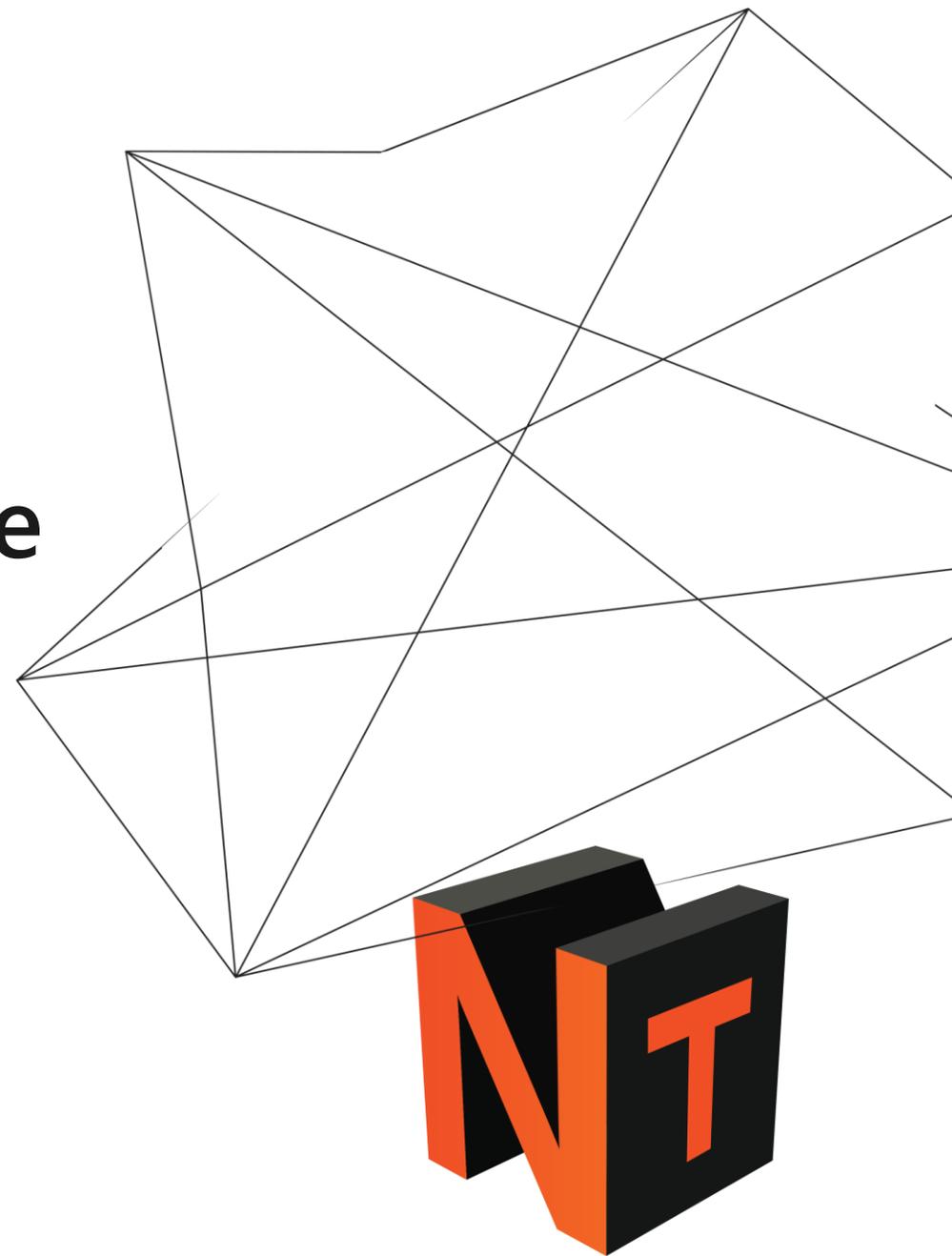


Prva tri leta Windows 10 - kaj je novega in kaj morate vedeti?

Slavko Kukrika
MVP in prijazen fant



Agenda

- ➔ Windows 10 is Windows as a Service
- ➔ Editions and features
- ➔ New and improved in April 2018 Update
- ➔ Mobile devices are on the rise
- ➔ Traditional and modern deployment

Strojna oprema se razvija

CPU v mnogo oblikah

Ultra-mobilni

Minimalna poraba

Kompaktni



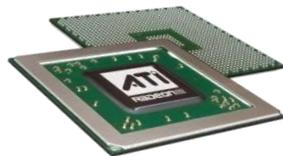
64-bitni procesorji

Nova stopnja zmogljivosti



Grafični procesorji

(Moorov zakon)² in naprej



Omrežja

Wireless vsepovsod

Raznovrstni odjemalci

Hitrejša lokalna omrežja



Procesorji z več jedri

zmogljivejši *in* učinkovitejši

Pomnilniški mediji

Moorov zakon za diske

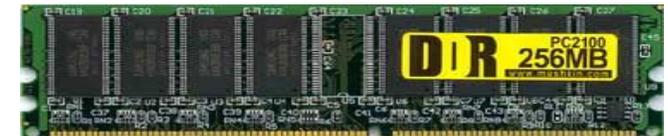
SSD na vsakem koraku



Pomnilnik

Večji

Hitrejši



LCD prikazovalniki

Na vsakem koraku

Večji, cenejši, višja

ločljivost, format 16:9

Dotik kot način interakcije



Work is no longer a location



Send their last email of the day after leaving the office

Information workers use three or more devices for work

Employees are accessing sensitive data from personal devices

Windows as a Service

Traditional deployment

New release every 3-5 years

Attackers take advantage of periods between releases

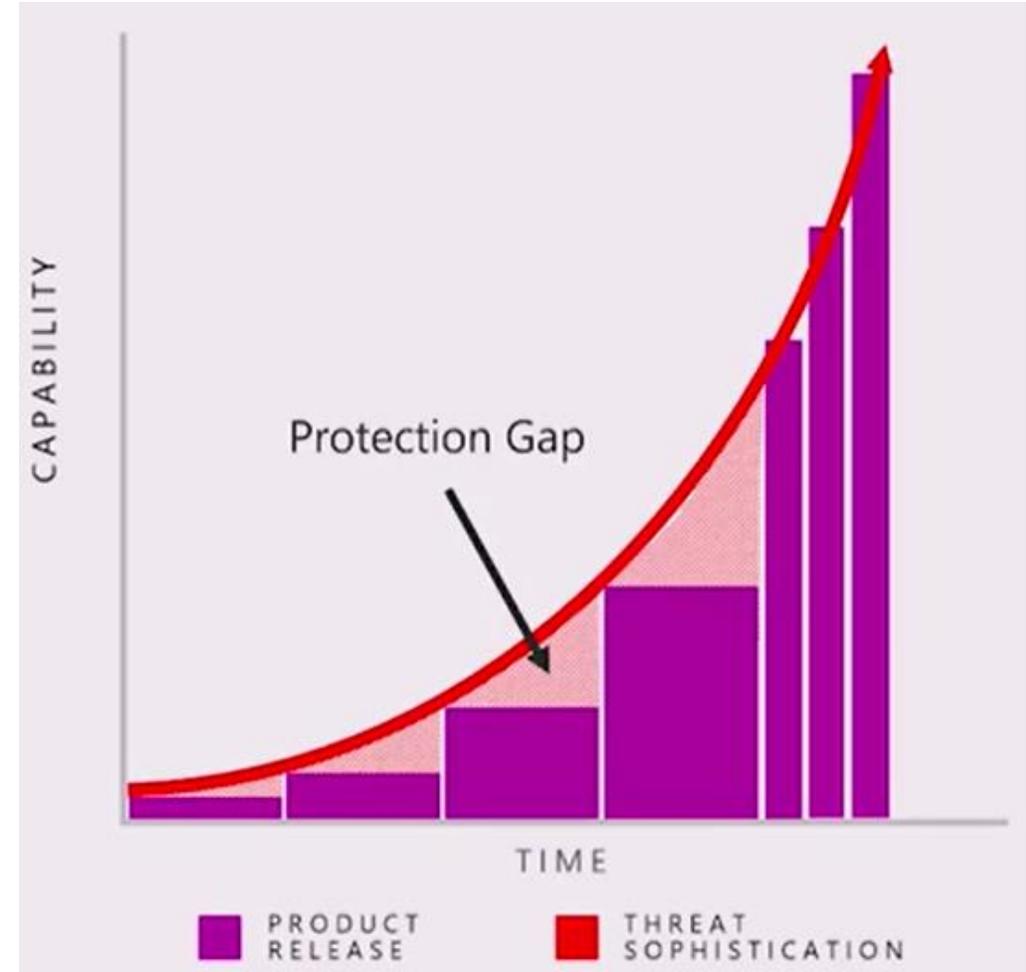
Long gaps between new features

Windows as a Service

New Windows release twice per year

Continual Windows 10 improvements

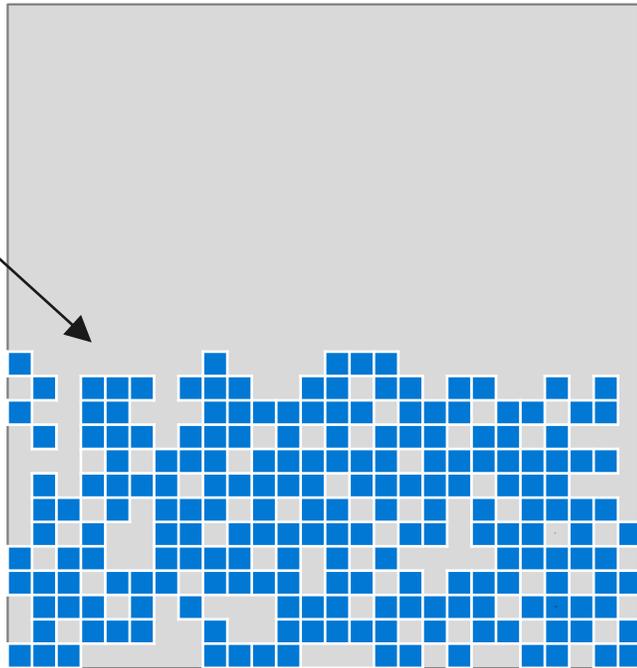
Incremental update each month



Windows as a Service: Servicing Windows

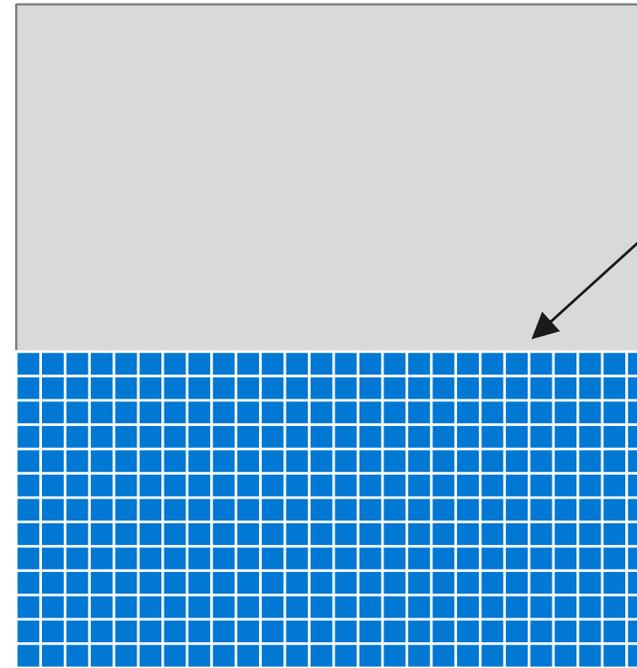
With Windows 7 and 8, servicing choices added complexity and cost, increased fragmentation, and reduced quality

What users
are running



Typical Windows 7 PC:
Selectively Patched

What
Microsoft
is testing



Windows 7 Test Lab PC:
Fully Patched

Windows as a Service: Servicing Windows

Quality Updates

A single **cumulative** update each month
Security fixes, reliability fixes, bug fixes
Supersedes the previous month's update

No new features

Try them out with Security Update
Validation Program (SUVP)

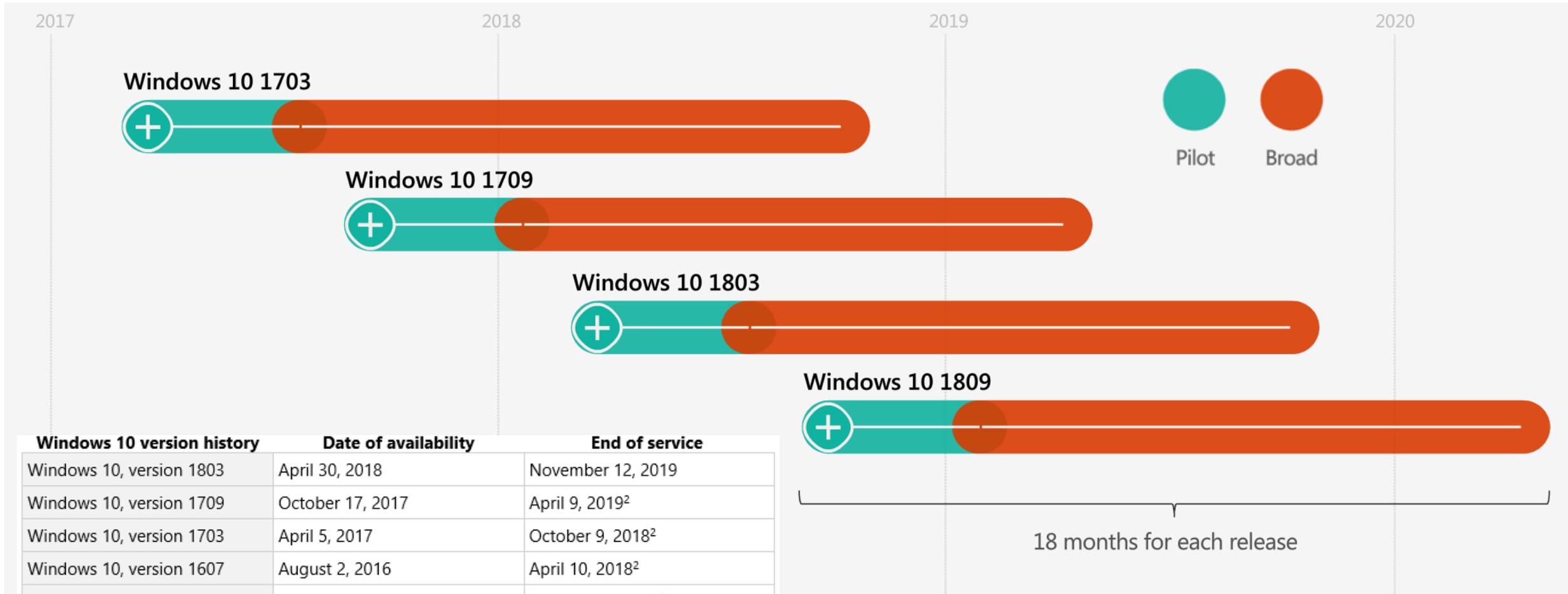
Feature Updates

Targeting **twice per year** with new capabilities
Very reliable, with built-in rollback capabilities
Simple deployment using in-place upgrade,
driven by existing tools
Try them out with Insider Preview

Changes being implemented for older Windows releases as well



Predictable update cadence



Windows 10 editions

Feature	Windows 10 Home	Windows 10 Pro / Wks	Windows 10 Enterprise	Windows 10 Education
Max. physical CPU	2	2/4	4	4
Max. memory (x64)	2 TB	2/6 TB	6 TB	6 TB
MDM support		✓	✓	✓
Domain Join		✓	✓	✓
Remote Desktop	Client only	✓	✓	✓
Boot from VHD		✓	✓	✓
BitLocker and BitLocker To Go		✓	✓	✓
AppLocker			✓	✓
Hyper-V		x64 only	x64 only	x64 only
Windows To Go			✓	✓
Device Guard			✓	✓

* Only some of the Windows 10 features are listed

All editions include:

Start menu and Live Tiles
Continuum and Tablet mode
Cortana
Paint 3D
Microsoft Edge
Windows Hello
Windows Universal Apps



Enterprise E3 and E5

Subscription based, for anyone
Automatic activation
Inherited activation
Automatic step-up from Pro

Comparing Windows 10 editions

	PRO	ENTERPRISE E3	ENTERPRISE E5
SECURITY AND IDENTITY			
Windows Hello for Business	●	●	●
Windows Information Protection	●	●	●
Credential Guard		●	●
Windows Defender Device Guard		●	●
Windows Defender Advanced Threat Protection			●
MANAGEMENT AND DEPLOYMENT			
Domain Join and Azure AD Join	●	●	●
MDM Enablement	●	●	●
Microsoft Store for Business, Private Catalog	●	●	●
Managed User Experience	●	●	●
AppLocker		●	●
Microsoft Application Virtualization (App-V)		●	●
Microsoft User Environment Virtualization (UE-V)		●	●
Cortana Management		●	●
Microsoft Store Management		●	●
Advanced Telemetry Controls		●	●

Microsoft Application Virtualization (App-V)

App-V client included in Windows 10

Virtual applications work like installed applications

Virtual applications use Windows standards

App-V server infrastructure still required (App-V server and sequencer)



Flexible Virtualization

Multiple App-V applications can share the same virtual environment

Virtual applications available dynamically, without installation

Designed to support highly integrated applications



Powerful Management

Web-based management interface

PowerShell scripting allows automation and customization



User Experience Virtualization (UE-V)

Synchronizes settings

Control over what is synchronized

- UE-V settings location templates

- Windows 10 must be domain member

Over different desktops

- Physical devices (PCs, desktops, laptops)

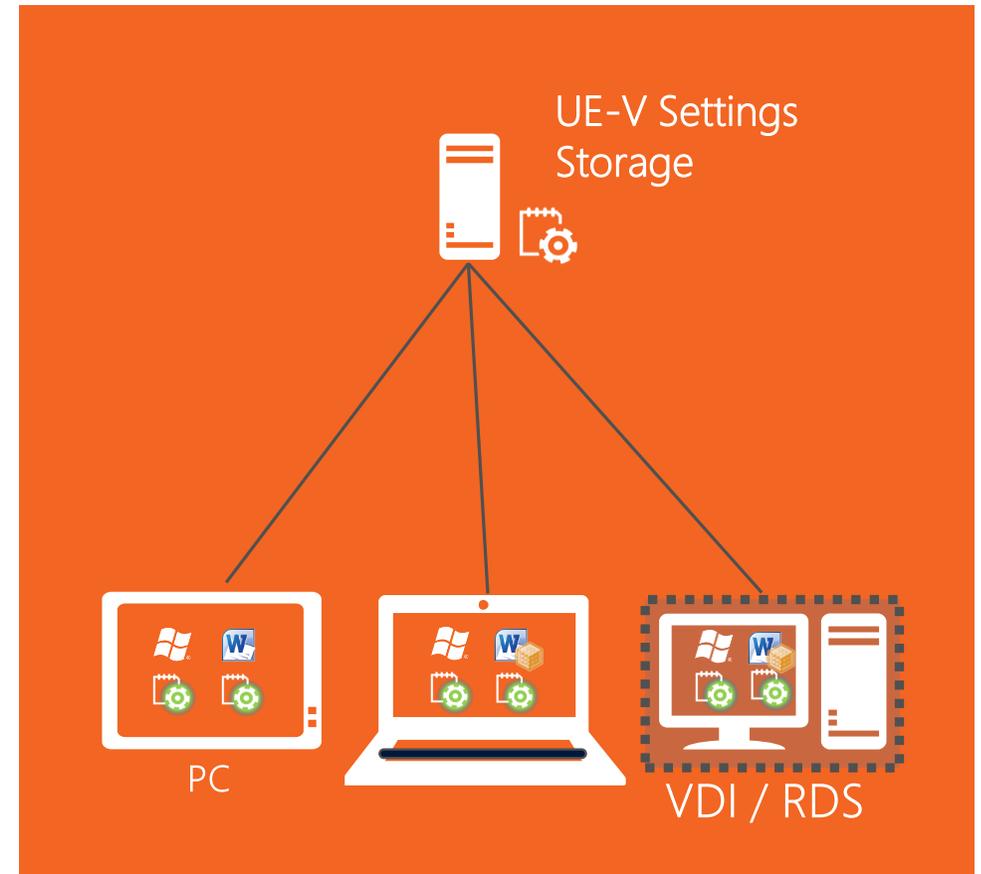
- Virtual desktops (RDS/VDI)

Over different application types

- Locally installed applications

- Virtualized applications (App-V)

- Windows Store applications



File History in Windows 10

File History saves backup copies of user files

Configure File History by using Control Panel or Settings app

File History protects profile folders and libraries, by default

You can protect additional folders by:

- Adding them to protected libraries

- Using the Backup options in the Settings app

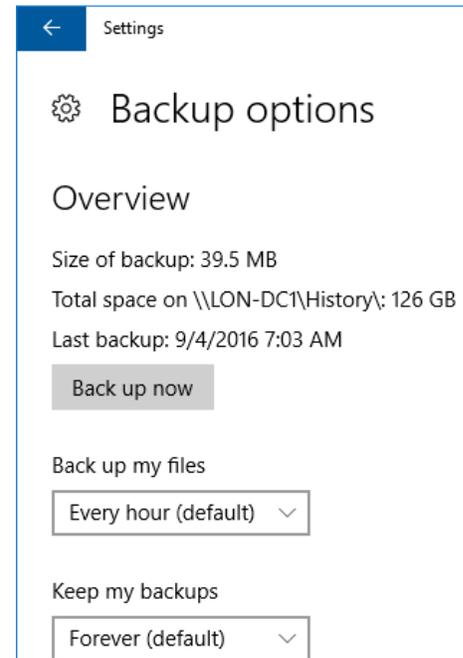
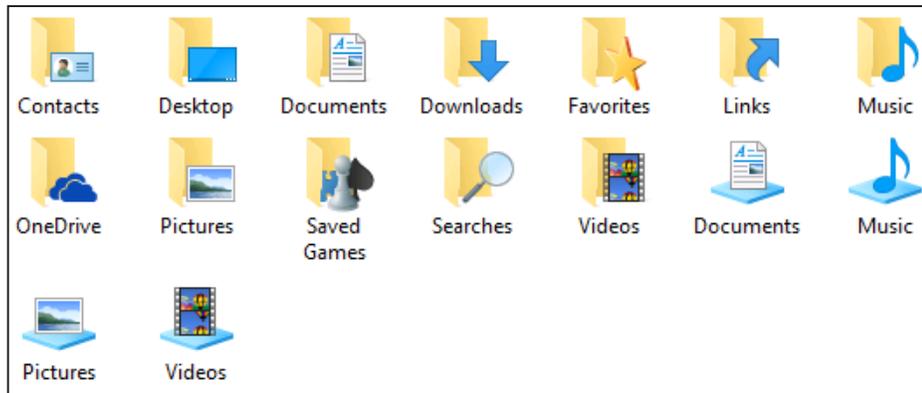
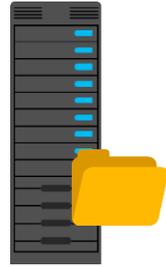
Save copies on local drive, removable drive or network location

File History copies protected files hourly and stores indefinitely

You can preview and restore backup copies

How File History works?

10:00
Restore 8:00



Work Folders



Allow users to access their individual data

Data is stored centrally on traditional file servers

Users can use multiple and various devices for access

- Regardless of whether devices are domain-joined or not

- Devices can run Windows 10, Windows 8.1, Android or iOS

Allow access from any location with the connectivity

- Local copy is available without network connectivity

Ensure compliance with company policy

- Access control, quotas, file screening, classification, and more

- Local data copy can be encrypted and wiped remotely

New in Windows 10 version 1803

Timeline

Nearby sharing

Focus Assist

Data usage management

Audio preferences per app

Delivery Optimization

Dictation

Co-management

Quick Bluetooth pairing

Inherited activation

Setup custom actions

Progressive web apps (PWA)



Windows 10 identity choices

Organization Owned

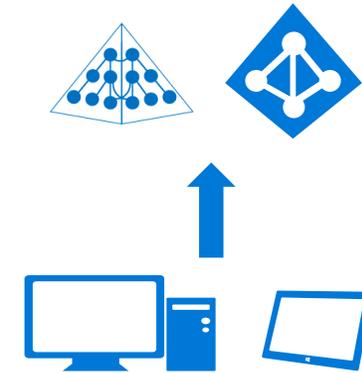


- Computer joins AD to establish trust
- User signs on using AD account
- Group Policy + System Center



- Computer joins Azure AD to establish trust
- User signs on using Azure AD account
- Intune/MDM
- Settings roaming

Personally Owned (BYOD)



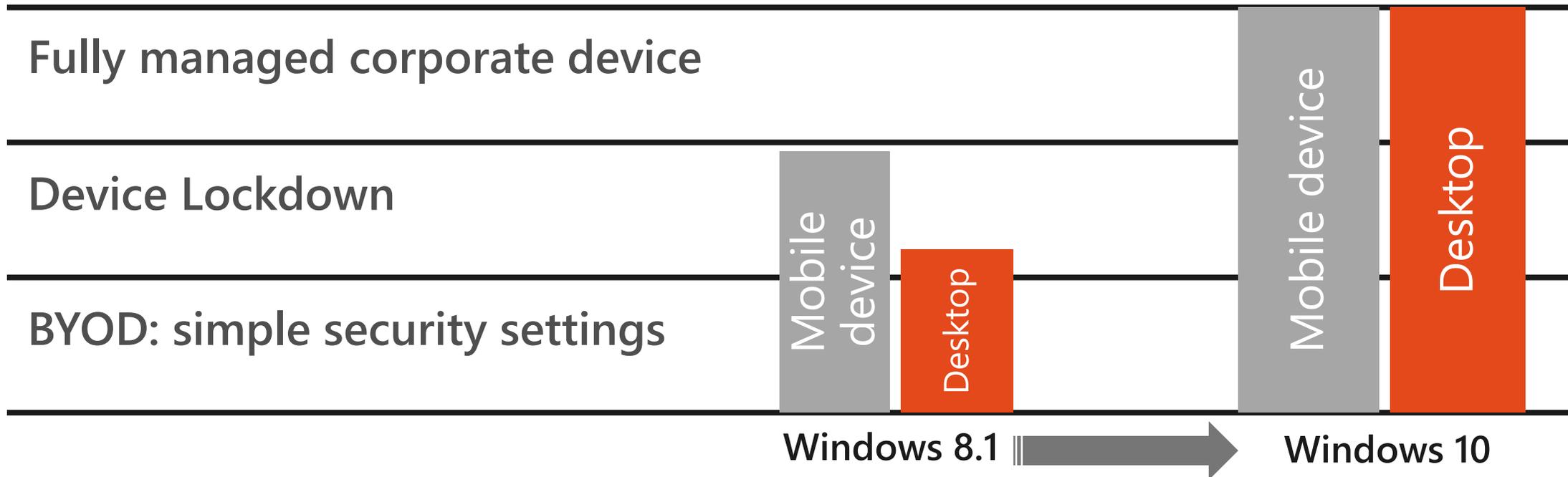
- Computer registers with AD or Azure AD via **Device Registration** to establish trust for remote resource access
- User signs in with a Microsoft account, associates an Azure AD account
- Intune/MDM



Single sign-on to enterprise + cloud-based services

Mobile Device Management (MDM)

Significant investments in added functionality for both mobile and desktop devices



New MDM configuration service providers

Windows 10, version 1803 adds many CSPs:

Policy (including ControlPolicyConflict)

DynamicManagement

CleanPC

BitLocker

NetworkProxy

Office

EnterpriseAppVManagement

MDM Migration Analysis Tool

Determine which GP settings are available as MDM policies

<https://github.com/WindowsDeviceManagement/MMAT>

Group Policy

New policies to support Windows 10 features:

- Start menu management
- Microsoft Edge settings
- Windows Hello settings
- App-V and UE-V settings
- Windows app management
- Windows Update deferral

No major changes in engine
No major changes in GPMC

Capabilities from Windows 8.1:

- Policy caching
- IPv6 support for printers, VPN, targeting

Capabilities from Windows 8:

- Sign-in optimization for DirectAccess
- Better use of larger registry policies
- Remote group policy refresh (GPUUpdate)
- More efficient background processing

GP processing has not changed
4254 GP settings, 30 new in 1803

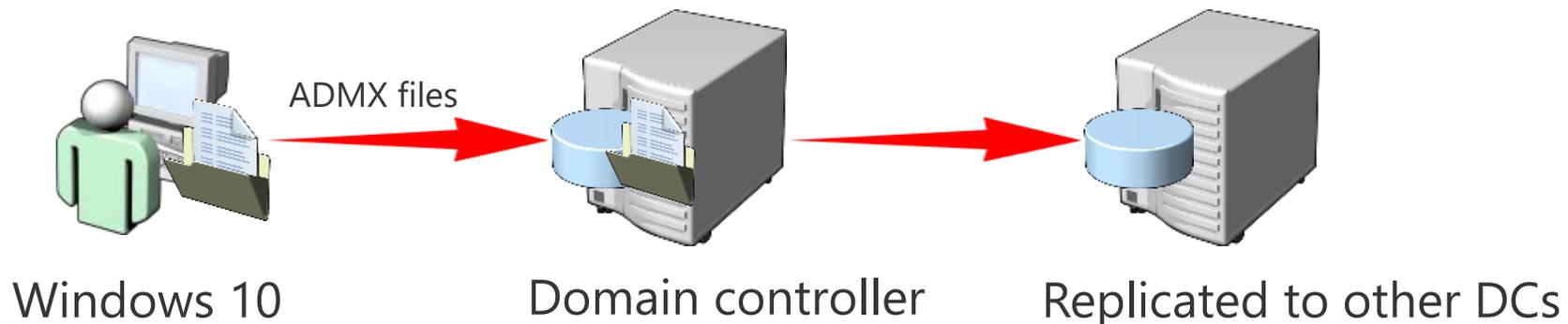
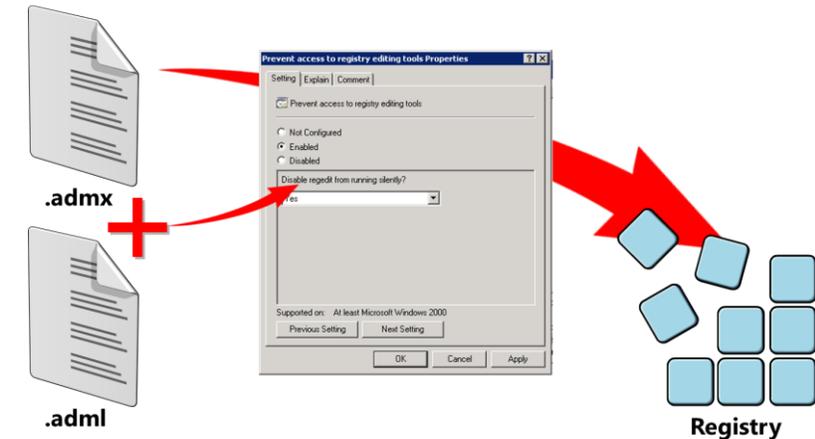
Group Policy administrative templates

Administrative Templates determine what settings appear and how they are grouped in GPO Editor

The central store

Central repository for ADMX and ADML files
Stored in SYSVOL and must be created manually
Detected automatically

Copy new templates to central store



Windows Analytics

A cloud based, telemetry driven suite of services

Built on Microsoft Operations Management Suite Log Analytics

Upgrade readiness

Leverage telemetry to see what's happening in your organization

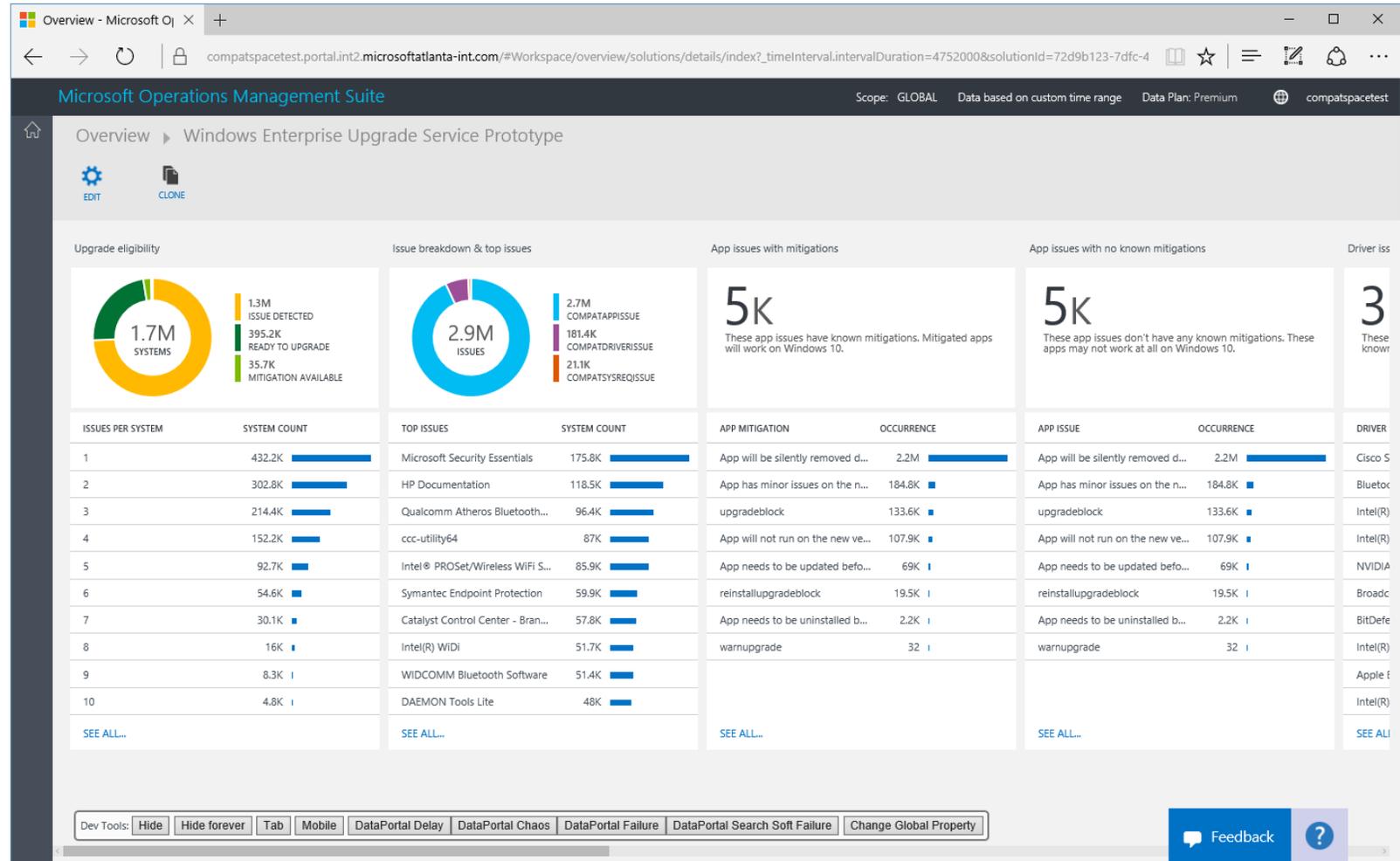
Includes Spectre and Meltdown checks

Update Compliance

Ensure that Windows devices are up to date with the latest updates

Device Health

App Reliability, Login Health



Diagnostic Data Viewer App

<https://www.microsoft.com/en-us/windowsforbusiness/windows-analytics>

Traditional and modern deployment

From Windows 7, 8, 8.1

New Devices

Windows 10:
Stay Current

In-Place
Upgrade

Traditional
Deployment

Provisioning,
AutoPilot

Traditional
Deployment

In-Place
Upgrade

Traditional vs. modern deployment

Traditional deployment

- Replace existing OS with Windows 10
 - Clean installation of default or custom Windows 10 image
 - Often followed by migration
 - Side-by-side or Wipe-and-load
-

In-place upgrade

- Upgrade supported Windows version to Windows 10
 - Preserves all user apps, files, and settings
 - Must use default Windows 10 image
 - Recommended path, used also for installing Windows 10 feature updates
-

Modern deployment

- Provision installed Windows 10 system
- Configure runtime settings and enroll computer into management
- Can be used with Windows 10 only

Windows 10 provisioning

Windows Configuration Designer

Provision Windows 10 to comply with company policy

Provisioning is targeted for various Windows 10 editions

Windows Configuration Designer is used to

Create provisioning packages to apply settings to Windows 10

Bring Windows 10 to existing management solution

Provision desktop devices Configure common settings for Windows desktop devices	Provision Windows mobile devices Configure common settings for Windows mobile devices	Advanced provisioning View and configure all possible settings on provisioned devices
Provision kiosk devices Configure common settings for a device that will run a single app in kiosk mode	Provision Surface Hub devices Configure common settings for Surface Hub devices	

Choose which settings to view and configure

- All Windows editions
- All Windows desktop editions
- All Windows mobile editions
- Windows 10 IoT Core
- Windows 10 Holographic
- Common to Windows 10 Team edition

What is Windows AutoPilot?

Cloud-driven, modern Windows 10 deployment

Managed in Microsoft Store for Business or Intune

Can deploy only known devices

Simplifies and automates OOBЕ setup phase

Can hide some OOBЕ dialog boxes

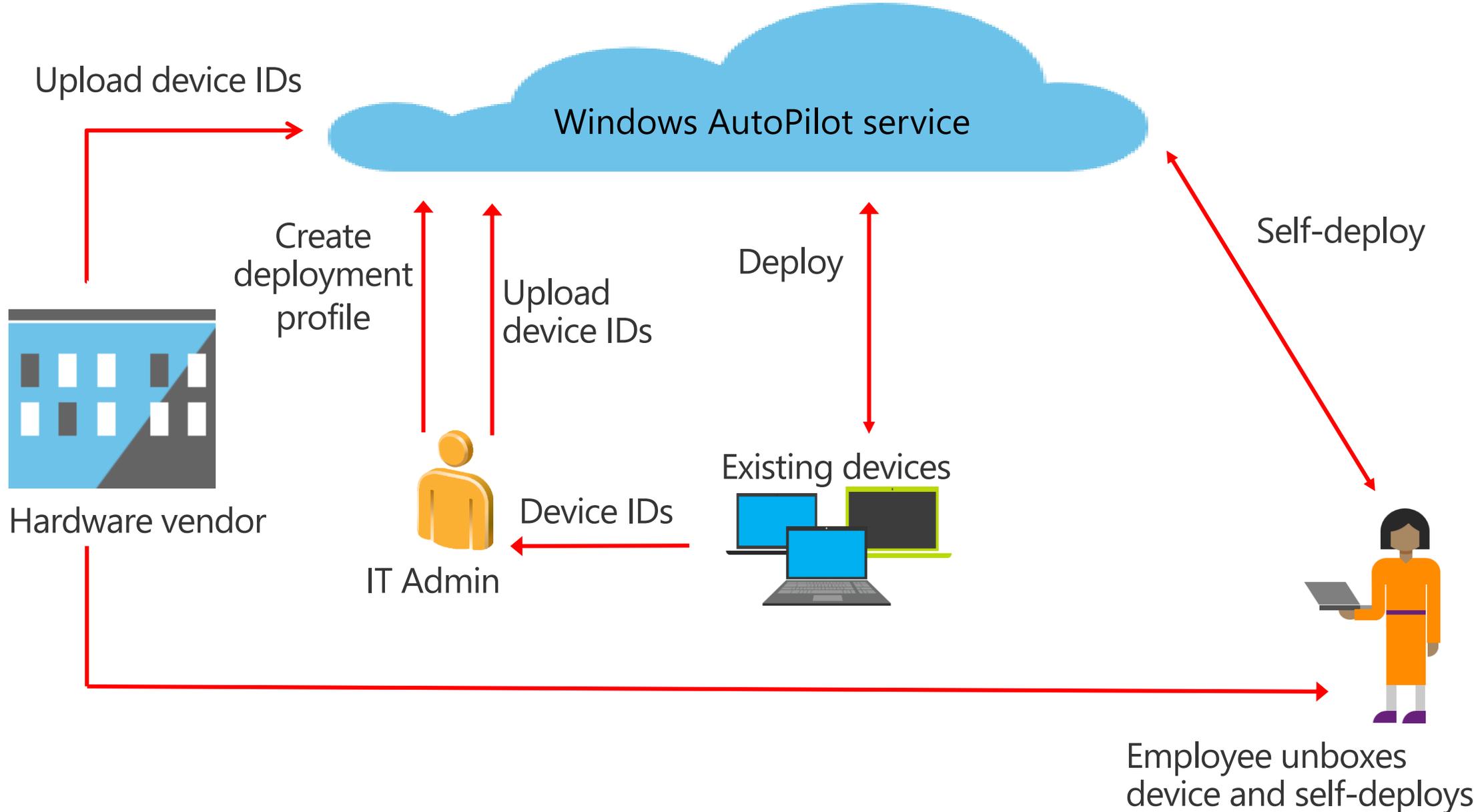
Asks for user company credentials

Adds Windows 10 device to Azure AD

Device can be auto-enrolled to MDM solution

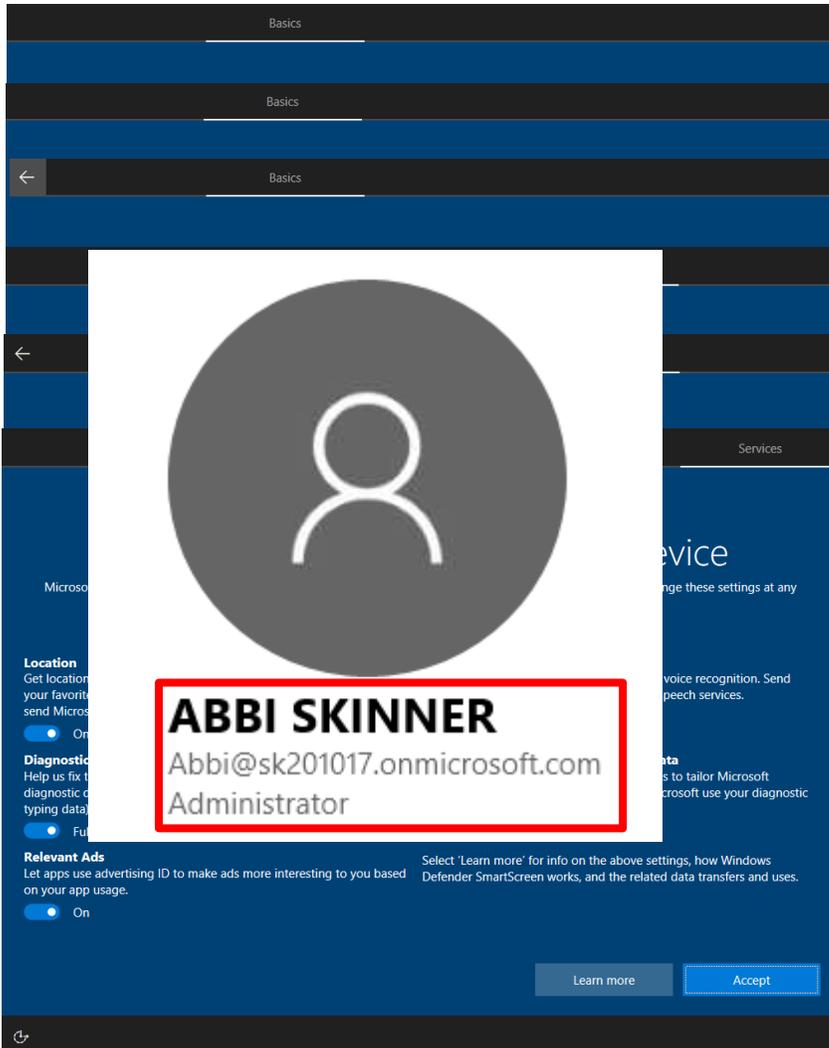
User is not added to Administrators group

How Windows 10 AutoPilot Works?

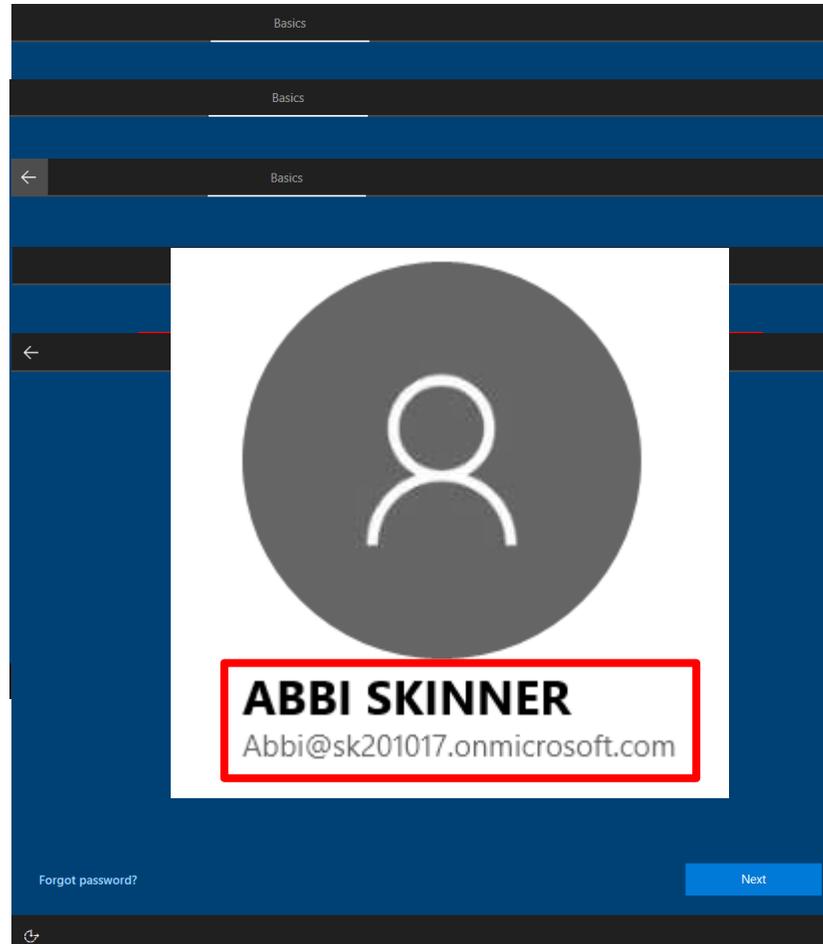


Default OOB E vs. Windows AutoPilot

Default OOB E



Windows AutoPilot



Windows 10 security features

Virtualization Based Security	Device Guard		Device Encryption	
UEFI Secure Boot	Microsoft Edge		Windows Information Protection	Security Management ²
Windows Trusted Boot	Windows Defender	Credential Guard	BitLocker Admin and Monitoring	Conditional Access
Windows Update	Windows Firewall	Windows Hello Companion Devices	BitLocker	Windows Defender Advanced Threat Protection
Trusted Platform Module	SmartScreen	Windows Hello	BitLocker to Go	



Secure your identities



Protect enterprise data



Enhance threat resistance



Secure your devices and connections

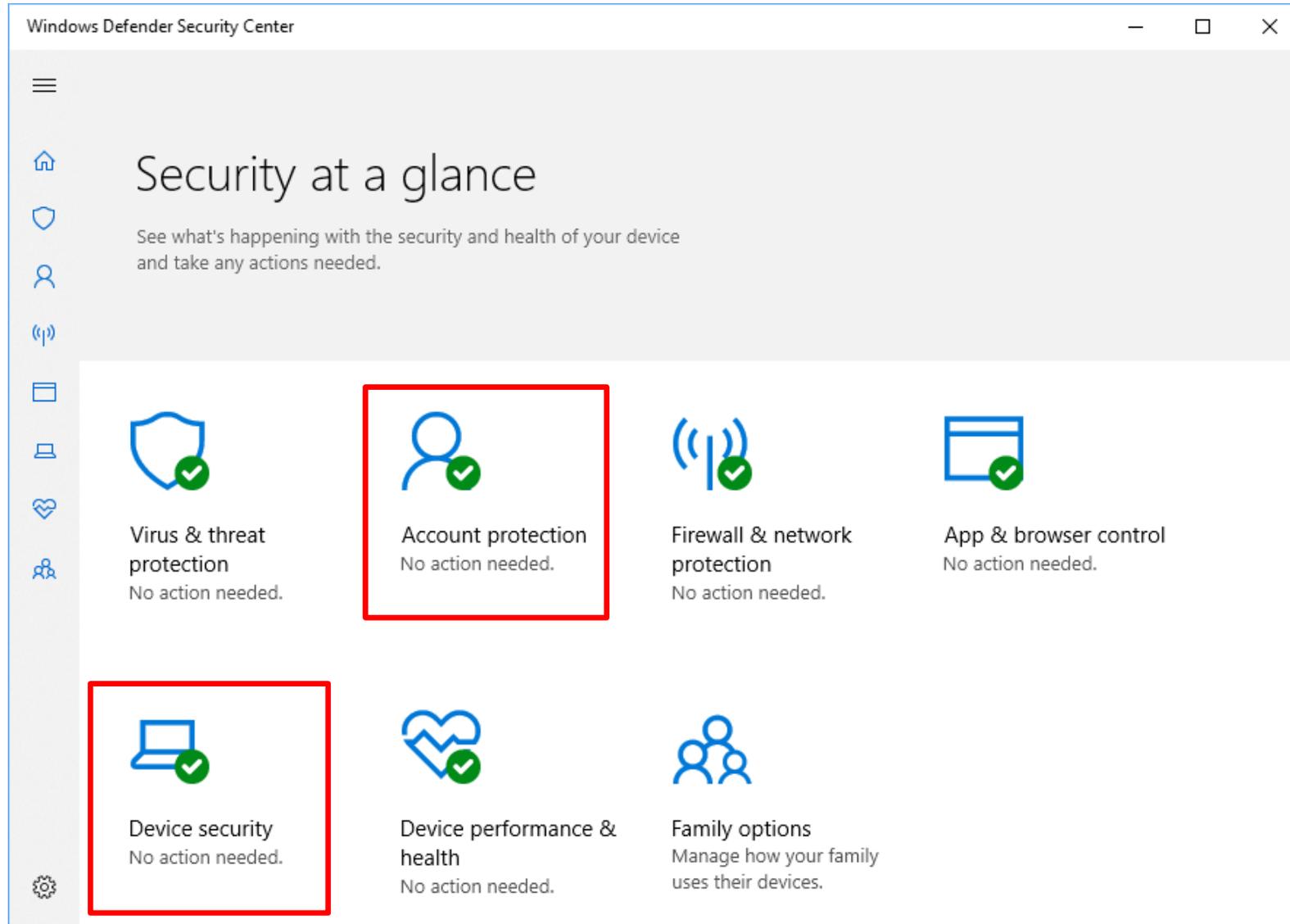


Detect, investigate, and respond to breaches

PRE-BREACH

POST-BREACH

Windows Defender Security Center



Summary

Windows 10 is last client Windows operating system

Periodically updated twice per year (feature update)

Aligned with Office 365 ProPlus and Configuration Manager

April 2018 Update (1803) is current Windows 10 version

Includes many improvements and new features

Learn about Azure AD and MDM!

Provisioning and AutoPilot are modern deployment

Windows 10 is the most secure Windows ever!

Additional Information

What's new in Windows 10, version 1803 IT Pro content

<https://docs.microsoft.com/en-us/windows/whats-new/whats-new-windows-10-version-1803>

What's new in the Windows 10 April 2018 Update

<https://blogs.windows.com/windowsexperience/2018/04/30/whats-new-in-the-windows-10-april-2018-update>

Overview of Windows as a service

<https://docs.microsoft.com/en-us/windows/deployment/update/waas-overview>

Windows 10 Virtual Labs

<https://www.microsoft.com/en-us/itpro/windows-10/virtual-labs>

Manage corporate devices

<https://docs.microsoft.com/en-us/windows/client-management/manage-corporate-devices>



The best Windows ever. Forever.