

**An enterprise view of migrating to  
Windows 7: A CIO's guide to  
stepping off the rollercoaster**

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## An enterprise view of migrating to Windows 7

Many organizations are currently looking at Windows 7 and beginning their business justification and migration planning. In doing so, some are faced with the harsh reality that their desktop estates are messy and expensive, primarily due to aging management infrastructure and years of neglect. While Windows 7 will add tremendous benefits to these organizations in the form of better security, improved mobility and enhanced user productivity, it is not a cure-all. However, there is reason for optimism. With Windows 7's business improvement, the maturation of desktop virtualization and management infrastructure all coming together in real time, there's an emerging "perfect storm" that has the ability to benefit business users, IT and the bottom line.

### Situation: High cost, IT paralysis

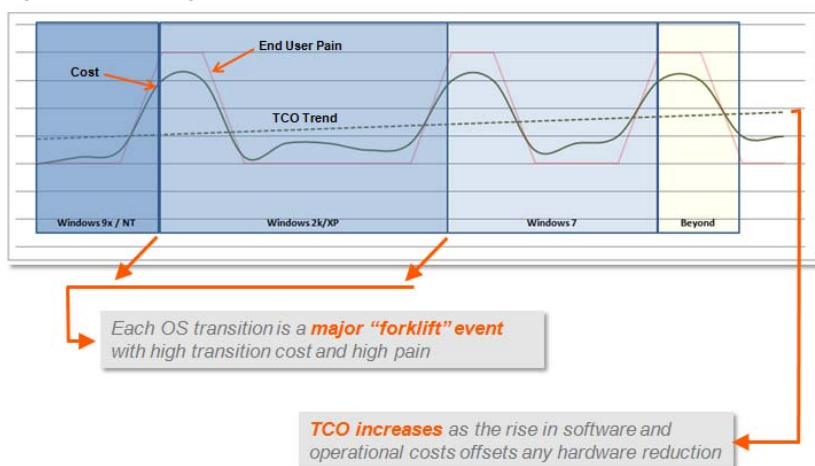
Some enterprises have been stuck in a paralyzing cycle when it comes to the desktop. On one hand, desktop total cost of ownership has been too high. While Moore's Law has continued to bring down the price of PC hardware, rising software and operational costs have increased enterprise desktop TCO in many organizations. Additionally, a lack of proactive management has led to application sprawl yielding high software (capital) spend and licensing compliance challenges. That can change now.

On the operational side, costs remain too high as IT tries its best to manage an aging Microsoft Windows XP platform, the software sprawl described above and a disjointed set of point-solutions for management. From this perspective, it's simply taking too many people to manage PCs due to a poorly managed and ill-architected desktop platform. And, many organizations have been ignoring the problem—waiting instead for the next desktop refresh to make things right.

In addition to increasing TCO, enterprises have been paralyzed by a second major problem: a tightly coupled desktop architecture which has required, in many cases, a "forklift" approach to migration. Because hardware, the operating system, applications and data aren't isolated from one another, desktop upgrades have tended to follow a pattern where all of these elements must be upgraded as a single unit. The result of

this tightly coupled architecture has been that enterprises simply haven't upgraded very frequently. When they do, it's historically been a manual and costly endeavor that brings too much pain to users. This roller coaster approach creates a pattern of sharp spikes in user disruption, high-impact change, and high risk every three to five years.

It's been too difficult and too expensive to successfully manage so much change across so many users. Benefits have to be very significant, and costs (both financial and the business impact) very well-managed, in order to justify a large-scale desktop migration program. Over the past few years, many organizations have believed that the benefits simply haven't outweighed the costs. From the CIO's perspective, it's been less risky to do nothing than to modernize the desktop estate.



**The journey to Windows 7**

Windows 7 provides significant benefits to both the business user and IT departments, and there are far fewer technical barriers to get to Windows 7 than there have been in the past.

As a result, Windows 7 will become the destination for many organizations. The smart enterprise should step back, take a breath and recognize that the destination itself doesn't necessarily address the key financial pains they've been facing with their PC fleet. A Windows 7 refresh provides a rare point when they'll have license to make important changes that many have been putting off. Smart CIOs will take this opportunity to use the Windows 7 refresh as an opportunity to reduce desktop TCO and transform desktop change from a high-cost and disruptive event to a smooth, business-as-usual activity.

**Rationalizing applications to reduce capital and operational expenditures**

Unmanaged, often user-installed applications, represent one of the largest contributing factors to high desktop TCO. On the capital side, organizations spend a tremendous amount of money on software that isn't utilized, doesn't have a business justification, or where other software

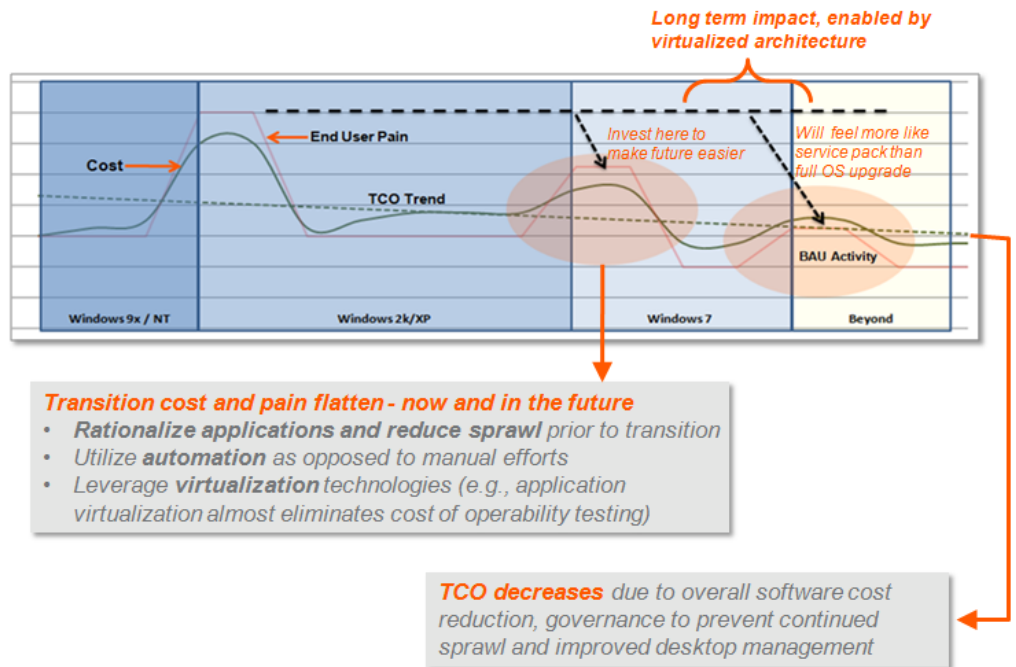
within the organization provides the same function. Put simply, many businesses are paying for software they don't really need.

On the operational side, high volumes of unmanaged software create an environment that IT cannot adequately manage. When every PC has an unknown, unique set of applications, a situation is created where IT cannot leverage automation with a reasonable degree of certainty that they won't do more harm than good. Software sprawl is a leading contributor to a high IT administrator-to-machine ratio that many

measure of high operational cost and inefficiency.

A Windows 7 refresh represents the opportune time to address this challenge. This is the point where you can choose to either ignore the problem, "move the mess" to the new platform or you can choose to address it. The choice is significant.

Choosing to rationalize an application portfolio based on a guiding set of business requirements will not only reduce TCO after the transformation, but will significantly reduce the cost and effort of the transition itself. The total



organizations face today, a primary

number of applications to be deployed on Windows 7 will be a major factor in determining how long the project will take and how much it will cost. Standardizing the application portfolio before migration means that fewer applications will need to be tested for Windows 7 compatibility, remediated and packaged for deployment on the new platform. Ignoring the rationalization or taking it on midstream creates excessive, unneeded transition cost and effort.

If you are looking to address TCO, application rationalization should be the organization's first step down the path toward implementing Windows 7.

***Using virtualization to eliminate the roller coaster ride***

Earlier, we talked about the roller coaster problem that companies face while struggling to keep their desktops up-to-date. The problem is largely because enterprise desktops have more or less been a tightly coupled smattering—no isolation between the hardware, operating system, applications and data. With isolation, an operating system or application could be upgraded independently and automatically. Desktop virtualization technologies provide this isolation.

Over the past five years, significant technology advances have been made that help isolate desktop components from one another and enable desktops to be managed and even upgraded from remote locations. The right time for the

enterprise to begin taking advantage of these technologies is now.

Virtual applications

Application virtualization enables you to almost entirely eliminate the software interoperability testing that is typically a standard migration task. This is because isolated, virtual applications don't have the ability to impact one another. Each virtual application lives in its own separate container and doesn't share file, component or Windows registry resources with other applications. This technology alone can save thousands of man-hours for an enterprise-scale migration. Post-migration, new applications can be dynamically deployed and managed without worrying about conflicts.

Virtual desktops

Virtual desktop infrastructure, or VDI, represents one of the most compelling (and often misunderstood) emerging benefits to the enterprise. With VDI, each worker has his or her own hosted, virtual desktop that runs in the data center but has the experience, look and feel of a traditional desktop machine. With VDI, a user runs the machine in the same way he or she has been accustomed to, and when properly implemented, has a user experience that is exactly the same as a traditional user's. Recent advancements also bring the ability to leverage multiple monitors, audio and video and other technologies.

From an IT perspective, VDI enables IT to manage the desktop platform for all users in a single way—decoupling hardware, operating systems and applications. IT can upgrade the OS and applications on a business-as-usual basis very easily, in one place (using a single image), without having to worry about client hardware and software obstacles.

However, it is important to note that VDI is rarely the lowest cost option. It requires farms of servers to implement and the licensing can be costly. It's not typically the right answer for all users in a company. But, for some types of power users and knowledge workers, the benefits can be tremendous.

Whereas the desktop platform has traditionally been an all-or-nothing proposition, VDI introduces a middle-ground option that should be strongly considered for specific worker segments that require both computing horsepower and flexibility.

Presentation Virtualization

Presentation virtualization is a final desktop platform option that the enterprise should consider. Presentation virtualization enables certain network-connected user segments to take advantage of a low-cost platform option based on a server-based computing model.

Presentation virtualization should be a point of focus for almost every organization looking to optimize its

desktop platform, reduce capital costs and lower operational costs. Like VDI, presentation virtualization has closed the gap between its own capabilities and that of a traditional desktop. Organizations leveraging modern presentation virtualization products can provide end-users a Windows 7 desktop with multi-monitor support and multimedia. For a significant number of network-based task workers, presentation virtualization can increase flexibility and dramatically reduce IT operational costs.

#### **Conclusion: The right time to step off the rollercoaster**

Organizations need to recognize a Windows 7 transition as more than a product, but as an important point in time. Seizing the opportunity begins with the development of a core strategy:

- Create clear guidelines around business applications.
- Enable unused or unneeded software to be weeded out before beginning the transition.

Define worker segments that enable alternative platforms such as presentation virtualization and VDI to be deployed to the right users based on their job requirements. Some organizations will take the wrong approach. They will “move today’s mess” with them to their new desktop platform and remain on the same overall trajectory with increasing capital and operational costs. These companies probably will experience the same cost spikes, cyclical pain and

paralysis they've been facing for the past 15 years.

However, by taking a strategic, business-aligned approach, you can transition faster, at a lower cost and be better positioned for the future. After migration, you'll find yourself off the roller coaster—able to begin managing subsequent desktop upgrades as a business-as-usual activity rather than as a costly and painful event.

#### **About the Author**

Ryan McCune is the director responsible for Avanade's Workplace Infrastructure services team. In this role he is responsible for strategy and architecture around Desktop Transformation, Avanade's solution focused on increasing manageability and reducing total cost of ownership of the desktop environment.



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