Unified endpoint management for Windows 10 migrations

Reduce migration complexity, and save valuable IT staff time.

ABSTRACT

Doing business today requires an increasing number of devices and platforms, making IT endpoint management more and more complex. In addition, most organizations now have bring-your-own-device (BYOD) programs and Internet-of-things (IoT) technologies that need to be managed. Your team must not only deploy and maintain all of these endpoints but also work to protect your network from increasing cyberthreats — all with limited resources that are not keeping pace with growing IT complexity.

Upgrading your environment to Windows 10 adds another layer of complexity. Managing individual deployments and upgrades is cumbersome and time-consuming.

The Quest® unified endpoint management (UEM) solution addresses these challenges by combining the entire range of endpoint management capabilities into one solution. This white paper specifically explores how you can streamline and automate your Windows 10 migration — a key component to your unified endpoint management strategy.

Learn about the five key activities required for every migration and how to automate those tasks to ensure a successful enterprise upgrade to Windows 10.

INTRODUCTION

Windows 7 remains a popular operating system in businesses around the globe. However, the world has changed significantly since its release in 2009. Attackers and threats such as malware and viruses have increased dramatically in both number and sophistication, more organizations are subject to compliance regulations, and strapped budgets are demanding more cohesive and centralized management.

> "Windows 10 migration projects can be challenging, especially if you have a large number of endpoints. With the industry standards, all companies are going to have to migrate in the near future. KACE can automate that transition and make it very simple."
>
> *Jay Cittadino*
> *Lifeboat Distribution*

These new realities mandate a new OS specifically designed with today's needs in mind, and Windows 10 fits the bill. In fact, new Intel hardware chipsets only support Windows 10, which adds to the urgency to migrate.

On the surface, a Windows 10 upgrade might seem easy. But migration involves more than simply getting Windows 10 onto your hard drives. A number of critical activities surround the install:

- Analyzing your existing hardware and software
- Deploying the OS to users
- Migrating user data and configurations
- Distributing applications and updates
- Project tracking and status reporting

These five tasks are all critical to success — but without the right tools, they can be extremely difficult to complete. By automating these tasks, you can deliver a better, faster and more complete migration.

This white paper explains what to look for in a Window 10 migration solution and why choosing integrated tools is critical to the success of your Windows 10 upgrade. We'll also explore how to choose solutions that will continue to deliver value even after the migration is complete, maximizing ROI.

FIVE KEY MIGRATION TASKS YOU'LL WANT TO AUTOMATE

Task #1: Analyzing your existing hardware and software

The first step in any Windows migration is to inventory and analyze your existing hardware and software with an eye toward answering three critical predeployment questions:

- **What hardware will work with the new OS and what requires an upgrade or replacement?** An accurate answer to this question is critical because installing a Windows OS to substandard hardware generally results in a poor user experience. A network-based IT inventory management solution is the most efficient way to get complete and accurate details. The solution can interrogate all the machines on your network to ensure a complete inventory, consolidate the results into a single database and provide reports that will help you compare your current hardware with Microsoft's requirements and recommendations for the new OS.
- **What software is currently installed on each machine?** A successful Windows 10 upgrade requires installing the new OS — plus all the right applications. Therefore, before you start migrating, you need to accurately inventory all the applications installed on each machine. The best way to get that information is, again, to use an automated inventory tool.
- **What software is actually being used?** Migrating applications that you no longer need wastes time and effort, complicates the project unnecessarily and increases risk. Therefore, you need to analyze your inventory carefully to identify unauthorized, unused and redundant applications. The right automated inventory tool will make this application rationalization process faster, easier and more accurate.

Of course, once the migration is complete, your hardware and software portfolio won't remain the same for long. As machines and applications come and go, your inventory solution will help ensure that you know exactly what's on your network, enabling better security and management.

Keep in mind that adopting an inventory solution does not have to mean incurring hardware and other infrastructure costs — some vendors offer software as a service (SaaS) solutions. Look for a tool that can check whether your machine hardware is Windows 10–ready; build and maintain an inventory of all systems and software, including all network-connected devices; and provide software metering data on who actually uses which applications.

Task #2: Deploying the OS to users

Installing a single instance of the Windows 10 OS is incredibly easy. However, efficiently distributing it to tens, hundreds or thousands of computers requires automation. There are two common methods of OS deployment, and automation is valuable no matter which you choose:

- **Imaging** — The administrator creates a machine with the proper OS, software and configuration, and then captures and stores an image of that machine. That gold master image is then deployed through an automated mechanism to similar hardware.

Capturing and deploying images are both simple and easy procedures. However, imaging becomes a more complicated deployment strategy as the variety of hardware and user types in an organization increases, because multiple images must be created and managed. An integrated migration solution that offers automated image management will reduce this burden and also reduce the risk of errors.

- **Scripting** — With scripting, the administrator uses instrumentation built into the Windows installer to customize installation parameters as the OS is installed. Since scripts can dynamically ensure that the appropriate drivers are installed based on the OS to be deployed and the target machine's hardware configuration, a single script can be used to install to every class of hardware. However, manual scripting can be difficult and time-consuming. A better option is to take advantage of an integrated deployment solution that incorporates a smart configuration engine to simplify and speed script creation.

Also, be sure to consider which migration paths are supported by each migration solution you evaluate. Depending on the configuration of your network, the scope of your migration project and the ways in which you plan to invoke the upgrade, you might choose a network-based upgrade path or an upgrade in which machines must be physically relocated to special IT areas first. You may discover that full automation or even self-service automation capabilities are available.

Of course, OS deployment is not limited to migrations. Therefore, your automated deployment solution will continue to deliver value long after you've completed your transition to Windows 10.

Like the two previous migration tasks, OS deployment can be automated with either an on-premises or cloud-based solution. In particular, SaaS solutions are now available that can offer easy disk imaging, OS and application provisioning, user state migration, and repair and recovery for systems that won't boot.

Task #3: Migrating user files and configurations

Installing a fresh copy of an OS wipes a hard drive clean, taking with it every user data file and every custom setting — wallpaper, sound settings, accessibility choices, custom toolbars and more. Naturally, users rely on both their files and customizations to do their jobs effectively. Therefore, they will likely brand your migration project a failure unless it preserves them faithfully.

Unfortunately, the Windows OS and its applications store user settings in multiple places, some of which are less than obvious. Attempts at manually locating and preserving them usually result in missed data and unhappy users. Similarly, unless you have extremely strict policies about where your users can save data on their local drives, you can't simply look in one place for user files. Moreover, you need to look for not only Word and text documents, Excel spreadsheets and PowerPoint presentations, but many other types of files as well.

Fortunately, smart migration solutions know where to find these important but elusive settings and files. And they are designed with the necessary logic to seamlessly convert user customizations from the structure used in the source OS to the (often different) structure used by the target OS. You save time, and your users are happy — a clear win-win. Plus, this functionality is available in both on-premises and SaaS solutions.

Task #4: Distributing applications and updates

Your migration project will not be complete until you've installed each user's applications back to their upgraded computer. Doing this manually would dramatically increase the time and cost of your migration project, potentially to the point where it isn't cost effective at all. Moreover, the process would be extremely prone to errors.

A migration solution that is integrated with a desktop management tool will automate application installation, eliminating all that manual work. Even better, that desktop management solution will continue to deliver value by enabling you to efficiently manage your hardware and software assets long after the migration is complete.

For added value, look for a desktop management tool that also provides a self-service portal where users can

> "We deployed Windows 10 with KACE SDA, which made the migration a lot easier. Everything has been super seamless. We are using both systems — KACE SMA and KACE SDA — and have seen a strong return on investment. It makes our lives easier."
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> *Shawn Preston*
> *Westin Building Exchange*

> "We have used the KACE system deployment appliance to do large-scale Windows 10 deployment projects. A third of our systems have now been migrated to Windows 10. We did some initial testing to make sure that everything was working OK. After that, it was a smooth deployment."
>
> *Zachary Gillette*
> *Banner Engineering*

download optional applications that IT has approved for use but that are not included in the standard image.

Self-service is a win-win-win: Users get what they need quickly, so they can be more productive; the help desk gets fewer calls, which reduces costs; and users are less likely to install unapproved alternative applications, improving security and streamlining management.

Task #5: Project tracking and status reporting

If you are upgrading only a dozen computers, keeping track of the status of your migration might not be all that difficult. Managing a project involving hundreds or thousands of machines, however, is another thing entirely.

As we have seen, your migration project involves a diverse range of tasks, from analyzing assets and deploying operating systems to ensuring that users have the right customizations and applications after the upgrade. If you use multiple point solutions to tackle these challenges, you end up with silos of data that make broader project management and reporting difficult. For example, if your application compatibility tool can't share data with your automated application installation tool, you have no seamless way to ensure that the right applications get reinstalled.

Therefore, it's wise to choose solutions that integrate well and share data between migration tasks. That way, you can prevent mistakes, easily track migration progress and quickly create status reports that keep stakeholders informed.

CONCLUSION

Systems imaging and OS deployment is notoriously time-consuming and often inefficient. The Quest KACE System Deployment Appliance (SDA) enables you to automate the process and simultaneously push install systems images using multicasting. Scripting allows you to customize updates. You can also perform systems deployment and maintain up-to-date gold master images across diverse hardware platforms and manage updates to remote sites from a central location. With the Quest unified endpoint management solution, you'll reduce complexity by managing all of your systems from a single platform and save time across the board.

And your Windows 10 migration? The Quest UEM solution lets you automate the five key Windows 10 migration tasks critical for success, while also ensuring that your investment continues to deliver value after the migration is complete. Plus, with KACE, you can streamline management of BYOD programs and IoT technologies and also secure all of your endpoints from increasing cyberthreats.

Ultimately, you'll gain precious time to focus on the strategic IT projects that increase productivity and profitability in your organization.

ABOUT QUEST

At Quest, our purpose is to solve complex problems with simple solutions. We accomplish this with a philosophy focused on great products, great service and an overall goal of being simple to do business with. Our vision is to deliver technology that eliminates the need to choose between efficiency and effectiveness, which means you and your organization can spend less time on IT administration and more time on business innovation.

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