

Testimony of

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Four years after the United States government initiated legal action against the Microsoft Corporation, Microsoft, the federal government, and nine states have agreed upon a consent decree ("the proposed decree") to settle the finding of antitrust liability that the Court of Appeals for the D.C. Circuit has unanimously affirmed. In my view, that consent decree suffers from a significant, if narrow, flaw. While it properly enlists the market as the ultimate check on Microsoft's wrongful behavior, it fails to provide an adequate mechanism of enforcement to implement its requirements. If it is adopted without modification, it will fail to achieve the objectives that the government had when it brought this case.

Yet while it is important that an adequate and effective remedy be imposed against Microsoft, in my view it is equally important that any remedy not be extreme. Microsoft is no longer the most significant threat to innovation on the Internet. Indeed, as I explain more fully below, under at least one understanding of its current Internet strategy, Microsoft could well play a crucial role in assuring a strong and neutral platform for innovation in the future. Thus, rather than retribution, a remedy should aim to steer the company toward this benign and beneficial strategy. Obviously, this benign understanding of Microsoft's current strategy is not the only understanding. Nor do I believe that anyone should simply trust Microsoft to adopt it. But its possibility does suggest the importance of balance in any remedy. The proposed decree does not achieve that balance, but neither, in my view, does the alternative.

I am a law professor at Stanford Law School and have written extensively about the interaction between law and technology. My most recent book addresses directly the effect of law and technology on innovation. I have also been involved in the proceedings of this case. In 1997, I was appointed special master in the action to enforce the 1995 consent decree. That appointment was vacated by the Court of Appeals when it concluded that the powers granted me exceeded the scope of the special master statute. *United States v. Microsoft Corporation*, 147 F.3d 935, 953-56 (D.C. Cir 1998) ("Microsoft II"). I was then invited by the District Court to submit a brief on the question of using software code to "tie" two products together. I have subsequently spent a great deal of time studying the case and its resolution.

In this testimony, I outline the background against which I draw my conclusions. I then consider the proposed decree, and some of the strengths and weaknesses of the alternative proposed to the District Court by the nine remaining states (the "alternative"). Finally, I consider two particular areas in which this Committee may usefully consider action in light of the experience in this case.

BACKGROUND

In June, 2001, the Court of Appeals for the D.C. Circuit unanimously affirmed Judge Jackson's conclusion that Microsoft used its power over Windows to protect itself against innovation that threatened its monopoly power. *United States v. Microsoft Corporation*, 253 F.3d 54 (D.C. Cir 2001) (Microsoft III). That behavior, the Court concluded, violated the nation's antitrust laws. The Court therefore ordered the District Court to craft a remedy that would "'unfetter [the] market from anticompetitive conduct,' to 'terminate the illegal monopoly, deny to the defendant the fruits of its statutory violation, and ensure that there remain no practices likely to result in monopolization in the future.'" Microsoft III, 253 F.2d at 103 (citations omitted).

Integral to the Court's conclusion was its finding that Microsoft had "commingled code" in such a way as to interfere with the ability of competitors to offer equivalent products on an even playing field. As the District Court found, and the Court of Appeals affirmed, Microsoft had designed its products in such a way as to inhibit the substitution of certain product functionality. This design, the district court concluded, served no legitimate business interest. The Court's conclusion was therefore that Microsoft had acted strategically to protect its market power against certain forms of competition.

In my view, this holding by the Court of Appeals is both correct and important. It vindicates a crucial principle for the future of innovation generally, and in particular, on the Internet. By affirming the principle that no company with market power may use its power over a platform to protect itself against competition, the Court has assured competitors in this and other fields that the ultimate test of success for their products is not the decision by a platform owner, but the choice of consumers using the product. To the extent that Microsoft's behavior violated this principle, and continues to violate this principle, it is appropriate for the District Court to craft a remedy that will stop that violation.

An appropriate remedy, however, must take into account the competitive context at the time the remedy is imposed. And in my view, it is crucially important to see that Microsoft does not represent the only, or even the most significant, threat to innovation on the Internet. If the exercise of power over a platform to protect that platform owner from competition is a threat to innovation (as I believe the Court of Appeals has found), then there are other actors who also have significant power over aspects of the Internet platform who could also pose a similarly dangerous threat to the neutral platform for innovation that the Internet as has been. For example, broadband cable could become a similar threat to innovation, if access to the Internet through cable is architected so as to give cable the power to discriminate among applications and content. Similarly, as Chairman Michael Powell suggested in a recent speech about broadband technology, overly protective intellectual property laws could well present a threat to broadband deployment.

Microsoft could play a significant role in resisting this kind of corruption of the Internet's basic values, and could therefore play an important role in preserving the environment for innovation on the net. In particular, under one understanding of Microsoft's current Internet strategy (which I will refer to generally as the ".NET strategy"), Microsoft's architecture would push computing power and network control to the "edge" or "ends" of the network, and away from the network's core. This is consistent with a founding design principle of the early network - what network architects Jerome Saltzer, David Clark, and David Reed call "the end-to-end argument." .NET's possible support of this principle would compete with pressures that now

encourage a compromise of the end-to-end design. To the extent Microsoft's strategy resists that compromise, it could become a crucial force in preserving the innovation of the early network.

This is not to say that this benign, pro-competitive design is the only way that Microsoft could implement its .NET strategy. There are other implementations that could certainly continue Microsoft's present threat to competition. And obviously, I am not arguing that anyone should trust Microsoft's representation that it intends one kind of implementation over another. Trust alone is not an adequate remedy to the current antitrust trial.

My point instead is that there is little reason to vilify a company with a strong and powerful interest in a strategy that might well reinforce competition on the Internet - especially when, excepting the open source and free software companies presently competing with Microsoft, few of the other major actors have revealed a similarly pro-Internet strategy. Thus, rather than adopting a remedy that is focused exclusively on the "last war," a proper remedy to the current anti-trust case should be sufficient to steer Microsoft towards its benign strategy, while assuring an adequate response if it fails to follow this pro-competitive lead.

Such a remedy must be strong but also effectively and efficiently enforceable. The fatal weakness in the proposed decree is not so much the extent of the restrictions on Microsoft's behavior, as it is the weaknesses in the proposed mechanisms for enforcement. Fixing that flaw is no doubt necessary to assure an adequate decree. In my view, it may also be sufficient.

THE PROPOSED DECREE

While the proposed decree is not a model of clarity, the essence of its strategy is simply stated: To use the market to police Microsoft's monopoly. The decree does this by assuring that computer manufacturers and software vendors remain free to bundle and support non-Microsoft software without fear of punishment by Microsoft. Dell or Compaq are thus guaranteed the right to bundle browsers from Netscape or media players from Apple regardless of the mix that Microsoft has built into Windows. Autonomy from Microsoft is thus the essence of the plan - the freedom to include any "middleware" software with an operating system regardless of whether or not it benefits Microsoft.

If this plan could be made to work, it would be the ideal remedy to this four year struggle. Government regulators can't know what should or should not be in an operating system. The market should make that choice. And if competitors and computer manufacturers could be assured that they can respond to the demands of the market without fear of retaliation by Microsoft, then in my view they would play a sufficient role in checking any misbehavior by Microsoft.

The weakness in the proposed decree, however, is its failure to specify any effective mechanism for assuring that Microsoft complies. The central lesson that regulators should have learned from this case is the inability of the judicial system to respond quickly enough to violations of the law.

Thus the first problem that any proposed decree should have resolved is a more efficient way to assure that Microsoft complies with the decree's requirements. Under the existing system for enforcement, by the time a wrong is adjudicated, the harm of the wrong is complete.

Yet the proposed decree does nothing to address this central problem. The decree does not include provision for a special master, or panel of masters, to assure that disagreements about application could be quickly re-solved. Nor does it provide an alternative fast-track enforcement mechanism to guarantee compliance.

Instead the decree envisions the creation of a committee of technical experts, trained in computer programming, who will oversee Microsoft's compliance. But while such expertise is necessary in the ongoing enforcement of the decree, equally important will be the interpretation and application of the decree to facts as they arise. This role cannot be played by technical experts, and yet in my view, this is the most important role in the ongoing enforcement of the decree.

For example, the decree requires that Microsoft not retaliate against an independent software vendor because that vendor develops or supports products that compete with Microsoft's. Proposed Decree, §III.B. By implication, this means Microsoft would be free to retaliate for other reasons unrelated to the vendor's competing software. Whether a particular act was "retaliation" for an improper purpose is not a technical question. It is an interpretive question calling upon the skills of a lawyer. To resolve that question would therefore require a different set of skills from those held by members of the technical committee.

The remedy for this weakness is a better enforcement mechanism. As the nine remaining states have suggested, a special master with the authority to interpret and apply the decree would assure a rapid and effective check on Microsoft's improper behavior. While I suggest some potential problems with the appointment of a special master in the final section of this testimony, this arrangement would assure effective monitoring of Microsoft, subject to appeal to the District Court.

The failure to include an effective enforcement mechanism is, in my view, the fatal weakness in the proposed decree. And while I agree with the nine remaining states that there are other weaknesses as well, in my view these other weaknesses are less important than this single flaw. More specifically, in my view, were the decree modified to assure an effective enforcement mechanism, then it may well suffice to assure the decree's success. Without this modification, there is little more than faith to assure that this decree will work. With this modification, even an incompletely specified decree may suffice.

The reason, in my view, is that even a partial, yet effectively enforced decree, could be sufficient to steer Microsoft away from strategic behavior harmful to competition. Even if every loophole is not closed, if the decree can be effectively enforced, then it could suffice to push Microsoft towards a benign, pro-competitive strategy. The proposed decree has certainly targeted the most important opportunity for strategic, or anti-competitive, behavior. If the chance to act on these without consequence is removed, then in my view, Microsoft has a strong incentive to focus its future behavior towards an implementation of its .NET strategy that would reinforce rather than weaken the competitive field. An effective, if incomplete, decree could, in other words, suffice to drive Microsoft away from the pattern of strategic behavior that has been proven against it in the Court of Appeals.

There are those who believe Microsoft will adopt this benign strategy whether or not there is a remedy imposed against them. Indeed, some within Microsoft apparently believe that

supporting a neutral open platform is in the best interests of the company. Given the significant findings of liability affirmed by the Court of Appeals, I do not believe it is appropriate to leave these matters to faith. But I do believe that a remedy can tilt Microsoft towards this better strategy, at least if the remedy can be efficiently enforced.

THE NINE STATES' ALTERNATIVE

On Friday, December 7, 2001, the nine states that have not agreed to the proposed consent decree outlined an alternative remedy to the one proposed by the Justice Department. In many ways, I believe this alternative is superior to the Justice Department's proposed decree. This alternative more effectively protects against a core strategy attacked in the District Court - the commingling of code designed to protect Microsoft's monopoly power. It has an effective enforcement provision, envisioning the appointment of a special master. The alternative has a much stronger mechanism for adding competition to the market - by requiring that Microsoft continue to market older versions of its operating system in competition with new versions. And finally, the alternative requires that Microsoft continue to distribute Java technologies as it has in prior Windows versions.

The alternative, however, goes beyond what in my view is necessary. And while in light of the past, erring on the side of overly protective remedies might make sense, I will describe a few areas where the alternative may have gone too far, after a brief description of a few of the differences that I believe are genuine improvements.

Areas of Common Strategy

Both the proposed decree and the alternative agree on a common set of strategies for restoring competition in the market place. Both seek to assure autonomy for computer manufacturers and software vendors to bundle products on the Microsoft platform differently according to consumer demand. Both decrees aim at that end by guaranteeing nondiscriminatory licensing practices, and restrictions on retaliation against providers who bundle or support non-Microsoft products. The alternative specifies this strategy more cleanly than the proposed decree. It is also more comprehensive. But both are aiming rightly at the same common end: to empower competitors to check Microsoft's power.

Improvements of the Alternative

The alternative remedy adds features to the proposed decree that are in my view beneficial. Central among these is the more effective enforcement mechanism. The alternative proposes the establishment of a special master, with sufficient authority to oversee compliance. This, as I've indicated, is a necessary condition of any successful decree, and may also be sufficient.

Beyond this significant change, however, there are a number of valuable additions in the states' alternative. By targeting the "binding" of middleware to the operating system, the alternative more effectively addresses a primary concern of the Court of Appeals. This restriction assures that Microsoft does not architect its software in a way that enables it strategically to protect itself against competition. Such binding was found by the courts to make it costly for users to select competing functionality, without any compensating pro-competitive benefit.

The alternative also assures much greater competition with new versions of the Windows operating system by requiring that prior versions continue to be licensed by Microsoft. This competition would make it harder for Microsoft to use its monopoly power to push users to adopt new versions of the operating system that advance Microsoft's strategic objectives, but not consumer preferences.

Finally, the alternative addresses a troubling decision by Microsoft to refuse to distribute Java technologies with Windows XP. This decision by Microsoft raises a significant concern that Microsoft is determined to continue to play strategically to strengthen the applications barrier to entry.

Concerns about the proposed alternative

While I believe the alternative represents a significant improvement over the proposed consent decree, I am concerned that the alternative may go beyond the proper scope of the remedy.

Open Sourcing Internet Explorer: While I am a strong supporter of the free and open source software movements, and believe software of both varieties is unlikely ever to pose any of the same strategic threats that closed source software does, I am not convinced the requirement of open sourcing Internet Explorer is yet required, or even effective. Both proposed remedies have a strong requirement that application interfaces be disclosed, and until that remedy proves incomplete, I don't believe the much more extreme requirement of full disclosure of source code is merited.

The definition of Middleware Products: The central target of the litigation was Microsoft's behavior with respect to middleware software. Understood in terms relevant to this case, middleware software is software that lowers the applications barrier to entry by reducing the cost of cross-platform compatibility. Java tied to the Netscape browser is an example of middleware so understood; had it been successfully and adequately deployed, it would have made it easier for application program developers to develop applications that were operating system agnostic, and therefore would have increased the demand for other competing operating systems.

This definition is consistent with the alternative definition of "middleware." But the specification of "middleware products" reaches, in my view, beyond the target of "middleware." Middleware is not properly understood as software that increases the number of cross-platform applications; middleware is software that increases the ease with which cross-platform programs can be written. Thus, for example, Office is not middleware simply because it is a cross-platform program. It would only qualify as middleware if it made it easier for programmers to write platform-agnostic code.

The requirement that Office be ported: For a similar reason, I am not convinced of the propriety of requiring that Office be ported. While Office for the Macintosh is certainly a crucial application for the continued viability of the Macintosh OS, having Office on many platforms does not significantly affect the applications barrier to entry. No doubt if Microsoft strategically pulled the development of Office in order to defeat another operating system, or if it aggressively resisted applications that were designed to be compatible with Office (such as Sun's Star Office), that could raise antitrust concerns. But the failure simply to develop office for

another platform would not itself respond to the concerns of the Court of Appeals. No doubt, each of these additional remedies might be conceived of as necessary prophylactics given a judgment that Microsoft is resolved to continue its strategic anticompetitive behavior. And after a fair and adequate hearing in the District Court, such a prophylactic may well prove justified. At this stage, however, I am not convinced these have been proven necessary.

APPROPRIATE CONGRESSIONAL ACTION

It is obviously inappropriate for Congress to intervene in an ongoing legal dispute with the intent to alter the ultimate judgment of the judicial process. Thus while I believe it is extremely helpful and important that this Committee review the matters at stake at this time, there is a limit to what this Committee can properly do. In a system of separated powers, Congress does not sit in judgment over decisions by Courts.

Yet there are two aspects to this case that do justify a greater concern by Congress. Both aspects are intimately tied to earlier decisions by the Court of Appeals. First, in light of the Court of Appeals' judgment in the 1995 Microsoft litigation, *United States v. Microsoft Corporation*, 56 F.3d 1448 (D.C. Cir. 1995) (Microsoft I), it is clear that the Tunney Act proceedings before the District Court are extraordinarily narrow. Second, in light of the Court of Appeals' judgment in 1998 Microsoft litigation, *Microsoft II*, it is not clear that, absent consent of the parties, the District Court has the power to appoint a special master with the necessary authority to assure enforcement of any proposed remedy. Both concerns may justify this Committee taking an especially active role to assure a proper judgment can be reached - in the first case through its consultation with the executive, and the second, possibly with clearer legislative authority.

The Tunney Act Proceedings

In *Microsoft I*, the Court of Appeals for the D.C. Circuit held that the District Court's authority under the Tunney Act to question a consent decree proposed by the government was exceptionally narrow. Though that statute requires that the District Court assure that any consent decree is "within the public interest," the Court read that standard to be extremely narrow. If the decree can be said to be within "the reaches of the public interest," *Microsoft I*, 56 F.3d at 1461, then it is to be upheld.

The consequence of this holding is that it will be especially hard for the District Court to question the government's proposed decree. Absent a showing of corruption, the decree must be affirmed. It is hard for me to imagine that the proposed decree would fail this extremely deferential standard. Thus any weaknesses in the proposed decree would have to be resolved in the parallel proceedings being pursued by the nine states.

This deference may be a reason for Congress in the future to revisit the standard under the Tunney Act. Such a review could not properly affect this case, but concerns about this case may well suggest the value in future contexts.

But the concern about this decree may well be relevant to this Committee's view about the appropriateness of the government's cooperation with any ongoing prosecution by the nine states. The federal government may well have decided its remedy is enough; it wouldn't follow from that determination that the federal government has a reason to oppose the stronger remedies

sought by the states. At a minimum, the government should free advisors or consultants it has worked with to aid the continuing states as they may desire.

The power to appoint a "special master"

In *Microsoft II*, the Court of Appeals interpreted a District Court's power to appoint a special master quite narrowly. While the Court acknowledged the strong tradition of using special masters to enforce judgments, it raised doubt about the power of the special master to act beyond essentially ministerial tasks. In particular, the task of interpreting and applying a consent decree to contested facts was held by the Court of Appeals to be beyond the statute's power - at least where the District Court did not reserve to itself de novo review of the special master's determination. *Microsoft II*, 147 F.3d at 953-56.

This narrow view of a special master's power was a surprise to many. It may well interfere with the ability of District Courts to utilize masters in highly technical or complex cases. This Committee may well need to consider whether more expansive authority should be granted the District Courts. Especially in the context of highly technical cases, a properly appointed master can provide invaluable assistance to the District Court judge.

These limitations would not, of course, restrict the appointment of a master in any case to which the parties agreed. And it may well be that the simplest way for Microsoft to achieve credibility in the context of this case would be for it to agree to the appointment of a master with substantial authority to interpret and apply the decree, subject to de novo review by the District Court. Such a master should be well trained in the law, but also possess a significant degree of technical knowledge. But beyond the particulars of this case, it may well be better if the District Court had greater power to call upon such assistance if such the Court deemed such assistance necessary.