Rethink Windows 10 Long Term Servicing Branch Deployment Based on Microsoft's Updated Guidance

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FOUNDATIONAL This research is reviewed periodically for accuracy.

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Many I&O leaders responsible for endpoint devices, concerned about the rate of change associated with Windows 10's servicing model, are considering broadly deploying LTSB. Microsoft has clarified support plans for LTSB highlighting restrictions and caveats that could make this an unviable strategy.

Overview

Impacts

- Microsoft's updated Long Term Servicing Branch (LTSB) guidance could require infrastructure and operations (I&O) leaders to run multiple different LTSB releases or update their organizations' PCs more frequently, possibly annually.
- LTSB provides a pared-down Windows 10 user experience that could limit I&O leaders' flexibility with new devices, applications, management approaches and work styles, and could result in software support issues.
- I&O leaders who don't adapt to Microsoft's (and the industry's) faster pace will fail to implement their organizations' digital workplace initiatives.

Recommendations

I&O leaders focused on mobile and endpoint strategies:

- Identify which users/devices/applications need to use the LTSB version of Windows 10 based on Microsoft's latest disclosures, and limit usage to only where it is essential.
- Work with Microsoft and hardware vendors to request more flexibility on long-term model availability to limit the impact of processor generations.
- Plan to provision change-sensitive or fragile applications remotely from containers like RDS or VDI, which are less susceptible to change and easier to manage, and can run server OS or virtual Windows 10 LTSB that is less tied to hardware.

- Analyze the components missing from Windows 10 LTSB and determine if there is a risk to user satisfaction and future plans associated with losing them.

- Discuss support with vendors and developers of your most critical applications to help determine which option is best for your organization based on application support: Windows 10 LTSB, Windows 10 CBB, RDS or VDI.

Strategic Planning Assumption

By 2020, LTSB will be used on less than 5% of enterprise PCs.

Analysis

Many Gartner clients have been investigating the LTSB for Windows 10 to limit feature changes and reduce the number of updates they must validate their application portfolio against. LTSB versions only receive monthly security and critical fixes during their 10-year life, eliminating the feature updates that PCs running the Current Branch for Business (CBB) will be required to install once or twice each year (see "How to Deal With Windows 10 Accelerated Updates on PCs"). However, Microsoft has recently revised its description of LTSB requirements and advice around LTSB adoption, proclaiming it inappropriate for any device running Office and disclosing that PCs with different silicon may need different versions. Many endpoint computing managers will see this as a significant change to their understanding of how LTSB releases will work, and how long and broadly any particular LTSB release may be used. Hardware incompatibility and limitations on support could actually make managing LTSB more challenging than a mainstream CBB deployment (see Figure 1). LTSB is only available to customers that have the Enterprise edition of Windows 10 (those that purchased an upgrade, or have Software Assurance, Windows 10 Enterprise E3 or E5).

Figure 1. Impacts and Top Recommendations for Endpoint Computing Managers

Impacts	Top Recommendations
Microsoft's updated LTSB guidance could require I&O leaders to run multiple different LTSB releases or update their organizations' PCs more frequently, possibly annually.	▪ Work with Microsoft and hardware vendors to request more flexibility on long-term model availability. ▪ Plan to provision change-sensitive or fragile applications remotely from containers like RDS or VDI, which can run server OS or virtual Windows 10 LTSB that is less tied to hardware.
LTSB provides a pared-down Windows 10 user experience that could limit I&O leaders' flexibility with new devices, applications, management approaches and work styles, and could result in software support issues.	▪ Analyze the components missing from Windows 10 LTSB and determine if there is a cost to losing them. ▪ Discuss support with vendors and developers of your most critical applications to determine which option is best for your organization based on application support: Windows 10 LTSB, Windows 10 CBB, RDS or VDI.
I&O leaders who don't adapt to Microsoft's (and the industry's) faster pace will fail to implement their organizations' digital workplace initiatives.	▪ Shift from a project to a process approach that treats validation of updates as an ongoing assembly line process. ▪ Rely more heavily on piloting rather than testing where possible.

Source: Gartner (February 2017)

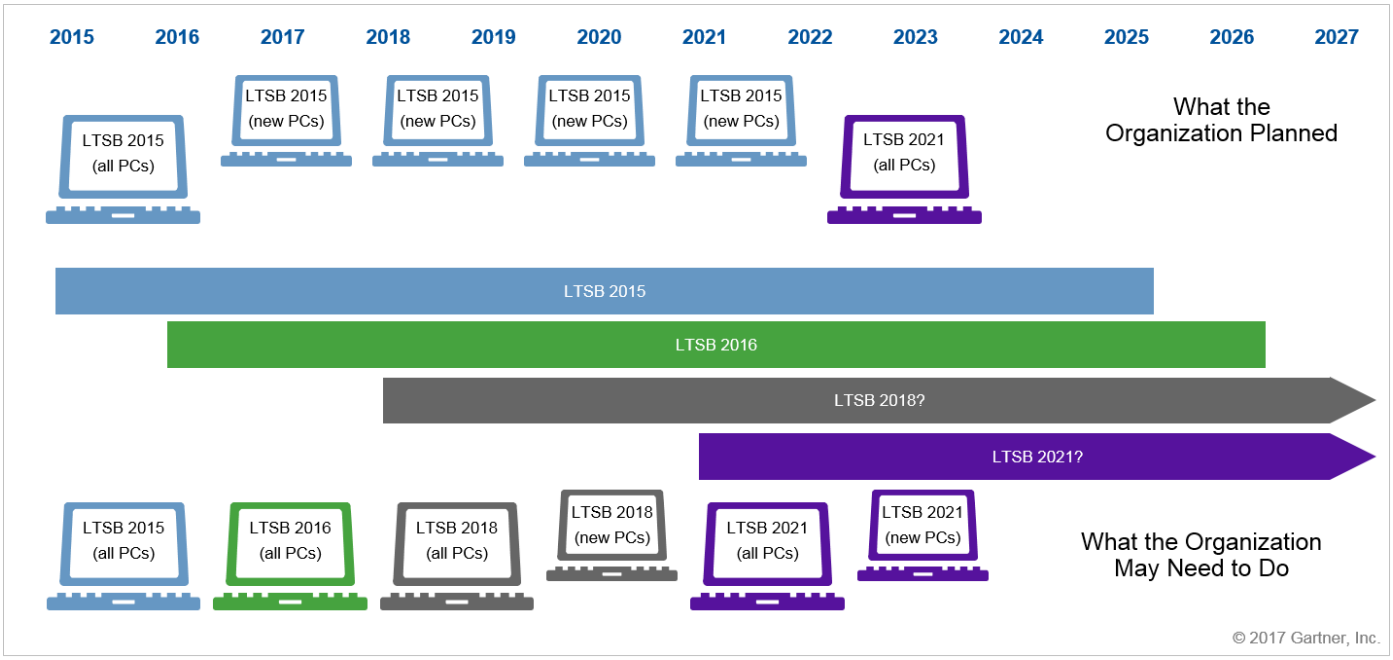
Impacts and Recommendations

Microsoft's updated LTSB guidance could require I&O leaders to run multiple different LTSB releases or update their organizations' PCs more frequently, possibly annually

When Microsoft originally announced the cadence for Windows 10 updates, it was expected that there would be an LTSB delivered shortly after launch, another a year later and then every two to three years after that, which seems to match what's occurring so far. The first LTSB was based on the initial 1507 release of Windows 10 and has been available since August 2015. The next LTSB was built on the 1607 Current Branch (CB) version of Windows 10 and has been available since August of 2016. However, many I&O leaders expected to pick a single LTSB release that they would deploy and run for up to 10 years on all their organizations' PCs, old and new. With Microsoft's latest guidance on LTSB, this is not possible. LTSB versions will not be supported on hardware introduced after their release (see Lifecycle Support Policy FAQ — Windows Products (https://support.microsoft.com/en-us/help/18581/lifecycle-support-policy-faq-windows-products) and Figure 2). Furthermore, devices that depend on new features such as evolving touch, pen or speech functionality may be excluded from LTSB support. For example, Microsoft

has announced that LTSB will not be supported on Surface devices (https://technet.microsoft.com/en-us/itpro/surface/ltsb-for-surface) , and we expect that other two-in-one-style devices may gain similar restrictions.

Figure 2. LTSB Release Cadence



Source: Gartner (February 2017)

As stated in Overview of Windows as a Service (https://technet.microsoft.com/en-us/itpro/windows/manage/waas-overview) :

"Windows 10 LTSB will support the currently released silicon at the time of release of the LTSB. As future silicon generations are released, support will be created through future Windows 10 LTSB releases that customers can deploy for those systems. For more information, see 'Supporting the Latest Processor and Chipsets on Windows' section in Lifecycle Support Policy FAQ — Windows Products (https://support.microsoft.com/help/18581/lifecycle-support-policy-faq-windows-products) ."

These new rules would seem to indicate that Microsoft is very strictly enforcing, perhaps overenthusiastically, its guarantees of stable code with LTSB versions. On the one hand, this is a result of the accelerating pace of change within the hardware platforms, coupled with more tightly integrated designs. Ensuring reliable operations and full delivery of new capabilities often requires significant updates within the OS. CB and CBB editions will always have the latest drivers and subsystems to support the new hardware, while LTSB likely won't.

For customers, this change to Microsoft's support policy effectively breaks the long-standing user expectation that older, but supported, versions of Windows would install and run on new hardware. Customers expecting to run a specific LTSB version broadly across their PC fleet will need to freeze the hardware specification as well. Since new processor generations are introduced annually and often quickly disappear from the market, this could prove challenging.

For most enterprises, the best solution is to avoid LTSB for broad user deployments and use the more broadly supported CBB. However, organizations that are subject to government regulation (e.g., healthcare, pharmaceuticals and financial services) often must validate application compatibility every time there is a major change to the underlying system. They have had significant issues with the cost and effort required to validate software for new Windows releases, even on the prior three-year cycle, and were planning to use LTSB as an alternative to revalidating software annually.

I&O leaders with these needs should plan to deploy a mix of Windows 10 CBB PCs to users without validated environments, and restrict LTSB to users or applications that really require it.

An alternative to using LTSB would be to deliver problematic applications via some sort of container, like server-based computing (e.g., Microsoft RDS, Citrix XenApp, VMware RDSH, Ericom, Workspot, etc.) or VDI-based LTSB. This would enable users to have the full benefits of the modern Windows 10 experience, and organizations to have a much more controlled delivery mechanism for change-sensitive or fragile applications (see "Adopt a Bimodal Approach to Manage PCs and Broaden Support for New Devices" and "Embrace Unified Workspaces to Deliver on Your Digital Workplace Vision").

Recommendations:

- Identify which users/devices/applications, if any, must use the LTSB version of Windows 10. Limit usage to only where it is essential.
- Work with Microsoft and hardware vendors to request more flexibility on long-term model availability to limit the impact of processor generations.
- Plan to provision change-sensitive or fragile applications remotely from containers like RDS or VDI, which are less susceptible to change and easier to manage, and can run server OS or virtual Windows 10 LTSB that is less tied to hardware.

LTSB provides a pared-down Windows 10 user experience that could limit I&O leaders' flexibility with new devices, applications, management approaches and work styles, and could result in software support issues

The goal of LTSB, is to minimize the number of OS changes that could impact application compatibility or operation. As such, many components that are typically considered part of Windows 10 are jettisoned, because they are updated too frequently or rely on OS facilities that are updated regularly.

Consumer Apps

While losing the consumer-targeted inbox applications might seem like a good thing, the reality is that many of the apps could have applicability in the business environment. In particular, Maps, Camera, Photos, Weather and Skype could be part of a business workflow and certainly could be called up by office workers in day-to-day activity.

Support for Universal Windows Platform Applications

The Windows Store app is also excluded, even in the form of the private store. Universal Windows Platform (UWP) apps, including the mobile versions of Office, are meant to constantly evolve, and, because the UWP subsystem will not get updated in LTSB, public store apps cannot be supported. To enable the use of UWP apps written internally, UWP apps can be sideloaded, but without the store, all updates must also be sideloaded and managed. This could create challenges for third-party UWP applications.

Newer UX Technology Is Missing or Limited

Cortana is missing, and speech, pen and holographic support are limited. These are new leading-edge technologies that undergo frequent updates. While dropping these won't impact existing workflows, it will have an impact on future deployments and could limit organizations looking for a more aggressive move toward the digital workplace.

No Edge Browser

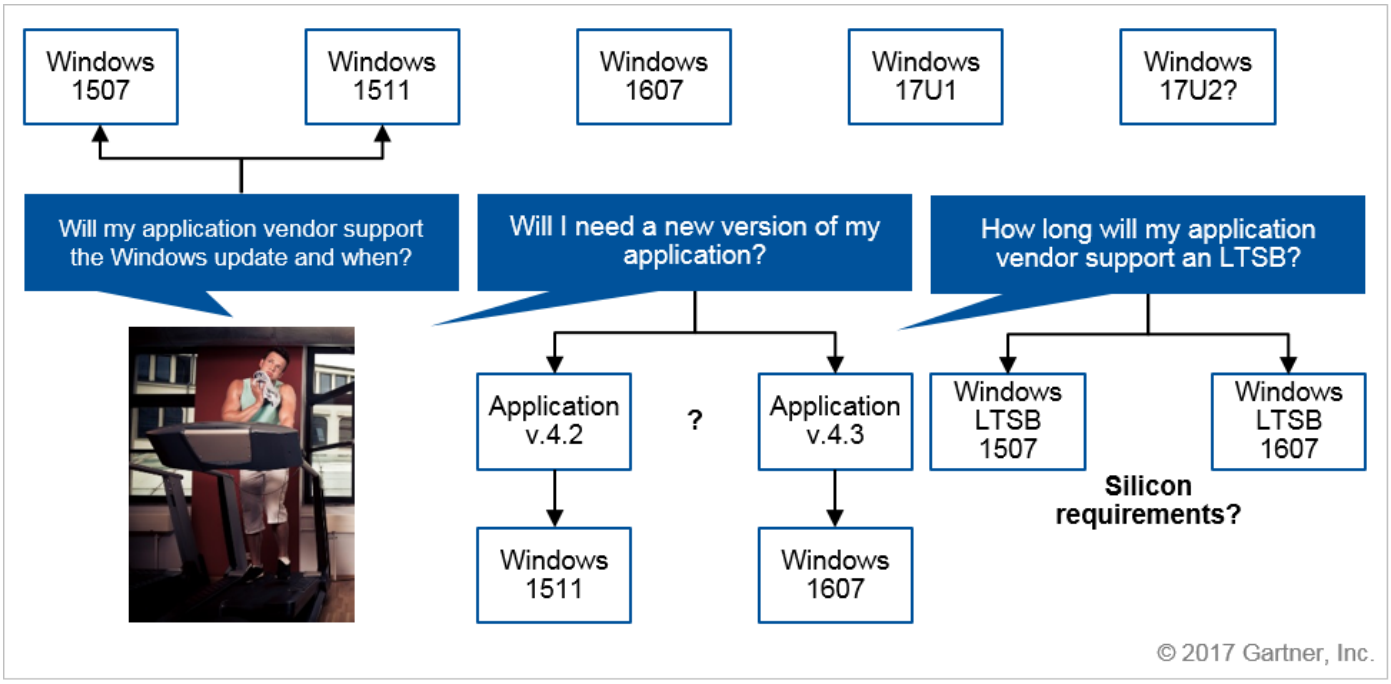
Edge is new and somewhat immature; as a result, it is evolving quickly. As with competing browsers (like Google Chrome), keeping current means frequent updates to match evolving specifications and market changes. For whatever reason, Microsoft has tightly coupled Edge to the OS, meaning that it can't update Edge at a different rate than the base OS, and hence has pulled it from LTSB. Customers using LTSB will have to use either Internet Explorer or a third-party browser (such as Chrome) and keep it up-to-date via software distribution.

Some of these exclusions may, in fact, find their way back into the LTSB over time as they mature, but that is unlikely to happen any time in the next few years.

Vendor Application Support Questions

A likely outcome of the different versions of LTSB is that third-party software support may suffer over time. LTSB use will not be common. As such, application vendors may only support LTSB with application versions that were shipping at the time the LTSB shipped. I&O leaders who want to run newer versions of an application may need to have their organizations upgrade to a newer LTSB to receive independent software vendor (ISV) support for an updated application, and, conversely, those who plan to update their LTSB version and not update applications could be forced to update applications to remain supported. Those who settle on running different LTSB versions on different hardware could be faced with having a mix of application versions that may not work or that may increase risk. This could lead to fragmentation in the market. We expect some software vendors will limit support for LTSB (see Figure 3).

Figure 3. Windows Update Levels and Vendor Application Support



Source: Gartner (February 2017)

Recommendations:

- Analyze the components missing from Windows 10 LTSB and determine if there is a cost to losing them.
- Discuss support with vendors and developers of your most critical applications to help determine which option is best for your organization based on application support: Windows 10 LTSB, Windows 10 CBB, RDS or VDI.

I&O leaders who don't adapt to Microsoft's (and the industry's) faster pace will fail to implement their organizations' digital workplace initiatives

Microsoft plans to update Windows 10 once or twice a year, and Office 365 ProPlus three times each year (using the deferred channel, which bundles four monthly consumer updates). Still, I&O leaders want to retain full control of devices and manage their infrastructure the same way they have for the past 20 years.

Windows 10 and Office 365 are key infrastructure to the digital workplace. While continuing to try to control users' devices, some endpoint computing managers also lament how legacy technology holds them back from delivering applications and making other changes demanded by parts of the business to allow it to be more competitive. Being able to stay current on PCs to retain the ability to deliver new applications and support new work styles is critical to the productivity of users and success of the digital workplace.

Recommendations:

- Shift from a project to a process approach that treats validation of updates as an ongoing assembly line process (see "How to Deal With Windows 10 Accelerated Updates on PCs").

- Rely more heavily on piloting rather than testing, where possible.
- Use VDI, remote desktop and browser-based apps to minimize the impact of frequent OS changes.
- Review processes to remove unnecessary steps and validations.