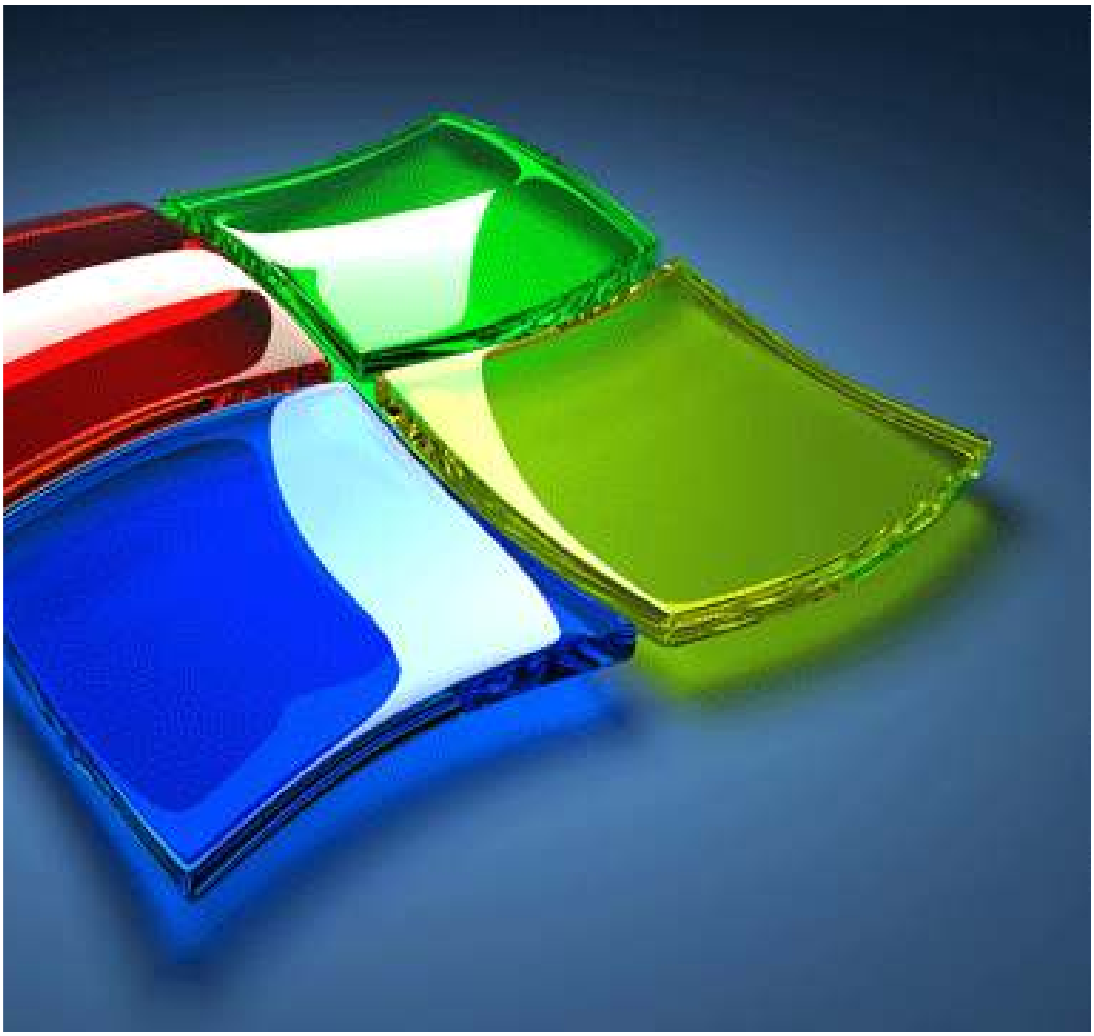
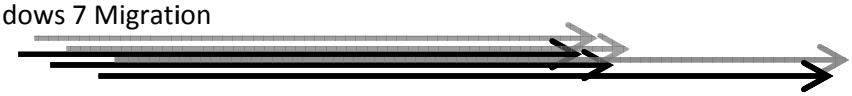
Migrating to Windows 7 – A Comprehensive Guide

White Paper by PCI Services



PCI Services Limited has always strived to develop solutions that help our customers overcome their pain points in today's IT environments. This article is a step towards achieving just that. We found out from many of our clients that migrating to Windows 7 is one of the biggest challenges that they currently face. And so here it is a comprehensive white paper that addresses all the issues that IT executives face when considering the move to Windows 7. Most of the information in this article has been sourced from several articles and we thank all our information providers in helping us produce this document. Feel free to contact us for any IT solutions that you require and we will be happy to service your needs.

PCI Services Limited
2750 14th Avenue Suite 208
Markham On, L3R 0B6
Tel.: (905)-604-PCI1 (7241)
Fax: (416)-907-4664



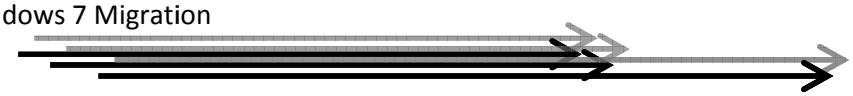
Topics Covered

1- Benefits of deploying Windows 7

2- Planning the deployment

3- Deploying Applications

4- Key Issues



Benefits of Deploying Windows 7

One of the biggest challenges that IT Managers face is how to ensure a smooth transition to the newest technology. Many companies shy away for as long as they can, but are later forced into a deployment as Microsoft eventually phases out the support for older OS and newer hardware becomes increasingly available with the newest OS. If you are still demanding XP systems from your IT reseller, you probably know that your choices are now diminishing considerably.

There has been a lot of buzz surrounding Windows 7, and it definitely is an improved OS, and there are several tangible benefits of initiating an early migration/deployment.

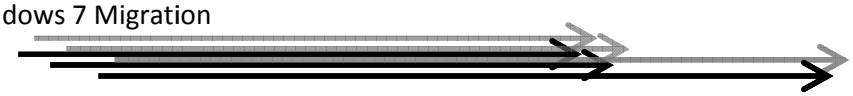
1. ***Fast and Stable OS***
   There is definitely some truth to Microsoft's claim on the speed of Windows 7. Not only is there an improvement on the loading time, but also this OS is optimized to do things smarter. Examples are accelerated sleep and resume, pin and jump, etc.

2. ***Better Hardware Utilization***
   This is a huge improvement on Vista which had issues with hardware compatibility mostly from the driver availability perspective. Windows 7 utilizes hardware well, and is less demanding which ensures compatibility with even older systems.

3. ***Less Administration. More Control***
   If you have already made the move to Windows Server 2008 R2, then you have access to a vast array of Group Policy Improvements. There are now even more options for customizing and deployment, and you can use many options to fine tune the security in your environment. Another benefit is that Windows 7 computers can be controlled via built in Windows PowerShell. PowerShell is a command line administration tool that allows IT administrators to run scripts and cmdlets to better manage computers from the command line. For more information on PowerShell, please visit http://technet.microsoft.com

4. ***Windows XP Mode***
   One of the biggest roadblocks with Vista was the fear of XP programs not running well on Vista. Windows 7 addresses this problem by actually including XP. Now XP applications can keep running while you transition to Windows 7.

5. ***Mobile User Friendly***
   Remote users are becoming more demanding and VPNs now exist in almost every



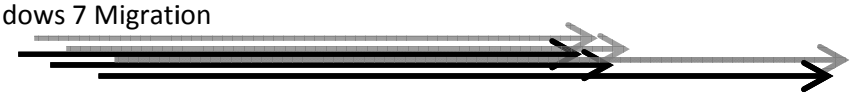
organisation. Windows 7 offers features such as DirectAccess and BranchCache to provide a superior and secure way of connecting these users to the main office thus helping reduce support costs and increase customer satisfaction.

6. *Satisfy Power Users*

Even though IT tries to maintain consistency within the organisation, there are always "Power Users" who always want the latest and the greatest. They might have seen the ads or have recently tried out or bought a Windows 7 home system and now want the same functionality and ease of use at work. And in this day and age, if we can satisfy these users without impacting IT a whole lot, it goes towards providing excellent customer service that IT departments try so hard to provide.

7. *Less Interruptions*

Most of Vista users have at some point or other complained about UAC (User Account Control) prompts. Very interrupting, but is certainly necessary in some cases. While Windows 7 still utilizes UAC, the UAC is now more intelligent and less intrusive. Fewer interruptions mean greater productivity, and more user satisfaction.



Planning the Deployment

Analysing your Environment

As an IT Manager you are most familiar with your environment. If you are utilizing a tool that gives you an assessment of your IT infrastructure, run a detailed report on your inventory and analyse it from a migration/deployment perspective. If you don't have such a tool in place, Microsoft Assessment and Planning (MAP) Toolkit will do the job sufficiently well.

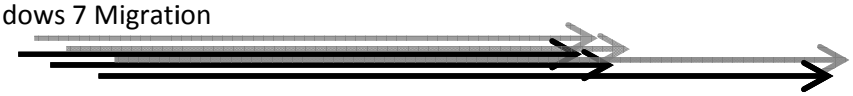
MAP is an agent less tool uses WMI (Windows Management Instrumentation) and Remote Registry Service to find computers on your network and perform a detailed inventory for you.

However, if there are only a few computers to upgrade, then consider the Windows 7 Upgrade Advisor.

Choosing the Right Strategy

Next, it is important to choose your strategy based on your environment. Microsoft recommends a few deployment strategies based on your environment as follows:

1. ***High Touch Retail Media Deployment:***
   This involves using a DVD or another media and doing a manual install per computer. Of course, it is just meant for small deployments or small offices with minimal IT staff.
2. ***High Touch Standard Image Deployment:***
   This is one more step enhanced than the Retail Media Strategy in that the image is created using the OS, applications and customisations. Small to Mid size companies would consider this deployment style.
3. ***Low Touch, High Volume Deployment:***
   Some input is required initially, but most of the process is automated. Typically Mid size companies with 200+ computers would consider this strategy.
4. ***Zero Touch, High Volume Deployment:***
   This is a fully automated process utilizing products like Configuration Manager with almost no input required. Typically companies with 500+ computers would consider this strategy.



Deploying Applications

Are your Applications ready?

The foremost question in every IT Manager's mind is whether the company's applications would run successfully or not. It is a complicated analysis even if most applications are Microsoft Applications because a lot will depend upon versions, etc. A more hybrid environment, like most companies will of course require a detailed analysis of the compatibility aspects.

Checking for Application Readiness

1- ***Perform a full inventory of your applications:***

There are many tools available to assist with this activity. Just an inventory is not sufficient. You would need to know details about how many people are using these applications, their roles, etc. This will help you in assessing any risks involved with the planned migration.

2- ***Analyze the inventory:***

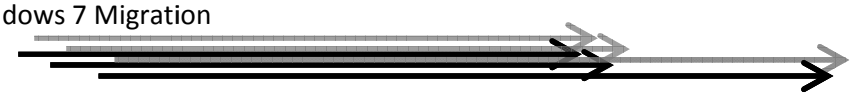
You might be surprised at how many applications are not being actively used but are still on the list. Identify applications that are Primary. Primary applications include Anti Virus, Office, Mail Client, Acrobat Reader, Flash, database drivers, etc.

3- Assess and determine options:

Are your primary or core applications compatible? Assess the incompatibilities and determine the mitigation options. Some applications may just require a bit of tweaking while a full upgrade might be required for others.

4- Make a full test plan:

Phase out your testing plans by testing within IT department and then testing with a set of users. While the initial test will reveal many issues, more relevant issues will come up with user testing. A general testing methodology is to have select user group from various departments for testing. This will get a better sample of the problems and issues that may crop up during actual production.



Key Issues

Now that all the planning and application compatibility has been done, there still might be some issues that may pop up under the testing and pilot phases. Here are some of the common ones reported:

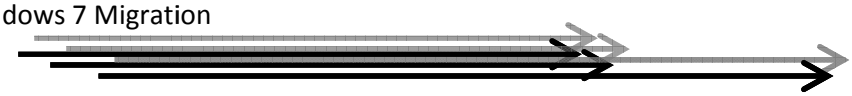
1- ***Application Incompatibility:***
   Although Windows 7 can run in XP mode, there still will be older applications that will behave incorrectly or create problems. A thorough documentation will help during the testing phase to determine the viable options.

2- ***IE 8:***
   Even though IE 8 has been around for some time now, and is also running on some Vista computers, some sites are still not compatible with the IE8 features. Luckily there is the "Compatibility Mode" in IE8 that comes to the rescue. This is also the most reported problem that occurs with new installations.

3- ***Incompatible Hardware:***
   There are fewer chances of this happening if you are using fairly new Tier 1 products. Most problems are being reported with non standard systems that are usually put together by a system integrator. Still most hardware component manufacturers provide compatible drivers on their sites.

4- ***Peripheral incompatibility:***
   This can be bundles under the hardware as well, but it is worth the separate heading for the fact that some older printers may not have the drivers and printing applications updated and could cause potential problems. An example could be a MICR printer used to print cheques, etc.

5- ***User Problems:***
   This could be a little more pronounced if you skipped Vista altogether. There is certainly quite a big difference from XP. For one, if the users are used to using windows specific applications like Photo Gallery and Movie Maker. These are not installed with Windows 7 but are available as a download under Windows Live Essentials.



Sources:

www.technet.msdn.com

Windows 7 Resource Kit

Deploying Windows 7 Book