Filed: July 10, 2003

UNITED STATES COURT OF APPEALS

FOR THE FOURTH CIRCUIT

No. 03-1116
(CA-02-2739-JFM, CA-00-1332-MDL)

Sun Microsystems, etc.,

Plaintiff - Appellee,

versus

Microsoft Corporation, etc.,

Defendant - Appellant.

O R D E R

The court amends its opinion filed June 26, 2003, as follows:

On page 2, section 1, line 18 -- “Stacy N. Lay” is corrected to read “Stacia N. Lay.”

For the Court - By Direction

/s/ Patricia S. Connor
Clerk

PUBLISHED

UNITED STATES COURT OF APPEALS

FOR THE FOURTH CIRCUIT

In Re: MICROSOFT CORPORATION
ANTITRUST LITIGATION

SUN MICROSYSTEMS, INC., a Delaware corporation,
Plaintiff-Appellee,

v.

No. 03-1116

MICROSOFT CORPORATION, a Washington corporation,
Defendant-Appellant.

WILDTANGENT, INCORPORATED,
Amicus Supporting Appellant.

NETSCAPE COMMUNICATIONS CORPORATION,
Amicus Supporting Appellee.

Appeal from the United States District Court
for the District of Maryland, at Baltimore.
J. Frederick Motz, District Judge.
(CA-02-2739-JFM, CA-00-1332-MDL)

Argued: April 3, 2003

Decided: June 26, 2003

Before WIDENER, NIEMEYER, and GREGORY, Circuit Judges.

Affirmed in part, vacated in part, and remanded by published opinion. Judge Niemeyer wrote the opinion, in which Judge Widener and Judge Gregory joined.

COUNSEL

ARGUED: David Bruce Tulchin, SULLIVAN & CROMWELL, L.L.P., New York, New York, for Appellant. Lloyd R. Day, Jr., DAY, CASEBEER, MADRID & BATCHELDER, L.L.P., Cupertino, California, for Appellee. **ON BRIEF:** Steven L. Holley, Michael Lacovara, Marc De Leeuw, Brian T. Frawley, SULLIVAN & CROMWELL, L.L.P., New York, New York; Michael F. Brockmeyer, PIPER RUDNICK, L.L.P., Baltimore, Maryland; David T. McDonald, Karl J. Quackenbush, PRESTON, GATES & ELLIS, L.L.P., Seattle, Washington; Thomas W. Burt, Richard J. Wallis, Linda K. Norman, MICROSOFT CORPORATION, Redmond, Washington; Matthew L. Larrabee, Darryl Snider, A. Mari Mazour, HELLER, EHRMAN, WHITE & MCAULIFFE, L.L.P., San Francisco, California, for Appellant. James R. Batchelder, Robert M. Galvin, DAY, CASEBEER, MADRID & BATCHELDER, L.L.P., Cupertino, California; Kevin J. Arquit, SIMPSON, THACHER & BARTLETT, New York, New York; Thomas M. Wilson, John B. Isbister, TYDINGS & ROSENBERG, L.L.P., Baltimore, Maryland, for Appellee. O. Yale Lewis, Jr., Stacia N. Lay, HENDRICKS & LEWIS, Seattle, Washington; Kenneth C. Bass, III, STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C., Washington, D.C., for Amicus WildTangent. Evan R. Chesler, Katherine B. Forrest, CRAVATH, SWAINE & MOORE, New York, New York; Jeffrey A. Rosen, Richard A. Cordray, Elizabeth S. Petrela, KIRKLAND & ELLIS, Washington, D.C.; James P. Ulwick, KRAMON & GRAHAM, Baltimore, Maryland, for Amicus Netscape.

OPINION

NIEMEYER, Circuit Judge:

Sun Microsystems, Inc. commenced this action against Microsoft Corporation, alleging, among other things, that Microsoft illegally maintained a monopoly in the "worldwide market for Intel-compatible PC operating systems," in violation of § 2 of the Sherman Act. Sun also complains that Microsoft infringed its copyrighted "source code in the Java platform" by distributing the software outside of a license that Microsoft received from Sun, in violation of § 501 of the Copyright Act. Sun seeks declaratory and permanent injunctive relief, as well as treble damages and attorneys fees.

On Sun's motion for a preliminary injunction pending trial and judgment, the district court entered (1) a mandatory preliminary injunction requiring Microsoft to incorporate in and distribute with every copy of its Windows PC operating system and every copy of its web browser Sun's Java software to operate as "middleware" on top of Microsoft's operating system to accommodate a wide variety of applications software, and (2) a preliminary injunction prohibiting Microsoft from distributing any software developments of Java software, other than products licensed to Microsoft by Sun in a 2001 settlement agreement arising out of prior litigation over Microsoft's alleged misuse of Java source code.

In granting the mandatory injunction, the district court acknowledged that its "must-carry" mandatory preliminary injunction was unprecedented, but explained it was necessary in the extraordinary circumstances of this case to prevent future "tipping"[1] from Sun to Microsoft in an emerging middleware market — a market for "general purpose, Internet-enabled distributed computing platforms" that is distinct from the PC operating systems market that Sun alleged was being illegally monopolized by Microsoft. The court found that Microsoft and Sun are the only competitors in this new emerging market in which Sun currently "would appear dominant," as Microsoft has yet "virtually no present share of the market."

To address the problem that the complaint alleges monopolization

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[1] "Tipping" refers to a changing market share based on the economic theory of a "feedback effect," which holds that the attractiveness of a product to consumers increases with the number of persons using it. In this case, Sun offered, and the district court accepted, the prediction that the vast number of consumers using Microsoft's Windows PC operating systems will prompt software developers to opt to write applications software based on Microsoft's middleware with the effect that Microsoft's brand of middleware will become entrenched in the emerging, albeit distinct, market for middleware — i.e., "general purpose, Internet-enabled distributed computing platforms."

in one market and the injunction was requested to protect Sun in a different market, the court relied on a monopoly leveraging theory under which Microsoft is alleged to be "taking advantage of its past antitrust violations to leverage its monopoly in the Intel-compatible PC market into the market for general purpose, Internet-enabled distributed computing platforms." The court found appropriate a remedy in the middleware market "designed to prevent Microsoft from obtaining future advantage from its past wrongs" in the PC operating systems market. But the court could only conclude (1) that it is not "inevitable" that the new emerging middleware market will "tip" in favor of Microsoft, (2) that it cannot say that "tipping" in favor of Microsoft in the middleware market will "more likely than not" occur, and (3) that it cannot find "at this precise moment . . . an imminent threat that the market for general purpose, Internet-enabled distributed computing platforms will tip in favor of [Microsoft]."

Because the district court was unable to find immediate irreparable harm and because it entered a preliminary injunction that does not aid or protect the court's ability to enter final relief on Sun's PC-operating-systems monopolization claim, we vacate the mandatory preliminary injunction. With respect to the preliminary injunction prohibiting Microsoft from distributing products that infringe Sun's copyright interests, however, we conclude that the district court did not err in construing the scope of the license granted by Sun to Microsoft, nor did it abuse its discretion in entering the injunction. Accordingly, we affirm that preliminary injunction.

I

Sun summarizes its complaint in this case, which includes 16 counts, as follows:

> This is an action brought pursuant to the antitrust laws of the United States as well as the laws of the State of California to restrain anticompetitive conduct by [Microsoft], and to remedy the damage suffered by [Sun], as the result of Microsoft's illegal efforts to maintain and expand its monopoly power. In addition, this action seeks to enjoin Microsoft from infringing Sun's copyrights by unlawfully

> distributing products outside the scope of the limited license that Sun granted to Microsoft.

Count 1, in connection with which the district court entered the mandatory preliminary injunction, alleges that Microsoft has willfully and illegally maintained its monopoly power in the worldwide market for "Intel-compatible PC operating systems" by anticompetitive and unreasonably exclusive conduct. Sun claims that it

> has been and will continue to be damaged by, without limitation, diminished licensing fees, lost computer workstation sales, lost server sales, lost software product sales, lost storage sales, lost sales of consulting services, and a diminution in value to Sun's trademarks, reputation, and goodwill in amounts to be proven at trial.

And for relief from "immediate and irreparable injury," it requests injunctive relief.

Sun's motion for a preliminary injunction relies in substantial part on previous litigation in which Microsoft was found guilty of illegal and anticompetitive conduct, particularly the District of Columbia litigation in which Microsoft was found to have maintained an illegal monopoly in the market for worldwide licensing of Intel-compatible PC operating systems, *see United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000), *aff'd in part and rev'd in part*, 253 F.3d 34 (D.C. Cir. 2001), *cert. denied*, 534 U.S. 952 (2001), and California litigation involving Microsoft's allegedly illegal conduct aimed specifically at Sun, *see Sun Microsystems, Inc. v. Microsoft Corp.*, 87 F. Supp. 2d 992 (N.D. Cal. 2000). In its motion, Sun asked the district court to enjoin Microsoft from

> (a) distributing its Windows operating system and web browser products unless Microsoft integrates and distributes Sun's binary implementation of the Java Plug-in for Windows XP [operating system] in those products and
>
> (b) distributing Microsoft's Virtual Machine for Java [often referred to as MSJVM, for *M*icro *s*oft *J*ava *V*irtual *M*achine] in an unlicensed manner.

It asserted that:

> If Microsoft's conduct is left unchecked, there is a substantial threat that Microsoft will irreparably tip the market against the Java platform in favor of .NET. . . . [T]he Court should grant preliminary injunctive relief requiring Microsoft to integrate and distribute Sun's Java Plug-in as part of [the] Windows [operating system] and [the Internet Explorer web browser] and cease standalone distribution of the old Microsoft VM [i.e., the MSJVM].

Sun's Java platform and Microsoft's .NET are "middleware" with which Sun and Microsoft will compete in the emerging market for Internet-enabled distributed computing platforms.

Both Sun and the district court in this case adopted the District of Columbia courts' definition of the relevant market — in which Microsoft was alleged to be illegally maintaining its monopoly power — as the worldwide licensing of Intel-compatible PC operating systems, and both agree that the market for "middleware" that is now emerging is distinct from the market that Microsoft was found to have monopolized in the District of Columbia litigation. It is undisputed that the middleware market identified by the parties and the district court has not yet been defined for antitrust purposes.

Operating systems, such as Windows 2000, Windows XP, Mac OS, and Sun's Solaris OS, function to implement instructions from applications software and enable computer hardware to operate, "including allocating computer memory and controlling peripherals such as printers and keyboards." *United States v. Microsoft Corp.*, 253 F.3d at 53. Because operating systems vary, such that applications-software developers have to tailor their software to each separate operating system, middleware has been conceived for placement between applications software and the various operating systems with the ultimate idea, in part, of creating cross-compatibility in applications software for the various operating systems. *See id.*; *Sun Microsystems, Inc. v. Microsoft Corp.*, 188 F.3d 1115, 1118 (9th Cir. 1999).

Sun developed the Java platform as middleware that would permit software applications to be run on various operating systems. Proceeding under the motto "write once, run anywhere," Sun developed the Java platform to provide software developers with tools that would enable them to write applications software for any computer and operating system that includes Java middleware. Sun contends that Java's promise of cross-platform compatibility posed a competitive threat to Microsoft because of its potential to erode the requirement to tailor applications software to particular operating systems — an applications-software barrier to entry that was protecting Microsoft's monopoly in the PC operating systems market. It alleges that Microsoft responded to this threat with an "embrace and extend" strategy, described by the California district court in *Sun Microsystems, Inc. v. Microsoft Corp.*, 87 F. Supp. 2d at 995, as follows:

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

The so-called "embrace" took place when Microsoft and Sun entered into a Technology License and Distribution Agreement ("License Agreement") on March 11, 1996, whereby Sun licensed Microsoft to make and distribute Java-based products. This License Agreement required Microsoft's implementations of the Java platform to meet compatibility standards set by Sun (now by the "Java Community Process," an organization of licensees and developers to whom Sun has turned over control of Java).

Using its access to Sun's proprietary code granted under the License Agreement, Microsoft allegedly developed a Java implementation — the primary component of which was the Microsoft Java Virtual Machine (MSJVM) — that was incompatible with the core

Java platform. Microsoft also allegedly interfered with Sun's distribution channels for Java by damaging the market for Netscape's Navigator, a web browser that was at one time the principal vehicle for the distribution of Java. Additionally, Microsoft allegedly stunted further development of Java by preventing Intel Corporation from cooperating with Sun and Netscape in the development of a high-performance, Windows-compatible Java product.

Microsoft's alleged conduct prompted Sun to file suit against Microsoft in the Northern District of California, alleging trademark and copyright violations as well as unfair competition under California law. Following extensive litigation,[2] Microsoft and Sun entered into a Settlement Agreement dated January 23, 2001, that the district court in this case summarized as follows:

> (1) [T]he original license and distribution agreement was terminated,
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> (2) Microsoft was given the right, but not the obligation, to continue distribution of MSJVM incorporated in products (and their successors) with which it had been distributed under the original agreement,
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> (3) Microsoft's distribution of MSJVM was required to be phased out over time,
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> (4) [T]he MSJVM could be based only on the older Java technology,
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> (5) Microsoft paid $20 million to Sun, and
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> (6) Sun released all of its claims, except its antitrust

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[2] The California litigation is described in part in *Sun Microsystems, Inc. v. Microsoft Corp.*, 999 F. Supp. 1301 (N.D. Cal. 1998); *Sun Microsystems, Inc. v. Microsoft Corp.*, 21 F. Supp. 2d 1109 (N.D. Cal. 1998); *Sun Microsystems, Inc. v. Microsoft Corp.*, 188 F.3d 1115 (9th Cir. 1999); and *Sun Microsystems, Inc. v. Microsoft Corp.*, 87 F. Supp. 2d 992 (N.D. Cal. 2000).

> claims, arising out of the facts involved in the California litigation.

In re Microsoft Corp. Antitrust Litigation, 237 F. Supp. 2d 639, 643 (D. Md. 2003).

Shortly after Microsoft began the commercial distribution in February 2002 of Visual Studio .NET, a programming product containing Microsoft's own middleware — the .NET platform — to compete with the Java platform, Sun commenced this action in the Northern District of California. The suit was transferred to the District of Maryland for inclusion in ongoing multidistrict litigation.

The district court held a three-day hearing on Sun's motion for a preliminary injunction, and it followed with an opinion in December 2002 ruling that Sun was entitled to a mandatory preliminary injunction based on Count 1 of Sun's complaint and a prohibitory injunction based on Count 16 of the complaint. *In re Microsoft*, 237 F. Supp. 2d at 664. The court issued its actual order on January 21, 2003. *In re Microsoft Corp. Antitrust Litigation*, 240 F. Supp. 2d 460 (D. Md. 2003). The mandatory preliminary injunction that issued under § 16 of the Clayton Act, based on alleged violations of § 2 of the Sherman Act, requires that Microsoft incorporate and distribute with every copy of its Windows operating system and web browser Java software delivered to Microsoft by Sun. The prohibitory injunction that issued under § 502 of the Copyright Act, based on alleged violations of § 501 of that Act, prohibits Microsoft from distributing any product that includes a copy of Microsoft's MSJVM other than a licensed product. From the district court's injunction, Microsoft filed this interlocutory appeal.

On appeal, Microsoft contends that both injunctions must be vacated. With respect to the antitrust injunction, it argues (1) that Sun did not make the requisite showing of "immediate irreparable harm," (2) that the district court improperly discounted the harm to Microsoft resulting from the must-carry injunction, (3) that Sun has no likelihood of success on the merits, and (4) that the district court failed to consider the harm to the public interest resulting from "judicial interference in the free operation of markets." With respect to the copyright injunction, Microsoft contends that the district court improperly ignored evidence of "the parties' shared understanding" of the limited license granted by Sun to Microsoft in the Settlement Agreement.

II

"[P]reliminary injunctions are extraordinary remedies involving the exercise of very far-reaching power to be granted only sparingly and in limited circumstances." *MicroStrategy Inc. v. Motorola, Inc.*, 245 F.3d 335, 339 (4th Cir. 2001) (internal quotation marks omitted). While we review the entry of such an interlocutory order for "abuse of discretion," our cases are replete with references to the particularly exacting application of standards that apply to that discretion. *See, e.g.*, *Direx Israel, Ltd. v. Breakthrough Medical Corp.*, 952 F.2d 802, 814 (4th Cir. 1992) ("Particularly where the appeal is from a grant of preliminary injunction, which represents the exercise of a very far-reaching power, never to be indulged in except in a case clearly demanding it[,] the standard of appellate review must not be reduced to the largely meaningless ritual of the typical`abuse of discretion' standard" (internal quotation marks omitted)); *id.* at 815 (stating that the abuse of discretion standard "is not a rule of perfunctory appellate review but one of careful scrutiny"); *Blackwelder Furniture Co. v. Seilig Mfg. Co.*, 550 F.2d 189, 193 (4th Cir. 1977) ("When the grant or denial of interim injunctive relief is reviewed, it is simplistic to say or imply, as we sometimes do, that it will be set aside only if an abuse of discretion can be shown. . . . A judge's discretion is not boundless and must be exercised within the applicable rules of law or equity"). Our application of this exacting standard of review is even more searching when the preliminary injunctive relief ordered by the district court is mandatory rather than prohibitory in nature. *See Taylor v. Freeman*, 34 F.3d 266, 270 n.2 (4th Cir. 1994) ("Mandatory preliminary injunctive relief in any circumstance is disfavored, and warranted only in the most extraordinary circumstances"); *cf. Communist Party of Indiana v. Whitcomb*, 409 U.S. 1235 (1972) (Rehnquist, J., opinion in chambers) ("While a Circuit Justice of this Court apparently has authority under Supreme Court Rule 51 to grant such relief in the form of a mandatory injunction, usage and practice suggest that this extraordinary remedy be employed only in the most unusual case. In order that it be available, the applicants' right to relief must be indisputably clear").

The traditional office of a preliminary injunction is to protect the status quo and to prevent irreparable harm during the pendency of a lawsuit ultimately to preserve the court's ability to render a meaningful judgment on the merits. *See, e.g.*, *Omega World Travel, Inc. v. Trans World Airlines*, 111 F.3d 14, 16 (4th Cir. 1997) ("The purpose of interim equitable relief is to protect the movant, during the pendency of the action, from being harmed or further harmed in the manner in which the movant contends it was or will be harmed through the illegality alleged in the complaint"). Indeed, the maintenance of the status quo is justified only insofar as it aids the court in granting final relief. *Hazardous Waste Treatment Council v. South Carolina*, 945 F.2d 781, 788 (4th Cir. 1991) ("`The rationale behind a grant of a preliminary injunction has been explained as preserving the *status quo* so that a court can render a meaningful decision after a trial on the merits'" (quoting *Rum Creek Coal Sales, Inc. v. Caperton*, 926 F.2d 353, 359 (4th Cir. 1991))). Therefore, "[a] preliminary injunction is always appropriate to grant intermediate relief of the same character as that which may be granted finally," *de Beers Consol. Mines, Ltd. v. United States*, 325 U.S. 212, 220 (1945), but conversely, preliminary relief may never be granted that addresses matters "which in no circumstances can be dealt with in any final injunction that may be entered," *id.See also United States ex rel. Rahman v. Oncology Assocs., P.C.*, 198 F.3d 489, 498 (4th Cir. 1999) ("We now turn to the preliminary injunction entered to determine whether it is a reasonable measure to preserve the *status quo* in aid of the claims in suit, or whether it grants interim relief of the same character as that which may be granted finally" (internal citations omitted)); *Fed. Leasing, Inc. v. Underwriters at Lloyd's*, 650 F.2d 495, 499 (4th Cir. 1981) (approvingly quoting the district court's statement that the *raison d'etre* of preliminary injunctive relief is "to preserve the *status quo* during the course of a litigation in order to prevent irreparable injury to the moving party and in order to preserve the ability of the court to render complete relief").

"Mandatory preliminary injunctions [generally] do not preserve the status quo and normally should be granted only in those circumstances when the exigencies of the situation demand such relief." *Wetzel v. Edwards*, 635 F.2d 283, 286 (4th Cir. 1980). That is to say, a mandatory preliminary injunction must be necessary both to protect against irreparable harm in a deteriorating circumstance created by the defendant and to preserve the court's ability to enter ultimate relief on the merits of the same kind.

In sum, preliminary injunctions are extraordinary interlocutory remedies that are granted in limited circumstances and then only sparingly. The limited circumstances amount to the demonstration of a need to protect the status quo and to prevent irreparable harm during the pendency of the litigation to preserve the court's ability in the end to render a meaningful judgment on the merits. If that need is not presented, then a preliminary injunction should not be considered. But if the need is demonstrated, then the entry of a preliminary injunction rests in the discretion of the district court, which is informed by balancing factors under an analysis conducted pursuant to the familiar four-part test described in *Blackwelder*, 550 F.2d at 194-96. Under this test

> a court should consider (1) the likelihood of irreparable harm to the plaintiff if the preliminary injunction is denied; (2) the likelihood of harm to the defendant if the injunction is granted; (3) the likelihood that the plaintiff will succeed on the merits; and (4) the public interest.

Safety-Kleen, Inc. v. Wyche, 274 F.3d 846, 858-59 (4th Cir. 2001).[3] "Further, the plaintiff bears the burden of establishing that each of these factors supports granting the injunction." *Direx*, 952 F.2d at 812 (internal quotation marks omitted).

In applying this four-factor test, "[t]he irreparable harm to the plaintiff and the harm to the defendant are the two most important

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[3] As a practical matter, the determination of whether the limited circumstances for considering a preliminary injunction have been demonstrated and the analysis under the four-part *Blackwelder* analysis are routinely combined in applying the *Blackwelder* test alone. But the conceptual distinction between the appropriate circumstances justifying consideration of a preliminary injunction and the factors informing the exercise of discretion for its entry can be important, as it is in this case, because if the circumstances justifying consideration of a preliminary injunction are not present, then the discretion-informing balancing of factors need not be conducted.

factors." *Rum Creek Coal Sales, Inc.*, 926 F.2d at 359. Emphasis on the balance of these first two factors results in a sliding scale that demands less of a showing of likelihood of success on the merits when the balance of hardships weighs strongly in favor of the plaintiff, and vice versa. *See id.* ("If, after balancing [the first] two factors, the balance tips decidedly in favor of the plaintiff, a preliminary injunction will be granted if the plaintiff has raised questions going to the merits so serious, substantial, difficult and doubtful, as to make them fair ground for litigation and thus for more deliberate investigation. As the balance tips away from the plaintiff, a stronger showing on the merits is required" (internal citations and quotation marks omitted)).[4]

With these principles governing the entry of mandatory preliminary injunctions in hand, we turn to the mandatory preliminary injunction entered by the district court in this case, which requires Microsoft to distribute Sun's Java software with every copy of Microsoft's Windows PC operating system and web browser.

III

Addressing the condition precedent to the entry of any preliminary injunction — that it be entered to prevent harm that is both irreparable and immediate — the district court identified two types of irreparable harm to Sun that it found necessitated the grant of a mandatory preliminary injunction: (1) a *future* harm arising from the "serious risk" that the market for general purpose, Internet-enabled distributed computing platforms (the middleware market) would "tip" to Microsoft's .NET product "in the near future," *In re Microsoft*, 237 F. Supp. 2d

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[4] Although this circuit's emphasis on the balance of the hardships has been criticized as inconsistent with Supreme Court precedent "by overvaluing the inquiry into the relative equities of granting and denying a requested injunction to an extent that essentially denies any value whatsoever to the inquiry into the likelihood of success on the merits," *see Safety-Kleen*, 274 F.3d at 868 (Luttig, J., concurring), we remain bound by the test as it has been consistently articulated and applied by prior appeals, *see The Scotts Co. v. United Indus. Corp.*, 315 F.3d 264, 271 n.2 (4th Cir. 2002) (addressing precisely this criticism of our hardship balancing test and concluding that the test must nonetheless be applied).

at 651, and (2) a *present* harm to Sun's "right to compete, and [Sun's] opportunity to prevail," in a market undistorted by Microsoft's past antitrust violations, *id.* Neither harm, however, has been shown to be legally sufficient to warrant the mandatory must-carry preliminary relief ordered by the district court. The future harm of market tipping was not sufficiently immediate and therefore too speculative, and the present harm of market distortion was defined at too general a level to warrant the relief ordered in a market that the court never defined for purposes of antitrust analysis.

The future harm alleged by Sun is "market tipping," which Sun's expert, Dr. Dennis Carlton, described as the expected end-state of a market that is subject to strong "feedback effects." According to Dr. Carlton, the feedback effects in the incipient competition between Java and .NET arise from the decisions of software developers to write applications for a particular platform:

> As more applications written to one platform arise, that increases the demand to have that platform. As the presence of that platform increases, then that creates a heightened incentive for developers toward deciding what platform to write to, to write to the platform that is increasing . . . or [that] has the greater relative prevalence. And that is an effect that will feed back on itself because once there's a greater presence of a platform, it increases the incentives for more applications. The more applications there are, the more developers there are, it becomes more desirable to have the platform. And it will be a feedback like I described earlier, that will be mutually reinforcing.

The result of this cycle is what Sun and the district court refer to as "market tipping," which Dr. Carlton testified is "what other people would alternatively describe as a tendency for a dominant product or a dominant standard to emerge." Sun's theory for preliminary relief relied not only on the purported presence of these "feedback effects" in the emerging market for middleware but also on the theory that the feedback effects in this market would arise in the early stages of competition and entrench one dominant standard as the winner of the competition almost from the very beginning. Dr. Carlton testified:

> It's in the early stages that feedback effects can get set up. And once they're set up, they can lead to a market tipping. And once it tips, or once these feedback effects get set up, they may be hard to undo. And therefore, the market structure can be entrenched and the initial stages can be determinative of these final outcomes. That's why the initial stages can be quite important.

After canvassing the competing evidence offered by Sun and Microsoft, which included not only the testimony of Dr. Carlton but also the written and oral testimony of software developers, executives from Sun and Microsoft, and Microsoft's own economics expert, the district court observed:

> On this evidence I find there will be a substantial feedback effect in the market for general purpose, Internet-enabled distributed computing platforms as the competition between .NET and Java unfolds. I also find that, in accordance with the general economic principles cited by the D.C. Circuit in the Department of Justice case, .NET and Java will compete for the field rather than within the field. *Microsoft*, 253 F.3d at 49.
>
> ***
>
> Therefore, the genuine threat that market tipping presents cannot be dismissed on the ground that at the moment, before the competition has begun, a large number of software developers are still Java-oriented. Microsoft, Sun, and the developer community are all looking toward the future, and in order to determine whether a must-carry injunction is necessary and appropriate, a court must do so as well.

In re Microsoft, 237 F. Supp. 2d at 648, 650. But even as the court accepted Sun's theory of relief, it limited the findings on which it based the relief:

> I do not suggest, however, it is inevitable that the market will tip in favor of .NET. Dennis Carlton, Sun's expert

> economist, has candidly acknowledged that he cannot determine whether tipping away from Java is more likely than not. It is possible that .NET and Java will both survive as competing platforms and that the new market will be a heterogeneous one.

Id. at 648-49 (internal citations omitted). The district court clarified the limitation of its finding in its legal analysis, stating that it did "*not find* that at this precise moment there is an *imminent threat* that the market for general purpose, Internet-enabled distributed computing platforms will tip in favor of .NET." *Id.* at 651 (emphasis added). Rather, the court found that "unless Sun is given a fair opportunity to compete in a market untainted by the effects of Microsoft's past antitrust violations, there is a *serious risk that in the near future* the market will tip in favor of .NET, that it is impossible to ascertain when such tipping might occur in time to prevent it from happening, and that if the market does tip in favor of .NET, Sun could not be adequately compensated in damages." *Id.* (emphasis added).

It is against these findings — which, for purposes of our continuing discussion at this stage of the proceedings, we accept as supported by the evidence and not clearly erroneous — that we determine the legal requirement of immediate or imminent harm.

The requirement that harm to be forestalled by preliminary injunctive relief be "immediate" or, stated alternatively, "imminent," as a condition precedent to the issuance of such relief arises not only from equity but also from Section 16 of the Clayton Act itself, which provides:

> Any person, firm, corporation, or association shall be entitled to sue for and have injunctive relief . . . against threatened loss or damage by a violation of the antitrust laws . . . when and under the same conditions and principles as injunctive relief against threatened conduct that will cause loss or damage is granted by courts of equity, under the rules governing such proceedings, *and* upon . . . a showing that the danger of irreparable loss or damage is *immediate*, a *preliminary* injunction may issue.

15 U.S.C. § 26 (emphasis added). Indeed, as this provision has been construed by the Supreme Court and this court, the Clayton Act's explicit textual "immediacy" requirement for preliminary injunctive relief is redundant because the "conditions and principles" of equity incorporated by reference into the statute, *see California v. American Stores Co.*, 495 U.S. 271, 281 (1990) ("[T]he statutory language indicates Congress' intention that traditional principles of equity govern the grant of injunctive relief" (quotation marks and citation omitted)), require immediacy of irreparable harm for all preliminary injunctions, *see Direx*, 952 F.2d at 815 (requiring the plaintiff seeking a preliminary injunction to make a "`clear showing' that it will suffer an *immediate* irreparable harm were such relief not granted it" (emphasis added)). This redundancy is of merely theoretical interest because the practical result is the same whether one views the "immediacy" requirement for preliminary injunctive relief as arising from the statutory text requiring "immediate" harm, the statutory text insofar as it incorporates by reference the "conditions and principles" of equity, or both. The practical result is that the plaintiff seeking a preliminary injunction under Section 16 of the Clayton Act unquestionably must show that the threatened loss or harm is "immediate" as a condition precedent to a court's issuance of such equitable relief.

The case law describing the immediacy requirement as a component of the traditional principles of equity gives shape to the requirement. Our decision in *Direx* provides particularly clear guidance. In that case, we reversed the district court's grant of preliminary injunctive relief to a company that sought to enjoin the use of its alleged trade secrets by a company that was developing and selling a medical device that competed with the movant's version of that device. 952 F.2d at 804-05. We concluded that the plaintiff company failed to demonstrate immediate irreparable harm in the absence of preliminary injunctive relief because the defendant company was precluded from selling its product in the United States (for lack of FDA approval) and outside the United States (for lack of an export license). *Id.* at 815-16. We reasoned, in language that bears quoting at some length, that:

> [T]he district court found present irreparable harm in favor of Direx, even though it recognized that there was no present threat of such harm, because maybe "at least a year down the road, maybe two or three years down the road,"

> there will arise a possible need for a preliminary injunction. We are not persuaded by such reasoning that there is a present or immediate need for preliminary relief in favor of Direx. By the district court's own finding, any harm to Direx in this case is at this time problematical and uncertain. Remembering that preliminary injunctions are "extraordinary remedies" involving the exercise of "very far-reaching power" to be granted only "sparingly" and "in limited circumstances," *the grant of such relief in this case, where the harm is admittedly not present or immediate but merely problematic, conditioned on possible future events, would seem contrary to our stated rule: A plaintiff, seeking preliminary relief, must show the present threat of irreparable harm.* The district court should have dismissed the motion for preliminary relief because the plaintiff failed to establish that the denial would result in present irreparable harm.

Id. at 816 (emphasis added) (internal citation omitted). The *Direx* opinion traced its formulation of the immediacy requirement back to our decision in *Dan River, Inc. v. Icahn*, 701 F.2d 278, 280 (4th Cir. 1983), in which we reversed the grant of a preliminary injunction that prevented a group attempting a corporate takeover from exercising all of its rights accompanying the shares that it bought. The takeover target argued that the injunction was necessary to prevent the company from being "looted," but we discounted this harm as not likely to occur imminently given the constraints imposed by state corporation law. *Id.* at 283. We explained that "[m]anagement will have more than adequate opportunity to petition a court for injunctive relief when and if the fears mature into imminent danger." *Id.* Formulating in *Direx* the principle applied in *Dan River*, we explained that "the required irreparable harm must be *neither remote nor speculative, but actual and imminent*." *Direx*, 952 F.2d at 812 (emphasis added) (internal quotation marks omitted) (citing *ECRI v. McGraw-Hill, Inc.*, 809 F.2d 223, 226 (3d Cir. 1987) ("Establishing a *risk* of irreparable harm is not enough. A plaintiff has the burden of proving a `clear showing of immediate irreparable injury'" (emphasis added))).

Sun failed to meet this immediacy requirement. Its own expert stated, in testimony relied upon by the district court in its written opinion, that even he could not be sure whether tipping was more likely than not. *See In re Microsoft*, 237 F. Supp. 2d at 648. And as previously noted, the district court concluded that "I *do not find* that at this precise moment *there is an imminent threat* that the market for general purpose, Internet-enabled distributed computing platforms will tip in favor of .NET." *Id.* at 651 (emphasis added). This conclusion should have disposed of Sun's theory of relief premised on the future harm of tipping in light of the principle articulated in the cases discussed above.

The district court's ruling to the contrary rested on its conclusion that "there is a serious risk that in the near future the market will tip in favor of .NET, that it is impossible to ascertain when such tipping might occur in time to prevent it from happening, and that if the market does tip in favor of .NET, Sun could not be adequately compensated in damages." *Id.* The distinction apparent from this portion of the district court's reasoning and our decisions in *Direx* and *Dan River* is that in *Direx* and *Dan River* we reasoned that preliminary relief was not appropriate *because there would be some later point* at which the plaintiffs could seek preliminary relief that would satisfactorily forestall the occurrence of the expected harm. According to the district court, Sun's circumstances differed materially because "it is impossible to ascertain when such tipping might occur in time to prevent it from happening." *In re Microsoft*, 237 F. Supp. 2d at 651. This reasoning, however, is not persuasive. The very function served by requiring a "clear showing of irreparable harm" that must be "actual and imminent" rather than "remote [and] speculative," *Direx*, 952 F.2d at 812, is to limit the deployment of the heavy artillery of preliminary injunctive relief to situations in which it is readily apparent to the court that such relief is actually necessary to prevent a harm from occurring. When the court concludes that it is impossible to ascertain *when* such tipping might occur and that it cannot say with confidence that the harm is more likely than not to occur *at all*, the proper conclusion to draw is that the plaintiff has failed to make the clear showing required.

Also flawed was the district court's determination that preliminary relief was necessary to remedy a *present* irreparable harm to Sun. The court stated that "it is an absolute certainty that unless a preliminary injunction is entered, Sun will have lost forever its right to compete, and the opportunity to prevail, in a market undistorted by its competitor's antitrust violations." *In re Microsoft*, 237 F. Supp. 2d at 651. This principle, however, is stated at too high a level of generality to identify present irreparable harm justifying the grant of preliminary injunctive relief. If this principle were recognized in the formulation given by the district court, then each allegation of an antitrust violation would be accompanied with a corresponding allegation of resultant market distortion, and preliminary injunctive relief in antitrust cases would issue in the ordinary course rather than in the extraordinary circumstances to which it has been limited by traditional principles of equity. This is not to say that the lingering effects of an identified market distortion resulting from anticompetitive conduct could not, in some other circumstance, provide the predicate for a conclusion that a party is presently suffering irreparable harm. It is certain, however, that a prerequisite to the identification of any market *distortion* must be a clear market *definition*. And it is undisputed that the market definition for antitrust purposes has not yet been made in this case, at least with regard to the "distorted" middleware market targeted by the must-carry injunction.

Sun argues that "it is unnecessary for Sun to define and prove the relevant antitrust market in which the .NET and Java platforms compete. The only relevant inquiry at this time is whether Sun is likely to suffer irreparable harm with respect to the competition between the .NET and Java platforms." Although this argument may have some purchase with regard to other types of alleged irreparable harm, the argument cannot be correct inasmuch as the harm alleged is "market distortion," a concept which simply makes no sense in relation to the relief ordered absent a definition of the relevant market. This is a particularly serious failure when it is recognized the purpose of the antitrust laws is "the protection of *competition*, not *competitors*." *Brown Shoe Co. v. United States*, 370 U.S. 294, 320 (1962).

In sum, we conclude that the district court's findings are insufficient to support its conclusion that *immediate* irreparable harm will be sustained if the mandatory preliminary injunction is not entered, and accordingly that injunction must be vacated.

IV

Although the lack of evidence sufficient to prove immediate irreparable harm alone requires that the mandatory preliminary injunction entered by the district court be vacated, equally fatal is Sun's failure to demonstrate that the mandatory preliminary injunction was necessary to the prosecution of its claim in litigation. While this issue is relevant to the third *Blackwelder* factor in determining whether the court should exercise its discretion, it is more fundamental in that it goes to the very purpose of and need for any preliminary injunction.

As we have pointed out in greater detail in Part II above, a preliminary injunction serves the limited function during the course of litigation to protect the status quo and to prevent irreparable harm ultimately *to preserve the court's ability to render a meaningful judgment on the merits*. Count 1 of Sun's complaint, the count on which Sun sought the preliminary injunction entered by the district court, alleged that Microsoft monopolized the market defined by the worldwide licensing of Intel-compatible PC operating systems, in violation of § 2 of the Sherman Act, 15 U.S.C. § 2. While Sun competes with Microsoft in that market through its licensing or sale of its Solaris operating system, its target for the preliminary injunction was an impending competition between the companies in the new emerging market for "middleware," Internet-enabled distributed computing platforms for applications software that are placed on operating systems to enable them to function with a broad array of applications software. Both the parties and the district court concluded that the middleware market was distinct from the relevant market alleged in the complaint — the market for worldwide licensing of Intel-compatible PC operating systems. In short, the market that Microsoft is alleged in the complaint to have monopolized involves *operating systems* and the market to which Sun focused its requested preliminary injunction involves *middleware*. *See United States v. Microsoft*, 253 F.3d at 54 (D.C. Circuit court affirming the district court's exclusion of middleware from the relevant market in which Microsoft possessed a monopoly).

The essential question arises therefore about how a preliminary injunction entered to regulate conduct in an emerging and undefined market preserves the court's ability to render meaningful judgment on the merits of Sun's claim that Microsoft monopolized the market for worldwide licensing of Intel-compatible PC operating systems, a market that by definition does not involve middleware.

To resolve this two-market problem, the district court adopted Sun's theory of "monopoly leveraging" which the court described as follows:

> The theory underlying Sun's requested injunction is that Microsoft . . . is now taking advantage of its past antitrust violations to leverage its monopoly in the Intel-compatible PC market into the market for general purpose, Internet-enabled distributed computing platforms.
>
> ***
>
> For the reasons I will state later in this opinion, I find Sun's theory is sound and its proposed remedy appropriate.

In re Microsoft, 237 F. Supp. 2d at 645, 646.

Yet the monopoly leveraging theory on which the district court relied has not been recognized in this circuit nor has it received general acceptance. *See M & M Med. Supplies & Servs. v. Pleasant Valley Hosp.*, 981 F.2d 160, 169 (4th Cir. 1992) (*en banc*) (stating that "the law in this circuit does not clearly establish whether monopoly leveraging is a cognizable claim under § 2"); Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law ¶ 652(b)(2) at 93 (1996) (observing that most circuit and district courts "reject most leveraging claims"). Indeed, monopoly leveraging may have been seriously undermined and perhaps been entirely foreclosed by the Supreme Court's decision in *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447 (1993). *See id.* at 459 ("[Section] 2 makes the conduct of a single firm unlawful only when it actually monopolizes or dangerously threatens to do so"); *Virgin Atlantic Airways Ltd. v. British Airways PLC*, 257 F.3d 256, 272 (2d Cir. 2001) ("[U]ncertainty exists as to the continued scope of a monopoly leveraging claim as an independent cause of action in light of the Supreme Court's opinion in *Spectrum Sports*"); 3 Areeda & Hovenkamp, Antitrust Law¶ 652(b), at 93 ("[T]he Supreme Court's *Spectrum Sports* decision appears to rule out `non-monopolistic leverage' claims under § 2 altogether"). Finally, it is noteworthy that the leading treatise on antitrust law describes monopoly leveraging as generally incompatible with the text of § 2 of the Sherman Act and its underlying policies. *See* 3 Areeda &

Hovenkamp, Antitrust Law ¶ 652(a), at 90 ("When there is no realistic threat that the second market will become monopolized as a result of the defendant's activity, [§ 2 of the Sherman Act] simply does not apply"); *id.* ¶ 652(c), at 97 ("[A]ny monopoly leveraging claim must be limited to circumstances where (1) the `target' . . . market is properly defined; and (2) the alleged conduct threatens the [`target'] market with the higher prices or reduced output or quality associated with the kind of monopoly that is ordinarily accompanied by large market share").

In addition, the monopoly leveraging theory leaves open the real possibility that the causal connection needed between the conduct enjoined and the conduct constituting a violation could be overlooked, thereby undermining a basic requirement of the Clayton Act, 15 U.S.C. §§ 15 and 26: "A court . . . must base its relief on some clear `indication of a significant causal connection between the conduct enjoined or mandated and the violation found directed toward the remedial goal intended.'" *United States v. Microsoft Corp.*, 253 F.3d at 105 (quoting 3 Areeda & Hovenkamp, Antitrust Law¶ 653(b), at 91-92); *see also* 15 U.S.C. § 26 (authorizing injunctive relief against "threatened loss or damage *by a violation of the antitrust laws*" (emphasis added)); *Thompson Everett, Inc. v. Nat'l Cable Advertising, L.P.*, 57 F.3d 1317, 1325 (4th Cir. 1995) (relief under the antitrust laws "must flow from *that conduct* which is proscribed by the antitrust laws").

Given the rationale as well as the weight of authority against recognition of the theory of monopoly leveraging as a basis for § 2 liability and our failure yet to have recognized it, it is not surprising that Sun disclaims reliance on monopoly leveraging on appeal, claiming that although the district court's order "will prevent harm in an adjacent, related market, it does not rest upon a `monopoly leveraging' theory of liability." This statement, however, is flatly contradictory to the district court's own characterization of the theory on which it rested the mandatory preliminary injunction.

Notwithstanding the district court's characterization of the substantive theory underlying the relief ordered, Sun focuses this court's attention on the portion of the district court's opinion in which the court justified its resolution of the "two-market problem" by relying on the remedial principle that injunctive relief need not be limited "`to prohibition of the proven means by which the evil was accomplished, but may range broadly through practices connected with the acts actually found to be illegal.'" *In re Microsoft*, 237 F. Supp. 2d at 658 (quoting *United States v. United States Gypsum Co.*, 340 U.S. 76, 88-89 (1951)); *see also Int'l Boxing Club of New York v. United States*, 358 U.S. 242, 262 (1959)("[S]ometimes relief, to be effective, must go beyond the narrow limits of the proven violation" (internal quotation marks omitted)). The district court's articulation of this remedial principle could not alone raise any objection. This is not, however, a case in which the district court ordered injunctive relief to protect competition in the relevant market. Rather, the court targeted its injunction only toward an emerging and as yet undefined collateral market without identifying any purpose that this injunction would have to protect competition in the relevant market. As a result, the district court's application of an otherwise sound remedial principle in the context of this case served only to bolster a monopoly leveraging theory. In the absence of monopoly leveraging, Sun is unable to demonstrate that the preliminary relief ordered is necessary to the prosecution of its claim in litigation as alleged in Count I of its complaint.

In the alternative, Sun argues that it has alleged in Count 8 of its complaint a claim for *attempted monopolization* of the new emerging market for middleware. While such a claim could theoretically support the entry of a preliminary injunction in the middleware market, that theory was not pursued by Sun below nor discussed by the district court; Sun did not bring its preliminary injunction motion under Count 8 of its complaint but rather under Count 1 (which alleges illegal monopoly maintenance of the PC operating systems market). That decision by Sun was probably well considered, at least at this preliminary stage of the proceedings.

"[T]o demonstrate attempted monopolization a plaintiff must prove (1) that the defendant has engaged in predatory or anticompetitive conduct with (2) a specific intent to monopolize and (3) a dangerous probability of achieving monopoly power." *Spectrum Sports*, 506 U.S. at 456. And proof of these elements requires definition of the relevant market that the defendant is allegedly attempting to monopolize. *Id.* at 455 ("[T]he plaintiff charging attempted monopolization must prove a dangerous probability of actual monopolization, which has generally required a definition of the relevant market and examination of market power"). Even though the district court never defined for purposes of antitrust analysis the market it had in mind with respect to middleware, it concluded that whatever market it had in mind appeared to be dominated by Sun and that Microsoft has "virtually no present share of the market." Accordingly, the court did not find a dangerous probability that Microsoft would actually monopolize that yet-undefined market in which Microsoft was just beginning to provide competition. Indeed, the district court recognized that Sun's expert could not assign *any probability* to the likelihood of market tipping, much less a *dangerous probability* of actual monopolization by Microsoft.

In sum, the mandatory preliminary injunction aimed at preventing "distortion" in the new emerging market for middleware has not been linked in fact or by any established legal theory to the final relief that Sun seeks in its claim that Microsoft has illegally maintained its monopoly in the market for worldwide licensing of Intel-compatible PC operating systems. And for this reason also the mandatory preliminary injunction must be vacated.

V

The district court also entered a preliminary injunction in relation to Sun's claim — Count 16 of its complaint — that Microsoft violated Sun's copyright in the "source code for the Java Development Kit." Sun alleges that some of Microsoft's distribution methods of the Microsoft Java Virtual Machine (MSJVM) exceeded the limited license granted Microsoft in the January 2001 Settlement Agreement. The Settlement Agreement granted to Microsoft "[a] limited license . . . to continue to distribute without modification in [specified] currently shipping commercial products" the MSJVM and a license to "incorporate" the unmodified MSJVM "in successor versions of the [specified] products." The district court held that Sun established a prima facie case of copyright infringement based on its allegations that Microsoft exceeded the limited license granted in the Settlement Agreement by (1) permitting Original Equipment Manufacturers to themselves choose whether to install or not install the MSJVM in Windows and Internet Explorer, (2) distributing the MSJVM as part of a service pack for Windows XP, and (3) allowing downloads of the MSJVM from the Internet by purchasers of licenses to Windows and Internet Explorer. The district court enjoined Microsoft from distributing

> a. Any product that includes any copy of [the MSJVM] other than a Licensed Product; [and]
>
> b. Any copy of the MSJVM, except to the extent that such copy has . . . been incorporated by Microsoft into a Licensed Product prior to the distribution of such Licensed Product by Microsoft, so that all copies of such Licensed Product distributed by Microsoft include a copy of such MSJVM . . . .

In re Microsoft, 240 F. Supp. 2d at 463.

The parties do not dispute that Sun possesses valid copyrights that protect the Java software and that Microsoft copied Sun's protected works in creating the MSJVM. Microsoft does not dispute that, at least in the past, it distributed the MSJVM using the methods complained of by Sun. Furthermore, there is no dispute that the limited license granted in the Settlement Agreement is the only potential authorization that would allow the distribution by Microsoft of the MSJVM in any form. The merits of Sun's copyright infringement claim, then, turn exclusively on interpretation of the terms of the Settlement Agreement, which we review *de novo*. *See, e.g., Williams v. Professional Transp. Inc.*, 294 F.3d 607, 613 (4th Cir. 2002).

After an independent review of the terms of the Settlement Agreement, including interpretation of its ambiguous terms in light of the parol evidence submitted by the parties, we find no reason to disturb the conclusions reached by the district court. We agree that Microsoft's alternative methods of distribution, which included permitting parties other than Microsoft to "incorporate" the MSJVM into Windows and Internet Explorer, exceeded the limited scope of the license granted in the Settlement Agreement.

Microsoft argues that "[t]he Settlement Agreement does not mandate that the MSJVM be included in the default installation of Windows and in no way limits the mechanisms Microsoft can use to distribute the MSJVM as an optional component of Windows XP." This argument ignores the prefatory language of paragraph 7 of the agreement, as well as the implication exclusion in paragraph 16. Paragraph 7, titled "License Limitations," provides that "[t]he basic intent of the licenses granted in paragraph 6 above is to permit Microsoft *to continue to distribute its current products `as is*.'" (Emphasis added). Paragraph 16 further provides that "[n]othing in this Settlement Agreement grants any right or license . . . except as *expressly provided* . . . . (Emphasis added). Sun presented evidence to the district court that "[a]t the time of the agreement, every copy of Windows 98 and Windows 2000 distributed by Microsoft was distributed with the 1.1.4 VM preinstalled by Microsoft." This fact, together with the carefully circumscribed language of the Settlement Agreement that granted Microsoft a limited license, establishes that Microsoft's distribution of the MSJVM through alternative channels exceeded the scope of the license granted.

Microsoft points to the statement of its lead negotiator that he informed the Sun negotiating team that Microsoft intended to distribute the MSJVM via Internet downloading and Sun never objected. Yet this statement was contradicted by a Sun representative's testimony that he "personally participated in every meeting and telephone call . . . regarding our settlement and at no time did [he] ever hear any Microsoft representative state whether or how Microsoft would incorporate its 1.1.4 VM in Windows XP or any other version of any other Microsoft product." This same Sun representative also provided a sensible interpretation of the agreement that Sun deliberately bargained for certain words (such as "version" and "product") to limit the license being granted to Microsoft. He accompanied this interpretation with the reasonable business explanation that Sun bargained for language that would

> ensure that Microsoft's 1.1.4 VM would either be preinstalled in each copy of a new product version, or not distributed for such products at all. If Microsoft's 1.1.4 VM were incorporated in a successor version of a licensed product, then every customer who purchased that product version would receive the 1.1.4 VM preinstalled. If it were not incorporated by Microsoft in that product version, then no purchaser

> of that product could obtain it from Microsoft. Instead, those customers would be motivated to obtain a current, compatible [Java Runtime Environment, a Java component,] from Sun or its other licensees.

Having concluded that the district court did not err in holding that "Microsoft does not have the right under the settlement agreement to take any of the actions about which Sun complains," *In re Microsoft*, 237 F. Supp. 2d at 664, we also affirm the district court's application of the principle that Sun was "entitled to the presumption of irreparable harm and the protection against that harm which a preliminary injunction affords," *id.See Serv. & Training, Inc. v. Data Gen. Corp.*, 963 F.2d 680, 690 (4th Cir. 1992) ("Once [the plaintiff] established a *prima facie* claim of copyright infringement, the district court was entitled to presume that [the plaintiff] could show both probable likelihood of success on the merits and irreparable harm").

Armed with these legal and factual conclusions, the district court did not abuse its discretion in entering the preliminary injunction involving Microsoft's distribution of Java-based software. Accordingly, we affirm the preliminary injunction entered by the district court in respect to Sun's copyright claim.

VI

For the reasons given, we vacate the mandatory preliminary injunction entered in paragraphs 1-8, 12, and 13 of the district court's order dated January 21, 2003, *In re Microsoft Corp. Antitrust Litigation*, 240 F. Supp. 2d 460 (D. Md. 2003), and we affirm the preliminary injunction entered in paragraph 9. This case is remanded for further proceedings.

AFFIRMED IN PART, VACATED IN PART, AND REMANDED