13]

In contrast to the D.C. Circuit's dismissal of Microsoft's copyright counterclaims, antitrust challenges to IBM's current mainframe licensing practices thus far have encountered broad judicial deference to IBM's patent rights. The purpose of this Article is to analyze and critique these contrasting approaches and to situate the current litigation and investigation involving IBM in the still-unsettled doctrinal context at the intersection of intellectual property and antitrust law. The remainder of this Article is organized as follows.

Assistant Attorneys General for Antitrust, Civil and Criminal Divisions (Apr. 20, 2009), http://www.justice.gov/opa/pr/2009/April/09-ag-370.html.

[10] *See* Stephen Foley, *IBM Faces Probe Over Competition Concerns*, INDEPENDENT (U.K.), Oct. 9, 2009, at 54.

[11] *See* T3 Technologies, Inc.'s Amended Petition for Intervention and Complaint for Damages, Int'l Business Machines Corp. v. Platform Solutions, Inc., 658 F. Supp. 2d 603 (S.D.N.Y. 2009) (No. 06 Civ. 13565) [hereinafter "T3 Complaint"].

[12] *See* IBM, IBM Intellectual Property and Licensing, http://www.ibm.com/ibm/licensing/patents/portfolio.shtml (last visited May 16, 2010) ("For each of the past 15 years (1993-2007), IBM has been granted more U.S. patents than any other company.").

[13] *See, e.g.*, Harry First & Andrew I. Gavil, *Re-Framing Windows: The Durable Meaning of the Microsoft Antitrust Litigation*, 2006 UTAH L. REV. 641, 687-89 (stating that the 2000 election "certainly affect[ed] the continuation of the [*Microsoft*] litigation," i.e., through incoming Assistant Attorney General Charles James's decisions to abandon structural relief and the tying claim); Andrew Chin, *Decoding Microsoft: A First Principles Approach*, 40 WAKE FOREST L. REV. 1, 80-81 (2005) (arguing that the Justice Department's abandonment of the tying claim amounted to an acquiescence in Microsoft's theory of the case).

Section I outlines a doctrinal analysis of the *Microsoft* tying claim that bolsters the D.C. Circuit's broad pronouncement that the challenged conduct exceeded the scope of Microsoft's rights under copyright law. Section II draws parallels between Microsoft's and IBM's conduct as examples of alleged opportunism by operating system vendors who enjoy monopoly power and a locked-in installed base. Section III describes the changed circumstances that allegedly provided IBM in 2001 with a new opportunity to exploit its installed base of mainframe users. Section IV describes the pending antitrust case arising from that alleged exploitation brought by T3 Technologies, a system integrator that markets compatible alternatives to IBM's mainframe platform. Section V situates the T3 litigation in the relevant case law and discusses issues left unresolved by the leading precedents. Section VI concludes.

I. ANTITRUST AND THE SCOPE OF MICROSOFT'S COPYRIGHT

As Microsoft learned, software licensing is a contracting activity that can constitute an exclusionary practice subject to antitrust scrutiny. When a licensing practice is challenged, antitrust liability can turn on whether the practice is deemed to be a legitimate exercise of rights that were lawfully acquired under the federal copyright laws.[14]

Increasingly, software products are marketed to consumers under terms and conditions that purport to extend the vendor's rights beyond the scope defined by the Copyright Act.[15] As many commentators have noted, these transactional practices may have the effect of overriding the balance of public policy interests embodied in the federal copyright statute.[16] Of particular concern in the antitrust

[14] *See, e.g.*, United States v. Loew's, Inc., 371 U.S. 38, 47-48 (1962) (condemning the block booking of separately copyrighted motion pictures for television exhibition as a tying arrangement under § 1 of the Sherman Act); CSU, L.L.C. v. Xerox Corp. (*In re* Independent Serv. Orgs. Antitrust Litig.), 203 F.3d 1322, 1327 (Fed. Cir. 2000) (rejecting unilateral refusal to license claim for lack of evidence that copyrights were obtained by unlawful means or were used to gain monopoly power beyond the statutory copyright granted by Congress).

[15] *See, e.g.*, Bowers v. Baystate Techs., Inc., 320 F.3d 1317 (Fed. Cir. 2003), *cert. denied*, 123 S.Ct. 2588 (2003) (holding that a "shrinkwrap" license agreement that overrode limitations on the copyright owner's rights under the Copyright Act was enforceable under state contract law); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996) (same).

[16] There is an extensive literature on the preemption of state contract law by federal copyright law, and the enforceability of shrinkwrap and clickwrap license agreements (i.e., standard form license agreements that assert that the act of opening a box, or downloading files, containing software signifies the consumer's assent to the license terms). For commentary on preemption, *see, e.g.*, Maureen A. O'Rourke,

context is the balance between the constitutional purpose to "promote the progress of science . . . by securing for limited times to authors . . . the exclusive right to their respective writings"[17] and the Sherman Act's "general prohibition on unreasonable restraints of trade."[18]

In addressing this balance, antitrust doctrine draws a fundamental distinction between trade restraints that inhere in the rights conferred by the intellectual property laws, and trade restraints that result from the contractual or technological exploitation of those rights. While intellectual property rights themselves may restrain competition by subjecting competing suppliers to civil liability for certain kinds of productive activities (i.e., those involving infringement), the legitimate acquisition and enforcement of rights under the intellectual property laws are generally not subject to antitrust scrutiny.[19] Transactions involving intellectual property rights, however, may be subject to antitrust challenges based on the owner's conduct in exploiting those rights through contractual or technological means.[20]

As I argued more fully in a 2005 treatise-length article in the *Wake Forest Law Review*,[21] Microsoft's Windows operating system,

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Drawing the Boundary Between Copyright and Contract: Copyright Preemption of Software License Terms, 45 DUKE L.J. 479 (1995). For commentary on shrinkwrap and clickwrap agreements, *see, e.g.*, Garry L. Founds, Note, *Shrinkwrap and Clickwrap Agreements: 2B or Not 2B?*, 52 FED. COMM. L.J. 99 (1999); Dennis S. Karjala, *Federal Preemption of Shrinkwrap and On-Line Licenses*, 22 U. DAYTON L. REV. 511 (1997); Mark Lemley, *Intellectual Property and Shrinkwrap Licenses*, 68 S. CAL. L. REV. 1239 (1995); Mark Lemley, *Shrinkwraps in Cyberspace*, 35 JURIMETRICS J. 311 (1995); Apik Minassian, *The Death of Copyright: Enforceability of Shrinkwrap Licensing Agreements*, 45 UCLA L. REV. 569 (1997).

[17] U.S. CONST. art. I, § 8, cl. 8.

[18] Times-Picayune Pub. Co. v. U.S., 345 U.S. 594, 614 (1953).

[19] *See generally* HERBERT HOVENKAMP ET AL., IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW § 13.3, at 13-10 (2003) (stating that antitrust law generally imposes a duty to license intellectual property only in cases where "an intellectual property owner has sought to expand the scope of its right beyond what the intellectual property laws grant it").

[20] *See, e.g.*, Interstate Circuit, Inc. v. U.S., 306 U.S. 208, 230 (1939) ("An agreement illegal because it suppresses competition is not any less so because the competitive article is copyrighted."); Data Gen. Corp. v. Grumman Sys. Supp. Corp., 36 F.3d 1147, 1185 n.63 (1st Cir. 1994) ("It is in any event well settled that concerted and contractual behavior that threatens competition is not immune from antitrust inquiry simply because it involves the exercise of copyright privileges."); *cf.* Eastman Kodak Co. v. Image Technical Servs., Inc., 504 U.S. 451, 479 n.29 (1992) (citations omitted) ("The Court has held many times that power gained through some natural and legal advantage such as a patent, copyright, or business acumen can give rise to liability if 'a seller exploits his dominant position in one market to expand his empire into the next.'").

[21] Andrew Chin, *Decoding* Microsoft: *A First Principles Approach*, 40 WAKE FOREST L. REV. 1 (2005).

its Internet Explorer Web browser, and most other software products distributed under mass-market copyright licenses are properly understood as bundles of legal rights and technological capabilities that confer the ability to use software for specified purposes, but do not include any software *per se*.[22] (Thus, it is inaccurate to refer to Internet Explorer as "integrated" into Windows 98,[23] because the fact that some of the same Windows 98 code is used to support both operating system and browsing functionalities, while arguably innovative, is irrelevant to the question of whether Windows and Internet Explorer are separate *products*.[24])

Microsoft's inclusion of a Web browser software product in Windows 98 involved at least four understood tying conditions[25] implemented through contractual or technological means.[26] First, Microsoft offered Windows 98 to end users only under form license agreements that granted sufficient legal rights to install and run the Windows 98 software on a system according to the documentation for both operating system and Web browsing purposes.[27] Second, Microsoft refused to allow its OEM licensee-distributors to alter the Windows 98 software or remove the desktop icons that were the principal documented means by which end users of Windows 98 could obtain technological access to Microsoft's Web browser software product.[28] Third, Microsoft excluded its Web browser software product from the Add/Remove Programs facility that was the principal documented means by which end users of Windows 98 could remove technological access to software products.[29] Finally, when a retail consumer chose to use a non-Microsoft Web browser software product as the default, "Windows 98 nevertheless require[d] the user to employ Internet Explorer in numerous situations that, from the user's perspective, [we]re entirely unexpected."[30]

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[22] *See id.* at 5.
[23] *See id.* at 7-8 n.24.
[24] *See id.* at 102-05.
[25] An understood tying condition may include any conduct by the seller that leads reasonable buyers to understand that they cannot get the tying product unless they also take the tied product. 10 PHILLIP E. AREEDA, EINER ELHAUGE & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 1754c, at 303-04 (1996).
[26] *See* Chin, *supra* note 21, at 112-13.
[27] *See* End User License Agreement for Microsoft Windows 98, http://www.teamnacer.co.cc/siteglobalinlinux/eula98.html (annotating license agreement with critical comments) (last visited May 18, 2010); *see also* United States v. Microsoft Corp., 253 F.3d at 84 (restating district court finding that "Microsoft required licensees of Windows 95 and 98 also to license IE as a bundle at a single price").
[28] United States v. Microsoft Corp., 84 F. Supp. 2d 9, 61, ¶ 213 (D.D.C. 1999).
[29] *See id*. at 52, ¶ 170.
[30] *See id.* at 52-53, ¶¶ 171-72.

Such conditions on the use of software products that functionally override consumer choice frustrate the Copyright Act's scheme for guaranteeing consumers the right to use every software product for the purpose "for which it was both sold and purchased."[31] As I have argued more fully elsewhere,[32] sections 102(b) and 117 of the Copyright Act have been interpreted to ensure a well-functioning software product market, inasmuch as a consumer of a software product is entitled to the benefit of the bargain — i.e., the ability to link, load and execute the same code that the vendor chose to implement the product's intended purposes. There is no warrant in the Copyright Act for restraints that impede competing software developers from determining which code is to be executed when consumers choose to use their products.[33]

Accordingly, the practices challenged under the *Microsoft* tying claim cannot be characterized as a legitimate exercise of software copyrights.[34] Even though the government did not pursue this argument, and ultimately dropped its tying claim,[35] *Microsoft* should be noted as a case where software copyright protection failed to confer antitrust immunity on the arguably innovative but exclusionary conduct of an operating system monopolist. With this background, we now consider IBM's position as an operating system monopolist accused of exclusionary practices involving its patented software technologies.

II. OPERATING SYSTEM LOCK-IN AND INSTALLED BASE OPPORTUNISM

In the same way that PC users tend to find themselves dependent on Microsoft's Windows,[36] businesses and organizations that use mainframe computers can get *locked in* to IBM's operating system. IBM has enjoyed a monopoly in the worldwide market for mainframe computers for most of its history as a company. Mainframes are a class of computer characterized by an extremely high level of reliability, availability and serviceability. They are used

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[31] *See* NAT'L COMM'N ON NEW TECHNNOLOGICAL USES OF COPYRIGHTED WORKS, FINAL REPORT 31-33 (1978).

[32] Andrew Chin, *Antitrust Analysis in Software Product Markets: A First Principles Approach*, 18 HARV. J.L. & TECH. 1, 49-72 (2004).

[33] *Id.* at 72 (citations omitted).

[34] In other words, the conduct challenged under the *Microsoft* tying claim amounted to a use of Microsoft's copyright to gain monopoly power beyond the statutory copyright granted by Congress. *See In re* Indep. Serv. Orgs. Antitrust Litig., 203 F.3d 1322, 1329 (Fed. Cir. 2000).

[35] *See* First & Gavil, *supra* note 13.

[36] *See Microsoft*, 84 F. Supp. 2d at 15.

primarily by large businesses and government agencies to process data in their ongoing operations.[37]

Lock-in results from the fact that most applications software products are designed and sold to run on a specific operating system and will not work on any other.[38] Over time, computer users tend not only to become accustomed to the applications they use, but also to generate large volumes of data and other auxiliary files that are specific to those applications. This reliance on specific applications is especially strong in the case of mainframe-based applications, which are often highly customized and mission critical.[39] The prospect of losing these operating system-specific investments of money and time can deter computer users from switching to a different operating system.[40] In this way, high switching costs lead to consumer lock-in.

An operating system monopolist can take advantage of consumer lock-in by imposing increasingly onerous conditions on its installed base of existing customers. The monopolist may introduce newer, more expensive versions of the operating system while discontinuing older, less expensive versions. While newer versions of an operating system may include beneficial innovations, existing customers may end up paying a higher price for new features they do not need. The monopolist may also try to require its customers to purchase another of its products, or forbid them from purchasing a competitor's product.[41]

Monopolists who exploit their ability to extract such concessions from a locked-in installed base are said to be engaging in *installed base opportunism*.[42] Installed base opportunism may not be a profitable strategy if large numbers of consumers come to recognize the long-term burdens of ownership and become discouraged from buying the monopolist's product in the first place.[43] In the *Microsoft* case, however, the courts found that Microsoft was able to exploit its installed base because dissatisfied consumers did not have an alternative to Windows that could support a comparable range of software applications.[44]

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[37] *See* IBM v. Platform Solutions, 658 F. Supp. 2d 603, 605 (S.D. N.Y. 2009).
[38] *See id.* at 606 (citing United States v. Microsoft Corp., 84 F. Supp. 2d 9, 12 (D.D.C. 1999)).
[39] *See* T3 Complaint, *supra* note 10, at ¶ 22-23.
[40] *See Microsoft*, 84 F. Supp. 2d at 15.
[41] *See id.* at 48.
[42] *See* Carl Shapiro, *Aftermarkets and Consumer Welfare: Making Sense of* Kodak, 63 ANTITRUST L.J. 483, 488 (1995); *Post-Chicago Analysis After Kodak: Interview with Professor Steven C. Salop*, ANTITRUST, Fall/Winter 1992, at 20, 21.
[43] *See* Eastman Kodak Co. v. Image Technical Servs., Inc., 504 U.S. 451, 470 (1992).
[44] United States v. Microsoft Corp., 84 F. Supp. 2d 9, 19-25, ¶ 213 (D.D.C. 1999).at

Similarly, according to the complaints now before the Justice Department, IBM has little to fear from the loss of sales to consumers who might object to the company's treatment of its installed base of mainframe users. This is because recent initial purchasers of high-end computer systems tend instead to choose more scalable and affordable solutions, such as PC server clusters ("server-based computing") and cloud computing services.[45] The vast majority of the potential users of mainframe computers were already locked into IBM's operating system long ago.

Even though relatively few new customers are joining their ranks, mainframe computer users do constitute a significant and growing market for data processing power. Over $1 trillion worth of corporate application software currently relies on IBM mainframes, and the volume of transactions processed by IBM's mainframe customers will "easily double" between 2006 and 2010.[46] Many other computer companies are interested in offering competing and complementary products to these mainframe customers. The complaints before the Justice Department allege that since 2001, IBM has engaged in several forms of installed-base opportunism with the purpose and effect of blocking competition from these companies and reinforcing consumer lock-in.

III. IBM'S NEW-FOUND FREEDOM

IBM's alleged aggressiveness since 2001 can be traced to the company's release from the terms of a 1956 antitrust settlement agreement. The settlement was the result of a 1952 monopolization case against IBM, in which the Justice Department alleged that IBM had obtained and maintained monopoly power in the market for tabulating machines and cards and had used exclusionary leasing agreements to restrain the development of competing computer manufacturers and maintenance and repair companies.[47]

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[45] According to IDC's Worldwide Quarterly Server Tracker, IBM sold 2,395 new mainframes in 2008 out of a total of 8.1 million servers. *See* OpenMainframe.org, *Understanding IBM's Mainframe Monopoly*, 2, http://openmainframe.org/downloads/resources/Understanding_IBMs_Mainframe_Monopoly.pdf (last accessed June 19, 2010); *see also* T3 Complaint, *supra* note 10, at ¶ 24.

[46] IBM Press Release, *IBM Unveils Software & ISV Initiatives to Handle Surge in Mainframe Transactions* (May 8, 2006), http://www-03.ibm.com/press/us/en/pressrelease/19620.wss.

[47] *See* Evan R. Chesler, *The 1956 Consent Decree*, CA26 ALI-ABA 159, 163 (1996); Memorandum of Law in Support of IBM's Motion to Terminate the 1956 Consent Decree, United States v. Int'l Bus. Machines Corp., No. 72-344, 1994 WL 16188213 (S.D. N.Y. June 13, 1994).

While some of the restrictions expired within the first ten years,[48] most of the consent decree provisions were still in force in 1994, when IBM moved to terminate the decree.[49] Those provisions included:

(1) a requirement that IBM sell its computers at prices that have a commercially reasonable relationship to the lease charges for the same computers;[50]

(2) a restriction on IBM's ability to re-acquire previously sold IBM computers;[51]

(3) a requirement that IBM offer to sell used IBM computers acquired as trade-ins;[52]

(4) a requirement that IBM provide the same services to computer owners as to lessees, and at reasonable and nondiscriminatory prices;[53]

(5) a requirement that IBM allow third-party maintenance, experimentation with, alterations in, and attachments to purchased IBM computers;[54]

(6) a requirement that IBM operate its service bureau business under a subsidiary;[55]

(7) a requirement that IBM furnish to IBM computer owners the same service documentation used by IBM's repair and maintenance organization;[56]

(8) a prohibition against certain agreements to allocate markets or to restrain U.S. imports or exports;[57] and

(9) a prohibition against conditioning the sale or lease of a computer upon the purchase or lease of any other computer.[58]

In 1995, the Justice Department tentatively agreed to terminate the portions of the decree concerning requirements (3) and (5), and all other provisions as they applied to IBM's personal computers and

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[48] *See* Memorandum of Law in Support of IBM's Motion to Terminate the 1956 Consent Decree, United States v. Int'l Bus. Machines Corp., 1994 WL 16188213, at *3 n.1.

[49] United States v. Int'l Bus. Machines Corp., No. 52 CIV. 72-344 TPG., 1997 WL 217588, at *2 (S.D.N.Y. May 1, 1997).

[50] *See* Final Judgment at § IV, United States v. Int'l Bus. Machines Corp., Civ. No. 72-344 (S.D.N.Y. Jan. 25, 1956), *available at* http://www.cptech.org/at/ibm/ibm1956cd.html [hereinafter "1956 Consent Decree"].

[51] *Id.* § V.

[52] *Id.*

[53] *Id.* § VI.

[54] *See id.* § VII.

[55] *Id.* § VIII.

[56] *Id.* § IX.

[57] *See id.* § XV.

[58] *Id.*

workstations.[59] Following a public comment period, Judge Thomas P. Griesa of the U.S. District Court for the Southern District of New York ordered termination of these portions of the decree in January 1996.[60]

The Justice Department subsequently joined IBM in filing a July 1996 motion to phase out the remaining portions of the decree by July 2001.[61] These provisions related to IBM's System/390 mainframe and AS/400 mid-range computer systems.[62] Accepting expert reports that IBM's AS/400 already faced a competitive market and IBM's System/390 enjoyed only "limited and diminishing" market power,[63] the government found that neither of the markets in which these systems competed presented serious long-term competitive concerns. In its briefs supporting the joint motion, the government concluded that "IBM is unlikely to be able to exercise market power against any significant category of equipment customers in 2001," and that "[t]ermination of the decree is also unlikely to increase the possibility that IBM could exercise market power in hardware maintenance aftermarkets."[64]

Judge Griesa agreed to the phase-out plan. In a May 1997 opinion, he found that "[t]here is an active competitive market in computers today, the nature and extent makes obsolete this 40-year-old decree."[65] Judge Griesa specifically addressed the concerns of independent computer maintenance companies that the phase-out would allow IBM to restrict the supply of spare parts for its computers. He noted that "the heart of IBM's business is selling and leasing computers," and IBM would not want to discourage customers from buying and leasing IBM mainframes by impairing "their ability to obtain maintenance and repair services where they desire to do so."[66] Judge Griesa reasoned that IBM would be unlikely to engage in installed base opportunism because of the ability of consumers to switch to non-IBM computers:

> IBM's customers are generally well informed about the lifetime cost of a computer (including service) and there are

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[59] *See* United States' Memorandum in Support of Joint Motion to Modify the 1956 Final Judgment and Response to Public Comments, United States v. Int'l Bus. Machines Corp., No. 72-344, 857 F.Supp. 1089, 1996 WL 33671050 (S.D. N.Y. Nov. 13, 1996) (hereinafter "U.S. Motion to Terminate").
[60] *See id.*
[61] *See id.*
[62] *Id.*
[63] *See id.*
[64] *See id.*
[65] United States v. Int'l Bus. Machines Corp., No. 52 CIV. 72-344 TPG., 1997 WL 217588, at *2 (S.D.N.Y. May 1, 1997).
[66] *Id.* at *3.

> strong indications that they are quite willing to purchase non-IBM computers if the lifetime costs of IBM machines should become excessive. Realistically, the market as it exists today is a powerful deterrent against IBM engaging in monopolistic tactics designed to shut off the supply of parts to independent repair companies. By the same token, IBM has every incentive to compete in the repair market by offering better services and lower costs.[67]

In December 1998, the U.S. Court of Appeals for the Second Circuit agreed with Judge Griesa's reasoning, and affirmed the order to phase out the decree.[68]

Soon after these court decisions, the mainframe computer industry underwent some unforeseen changes. In 2000, two major IBM-compatible mainframe manufacturers, Amdahl and Hitachi, abandoned the market, leaving IBM as the sole manufacturer of mainframe computer equipment. Also, around the same time, PC server clusters emerged as an economically viable, and increasingly preferred, alternative to mainframes among new buyers as a high-end computing solution. These developments left locked-in mainframe users with no alternative equipment supplier, and left relatively few new buyers in the market to deter IBM from engaging in installed base opportunism. Thus, IBM's decision in 1999 to discontinue its smaller, slower mainframes (i.e., those capable of performing fewer than 60 million instructions per second) raised concerns that the company was trying to force its locked-in customers to spend substantial sums to upgrade to IBM's more-expensive machines which offered more power than they needed.[69]

In focusing on maintenance and repair services, Judge Griesa's analysis also did not foresee the group of competitors who would allegedly be targeted by IBM's opportunistic strategies. Since the mid-1990s, various companies have been working to develop alternative technologies that allow mainframe software applications to run on less expensive non-IBM computer systems (also known as alternative "mainframe platforms"). These alternative approaches have relied in part on IBM's patented technology and proprietary information relating to its mainframe operating system. According to the complaints before the Justice Department, since 2001 IBM has harmed competition in the mainframe platform market by refusing to license its operating system technology to the developers, providers and users of these mainframe platform alternatives.

In short, consumers are no longer protected by the "active

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[67] *Id.*

[68] United States v. Int'l Bus. Machines Corp., 163 F.3d 742 (2d Cir. 1998).

[69] *See* T3 Complaint, *supra* note 10 at ¶¶ 7, 92.

competitive market in computers" that spurred the district court's decision to terminate the 1956 consent decree, and IBM's post-termination conduct has raised installed base opportunism concerns that were not contemplated at any point by the Justice Department or by Judge Griesa.

IV. T3's Antitrust Complaint Against IBM

IBM's alleged refusals to license its operating system technology stand in contrast to the company's historic policy of licensing patents to third parties under reasonable and nondiscriminatory terms,[70] including to some of the companies that were developing and marketing alternatives to the IBM mainframe platform. IBM initially granted one such company, Platform Solutions, Inc. ("PSI"), a license to use IBM's 31-bit mainframe operating system ("OS/390"), but subsequently withdrew the license. When PSI continued to develop and market its alternative mainframe platforms, IBM sued PSI for breach of its software licenses and infringement of patents covering various platform features implemented in or accessed through OS/390 and its new 64-bit operating system ("z/OS").[71] IBM subsequently mooted the dispute by acquiring PSI,[72] but not before another company, T3 Technologies, intervened in the *IBM v. PSI* case complaining of antitrust violations by IBM.

T3 is a system integrator: it combines software and hardware components from various suppliers into ready-to-use computer systems. T3 has historically focused on serving small and medium businesses and organizations that use mainframe software but do not require massive computing power.

T3's "tServer" product served these small customers' needs when IBM discontinued its smaller mainframes in 2000. The tServer used software developed by Fundamental Software, Inc. ("FSI") to support IBM's 31-bit mainframe instruction set on an Intel-based server. FSI had obtained patent licenses from IBM under reasonable and nondiscriminatory terms for the technologies that FSI's software

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70 *See* Archive of IBM Worldwide Patent Licensing Practices (2006), http://web.archive.org/web/20060220102134/http://www.ibm.com/ibm/licensing/patents/practices.shtml ("IBM has an open approach to patent licensing for products in the Information Technology (IT) field and is generally willing to grant nonexclusive licenses under reasonable and nondiscriminatory terms and conditions to those who in turn respect IBM's intellectual property (IP) rights.") (last visited June 19, 2010).

71 *See* T3 Complaint, *supra* note 10.

72 *See* Press Release, IBM, *IBM Acquires Platform Solutions* (July 2, 2008) (http://www-03.ibm.com/press/us/en/pressrelease/24560.wss#release).

needed to interoperate with OS/390. According to T3's complaint, in 2003, after IBM introduced z/OS and discontinued OS/390, IBM refused to sell FSI a license so that FSI could make its software compatible with z/OS, and refused to license z/OS to FSI for sale to commercial end-users. As a result, T3 was unable to produce a version of the tServer for use with z/OS, the only mainframe operating system IBM continues to support.[73]

T3 subsequently sought to offer a "Liberty Server" product, which used software from PSI to support IBM's 64-bit mainframe instruction set on a Hewlett-Packard server. According to T3's complaint, IBM has not only refused to license its OS/390- and z/OS-related patents and product interface information to PSI, but has refused to license z/OS to customers unless they purchased or continued using an IBM mainframe. T3 also alleges that IBM has falsely informed T3's customers that using a Liberty Server would cause a loss of reliability, availability, and serviceability.[74]

T3's complaint alleges that IBM's actions constitute monopolization and attempted monopolization in violation of Section 2 of the Sherman Act and tying in violation of Section 1 of the Sherman Act and Section 3 of the Clayton Act, as well as violations of various state antitrust, contract, and deceptive practice laws.[75]

On September 30, Judge Griesa's colleague, Judge Lewis A. Kaplan, dismissed T3's complaint on the grounds that T3 had not shown that it had been directly injured by any of the alleged antitrust violations and therefore lacked standing to bring the lawsuit.[76] Judge Kaplan also held that IBM was free to refuse to deal with FSI and PSI. Citing the Supreme Court's 2004 *Verizon v. Trinko* decision, Judge Kaplan held that a unilateral termination of a course of dealing cannot violate the antitrust laws unless the defendant has "foregone short term profits by refusing to license its patents 'to achieve an anticompetitive end.'"[77] In support of his conclusion that IBM's refusal to license its operating system technology did not fall into this "limited exception," he reasoned as follows:

> IBM invested billions of dollars to develop its sixty-four bit operating systems, which contain numerous technical improvements over its thirty-one bit technology. It introduced them to make its operating systems more functional and competitive with distributed systems [e.g.,

[73] *See* T3 Complaint, *supra* note 10, at ¶ 8.
[74] *See id.* at ¶ 11.
[75] *See id.* at ¶¶ 104-58.
[76] *See* IBM v. Platform Solutions, 658 F. Supp. 2d at 609.
[77] *See id.* at 614 (quoting Verizon Commc'ns v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004)).

> server clusters] as the market for thirty-one bit technology waned. In these circumstances, IBM is not required to support and maintain its thirty-one bit technology. IBM's refusal to support and license its operating system to FSI and PSI therefore does not constitute anticompetitive conduct under the Sherman Act.

Notably, Judge Kaplan's decision did not review any of the claims of the asserted patents, and therefore did not treat the scope of IBM's patent protection as a relevant consideration in conferring antitrust immunity on IBM's exclusionary conduct. On their face, the five patents in suit appear to be narrowly directed to specific features of the OS/390 and z/OS platforms,[78] but a careful determination of their scope and implications for monopoly power would necessitate a more developed factual record.[79]

T3 is appealing Judge Kaplan's decision.[80] In the meantime, the Justice Department is reviewing the merits of T3's allegations.[81]

V. ANTITRUST TREATMENT OF REFUSALS TO LICENSE PATENTS

In *Verizon*, the Supreme Court found that an incumbent local exchange carrier did not have a duty under Section 2 of the Sherman Act to provide rivals with access to its telephone network.[82] By relying solely on *Verizon* as precedent, Judge Kaplan's decision misses an important distinction between the physical telephone network (in which Verizon has property rights) and "thirty-one bit technology" (which is recognized as IBM's property only to the extent

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[78] The patents in issue are U.S. Patent No. 5,696,709 (filed Mar. 31, 1995), "Program controlled rounding modes" (allowing application to select machine's rounding method); U.S. Patent No. 5,825,678 (filed Mar. 31, 1995), "Method and apparatus for determining floating point data class" (adapting S/390 instruction format to IEEE standard; means-plus-function claim); U.S. Patent No. 5,953,520 (filed Sept. 22, 1997), "Address translation buffer for data processing system emulation mode" (allowing pipelining of memory accesses); U.S. Patent No. 5,987,495 (filed Nov. 7, 1997), "Restoring program context following an interrupt," (providing recovery functionality in firmware rather than OS); and U.S. Patent No. 6,801,993 (filed Sept. 28, 2001), "Table offset for shortening translation tables from their beginnings" (allowing for compaction of sparse tables in virtual memory). *See* T3 Complaint, IBM v. Platform Solutions, *supra* note 10.

[79] *See generally* Phillips v. AWH Corp., 415 F.3d 1303, 1311-19 (Fed. Cir. 2005) (describing the range of intrinsic and extrinsic evidence that may bear on claim construction).

[80] *See* Irene Plagianos, *T3 Technologies v. IBM*, CORP. COUNSEL, Jan. 1, 2010, at 28.

[81] *See* Foley, *supra* note 10 (noting IBM's understanding that the Department of Justice had requested litigation documents from T3).

[82] *Verizon*, 540 U.S. at 410-11.

provided by the intellectual property laws). Patent law does not award to IBM plenary rights in "its thirty-one bit technology," but only limited rights of exclusion over the subject matter of its valid and enforceable claims.

There are two leading precedents that specifically address antitrust treatment of unilateral refusals to license patents. Both take into account the limited scope of the patent grant, but with different conclusions. In *Xerox* (2000), the Federal Circuit held that a patentee's right to refuse to license a patent is limited only in circumstances where there is "illegal tying, fraud in the Patent and Trademark Office, or sham litigation . . . so long as [any] anticompetitive effect is not illegally extended beyond the statutory patent grant."[83] This holding suggests that unilateral refusals to license a patent are always legal, except where there is a separate basis for legal liability.

The Ninth Circuit in *Image Technical* (1997), however, held that the validity of a patentee's desire to exclude others as a legitimate business justification was only a "rebuttable presumption."[84] In *Image Technical*, Kodak had instituted a new policy of refusing to sell parts for its photocopiers to independent service companies and their customers. Kodak argued that the policy was intended to protect its intellectual property. The Ninth Circuit found sufficient evidence to rebut this argument in the facts that only sixty-five of Kodak's thousands of parts were patented and that Kodak's intellectual property argument was made only belatedly.[85] The court also emphasized that a refusal to license a patent may not be used to "extend a lawful monopoly beyond the grant" of the patent.[86]

Given that patents grant exclusionary rights over inventions, not products, it is not clear when the refusal to license a patent may be said to cause an anticompetitive effect beyond the patent grant. The Patent Act itself does not provide adequate guidance on this point. The Federal Circuit in *Xerox* cited section 271(d) of the patent statute in support of its permissive approach to unilateral refusals to license. This provision, added by Congress in 1988, states in relevant part:

> No patent owner otherwise entitled to relief for infringement . . . of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of

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[83] *In re* Indep. Serv. Org. Antitrust Litig. (Xerox), 203 F.3d 1322, 1327-28 (Fed. Cir. 2000).
[84] Image Technical Servs., Inc., v. Eastman Kodak, 125 F.3d 1195, 1218 (9th Cir. 1997).
[85] *Id.* at 1218-20.
[86] *Id.* at 1216 (citing Mercoid Corp. v. Mid-Continent Inv. Co., 320 U.S. 661, 665 (1944)).

> his having . . . (4) refused to license or use any rights to the patent. . .[87]

The legislative history accompanying this amendment, however, only cites cases involving complete refusals to license patents.[88] In contrast, T3's complaint does not allege a complete refusal to license, but a selective refusal to license to FSI and PSI with the purpose and effect of restraining competition in the mainframe platform market.

Antitrust is concerned with competition in markets defined to include products having reasonable interchangeability of use.[89] By permitting complete refusals to license, section 271(d) contemplates that a patent owner may exercise market power by restricting output and thwarting demand for the use of its intellectual property: i.e., the ability to make, use, sell or import the patented invention.[90] A selective refusal to license, however, may allow a patent owner to exercise market power against parties who derive no benefit from practicing the patented invention. As one commentator has explained in connection with the *Xerox* case, such an exercise of market power may accurately be described as exceeding the scope of the patent grant:

> In *Xerox* the reason why the ISOs needed Xerox's parts was not because these parts were patented, but because they were the only parts available to service Xerox's copiers. In using them to service Xerox's copiers' end-users, the ISOs did not appropriate Xerox's legal reward, because the ISOs did not benefit from the invention, the end-users did. In refusing to deal with anyone but the end-users, Xerox necessarily imposed itself as the only service provider, since the ISOs had no access to parts. Thus, Xerox foreclosed and monopolized a market unrelated to its intellectual property, using means that had nothing to do with the reward it was

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[87] 35 U.S.C. § 271(d) (2006).

[88] *See* Mark R. Patterson, *When is Property Intellectual? The Leveraging Problem*, 73 S. CAL. L. REV. 1133, 1151 & n.81 (2000) (citing 134 CONG. REC. H10646, H10648 (daily ed. Oct. 1988)).

[89] *See* Brown Shoe Co. v. United States, 370 U.S. 294, 325 (1962) ("The outer boundaries of a product market are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it."); United States v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 404 (1956) ("The 'market' which one must study to determine when a producer has monopoly power will vary with the part of commerce under consideration. The tests are constant. That market is composed of products that have reasonable interchangeability for the purposes for which they are produced — price, use and qualities considered.").

[90] *See* 35 U.S.C. § 271(a) (2006) (defining patent infringement as making, using, offering to sell, selling, or importing a patented invention without authorization).

legally entitled to secure.[91]

Similarly, according to T3's complaint, FSI's and PSI's only interest in using IBM's patented technology was for providing a platform that would correctly support the specifications required by IBM's mainframe operating system.[92] To the extent that the users of IBM-compatible mainframes derived a benefit from the use of IBM's patented inventions,[93] IBM could have fully captured this value through end-user royalties for its mainframe operating systems. Instead, according to T3, IBM selectively refused to license its patents to FSI and PSI, imposed itself as the only mainframe hardware provider, and restrained competition and innovation in the mainframe platform market beyond the scope of IBM's patent rights.

T3's appeal stands at a legal crossroads. The Federal Circuit's *Xerox* decision and the Ninth Circuit's *Kodak* decision express very different views on the scope of a patent owner's right to refuse to license its intellectual property. Neither precedent is binding on the Second Circuit Court of Appeals, but the court may look to them for guidance as persuasive authorities in T3's case.[94]

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[91] Simon Genevaz, *Against Immunity for Unilateral Refusals to Deal in Intellectual Property: Why Antitrust Law Should Not Distinguish Between IP and Other Property Rights*, 19 BERKELEY TECH. L.J. 741, 767-68 (2004); *see also* Seungwoo Son, *Selective Refusals to Sell Patented Goods: The Relationship Between Patent Rights and Antitrust Law*, 2002 U. Ill. J.L. TECH. & POL'Y 109, 163 (2002) (arguing that a selective refusal to license "may harm competition in complementary or relevant markets because it excludes competitors in a circumstance where they have no alternative except to access the patentee's property").

[92] *See also* A. Douglas Melamed & Ali M. Stoeppelwerth, *The CSU Case: Facts, Formalism and the Intersection of Antitrust and Intellectual Property Law*, 10 GEO. MASON L. REV. 407, 424 (2002) ("Antitrust counsel would advise an AT&T of today . . . that it could immunize its anticompetitive refusal to deal from the antitrust laws by contriving to design its system so that firms like MCI that need access to its network would have to use patented or copyrighted interfaces that, under [*Xerox*], it may refuse to license. In that event, competition would be injured, and network design and innovation would be distorted and presumably diminished."); *cf.* Joseph P. Bauer, *Refusals to Deal With Competitors by Owners of Patents and Copyrights: Reflections on the* Image Technical *and* Xerox *Decisions*, 55 DEPAUL L. REV. 1211, 1225 (2006) ("[T]he holding in *Xerox* led to a form of over-incentivizing the creation of patentable machines or machine parts.").

[93] For example, one of the patents IBM asserted against PSI serves as "a processor mechanism that provides a direct resumption of an earlier interrupted program" without the need for state transitions and other "performance negatives" that would apply to the approach of implementing such a feature in an operating system. *See* U.S. Patent No. 5,987,495, cols. 3-4. For a skeptical view of the incremental value of patented inventions to software products in a refusal-to-deal context, *see* Michael A. Carrier, *Unraveling the Patent-Antitrust Paradox*, 150 U. PA. L. REV. 761, 823 (2002).

[94] Under 28 U.S.C. § 1295(a) (2006), the Federal Circuit has exclusive jurisdiction to hear appeals from Patent Office rulings. In Holmes Group, Inc. v. Vornado Air

Despite the divergence between the two approaches, both *Xerox* and *Kodak* recognize the limiting role of patent scope in defining the right of a patentee unilaterally to refuse to license a patent under the antitrust laws.[95] The failure of Judge Kaplan's opinion in *IBM v. PSI* to acknowledge this limitation leaves the scope of a patent owner's "right to use its intellectual property as it wishes" unclear.[96] It remains to be seen whether either the appellate proceedings or the Justice Department's investigation of the world's leading patent owner will produce the necessary vehicle for resolving this ambiguity at the intersection of antitrust and intellectual property law.

VI. CONCLUSION

While *Microsoft* involves copyrights and *T3 v. IBM* involves patents, the proper adjudication of the antitrust claims in each case requires a careful delineation of the legitimate scope of monopoly power contemplated within the statutory intellectual property grant. Such an analysis was absent from both the D.C. Circuit's categorical rejection of Microsoft's primary copyright counterclaims and Judge Kaplan's equally summary dismissal of T3's antitrust claims. With the benefit of a complete trial record in *Microsoft*, it was eventually possible to determine that Microsoft's exclusionary conduct indeed exceeded the scope of its copyright grant.[97] The Second Circuit should recognize in *T3 v. IBM* an important opportunity to clarify the boundary between antitrust and the legitimate exercise of rights within the scope of a patent grant.

Circulation Sys., Inc., 535 U.S. 826, 834 (2002), however, the Supreme Court held that this exclusive jurisdiction applies only in cases where the plaintiff's initial complaint properly states a patent law claim. Since the patent issues in *Xerox* were raised only by the defendant as counterclaims, the Federal Circuit's opinion in that case is not binding on other circuits and carries only persuasive authority. *See* Telecom Technical Servs., Inc., v. Rolm Co., 388 F.3d 820, 826 (11th Cir. 2004).

[95] *See also* Mercoid, 320 U.S. at 665-66 (noting that the patent system "denies to the patentee after issuance the power to use [the patent] in such a way as to acquire a monopoly which is not plainly within the terms of the grant.").

[96] *Cf.* Michael Carrier, *Refusals to License Intellectual Property After* Trinko, 55 DEPAUL L. REV. 1191, 1209 (2006) (noting the lack of a Supreme Court opinion directly addressing refusals to license intellectual property, but predicting that *Verizon v. Trinko* "likely will make it more difficult to challenge such activity").

[97] In connection with receiving Judge Jackson's permission to comment on the *Microsoft* case, *see* Chin, *supra* note 20, at 1 n.*, the author agreed to delay publication of his commentary until the conclusion of the remedies proceedings on remand.