THE IMPORTANCE OF APPLICATION MANAGEMENT

Efficient desktop application management is essential in normal day-to-day operations of any company. Whenever a new application is deployed, the IT staff must get involved by performing a desktop assessment to help ensure the application can run properly, packaging the application for deployment, resolving application conflicts and troubleshooting any problems that arise in the actual deployment through the Electronic Software Distribution (ESD) system.

Adding to the challenges of application management is the arrival of Windows Vista®. With Windows Vista, Microsoft has substantially changed the security model and the way software runs on the operating system (OS). So before a company moves an application to Windows Vista desktops, it must validate each application to help ensure it is compatible.

Whether introducing a new application or implementing an OS migration, the goal is the same: help ensure disruptions are minimized and keep users productive throughout the process.

Unfortunately, many of the steps required to perform a successful deployment or migration are labor intensive and are sometimes skipped. For example, many organizations rely on the software vendors or business teams to verify application functionality. Many IT departments only track and manage a subset of the business-critical applications in the environment. This can lead to problems if shortcuts are taken and the testing does not follow a rigorous methodology.

MINIMIZING PROBLEMS

Conflicts with other installed applications might crop up during a migration. And in a Windows Vista® migration, a program that installed and ran without problems on a Windows® XP desktop might not have access to appropriate privileges under Windows Vista. Even applications that run properly within Windows Vista can have issues with the specific way they are packaged for the customer's environment.

Companies need to adopt a more formal method to detect and remediate these problems before they impact rollout schedules or business productivity.

To begin the process, companies must first collect complete information about all of the applications residing on their desktops. This inventory must include version numbers, hardware requirements and knowledge of other software, such as shared DLL files, that are required for the application to run. Most application discovery tools report too much information, which then has to be analyzed to determine the actual application load. For example, Microsoft® Office contains dozens of separate executables. Application discovery tools often report all of these, when the important information is the single installable and licensable application.

ASSESSMENT AND RATIONALIZATION

Dell is often called in to perform a thorough assessment of the applications in an organization. This can include not only the application discovery, but also translating that information into a list of installable and licensable applications. This saves the IT staff from spending time on this task — time that would be normally allocated to strategic projects.

Once the inventory is complete, the next step is rationalization. For instance, there may be several versions of a single application in use throughout an organization. Through the rationalization process, a company can evaluate what features are included with each version and what functionality their users need.

Windows Vista®

In this process, each application is assigned a series of metrics, such as business criticality, breadth of deployment and technical complexity to migrate the application. For the latter metric, Dell relies on knowledge garnered through its partnership with Microsoft and its application rationalization experience developed by helping other organizations with their migrations.

TESTING APPLICATION COMPATIBILITY

If the application is intended to be deployed during a Windows Vista migration, a compatibility check should be done. This would include a hardware inventory to ensure each PC is capable of running Windows Vista. This information can be gathered using existing systems management tools or the Microsoft Windows Vista Hardware Assessment Tool.

For the application compatibility check, the Microsoft Application Compatibility Tool (ACT) tests applications in their pre-migration environment and collects information about possible conflicts. Since automated tools cannot detect all issues, applications should also be installed on the target OS to confirm functionality. This includes testing the application package if one exists. Testing OS compatibility is key to determining which applications will function, which need to be remediated and which will have to be upgraded or replaced. The application should be installed on the standard system image. If there is more than one image, every packaged application would need to be tested against each one. A simple test script is used to verify that the application installs, de-installs and initiates properly. With this information in hand, Dell can work with an IT staff to remediate these potential problems before the actual installation or migration is performed.

PACKAGING

At this stage, applications must be packaged for installation. Dell experts have packaged thousands of applications for automatic installation in the last five years. They leverage this past customer experience and an application compatibility knowledge base to help resolve conflicts so that applications install smoothly.

A number of problems may occur at this point. One common problem is trouble with the actual installation of an application on a Windows Vista desktop. Often the problem is quite easy to fix. For example, many companies and ESD systems wrap the .msi application packages with scripts. Often one of the first executed steps is to check if the operating system is Windows XP (since Windows XP is widely used today). If the OS is not Windows XP, the instruction is to stop the installation. If this is the only problem, it can easily be corrected by changing the script to include Windows Vista.

Another common problem is that some applications may rely on elevated privileges or no-longer supported functions. For these applications, Dell runs tests and uses tools to identify application issues. For instance, an application that installs to the system folder might require rights and privileges that would expose the system to security problems. In this instance, Dell could redirect the installation to another folder.

In the case of business-critical applications that cannot be remediated or replaced, Dell may suggest another approach such as the use of a shim DLL (where shimming is an initial form of remediation) or the virtualization of the application. Shimming offers compatibility DLLs from Microsoft that replace deprecated or missing functionality to allow the application to run properly. For applications that cannot be helped in this manner, virtualizing the application might help resolve any conflicts or system resource issues that prevent proper operation. It is important to understand the implementing virtualization is an infrastructure change with separate support and maintenance implications. Unless virtualization is desirable for other reasons, it is typically a resolution of last resort for Windows Vista migrations.

DEPLOYMENT

Once the application library and OS images are ready, the next step is deploying the new standard load to the installed base. Usually this includes replacing some PCs and refreshing others. Here again, Dell has the expertise to help you make this process run in an efficient manner. Dell has unique tools and factory integration capabilities to optimize your deployment. These tools are modular and are configured based on your business needs, existing infrastructure and network capabilities.

For those who need application management assistance, Dell provides services at every step of the way. It can supply the detailed inventory, requirements gathering, rationalization, packaging, user acceptance testing coordination, virtualization and Windows Vista compatibility testing. All of these steps must be started months before the actual migration begins. Dell can then offer deployment automation and management services to enable an optimized deployment.

Through the entire project, the differentiator is Dell can help with strategy, tools, best practices and processes to enable a highly successful OS migration.

For more information about application management go to http://clientmigration.ziffdavisenterprise.com

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