

## Week 7 Discussion #2

Describe the relative strengths and weakness of Windows Server and UNIX or Linux in each of the following scenarios. Which operating system would you recommend for each scenario?

- (a) A small electrical supply wholesaler with 25 employees, 15 user workstations, and an application and services suite that includes basic accounting and inventory control functions, file and printer sharing, and a small Web site not used for e-commerce.
- (b) An engineering design and consulting partnership with 25 employees, 15 user workstations, and a mix of applications and services that includes basic accounting functions, bid preparation, computer-aided design and drafting, construction management, file and printer sharing, and a small Web site not used for e-commerce.
- (c) A large catalog seller of musical equipment with hundreds of employees; three warehouses in New Jersey, St. Louis, and Portland; and a mix of applications and services that includes all accounting functions, catalog preparation and distribution, telephone and Web-based sales, and inventory control and logistics.

There is insufficient information in these three scenarios to recommend either Windows or Linux. In all three scenarios, the size of the organization and the number of computers they are using is fairly irrelevant, both Windows and Linux offer enterprise-server software; although, Linux's share of the server market is currently only 12.7 percent (Vaughan-Nichols, 2007). The applications these three companies are running are also irrelevant, as both Windows and Linux offer applications for inventory control, file and print sharing, web hosting, design and drafting, construction management, accounting, and desktop publishing software. One advantage Linux has in the software arena is the wide variety of free software its user communities have written for it; at the same time, much of this software will run on Windows as well.

A small company may not be able to afford the server license for a copy of Windows Server 2008, which can run between \$600 and \$5,000, depending on the level of functionality they need. Since the first two companies don't need enterprise-level software, they can go with the cheaper version of Windows Server; however, if we are talking about converting all of their workstations to use Windows XP or Vista, then we have to multiply the cost by the number of licenses. For this reason, cost is just as much a factor for the small companies as the larger ones, as the needs grow, the cost of the Windows Operating System grows to match them. For organizations that need software support, which comes with all current Windows' licenses, but cannot afford Windows, there is Red Hat Server, running Linux, which can be purchased for \$50 on Amazon.

A hidden cost to take into consideration for an operating system is how well the current hardware will support it, and vice versa. Windows is very hardware-friendly, with most peripherals connecting and configuring automatically through "plug-in-play." At the same time, Windows Operating Systems tend to be much more demanding on hardware.

Most existing systems could not run Windows Vista when it came out, meaning organizations wishing to upgrade would have to buy all new hardware to run it, while the latest versions of Linux can run on much older hardware (Ontkush, 2007).

Ultimately, the most important question, the answer to which cannot be inferred from the example scenarios, is, “What is the corporate culture at each of these organizations?” Windows has the overwhelming mindshare stake in the world. 71 percent of business computers run Windows XP (Foley, 2009), most people know Windows, and Windows is what runs the majority of home computers. The Linux learning-curve seems like the biggest impediment to choosing it as an Operating System.

The otherness of the Linux operating system is mitigated somewhat by the emerging popularity of the Ubuntu flavor of Linux, which offers a much more user-friendly GUI and works well with most hardware upon installation (Armstrong, 2006). If the organization’s personnel can use Windows, then they can easily adapt to Ubuntu Linux. However, there is currently a Catch-22 situation with Linux-adoption: people must be comfortable with Linux in order to adopt it, and they must adopt Linux in order to become comfortable with it.

Christina Armstrong, *Ubuntu Wins Most User Friendly Linux Distribution Award*, Canonical Ltd, November 2006. Retrieved from [ubuntulinux.com](http://ubuntulinux.com) on Feb 24, 2009: <http://www.ubuntulinux.org/news/MostUserFriendlyAward>

Mary-Jo Foley, *Windows XP still powering 71 percent of business PCs*, ZDNet, February 2009. Retrieved from [ZDNet.com](http://ZDNet.com) on Feb 24, 2009: <http://blogs.zdnet.com/microsoft/?p=1870>

Mark Ontkush, *Linux Prevents Obsolescence: Could Reduce E-Waste by Millions of Tons per Year*, [ecogeek .org](http://ecogeek.org), February 2007. Retrieved from [ecogeek.org](http://ecogeek.org) website on Feb 24, 2009: <http://www.ecogeek.org/content/view/459/index.html>

Steven J. Vaughan-Nichols, *Linux Server Market Share Keeps Growing*, Linux-Watch, May 2007. Retrieved from [linux-watch.com](http://linux-watch.com) on Feb 24, 2009: <http://www.linux-watch.com/news/NS5369154346.html>

Windows Advantages: Easy installation, very user-friendly, lots of services and packaged applications

UNIX/Linux Advantages: slimmer installation, less resource intensive (each new version of Linux doesn’t mean you have to scrap your computer for a new one),