

By Jack Wallen

With the unsure economy and Microsoft Vista failing to gain overwhelming acceptance, many people are considering a migration to Linux. As a supporter of Linux and open source, I regard this new popularity as a coup -- but it comes with a hint of danger. What happens when the average IT department doesn't take its time examining the pros and cons before doing the migration? Although I find Linux to be far superior to Windows, certain criteria MUST be considered before making the switch. Otherwise, you may find yourself having to back-pedal to square one. If you're considering a migration to Linux, be sure to answer these 10 questions first.

1 Will that proprietary, mission-critical application run on the new platform?

One of the first things I tell people who are considering a migration is that, yes, most likely there is a Linux equivalent to the application you use. Photoshop? Gimp. Adobe Reader? Scribus. But there are certain instances where an application has been written specifically for a purpose (or company) and does not have a cross-platform equivalent. In this case, I would say you could try running your application with Wine or you could run a virtual instance of Windows to get that app running. But this takes time and effort and, in some cases, isn't as stable as one would like (especially in the case of Wine).

If you have mission-critical applications that were created for the Windows environment (and only the Windows environment), your best bet is to avoid migrating those systems that make use of the proprietary software. Of course, if the proprietary software is Web-based, you can probably go ahead because Firefox is on par with Explorer.

2 Which desktop are you planning to use?

This is not a question most people have to face. With Windows and OS X, you have one desktop metaphor. With Linux, the desktop choices are about as vast as the choices of breakfast cereal at your local supermarket. If you select the wrong desktop, you could wind up with a lot of confused users. But the decision isn't difficult really.

If your users are accustomed to OS X, the best choice is GNOME. If your users are accustomed to Windows XP, your best choice is KDE 3.5.x. If your users are accustomed to Windows Vista, your best choice is KDE 4.x (although be sure to skip the .0 release and go straight to .1 or better.) And the Linux desktop goes well beyond the Windows and OS X metaphors. You could really stretch your imagination and create a desktop specific to your company. But the idea behind this is that, when considering a migration, you must take into account your users and which desktop they would be most comfortable with.

3 Is your IT department up to the task?

One of the biggest mistakes made with a Linux migration decision is assuming that your IT staff can make the transition from one operating system to another without any extra training or help. Sure, they may know more about Windows than you know about your own family. But that doesn't mean they know their way around Linux well enough to administer a system or network of Linux boxes.

If you're planning a migration from one operating system to another, find out the level of knowledge your IT staff has for the new OS. If they don't have enough knowledge, there will be trouble both during and after the migration. We always like to think our IT department is well versed in every technology used today. The reality is that most IT pros are well versed in what they need to know to get the job done. If Linux isn't part of getting the job done, they may not have the necessary knowledge. Of course, many IT administrators use Linux in other instances (such as at home) and will at least have a foundation to build upon.

4 Does your corporate headquarters get a kickback or benefit from Microsoft?

Work with me here. Many companies and/or institutions benefit from using the Windows operating system in less obvious ways. For instance, some universities can offer students large discounts on software (such as Visual Studio and Office) because they deploy hundreds of instances of Windows desktops across campus. Without these installations, there would be no software discounts. So making the migration in such a case would be disastrous for those who benefit. Of course, if your institution used and supported Linux, the software would all be free, negating the need for any discount (such as student-purchased software.)

5 Do your employees use a lot of removable media?

Linux has come a long way with removable media. (Remember the days of having to manually mount and unmount floppy disks?) But there are still instances where handling removable media is not as simple as it is in Windows. The automount system doesn't always work as seamlessly as your users are accustomed to.

Consider removable thumb drives. In many of the modern Linux distributions, it's a simple matter of inserting the drive and having the usb subsystem automatically detect the insertion and ask whether you want to view the contents in a new window. Most of the time, viewing the contents in a new window mounts the device for you. Once you are done with the device, you just have to follow through with the "safely remove" action your desktop demands. But without this "safely remove" action, most likely your data will not be written to the device. So if you have users who employ removable media often, you will want to make sure you deploy a distribution that has a more seamless removable media system (such as Mandriva). Otherwise, skip the migration.

6 Is your hardware supported?

Generally speaking, this isn't such an issue any longer. But for larger corporations that try to cut costs by going with cheaper hardware, it can still be a big concern. Most often, the suspect hardware will be an onboard video card, which normally would be a cheap fix. But when your company is looking at migrations of 100+ machines, replacing video cards can be a costly endeavor. There are other issues here to consider. Deploying laptops will be the biggest hurdle. Will your wireless card work? Will video work? Sound? And hibernation/suspend could easily be the deal breaker. Fortunately, the Linux operating system benefits from the LiveCD phenomenon, so you can download an ISO image, boot from the LiveCD, and find out first hand whether your hardware is supported. If it isn't, you have your answer.

7 Are you using Active Directory?

If your organization is large enough to require Active Directory, understand one thing: The process of migrating from AD to OpenLDAP is an unwieldy task, and some of the AD functionality is not compatible with OpenLDAP. Does this mean AD is superior to OpenLDAP? Not necessarily. If you have an enterprise-level AD deployment and you're looking to migrate to the same size OpenLDAP deployment, you can manage it with pwdump2 and ActiveState Perl. But don't expect the migration to be a simple execution of a single command or the click of a button. This is one migration criterion that should be the center of an IT meeting or two before a decision is made.

8 Do you outsource your help desk support?

Many larger companies pay to outsource help desk support -- an ugly, but true, fact of corporate culture. If this is the case for your company, you had best do a little research before you plunge into the Linux waters. If your company plans on migrating to Linux via Ubuntu (Canonical), Red Hat, or SuSE (Novell) Linux, you're in luck and can purchase support. If you go with a different distribution, say, Debian, you won't find nearly the same level of help. There are other sources of support (such as mailing lists), but you're not going to get the level you are accustomed to.

9 Are you attached to licensing fees for software?

If you pay for contract licenses for security software, you're going to be out of that money because you probably won't need to deploy those services. Norton? Nope. Symantec? Nope. There are a number of security services you simply won't need when the migration is complete. And if you're still paying for a contract, it would be best to manage the migration so that it coincides with the contract expiration.

10 Do some of your employees fit the Linux user experience more than others?

This is where you can control a partial migration and do it intelligently and effectively. There are most certainly employees in your company who fit the bill for the migration. Say, for example, some of your employees do only Web browser work. They will be perfect candidates for migration because on the user level, a Web browser is a Web browser. For them, the migration will, for the most part, be totally transparent. You could also consider users who do mostly office suite work, such as word processing or spreadsheet tasks. To them, the difference between Open Office and Microsoft Office is mostly aesthetic. On the flip side, there will be users who would not be good targets for migration, such as those using proprietary software.

Proceed with caution

Clearly, a migration of this magnitude deserves careful consideration and study. Evaluating these criteria before migrating to Linux could possibly save you from a disaster. And in this economy, an IT disaster could spell corporate failure.

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Version history

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