The Smart Path to Windows 10

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Windows 10 is coming

With Windows 10, Microsoft once again introduces a significantly improved version of its popular operating system. There is a choice of migration paths to the most recent platform, particularly as there are new Windows standard tools to rely upon. For enterprises that already consolidated their client assets and harmonized their application landscapes while migrating to Windows 7 or Windows 8/8.1, moving on to version 10 is only a small step.

Microsoft has big plans for Windows 10. This Windows generation, announced at the September 2014 Build conference, is the successor to Windows 8 - the vendor is skipping version 9, most likely in an attempt to avoid confusion regarding the Windows 9x (i.e., 95 and 98) legacy systems. Windows 10 is aimed at completing what Windows 8 once started: the establishment of a unified Windows operating system across all types of endpoint devices in use today: smartphones, tablets, PCs, convertibles (i.e. notebooks alternatively usable as tablets), as well as embedded systems and even the Xbox One gaming console are supposed to operate on the current OS basis.

This way, the Redmond company intends to combine the best of various device worlds: on the one hand, the start buttons and virtual desktop functionality known from Windows 7 desktop PCs, on the other hand the Windows 8 „live tiles“, notification sidebars, and the Cortana personal assistant functionality known from the mobile device world. Founded on a common base, Windows 10 is designed to be adapted to each of these various platforms. Thus, for example, an app could be operated on a convertible via touch or keyboard, while the same app would be handled on a smartphone by touch gestures alone. With this flexible yet unified code base and device-specific „universal apps“, Microsoft intends to simplify software handling across any kind of device so as to empower more productive workstyles.

The migration date question

For the migration to proceed with as little friction as possible, however, it is important to focus on automated support of service request and change management processes. For IT decision makers who have not yet made up their minds about the procedure and exact point in time of their Windows 10 migration, this whitepaper explains best practices of when to tackle, and how to master, the change to Microsoft’s newest operating system.

Even so, according to a survey Matrix42 did at this year’s CeBIT trade show, these Windows 10 innovations are only the second most important factor when it comes to moving IT decision makers to adopt the new Microsoft OS: 47% of the respondents indicated plans to migrate to Windows 10, more than one third even with all endpoint devices, another third with at least 75% of the devices; however, the main driver for these migration plans is the fact that Microsoft has terminated support for Windows XP and Windows 7. As of today, there is no more support available for the classic Windows XP without very expensive additional charges, while mainstream support for Microsoft’s popular Windows 7 was ended in early 2015.

So it doesn’t come as a surprise that about one quarter of the IT decision makers surveyed by Matrix42 indicated their intent to switch to Windows 10 this year, with another 29% planning to do so next year. Almost half of the respondents, however, were still undecided regarding their Windows 10 migration time frame. These IT organizations, too, are well-advised to tackle the migration as soon as possible - i.e. this year, or next year at the latest. Given increasing competitive pressure especially in the consumer market, Microsoft is bound to keep its OS development briskly paced, and will have to continue innovating at high speed. IT managers should avoid delaying Windows migrations too long, so as not to get left behind when it comes to employing state-of-the-art technology - and so they won’t be pressed for time when migrating, as most recently some enterprises were in moving away from Windows XP.
Enterprises that harmonized their hardware and software portfolios while migrating to Windows 7 or 8 can calmly look forward to adopting Windows 10: the Windows 7/8 hardware is suitable for version 10, too; thus, these organizations are well-equipped for the upcoming generational change - even if this will not spare them a thorough test period. For the remaining IT managers, it is imperative to use this occasion for establishing a clearly structured operating system change process: today, thanks to a more mature Microsoft technology and well-established client management software, updating from a legacy to the current Windows version can be a highly standardized, and thus minimally error-prone, change project.

Tip: Keep an Eye on Internet Explorer 11!

In preparation of a Windows 10 migration, one should take notice that the support for Internet Explorer 10 (IE10) is about to end: according to Microsoft, from January, 2016 on, the company will only support Internet Explorer versions not older than the one supplied with the operating system; and since Windows 7 SP1, this has been IE11. All IT organizations affected by this are strongly advised to use the test phase for verifying application compatibility with IE11. Should the switch to Windows 10 not be a near-term project, it is advisable to roll out IE11 comprehensively first, and only then tackle the Windows 10 migration. This way, one avoids having to manage two rollouts simultaneously.
Microsoft provides three ways of moving to Windows 10: wipe and load, an in-place update, and runtime provisioning. The three options are suited for different settings:

1. **Wipe and Load (Bare Metal Install, Re-Imaging)**
   The well-known method of completely wiping the operating system, followed by a fresh installation, offers the highest level of control and reliability; however, it also considerably affects the end users’ work and the network load. However, in some cases, for example when switching from a 32-bit to a 64-bit OS version, there is no alternative to implementing a completely new Windows 10 image.

2. **In-Place Update**
   This functionality serves as a way to seamlessly switch from a previous version to Windows 10. By its own account, Microsoft has invested a lot of work into expanding this feature set. It is well worth noting that Microsoft’s in-place update mechanism not only supports the direct update from Windows 8 to Windows 10, but the switch from the predecessor Windows 7 as well. This approach, however, is only advisable if the last OS change has occurred not too long ago, thus ensuring that the application landscape is „uncluttered“. For here, too, application compatibility has to be cared for.

3. **Runtime Provisioning**
   This procedure serves as a way of reconfiguring Windows 10 images by way of so-called provisioning packages and a tool named „Windows Image and Configuration Designer“, or WICD (pronounced „wicked“). Using WICD, customers can adapt Windows 10 to their needs. If, for example, an enterprise has PCs shipped to desk by its hardware supplier, IT can use WICD to generate the configuration packages for the various Windows 10 versions needed, and then proceed to rolling them out by means of a client management tool. WICD can also be of use if an enterprise wants to enroll and adapt its own, or privately owned, end user devices in the corporate network via MDM (mobile device management). The WICD tool, while useful, is still young, and hence its feature set still contains several gaps.

Windows 10 provides for enrollment of end user devices in the corporate network via MDM for smartphones and tablets as well as for desktop PCs and notebooks. Microsoft is pursuing a hybrid approach so as to consolidate the management of mobile and stationary devices - so IT organisations will have to attune to this. The intent is to facilitate easier cross-platform device and app management, including
cross-platform BYOD (bring your own device) scenarios. Thus, for example, a staff member in a small foreign branch office might acquire a device privately and then use MDM enrollment to install the Windows 10 configuration which was provided by the IT department via WICD.

This means that from a merely technical point of view, an IT organization will go a pretty long way by just using Microsoft’s standard tools such as Intune and System Center Configuration Manager (SCCM), or by employing a pure-play client management tool for migrating to Windows 10. In OS migration projects, however, time savings and efficiency increases are not caused by ever more powerful tools alone, but most of all by process-oriented automation. This requires a comprehensive service management solution integrating operating system rollouts in each and every process of service request, change, workspace, and software asset management.

In this context, a client management solution is required to support all relevant processes with customizable workflows. This includes inventory, a target/actual comparison regarding suitability for the new operating system, the order transaction process, clearance processes (with approval, delegation, and escalation), individual updates as well as mass rollouts, and equipping end user devices with applications, or apps, plus all required data. The integration of these processes should be as far-reaching as possible, so as to make all the interwoven steps of changing to Windows 10 seamless and delay-free from both the administrator’s and the end user’s perspective.
In order to guarantee a frictionless course of action for the Windows 10 migration, changing to the current Windows version should take place in a well-organized sequence of six steps:

1. **Discovery phase**
   First of all, one has to check existing hardware for Windows 10 compatibility, identify installed software (including verifying whether it is actually in use), and gain awareness of locally stored data, as well as settings.

2. **Analysis phase**
   In this phase, the IT organization attends to identifying hardware upgrade or replacements demand, and to checking compatibility of drivers and software items, amongst them Internet Explorer 11 (see box).

3. **Testing phase**
   The IT department tests OS configurations, drivers, and software, including the seamless transfer of user-specific data and settings.

4. **Remediation phase**
   So as to be able to continue providing applications and legacy OS endpoints incompatible with Windows 10, the IT department virtualizes the respective legacy OS instances and applications. This way, these can be hosted in, and delivered from, the datacenter.

5. **Deployment phase**
   The IT organization deploys the individually required OS configurations, drivers, and applications including user-specific data and settings. Depending on the size and structure of an organization, this can take several rollout runs.

6. **Operational phase**
   IT transfers the Windows 10 endpoints to production and provides them to the end users.
Migrating to the current Windows 10 isn’t rocket science. Not only does Microsoft provide useful standard mechanisms with its enhanced in-place update functionality and the new WICD tool for runtime provisioning, thus simplifying the transition to the newest Windows version; with the help of a technologically mature and comprehensive client management solution, an IT organization will also benefit from versatile automatisms and proven best practice-based migration procedures.

With thorough preparation and a process-oriented client management suite such as Matrix42 Physical, an IT organization can ensure that the operating system change will take place without friction - up to and including Windows 10 self-service provisioning via a portal interface. Because today - what with this being customary in the consumer market - the state of the art is an OS update triggered by the end users themselves, to be executed at their desired dates. This presupposes clearly structured processes and consistent automation.

In this scenario, the end user will simply use the service request portal to order the switch to Windows 10 and indicate the preferred date. In the background, the client management software will check whether the end user is authorized to make this order and whether the hardware is capable to run Windows 10, and will then hand the order off to the IT manager in charge of approval. Once approved, the operating system will be automatically deployed at the indicated desired date. Also, the user’s individual settings and data will be transferred automatically, too.

A comprehensive client management suite supporting PCs and notebooks as well as smartphones and tablets will even allow for a highly automated Windows 10 rollout across all the types of endpoints used in enterprises today. Thanks to an integrated workspace management, IT organizations can provide their end users with the desired applications or apps, along with updates and patches, across all platforms with minimal effort while controlling license agreement compliance for their software assets.

This way, the CIO can rest assured: Windows 10 is coming - and it’s arriving at each end user in accordance with the user’s individual needs.

Learn more about how Matrix42 can help you meet your migration challenges.

https://www.matrix42.com/en/windows-10
Matrix42 AG

Matrix42 is a top provider of workspace management software. The company offers forward-thinking solutions for modern work environments under its ‘Smarter workspace’ motto. More than 3,000 customers around the world, including BMW, Infineon, and Carl Zeiss, currently manage approximately 3 million workstations using workspace management solutions from Matrix42.

Matrix42 operates successfully in seven countries – Germany, Austria, Switzerland, the Netherlands, Great Britain, Sweden, and Australia. The company’s headquarters are in Frankfurt am Main in Germany. Founded in 1992, the company has been part of the Asseco Group since 2008, one of Europe’s largest software providers.

Matrix42’s products and solutions are designed to simply and efficiently manage modern work environments – whether physical, virtual, or at mobile workspaces.

Matrix42 focuses on user orientation, automation, and process optimization. The company’s solutions meet not only the requirements of modern employees who want to work from any location and with a great variety of devices, but also those of IT departments and businesses themselves.

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