From: Peter J. Cacioppi
To: Microsoft ATR
Date: 1/16/02 3:23pm
Subject: Microsoft Settlement

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Dear Sirs

I forward the following Scott Rosenburg article from Salon.com. I agree with it entirely.

Jan. 16, 2002 | The personal computer industry may be in its worst slump in history, but you wouldn't know it by following the news from the processor wars. Over the past two years, Intel and AMD have unleashed an incredible competitive cycle in Silicon Valley.

In case you missed it, last week these two chip companies offered dueling releases of new flagship processors: Intel unveiled its fastest Pentium 4 yet, running at 2.2 gigahertz and built with a new .13 micron process that crams even more transistors into an even smaller space. AMD, extending the huge success and popularity of its Athlon line and the Athlon's most recent and powerful incarnation, Athlon XP, announced the XP 2000 -- a chip that actually runs at 1.67 gigahertz but, third-party tests show, nearly keeps up with the 2.2 ghz Pentium 4 in most tasks (and even surpasses it in some).

What's going on here is simple: Good old-fashioned competition drives engineers to continue to work miracles. Intel, the market-dominating behemoth, has always pushed new, improved products out the door faster -- and dropped prices more readily -- when it feels the breath of a credible competitor on its neck. For many years the competition was feeble, but that changed when AMD's Duron and Athlon chips began giving Intel a run for its money -- and, for a time in 2001, actually bested Intel for the fastest personal-computer chip title.

Today, these two companies keep spurring each other on, and consumers win big. For most of us, that's all we need to know: Computers keep getting faster and cheaper. The details are of interest only to the legions of hardware nuts, high-performance system geeks and chip-overclocking fans who flock to the Web's hardware review sites. Right?

Well, the gigahertz specs may indeed be only geek fodder, but the other details of the Intel-AMD rivalry should be of keen interest to a much bigger crowd. That's because the competitive heat driving the processor market puts the relative frigidity of another part of the computer business into bold relief. I refer, of course, to the business of designing personal-computer operating systems -- a business that Microsoft has dominated for years and that, according to the confirmed verdict of our federal courts, it now monopolizes.

What if Microsoft were challenged as strongly on its home turf as AMD is now challenging Intel? What innovations, improvements and price reductions would the public enjoy that it doesn't, today, thanks to the Microsoft monopoly? This is the big question that hangs over the continuing struggle to find a meaningful outcome to the endless Microsoft antitrust saga. And the AMD/Intel analogy is worth pursuing to try to find some answers.

Microsoft and its supporters, of course, maintain that the monopoly label is misplaced. After all, can't you buy a Macintosh without buying Microsoft Windows? Can't you obtain a PC and fire it up with any of a dozen versions of Linux or other Unix-style operating systems?

Sure you can -- and each of those operating-system alternatives has its partisans. But for use by individuals on their personal desktops, Microsoft Windows holds the overwhelming market share -- by nearly every estimate, over 90 percent. Is that simply because Windows is superior to the alternatives? There are certainly people who believe that; and, to be sure, with the release of Windows XP last year, Microsoft finally moved its flagship operating system off the aging and increasingly unstable code base it had inherited from its infancy and onto the relatively more reliable Windows NT/Windows 2000 core.

But how much faster might Microsoft have achieved that improvement if it was racing a tough competitor? And how much more incentive might the company have to produce more secure, less virus-vulnerable products today? The historical record is quite clear (and the antitrust trial record is just as clear): The central reason Windows has maintained and extended its market share over the years is not product superiority but a concept economists call "lock-in." Once you have all your data and all your software applications on one operating system or "platform," moving to a different one is painful -- it takes time and effort and money (as economists say, your "switching cost" is high). Over the years Microsoft

has not had to push harder and faster to improve Windows because it knew that its customers were unlikely to make a fast switch to a competitor. Now, that picture would be very different if you could somehow reduce or eliminate those switching costs. What if competing operating systems could seamlessly and interchangeably run the same programs and utilize the same data files that Windows does?

Here's where the Intel/AMD analogy comes in handy. These manufacturers compete to provide chips that can run the same computer programs -- known loosely as "x86 compatible" code -- and that retain compatibility with hardware like expansion boards and peripheral devices. If you needed to write different versions of each piece of software and manufacture different versions of each piece of accompanying hardware -- one that would work with Intel's chips and one that would work with AMD's -- the whole competitive market would disappear. The weaker player (presumably AMD) would vanish and -- presto! -- Intel would have a monopoly as tough as Microsoft's.

This relatively level playing field in the x86-compatible processor business did not come about by sheer happenstance. The semiconductor industry is marked by a Byzantine pattern of patent cross-licensing agreements; they provide permanent employment for legions of lawyers, and laymen seek to understand them only at great peril. What's important about them, however, is not how they came about but that they work.

Now that the federal courts are trying to figure out an effective remedy for Microsoft's abuse of its monopoly powers, the competition between Intel and AMD provides a valuable model. How would one go about enabling Microsoft's rivals to compete with it as effectively as AMD is competing with Intel?

The key here is something known as the Windows API (or "applications programming interface") -- the set of instructions that Windows programs use to "talk to" the operating system. The Windows API has long been a murky issue: Microsoft has always provided some information to independent developers -- it has to if third-party Windows programs are going to work. But Microsoft can and does muck around with the API, changing things that break competitors' products, anytime it wants to. And rumors have long buzzed, without ever being nailed down, that Microsoft's own developers take advantage of so-called hidden APIs that non-Microsoft coders can't use.

The Justice Department's proposed antitrust settlement with Microsoft seems to demand that Microsoft do more to open up its APIs to competitors. But the fine print makes it clear that Microsoft could pretty much continue with business as usual. A more effective remedy would be one that required Microsoft to standardize and publicize the entire set of Windows APIs and the file formats of its Office applications (another key to Microsoft's monopoly "lock-in") -- with the express goal of allowing competitors to build Windows software applications, and operating systems, that compete with Microsoft on a level field.

Such a plan would require careful oversight and enforcement, since Microsoft could easily engage in all manner of foot-dragging. If Microsoft set out to be uncooperative, it could release the API information slowly, in deliberately confusing ways, or in a "Good Soldier Svejk" fashion -- assiduously following the letter of the court's order while flagrantly violating its spirit. (There's precedent here: This is precisely how Microsoft behaved during the trial when it told the court that, sure, it would supply a version of Windows with Internet Explorer removed from its guts, but gee, sorry, then Windows wouldn't work.)

Now, I can already hear the howls from the Microsoft corner that this plan is evil and un-American because it forces Microsoft to give up some of its intellectual property. Well, yes. Microsoft is in court as a repeat offender; the current antitrust suit, in which a federal district court and an appeals court have both affirmed that Microsoft is a monopoly and that it has abused its monopoly powers, arose out of the failure of a previous consent-decree settlement of an earlier antitrust case. At some point, having repeatedly violated the law, Microsoft needs to pay a price, or it will continue with its profitably anticompetitive ways.

There's no reason to think the Justice Department's proposed settlement will work any better than the consent decree of last decade did. And financial penalties can hardly wound a company that is sitting on a cash hoard of tens of billions of dollars. But intellectual property -- that's

something Bill Gates and his team really care about. Requiring them to divulge some of it in order to restore competition in the software market might actually get them to change the way they operate.
With Microsoft's APIs and file formats fully standardized, documented and published, other software vendors could compete fairly -- which, after all, is what antitrust laws are supposed to promote. We might then be faced with a welcome but long unfamiliar sight: a healthy software market, driven, as today's processor market is, by genuine competition.
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