

# Microsoft Modern Desktop

## Making the shift to a modern desktop with Microsoft 365



Microsoft 365 comprises the best of Windows 10, Office 365 ProPlus and Enterprise Mobility + Security giving you a direct path to a modern desktop.

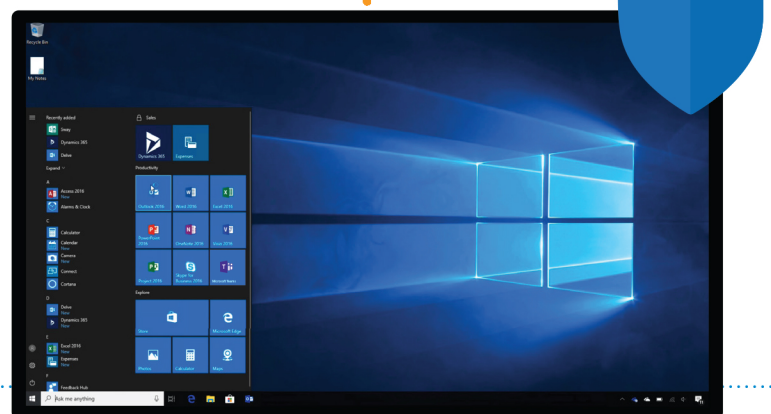
A modern desktop is Windows 10 and Office 365, kept up to date. Making the shift to a modern desktop helps you to foster a highly secure workspace, empowered by the latest productivity, teamwork and collaboration experiences for your organization. As an IT Admin, making the shift also removes much of the pain of keeping your desktop environment secure with built in end point protection and easier access to the latest security updates, as well as improved information protection and integrated identity and access management. Deploying new PCs or getting PCs back to a business ready state gets easier and you can keep your user populations happy and secure with the most up to date experiences.

This is best achieved through Microsoft 365, which brings together Office 365 with Windows 10 Enterprise, and Enterprise Mobility + Security, in a complete intelligent solution.

The guidance that follows summarizes your top considerations, starting with some of the key things that may have changed since your last major desktop deployment, followed by a pragmatic step by step approach to making the shift.



Enterprise Mobility + Security

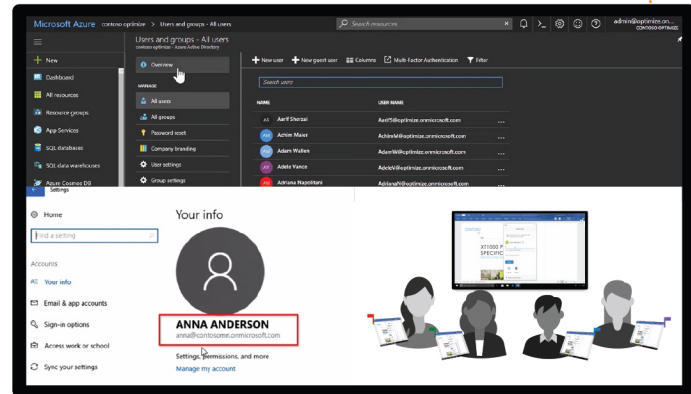


Modern desktop with Microsoft 365

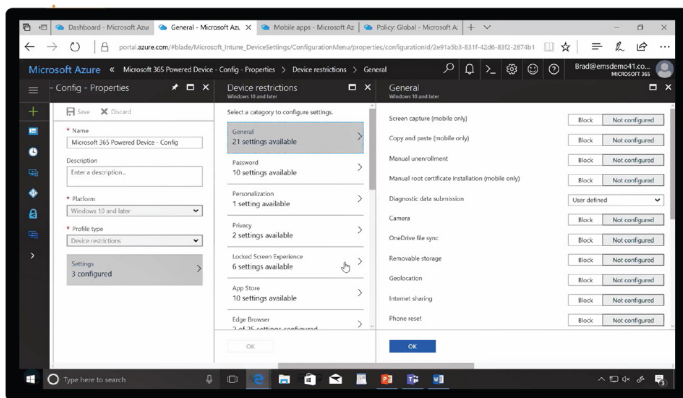
## Highlights and key differences compared to previous desktop deployments

If you haven't shifted your desktop environment for a while, you will notice that a few things have evolved since your previous desktop deployments. Here are the top areas to be aware of as you plan your migration.

- At the core of modern desktop and its connectivity to cloud productivity, security and management services, is the modern Identity and Access Management service with Azure Active Directory. This enables single sign on and secure connectivity across cloud services. It also enables new options for device and configuration management – without requiring connectivity to your local network or systems management tools.
- Next in-place upgrade is now the recommended approach in Windows 10 instead of the wipe-and-load reimaging process you might be using today. This preserves apps, data and configurations from the previous installation.



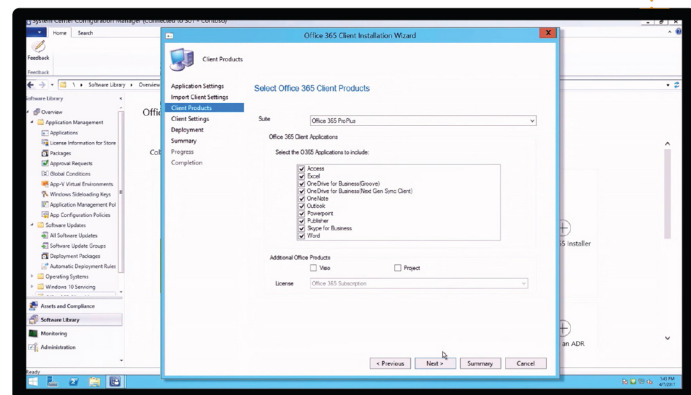
*Azure Active Directory, Azure AD Join and co-authoring enabled by Office 365 ProPlus sign-in*



*MDM controls in Microsoft Intune to manage Windows 10 devices*

- If you haven't switched from BIOS to UEFI, now's the time. UEFI not only speeds up boot times, it is required to enable many of the modern security capabilities in Windows 10. There are tools available to make this switch after or during upgrades to Windows 10.
- Furthermore Microsoft Intune can be used to manage your Windows 10 devices like other mobile devices from one place. Now you can also co-manage your Windows 10 devices with System Center Configuration Manager together with Microsoft Intune.

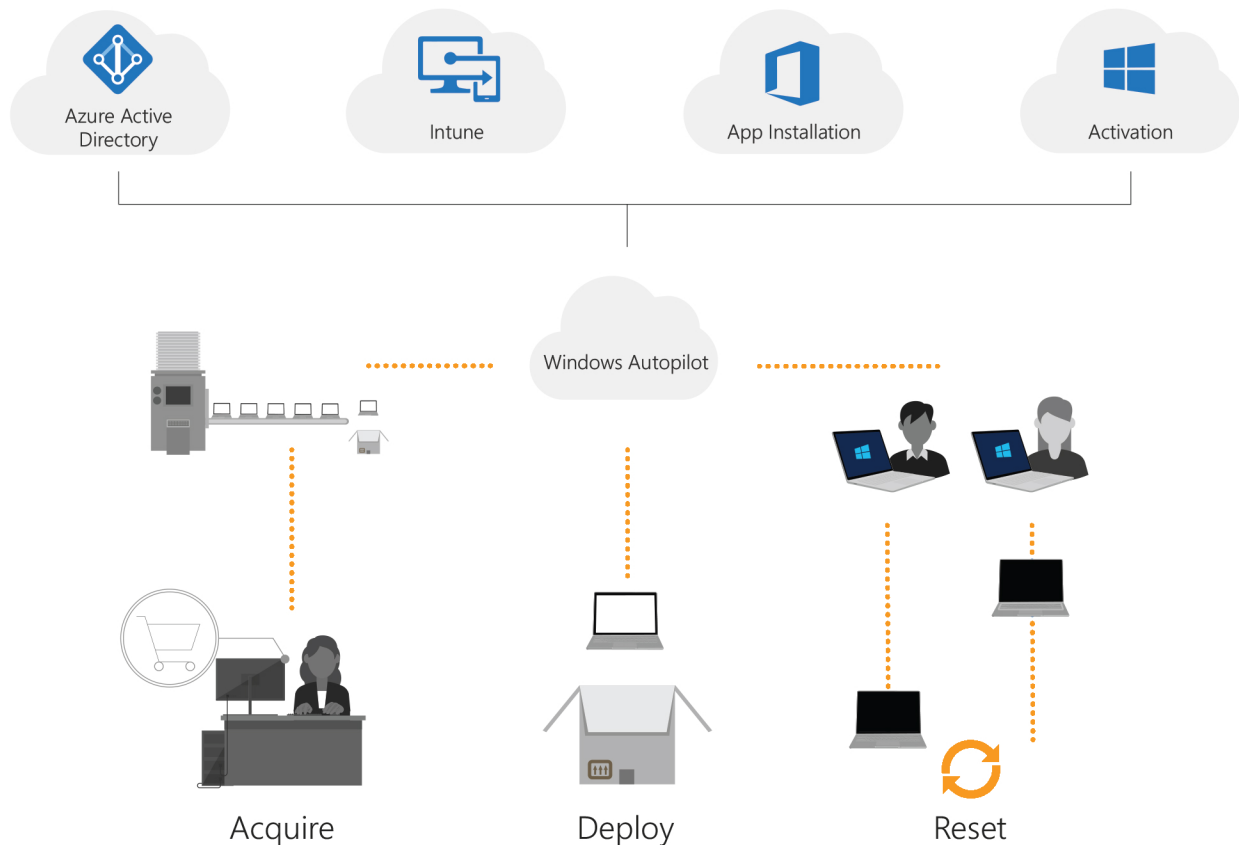
- Office 365 ProPlus is the preferred option for Office desktop apps and they have new installation options that are different than the MSI-based packages in the past. Don't worry, it is still a local copy of Office and you can still use your deployment tools to provision and configure the apps.
- Update behavior can now be managed for Office 365 ProPlus at install time and now for Windows using the Windows Update for Business service by configuring policy or using MDM tools.



*Deploying Office 365 ProPlus with System Center Configuration Manager*

## Windows Autopilot deployment service

Microsoft has introduced a new process to deploy Microsoft 365 devices called the Windows Autopilot deployment service – this allows you to work with your hardware providers to configure your devices so that the moment they connect to the Internet from any location during Windows 10 initial setup, you can begin customizing the device and experience.

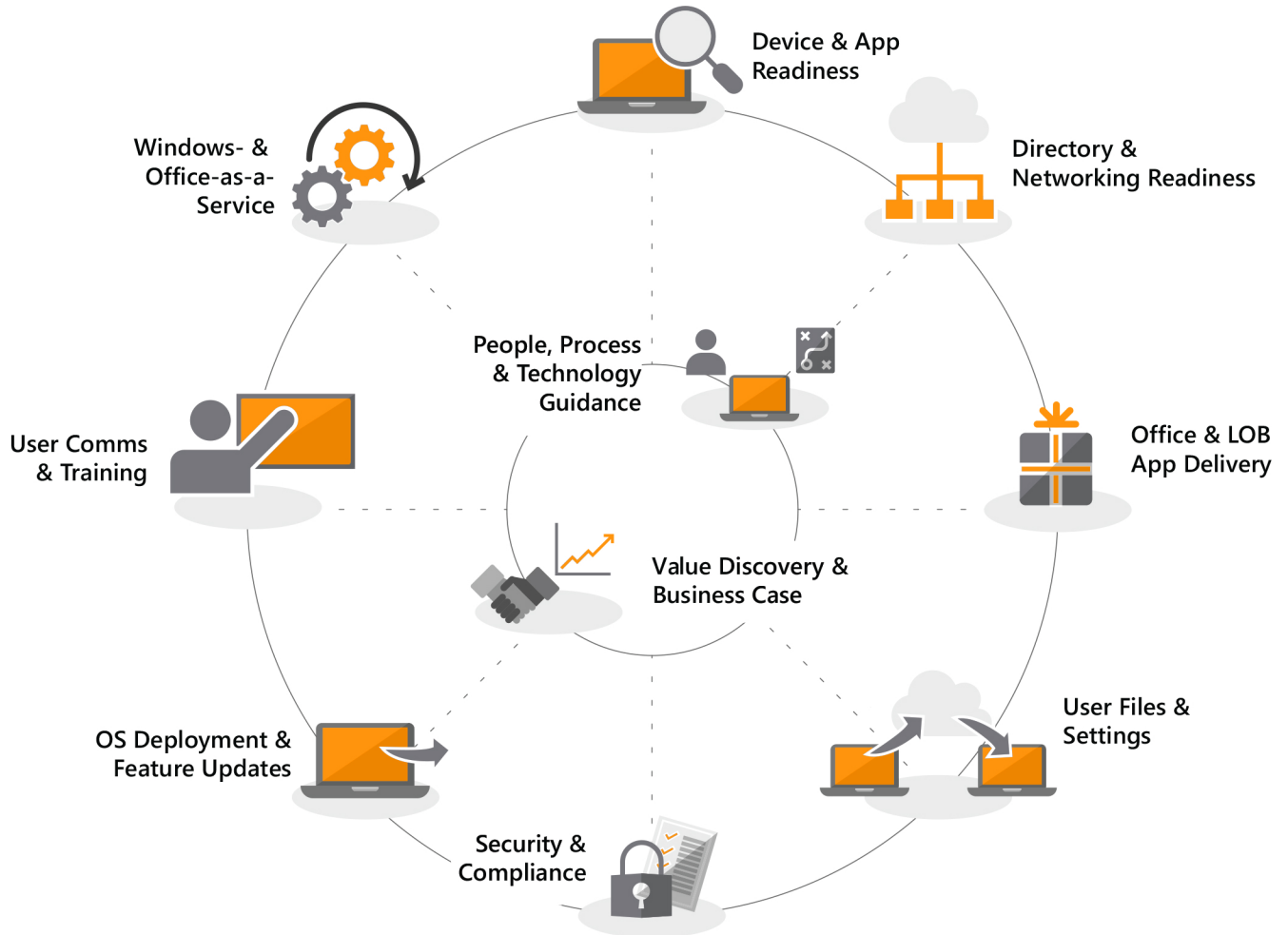


*Windows Autopilot deployment service*

Windows Autopilot brings together Enterprise Mobility + Security Suite, Office 365, and Windows 10 into a single, cohesive experience for IT as well as end users. With the latest updates, Windows Autopilot now spans each step in your device's lifecycle from acquiring and deploying devices to ongoing resets. This is useful whether you need to transfer ownership of a device from one user to another, or break/fix a malfunctioning device. The goal is to give you a zero-touch IT experience so that you can reset your devices and bring them back to a fully business ready state with the click of a single button in Microsoft Intune.

Despite the new tool and connection options, you can continue using preferred OS deployment tools like System Center Configuration Manager and the Microsoft Deployment Toolkit.

## New tools to plan what you need to do and assess your endpoints

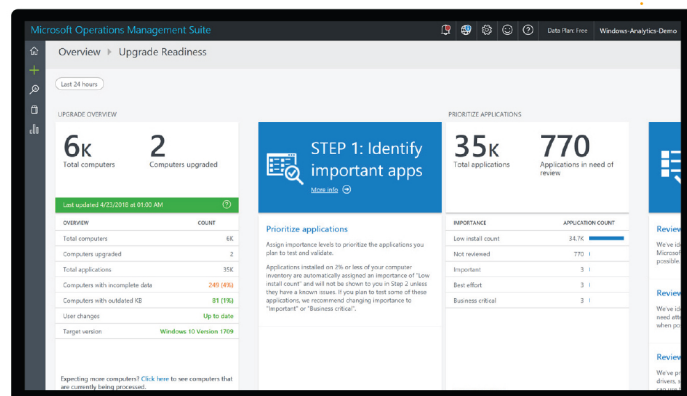


Modern desktop deployment planning and implementation process.

The first step of your deployment is to create a high-level plan and get necessary approvals and project sponsors. Next you can assemble your teams and assign areas of responsibility across the following eight steps:

### 1. Device & App Readiness

Now with the broad plan in place, you can focus on assessing your current devices. For that, we've built new tools with Windows Analytics: Upgrade Readiness to help identify devices, OS versions, apps, add-ins, drivers and more to assess those against compatibility information to help target your initial deployments. Continue with this tool as you test and mitigate for app compatibility.



Windows Analytics Upgrade Readiness

2.



**Directory and Networking Readiness** is the next step and is your plan for implementing Azure Active Directory – if not currently in use – as well as getting your network ready for moving system images, application packages and user files across your network to support later deployment and migration activities.

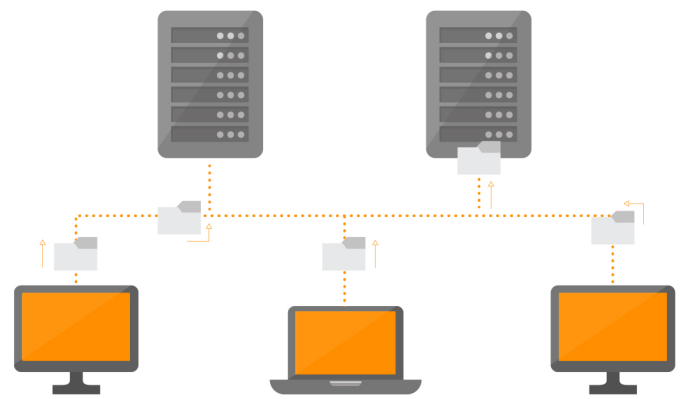
3.



**Office and Line of Business App Delivery** carries on from readiness planning and is the process of collecting app packages, packaging applications, making necessary changes to intranet or web-based apps to support modern browsers and determining how apps will be delivered to users' devices. Common delivery options include installation as part of an installation sequence, preinstalling in captured images, installation via Business Store or user self-installation from a Company Portal in Intune or Software Center in System Center Configuration Manager (ConfigMgr).

4.

**User Files and Settings Migration** is necessary in PC replacement scenarios and can be accomplished by implementing services like file sync in OneDrive for Business in advance of PC replacement, using the User State Migration Tool as part of the ConfigMgr or MDT installation sequence at deploy time or using custom solutions to copy files from the source PCs typically to a network share and finally back on to new PCs. This step is often a timing bottleneck for PC replacement, due to the physics involved in transferring sometimes hundreds of GB per PC each direction. Leveraging cloud file sync with OneDrive for Business and files on demand can help limit the amount of files delivered back to the new PC.



*File shares to stage user state*

5.



**Security & Compliance** is the targeting of which new capabilities are implemented as well as how to prepare for existing security and compliance tools. A common consideration is how to deal with third party disk encryption for in-place PC refresh or upgrade scenarios; these services can be challenging to disable in Windows 7 and re-enable in Windows 10. Further considerations include anti-malware strategies and which new capabilities to implement in Windows 10.

New capabilities in Windows 10 virtualization-based security can prevent credential theft, protect against browser-based exploits and malicious code execution by isolating core processes and secrets from the operating system. Office 365 Advanced Threat Protection (ATP) protects against some of the most common threat vectors – malicious email attachments in Outlook and protection against unsafe hyperlinks across Office apps. Windows Defender ATP is a unified platform for preventative protection, post-breach detection, automated investigation, and response. Additionally, security and compliance policies should be considered for Group Policy or device policy when managed via Microsoft Intune or other mobile device management.

6.

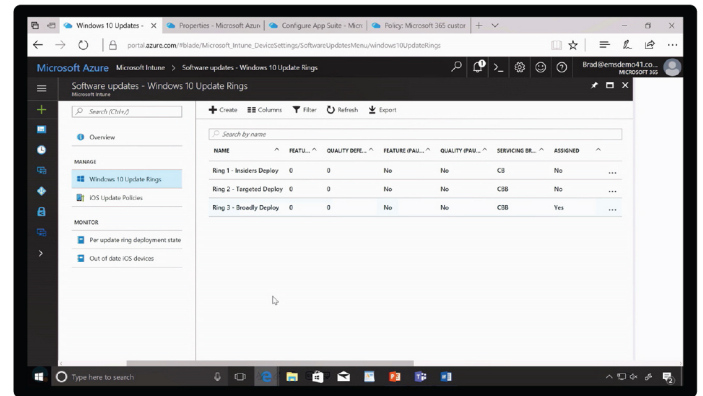


## OS Deployment and Feature Updates

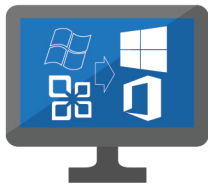
The next planning phase is for OS Deployment and Feature Updates. The deployment and servicing functions here are combined because Feature Updates use a process similar to in-place upgrades and follow similar hardware and app validation processes.

Prior to carrying out OS Deployment, it's important to plan how you phase the roll-out. The recommended approach is to use deployment rings, where a representative set of hardware and apps is targeted to early adopters in your organization. You can use Windows Analytics to target PCs least likely to experience hardware or software issues and note which devices and applications pass or fail post install.

There are three primary deployment types when moving to a new operating system:

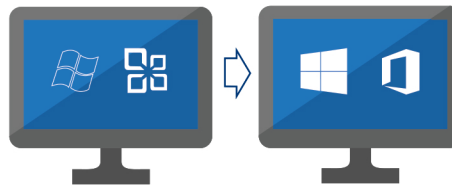


*Deployment rings used to validate updates and upgrades before broad deployment*



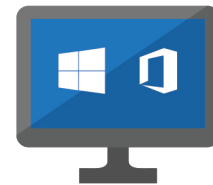
### PC Refresh

PC refresh – this is an upgrade to an existing computer that will remain with the same user. It is accomplished via in-place upgrade or in-place wipe-and-reload. In these cases, user state using either install option can remain on the local disk and in the case of in-place upgrade, apps can also remain installed. You can customize PC refresh by using an automated task sequence to update application versions or remove unwanted files and apps.



### PC Replacement

PC replacement – this is when a user's existing PC is replaced with a new or different PC. In most cases this involves copying user files and settings from the existing PC to the new PC – typically via temporarily storing those files on a network share and returning them to the new PC. OneDrive for Business can also be used with known folders to sync files from the source PC to OneDrive, then users can select which files sync back to the new PC.



### New PC

New PC – this is when a user is given a new PC without the expectation to move files from another PC. This scenario is used for new users or cases where important files are stored outside the local hard drive – such as desktop or app virtualization – or cases when users are tasked with backing up and restoring their local data.

In addition to the tools and processes you may already be using to deploy Windows or Office for these three deployment types – such as ConfigMgr or the Microsoft Deployment Toolkit - For new PC scenarios, the new Windows Autopilot deployment service allows you to work with select OEMs to configure devices before shipping to end users and PCs can be customized as part of the setup process when users connect to the Internet and sign in to the device. The process can continue by leveraging Microsoft Intune to install apps – like Office 365 ProPlus – and configure policies over the web to make the device business ready.

7.



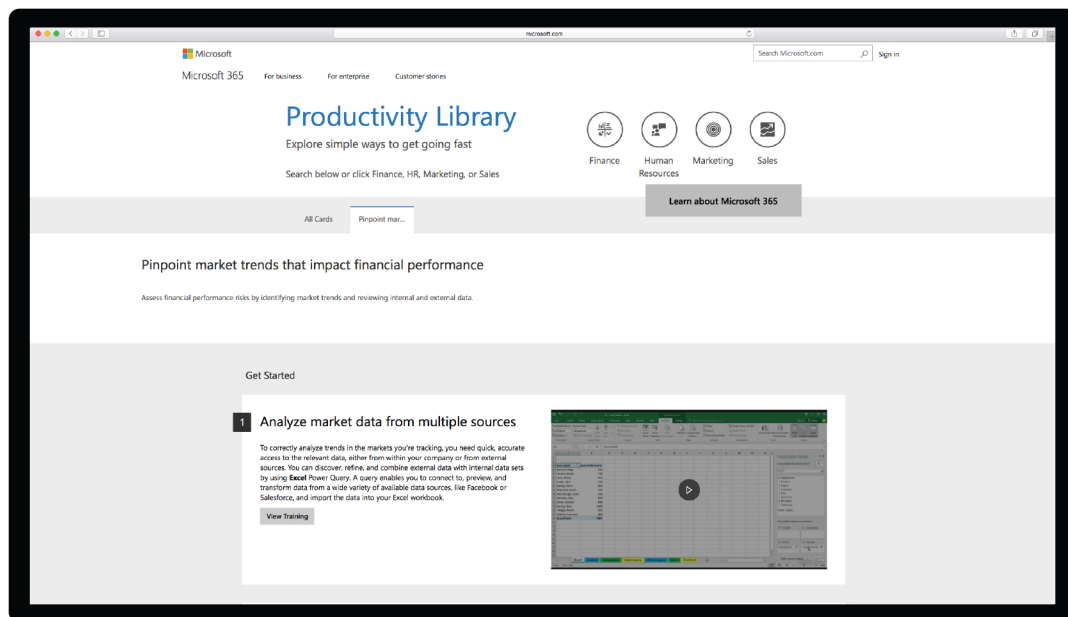
**User Communication and Training** is critical to driving usage of new capabilities for enhancing teamwork, communications and productivity.

Before broad deployment is targeted to users outside early adopter rings, User Communication and Training should be planned to drive desired changes in how people use new capabilities in Office, Windows or other line of business apps and services.

If you're deploying Office 365 ProPlus for the first time, this is when you can communicate the benefits of signing in to Office apps and saving files to OneDrive or SharePoint locations to enable easier sharing, reduce file branching and enable real-time co-authoring. Detailed training templates for these and other local or browser-based apps, like Teams and Planner or in-app capabilities like attaching to OneDrive in Outlook or PowerPoint Morph and Designer are available.

Windows 10 user capabilities like Windows Hello to log in securely with biometrics, Start Menu updates to personalize your Windows experience, Timeline to easily get back to what you were working on, Focus Assist to help minimize distractions, Nearby Sharing Virtual Desktops, Cortana and more are great differentiators to inform and prepare users to take advantage of.

You can use Microsoft FastTrack services and resources like the [Productivity Library](#) to help drive usage of new capabilities. Additionally, the reporting and analytics are available via the Microsoft 365 and Office 365 admin portals as well as built-in and integrated Power BI usage dashboards. With Windows 10 and Office 365 ProPlus, we made the shift to delivering both experiences as a service, which introduces new ways for how we build, deploy and service Windows and Office.



*The productivity library in Microsoft 365 in FastTrack offers user training assets*

## 8. Windows and Office as a Service

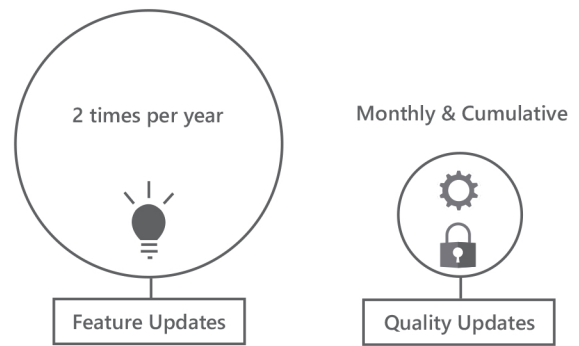
There are a couple of concepts core to Windows and Office as a service. The first is semi-annual Feature Updates which deliver new capabilities in the Fall and Spring. Second are monthly cumulative Quality Updates which contain security, reliability and bug fixes. Office 365 ProPlus also has the option for a Monthly Channel with feature updates that are fully-supported.

Each semi-annual Feature Update release will be serviced for 18 months from the initial date of release, so you have the option of skipping semi-annual updates, while continuing to receive monthly Quality Updates.

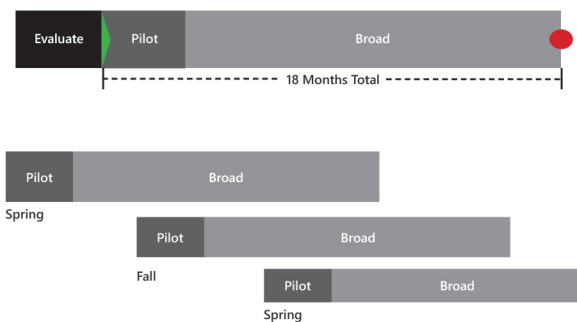
To help ensure all of your devices are being kept up to date with the latest updates, we've also added Update Compliance capabilities to Windows Analytics.

So for any Feature Update release there are usually three phases to consider from the IT point of view – evaluation, piloting and broad production deployment. In fact, the process follows a scaled down version of the desktop deployment process highlighted here, so the skills and tools used will help you keep your desktops current and up-to-date with the latest capabilities.

Hopefully this gives you a better idea of how to plan your path to a modern desktop. While there may be some up front learning to take advantage of new resources and updated approaches, the value of making the shift should outweigh the initial investment. Microsoft's comprehensive guidance should also help you to move to Windows 10, Office, and take advantage of modern management with Enterprise Mobility + Security, more efficiently.



*Update Types in Windows 10 and Office 365 ProPlus*



*18 month support cycle for semi-annual updates*

## Want to learn more?

**CrucialLogics** is an IT consulting company that is in the business of helping CIOs and other senior IT leaders accomplish their goals from inception to implementation. As a one stop shop for everything Microsoft that enables complete end-to-end solutions, we help companies enter new markets, transform their current IT investments, and transition smoothly to new technology systems.