Windows as a Service Discussion Guide

Windows 10

Microsoft

	Drive Deployment	Land Windows as a Service Message
WHY	Windows 10 deployment is a Core FY17 priority	Avoid uncertainly that can stall deployment projects.
WHEN	Ensure customers started with broad deployment now, so they are finished before Windows 7 EOL.	For most customers, repeated conversations are required, with different groups within the organization. Start now, repeat as needed.
GO DO	Conversation with infrastructure/desktop TDM regarding deployment plan.	Get customers started via Windows Accelerate POC and pilot engagements, and see these through to broader deployments.
KEY POINTS	Windows 7 support ends in January 2020, just over three years away. For most organizations, this creates an increased sense of urgency to begin deploying Windows 10.	Push back on using Windows 10 Enterprise Long-Term Servicing Branch releases. These are only intended for special-purpose PCs, e.g. those that aren't used for productivity tasks such as those that use Office.

TARGET

Product	Key Contacts	Account Targeting
Windows 10	CIO, IT Decision Maker, IT Architect	All Windows accounts

COMMON CONCERNS

Pace of Releases	Size of Updates	Disruption	Infrastructure Readiness	Application Compatibility
Organizations struggle to understand how they can deploy Windows 10 roughly ten times as often as they used to, which requires 1/10th of the cost for each to "break even."	Each feature update is 2.5-3.5GB; monthly quality updates (patches) are cumulative and grow large over time. Organizations don't think their networks can handle the load.	Feature updates, which occur about twice per year, take 1-2 hours on typical PCs, causing lost user productivity if they happen at the wrong time. And bugs in the upgrade process (which we continue to fix each month) cause concern.	Organizations are concerned that Windows 10 feature updates require Windows Server and System Center Configuration Manager updates, which make it impossible to keep infrastructure up to date.	The number of desktop and web apps used in organizations is very large; testing all of these with each feature update is time consuming and expensive. Plus, ISVs are slow to provide support statements for each new feature update.

CONVERSATION STRATEGY

Time to Market	Size Improvements	Schedule Flexibility	Easy Infrastructure	Application Readiness
▪ WAAS allows for frequent release of security improvements and are needed to **stay ahead of the bad guys who are surging forward with massive manpower**. ▪ Frequent productivity improvements are needed to **show the value IT can provide to information workers.** Windows as a service is a direct response to these customer desires.	▪ **Express update support for monthly quality updates** is coming Configuration Manager and third-party management products in Q1 CY17, **reducing size by an order of magnitude**. ▪ Differential upgrade capabilities will **reduce the size of feature updates by about 35%** when this capability is delivered later in 2017. ▪ **Peer-to-peer distribution technologies** like BranchCache, Delivery Optimization, and Configuration Manager Peer Caching can reduce the network impact too.	▪ Windows as a service provides flexibility that allows organizations to **deploy feature updates on their schedule** – organizations can work within **an 18-month window** starting from the release date, with even more time to prepare and plan using the Insider Preview builds, when updating existing Windows 10 devices. ▪ Ensure all organizations have PCs in the **Insider Preview program** so that they are ready to begin piloting when we release.	▪ **Windows 10 has no dependencies on Windows Server** – all existing supported Windows Server versions work fine. ▪ System Center **Configuration Manager current branch has adopted an easy servicing model** that makes deploying new releases as easy as right-clicking and choosing "Install."	• Customers are reporting very **good app compatibility**, often **higher than 99%.** • Web app compatibility is very strong due to the continued inclusion of **Internet Explorer 11 and Enterprise Mode** to ensure what worked on Windows 7 continues working in Windows 10. • We are working with ISVs to ensure they understand WaaS and support new feature updates immediately. • We have tools like **Windows Upgrade Analytics** to help.

RESOURCES

- Windows as a service guidance, which explains Windows as a service in-depth, while also providing specific step-by-step guides to help organizations with the implementation process.
- Windows as a service presentations, used to help with the "why," "what," and "how" discussions that every organization needs to have and understand. Additionally, deeper materials around the size improvements are available.
- Windows Upgrade Analytics, a service provided to organizations to help provide upgrade readiness insights about their computers, applications, and drivers. These insights are based on telemetry and is the first of several Windows Analytics to be released that will demonstrate the value of sharing telemetry with Microsoft.
- Windows Accelerate, a set of programs that focus on accelerating the deployment of Windows 10 in organizations, including educating them on Windows as a service.
- Apps4Windows, a program to ensure that key ISV apps are ready for customers adopting Windows 10 and Windows as a service.
- Ready For Windows, an external website (a result of the Apps4Windows program) with links to ISV's Windows 10 compatibility statements, as well as app usage info (also available through Windows Upgrade Analytics).

Windows as a Service

SIZE CONCERNS

Organizations are concerned about many of the changes related to Windows as a service, but one of the most significant is the impact on their networks.

Size of Feature Updates, about twice per year	**Size of Quality Updates**, monthly
Because an in-place upgrade process is used to install a completely new OS image, the payload for each feature update is about 3.5GB per PC when using media, or 2.5GB using servicing-based approaches (WU, WU for Business, WSUS, ConfigMgr servicing plans).	Because these are cumulative, they grow over time as new fixes are added to them. The average size would be about 1GB per PC. Express updates enable PCs to only download the changes from the previous month's quality update, but this is only supported by Windows Update, Windows Update for Business, and Windows Server Update Services (WSUS). It does not work today with System Center Configuration Manager or third-party products.

SIZE SOLUTIONS

New differential upgrade capability, coming in **H2 CY17**	**Expanded express update support**, coming in **Q2 CY17**
▪ Expected to reduce the payload required per PC by about 35% over current ESD sizes (so from 2.5GB to 1.6GB for x64) ▪ Can be used to upgrade from the Windows 10 "Creator's Update" (due in early 2017) to the following release due in H2 CY17, as well as with all future feature updates after that. ▪ Requires changes to management tools (e.g. System Center Configuration Manager) and patching tools to support this new capability. ▪ Still leverages the same in-place upgrade process for installation. ▪ Insider Preview builds will experience the benefit of differential upgrades soon.	▪ Enables **downloading only the new components** fixed in each new update, expected to be around **100MB per month** (depending on the new fixes include) instead of the full update size, reducing the total transfer by an order of magnitude (on average). ▪ Requires a new cumulative update containing the needed Windows 10 changes, as well as changes to management tools to leverage expanded support. ▪ Requires changes to management tools to support this. For **System Center Configuration Manager, this support is planned for the 1702 current branch release**. ▪ Timelines for third-party tools need to be confirmed with each ISV.

ADDITIONAL SIZE RECOMMENDATIONS

In addition to the new differential upgrade capability for feature updates and expanded express update support for quality updates, organizations should leverage additional solutions for minimizing the impact to their networks.

Capability	Description
Peer-to-peer distribution	Moves 90% or more of the network traffic from the datacenter to the edges of the network where there is much more capacity. Options include: ▪ **BranchCache**, supporting Windows Server Update Services (WSUS) and System Center Configuration Manager. Simple to implement on Windows 10 and Windows Server. ▪ **Delivery Optimization**, supporting Windows Update, Windows Update for Business, and Windows Server Update Services (WSUS). Automatically enabled, with no on-premises infrastructure required. ▪ **System Center Configuration Manager Peer Cache**, which supports peer-to-peer content sharing between ConfigMgr client PCs. ▪ **Third-party alternate content provider products** for System Center Configuration Manager, which provide advanced capabilities to not only share content using peer-to-peer, but to also reduce the overall number of distribution points or servers needed for distributing updates. Examples include 1E Nomad and Adaptiva OneSite. ▪ StifleR from 2Pint Software that builds on top of BranchCache and BITS to manage bandwidth consumption.
Bandwidth throttling	Leverages capabilities in the Background Intelligent Transfer Service (BITS) to slowly trickle content to PCs, spreading the network traffic over a longer period of time.
Scheduled distribution	Enables the installation of updates during times when the PCs and networks aren't busy. • **Active Hours** and **Maintenance Windows**, controlling when updates are actually installed.