WINDOWS XP/.NET:
MICROSOFT'S EXPANDING MONOPOLY

HOW IT CAN HARM CONSUMERS AND WHAT THE COURTS MUST DO TO PRESERVE COMPETITION

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In a full bench review, the U.S. Appeals Court for the District of Columbia Court unanimously affirmed the initial ruling that Microsoft illegally maintained its monopoly in operating systems. The Appeals Court upheld all lower court *Findings of Fact* that Microsoft's abuse of monopoly power harms consumers by **increasing costs, restricting choice, impairing quality and retarding innovation.**

In fact, as articulated by the courts, the central issue in the case and the remedy phase is not whether we have innovation in the software industry, but whether innovation is driven by a vigorous competitive process, or managed by a single, dominant firm that can choose, at any moment and with a vast, ever-expanding supply of anti-competitive tactics, to protect and promote its interest at the expense of consumers. The ruling has been widely applauded by liberal and conservative commentators, not only because of the importance of the software industry, but also because of the reaffirmation of the role of antitrust in the new economy.

The New Challenge: "Windows XP/.NET"

These findings are especially critical because Microsoft is in the process of rolling out the most aggressive bundle of products in its history – an operating system (Windows XP) with a host of embedded applications (browser, messenger, media player) that is intertwined with a wide array of Internet services (Hailstorm and the .NET initiative). The bundle covers all of the functionalities that are converging on the Internet including:

- Communications: E-Mail (Hotmail), Messaging (Microsoft Messenger)
- Commerce: Identity Verification (Passport—names and addresses), Utilities (e.g. Calendars, Contact Lists), Transactions (e.g. documents, payment records)
- Multimedia Applications: Music and Video (Media Player 8), Digital Photography (My Pictures)
- Internet Services: MSN

Today these Internet activities are vigorously competitive, just as the browser was before Microsoft launched its monopolistic assault, but Microsoft requires computer manufacturers to buy all of "Windows XP/.NET", and laces the bundle with technological and business practices that have already been ruled illegal by the courts, such as the following:

- commingled code,
- proprietary languages,
- exclusive functionalities promoted by restrictive licenses,
- refusal to support competing applications,

- embedded links, and

- deceptive messages.

With the launch of "Windows XP/.NET" Microsoft is adding new tactics to its anticompetitive campaign. For the first time, Microsoft is requiring software developers to "pre-certify" their software with Microsoft. It is also requiring that consumers activate their operating system, and provide extensive information to Microsoft. The operating system monitors the computer on which it is installed—too many changes to the computer configuration will make the software think it is being used on a second PC. It will lock up and consumers will have to contact Microsoft to reactivate it.

Microsoft's anti-competitive leveraging also gets personal, through an identity authentication service called Passport. Microsoft has declared that "all Windows users will get a Passport." This identity authentication service will build a massive proprietary database of personal information and transactional details, by leveraging its illegally preserved monopolies in operating systems, the browser, and office applications.

The Problem with Microsoft's Proprietary Passport

The database Microsoft proposes would include a vast array of information, far beyond the personal identification that is needed for identity verification, including:

- private personal information like nicknames, special dates, and photographs, as well as similar information on friends and family,

- communications options like fax, e-mail, and voice-mail,

- Credit card numbers,

- Transaction data (receipts, payment methods),

- Usage data (reports from service providers),

- Utilities like calendars, contacts, address books, favorite sites,

- Device setting and Internet protocol preferences

While identity verification is an important functionality for Internet-based computing, Microsoft's approach raises both commercial and privacy concerns.

Microsoft is intent on achieving dominance by illegal means. It has embedded its verification service in the bundle, e.g. by requiring Microsoft Passport for customer service and software support. It leverages its control of the operating system by repeatedly prompting consumers to use Passport and to deliver misleading messages seeming to suggest, incorrectly, that Microsoft products are necessary to access the Internet, or that non-Microsoft applications will not run on Windows XP, or that Passport provides users greater security.

Microsoft intends to operate the identity verification service in an anti-consumer manner. Microsoft intends to make the database relational. That is, the personalized data will link who the consumer is to what the consumer does on the Internet. Microsoft

proposes to share information with vendors. This unnecessarily commercializes identity authentication. There is no need to have a large, centralized, shared, relational database of transactions to provide the function of identity verification.

Thus, Microsoft's Passport approach raises an additional set of concerns related to privacy and consumer protection policies. Past privacy policy was not consumer friendly and Microsoft has been vulnerable to hacking. Under current policy, Microsoft retains the right to change policy at any time. It uses an opt out approach that shifts burdens unfairly to consumers. Microsoft retains data for a year after a consumer terminates participation in Passport. The privacy policies of partners with whom Microsoft shares data are "wide open" and it disables other privacy protection software.

Restoring Competition In The Software Market, Preserving Competition On The Internet

The strength of the case, the unanimity of the Appeals Court ruling, the clearly identifiable pattern of illegal practices in the new "Windows XP/.NET" bundle, and the importance of the markets that are the target of Microsoft's attack call for a strong remedy that restores competition and prevents Microsoft from using its market power against new products and in new markets. The recent decision by the Department of Justice not to pursue a break-up of the company places a great deal of pressure on the courts to craft an effective and vigorous conduct remedy.

A conduct remedy must be extensive, since Microsoft has engaged in such a broad range of anti-competitive practices. The policing of the remedy must be aggressive, since Microsoft has shown itself to be recalcitrant both in its failure to comply with the earlier consent decree and in its steadfast denial of wrongdoing in this case. Most importantly, the remedy should be forward looking—a remedy's effectiveness should be judged with respect to where the market is going, not where it has been.

Disclosure requirements and prohibitions on discrimination must apply to the entire "Windows Family" and the applications built on it. They must also apply to all aspects of the interface between Microsoft and both distribution channels and other software vendors. Exclusive arrangements should not be tolerated, but the Court has recognized that preferential deals are a powerful tool to preserve the monopoly. A prohibition on discrimination should apply to prices, functionalities, support, testing, marketing, and other considerations that Microsoft has used to discriminate in the past.

Refusal to port Office to other operating systems, failure to disclose APIs and denial of access to source code have historically been severe problems and must be prohibited to help diminish Microsoft's ability to impair the quality of competing or potentially competing products. A mechanism to ensure non-discriminatory access will be crucial. Microsoft should also be required to support older operating systems and to provide training on new operating systems.

The court has signaled that it will be suspicious of throwing together a broad range of functionalities, when integrating simple and specific technical components are all that is

needed to achieve efficiencies. It is concerned about contractual or technical arrangements that preclude the removal of the tied product. Computer manufacturers should be given the freedom to configure screens and boot sequences to provide a level playing field for non-Microsoft software and applications.

Price discrimination can be eliminated with a requirement to publish a uniform pricing schedule. This will alleviate one major source of leverage over OEMs. Furthermore, the practice of raising the price on older versions when new ones are released should be restricted. Older versions should also be supported for a period. Two-way compatibility should be maintained, alleviating the pressure to upgrade.

Since enforcement is so crucial, several types of enforcement mechanisms are needed. These include rights of private action (standing) for individuals who allege discrimination or other abuse in the past or on a going forward basis, giving them expedited remedy, protection from retribution, and access to damages should they demonstrate abuse. Banning Non-Disclosure Agreements (NDAs) should make it clear that private parties have access to code.

To restore competition and prevent future monopolization an annual review by the Court should be conducted to ensure that contracting and market behaviors are in compliance in a global sense. A special master will have to be appointed to oversee more technical issues.

Unless the penalties for failing to comply with the consent decree are severe, Microsoft has no incentive to obey the law. Its past behavior and its continuing monopolies indicate it profits by flaunting the law and conducting business as usual. One possibility would be to impose large financial penalties for noncompliance. Unfortunately, Microsoft's cash hoard is so large and its monopoly franchise so profitable that it is hard to imagine the court imposing monetary penalties of sufficient magnitude to actually discipline Microsoft's behavior; the court needs latitude to impose huge monetary penalties. The court should also retain jurisdiction to impose a structural remedy, should the conduct remedy prove ineffective in disciplining Microsoft's behavior. A break-up should be one of the penalties the court should have available if Microsoft fails to comply with the conduct remedy.

The failure of the courts to adopt an effective conduct remedy in the mid-1990s combined with Microsoft's deeply engrained anticompetitive business model to result in the unanimous Appeals Court finding of a violation of the antitrust laws. Yet, so far, the company's conduct, as evidenced by its roll out of *Windows XP* and the growing bundled of embedded products and services, has not changed at all. Another failure by the courts to deal effectively with this recalcitrant monopolist will impose a much heavier price on the public. Not only does this pose the risk of destroying competitive processes in the software and Internet service markets that are vital to the economy of the 21st century, but it will also undermine the efficacy of the antitrust laws, which have been a cornerstone of competition and consumer protection for well over a century.

I. SETTING THE STAGE FOR ANOTHER ANTITRUST BATTLE

A Resounding, Pro-Consumer Ruling Demands A Strong Remedy To Prevent Future Harm

In a full bench review, [1] the U.S. Appeals Court for the District of Columbia Court unanimously affirmed the initial ruling that Microsoft illegally maintained its monopoly in operating systems.[2] The Appeals Court was emphatic in pointing out that consumers have a substantial stake in the antitrust laws because they protect the competitive process.

> From a century of case law on monopolization under section 2, however, several principles do emerge. First, to be condemned as exclusionary, a monopolist's act must have an "anticompetitive effect." That is, it must harm the competitive *process* and thereby harm consumers. In contrast, harm to one or more *competitors* will not suffice.[3]

Retarding innovation through anti-competitive behavior, the District Court found, was among the most important sources of this consumer harm.

> Many of the tactics that Microsoft has employed have also harmed consumers indirectly by unjustifiably distorting competition. The actions that Microsoft took against Navigator hobbled a form of innovation that had shown the potential to depress the applications barrier to entry sufficiently to enable other firms to effectively compete against Microsoft in the market for Intel-compatible PC operating systems. That competition would have conduced to consumer choice and nurtured innovation...

> Most harmful of all is the message that Microsoft's actions have conveyed to every enterprise with the potential to innovate in the computer industry. Through its conduct toward Netscape, IBM, Compaq, Intel, and others, Microsoft has demonstrated that it will use its prodigious market power and immense profits to harm any firm that insists on pursuing initiative that could intensify competition against one of Microsoft's core producers. Microsoft's past success in hurting such companies and stifling innovation deters investment in technology and businesses that exhibit the potential to threaten Microsoft for the sole reason that they do not coincide with Microsoft's self-interest.[4]

Thus, the central issue in the case and the remedy phase is not whether we have innovation in the software industry, as Microsoft often claims,[5] but whether innovation is driven by a vigorous competitive process, or managed by a single, dominant firm that can choose, at any moment and with a vast, ever-expanding array of anti-competitive tactics, to protect and promote its interest at the expense of consumers.

The Appeals Court explicitly noted and reiterated this finding and the important role that competition plays in stimulating innovation.

The question in this case is not whether JAVA or Navigator would actually have developed into viable platform substitutes, but (1) whether as a general matter the exclusion of a nascent threat is the type of conduct that is reasonably capable of contributing significantly to a defendant's continued monopoly power and (2) whether Java and Navigator reasonably constituted nascent threats at the time Microsoft engaged in the anticompetitive conduct at issue. As to the first, suffice it to say that it would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will – particularly in an industry marked by rapid technological advance and frequent paradigm shifts... As to the second, the District Court made ample findings that both Navigator and Java showed potential as middleware platform threats.[6]

An Important Antitrust Ruling for the 21st Century

The ruling has been widely applauded by liberal and conservative commentators, not only because of the importance of the software industry, but also because of the reaffirmation of the role of antitrust in the new economy. Professor Lawrence Sullivan, a liberal antitrust authority,[7] offered high praise for the decision in an op-ed piece in the *California State Bar Journal*, as follows:[8]

The Microsoft decision at the Court of Appeals level shows that neither complexity nor the deliberateness of judicial procedure precludes effective Sherman Act enforcement in dynamic, high tech markets... This thorough, convincing, full bench opinion provides a solid foundation for settlement or, if that remains elusive, a lucid road map for... trial court deliberations that should lead to a decree restoring effective competition.

As Jeffrey Eisenach, a conservative analyst who has written about the case,[9] put it in an op-ed piece in the Los Angeles times[10]

The Appeals court decision in the Microsoft case proves that antitrust laws do indeed apply to the new economy...

For conservatives, it is time for the debate to shift from whether antitrust laws have a role, to what that role is and how best to carry it out.

The Appeals Court went out of its way to stress the fact that the finding of illegal monopoly maintenance comes amid a debate over whether the antitrust laws have a role in the new economy. It clearly answered in the affirmative.

We decide this case against a backdrop of significant debate amongst academicians and practitioners over the extent to which "old economy" section 2 monopolization doctrines should apply to firms competing in dynamic technological markets characterized by network effects...

Moreover, it should be clear that Microsoft makes no claim that anticompetitive conduct should be assessed differently in technologically

dynamic markets. It claims only that the measure of monopoly power should be different. For reasons fully discussed below, we reject Microsoft's monopoly power argument.[11]

Both liberal and conservative analysts point out that the immediate task at hand is to restore competition and prevent a repeat of the monopoly abuse.

We must restore competition to a market that for too long has suffered from the anticompetitive acts of an aggressive monopolist.[12]

Tactics violating section 2 must be enjoined and Microsoft "fenced" in from using similar tactics to target any other, newer software products.[13]

The New Challenge

These findings by the courts are especially critical because Microsoft is in the process of rolling out a new bundle of products – an operating system, a browser and a wide array of applications and linked Internet services -- which may be an even more ominous threat to competition and innovation in software and Internet services markets.[14] Microsoft's brazen disrespect for the antitrust laws is nowhere more readily apparent in the design of its newest bundle of products ("Windows XP," "Hailstorm" and the ".NET initiative," hereafter referred to as "Windows XP/.NET").[15] The product is so blatantly at odds with the Court ruling that it must have been designed on the basis of the assumption that Microsoft would prevail in its appeal.[16]

The recent decision by the Department of Justice not to pursue a break-up of the company and the impending release of the new bundle of products places a great deal of pressure on the courts to craft an effective and vigorous conduct remedy. Microsoft has the same, unified interest that it had before the trial, protecting and extending its monopoly power. It has the same, if not greater tools to do so, because it has added the browser monopoly to its arsenal of weapons. It is targeting a much wider range of software applications and Internet services. If a conduct remedy fails to correct the underlying problem, not only will software markets and the market for Internet services be permanently damaged, but also the efficacy of the antitrust laws will be undermined.

This paper demonstrates the anticompetitive nature of the Microsoft's new bundle of products. Section II presents a brief review of the consumer harm and business practices that were found illegal in the court case. Section III describes the threat to competition and consumers posed by Microsoft's new product bundle and discusses the generally anti-competitive nature of the product. Section IV identifies specific ways in which the new bundle violates the law. Section V discusses the new competitive and privacy issues raised by Microsoft's identity verification service, Passport. Section VI proposes a remedy in the context of the ongoing case.

II. CONSUMER HARM FROM ILLEGAL TECHNOLOGY AND BUSINESS PRACTICES

In upholding the District Court ruling, the Appeals Court 'defer[red] to the District Court's *Findings of Fact*, setting them aside if clearly erroneous."[17] In the end, virtually all of the *Findings of Fact* were left in place, which suggests why the Appeals Court was able to reach such a strong (7-0) conclusion on the central charge in the case.

Consumer Harm

Among the findings that the District Court left in place, and indeed reiterated in a number of instances, were the consumer harm findings of the District Court. The Courts have now concluded and affirmed that Microsoft's abuse of its monopoly power harms consumers in four general ways by undermining the competitive process.

Increased costs: Because of its monopoly, Microsoft is able to charge more for the bundled package than it would in a competitive market.[18] CFA has estimated that in the five years between the start of the anticompetitive attack on the browser in 1995 and the District Court finding of liability, Microsoft overcharged consumers by about $20 billion,[19] while the economic analysis of others suggests overcharges of as much as $30 billion.[20] Microsoft hides the monopoly overcharge by bundling software into the total price of the computer[21] and uses the monopoly profits to undermine competition.[22] Microsoft also imposes a variety of indirect costs on consumers including an accelerated upgrade cycle for both software and PC hardware,[23] forcing excessive functionalities into its bundles.[24] It imposes various transaction costs on non-Microsoft products in its efforts to make them less readily available to consumers.[25]

Denial of choice: Microsoft's anticompetitive practices have the effect of denying consumers choice.[26] Microsoft forces computer manufacturers to buy one bundle with all of its programs preloaded[27] and biases the screen location, start sequences and default options.[28] As a result, it is difficult if not impossible to choose non-Microsoft products.[29] Products tailored to meet individual consumer needs (consumer friendly configurations, small bundles) are unavailable.[30] Eventually, competing products disappear from the market.[31]

Impairment of Quality and Innovation: Because of Microsoft's leveraging of the operating system, superior products are delayed or driven from the marketplace.[32] Existing libraries of content (documents, movies, audio files) are rendered obsolete.[33] Resources are denied to and investment is chilled in competing products so technology is slowed.[34]

A History of Anticompetitive Practices

The anticompetitive acts and business practices that Microsoft used to preserve its monopoly and harm the competitive process included a wide variety of technological and contractual practices that affected computer manufacturers, Internet service providers, and developers of competing or potentially competing software. As with the consumer harm aspects of the case, the Appeals Court left standing virtually all of the specific findings of the District Court that identified specific types of activities that are illegal.

The Appeals Court ruling that found most of Microsoft's business model is illegal culminates over a decade of antitrust scrutiny of Microsoft. Some believe the operating system monopoly was illegally obtained with the same types of anticompetitive practices.[35] The Federal Trade Commission investigated this but stalemated in the early 1990s.[36] The Department of Justice finally took action against Microsoft in 1994, which resulted in a consent decree banning certain practices.[37]

Microsoft continued business as usual, and as we will see, continues the same anti-competitive practices today. In fact, Microsoft was quite brazen about the fact that signing the consent decree did not lead it to alter its business practices one iota, which led to the much broader charges of illegal conduct.

Some believe that word processing and spread sheets monopolies were illegally obtained with similar tactics in this period. The states that ultimately joined in federal case included this point as part of their original complaint[38] and the District Court recounted in detail the leverage that Microsoft used against IBM's competing office suite – SmartSuite.[39]

The Illegal Technology and Business Practices

Elements of an Illegal Business Model: Professor Sullivan summarized the heart of the Appeals Court ruling on Microsoft's anticompetitive practices as follows:

> Microsoft's monopoly maintenance tactics which violated section 2 include restrictive software licenses; exclusive contracts with Internet access providers, a product design that locked Microsoft's browser ("Explorer") into Windows by commingling software supporting each functionality without any add/remove capacity; and subverting Sun Microsystems Java technologies to favor Microsoft's Java version so that compatible applications would not run on operating system other than Windows. Though not directly attacking other operating systems, all these tactics helped to maintain the Windows monopoly by handicapping both Network's browser and Sun's Java, two "middleware" products with potential to ultimately erode that monopoly.[40]

Professor Sullivan points out that even the Court's handling of bundling issues, which presents a complex picture, still had a very clear message. The Court found Microsoft's bundling to violate section 2 and remanded the section 1 complaint for rehearing. The Department of Justice chose not to retry the issue. Professor Sullivan offers the central import of the decision, when he points out that

> the more significant facet of this holding is what the court refused to do. Microsoft contended that the court should never second guess the purposes or effects of any software design decision – that any integration of any previously separate functionalities is per se lawful. The court first rejected this "Gates principle" when it ruled that integrating Explorer into Windows violated Section 2. It did so again when it remanded the Section 1 tying claim for a fuller efficiency analysis.[41]

In other words, Microsoft lost the tying argument twice in the case, although the Appeals Court remanded the second instance for reconsideration by the lower court.[42] Microsoft lost the argument twice in the sense that it took the position that it could bundle virtually anything into the operating system and the law would have to allow it under the mantra of innovation. The court rejected that claim under section 2 of the Sherman Act pointing out "In light of the monopoly maintenance section, obviously, we do not find that Microsoft's integration is welfare-enhancing or that it should be absolved of tying liability."[43] The Court also rejected the claim in terms of a section 1 violation, when it determined that the Court should apply a "rule of reason" analysis to an illegal tying complaint.

> The fact that we have already considered some of the behavior plaintiffs allege to constitute tying violations in the monopoly maintenance section does not resolve the section 1 inquiry. The two practices that plaintiffs have most ardently claimed as tying violations are, indeed, a basis for liability under plaintiffs' monopoly maintenance claim... In order for the District Court to conclude these practices also constitute section 1 tying violations, plaintiffs must demonstrate that their benefits – if any – are outweighed by the harms in the *tied product* market. If the District Court is convinced of net harm, it must then consider whether any additional remedy is necessary (citations omitted).[44]

The tying practices had already been found to be illegal under section 2 because of the harm to competition they did in the *tying product* market (i.e. the operating system market). The Court adopted a "new" rule of reason standard for assessing the impact of the practices in the *tied product* market (i.e. the browser market). Because the District Court had properly (properly in the sense that it could not have known that the Appeals Court would change the standard) proceeded under the existing standard that such tying is illegal *per se*, the Appeals court had to remand the section 1 violation for a new look under the new rule. Microsoft took the erroneous position that tying is legal *per se*.[45]

The Pattern of Behavior in the Browser War: These findings reflect a detailed trial record of pervasive anticompetitive practices that provide a road map the remedy phase of the trial and the response to the roll out of "Windows XP/.NET."

Microsoft's first response to the growth of the Internet and the development of the browser as a threat to its operating monopoly appears to have been to attempt to divide the market or gain a mutual non-aggression agreement.[46] That is, it sought to convince a competitor to go in one direction, while it went in another.[47]

When the market division proposal was turned down, Microsoft set out to market a browser of its own using its well-tested strategy of tying applications to its operating system product.[48] Leverage and tying were the key,[49] including efforts to undermine the quality of the competing product.[50] Integration was a business strategy to foreclose a competitor, [51] including a delay in the release of Windows 98 until Internet Explorer 4.0 was ready to be included with that product, even though it hurt Microsoft's most important customers, the OEMs.[52]

Using the operating system as the core of its market power Microsoft erected barriers to entry. It freezes out competitors with incompatibilities,[53] builds in features to impede or disable competing programs,[54] withdraws support for competitor programs,[55] and locks customers in with constant imitation of competing products or promises to imitate them.[56] These practices make it difficult for competitors to design products that operate well, as the operating system is manipulated and changed. There also have been charges of back room campaigns of intimidation,[57] abrogation of contracts,[58] and predatory pricing,[59] in which the profits from the monopoly over the operating system are used to drive competitors out of other software lines.[60]

Microsoft took steps to prevent competitors from getting the same access to users of computers or services who had entered into an agreement with Microsoft.[61] Microsoft sought to foreclose distribution channels to other browsers with contracts that required shipment of Internet Explorer and dissuaded shipment of competing browsers.[62] Microsoft denied or delayed access to the operating system to prevent Netscape from improving and delivering its product.[63] Contracts required use of software that gave Microsoft a superior presentation, while the underlying software also disabled competitors.[64] Finally, it imposed contract conditions that prevented competitors from garnering resources.[65]

All of these practices were found to be illegal in the context of a campaign to preserve Microsoft's monopoly in the operating system. The question of whether some or all of them would be an illegal tie under the new standard was remanded to the District Court but will not be re-litigated. However, even in shifting to a "rule of reason" for tying, and remanding part of the case back to the lower court, the Appeals Court gave some strong signals about what practices might still trigger the court's concerns.

> In a field where programs change very rapidly, delays in the spread of a necessary element (here, the APIs) may be very costly. Of course, these arguments may not justify Microsoft's decision to bundle APIs in this case, *particularly because Microsoft did not merely bundle with Windows the APIs from IE, but an entire browser application (sometimes even without APIs).* A justification for bundling a component of software may not be one for bundling the entire software package, especially given the malleability of software code. Further, the interest in efficient API diffusion *obviously supplies a far stronger justification for simple price-bundling than for Microsoft's contractual or technological bars to subsequent <u>removal </u>of functionality.*[66]

As demonstrated in the next section, the extreme reliance of "Windows XP/.NET" on a huge bundle of entire applications and the continued reliance on contractual and technological bundling flies in the face of these cautionary words from the court.

III. THE NEW THREAT TO CONSUMERS AND COMPETITION: WINDOWS XP/.NET

The New and Bigger Bundle of Products

Windows XP, Hailstorm and the .NET initiative are a bundle of services glued together by technological links (code embedded in the operating system), contractual requirements, and marketing leverage. The *Wall street Journal* captured the essence of the product bundle as follows:

> Microsoft has plunged into the Web in a big way. Its broad new Internet initiative is inextricably linked with its core software product, Windows. And many services for consumers, such as music subscriptions or online calendar services, will require people to use new features that are embedded in Windows. These new services will also link them to existing software products already in Windows, such as the company's Word program or Outlook, which offer e-mail and a calendar service now...

> Consumers, however, will find that Windows XP contains hooks that could drive them to Microsoft's own Internet services, rather than competitors. Those hooks also lay the groundwork for the company to collect more of its revenue through recurring subscription fees – instead of one-time software sales or licensing agreements, which may not prove as profitable in the Internet age.

> At the top of the list: the embedded instant-messaging feature, dubbed Windows Messenger, as well as a new, Microsoft designed digital music and video player in Windows XP. And Passport, the "single sign-in" Web-registration service that stores credit-card information and passwords, will underpin a range of new consumer services that Microsoft has named "Hailstorm."

> HailStorm services are dependent upon many of the same new Internet computer standards that underpin Microsoft's wider Internet initiative, which it calls Microsoft.NET.

> Perhaps most important, Passport is required to use Microsoft's sophisticated new Widows Messenger software. That messaging system is bundled into Windows XP. [67]

The software, applications, and services that Microsoft has bundled covers all of the functionalities that are converging on the Internet including the following:[68]

Communications
    E-Mail (Hotmail)
    Messaging (Microsoft Messenger)
Commerce

Identity Verification (Passport—names and addresses)
Utilities (e.g. Calendars, Contact Lists)
Transactions (e.g. documents, payment records)
Applications
Music (Media Player 8)
Video (Media Player 8)
Digital Photography (My Pictures)
Internet Services
MSN

Today these Internet activities are vigorously competitive, just as the browser was before Microsoft launched its attack. In other words, the anticompetitive and illegal business practices Microsoft used to win the browser war are being extended to virtually every other application consumers use. Just as there was no "real remedy" after the browser war was won (absent a structural remedy, which the court rejected), so there will be no real remedy if Microsoft is allowed to leverage its operating system and browser monopolies into a victory in the present "applications war." [69] The end result will be that everything anyone does on a computer will involve Microsoft—placing one company as gatekeeper to the new economy, an economy whose success was due to its decentralized nature.

The Anticompetitive Essence of Windows XP/.NET

The design and deployment of "Windows XP/.NET" is déjà vu all over again. A familiar set of tactics is being used again to help maintain Microsoft's monopoly in operating systems and now Internet browsers by "handicapping" another generation of "products with potential to ultimately erode that monopoly." [70]

Microsoft's own description of the "Windows XP/.NET" strategy leaves no doubt that this is what the bundle does.[71] Microsoft declares this set of software programs and services as "the next generation of the windows desktop platforms. An operating system for the internet... with one infrastructure for developing for it."[72] The bundle is built on commingled code,[73] proprietary languages,[74] and exclusive functionalities[75] that are promoted by restrictive licenses,[76] refusal to support competing applications,[77] embedded links,[78] and deceptive messages.[79]

Leveraging both the operating system monopoly and the newly acquired browser monopoly, Microsoft aims to drive communications through proprietary e-mail and, more importantly, messaging technology.[80] This new communications technology will provide a new platform for a wide range of new applications.[81] There is no doubt that this is a computing platform.[82] This creates the cornerstone of an illegal defense of the monopoly in the operating system and the browser markets.

Microsoft knew that the browser would be the principle interface between the user and the Internet. That is why it brutally sought to capture that market functionality to prevent it from "commoditizing" the operating system.[83] It now proposes to use the existing monopolies in operating systems, browsers and office suites, to capture the consumer and vendor interfaces for the next generation of computing, controlling communication, identify verification,[84] and driving its proprietary languages into the interface between vendors and

the Internet.[85] The clear attempt to leverage its existing monopolies in the PC operating environment to frustrate potential competition from Internet,[86] or distributed computing,[87] not only relies on the same anticompetitive business and technology practices, but it targets a wide range of activities that consumers are likely to conduct on the Internet.[88]

With the launch of Windows XP, Microsoft is for the first time requiring software developers to "pre-certify" the launch of their software with Microsoft.[89] Instead of simply writing a piece of software and placing it on the market, developers must now go through Microsoft to ensure "compliance" in the name of the stability of the XP platform. One does not have to be terribly creative to imagine how Microsoft could use this to disadvantage third party software that threatens to compete with their business.

Moreover, with "Windows XP/.NET" Microsoft's monopoly leveraging gets personal, through an identity authentication service called Passport. Microsoft has declared that "all Windows users will get a passport."[90] This identity authentication service will build a massive proprietary database of personal information and transactional details, by leveraging the old monopolies in operating systems, the browser, and office applications. Microsoft is using its monopolies to fend off potentially competing applications, while it migrates it market power to a new source, just as it used the operating system to gain control of the browser market. Microsoft is creating an entirely new basis of market power that would reside in the control of personal information, which would augment its market power over operating system code.

Déjà vu All Over Again

Having lost at both the District and Appeals Court levels, Microsoft hopes to deeply entrench its new product before the court can decide remedy--the more widespread "Windows XP/.NET," the more difficult to correct the abuse.[91] Moreover, once the software has been deployed, Microsoft can be counted upon to resort to its constant manipulation of the technology and business practices to undermine competition and preserve its market power.

Microsoft has followed a four-pronged strategy to get this bundle deployed.

- It is seeking to push the bundle out as fast as possible.[92]

- It has sought to delay or stop the remedy phase of antitrust trial.[93]

- It has trotted out the same experts whose analyses and arguments were rejected by the court.[94]

- It is back to its old game of parsing words with antitrust authorities and competitors, while it advances anticompetitive business strategies under the mantra of "freedom to innovate." This process has already begun with "Windows XP/.NET" as the following examples suggest.

After the appeals court ruling, Microsoft said it would allow its browser to be removed by computer manufacturers.[95] The initial announcement was unclear on the removal of other software products, like media player. The court ruling outlaws the practice in general. When computer manufacturers began to make deals to preinstall competing software,

Microsoft backtracked, adding in new restrictions to create a disincentive for computer manufacturers to actually load competing programs and ensuring that Microsoft products had an advantage.

When Microsoft's massive data gathering plans came to light, its privacy policy was revealed to be extremely consumer-unfriendly. It hastily modified the policy, [96] but retains the right to change that policy at any time. It refuses to require consumer-friendly policies for its partners, with whom it will share the data. It refuses to remove the information it has gathered on consumers for a year after the consumer has withdrawn from its identity authentication service.

Microsoft included a feature in "Windows XP/.NET," which would write links into any web page a consumer was viewing that would direct the consumer to Microsoft products and services, by simply clicking on a word on the competitor's web page.[97] In other words, Microsoft was editing the content of competing web pages. After a furor, Microsoft backed off, but only because it did not have enough time to work out an alternative. It insists on its right to include those links in the future.[98]

In other words, Microsoft is up to its old tricks[99] in an effort to slip its anticompetitive practices past the courts and the public. The indignation of the *Wall Street Journal* at Microsoft's Smart Tags is palpable and sets the whole bundle in context.

> Some at Microsoft, and elsewhere, couldn't see the problem. After all, they said, Microsoft wasn't hacking into people's servers and rewriting their Web sites. It was merely adding a useful tool, similar to "annotation" programs offered by firms like Atomica and NBCI.

> But this reasoning ignores the fact that Microsoft's dominant Internet Explorer browser is like a television set, or a digital printing press, for the World Wide Web. Its function is to render – accurately and neutrally – all Web pages that follow standard programming. By virtue of its near-monopoly, position in the browser market, Microsoft has a moral obligation to assure that readers can see Web pages as they were published, without alteration.

> The decision on which words should be turned into links, where and when such links should appear, and where the links would take readers is an editorial and business decision that belongs solely to the creator and owner of a Web site – not to Microsoft or even the reader.

> Using the browser to plant unwanted and unplanned content on these pages – especially links to Microsoft's own sites – is the equivalent of a printing company adding its own editorial and advertising messages to the margins of a book that it has been hired to print. It is like a television-set maker adding its own images and ads to any show the set is receiving.

> Microsoft has a prefect right to produce and sell its own Web content with it own points of view. But it is just plain wrong for the company to use the

browser to seize editorial control and to steal readers from other sites. The company's Web businesses should stand on their own in the marketplace. [100]

While the infringement of commercial free speech rights that the *Wall Street Journal* sees in this practice may be a constitutional issue, the proposition that Microsoft's Web businesses should stand on their own in the market place is an antitrust issue. As the discussion below demonstrates, the use of the Microsoft's monopoly in the browser market, or any of its other monopolies, to leverage it products into other market with a wide range of practices beyond the Smart Tags should be met with the similar sense of indignation because they distort the competitive process. There is no sense in which Microsoft's new products are standing on their own in the marketplace. They are propped up, required and pushed by the underlying monopolies. All are illegal business practices intended to steal customers.

IV. SPECIFIC ELEMENTS OF THE WINDOWS XP/.NET BUNDLE THAT VIOLATE ANTITRUST LAW

Restrictive Licenses

With "Windows XP/.NET" Microsoft continues to impose anticompetitive restrictions that bias computer manufacturers and consumers against non-Microsoft products. It is only because it has monopoly power over the operating system that it can exercise this market power against competing applications software and services.[101]

Computer Manufacturers: Microsoft continues to impose restrictions on its licenses that bias computer manufacturers to not install non-Microsoft products. [102] Microsoft offers one bundle with all programs included. Computer manufacturers have no choice but to take this entire bundle because there are no viable competing operating systems. Microsoft has a monopoly, as the Courts have now found.

Microsoft insists on equal or superior location for its products if a competitor is shown on the desktop. Further, Microsoft insists on being paid for all the programs, regardless of whether the computer manufacturer wants to use them all. The Appeals Court made it clear that offering different bundles at different prices was an ironclad defense against a tying complaint.[103] As a result of the combination of pricing and onscreen restriction, non-Microsoft products are forced to pay for space that Microsoft gets for free.

In essence, Microsoft requires computer manufacturers to either keep the screen "clean" with only a few Microsoft-only Icons, or to clutter the screen and hard drive by presenting both Microsoft and non-Microsoft products.[104] Manufacturers are prohibited from presenting an uncluttered screen with non-Microsoft products only. Since manufacturers are forced to take the entire Microsoft bundle and must include Microsoft products whenever they include a non-Microsoft product, they are discouraged from installing non-Microsoft products.

Consumers: Microsoft also biases consumer choices by leveraging its market power over the operating system.[105] Microsoft imposes restrictions on its licenses that require its programs to launch automatically and/or require its programs to be the default option. Non-Microsoft programs cannot enjoy these advantages, which makes them more difficult for consumers to find and use. The restrictions bias consumers toward Microsoft products and against non-Microsoft products.

Microsoft uses its operating system and browser monopolies to repeatedly prompt consumers to choose Microsoft programs.[106] Competitors cannot enjoy similar prompts.

Microsoft has built biases into the list of frequently used applications that give an advantage to Microsoft applications. Add/remove sequences are difficult and confusing for bundled Microsoft applications.[107] Microsoft sweeps icons off the desktop. Combined with the list bias and the add/remove bias, this results in Microsoft programs being more likely to be found and easier to use. Finally, Microsoft has embedded links to Microsoft products and partners.[108]

It should be stressed, that none of these restrictions are technologically necessary.[109] Screen bias, list bias, and add/remove bias are all business practices Microsoft uses to undermine competing programs. Computer manufactures can present uncluttered screens with non-Microsoft products just as easily as they can present uncluttered screens with Microsoft only products. They can have non-Microsoft products launch automatically or be the default options. Add/remove sequences can be neutral with respect to any piece of software. The marketplace of the computer screen could be scrupulously competitively neutral – a level playing field. Instead, Microsoft has tilted the field in their favor through onerous licensing restrictions.

The Appeals Court was quite strong in this regard in upholding the District Court.[110] It found that virtually all restrictions on computer manufacturer control of the start sequences and screen presentation to be anticompetitive. While computer manufacturers cannot make the operating system's presence be hidden entirely,[111] they should have complete flexibility to place and set of Icons (Microsoft or non-Microsoft) in any location or launch in any sequence that they choose.

Technology Practices

Microsoft has applied a series of technology practices that undermine competition.

Locking in Applications by Commingling Code: In contradiction of the Appeals Court ruling, Microsoft has commingled code throughout "Windows XP/.NET."[112] The Internet Explorer browser is hardwired into the operating system. Microsoft's Messenger is hardwired into XP.[113] Numerous other programs are hardwired into the bundle including the Media Player, Dialer, Outlook Express, and Hotmail.[114] Some of these have been hardwired in earlier versions of the operating system, but that does not make that legal. In fact, the Appeals Court set out to clarify past rulings, which it felt might have sent an unclear message about technological integration.

Subverting competing software: In a repeat of past actions against competing software, Windows XP will not fully support critical applications from competing suppliers while it promotes Microsoft's proprietary offerings.[115] In other words, the operating system is being manipulated to make competing software less attractive.[116]

Windows media player will not fully support RealPlayer format.[117] Windows media player will not support ripping of MP3 format.[118] In other words, if you want to record music, you must use Microsoft's WMA format.[119] Content (music and videos) created in Microsoft formats, WMA for audio and WMF for video will not play on competing players.[120] Microsoft's digital rights management programs are bundled with "Windows XP/.NET."[121] Taken together this is a comprehensive campaign to use the operating system to make it difficult to use competing formats.[122]

Leveraging monopoly power: The insertion of Smart Tags into web content was only one of several ways in which Microsoft sought to leverage its monopoly power to direct consumers to its proprietary products and services, or those of its partners. Embedded throughout the bundle are links that direct consumers to Microsoft's Internet services and products. Microsoft seeks to impose exclusivity through code and or contracts on applications and software.[123] It seeks to require applications and programs to seek certification to interoperate, thereby gaining control over technology development.[124]

Other strong-arm tactics that have relied on the market power afforded by the monopoly have emerged. Concerns about pressure and intimidation to adopt the new bundle have surfaced.[125] Similarly, charges of patent infringement have been filed.[126] The pattern of preannouncing a product, to freeze consumers into waiting for Microsoft's offering rather than buy from competitors is evident to some.[127]

Deception in Defense of Monopoly Violates the Antitrust Laws

The Appeals Court ruled that deception in defense of monopoly violates the antitrust laws. Microsoft had misled programmers into using its proprietary version of JAVA thinking they were writing programs that would also run on the Sun Microsystems version of JAVA. The intent and effect was to prevent Sun from building up a body of applications that would run anywhere. "Windows XP/.NET" is using a similarly deceptive strategy to mislead consumers into thinking that they must use Microsoft's programs to access the Internet or to conduct secure transactions.[128]

In addition to requiring Microsoft Passport for some applications and to repeatedly prompting consumers to use Passport in other cases, Microsoft messages mislead consumers into thinking that Microsoft products are necessary to access the Internet. In some cases Microsoft misleads consumers into thinking that their non-Microsoft applications will not run on Windows XP, when they will. Microsoft misleads consumers into thinking that Passport provides greater security, when there is no basis for making this claim. Microsoft misleads consumers by claiming that their accounts are not secure unless they use passport. The effect will be to prevent competitors from building or preserving a base of users. In the case of identity verification (Passport) this will create an immense barrier to entry, as the illegally gained economies of scale will render alternative identity verification systems non-competitive.[129]

V. The Problem Of An Exclusive, Proprietary Passport To The Internet as a New Basis of Monopoly Power

Commercial Leverage

"Windows XP/.NET" endeavors to add another weapon to Microsoft's anticompetitive arsenal. Microsoft is expending great efforts to make its identify verification software and service the dominant, if not sole, verification service.[130] Microsoft proposes to use its verification service to gather and concentrate a great deal of personal information on individuals to be shared with partners.

Identity authentication is a critical function for new "distributed" Internet computing, communications and commerce. As communications and commerce becomes distributed across web sites and diverse applications, parties to the interaction (conversation or transaction) need to know whom they are dealing with. Authentication is entirely personal and data based, not dependent on location. That is, the machine or the software that is being used to initiate the interaction is irrelevant, it is the identity of the person, and only the person, that matters.

Control of this function would insert Microsoft in all e-commerce transactions and communications.[131] Not only can it charge vendors for each transaction (replicating PC operating system business model in which its primary customers are computer manufacturers, not the public),[132] but also it can drive its proprietary applications and languages farther into the network (by requiring vendors to adopt compatible applications). By leveraging software to gain control of transactional data, however, Microsoft is seeking to create a new basis of market power.[133]

Microsoft is certainly intent on gaining a dominant position in identity authentication.[134] It bundles Passport into "Windows XP/.NET." It requires Passport for several of its own Internet services. It will prompt purchasers of the new operating system to get a Microsoft Passport, with messages that are thoroughly misleading about the need for Passport.

Data Gathering

Microsoft does not intend to provide simply an identity verification service; it plans to collect a great deal of information that flows through its software and services. This will add to the leverage that control of this database provides.

The database it proposes would include a vast array of information, far beyond that which is needed for identity verification.[135] Types of information that Microsoft would control include the following:[136]

- Personal identification (electronic and physical addresses, profiles)
- private personal information like nicknames, special dates, and photographs as well as similar information on friends and family,

- communications options like fax, e-mail, and voice-mail,

- Credit card numbers,

- Transaction data (receipts, payment methods),

- Usage data (reports from service providers),

- Utilities like calendars, contacts, address books, favorite sites,

- Device setting and Internet protocol preferences

Microsoft intends to make the database relational. That is, the personalized data will link who the consumer is to what the consumer does on the Internet. Microsoft presents an inviting target as a single point of failure for computer systems and data theft and has proven unable to provide security.[137] Microsoft proposes to share information with vendors. This commercializes identity authentication.[138]

Privacy Concerns

Passport raises an additional set of concerns related to privacy and consumer protection policies. Microsoft promises to keep the data secret and under consumer control, but identity verification does not require this database.[139] The most secure approach is to not create the database at all.[140]

A massive, centralized database is not needed for identity verification. Identity verification does not depend on or require knowledge of any specific transaction or activity. Identity verification does not need to be able to relate separate activities.[141] Centralized information is vulnerable to hacking.[142] Sharing of information is a constant invitation to commercial abuse.[143] As previously noted, Microsoft messages suggest that Passport is necessary for other functionalities and provides greater security, when neither of these claims are correct.

Microsoft's privacy/ security record and policies leave consumers vulnerable.[144] Past privacy policy was not consumer friendly.[145] Microsoft retains right to change policy at any time. It uses an opt out approach that shifts burdens unfairly to consumers.[146] Privacy policies of partners with whom Microsoft shares data are "wide open"[147] and it disables other privacy protection software.[148] Microsoft retains data for a year after a consumer terminates passport.[149]

Conclusion

The eleventh hour decision by Microsoft to "open" its Passport service and change the name of its Internet bundle to .NET services (from Hailstorm) after Windows XP was being loaded into computers for sale are cosmetic changes that offer too little, too late.[150] This repeats a ploy used by Microsoft about a month before the trial in which it "voluntarily" declared it would not impose one or two of the most egregiously anticompetitive terms in it contracts.[151] The trial went forward and dozens of other action and practices by Microsoft were found to be illegal.

In the case of the Passport concession, Microsoft provides little solace. It asserts that it has changed its mind as a commercial decision, thereby maintaining its legal right to close the service at some future date. This, of course, is part of its long held strategy, applied to Java and other products, of first embracing them as open, then extending them with proprietary Microsoft elements, and ultimately extinguishing them.[152]

It is also unclear exactly what concessions will be made to interoperate or whether other services will be equally functional. As in the case of Navigator, allowing the product to function does not mean Microsoft will not make using a non-Microsoft product a "jolting experience."

It is clear Microsoft intends to leverage its control over the operating system to advantage its product. Moreover, the fundamental concerns about the sharing of information remain.

Ironically, the one thing that the eleventh hour concession does demonstrate is that code is extremely malleable. It reinforces the idea that when the courts order Microsoft to purge its products of anticompetitive and anticonsumer technology and business practices, compliance should be easy for Microsoft from a technology point of view

VI. RESTORING COMPETITION IN THE SOFTWARE MARKET, PRESERVING COMPETITION ON THE INTERNET

The strength of the case, the unanimity of the Appeals Court ruling, the clearly identifiable pattern of illegal practices in the new "Windows XP/.NET" bundle, and the importance of the markets that are the target of Microsoft's attack call for a strong remedy that restores competition and prevents Microsoft from using its market power against new products and in new markets. While there is an intense debate about the strategic timing and motivation for the recent decision of the Department of Justice not to pursue a structural remedy or litigate the section 1 tying charge,[153] that decision served to focus attention on the conduct that is clearly illegal and must be "fenced in." In fact, "Windows XP/.NET" violates traditional antitrust law and the 1994 consent decree, especially in light of the new "rule of reason" approach to tying in the software industry outlined by the Appeals Court.

The objectives of the remedy in a case such as this have been clearly articulated by the Supreme Court. Antitrust relief should seek to "unfetter a market from anticompetitive conduct"[154] and "pry open to competition a market that has been closed by [a] defendant['s] illegal restraints." [155] This suggests that a remedy should not merely nibble around the edges of the monopolized market, but should kick-start competition by making sufficiently fundamental changes to allow competitors to rise or fall on their merits.[156]

The relief should "terminate the illegal monopoly."[157] The order should "deny to the defendant the fruits of its statutory violation."[158] Identifying a set of conduct remedies that could be used to address the antitrust violation is a daunting task because so many anti-

competitive aspects of Microsoft's behavior were demonstrated at trial,[159] especially in light of Microsoft's past and ongoing behavior inside and outside of the courtroom.

The Challenge to a Conduct Remedy

A conduct remedy must be extensive, since Microsoft has engaged in such a broad range of anti-competitive practices. The policing of the remedy must be aggressive, since Microsoft has shown itself to be recalcitrant both in its failure to comply with the earlier consent decree and in its steadfast denial of wrongdoing in this case. A comprehensive behavioral remedy must have specific provisions to address each of the anti-competitive practices that contributed to the violations of law and enforcement mechanisms that have a reasonable chance of eliciting compliance or discovering and rectifying non-compliance.

A remedy's effectiveness should be judged with respect to where the market is going, not where it has been. The Appeals Court noted the forward looking phrase by pointing out that the remedy must "ensure there remain no practices likely to result in monopolization in the future."[160] While the operating systems monopoly endures, Microsoft can extract the fruits of that monopoly by dictating terms to the handful of manufacturers that account for most PC unit sales, so that the coercion would not have to be widespread. Microsoft's ability to dictate standards, like Microsoft's ability to retard software innovation that depends on adding or supporting functionality on the operating system, is a particularly dangerous byproduct of illegal monopolization.

A behavioral remedy will be only as effective as its enforcement mechanism. Once imposed, however, any behavioral decree becomes a static list. But Microsoft has exhibited a striking corporate disdain for the legal norms imposed by antitrust laws. Whenever Microsoft is fenced in by enforcement scrutiny from one direction; it develops a new way to misuse its monopoly power.

Designing and Implementing Conduct Remedies

The consequence of the pervasive pattern of anticompetitive conduct, the enduring and deepening monopoly power Microsoft possesses, the blatantly anticompetitive nature of the "Windows XP/.NET" bundle, and the decision not to seek a structural remedy places an immense amount of pressure on the plaintiffs to come up with an effective and enforceable conduct remedy. The result will be highly regulatory, as described in Table 1, but that is what is inevitably necessary if Microsoft's anticompetitive practices are to be "fenced in" by a conduct remedy.

Under the Table: For certain anti-competitive practices, the *Conclusions of Law*, which have been upheld, stand as a remedy in themselves. The Conclusions of Law signal strongly that this conduct is not acceptable. They may trigger private and class action lawsuits. These could deprive Microsoft of one of the most important fruits of its monopoly, the huge hoard of cash on hand. Given the manner in which the federal case was conducted, that is the only way to get at the past fruits of monopoly conduct.

TABLE 1
CONDUCT REMEDIES FOR PRACTICES THAT VIOLATE LAW

PRACTICE	REMEDY	ENFORCEMENT
UNDER THE TABLE APPLICATIONS BARRIER TO ENTRY	Liability Under Law	Private and Class Actions
	Port office to competing OS	Establish date certain
	Remedy applies to	Annual review by Court
	"Windows Family"	
	Applications	
	Distribution channels	
	ISVS	
CONTRACT		
Exclusive/Preferential	Ban exclusives	Annual review by Court
	Prohibition on discrimination	Annual review by Court
	Price	
	Functionality	
	Support	
	Testing	
	Marketing	
	Other "inducements"	
	Ban NDAs	Private right of action
Indirect Sales/Hidden Price	Transparent prices	File price schedule w/court
QUALITY IMPAIRMENT		
Resource Denial	Prohibition on discrimination	Annual review by Court
Incompatibility/Integration	Access to source code	Special master to assess
Disabling	API disclosure	Special master to assess
	Neutral warning message	Special master to assess
Desupporting	Support older OS	Annual review by Court
	Provide training	Private right of action
BUNDLING		
OS Tying	Spin off browser	Annual review by Court
Imitation	Separate sale requirement	Annual review by Court
PRICE ABUSE		
Discrimination/Secret Price	Transparent prices	Annual review by Court
Cross-subsidy/Predation	Transparent prices, separate sale	
Upgrade Policy	Restrict old OS price increase	Annual review by Court
	Two-way compatibility	Special master to assess
Excessive functionality	Support older OS versions	Annual review by Court
	Two-way compatibility	
CONSUMER HARM		
Impairing Non-Microsoft	API disclosure, disclosure	Special master to assess
Thwarting Responses	Boot screen, start sequence freedom	Private right of action
Forcing Inefficient Acquisition	Ban exclusives	Annual review by Court
	Prohibition on discrimination	Annual review by Court

Applications Barrier to Entry: Behavioral conditions, such as disclosure requirements and prohibitions on discrimination, must apply to the entire "Windows Family" and the applications built on it. They must also apply to all aspects of the interface between Microsoft and both distribution channels and other software vendors. Licensing of the operating system to competitors is one obvious possibility for putting competition into the field. The problem here is that the existing code is so huge and complex that the likelihood that competitors could or would be able to use it as a base for competing against Microsoft is doubtful. Further, the terms of the license would have to stipulate how it could be used for a substantial period of time. It would be necessary to regulate changes in and access to the underlying code, even if kernel were made available.

Contracting: It goes without saying that exclusive arrangements should not be tolerated. However, the Court has recognized that preferential deals are a powerful tool to preserve the monopoly. A prohibition on discrimination should apply to prices, functionalities, support, testing, marketing, and other considerations that Microsoft has used to discriminate in the past.

Quality Impairment: Refusal to port Office, failure to disclose APIs and denial of access to source code have historically been severe problems and must be prohibited to help diminish Microsoft's ability to impair the quality of competing or potentially competing products. A mechanism to ensure non-discriminatory access will be crucial. Microsoft should also be required to support older operating systems and to provide training on new operating systems.

Bundling: "Windows XP/.NET" is an extreme case of the "Gates or Ham Sandwich principle" that was rejected by the court by bolting together a wide array of programs. These tactics are clearly out of bounds, both under section 2 and the new "rule of reason" test that the appellate court adopted for the "integration" of functionalities under section 1. The court has signaled that it will be suspicious of throwing together a broad range of functionalities, when integrating simple and specific technical components are all that is needed to achieve efficiencies. It is concerned about contractual or technical arrangements that preclude the removal of the tied product. Computer manufacturers should be given the freedom to configure screens and boot sequences to provide a level playing field for non-Microsoft software and applications. The court established a clear test. Where products can stand alone, they should be required to be offered for sale separately. "Windows XP/.NET" is the complete antithesis of the integration of technical components motivated by efficiency. The remedy phase should focus a great deal of attention on identifying what is truly integrated and what is bolted for anticompetitive purposes. Over the longer term, a special master will be needed to police Microsoft's technology practices.

Price: Price discrimination can be eliminated with a requirement to publish a uniform pricing schedule. This will alleviate one major source of leverage over OEMs. The practice of raising the price on older versions when new ones come out should be banned. Older versions should also be supported for a period. Two-way compatibility should be maintained. This will alleviate the pressure to upgrade.

Enforcement

Since enforcement is so crucial, several types of enforcement mechanisms are needed.

Private Actions: One of the critical factors is to empower private individuals to take action. This reduces the extent to which enforcement must rely on the limited resources of government. With respect to past illegal behavior, there are likely to be ancillary private and class action law suits that allege antitrust violations based on the liability finding. The court should establish clear private rights of action (standing) for individuals who allege discrimination or other abuse in the past or on a going forward basis, giving them expedited remedy, protection from retribution, and access to damages should they demonstrate abuse. Banning Non-Disclosure Agreements (NDAs) should make it clear that private parties have access to code.

Government Oversight: With respect to restoring competition and preventing future monopolization an annual review by the Court should be conducted to ensure that contracting and market behaviors are in compliance in a global sense. The court could oversee a proceeding, similar to the triennial review requirement that was imposed as part of the AT&T break-up. Three years is too long to wait in the computer industry, however, and that proceeding was so cumbersome that it was followed only once in the 12 years that the AT&T decree was in effect. A second alternative would be for the court to confidentially review contracts and other agreements signed by Microsoft over the year to satisfy itself that undue discrimination is not taking place. Finally, a special master will have to be appointed to oversee more technical issues. There will inevitably be questions raised about the disclosure of API, access to source code, integration of functionalities, etc. that will require technical advice to the court.

Penalties: Unless the penalties for failing to comply with the consent decree are severe, Microsoft has no incentive to obey the law. Its past behavior and its continuing monopolies indicate it profits by flaunting the law and conducting business as usual. One possibility would be to impose large financial penalties for noncompliance. Unfortunately, Microsoft's cash hoard is so large and its monopoly franchise so profitable that it is hard to imagine the court imposing monetary penalties of sufficient magnitude to actually discipline Microsoft's behavior. Huge penalties should be imposed, but that will not be enough. The court should also retain jurisdiction to impose a structural remedy, should the conduct remedy prove ineffective in disciplining Microsoft's behavior. A break-up should be one of the penalties the court should have available if Microsoft fails to comply with the conduct remedy.

Conclusion

The failure of the courts to adopt an effective conduct remedy in the mid-1990s combined with Microsoft's deeply engrained anticompetitive business model to result in the unanimous Appeals Court finding of a violation of the antitrust laws. Yet, so far, the company's conduct, as evidenced by its roll out of *Windows XP* and the growing bundled of embedded products and services, has not changed at all. Another failure by the courts to deal effectively with this recalcitrant monopolist will impose a much heavier price on the public. Not only does this pose the risk of destroying competitive processes in the software

and Internet service markets that are vital to the economy of the 21st century, but it will also undermine the efficacy of the antitrust laws, which have been a cornerstone of competition and consumer protection for well over a century.

ENDNOTES

[1] *U.S. v. Microsoft Corp.,* 253 F. 3d 34, 49 (D.C. Circ. 2001) (hereafter, *Appeals*); See Also the *Conclusions of Law,* United States v. Microsoft Corp., 87 F. Supp. 2d 30, 44 (D.D.C. 2000) (hereafter, *Conclusions)* and the *Findings of Fact,* United States v. Microsoft Corp., 84 F. Supp. 2d 9 (D.D.C. 1999) (hereafter, *Findings*, citations are to paragraphs),

[2] Establishing the existence of a monopoly is central to the case, so both District Court (*Findings,* 18-27, 30, 33-43, 54-55, 141, 166; *Conclusions*, 4,5, 6) and the Appeals Court (14-25) devote a great deal of attention to the monopoly and barriers to entry into the market.

[3] *Appeals,* p. 26.

[4] *Findings,* 411... 412

[5] Buckman, Rebecca, "A Titan's Power – Potent Program: With its Old Playbook, Microsoft is Muscling Into New Web Markets Using Aggressive Bundling, It Roils High-Tech World with Windows Overhaul Some Gains for Consumers," *Wall Street Journal,* June 29, 2001.

> Microsoft maintains, as it has throughout the antitrust case, that with Windows XP it is simply doing what it has always done: continuing to innovate and "improve functionality" for its vast base of customers… Chairman Bill Gates said the appeals-court decision was "consistent with our ability to go forward with these crucial and innovative products," including Windows XP.
>
> Ballmer, who cut short a camping vacation to return to the Seattle area after the court's ruling, acknowledge in an interview that Microsoft has put an unusually large number of features in Windows XP. But he says that was only because the company was trying to do "breakthrough work," adding "I would say there's a lot of stuff in there. And, if [consumers] want to take advantage of it, they can.

[6] *Appeals,* p. 61.

[7] Lawrence A. Sullivan (with Warren A. Grimes) is author of a recent Hornbook on antitrust law, *The Law Of Antitrust: An Integrated Handbook* (2001), a Board Member of the American Antitrust Institute, Earl Warren Professor Of Public Law, Emeritus, University Of California, Berkeley, and currently Professor at Southwestern University Law School.

[8] Sullivan, Lawrence, "The Sherman Act in High Tech Markets: What Can be Inferred from Microsoft," *California State Bar* Journal, Summer, 2001.

[9] President of the Progress And Freedom Foundation, a contributing editor to the American Spectator, and author (with Thomas M. Lennard) of *Competition, Innovation And The Microsoft Monopoly: Antitrust In The Digital Marketplace* (1999).

[10] Eisenach, Jeffrey, "Dear Diary, There's Still an Antitrust Law," *Los Angeles Times*, June 29, 2001.

[11] *Appeals,* pp. 12-13.

[12] Eisenach, Jeffrey, "Dear Diary, There's Still an Antitrust Law," *Los Angeles Times*, June 29, 2001.

[13] Sullivan, Lawrence, "The Sherman Act in High Tech Markets: What Can be Inferred from Microsoft," *California State Bar* Journal, Summer, 2001.

[14] Buckman, Rebecca, "A Titan's Power – Potent Program: With its Old Playbook, Microsoft is Muscling Into New Web Markets Using Aggressive Bundling, It Roils High-Tech World with Windows Overhaul Some Gains for Consumers," *Wall Street Journal,* June 29, 2001.

> And this time around, Microsoft's bundling efforts in Windows XP are especially aggressive, some charge, as they lay the groundwork for a profound shift by the company into subscription services. Since the efforts involve services that can reach into all corners of the Internet, they are in many ways more expansive than Microsoft's earlier tactics of linking new desktop products to Windows.
>
> "The big play is to try to tie [all the new services] together into one gigantic universe. It makes some of the things they did in 1995 now look like child's play."
>
> Microsoft has always dealt with competition by linking new services to Windows, such as after Netscape Communications Corp. burst on the scene in the mid-1990s and forced Microsoft to build its own Web browser. Microsoft feared that Netscape's pioneering browser could become the main jumping-off point for computer use.
>
> One difference now is that Microsoft is bundling more features into Windows and not offering them as separate products.

[15] Galli, Peter, "State AGs Cite Microsoft's Troubling Behavior," *eWeek*, June 21, 2001; Erlanger, Leon, ".NET Intro," *Internet World,* March 15, 2001; The *San Francisco Chronicle,* May 13, 2001,

> Finally, some of the state attorneys general claim that with Windows XP, it's newest operating system, Microsoft is engaging in the same product 'bundling' that led to the current case. The Justice Department said Microsoft illegally bolted its Internet Explorer to Windows in an effort to squeeze Netscape out of the market. Windows XP incorporates software that lets users chat over the Web, play DVDs, and make CDs. Iowa Attorney General Tom Miller, who has coordinated the states' legal strategy in the antitrust case, told the Associated Press that Microsoft's behavior amounted to 'history repeating itself."

[16] Gates, Bill, *Interactive Week,*

Microsoft is moving ahead. We are continuing without any interruption based on what the court has ruled today. Nothing in today's ruling changes our plans for our future products, including Windows XP.

The issue, which seems lost on the company, is obvious to many in the industry, for example, Coursey, David, "Microsoft Didn't Really Win Yesterday – and Here's Why," *ZDNet.com,* September 7, 2001, put it as follows:

Here's the Question: Microsoft has developed an operating system monopoly on the desktop. Should they be able to extend this dominance to mobile devices and Internet-based applications?

Wilke, John and James Bandler, "A Titan's Power – Shutter Bug: New Digital Camera Deals Kodak a Lesson In Microsoft's Ways – Trial Use with Windows XP Gave the Software Giant an Edge Photo Firm Says – Seeking a Digital Brownie," *Wall Street Journal*, July 2, 2001, comment on a dispute with Kodak as follows:

The confrontation hints of antitrust battles to come, as other companies grasp the reach of Microsoft's plans for the coming new version of its operating system, Windows XP, and its ambitious plans for the Internet. From photography to phone service, music to banking, companies across the economy have been waking to find Microsoft riding its operating system into their markets – even as it was waiting for the outcome of the landmark antitrust case. Microsoft targeted RealNetworks Inc., the pioneer of music and video on the Internet, and AOL Time Warner Inc., in the booming market for instant messaging, with much the same aggressiveness it once used in going after Netscape, in the browser battle that led to the antitrust case.

[17] *Appeals,* p. 13.

[18] Because of the nature of the case no penalties could be imposed so calculating exactly how large the overcharges were was not a focal point of attention. The District Court did make findings on pricing, see *Findings,* 75, 62-63, 66; *Conclusions*, 6; which the Appeals Court noted and left in place (*Appeals,* pp. 24-25).

[19] Cooper, Mark, "Antitrust as Consumer Protection in the New Economy: Lessons From the Microsoft Case," *Hastings Law Journal,* April 2001 (4).

[20] Remedies Brief of Amici Curiae, United States v. Microsoft, 84 F. Supp. 2d 9 (D.D.C. 1999) (Nos. CIV. A. 98-1232, 98-1233).

[21] *Findings*, 10, 18-19, 58, 103; *Conclusions*, 6.

[22] *Findings,* 66, 107, 137-139, 261-262, 379; *Conclusions*, 6, 10, 21, 22.

[23] *Findings, 57, 66.* See also Charles H. Ferguson*, High St@kes No Prisoners: A Winner's Tale of Greed and Glory in the Internet Wars* (Three Rivers Press ed., 1999), p. 309.

[24] *Findings*, 173-179, 210-216; *Conclusions,* 6, 11, 32.

[25] See note 8, above.

[26] *Findings*, 247, 410; *Conclusions*, 11.

[27] *Findings*, 159, 170, 198; *Conclusion,* 4, 11, 12, 31.

[28] *Findings,* 139, 272, 301; *Conclusions*, 17, 20.

[29] *Findings,* 133, 143, 203-206, 239-240, 247, 309-311, 357, 359-361; *Conclusions,* 10, 11, 15.

[30] *Findings,* 167-168, 210-216, 225-226, 247, 410; *Conclusions,* 11, 14.

[31] *Findings, 132, 395, 412*; *Conclusions,* 10, 18, 19.

[32] *Findings* identifies general problems of product delay or restrictions (90-91, 93, 132, 411), as well as six products that were delayed or undermined by Microsoft's anti-competitive practices (Navigator, 81-88; IBM's OS/SmartSuite, 116-118, 125-130; Sun's Java, 397-403; RealNetworks, 111-114; Apple's Quicktime, 104-110; Intel's Native Signal Processing, 94-103).

[33] *Findings,* 90, 92, 122, 128-129, 160, 170-172; 192, 330, 339, -340, 90-91, 93, 132, 411

[34] *Findings,* 240, 357, 379, 396-406,412; *Conclusions,* 31.

[35] Wendy Goldman Rohm, *The Microsoft File* (1998) presents a lengthy discussion of this period. The settlement in the *Caldera* case during the course of the trial is an echo of these earlier concerns (see "Consolidated Statement of Fact in Support of Its Responses to Motion for Summary Judgment by Microsoft Corporation," *Caldera, Inc., v. Microsoft Corporation,* Judge Dee V. Benson, Case No. 2:96CV 0645B.

[36] A thorough account of the FTC considerations can be found in John Wallace, *Overdrive* (1997).

[37] *United States v. Microsoft*, Civil Action No. 94-1564, Final Judgment (D.D.C. 1995), 1995-2 Trade Cas. 71096.

[38] *State of New York, et al., Plaintiff v. Microsoft Corporation*, May 18, 1998.

[39] *Findings,* 116-118, 125-130; *Conclusions,* 10.

[40] Sullivan, Lawrence, "The Sherman Act In High Technology Markets: What Can Be Inferred from Microsoft?," *California State Bar Journal,* Summer 2001.

[41] Id.

[42] Pressman, Aaron, "No Green Light for Tying," *Industry Standard,* July 3, 2001,

Legal Authorities who have reviewed last week's unanimous decision by the U.S. Court of Appeals for the District of Columbia said that far from giving Microsoft the green to bundle, the court laid down clear lines intended to prevent any dominant software vendor from abusing a market leading position.

[43] *Appeals,* p. 77.

[44] *Appeals,* p. 87.

[45] Professor Sullivan calls it the "Gates Principle," but it could equally be called the "Ham Sandwich Principle" since Microsoft attorneys, in a dispute with the Department of Justice over bundling the browser, are reported to have claimed that from Microsoft's point of view, the 1995 consent decree "would enable it to require OEMs to put 'orange juice' or ' ham sandwich in the box with a PC preinstalled with Windows 95." Microsoft claims the statement was taken out context (see John Heileman, *Pride Before the Storm* (2001), pp. 44-45.

[46] *Findings*, 30-31.

[47] There are at least four examples in the evidence in which Microsoft sought to divide the market. Microsoft attacked Intel's contemplation of developing software applications, denying consumers functionalities for years (*Findings,* 34); Apple software efforts were also the object of Microsoft efforts to divide markets (*Findings,* 36). IBM was a particular target for Microsoft efforts to seal off its market (*Findings,* 28-43)

[48] *Findings*, 43.

[49.] *Findings*, 166.

[50] *Findings,* 160.

[51] Findings, 167.

[52] *Findings*, 67.

[53] *Findings,* 92, 128-129, 160, 171-172, 330, 339-340: *Conclusions*, 6, 10, 11, 17, 32;

[54] *Findings,* 160, 170-172; *Conclusions,* 11, 31, 32.

[55] *Findings,* 90, 122, 128-129, 192, 405-406; *Conclusions,* 10, 18.

[56] *Findings,* 133-134, 166; *Conclusions,* 10, 18, 19, 22.

[57] *Findings,* 106, 129, 236, 355; *Conclusions,* 6, 10.

[58] *Findings,* 390, 394; *Conclusions* 18.

[59] *Findings,* 107, 147; *Conclusions, 6, 10, 16, 21, 22.*

[60] *Findings,* 66, 107, 137-139, 261-262, 379; *Conclusions,* 6, 10,21, 22.

[61] *Findings*, 59-67

[62] *Findings,* 67-69.

[63] *Findings,* 33-34

[64] *Findings,* 49-53.

[65] *Findings,* at 51

[66] *Appeals,* pp. 83-84, (citations omitted, emphasis added).

[67] Buckman, Rebecca, "A Titan's Power – Potent Program: With its Old Playbook, Microsoft is Muscling Into New Web Markets Using Aggressive Bundling, It Roils High-Tech World with Windows Overhaul Some Gains for Consumers," *Wall Street Journal,* June 29, 2001.

[68] Electronic Privacy Information Center, et al, "Complaint and Request for Injunction, Request for Investigation and Other Relief," *In The Matter of Microsoft,* Federal Trade Commission, July 26, 2001 (hereafter, EPIC Complaint), "Supplemental Materials in Support of Pending Complaint and Request for Injunction, Request for Investigation and Other Relief," *In The Matter of Microsoft,* Federal Trade Commission, August 15, 2001 (hereafter, EPIC Supplemental).

[69] Concerns are not limited to only these markets. For example, the effort to capture the wireless market involves the following (Coursey, David, "How Microsoft is Planning to Conquer the Wireless Industry, Too," *ZDNet.com*, August 30, 30, 2001:

> The pitch Microsoft is making to hardware vendors and wireless service providers is a simple one" "If you want access to Microsoft customers, then use Microsoft software for your hardware devises and networks."
>
> The reason I felt some déjà vu is because what Microsoft wants to do to mobile computing is merely an update of how it took control over the desktop…
>
> If successful, Microsoft will have marginalized both the hardware and wireless services providers, and made software and content the center of your mobile computing experience, just as it is on your desktop.

The European Union has also launched an investigation into Microsoft that covers the server market, see "European Union Expands Antitrust Probe of Microsoft," *Associated Press,* August 30, 2001, Mitchener, Brandon and Ted Bridis, "Microsoft Faces New Allegations From Europe," *Wall Street Journal,* August 31, 2001,

> The commission said it believes Microsoft may have withheld information regarding compatibility with its ubiquitous operating systems from manufacturers of competing server software. Sun Microsystems Inc., which sells both servers and software has accused Microsoft of doing just that in a bid to encourage purchases of both PCs and servers running Microsoft software.
>
> The Washington, D.C.-based Computer and Communications Industry Association, of which Sun is a member, said Microsoft's share of the world-wide market for server operating systems has risen to 41%

and was approaching 60% in the market for low-end servers used for managing printing and hosting Web pages.

[70] *PC Magazine,* April, 16, 2001,

> If you end up running Windows XP, you'll see how the operating system has consumed practically everything around it. What were previously standalone applications are now OS features.

[71] "The Redmond Menace: Microsoft With Everything At Stakes, Is Gambling Its Future on Controlling the Net The Way It Did PCs," *The Industry Standard,* April 20, 2001.

[72] Holland, Maggie, "Microsoft Users Face .NET Lock-In," *Computing,* March 22, 2001. *Web Services, an Interview with Robert Hess,* March 19, 2001.

[73] The distinction between technological bundling and contractual bundling presents complex analytic questions that provided some of the most dramatic courtroom incidents as various experts sparred over how code could be removed and what impact that would have on the functionality (John Heilemann, *Pride Before The Fall* 181-86 (2001). The Project to Promote Competition and Innovation in the Digital Age, alleges a great deal of commingling of code (see *Microsoft's Expanding Monopolies: Casting a Wider .NET,* May 15, 2001, and to a lesser extent *Passport to Monopoly: Windows XP, Passport, and the Emerging World of Distributed Applications*, June 21, 12001), which appears to be supported by the journalistic discussion of embedded applications.

[74] Microsoft's proprietary run time environment pervades Windows XP and its browsers, ("Runtime Hosts," *Microsoft .NET Framework Developers Guide,* Microsoft, 2001.

[75] Markoff, John, "Breaks in Talks Between AOL and Microsoft," *"New York times,* June 17, 2001,

> Talks End after AOL officials said they could not agree to Microsoft's demand for effective exclusivity of its music software.

[76] At a minimum, the restrictive licenses are the subject of the dispute over placement of icons (see Bass, Dina, "Microsoft Requires PC Makers to Put MSN With Links," *Bloomberg*, July 27, 2001; Clark, Don, "Microsoft Broadens Rules for PC Makers," *Wall Street Journal,* August 9, 2001).

[77] While Microsoft advances it run time environment, it has pulled back on support for competitors, see Wilke, John, and Don Clark, "Microsoft Pulls Back Is Support for Java: New Windows XP System Won't Include Software Needed to Run Programs," *Wall Street Journal*, August 9, 2001; Copeland, Lee, "Sun Lashes Out at Microsoft for Javaless Windows XP," *ComputerWorld,* August 27, 2001.

[78] Bass, Dina, "Microsoft Requires PC Makers to Put MSN With Links," *Bloomberg*, July 27, 2001.

[79] Electronic Privacy Information Center, *Complaint and Request for Injunction, Request for Investigation and for Other Relief*, July 26, 2001.

[80] Markoff, John, "Microsoft is Ready to Supply a Phone in Every Computer," *New York Times,* June 12, 2001; *Gartner Examines Microsoft versus America Online Impending War in Instant Messaging and Web Services Space,* May 1, 2001,

> The real value of instant messaging lies not in the advertising potential of the platform, but in the strategic connection to Web services. Microsoft's Web services foundation, code named Hailstorm, will enhance instant messaging with Web services, most importantly, private identity tools to enable instant commerce, such as stock trading, purchasing and even corporate procurement in real time.

[81] Fortt, Jon, "Battle Rages for Future of Instant Messaging," *Siliconvalley.com*, January 12, 2001, quotes Bob Visse, Project Manager for Microsoft Network as follows:

> The way I look at instant messaging is, it is a platform for all these different types of rich communications. I consider it very critical.

[82] "Bill Gates Unplugged," *Redherring.com*, September 2000, ".NET is a Microsoft platform. Just like the Windows platform." "Letter for Gerald Waldron to Magalie Roman Salas," *In the Matter of Applications of America Online, Inc. and Time Warner, Inc. for Transfer of Control,* Federal Communications Commission, CS Docket No. 00-30, October 13, 2000,

> IM is not just an application but a real time messaging platform that can be utilized by many different applications. IM, with its presence detection features, is a critical platform for the current and future generation of communications and distribution of content over the Internet.

[83] Government Exhibit #20: Memorandum from Bill Gates, The Internet Tidal Wave, dated May 26, 1995, United States v. Microsoft, 84 F. Supp. 2d 9 (D.D.C. 1999) (Nos. CIV. A. 98-1232, 98-1233.

> A new competitor "born" on the Internet is Netscape. Their browser is dominant, with 70% usage share, allowing them to determine which network extensions will catch on. They are pursuing a multi-platform strategy, where they move the key API into the client to commoditize the underlying operating system

[84] Cooper, Charles, "Allchin Bangs the Drum for XP," *ZDNet News,* August 29, 2001,

> I want to talk about what's in Windows XP and what it talks to on the back end. There are meta-Internet services we talk about which we consider to be pretty fundamental, architecturally, for building and making the Internet a little easier for people to use. Authentication and presence – in the future, we may have others – both those two, for the present, are core. And we're trying to support both of those in Windows XP.

[85] Foley, Mary Jo, "Microsoft's. NET: Integration to the Max," *ZDNet News*, June 22, 2000, quote Steve Ballmer, Microsoft's CEO and President,

> We are taking elements of the user interface and programming model, and nicely and tightly integrating them, first into the client, and then into the server.

[86] Thurrott, Paul, "Microsoft Responds: Win2K is the Cornerstone of .NET," *Windows 2000 Magazine,* November 7, 2000,

> the role that the Windows platform played in the past and the role it plays in the future is absolutely the same. Today we have a world of applications and Web sites, and we think of those as two different worlds. With .NET, they become one.

[87] *Network World,* April 16, 2001,"Microsoft is shooting for the same degree of dominance in Web computing that it had in the client/server model."

[88] Mossberg, Walter, *Wall Street Journal,* May 17, 2001,

> There's also a dark side to Office XP. Microsoft is planning to try to sell a wide variety of Web-based services, and this new version of Office is partly designed to help the company peddle them… Not only that, but many of these Web enabled services enabled by Smart Tags will likely require you to sign in with a Microsoft-owned authentication system called Passport.

[89] Vaughn, Steven, "Resisting The Windows XP Message," *ZDNet*, May 9, 2001; *Smart Partner ZDWire*, May 8, 2001,

> Then there's the requirement that all software be signed with a Microsoft-approved bit of code. MS has said that will be the case with device drivers, but is unclear whether apps will need to be signed too. A Microsoft source tells me they will be. While that certainly will cut down on viruses, I can't help but wonder if you or independent software vendors will have trouble getting that all-important signature for your program. Will you need to recompile any program you write with a Microsoft complier to be registered to work with XP? If your vendor has a product that competes with an MS project, will they have trouble getting a signature? What about your favorite cheap utility? Will it get a signature?

[90] Ballmer, Steve, *PC World.com,* March 13, 2001. As Bill Gate put it (*Seattle Times,* March 2001), p. "It's our goal for virtually everybody who uses the Internet to have one of these Passport connections,"

[91] Associated Press, May 12, 2001,

> Without any court restrictions, Microsoft has remained free to continue its previous course with respect to integrating the browser and anything else, and it has acted consistently with previously expressed views. The snowballing of added features, however, surely will complicate any future remedy if a violation is upheld.

[92] Wilcox, Joe, "Windows XP Could See September Ship Date, *CNET News.com*, August 7, 2001; Buckman, Rebecca, "Windows XP Sales to Begin October 25, Microsoft Says," *Wall street Journal,* May 10, 2001.

[93] The request for rehearing after a full bench review seems odd, to say the least. The request for Supreme Court review prior to the remedy phase, if successful, will string out the case for a substantial period of time.

[94] Evans, David and Richards Schmalensee, *The Economics of the Microsoft Antitrust Case in the United States: An Updated Post-Trial Primer* (October 2000); Evans, David, *The Disposition of Claims Against Microsoft by the District Court and Appeals Court* (NERA, August 13, 2001). Schmalensee was Microsoft's only witness who was not a company employee. NERA provided the empirical evidence on which Schmalensee relied. Schmalensee's arguments that Microsoft did not abuse its monopoly power was rejected unanimously by the Appeals Court.

[95] *Microsoft Announces Greater OEM Flexibility for Windows*, Microsoft Press Release, July 11, 2001; Krim, Jonathan and Ariana Eujung Cha, "Microsoft to Let PC Firms Change Windows Setup," *The Washington Post,* July 12, 2001; Lohr, Steve, "Microsoft to Give Computer Makers Greater Freedom," *New York Times*, July 12, 2001; Buckman, Rebecca, "Microsoft to Require Posting of MSN Icon," *Wall Street Journal,* July 30, 2001; Bass, Dina, "Microsoft Requires PC Makers to Put MSN With Links," *Bloomberg*, July 27, 2001; Clark, Don, "Microsoft Broadens Rules for PC Makers," *Wall Street Journal,* August 9, 2001; Chu, Showwei, "Microsoft Hints at Further Concession," *The Globe and Mail*, suggests the fundamental position of Microsoft throughout was to ensure that its products never lost their advantage of location on the screen,

> Microsoft plans to include its instant messaging service, MSN messenger, and an updated version of its Media Player – software that delivers on-line video music – in the release of its new operating system, Windows XP, in October.
> "Ours will be there," he said. "What I can't tell you… is what are going to be the other components. That's going to be part of the discussion going forward.

[96] Phan, Monty, "Microsoft Revises 'Passport'/But use of Web users' info remains an issue," *Newsday,* April 2, 3001, A57.

[97] Mossberg, Walter, "Dangerous Detours: Windows XP May Add its Links to Others' Sites," *Wall Street Journal,* June 7, 2001, B1, "Uproar Over Planned Smart Tags Feature Threatened to Cloud October Launch of Windows XP Operating System" *Wall Street Journal,* June 28, 2001; "Smart Tags Link to Another Microsoft Controversy, *USA Today*, June 8, 2001. Mossberg, Walter S., "Microsoft Backs Off Plan to Add its Links to Other's Web Sites," *Wall Street Journal,* June 28, 2001,

Microsoft continues to defend the Smart Tag idea in principle, and the company plans to work toward including it in a future release of Windows or of the browser, in some more acceptable form…

[98] Wilke, John and James Bandler, "A Titan's Power – Shutter Bug: New Digital Camera Deals Kodak a Lesson In Microsoft's Ways – Trial Use with Windows XP Gave the Software Giant an Edge Photo Firm Says – Seeking a Digital Brownie," *Wall Street Journal*, July 2, 2001, report a similar incident with Microsoft's foray into online, digital photography

When Kodak cameras were plugged into a PC loaded with Kodak software, it was Microsoft's own photo software that popped up – not Kodak's. Camera customers would have to go through a cumbersome process to get Kodak's software to pop up every time, and most would probably just use Microsoft's. More troubling, the Kodak team found that the new program steered orders for picture prints to companies the would have to pay to be listed in Windows, and that these companies would also be asked to pay Microsoft a fee for every photo sent through Windows.

After complaints to antitrust authorities, Microsoft changed the add/remove sequence, keeping its product as the default, but making a one-click list for alternatives. It continues it "plans to charge a per-photo fee for images that are sent through Windows to Microsoft's partners."

[99] *The Economist*, April 28, 2001,

In particular, it plans to use Windows XP to ensure that .NET, its new strategy for delivering software as subscription-based web services, quickly gains a critical mass of users. Microsoft is also using Windows XP to push its own music-playback software and its own new proprietary music files. In other words, Microsoft is up to all its old tricks again.

[100] Mossberg, Walter S., "Microsoft Backs Off Plan to Add its Links to Other's Web Sites," *Wall Street Journal,* June 28, 2001.

[101] As noted above, pricing was analyzed as a general indicator of monopoly power as well as a source of subsidy for anticompetitive activities. Pricing has received some attention in the early stages of the rollout of Windows XP, with complaints about both the price level and the new activation policy. Mossberg, Walter, S., "The New Windows: Best Yet, But beware, Windows XP Rarely Crashes but Acts as a Trojan Horse to Tout Microsoft Services," *Wall street Journal,*

Not only that, but Windows XP is expensive. Although the $99 does not sound bad, the "activation" system will force home users, for the first time, to buy a separate copy for each PC they own. Microsoft is planning a multi-PC discount for home users, but it will be small.

These concerns about pricing and licensing practices have led to an uproar in the business community with a shift in licensing that constitutes a major increase for many enterprises (see Buckman, Rebecca S. "Microsoft Plan for Licenses Sparks Gripes," *Wall Street Journal,* September 25, 2001; Wilcox, Joe, "Microsoft Customers Balk at License Changes," *CNET New.com*," September 20, 2001.

Details of pricing for computer manufacturers are still shrouded in secrecy, as they typically are.

[102] Wilcox, Joe, "Want Media Player 8? Buy windows XP," *CNET News.com,* April 24, 2001,

"The biggest impact of including Windows Media Player is going to be, as we've seen time and time again, on the third party software developers who produce utilities that get sucked into the operating system,"

PC makers would not comment on product plans, but several said that given declining sales they would do what economically makes the most sense. Because PC makers already pay a license fee for Windows XP, it's likely they would favor using the bundled Media Player 8 over other products that must be licensed at additional cost.

[103] *Appeals,* p. 90.

[104] Cooper, Charles, "Allchin Bangs the Drum for XP," *ZDNet News,* August 29, 2001. Although Microsoft claimed that the desktop could be "clean" or cluttered with Icons, its version of clean included Microsoft Icons.

[105] Associated Press, May 12, 2001.

It's the same game they played with (Internet) Explorer. If it's sitting there and it's built in and you have to put a lot of work in to use another product, you don't do it.

[106] Mossberg, Walter, S., "The New Windows: Best Yet, But beware, Windows XP Rarely Crashes but Acts as a Trojan Horse to Tout Microsoft Services," *Wall street Journal,*

The company has also turned Windows XP with into a sort of Trojan horse. It has built in a bunch of "features," such as instant messaging, online photo printing and a "passport" to the Web, that are just blatant efforts to lure consumer into using a set of new Web-based services Microsoft is launching, while ignoring alternative services that may be better. The goal seems to be to trap users in a Microsoft company store of sorts.

[107] Mossberg, Walter, S., "The New Windows: Best Yet, But beware, Windows XP Rarely Crashes but Acts as a Trojan Horse to Tout Microsoft Services," *Wall street Journal,*

"You can also now hide those pesky icons on the lower right of the screen that you rarely use – those XP doesn't make it any easier to uninstall them.

[108] Mossberg, Walter, S., "The New Windows: Best Yet, But beware, Windows XP Rarely Crashes but Acts as a Trojan Horse to Tout Microsoft Services," *Wall street Journal,*

> Unfortunately, Microsoft pollutes this nice design by adding tasks that seem designed to keep you in the company store. A task for sending your pictures to an online photo-printing service lists only services that pay Microsoft. A task for buying music online leads only to a Microsoft site.

[109] Smith, Davie and Chris Le Tocq, "Commentary: Hailstorm's Consumer Focus," *Gartner Viewpoint, CNET News.com*, March 20, 2001,

> Microsoft regards Passport as a key leverage point and will use its own established platform dominance to drive exclusive usage. Hailstorm does not require windows platforms or Windows XP, but both Windows XP and Office XP will provide a level of convenience for users and will drive use of Hailstorm services. Windows XP will use Passport exclusively for its identity service… Windows could use a UDDI look-up to allow selection from competing identity services. Microsoft has chosen not to do this.

[110] *Appeals,* pp. 29-36.

[111] They could allow consumers to choose which operating system they want to invoke, however, see Hacker, Scot, "He Who Controls the Bootloader," *Byte.com,* August 27, 2001,

> There is no technical reason why CompUSA customers shouldn't be able to walk out of the shop with a machine that asks "Which OS do you wan to use today?" upon boot. And yet, even today, after several years of relentless news about how Linux is ready for the general desktop and business customer, one does not find dual-boot Win/Linux machines from large commercial OEMs at any consumer outlet or web shop I know of. Yes, you can get dual-boot machines at some of the smaller shops, but these are the ones that slip under Microsoft's radar, and there's no guarantee that Microsoft won't decide to take action against these vendors at some point. And yes, you can buy Linux-only machines from vendors such as IBM. But think about it: Why would IBM sell Windows machines and Linux machines, but not dual-boot Win/Linux machines.

[112] Fester, Dave, *CNET News.Com*, May 1, 2001.

> We're not going to offer another version of the Media Player that strips out all that functionality that's exposed to your PC in Windows XP. In Windows XP, the underlying core of the operating system offers these new levels of functionality.

[113] Buckman, Rebecca, and Julia Angwin, "Microsoft, AOL Battle on Windows XP, Talks on Online Deal Falter As Software Maker Plans Instant-Message Feature," *Wall Street Journal,* June 4, 2001,

> Intensifying the conflict between the companies, Microsoft today will unveil plans to bundle a new instant-messaging service into Windows XP, a bold stroke by the software maker to lure users away from one of AOL's most popular services. For the first time, Microsoft will hard-wire the service into Windows, giving Microsoft a potential edge in the battle with AOL.

[114] Chase, Steve, "Microsoft's Media Mission, Software Giant Plans to Tie New Multimedia Tool to Windows, But Rivals in Player Wars Slam Move as Anti-competitive," *Globe and Mail,* May 3, 2001.

> Available exclusively with XP will be Windows Media Player 8, a souped-up version of earlier stand-alone players that allows users to "burn" audio or video onto compact discs or watch digital videos on their computers.
>
> Very few of Payer 8's features break new ground, but packaged together they provide a daunting competition for rival software from smaller companies. The older Windows Media Player 7 will still be available as a separate free download.
>
> Bundling Media Player 8 with Windows CP has set off alarm bells with Microsoft critics, who are wary of the company's tactics after it overpowered Internet browser rival Netscape Communications Corp. by tying its own Internet Explorer to the Windows OS in 1996. Because Windows is the software that operates almost 90 per cent of the world's PCs, any additional programs bundled with the OS on new computers can effectively swamp the competition.

Wilcox, Joe, "Want Media Player 8? Buy windows XP," *CNET News.com,* April 24, 2001.

> Some analysts are critical of the move, considering the legal and public relations troubles that were caused by tying Internet Explorer to the OS…
>
> Repeating the company's argument for bundling Internet Explorer with Windows, a Microsoft representative said Media Player 8 included new features that require close integration with Windows XP for optimal performance.
>
> "There are some features with Widows Media Player that can only be delivered with Windows XP," said Jonathan Usher, Microsoft's group product manager for Windows Media Player. These include CD burning and DVD movie playback, among other features not available with earlier versions of the product.

Mossberg, Walter, S., "The New Windows: Best Yet, But beware, Windows XP Rarely Crashes but Acts as a Trojan Horse to Tout Microsoft Services," *Wall street Journal,*

Unfortunately, this is another case where Microsoft places it business interests above consumer choice. The messaging function connects to Microsoft's own messaging network only, not he larger and more popular AOL messaging system.

Not only that, but you can't use the messaging feature without signing up with Passport, Microsoft's service that aims to collect names and passports for everyone on the Internet.

[115] Mossberg, Walter, S., "The New Windows: Best Yet, But beware, Windows XP Rarely Crashes but Acts as a Trojan Horse to Tout Microsoft Services," *Wall street Journal,*

It is somewhat suspicious that software from some of Microsoft's fiercest rivals just happened to be partially disabled in some way by windows XP, requiring those companies to scramble to offer patches. ..

Some programs, including antivirus and firewall software, will need to be replaced entirely with newer versions. Many DVD players will also have to e updated.

[116] Swisher, Kara, "Microsoft Charts New Course, But is it the Right Approach?" *Wall Street Journal,* March 26, 2001,

No surprise, hailstorm works better with Microsoft's dominant products, integrated with software applications and based on existing free Microsoft services like Passport.

[117] Graham, Jeffrey, "Windows Media Promise, But Snafus Remain," *USA* Today, May 26, 2001:Helm, Kristi, *Mercury News Seattle,* quoting Henry Blodget, Merryl Lynch analyst,

We continue to believe there is a significant risk that Microsoft will do to RealNetworks what it did to Netscape – take over the market by bundling functionality in larger products and giving it away for free.

[118] Hansen, Evan, "Windows XP and MP3 May Not Mix," *CNET News.com*, June 12, 2001,

Test versions of the new operating system have alternatively included and excluded an encoder, or "ripper," that would allow people to convert audio tracks from CDs to the MP3 format, according to Windows XP product Manager Tom Lammel…

Even if the company does include an MP3 ripper, it is likely to be a version that does not produce high-quality copies because the cost would be prohibitive to the company, Lammel said…

Although previous versions of its operating system have supported MP3 rips from other companies, Microsoft's own audio and video software, Windows Media Player, has converted files only the Windows media format, dubbed WMA.

Lammel said an early test version of Windows XP included a riper, but it has been dropped from the most recent beta.

Mossberg, Walter, S., "The New Windows: Best Yet, But beware, Windows XP Rarely Crashes but Acts as a Trojan Horse to Tout Microsoft Services," *Wall street Journal,*

It's the same story with Windows XP's new Media Player, which plays music and videos. The program is much improved, and Microsoft's proprietary music format, WMA, is a very good competitor to the widely used MP3 format. But while the Media Player can play MP# files, it can't create them unless you download an extra-cost "plug-in" from a third-party company. It can create only WMA files.

[119] Wilcox, Joe, "Windows XP: A Bundle of Trouble?", *CNET News.com*, May 21, 2001.

Guernsey's LeTocq sees a more obvious reason for Windows Media Player 8 to cast off users: With this version, Microsoft reduced the recording quality of MP3, the most popular digital music format.

"What Microsoft has done is cut the record quality in half, so that people will want to use the Windows Media Audio (WMA) format instead. While the typical minimum for recording MP3s is 128 kbps, Windows Media Player offers one option: 56kbps.

"They want to force people to WMA and make it the standard for digital music."

[120] The importance of the media player filters into a wide range of applications. Wilcox, Joe, "Want Media Player 8? Buy windows XP," *CNET News.com,* April 24, 2001,

Integrating the media player with Windows XP better positions the product to compete against RealPlayer and Quicktime. It could also bolster Microsoft's development effort for games, where Direct X and Windows Media Player are emerging as top picks by developers.

As a result, some analysts believe integrating Windows Media Player with Windows could help the company woo more developers for its forthcoming Xbox gaming console.

This is clearly a content leverage play… The question is will Xbox drive the standards here? You've got DirectX on the Xbox and the PC. What you have there is a cross-platform environment feeding Xbox and Windows XP supported by Direct X and Windows Media Player…

At the same time, through its much touted .NET software-as-a-service initiative, Microsoft increasingly is focusing on subscription revenue rather than software sales to sustain growth. Whether the company can succeed at this is uncertain. But as the company looks to deliver more content through the Web, controlling video-streaming standards would be a valuable asset.

[121] EPIC, Complaint.

[122] The forced upgrade cycle plays a key role here. By desupporting competing software and driving consumers to new machines, Microsoft erases the installed-base of its competitors. Buckman, Rebecca, "A Titan's Power – Potent Program: With its Old Playbook, Microsoft is Muscling Into New Web Markets using Aggressive Bundling, It Roils High-Tech World with Windows Overhaul Some Gains for Consumers," *Wall Street Journal,* June 29, 2001

> Music is another battleground. Microsoft announced earlier this year that the latest version of its Windows Media Player, which lets people listen to music and watch videos on the Web, will work only with Windows XP and not with older versions of the operating system. Mitch Kapor, the founder of onetime rival Lotus Development Corp., calls that a "forced March to upgrade."

[123] Klein, Alec, "Microsoft, AOL Clashed Over Media Player," *Washington Post*, June 21, 2001, describes Microsoft efforts to impose contractual conditions that restrict the ability of competitors to be visible or reach the marketplace, which parallel quite closely the conditions targeted at the browser.

> In one proposal, Microsoft wanted to prevent AOL online subscribers from using RealNetworks' RealPlayers software in Windows XP. "any third party code or functionality shall not be in a form accessible or utilizable by other applications or consent," states a Microsoft draft dated June 14.
>
> After a conference call with Microsoft engineers that day, an AOL software engineer wrote an e-mail to an AOL negotiator that Microsoft's proposal was meant "to prevent the user from using the standalone RealPlayer when the player is installed by AOL."
>
> That would have required AOL to "hide Real's program file folder" and other icons that link the consumer to RealPlayer, according to the e-mail….
>
> As part of the negotiations, the Redmond, Wash., software maker also wanted AOL to guarantee that 50 percent of the music and audio content played on the AOL Internet service in Windows XP would be done through the Windows format, according to source close to AOL.

[124] Vaughn, Steven, "Resisting The Windows XP Message," *ZDNet*, May 9, 2001; *Smart Partner ZDWire*, May 8, 2001,

[125] Klein, Alec, "Microsoft, AOL Clashed Over Media Player," *Washington Post*, June 21, 2001; Buckman, Rebecca, "A Titan's Power – Potent Program: With its Old Playbook, Microsoft is Muscling Into New Web Markets using Aggressive Bundling, It Roils High-Tech World with Windows Overhaul Some Gains for Consumers," *Wall Street Journal,* June 29, 2001.

> Microsoft has written support for Passport and the Widows Media audio-video format into business contracts. Microsoft says support for those services is simply an option, though some companies report they are feeling pressure for Microsoft to adopt the services…
>
> Match.com and Tutor.com, which provide content to MSN such as online matchmaking and homework help, say Microsoft has asked them to adopt the Passport service. It was a "requirement," says Tutor.com's director of business development.

Markoff, John, "Break in Talks Between AOL and Microsoft," *June 17, 2001,*

> "Tremendous progress had been made between AOL and Time Warner and Microsoft, but ultimately the talks broke down over an issue unrelated to AOL and Microsoft per se," said John Buckley, an AOL corporate vive president. "The issue was Microsoft's determination that it be in a position to control digital media on the Internet, and we could not acquiesce to that ambition…."
>
> AOL officials said Microsoft had objected to AOL continuing to use RealPlayer, including the issue of the stability of the program running with Microsoft's Windows XP operating system.

[126] Wilcox, Joe, "Windows XP Could See September Ship Date, *CNET News.com*, August 7, 2001.

[127] Wong, Wylie and Robert Lemos, "HailStorm Still Thunders in the Distance," *ZDNet News,* August 30, 2001,

> Whether it's a case of purposeful confusion or of real ambiguity about how to proceed with the project, Microsoft's comments offer fodder to critics who have accused the company of preannouncing HailStorm as a marketing poly to freeze its competitor's initiatives…
>
> Critics say Microsoft is falling back on a familiar strategy – spreading fear, uncertainty and doubt (or FUD) – to convince consumers to wait for its products rather than buy from the competition.
>
> Microsoft Chief Executive Steve Ballmer tossed out the idea of HailStorm during a press conference nearly two years ago. And in March, Microsoft formally announced the HailStorm initiative.

Swisher, Kara, "Microsoft Charts New Course, But is it the Right Approach?" *Wall Street Journal,* March 26, 2001,

> Hailstorm [.NET] still smacks of the same tone of previous fights over Intuit, MSN and browsers. Then, as now, the company appears to have tried to declare victory long before the battle, scaring everyone with bogeyman tactics and a Windows centric attitude.

[128], EPIC Complaint, 38, 47-51; Lohr, Steve, "Privacy Group Is Taking Issue With Microsoft," *New York Times*, July 25, 2001.

[129] "Microsoft: How It Became Stronger Than Ever," *BusinessWeek*, June 4, 2001,

> Because of the software maker's incredible distribution power, opponents fear that Microsoft will be able to turn it into the ubiquitous payment and identity-authentication system on the Net. Microsoft already boasts 160 million Passport accounts. Although many of those are duplicates, this base of

customers will only get bigger, since 160 million new Windows PCs are expected to convince Web-site owners that they out to accept Passport. That, in turn, will trigger more consumers to sign up – the type of powerful cycle that winds up creating monopolies.

[130] Tribble, Bud, *Smart Partner,* April 24, 2001,

Think about single sign-on and the Web. To play in .NET, who has to have a contract signed with Microsoft? The end user does, the service provider probably does. It puts Microsoft in a very central point of control.

[131] Gardner, Dana, *Network World*, April 16, 2001,

Microsoft is injecting its own service between corporate Web sites and their customers. The question is, if I run a Web site, do I want Microsoft to be between me and my customers?

[132] Le Tocq, Chris, *Forbes.com*, April 10, 2001,

Microsoft wants to be the driver's license issue of the Web. They want everyone to pay them $10 per month to drive. And with this [.NET] architecture, they are rewriting the Internet in the way they feel it should have been written in the first place

Microsoft: How It Became Stronger Than Ever," *BusinessWeek*, June 4, 2001,

That puts Microsoft in the position, if it wants, to charge online merchants a fee for its Passport service. Although the company now denies that's the plan, its executives in the past talked about collecting fees for every e-commerce transaction.

The goal of collecting on every transaction had been articulated early on in Microsoft's thinking about the Web. *Wall street Journal,* June 5, 1997. "Nathan Myrhvold, Microsoft's chief technology officer, confirms Microsoft's hopes to get a 'vig,' or vigorish, on every transaction over the Internet that uses Microsoft's technology, though he says in some cases Microsoft's share could come from a one-time licensing fee."

[133] *"Wired*, March 21, 2001,

By definition, if they are saying the operating system will become an online service, they are leveraging their OS monopoly into brand new areas. They will take control of the consumer, from the moment he turns on his brand new computer shipped to him by an OEM, and will be hand-in-hand with that consumer through every action he or she takes on the Internet forever.

[134] Buckman, Rebecca, and Julia Angwin, "Microsoft, AOL Battle on Windows XP, Talks on Online Deal Falter As Software Maker Plans Instant-Message Feature," *Wall Street Journal,* June 4, 2001,

America Online and other Microsoft competitors have also complained about Windows XP's connection to Passport, an online-identity service that Microsoft wants to use s a gateway to a raft of other, planned Internet services. New users of Windows XP will be prompted to sign up for a Passport account; if they don't they will be asked two more times, Microsoft Product Manager Greg Sullivan said. Users must have a Passport to use Windows Messenger, the new instant-messaging service that will be bolted to Widows XP.

[135] EPIC, Complaint, 40; Coursey, David, ".NET Demystified: What You Must Know About MS's Software Scheme," *ZDNet*, March 20, 2001,

Microsoft Wants to Know Everything: the information in you user profile, address, and applications settings, what devices you use, what's in all your documents; your favorite Web sites; where you are at any given moment; your credit card numbers and payment information; the content of your personal calendar, contact list, and e-mail box; and probably a few things I've left out.

[136] *Building User-Centric Experiences: An Introduction to Microsoft Hailstorm*, Microsoft March 2001.

[137] Rosenberg, Scott, *Salon.com*, March 28th, 2001,

The Microsoft "control room becomes a classic "single point of failure" – an Achilles heel that, once pierced, would give an electronic trespasser uniquely comprehensive access to your pre-assembled data profile.

Stiennon, Richard, *Seattle Times,* April 8, 2001,

They're the most attacked infrastructure there is on the Internet; they're the No. 1 target for hackers. For Microsoft to take the step of having a centralized repository of information, a login or whatever it is, is something that Gartner clients won't be advised to do.

[138] EPIC, Complaint, 43-45.

[139] EPIC, Complaint, 27.

[140] Rotenberg, Mark, *Seattle Times,* April 9, 2001,

One of the ways we protect our privacy is by disclosing some of our information in some contexts and not in others, and it's in that selective disclosure of information that you establish bonds of trust and friendship with friends and family members and not others. Sitting in the hub of those relationships is the actual individual. What Microsoft seems to be doing here is saying, 'Sure there's an individual, but we can effectively map those data flows and extract from them the individual and replicate them on a case-by-case basis,' and that's where I think some substantial privacy issues arise.

[141] Pierce, Deborah, *Interactive Week*, April 15, 2001,

There is no way you can be sure this data will not get away from you. It's an accident waiting to happen.

Swire, Peter, *Interactive Week,* April 15, 2001,

They advertise [.NET] as one-stop shopping for the consumer, but it could turn into one-stop shopping for the cops. Your papers and effect used to be locked in your homes. What HailStorm does is put all of your papers and effects in somebody else's hands. The Fourth Amendment does not apply to records you have given to somebody else. It will be one-stop shopping for the identity thieves when all of the information about people's.

Wayne, Peter, *Wired*, March 21, 2001,

prescriptions, their appointments, their bank records, and everything else are kept in one tight bundle.

[142] Enderle, Rob, *Interactive Week,* April 15, 2001,

This particular service [.NET] would require the most trusted vendor. Microsoft is not well trusted, and recent security exposures have many concluding that it is not well protected either.

[143] McCarthy, John, *Interactive Week*, April 17, 2001,

They themselves are waving the flag for privacy… Yet they have joined the industry alliance to slow down privacy legislation.

[144] EPIC, Complaint, 83-85; EPIC Supplemental, 25-31.

[145] EPIC, Supplemental, 21-24.

[146] EPIC, Complaint, 23.

[147] EPIC, Complaint, 37

[148] EPIC, Supplemental, 10-11.

[149] EPIC, Complaint, 15-17, 67-72, EPIC, Supplemental, 15-18.

[150] Mossberg, Walter, S., "The New Windows: Best Yet, But beware, Windows XP Rarely Crashes but Acts as a Trojan Horse to Tout Microsoft Services," *Wall street Journal,*

Microsoft will announce today that it is taking steps to have Passport interoperate with competing password services, but that will take a long time and won't alter the company's drive to get users registered with Passport.

[151] Parloff, Roger, "Spinning the Web," *American Lawyer*, *Roll Call,* Monday July 13, 1998.

[152] Wendy Goldman Rohm, *The Microsoft File* (1998), pp. 93-101, 147-51; Microsoft's strategy, also known as "embrace and extend," is not new. As noted in "The World According to Microsoft," *PC Week Online*, June 8, 1998 (see also "Mine All Mine," *Time*, June 5, 1998,). That the practice stretches far back in Microsoft's business model is clear in an example from 1982-83, given by John Wallace & Jim Erickson, Hard Drive (1992). p. 233;

[153] Wilke, John, and Ted Bridis, "Regulators Won't Seek Microsoft Breakup: Antitrust Officials Will Ask for Broad Restrictions on Business Practices," *Wall street Journal,* September 7, 2001; Grimaldi, James V., "Microsoft Breakup Bid Dropped," *Washington Post*, September 7, 2001.

[154] The Appeals Court cites (*Appeals,* p. 99) *Ford Motor Co. v. United States*, 405 U.S. 562, 577 (1972).

[155.] Ford Motor Co. v. United States, 405 U.S. 562, 577 (1972), p. 578.

[156] The Appeals Court also cites (*Appeals,* pp. 99-100) *United States v. United Shoe Mach. Corp*., 391 U.S. 244, 250 (1968).

[157] .*Id.*

[158] *Id.*

[159] *Appeals,* p. 106, offers the District Court the following advice in crafting the remedy,

While we do not undertake to dictate to the District Court the precise form that relief should take on remand, we note again that it should be tailored to fit the wrong creating the occasion for the remedy.

[160] *Appeals,* p. 100, citing *United States v. United Shoe Mach. Corp*., 391 U.S. 244, 250 (1968) and *United States v. Grinnell Corp*., U.S. 563, 577 (1966).