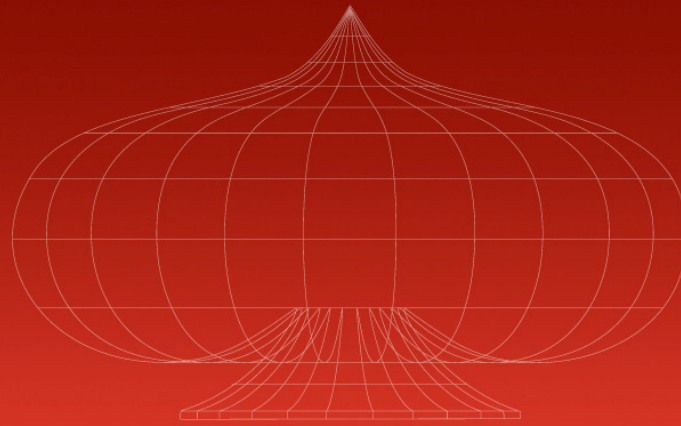




SOGETI



7 Tips for Windows® 7 Application Readiness

Best Practices to Overcome Your Fear of Windows 7
Deployment

A Sogeti USA – Enterprise Microsoft Solutions White Paper

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Forward

There is a lot of excitement and anticipation surrounding the new Microsoft operating system, Windows® 7. Right from the availability of the beta version, this new operating system has been discussed with much enthusiasm by all types of users across the board – home users, enterprise end users, IT pros and developers. There is no doubt that Windows 7 as an operating system has a lot to offer in terms of better performance, usability, security, power management, and more. Consequently, adapting Windows 7 in the enterprise by migrating from the existing Windows® XP or Windows® Vista OS is also being discussed extensively.

Planning and successfully executing an OS deployment project can seem like a daunting task given the number of machines and applications most enterprises have in their environment. Geographical separation of the offices within the company adds another layer of complexity to the effort. The total of all applications existing companywide, whether supported or unsupported can amount to more than an organization knows how to deal with. Given the potential for this large number of programs, the question of concern for most IT managers is, “Will my applications work on Windows 7”?

Windows 7 has many features which are new, different or no longer present as compared to its predecessors Windows XP and Windows Vista. All these changes have the potential to alter the way applications interact with the operating system, and in some cases, break them. This gives rise to application compatibility issues.

User Access Control (UAC), which was introduced in Windows Vista for better security is a very important feature which continues to be part of Windows 7. Some of the other notable areas of concern for compatibility are: Windows Resource Protection, version number, deprecated APIs, session 0 isolation, GINA and folder structure. From the application standpoint, since Windows Vista and Windows 7 are very similar, moving from Windows XP to Windows 7 will be a little more challenging than moving from Windows Vista.

Compatibility issues are one of the main barriers to application readiness. Even considering the number of applications in an organization, application readiness for Windows 7 does not have to be as challenging a task as it might seem. The following 7 tips will help overcome these barriers on the road to successfully adopting Windows 7.

1. Knowing the Existing Application Portfolio

It is not uncommon for companies to have thousands of managed applications in their environment, not to mention, many more unmanaged ones. The first step to better application readiness is to know 'what is out there'. Reports generated through an already existing infrastructure used to manage the desktops and laptops (like SCCM etc.) can provide this information. There are many inventory tools specifically designed to do just this.

The Application Compatibility Toolkit (ACT) available for free from Microsoft is one such light weighted tool which effectively and seamlessly performs this inventory process. The ACT tool's data collectors can inventory all the machines in the network or a representative sample subset of it and report back with information on the applications, hardware, devices etc. installed on each machine. The agent also reports back with information on some of the potential compatibility issues that the applications might have with the new OS.

Such a report that draws out the current application portfolio is a necessary, but simple first step to kick start the application readiness program. Just looking at this list with the view of adopting Windows 7 can give valuable insight into what needs to be done to prepare your application suite for it. Further testing and analysis will give more details needed to make decisions regarding the applications that are of concern.

2. Focusing on the Right Applications

Having thousands of applications in the environment doesn't mean that all of them need to be tested for compatibility. Sorting out the applications that are not needed in the environment and filtering out applications that are already known to be compatible will help reduce the test list to a workable number.

Some of the scenarios which can be considered to filter the list are:

- **Multiple versions of the same application**
Older versions of applications which have been upgraded to new versions often remain in the environment. Most vendors ensure that their applications (newer versions) work with newly released operating systems. If eliminating older versions of software and retaining only the latest version is a possibility, it is a wise step to take.
- **Multiple applications serving the same purpose**
Two or more software packages which serve the same functionality, like two different pdf writers, often exist simultaneously. Such redundancy can be costly and also of not much added value to the company. Consolidating such applications into one chosen application is a sound step from a financial, as well as, an application readiness perspective.

- **Applications not supported within the company**
Depending on how locked-down the machines are and how controlled the network is, games, different browsers, personal use software and applications can thrive in the environment. Such applications which are not necessary to do business need not be considered for application readiness.
- **Applications known to be compatible**
In a global effort to help companies get their software Windows 7 compatible and make that information readily available for the user community, Microsoft is maintaining a compatibility portal on www.appreadiness.com. This portal contains an extensive list of ISV (Independent Software Vendor) and OEM (Original Equipment Manufacturer) software and hardware with their Windows Vista and Windows 7 compatibility status. This database of information will also directly sync with the ACT inventory report, thus giving instant and latest compatibility status of the applications. Similar information is also available through the ACT User Experience Community.
This compatibility information will help take known compatible application off of the list for further analysis and testing.

This rationalization process results in a smaller number of applications whose current compatibility status is unknown and need to be tested.

3. Making Strategic Choices

Testing the rationalized list of applications for compatibility is a necessary step. As the Windows 7 migration project takes shape, having a dedicated team with application testers for this process is extremely important. Upon testing, applications will either work without any issues in Windows 7 or *will* have some compatibility issues. Applications which have issues need to be mitigated by making some strategic choices regarding them. There are three main points which need to be considered before making a decision:

- **Business criticality of the application**
Most applications have an associated business criticality. Based on that information, the business critical applications should be tested and dealt with first. Not only is this a good approach from the project standpoint, but readying the business critical applications early in the process also makes the managers and sponsors of the project more comfortable about the progress by providing early visible successes.
- **Cost**
Cost is an important factor which weighs in on decisions regarding purchasing new software or upgrading to a newer version.
- **Time**
The amount of time you have to work internally on an application or wait for a compatible version can change the course of the decisions made for an application and affect the timeline of the project. If you encounter an application cannot be remediated, and a supported version isn't readily available, consider a virtualization solution to keep the project on track.

These strategic choices, as applicable to the business scenario, will help determine which course of action to take in order to ensure a timely and cost effective deployment.

4. Mitigating Blocking Applications

Incompatible applications are roadblocks to adapting a new operating system. All such applications are not necessarily reasons to delay a deployment project. Many incompatibilities are minor issues which can be fixed easily. A very small percentage of application will have incompatibilities that can become a project to themselves. depending on where the application stands on the spectrum of problem complexity There are various options for mitigation including:

- **Shim** (Also known as a compatibility fix)
Shims are a great way to make applications work without touching the source code. There are many shims available to choose from depending on the type of problem. The simplest issues like version checks and file redirection to more complicated ones like threading can be handled effectively by shims. Shims are a great option for applications for which the source code is not available or the software vendor is no longer in business. Though shims do not 'fix' the application in the true sense of the word, but they do allow the application to work correctly, effectively unblocking applications much quicker than other options.
- **Replace**
Replacing a problem application with something from a different vendor, that is compatible and also fulfills the functional and business needs, is a strategic move that can be made. If a competing vendor has a similar application that provides the same functionality, you can remove it from your blocking applications list, and you might receive a cost benefit from the switch.
- **Virtualize**
Legacy applications with OS incompatibilities, programs with application to application incompatibilities or ones which have specific pre-requisites are good candidates for virtualization remediation solutions. An example of this would be an application that has a requirement for a specific version of Microsoft Access or older browser version. These types of applications can be virtualized to make them appear to work seamlessly on the new operating system.
- **Re-Code**
Applications developed and maintained internally can be re-coded to work on the new operating system. This re-tooling takes time and can delay a deployment project if the application is mission critical. If time is of the essence for deployment, consider virtualizing the current version until the application can be re-coded to work natively.
- **Retire**
Depending on the business scenario, some applications may not be worth keeping in the environment any more. Such applications can be retired.

5. Involving the End Users

An updated operating system will have many advantages for the business and the IT group and it might be the best move strategically, but, moving to a new operating system after many years of using the existing one can be a big change for the end user.

Making the end users as comfortable as possible with the change through training and labs is a step taken usually towards the end of the migration project. Though this is common, involving the various groups within the company and the people using the applications on

a daily basis earlier in the process will set the project up for success as the users perceive that they were included in the process and their concerns were met. In most cases it is the business user of an application who knows the application the best – how it works, what are its pre-requisites, its quirks and known problems, etc. Such users can quickly and easily point out issues that the application has on Windows 7 and then work closely with the testers and developers to help fix the problems.

By including the end user, not only will they be more invested in the project, but spending time on the new operating system will also make them more comfortable with it. Such a move helps get the all-important buy-in from the various groups and their management and also get them excited about Windows 7 because they were involved in the process.

A good way to engage the end user is to provide Windows 7 test machines or virtual machines to different units and groups for them to install and try out their applications. Feedback from these end users can be extremely valuable in mitigating applications.

6. Integrating With Existing Processes

The decision to adopt a new operating system stems from having a vision of a better environment for the entire enterprise – desktops, laptops, servers etc. Keeping that vision in mind, irrespective of the actual timeline for deployment, it is important to start integrating Windows 7 into the existing processes in the company.

If the company has in-house developers or consultants developing and maintaining applications, they should train and start adapting to the development methodologies for the new OS. If the vision is to have a more secure desktop using standard user throughout the network, start developing code according to UAC requirements and least user privileges and also start coding as per the latest Windows Vista/7 coding standards by keeping in mind the changes that have been made since XP. Similarly internal or outsourced testing groups should incorporate test scripts and scenarios in their current processes to test the applications for the Windows 7 environment.

These efforts will go a long way in making the applications already in production readily available for the new environment in due time. The application suite is then prepared for the new operating system at all stages.

7. Being Proactive

A typical OS deployment project can take more than one or two years for full implementation, depending on the size of an organization. The planning process itself can take several months when evaluating the cost, putting together the team, preparing the timeline etc. This doesn't necessarily mean that readying applications for Windows 7 has to wait until the project begins officially. Being proactive regarding the decisions taken around applications will help win small battles early on and set the project up for success. Asking key questions about Windows 7 and compatibility in reference to applications and processes is crucial.

While purchasing new applications or renewing support contracts, ask questions about Windows 7 certification/compatibility. Have discussions with application vendors about what their plans for Windows 7 certification are or whether they are working on a new compatible version, providing a free or paid upgrade etc. These discussions will go a long way in making the investments more valuable.

Start asking questions about the applications used in various groups and about the problems they are currently. Information from asking such questions will help plan better and address the pain points early in the process. Being proactive will help bring in the necessary information from all quarters and align efforts effectively towards the goal.

Conclusion

Windows 7 offers an extensive feature set, exceptional performance and improved productivity over its predecessors. Application readiness is an important step before moving to a new operating system. These 7 tips for Windows 7 application readiness along with good planning and coordinated effort will make moving to this new operating system a smooth and successful process.

About Sogeti USA

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