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Linux on the Desktop: The Whole Story

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Before migrating your desktop computers to Linux, take inventory of your business applications and compare Linux to Windows in terms of total cost of ownership.

ANALYSIS

Enterprises that want to migrate their desktop computers to the Linux operating system (OS) must first weigh several factors that go beyond Linux hype, myths and anti-Microsoft sentiment. These factors include the composition of your application portfolio, the requirements of your users and the all-important migration cost and return on migration investment. Spending money on a massive migration that won't show a return on investment (ROI) within two to three years usually does not make sense.

However, there are situations in which a move to Linux OS on the desktop will deliver ROI and does make sense. This Special Report will help identify where such opportunities lie and what factors to use in the decision.

Linux on the Server vs. on the Desktop

Linux has had significant success on the server. Many servers are dedicated to running a single application; in many cases, it has been relatively easy for enterprises to replace specific servers, such as a Web server or network infrastructure server. Linux brings down the cost of the overall hardware acquisition, a proposition that, during times of economic woes, has become extremely attractive to IT managers seeking cost-saving solutions. Moreover, hardware vendors such as IBM and Hewlett-Packard have aggressively stood behind Linux, giving users the confidence that any technical support or maintenance issues will be addressed.

However, the environment for Linux on the desktop is significantly different. Knowledge workers use PCs to run diverse combinations of applications. For these users, migration costs will be very high, because all Windows applications must be replaced or rewritten.

As a result, migrating desktops to Linux only makes sense in a very narrow, limited range of situations. The Linux migration should be considered only if there are relatively few applications, and these applications are fixed-function or low-function, such as data entry, call center or bank teller/platform automation. In these cases, the cost of migration may be low enough to justify the move to Linux.

PC vendors have been less enthusiastic in rallying behind Linux on the desktop, preferring to leave it to customer choice for custom builds and supporting Linux on an ad hoc basis. PC vendors have also used Linux in sporadic sales campaigns to meet specific price targets. Overall, however, Linux support on the PC is the exception and not the rule, a challenge that an enterprise must consider when determining the future of its desktop OS.

Migrate for the Right Reasons

Migrations that are made mainly for political reasons or to spite Microsoft can be costly (see "Linux on the Desktop: There Is No ROI in Spite"). Enterprises should base their decisions to migrate their desktops to Linux on business needs and proven ROI.

An enterprise also must examine its application portfolio and understand its user base to identify the populations that can most effectively use Linux. Enterprises whose users require a narrow range of applications, such as data entry workers and some structured-task workers, will have far-lower migration costs to move from Windows to Linux.

Total Cost of Ownership (TCO) Analysis

We have produced two new TCO profiles to help enterprises examine the alternatives. The first assumes that Windows will continue to be the client OS, but that Sun Microsystems' StarOffice will be used instead of Microsoft Office. Too often, enterprises try to link the client-OS decision to

the office product decision; these are two separate determinations. The second model uses Linux as the client OS, with StarOffice as the office suite. In "Linux Desktop TCO: An Overview," we compare both models to two established profiles — Windows 95 and Windows XP — and present an overview of the results.

Understanding the current TCO and the expected Linux TCO can help an enterprise determine the estimated migration savings. When calculating such costs, it is important to realize that the cost of the PC and client OS represents only a small part of the overall TCO — generally 20 percent to 30 percent — and that other costs such as labor, training and external services must be considered.

Our TCO analysis demonstrates that enterprises that intend to install Linux on client desktops will save \$80 in hardware acquisition costs and an average of \$74 per user per year on office automation software (assuming that StarOffice will be purchased instead of Microsoft Office). Enterprises can obtain the same software savings on Windows by using StarOffice on that platform; they should consider decisions about the OS and the office product separately (see "Linux Desktop TCO: Hardware and Software Details").

The labor and compatibility costs of a Linux desktop migration are also important to understand, because a move to Linux won't automatically lead to savings in these areas. A locked-down Linux environment is key (see "Linux Desktop TCO: Labor Details").

Gartner TCO analysis includes ongoing management costs; it generally does not include the costs to migrate to a new platform. To fully understand the ROI, enterprises must understand the associated migration costs (see "Linux Desktop Migration Cost Model") and weigh them against the expected TCO savings. Then, enterprises need to put the TCO savings and migration costs together to build an ROI model (see "Linux Desktop Migration: Finding the Break-Even Point").

Which Windows?

Compare the costs and savings of a move to Linux with the cost and savings to upgrade to a newer version of Windows. The difference in TCO between Windows and Linux depends on which version of Windows is being discussed. The TCO of Windows 95 is relatively high and increasing because support from Microsoft has been eliminated and support from independent software vendors and other third parties continues to wane. Therefore, enterprises running Windows 95 are likely to see more benefits by a move to Linux than will enterprises using Windows 2000 or Windows XP. Windows 2000 and Windows XP include more-modern technology than Windows 95, and are generally more stable and incur lower costs.

However, an enterprise running Windows 95 should not simply compare its TCO with that of Linux. An enterprise with older versions of Windows should estimate the costs and benefits of: 1) a project to upgrade its current environment to Windows XP, and 2) a project to move to Linux, and compare the ROI of the two alternatives before choosing a platform.

Features

"Linux on the Desktop: There Is No ROI in Spite" — A decision to move to Linux on the desktop should be based on business need and proven return on investment, not anti-Microsoft sentiments. **By Michael A. Silver**

"Linux Desktop TCO: An Overview" — Lost productivity stemming from learning curves and compatibility can eat up direct-cost savings when moving to Linux on the desktop. **By Michael A. Silver**

"Linux Desktop TCO: Hardware and Software Details" — The enterprise must separate the office automation software decision from the client OS decision when considering Linux desktop migration. **By Michael A. Silver**

"Linux Desktop TCO: Labor Details" — An enterprise must lock down its Linux desktops, or the labor costs of managing them will be similar to the cost of managing Windows desktops. **By Michael A. Silver**

"Linux Desktop Migration Cost Model" — Enterprises must calculate migration costs and expected total cost of ownership savings to decide whether there is any financial incentive to move to Linux on the desktop. **By Michael A. Silver**

"Linux Desktop Migration: Finding the Break-Even Point" — Enterprises with few applications to migrate and those moving from older versions of Windows are the best candidates for Linux desktop migration. **By Michael A. Silver**

This research is part of a set of related research pieces. See "The Linux Desktop Niche" for an overview.

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