Renata B. Hesse
Antitrust Division
U.S. Department of Justice
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Randolph S. Kahle
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Dear Ms. Hesse:

I have worked in the computer industry for over 25 years. During that time I have worked as a developer, a marketing / business strategist, and as a consultant to large and small companies.

I have a degree from Rice University in software and hardware design and an MBA from the Amos Tuck School of Business Administration at Dartmouth College.

My work experience includes Hewlett-Packard as well as six years as a marketing and business strategist at Microsoft working on database and developer products.

I have seen Microsoft from both the inside and now, for the last ten years, from the outside.

As I am not an attorney, I cannot speak to the legal specifics of the Proposed Final Settlement, however, I am qualified to speak to the practical implications of the terms in the computer industry as well as other industries and markets into which Microsoft may enter.

COMMENTS IN GENERAL

As the computer industry moves towards a future, fully-distributed, computing environment, it is vital to have an environment which fosters and rewards innovation. While it may seem a mature industry, we are still only at the early stages.

To date, there have been several waves of general innovation and consolidation. Each wave brings cost reductions, creative ideas, whole new companies and new technologies. After a wave, there has been consolidation around standards and then the next wave appears.

These waves could be named the "mainframe era", the "minicomputer era", and the "personal computer era". We are now leaving the "personal computer era" and entering a new one centered on distributed computing and information, the "distributed computing era".

As each era transitioned to the next, the companies and products of each successive wave accommodated the past, while providing new innovations.

IBM anchored the mainframe era, Digital and Hewlett-Packard emerged during the minicomputer era, and Microsoft, Dell, Gateway, and others emerged during the personal computer era.

What is different about the current transition, is that a single company, Microsoft, is attempting to leverage their monopolistic power created in the personal computer era and their position in the industry to define and control the next era.

COMMENTS ON CULTURE

I worked at Microsoft before Windows was a monopoly. What I observed was a culture fixated on domination at all costs. While Microsoft was growing, these actions and activities were not illegal. After becoming a monopoly, they clearly are (and were found to be so by the courts). What is important to note is that these illegal behaviors stem from the culture of the company.

Because of this strong culture, I do not believe that any external monitoring of internal operations would ever be successful (e.g. the "TC" as proposed). Microsoft managers are simply too smart, experienced, and aggressive to ever agree to submitting to external

pressures. This comes from the top, Bill Gates himself. In my experience, I have never encountered a discussion in which anyone at Microsoft ever thought that they were in the wrong. This would never occur to anyone. This is a cultural factor, an arrogance of doing no wrong. With this culture, it seems extremely unlikely that Microsoft would be able to self-monitor or even work with an external auditing agency.

REMEDIES

My first choice for a remedy is to break Microsoft up into smaller competing entities. The reason for this is to attempt to reshuffle the organization so that there could be cultural and behavioral change.

I petition the court to explore this remedy as the best way to combat future violations by Microsoft.

If the court does not pursue a break-up of Microsoft, then I strongly agree with many others, that there must be changes to and additional provisions added to the Proposal Final Settlement.

For example, I fully support, and have sign Dan Kegel's open letter (http://www.kegel.com/remedy/letter.html).

OPENNESS AND TRANSPARENCY

My second choice for a remedy is to force openness and transparency in Microsoft's technology. Distributed computing systems are very complex and can be very subtle. To help the court, many other petitioners have listed specific technology disclosures that will help create openness.

I will add that, in a general way, if Microsoft's technologies can be viewed by the industry and the market as *components* rather than as a *whole*, then a good balance may be struck between Microsoft's ability to innovate, and the industry's ability to compete and develop both complementary technology as well as competing technology.

The tricky question is this: "Where are the boundaries between the components?"

A simple answer can be found by focusing on and leveraging the up-coming pressures that will be felt as the distributed computing era arrives. The answer I propose is simple, easily monitored and enforced:

* Force Microsoft to fully disclose all wire-level (binary) protocols used between independent computing devices. (This include .Net protocols, SMB/NBT protocols for file sharing, and others)

* Force Microsoft to disclose the APIs which they expect other components to use as they access the wire-level protocols.

* Force Microsoft to fully disclose all file formats used to store persistent information.

The reason these are good remedies relies on the following:

* The future direction of computing is toward small, distributed computing devices. The economic and technological pressures will force the definition of boundaries between distributed components. This will be a constant pressure to *increase* disclosure over time.

* It is easier to monitor and audit compliance at these boundaries compared to other more abstract and more easily re-defined boundaries. (Microsoft is a master at redefining boundaries for their own benefit).

* These disclosures provide significant value to competitors and innovators.

However, I must also point out that this is only a first step. This describes the technological boundaries and requirements. The Settlement must also address the legal issues such as Microsoft's attempt to prevent open-source software from running on Windows, and other licensing and cross-tie issues. I will leave these issues to the legal experts.

Violation of the Settlement must bring with it a powerful and costly punishment. I propose that if Microsoft violates the provisions of the Settlement that they be forced to place any software or system found to be in violation or associated with a violation into the general domain through an open-source license. This, more than any financial penalty, would be a real deterrent.

Regards,

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