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Customer Focus: Comparing Windows with Linux and UNIX

In the thousands of meetings that Microsoft employees have with customers around the world every day, many of the same questions consistently surface: Does an open source platform really provide a long-term cost advantage compared with Windows? Which platform offers the most secure computing environment? Given the growing concern among customers about intellectual property indemnification, what's the best way to minimize risk? In moving from an expensive UNIX platform, what's the best alternative in terms of migration?

Customers want factual information to help them make the best decisions about these issues. About a year ago, a senior Microsoft team led by General Manager Martin Taylor was created to figure out how we could do a better job helping customers evaluate our products against alternatives such as Linux/open source and proprietary UNIX. This team has worked with a number of top analyst firms that have generated independent, third-party reports on cost of acquisition, total cost of ownership, security and indemnification. Some of the studies were commissioned by Microsoft, while others were initiated and funded by the analysts. In each case, the research methodology, findings and conclusions were the sole domain of the analyst firms. This was essential: we wanted truly independent, factual information.

At the same time, our worldwide sales organization is going even deeper with customers to understand their needs and create a feedback loop with our product development teams that enables us to deliver integrated solutions that support real-world customer scenarios, and comprehensively address issues such as manageability, ease of use and reliability.

I'm writing to business decision makers and IT professionals today to share some of the data around these key issues – and to provide examples of customers who opted to go with the Windows platform rather than Linux or UNIX, and how that's playing out for them in the real world. Much more information on this is at www.microsoft.com/getthefacts.

Total Cost of Ownership and Acquisition Costs

In the past few years, you haven't been able to open a computing magazine or visit a technology Web site without running into an article about Linux and open source. Not surprising: who doesn't like the idea of a "free" operating system that just about anyone can tinker with?

But as the Yankee Group commented in an independent, non-sponsored global study of 1,000 IT administrators and executives, Linux, UNIX and Windows TCO Comparison, things aren't always as they seem: "All of the major Linux vendors and distributors (including Hewlett-Packard, IBM, Novell [SUSE and Ximian] and Red Hat) have begun charging hefty premiums for must-have items such as technical service and support, product warranties and licensing indemnification."

Yankee's study concluded that, in large enterprises, a significant Linux deployment or total switch from Windows to Linux would be three to four times more expensive – and take three times as long to deploy – as an upgrade from one version of

Windows to a newer release. And nine out of 10 enterprise customers said that such a change wouldn't provide any tangible business gains.

Yankee also noted that, for larger organizations with complex computer networks, it's important to look beyond Linux's initial low investment cost and consider all of the TCO and ROI factors.

This is exactly what one of our large enterprise customers, Equifax, did recently. Equifax, a $1.2 billion U.S.-based enterprise with 4,600 employees in 13 countries, needed more computing power than its mainframe systems could deliver for rapidly searching the company's vast marketing database. They spent several months conducting an internal analysis, which proved that, compared with Linux, Windows would realize a 14% cost savings and shorten their time to market by six months. (Equifax Case Study)

Another comprehensive, non-sponsored study by Forrester, entitled The Costs and Risks of Open Source, drew a similar conclusion: "The allure of free software is accelerating the deployment of open source platforms, but open source is not free and may actually increase financial and business risks."

In early 2004, Forrester conducted in-depth discussions with 14 companies that had been running Linux platforms for longer than one year to see what the costs really were. Several key themes emerged:

- Few companies know what they're really spending. Only five of the 14 kept detailed metrics – and each of those five found Linux more expensive (5% to 20%) than their current Microsoft environments.
- Preparation and planning activities took 5% to 25% longer for Linux than Windows.
- Training for IT employees was significantly higher for Linux than for Windows – on average, 15% more expensive. The reasons: training materials were less readily available, and customers spent more on training to compensate for the lack of internal knowledge about Linux.
- All 14 companies said it was difficult finding qualified Linux personnel in the marketplace to support their Linux projects. When they did find third-party help, they had less leverage negotiating hourly rates than with Windows consulting resources.

One of our mid-market customers, Computer Builders Warehouse (CBW), came to a similar conclusion. CBW builds computers to order for education, government, and corporate customers. Several years ago, it deployed Red Hat and Mandrake versions of Linux to support its corporate, retail and e-commerce applications. Challenged with high costs, CBW subsequently migrated to Microsoft Windows Server System, and reduced its total cost of ownership by 25 percent. It also consolidated its server population by 50 percent, reduced maintenance time by 50 percent, and boosted developer productivity by 200 percent. These benefits – totaling $650,000 in savings – are dwarfed by the millions of dollars in new revenue that CBW expects as a result of bringing a key security and monitoring product to market more than two years faster than it could have done using Linux. (CBW Case Study)

Security

About three years ago, we made software security a top priority, and since then we've invested heavily in a multi-pronged effort to improve software quality and development processes, and to reduce risks for customers through education and guidance, industry collaboration and enforcement. I think it's fair to say that no other software platform has invested as much in security R&D, process improvements and customer education as we have at Microsoft.

Still, Linux has often been touted as a more secure platform. In part, this is because of the "many eyeballs" maxim of open source software that claims a correlation between the number of developers looking at code and the number of bugs found

and resolved. While this has some validity, it is not necessarily the best way to develop secure software. We believe in the effectiveness of a structured software engineering process that includes a deep focus on quality, technology advances, and vigorous testing to make software more secure.

A number of third-party reports have questioned how safe the Linux platform really is. For example, a recent independent study by Forrester, Is Linux More Secure than Windows?, highlighted that the four major Linux distributions have a higher incidence and severity of vulnerabilities, and are slower than Microsoft to provide security updates.

According to Forrester, Microsoft had the lowest elapsed time between disclosure of a vulnerability and the release of a fix. They found that Microsoft addressed all of the 128 publicly disclosed security flaws in Windows over the 12-month period studied, and that its security updates predated major outbreaks by an average of 305 days.

Other independent sources of data show similar conclusions. According to statistics posted on the security Web site Secunia, Red Hat Enterprise Linux 3 has averaged 7.4 security advisories per month, compared with 1.7 advisories for Windows Server 2003.

And as Yankee Group noted in its Linux, UNIX and Windows TCO Comparison study, "Linux-specific worms and viruses are every bit as pernicious as their UNIX and Windows counterparts – and in many cases they are much more stealthy."

This was a deciding factor in farmaCity's selection of Windows over Linux. Headquartered in Buenos Aires, farmaCity is a rapidly growing Argentinian drugstore chain with 50 outlets and 1,200 employees. Although farmaCity's growth in recent years was a testament to its success, the company's aging technology infrastructure had become a hindrance to further expansion. After careful analysis, farmaCity concluded that Windows would reduce network administration by 30 percent compared with Linux, and would also simplify identity and desktop management. But the core reason for selecting Microsoft was the increase in network security, complemented by the ability to reduce patch-deployment time by 50 percent while cutting unsolicited e-mail by half. (farmaCity Case Study)

Indemnification

Increasingly, we're hearing from customers that another factor in their consideration of computing platforms is indemnification. In 2003, we looked at our volume licensing contracts to see what we could do to increase customer satisfaction, and a top issue we heard about was patent indemnification, which then was capped at the amount the customer had paid for the software. So later that year, we lifted that cap for our volume licensing customers, who are most likely to be the target of an intellectual property lawsuit.

Today, when a volume licensing customer – a business or organization ranging from as few as five computers to many thousands – licenses a Microsoft product, we provide uncapped protection for legal costs associated with a patent, copyright, trademark or trade secret claim alleging infringement by a Microsoft product. We do this because we are proud to stand behind our products, and because we understand that being on the wrong end of a software patent lawsuit could cost a customer millions of dollars, and massively disrupt their business.

No vendor today stands behind Linux with full IP indemnification. In fact, it is rare for open source software to provide customers with any indemnification at all. We think Microsoft's indemnification already is one of the best offered by the leading players in the industry for volume licensing customers, and we're looking at ways to expand it to an even broader set of our customers. It's definitely something businesses want to think about as they're building or expanding their IT

infrastructure.

It was certainly a factor for Regal Entertainment Group, the largest movie theatre chain in the world. In 2001, they moved to Red Hat Linux. After evaluating Linux in their business for several months, however, they migrated to the Microsoft platform – not only because of lower TCO, stronger support and services, and greater reliability and manageability, but because they were more fully indemnified on IP. J.E. Henry, CIO of Regal Entertainment, told me that "reduced risk was a decision factor in selecting Windows over Linux. We needed to minimize our exposure to the distraction of potential IP infringement claims, and we had a big enough open source presence to be concerned. With the way that Microsoft stands behind its products, it's one less thing that I have to worry about."

UNIX Migration

One of the hot topics among enterprise IT and business decision makers today is the costs and benefits of migrating enterprise resource planning systems (ERP) from costly, proprietary UNIX environments to Windows or other platforms. ERP integrates various company functions such as human resources, inventories and financials, and links a company to its vendors and customers.

An independent, qualitative survey of organizations that recently completed a migration of their SAP or PeopleSoft ERP system from a UNIX environment to the Microsoft Windows Server platform found a more than 20% reduction in the number of servers required compared with UNIX. The survey, by META Group, found that in one large telecommunications company, consolidation on Windows allowed a greater than 50 percent reduction in the number of required servers.

The survey also found a more than 50 percent improvement in areas such as reliability, accessibility and scalability; significant savings in cost management, IT staffing, performance monitoring and vendor management; and measurable savings in technical support and training. More than half of business function decision makers also saw significant improvements in areas such as consistency, accuracy, reporting enhancement and performance.

"Windows is now a mainstream option for the vast majority of ERP projects," META Group concluded.

A great case study is the Raiffeisen Bank Group, the largest private bank group in Austria with about 2,600 branches. It wanted to reduce costs and provide better customer service by consolidating the number of servers in its branches by 50 percent. Raiffeisen investigated migrating from UNIX to either Linux or Windows. After evaluating the possible solutions, the company found that Windows Server 2003 would provide the most economical solution along with better performance, while giving bank employees an integrated view of customer information that they needed to improve customer service. (Raiffeisen Bank Group Case Study)

One of our mid-market customers had a similar experience. Grand Expeditions is a consortium of luxury travel companies that significantly reduced its Web development and hosting costs, and improved site reliability and performance, by moving from a combination of Linux- and UNIX-based servers to Windows Server 2003 and the Windows Server System. The new system was up and running in just 60 days, and is saving Grand Expeditions $200,000 a year. (Grand Expeditions Case Study)

In Closing...

There is no question that customers are benefiting today from a healthy, competitive IT industry. Competition requires companies to really focus in on what customers want and need. At the same time, customers have a clearer opportunity than ever before to evaluate choices.

For example, BET.com, the Internet portal created by Viacom subsidiary BET Networks, did an in-depth comparison of Red Hat Linux and Windows Server System. They found that Windows offered 30% lower TCO, was more secure and reliable, and enabled quicker time to market. As BET.com's CTO, Navarrow Wright, said: "When I looked at all the costs – not just the straight price of software – a Windows Server System-based solution made better financial sense than sticking with our Sun and Oracle environment or switching to Linux. We decided to migrate the whole enterprise from various software vendors to standardize all of our software on Microsoft."

By implementing Windows Server 2003, Windows XP Professional, Office Professional Edition 2003, Exchange Server 2003, Content Management Server 2003 and Visual Studio .NET 2003, BET.com conservatively estimated that its workforce will increase productivity by 25-30%, while saving significantly in licensing and redevelopment costs.

As organizations increasingly rely on IT to perform mission-critical functions, and with complexity a growing challenge, choosing the right computing platform for the long term can make the difference between profit and loss, and between future success and failure. And it's pretty clear that the facts show that Windows provides a lower total cost of ownership than Linux; the number of security vulnerabilities is lower on Windows, and Windows responsiveness on security is better than Linux; and Microsoft provides uncapped IP indemnification of their products, while no such comprehensive offering is available for Linux or open source.

The vision and benefits of an integrated platform are what distinguish Microsoft's approach to software. The Windows platform today offers an unmatched level of value, applications availability, simplicity, security and productivity. For Microsoft, this is truly a cross-company effort that requires the server and client operating systems to seamlessly deliver great usability and manageability features, applications that deliver compelling scenarios, and tools that enable developers and ISVs to easily and quickly build new applications on the platform.

It's important that customers have all the information they need when making critical and expensive IT decisions. If the evidence at our www.microsoft.com/getthefacts Web site doesn't sufficiently convey the benefits and value of the Microsoft platform, we want to hear from you so we can work even harder to get that information to you.

Steve Ballmer