

Windows 7/8 Migration: The Benefits of a Technology Refresh in Light of Four Megatrends

During the recent recession, many businesses made a conscious decision to extend the useful life of desktop and notebook PCs, thereby deferring migrations to Windows 7. With support for XP ending in April 2014 and older chipsets failing to optimally run Windows 7, many of these businesses now face a large-scale technology refresh. But a lot has changed since the last refresh cycle. Megatrends have changed end user expectations. A technology refresh enables IT to meet those new expectations and, in doing so, maintain its relevance. At the same time, the very megatrends that are transforming end user expectations translate into opportunities to ease the refresh process.

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The Current State of End User Computing and the Risks of Not Upgrading

Many organizations today continue to run Windows XP on older machines, and it's having an impact on end users as well as IT staffs. OS and hardware limitations are preventing users from working the way they want, when they want. For example, Windows XP's lack of support for Internet Explorer beyond version 8 means that users can't access the latest Websites, such as those running HTML5. There are two ways around this: upgrade the operating system itself or install and incur the costs of supporting a third-party browser on the existing platform. This is just one example of how, as systems age, IT must do more to them to enable them to keep pace with users' needs. But deploying new applications, service packs and patches takes time and increases support costs.

Meanwhile, the technology world outside of the business has continued to evolve. Previous migration concerns about the need to train end users on a new interface have been rendered moot, since users have become accustomed to adopting and learning new technology in their personal lives. They are likely using interfaces at home that are more modern than the ones they use in the office. And they don't understand why they are being held back by the technology and performance limitations of an outdated OS running on outdated hardware.

Organizations still running XP are perceived by their end users as being behind the times. IT risks becoming irrelevant as end users provision their own services—and even hardware. Thanks to the advent of the cloud and the consumerization of IT, end users are able to supplement their technology, bypassing the IT organization in what is known as shadow IT. From the end users' perspective, they are simply facilitating their own work processes—doing what they need to do to get the job done. But the introduction of applications and devices that have not been evaluated and provisioned by IT adds cost, risk and complexity.

Technology silos are scattered across the enterprise, and IT has little or no visibility into them—never mind control over them.

The risks of not doing a technology refresh at this time are very real, but the same megatrends that have transformed end user expectations and given rise to risk can also help facilitate a technology refresh. Let's take a closer look at this interesting dynamic that makes right now an ideal time to do a refresh.

Megatrend 1: The Consumerization of IT

Among the four megatrends presented here, this trend has arguably had the largest impact on IT and end users. It has transformed the traditional approach to business technology. Large business and government organizations used to dominate computer usage and development. IT was the primary driver of IT innovation, with a trickle-down effect as technology entered consumer markets.

Today, thanks to the consumerization of IT, that process has been turned on its head. Consumer markets are now seen as a primary driver of IT innovation. Users are getting their hands on cutting-edge applications, platforms and hardware they purchase for

home use before IT organizations have access to the enterprise equivalents. What's more, end users expect to have access to the same types of technologies at work. Why can't their desktop OS interfaces be more intuitive and user-friendly? Why can't applications have a social component to enable real-time collaboration?

These expectations were not a driver in the development of Windows XP. The operating system was not built to support tech-savvy users willing to provision their own technologies and eager to reap the productivity benefits of modern technology in their work lives.

A technology refresh is necessary to meet new expectations.

The consumerization of IT has empowered end users. Not only are they comfortable deploying their own technology but, in many scenarios, they actually prefer to do it themselves. IT organizations can harness this desire to facilitate a technology refresh. Self-service, self-deployment and zero-touch technologies built

The Four Megatrends

- ◎ Consumerization of IT
- ◎ Bring Your Own Device
- ◎ Network Ubiquity
- ◎ Cloud Computing and Virtualization

into modern hardware and software can reduce the burden on understaffed IT organizations while meeting end users' expectations of a more hands-on IT experience at work. Once the technology is deployed, end users can reap the productivity benefits that come from user-friendly interfaces, social collaboration and mobility—all features born out of the consumerization of IT.

Megatrend 2: Bring Your Own Device (BYOD)

Few organizations have been able to fight the Bring Your Own Device (BYOD) trend. With the consumerization of IT and the subsequent availability of powerful smartphones and tablet devices, end users expect to obtain access to privileged company information and applications from their personally owned mobile devices. They expect to be able to work from any location, at any time and on any device. What's more, when users upgrade their devices every year or two, they count on the same level of access, regardless of the type of device and the platform running on it.

A technology refresh enables IT to meet end users' expectations in a manner that also meets IT's requirements for data security and device management. Many of the technologies and devices in use today simply did not exist as recently as five years ago. IT organizations carrying out a technology refresh had the option of deploying a desktop computer, a laptop or both to end users. That's no longer the case. IT can now deploy enterprise-grade versions of the same technologies that users are adopting in their personal lives. Although they look and feel like consumer devices, these laptops and tablets provide IT the controls it needs in order to secure the perimeter of the device.

From a technology perspective, a like-for-like technology refresh would ignore certain market realities. Today's conversation needs to be more user-centric: What do end users require in order to do their job? This is where the BYOD

trend facilitates a technology migration. It enables user segmentation, giving IT the ability to optimally align access devices, cost, risk, service level and applications with specific use cases. For example, a sales representative may want a single device for both content consumption and creation. A Windows tablet addresses both of those needs and satisfies the end user, who gets the convenience and ease of use of a tablet, and IT, which no longer has to manage multiple devices for this use case.

Another segment of users may need a keyboard for content creation but want a tablet for meetings. Based on the end user's job, IT can determine whether it makes sense to provision a laptop and a tablet for that person or simply a tablet with a detachable keyboard.

Ultimately, users are provisioned with a device that fits their work style rather than a one-size-fits-all device they must get used to.

"Big Data technology is not an island. It's a key component for success, because in large, complex environments, if you don't have that control point, you're going to have chaos."

Scott LaCosse

Head of technology operations, Metascale

Megatrend 3: Network Ubiquity

Everywhere we go, we expect network connectivity. At the grocery store a mile from home, in an airplane cruising at 35,000 feet or at the remote branch office one town over—wherever we go, we expect to browse the Internet, launch our favorite Web-based application or

check our corporate e-mail. Network ubiquity has become a part of our social fabric, and it extends to the workplace.

But our corporate networks were not built to accommodate the number of devices and applications that currently traverse them. The typical network in the U.S. is near 72 percent to 80 percent capacity today, and a lot of that is due to unplanned growth. Who could have known that the network would be required to support not just one but two and sometimes three devices for a single user—not to speak of an array of bandwidth-intensive applications? It is no longer reasonable to assume that the network has adequate capacity to support the installed base. What's more, the networking infrastructure must support various connectivity solutions: Wi-Fi, VPN or 3G/4G.

A technology refresh presents an opportunity to resize the network to accommodate a modern workload. IT should identify what devices and applications are deployed before a refresh, determine how the end user computing landscape differs postrefresh and determine appropriate service levels for specific use cases. Organizations may find that a Windows 7 or 8 migration actually reduces network capacity requirements. For example, most applications that organizations will remediate on a new HP laptop could run as much as 68 percent faster.

Network ubiquity also offers a new way of looking at a technology refresh. A user segment that might have refreshed every 36 to 48 months may be able to shorten that time period to 24 to 36 months because of the performance benefits afforded by new hardware.

Megatrend 4: Cloud Computing and Virtualization

Much like BYOD, cloud computing and virtualization enable end users to work when and where they please. Users are accustomed to saving MP3 files, photographs and personal documents in a public cloud, from which they can access those files on any number of devices. End users expect the same convenience and simplicity when it comes to accessing work files from home or on the road.

A technology refresh offers IT a prime opportunity to evaluate virtualization and cloud computing as a means of enabling remote access while reducing the administrative overhead for IT. For example, it may make sense to implement a virtual desktop infrastructure (VDI) and stream Windows 7 desktops to thin clients in the office and mobile devices outside of the corporate LAN. Now is also a good time to determine whether an application should be configured to reside virtually or in the cloud, enabling access from any device without the concerns that come when data resides on the device itself.

An organization that chooses not to seize the current opportunity to virtualize or prepare an application for the cloud is likely to find itself assigning a team in the near future to pull the application deck and review it from the the ground up—an onerous task that can easily be accommodated when preparing applications to run on Windows 7 or Windows 8.

Other Benefits of a Technology Refresh

In addition to accommodating and, in some cases, incorporating end user trends, a technology refresh offers numerous other benefits that make it a worthwhile endeavor. To start, this is a sustainable refresh cycle. Desktop and notebook PCs that are four years old or older consume much more power than today's analogous devices. And Windows 7 and Windows 8 enable IT to perform energy management down to the subcomponent level.

The newer operating systems also offer improved manageability, whether or not IT organizations use Microsoft's System Center Configuration Manager (SCCM). Both Windows 7 and Windows 8 are more secure and stable than XP, with Windows 8 offering an application store through which IT can offer or restrict applications, plus SkyDrive, a cloud environment in which users can securely store files.

Finally, 4-year-old desktops and laptops have residual value, so IT organizations can trade them in to defer the costs of a technology refresh. A 4-year-old desktop might have a 40 percent to 80 percent trade-in value, whereas a laptop might have an 80 percent to 100 percent value.

Conclusion

Although many organizations were able to defer a technology refresh during the recession, the same decision cannot still be made without hampering the organization's ability to innovate. The good news is that advancements in hardware and the Windows operating system make this a technology upgrade that delivers benefits beyond those promised by today's megatrends. And with the help of the right partner, organizations can get through a technology refresh with minimal disruption to the business.

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