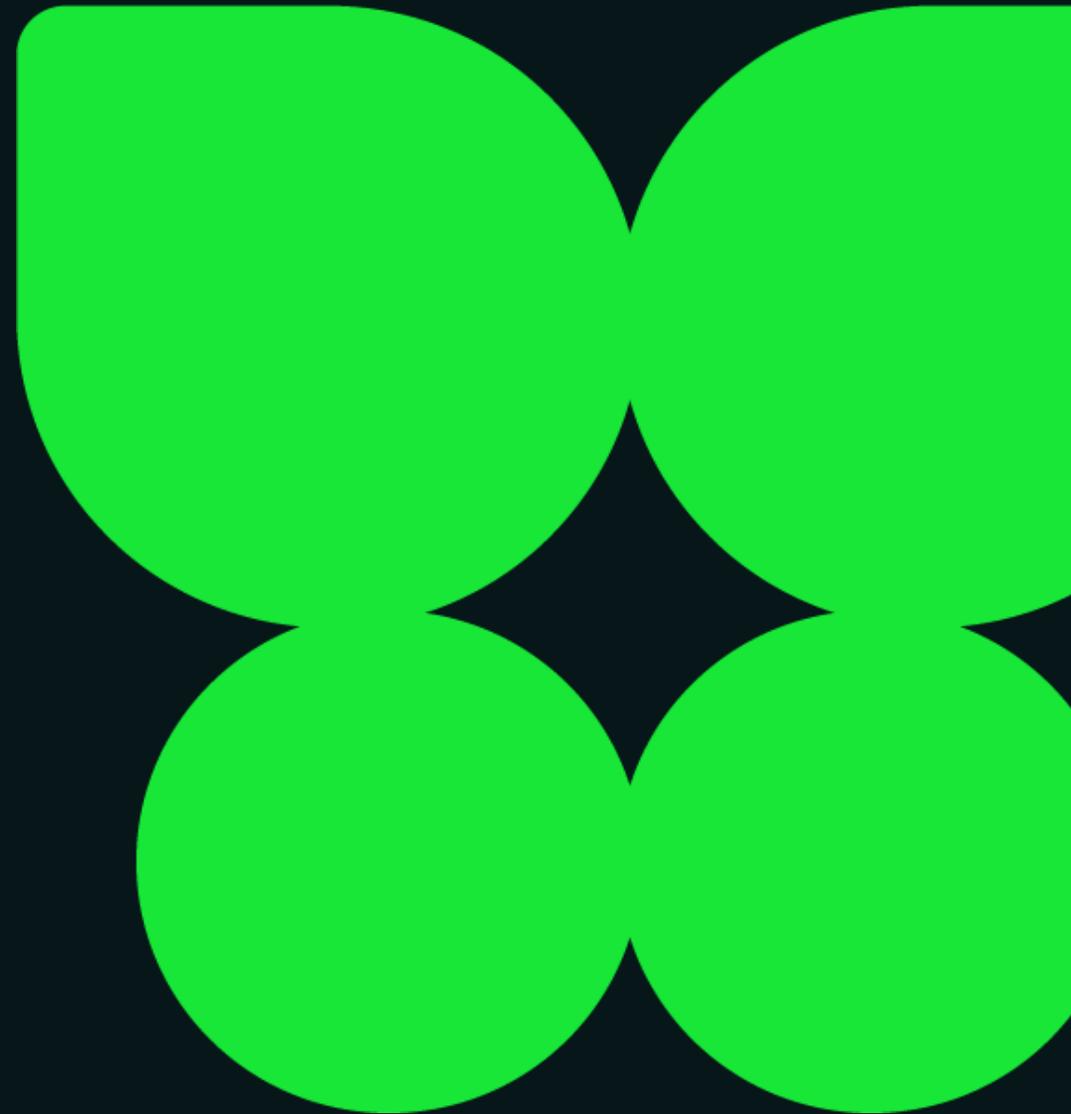


Securing devices and endpoints in a remote working world

→ Tom Waller | Architect
Secure Digital Transformation



After the workshop, you'll...



Improve your knowledge of cloud-based device management using Microsoft solutions



Have a better understanding of Microsoft Endpoint Manager capabilities



Accelerate your endpoint management and protection journey with Kocho and Microsoft



Have defined next steps based on your needs and objectives



Market trends



The cloud is everywhere

90 percent of enterprises anticipate higher cloud usage than before COVID-19



Endpoint threats are increasing

24 percent of enterprise mobile endpoints were exposed to device threats in 2019



Continuous updates keep you moving forward

1–4 times/month is the typical update cycle, ensuring both security and your ability to work seamlessly



Cybersecurity breaches are getting smarter

36 billion records were exposed through cybercrime in 2020



BYOD is now standard

59 percent of organizations let employees use their own devices for work



Today's workplace is evolving

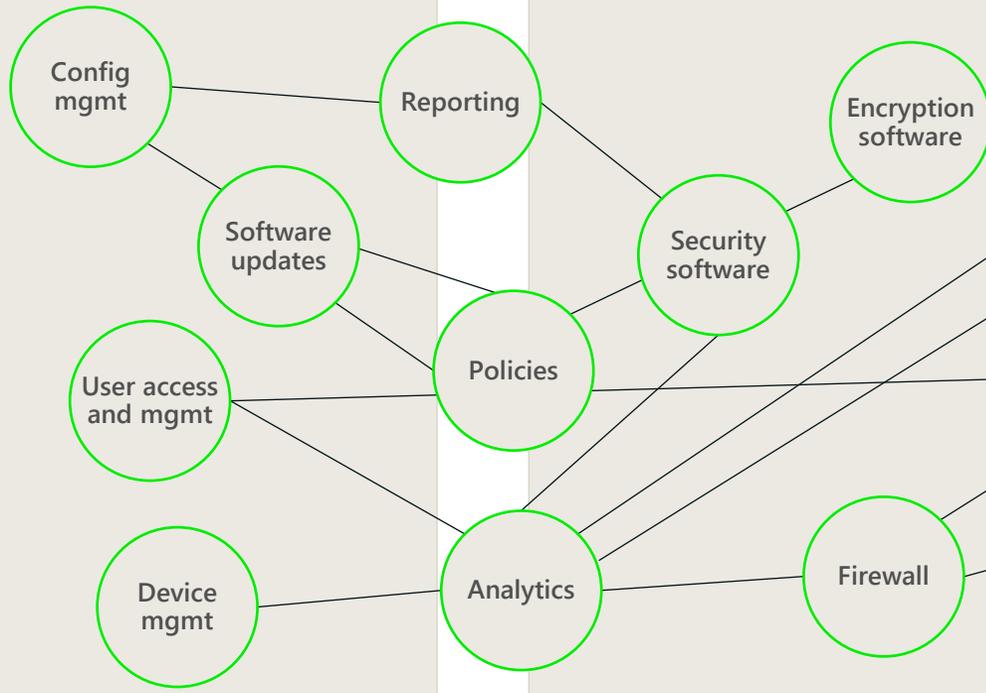
4.3 million people in the US work from home at least half the time

Top endpoint management challenges



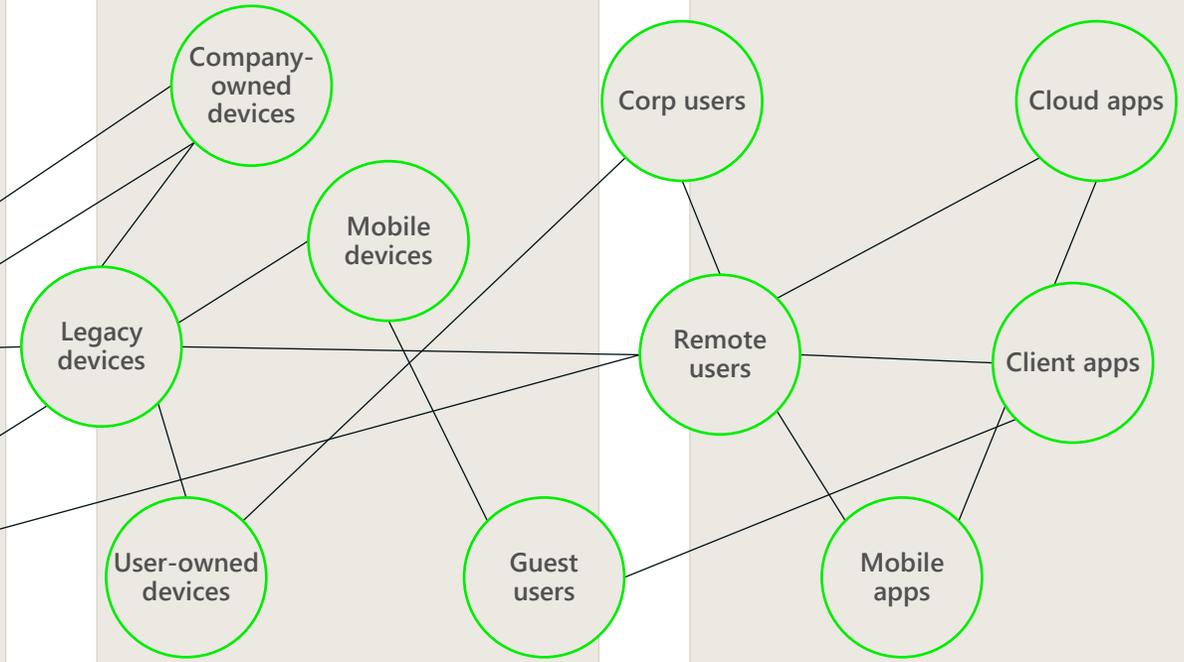
Distributed workers

Remote and hybrid work environments



Endpoint diversity

Multiple devices and app platforms



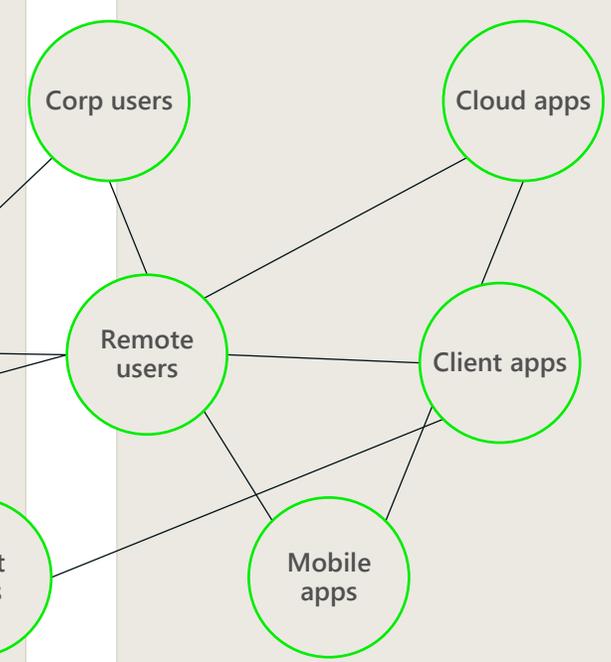
Employee satisfaction

Easy, fast access to company resources



Cybersecurity

Mitigating risk and vulnerabilities



The challenges of endpoint management



Distributed workers

Remote and hybrid work environments

49 million

Remote workers report it takes days—and even weeks—to get issues fixed.



Endpoint diversity

Multiple devices and app platforms

48 percent

IT leaders say ensuring data security is their top challenge in supporting end-user productivity.



Employee satisfaction

Easy, fast access to company resources

44 percent

Remote workers say they have access, but not to everything they need.



Cybersecurity

Mitigating risk and vulnerabilities

65 percent

Enterprises need to ensure security and compliance across multiple device types.

What do we mean by Modern Management?



Technology needs are evolving in the modern workplace



Old world versus new world

Single corporate-owned device



Multiple BYOD devices and IoT devices

Business owned



User and business owned

Corporate network and legacy apps



Cloud managed and SaaS apps

Manual and reactive



Automated and proactive

Corporate network and firewall



Expanding perimeters

Employees



Employees, partners, customers, bots

Mostly onsite employees



Remote and hybrid environment

People are working in more places, with more flexibility and more devices



How do you secure your endpoint estate?



How do you reduce complexity of IT workloads?



How do you ensure protection, while enabling workforce flexibility and productivity?

Technology must keep us connected and productive while reinforcing our security posture in an increasingly sophisticated and complex world.

Microsoft Endpoint Manager



Endpoint Manager combines the **Microsoft Intune** and **Configuration Manager** solutions to provide modern management of endpoints with the protection of a Zero Trust strategy.

- Protect apps and devices for a resilient workforce
- Maximize digital investment with co-management
- Get integrated Conditional Access controls
- Use simplified management workflows
- Secure managed and unmanaged devices and apps

Unified management

Apps, device controls, and insights are brought together in one cloud-based endpoint management platform.

Built-in protection

IT is empowered to apply the controls needed for a Zero Trust security model and protect their digital estate without getting in the way of user productivity.

Comprehensive scalability

Intuitive management controls, workflows, and analytics ensure healthy and compliant device and app deployments.

← Reduced total cost of ownership (TCO) →

Device lifecycle with Microsoft Endpoint Manager

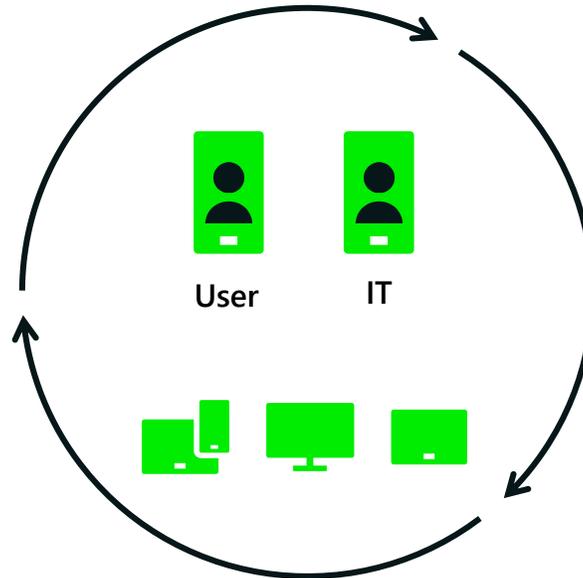


Enroll

- Provide specific enrollment methods for iOS/iPadOS, Android, Windows, and macOS
- Provide a self-service company portal for users to enroll BYOD devices
- Deliver custom terms and conditions at enrollment
- Zero-touch provisioning with automated enrollment options for corporate devices

Support and retire

- Revoke access to corporate resources
- Perform selective wipe
- Audit lost and stolen devices
- Retire device
- Provide remote assistance



Configure

- Deploy certificates, email, VPN, and Wi-Fi profiles
- Deploy device security policy settings
- Install mandatory apps
- Deploy device restriction policies
- Deploy device feature settings

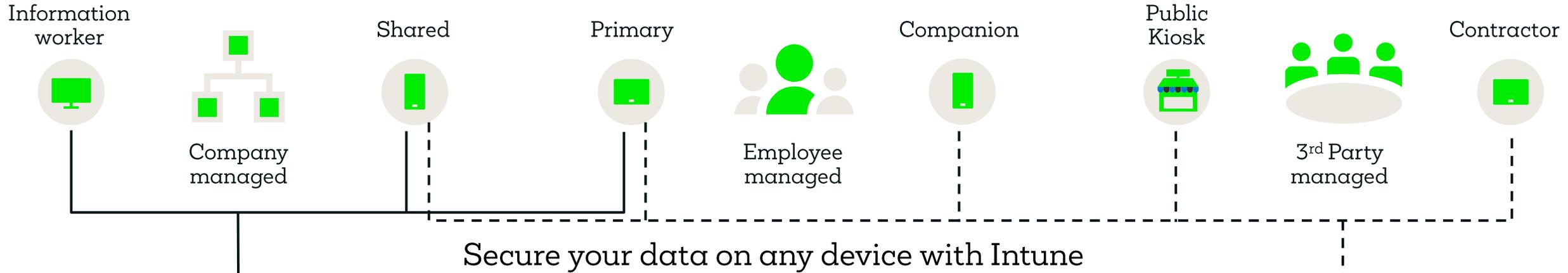
Protect

- Restrict access to corporate resources if policies are violated (e.g., jailbroken device)
- Protect corporate data by restricting actions such as copy/cut/paste/save outside of managed app ecosystem
- Report on device and app compliance



Enroll

In a complex device landscape, you need choices



Intune device management

- Enroll devices for management
- Provision settings, certs, profiles
- Report and measure device compliance
- Remove corporate data from devices

Conditional access: Restrict access to managed and compliant devices

Intune app management

- Publish mobile apps to users
- Configure and update apps
- Report app inventory and usage
- Secure and remove corporate data within mobile apps

Conditional access: Restrict access to apps with app protection policy

Dependencies for Microsoft Intune standalone (Cloud-only)

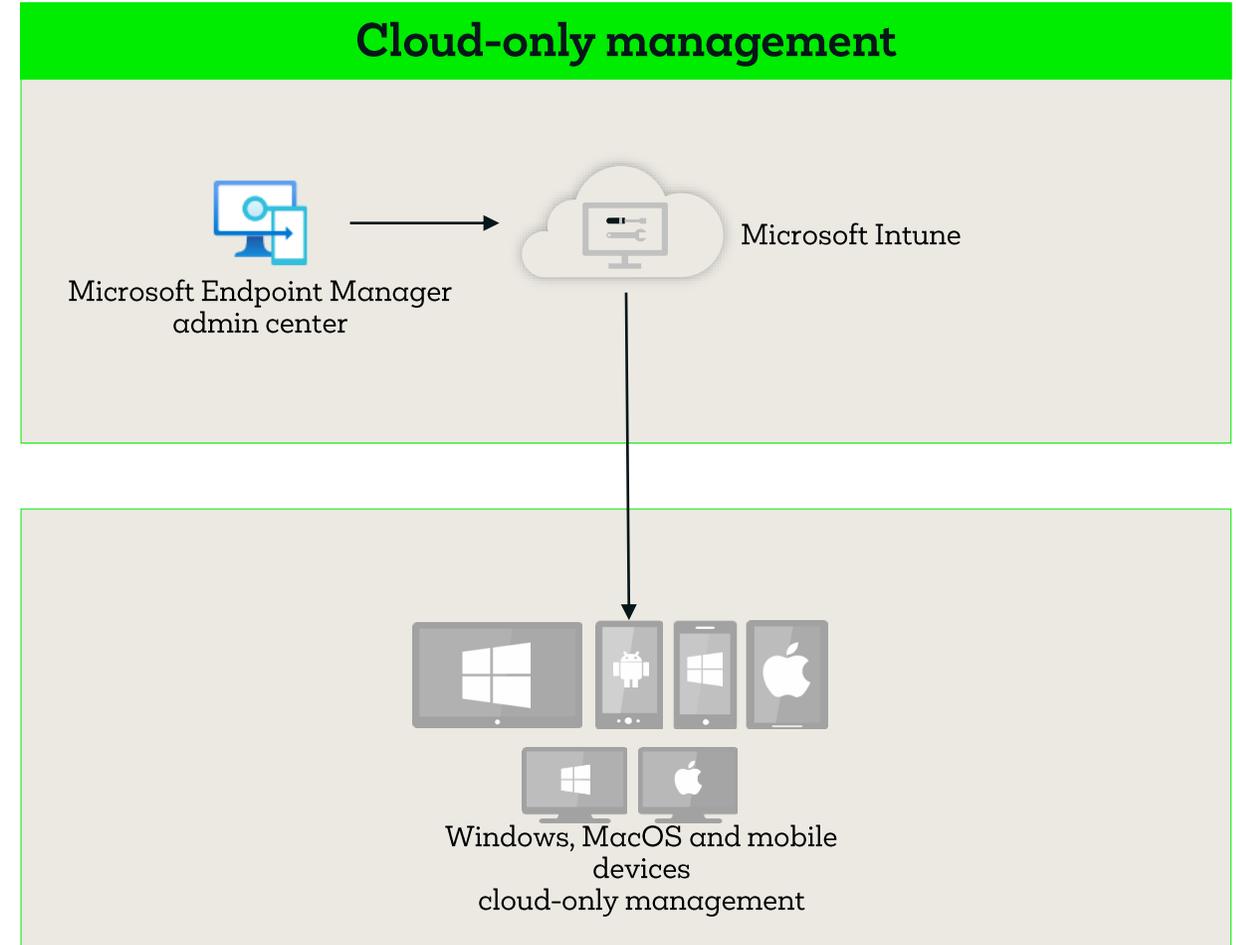


Manage and protect

- No existing infrastructure necessary
- No existing Microsoft Endpoint Configuration Manager deployment required
- Simplified policy control
- Simple web-based administration console
- Faster cadence of updates
- Always up-to-date

Device enrollment supported

- Windows
- iOS/iPadOS
- Android
- macOS



Dependencies for co-management

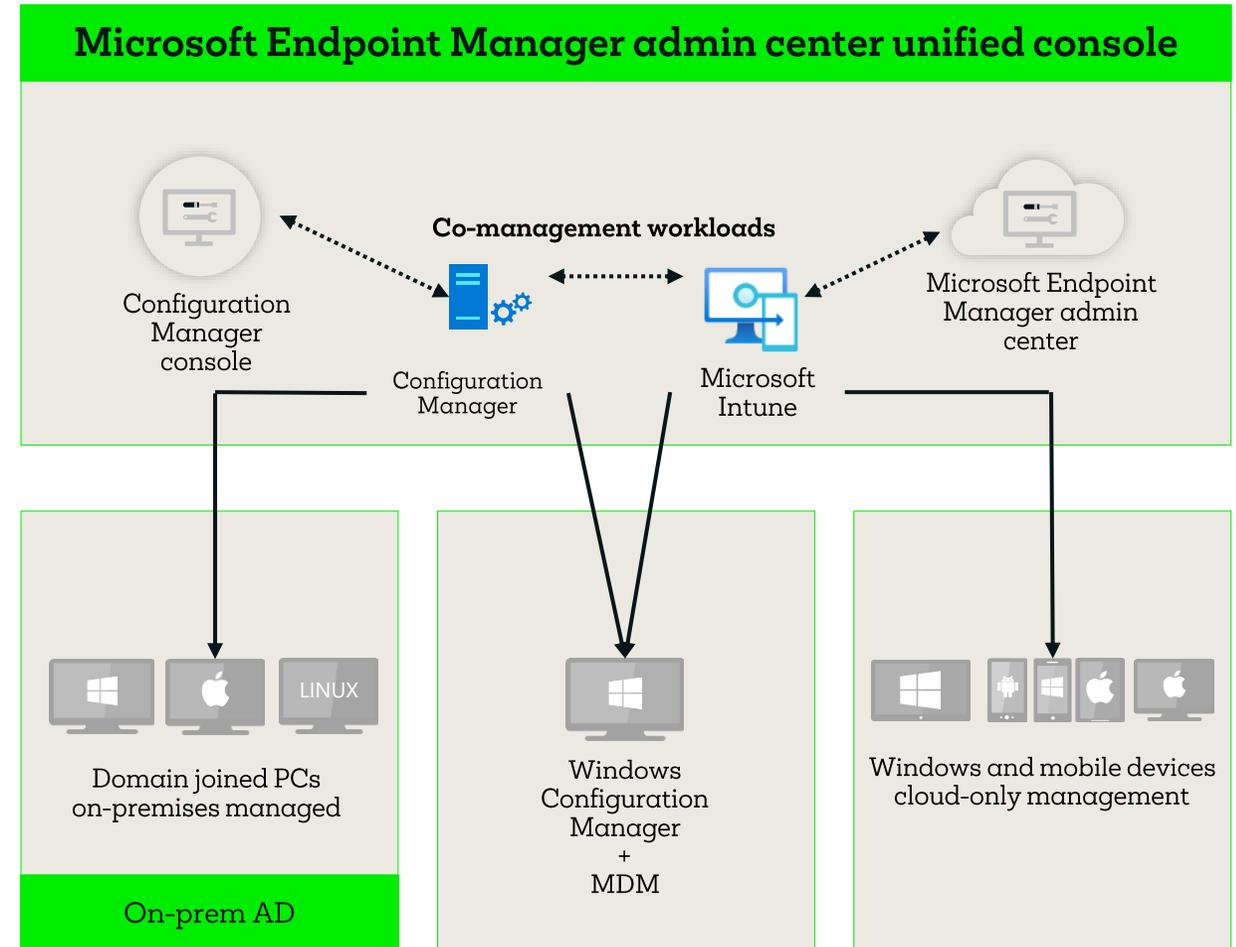


Microsoft Endpoint Configuration Manager with Microsoft Intune

- Attach your existing Configuration Manager (version 1710 or later) deployment to Microsoft 365 cloud
- Co-managed device has a Configuration Manager agent and is enrolled in Intune
- Single pane of glass for device management
- Conditional Access with device compliance
- Intune-based remote actions
- Modern provisioning with Windows Autopilot
- Link users, devices, and apps with Azure Active Directory (Azure AD)

Devices Supported (in addition to mobile devices)

- Windows PCs (x86/64, Intel SoC)
- Windows Server
- Linux/UNIX server
- macOS



Dependencies tenant attach

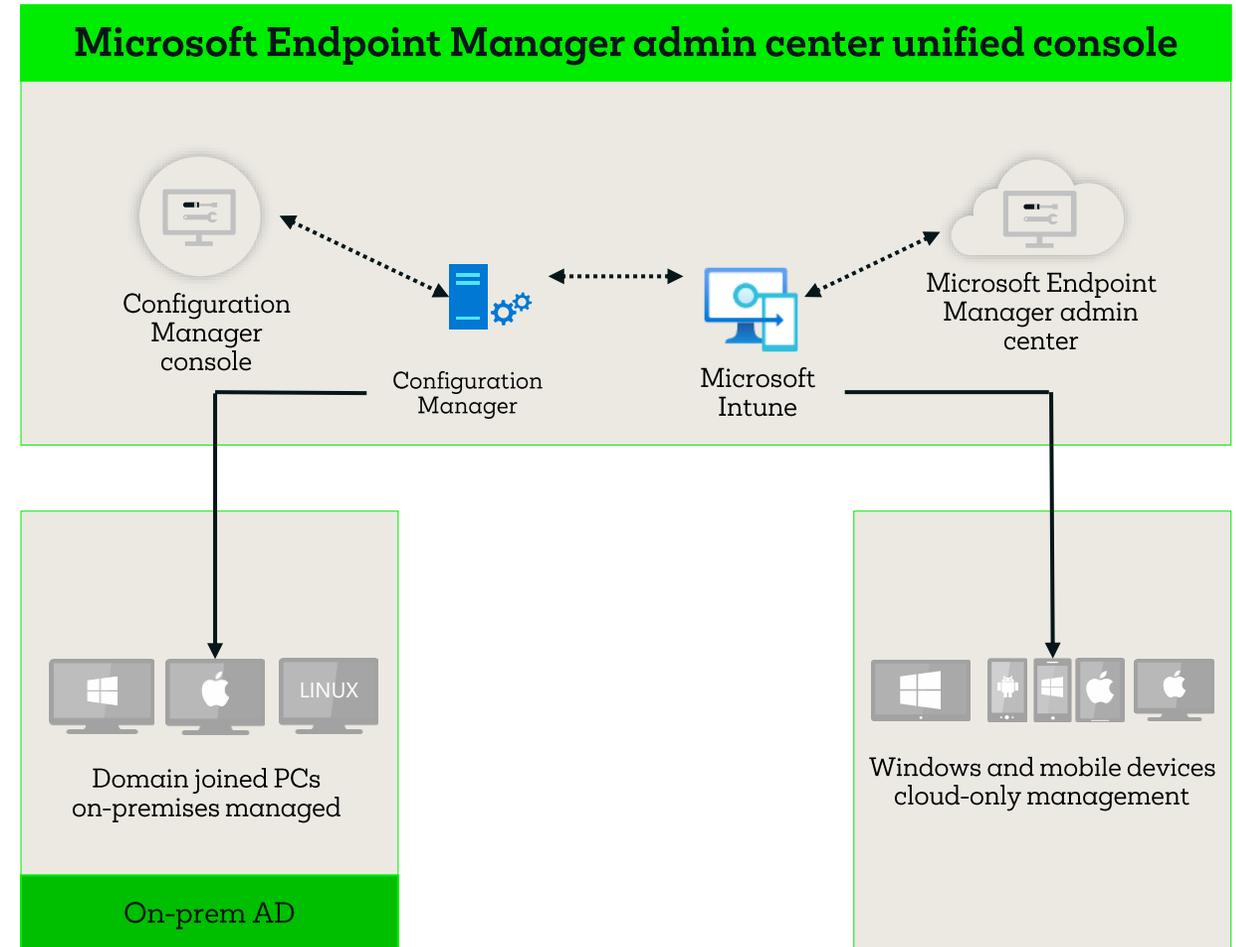


Attach Microsoft Endpoint Configuration Manager to Microsoft Intune

- Attach your existing Configuration Manager (version 2002 or later) deployment to Microsoft 365 cloud
- Synchronise Configuration Manager agents to Intune without enrolling in Intune
- Single pane of glass for device management in the cloud
- Defender for Endpoint integration
- Helpdesk
- Desktop Analytics
- User Experience Analytics

Devices Supported (in addition to mobile devices)

- Windows PCs (x86/64, Intel SoC)
- Windows Server
- Linux/UNIX server
- macOS



Auto-enrol Windows devices

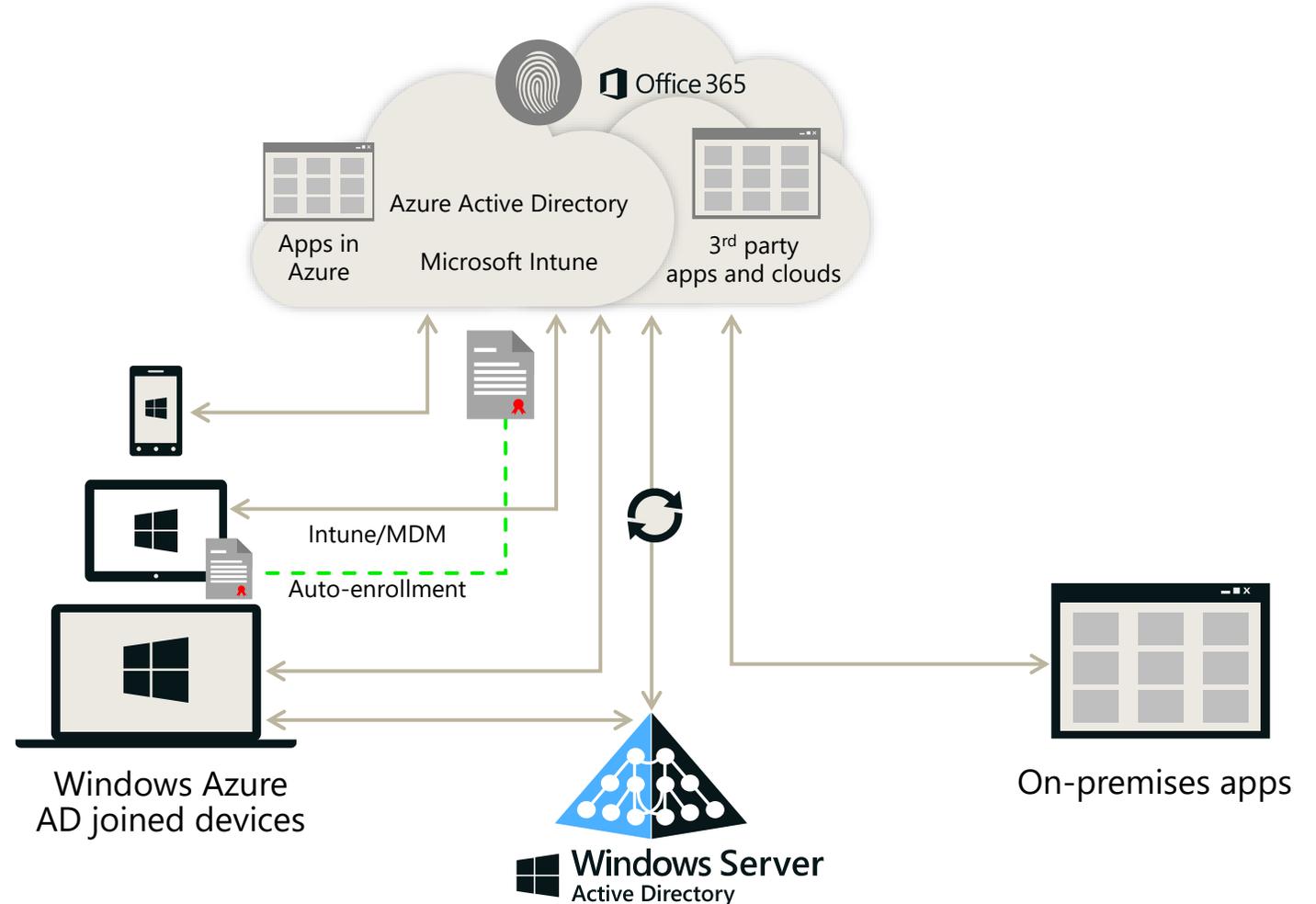


Azure AD Join makes it possible to connect work-owned Windows devices to your company's Azure Active Directory.

With Azure AD Join, you can auto-enroll devices in Microsoft Intune for management.

Benefits:

- Intune auto-enrollment
- Enterprise-compliant services
- Single sign-on from the desktop to cloud and on-premises applications with no VPN
- Support for hybrid environments



Windows Autopilot

OEM-optimized Windows

+ Software

+ Settings

+ Updates

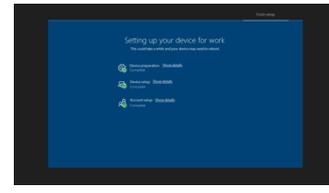
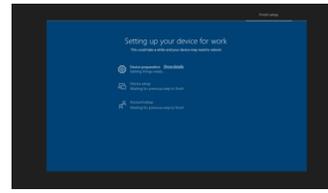
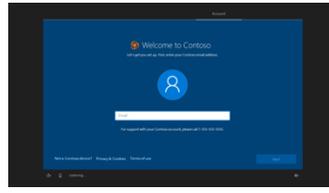
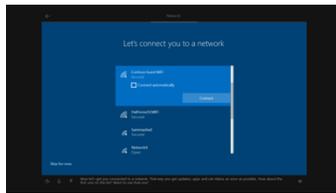
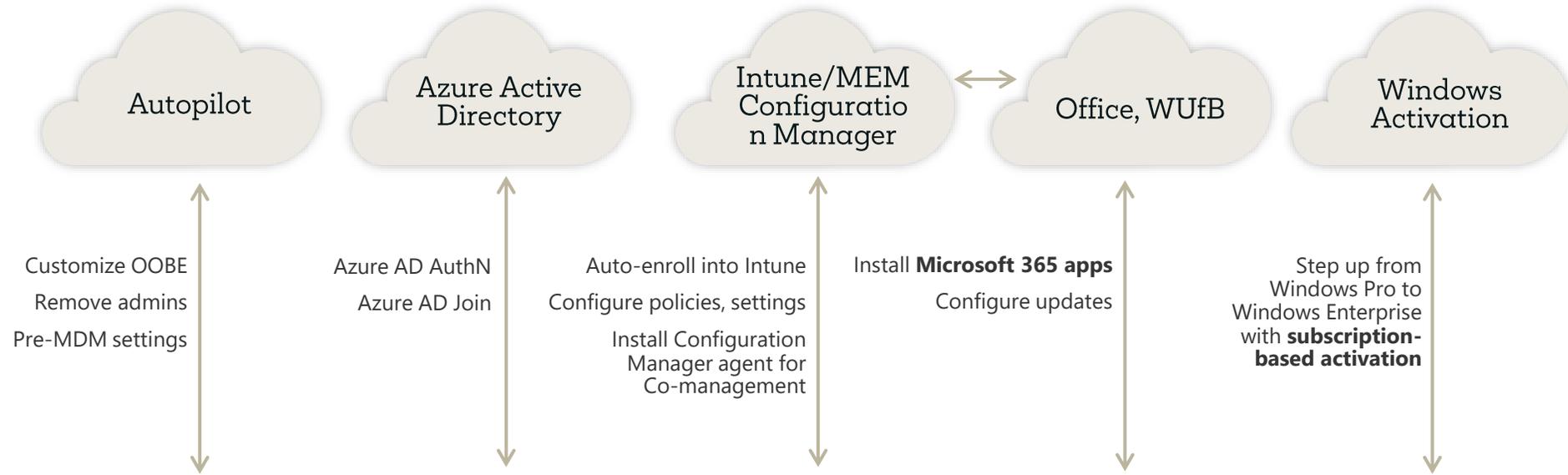
+ Features

+ User data

Ready for productive use



Windows 10 Modern Provisioning



Microsoft Endpoint Manager

Business ready

Self-driven deployment

Windows Autopilot / User-Driven deployment with Azure AD Join



Prerequisites:

Windows 10 version 1703

Azure Active Directory Premium

Microsoft Intune

Steps:

1. Device connected to internet network
2. Register device with Windows Autopilot
3. Assign Intune Autopilot Profile configured for Azure AD join
4. Boot device

Let's start with region. Is this right?



Yes

User-Driven Azure AD Join

- Connect to a network
- Authenticate to Azure AD
- Password-less with phone sign-in
- Enroll in Intune
- Track progress with the Enrollment Status Page
 - Policies
 - Apps (Win32, MSI, UWP)
 - Certificates
 - Network, VPN connections
- Integration with ConfigMgr task sequences

Windows Autopilot / User-Driven deployment with Hybrid Azure AD



Prerequisites:

Windows 10 version 1809

Azure Active Directory Premium

Microsoft Intune

Steps:

1. Device connected to corporate network (SBL VPN or client initiated at logon screen)
2. Register device with Windows Autopilot
3. Assign Intune Autopilot Profile configured for Hybrid Azure AD join
4. Boot device

Let's start with region. Is this right?

U.S. Minor Outlying Islands

U.S. Virgin Islands

Uganda

Ukraine

United Arab Emirates

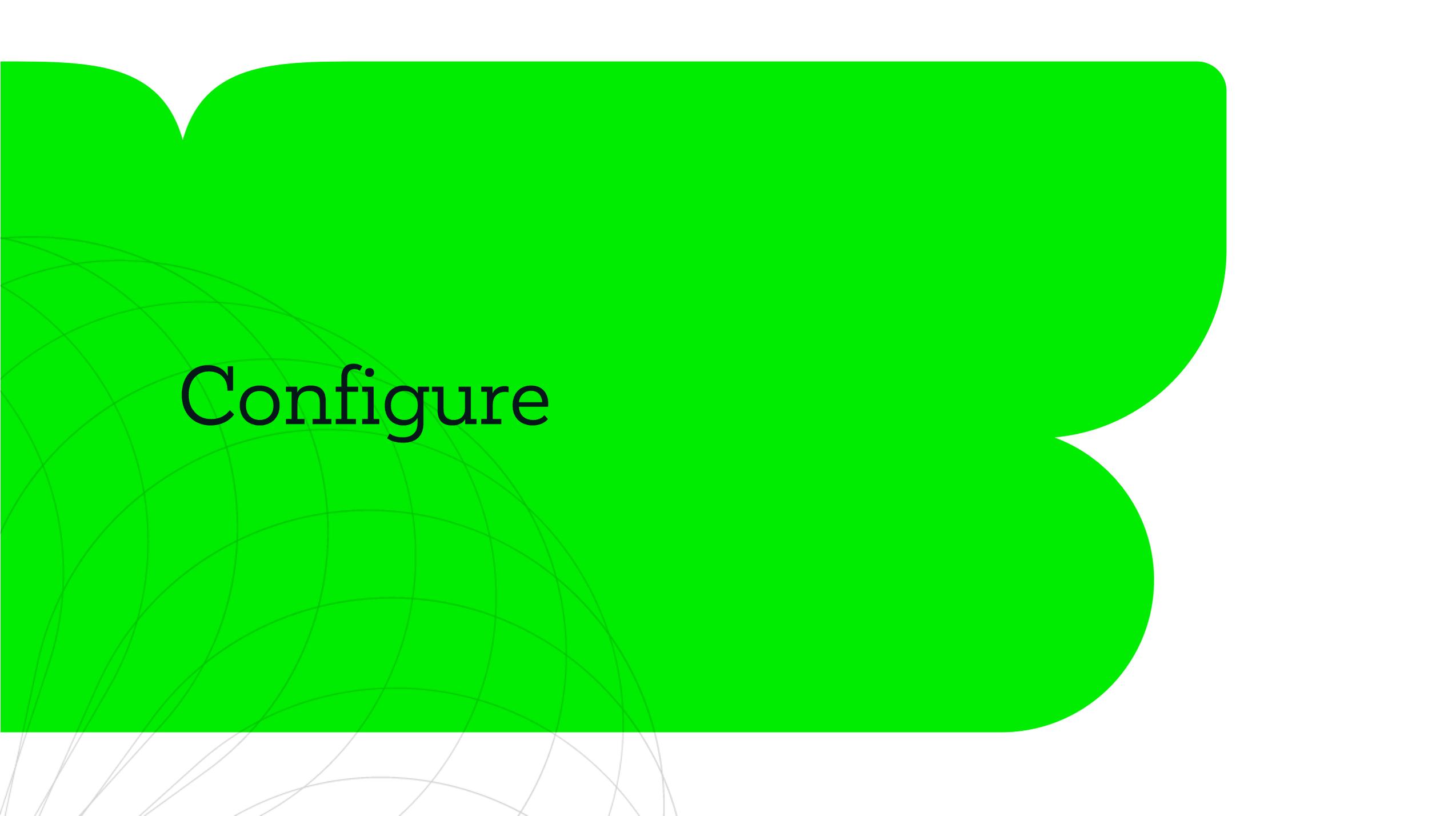
United Kingdom

United States

Yes

User-Driven Hybrid AAD Join

- Connect to a network
- Authenticate to Azure AD
- Password-less with phone sign-in
- Coming soon! Authenticate with FIDO2
- Enroll in Intune
- Perform domain join
- VPN support
- Track progress with the Enrollment Status Page
 - Policies
 - Apps (Win32, MSI, UWP)
 - Certificates
 - Network, VPN connections
- Integration with ConfigMgr task sequences



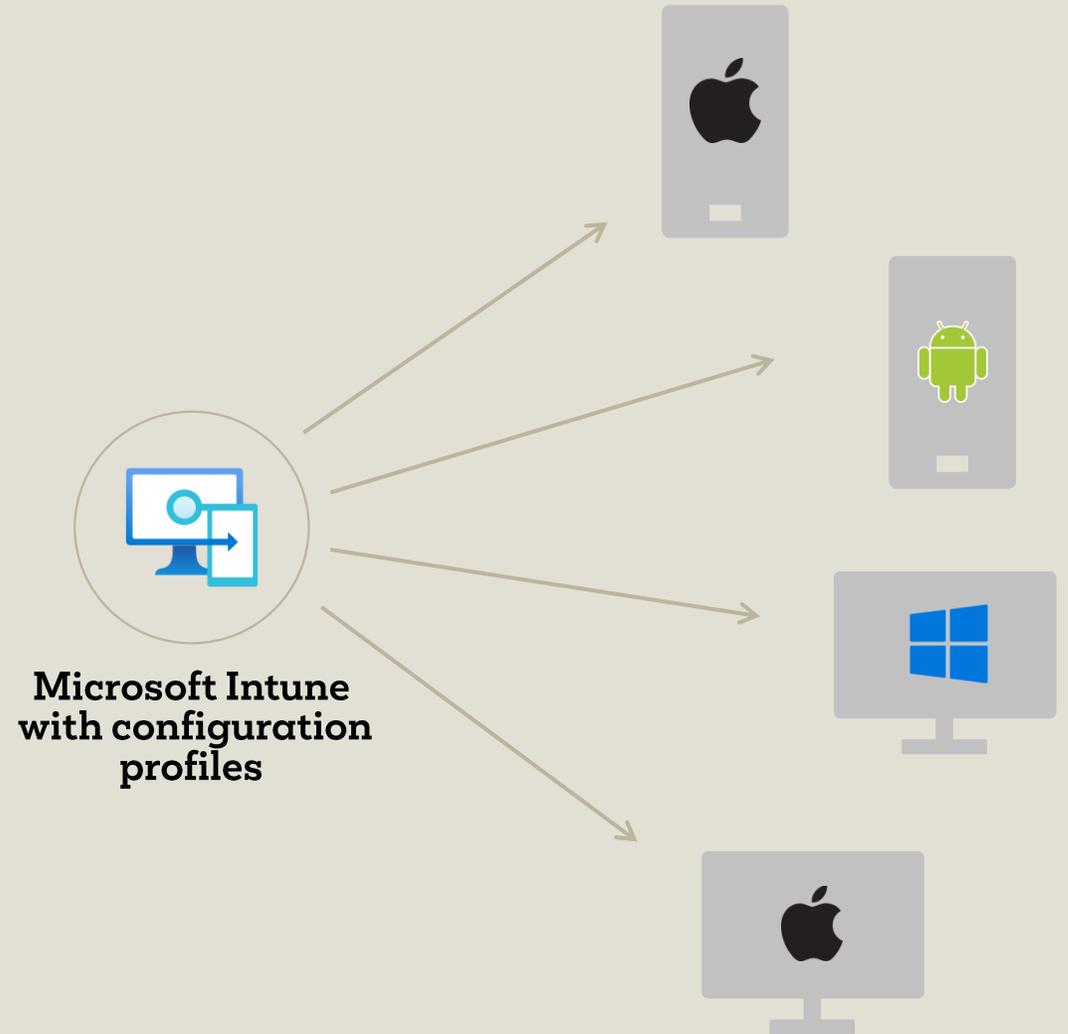
Configure

What are configuration profiles?

Microsoft Intune provides configuration profiles which includes settings and features that can be enabled or disabled on different devices within your organization

Configuration profiles can be applied to:

- iOS/iPadOS devices
- Android devices
- Windows devices
- macOS devices



What do configuration profiles provide?



Device features

Controls features on the device

Examples: Airprint, notifications and lock screen messages

Device restrictions

Controls security, hardware, data sharing and more settings on the devices

Examples: require a PIN, data encryption, etc

Access configuration

Provide organization's access configuration to the device

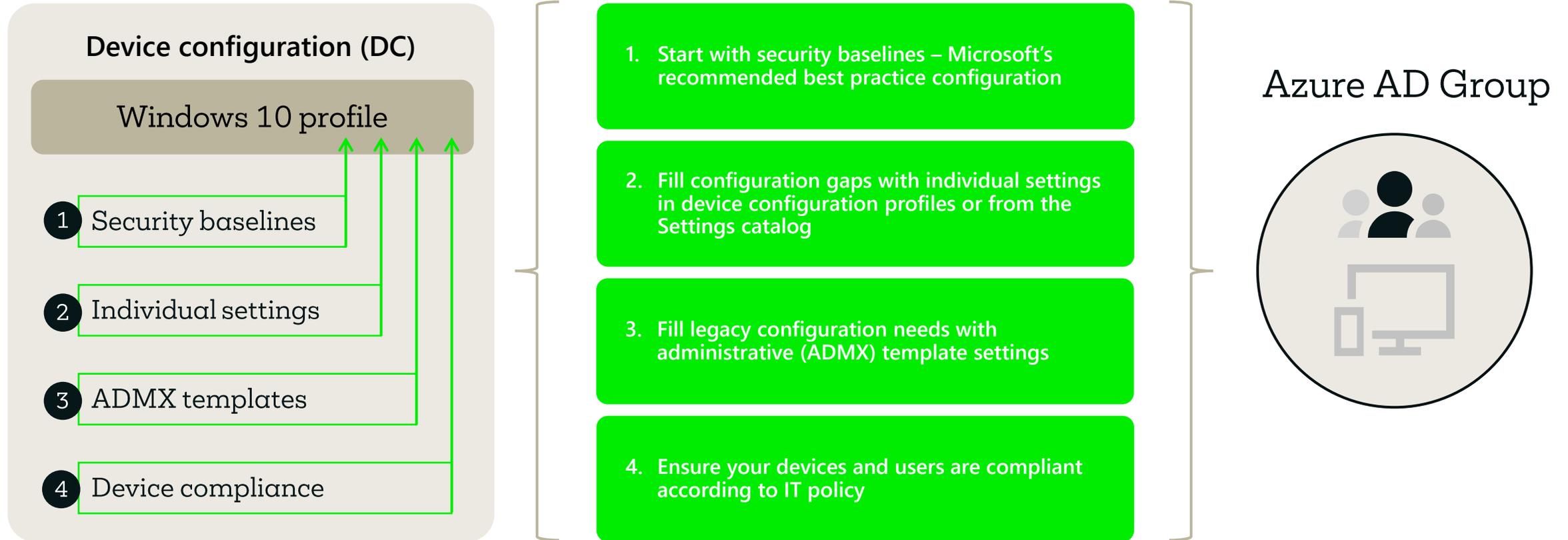
Examples: email profiles, VPN profiles, Wi-Fi settings, certificates, etc

Custom

Set custom configuration or execute custom configuration actions

Examples: set OEM settings, execute PowerShell scripts, etc

Windows 10 recommended device configuration



Use security baselines to configure Windows 10 devices

Security baselines are pre-configured groups of **Windows** settings and default values that are recommended by the relevant Microsoft security teams

A security baseline profile is a template that consists of multiple **device configuration profiles**

Benefits

Includes the best practices and recommendations on settings that impact security

A good starting point to quickly create and deploy a secure configuration profile

Easier to migrate from group policy to Intune management



Administrative templates

Administrative templates include thousands of settings that control features in Microsoft Edge version 77 and later, Internet Explorer, Microsoft Office programs, remote desktop, OneDrive, passwords, PINs, and more

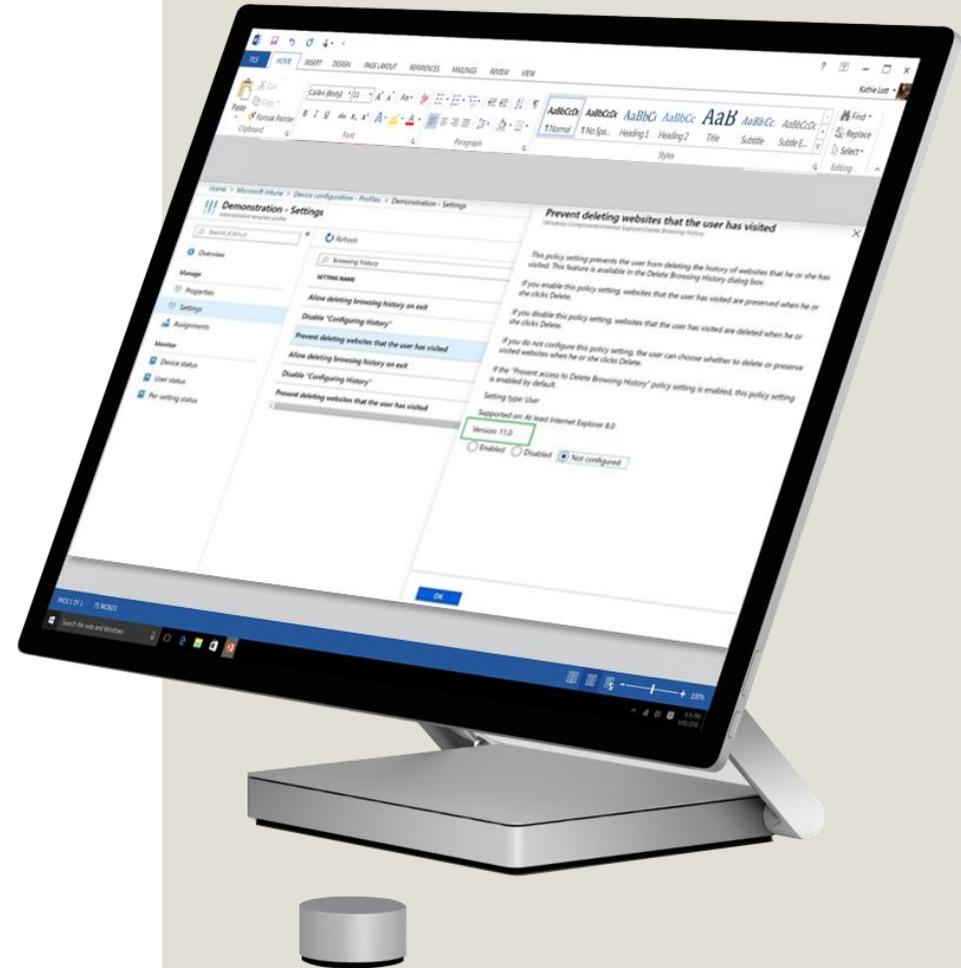
Administrative templates contain ADMX-backed Windows settings that are like group policy settings in Active Directory

Benefits

Administrative templates are built into Intune, and don't require any customizations

The one-stop shop to manage your Windows 10 devices

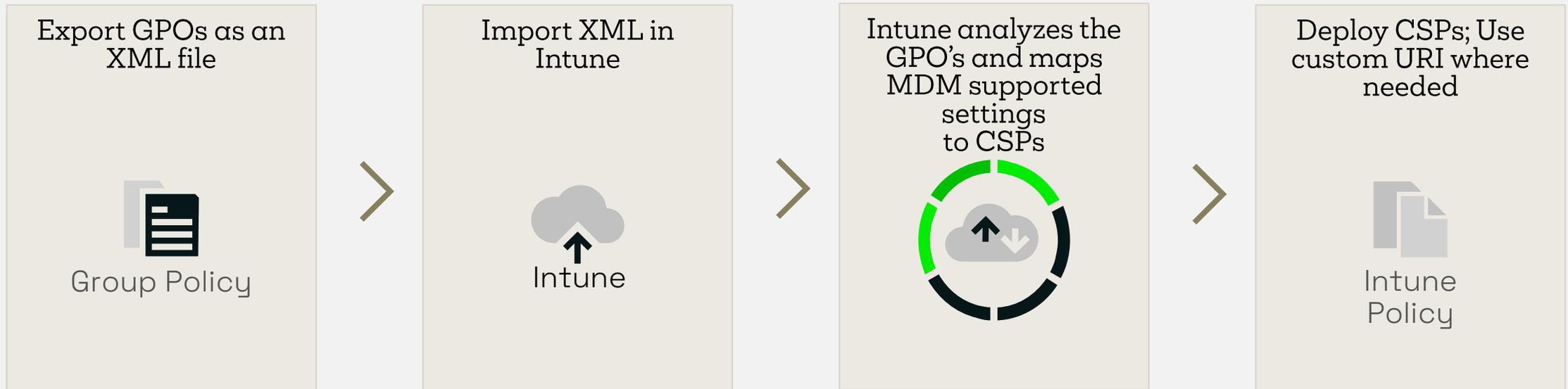
Easier to migrate from group policy to Intune management



Migrate Windows 10 GPOs to Intune CSPs



Group Policy analytics compares GPOs to Intune CSPs



Review the Group Policy Migration Readiness report to see the number of settings in your GPO that are available in a device configuration profile, if they can be in a custom profile, aren't supported, or are deprecated.

- Home
- Dashboard
- All services
- FAVORITES
- Devices
- Apps
- Endpoint security
- Reports
- Users
- Groups
- Tenant administration
- Troubleshooting + support

Xencorp Alpha

Home Microsoft Managed Desktop

Status

Errors/failures	0	Healthy	5
Account status		Active	
Client apps		No installation failures	
Connector status		Healthy	
Device compliance		All in compliance	
Service health		Healthy	

News



Increase productivity with Cloud PCs
Easily provision Windows 365 Cloud PCs and manage them alongside your physical devices.
[Explore](#)

[Intune Customer Success blog](#) [See all >](#)

[Windows Autopilot MFA changes to enrollment flow](#)

[Build a macOS onboarding splash screen with Microsoft Endpoint Manager and Octory](#)

[Success with remote Windows Autopilot and hybrid Azure Active Directory join](#)

Guided scenarios [See all >](#)

Deploy Edge for mobile
Configure Edge for use at work and deploy it to the iOS and Android devices managed by your organization.
[Start](#)

Deploy Windows 10 and later in cloud configuration
Optimize devices running Windows 10 or later for the cloud with a simple, secure, standardized configuration fit for your needs.
[Start](#)

What's happening in Intune

- [What's new in Microsoft Intune](#)
- [Features in development](#)
- [UI updates for Intune end-user apps](#)

- Home
- Dashboard
- All services
- Devices
- Apps
- Endpoint security
- Reports
- Users
- Groups
- Tenant administration
- Troubleshooting + support

My Dashboard

Private dashboard

+ New dashboard | Refresh | Full screen | Edit | Export | Clone | Delete

Device enrollment

OK ✓
No Intune enrollment failures last 7 days

Device compliance

Create policies in Intune that devices must follow to stay compliant

OK ✓
No policies with error or conflict

[Create policy...](#)

Device configuration

OK ✓
No policies with error or conflict

Welcome to the Microsoft Endpoint Manager admin center

Microsoft Endpoint Manager gives you easy access to device and client app management capabilities from the cloud. It enables secure productivity across all of your device types, including Windows, iOS, macOS, and Android. In Microsoft Endpoint Manager you can:

- Enroll and configure your devices
- Upload and distribute your apps
- Protect your organization's data
- Cloud-enable computers enrolled with Configuration Manager
- Monitor and troubleshoot your deployments

Tutorials and articles

- [Learn about Microsoft Endpoint Manager admin center](#)
- [Get your device enrolled](#)
- [Get started with cloud-based mobility management](#)

Client apps

OK ✓
No installation failures

App protection policy user status

Status: iOS users | Android

No results. [Create and assign policies to see the data](#)

Intune enrolled devices

LAST UPDATED 10/10/22, 11:32 AM

Platform	Devices
Android	0
iOS/iPadOS	0
macOS	0
Windows	0
Windows Mobile	0
Total	0

Device compliance status

Status	Devices
No results	

[Enroll devices to view insights](#)

Device configuration profile status

Status	Users	User week trend	Devices	Device week tre...
No results				

[Create and assign policies to view insights](#)

Windows 10 configuration approaches



Windows 10 in cloud configuration

Customized Windows 10 management

What a device with this looks like

- Basic productivity apps (Microsoft Teams, Microsoft Edge, Microsoft 365)
- Essential line-of-business apps only
- Only built-in agents
- Cloud enrollment, infrastructure and storage

- Today's typical corporate PC
- Lots of apps, agents, and settings
- Lots of drivers and devices
- On-premise or cloud management and infrastructure

What this means for endpoint management

- Works for a subset of people
- Works for targeted scenarios
- Every PC has a standard configuration
- Simpler end-user experience
- Simpler to manage and operate

- Works on any persona
- Works for any scenario
- PCs have many varying configurations
- More complex to operate and manage



Protect

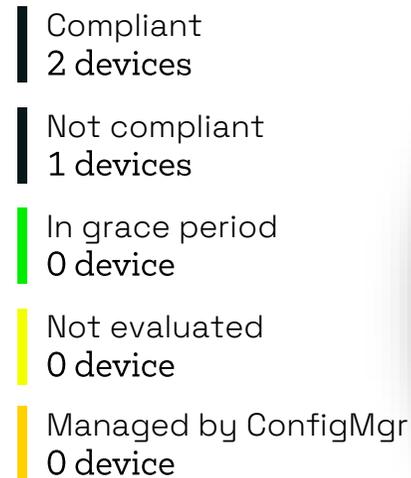
Microsoft Endpoint Manager compliance policies



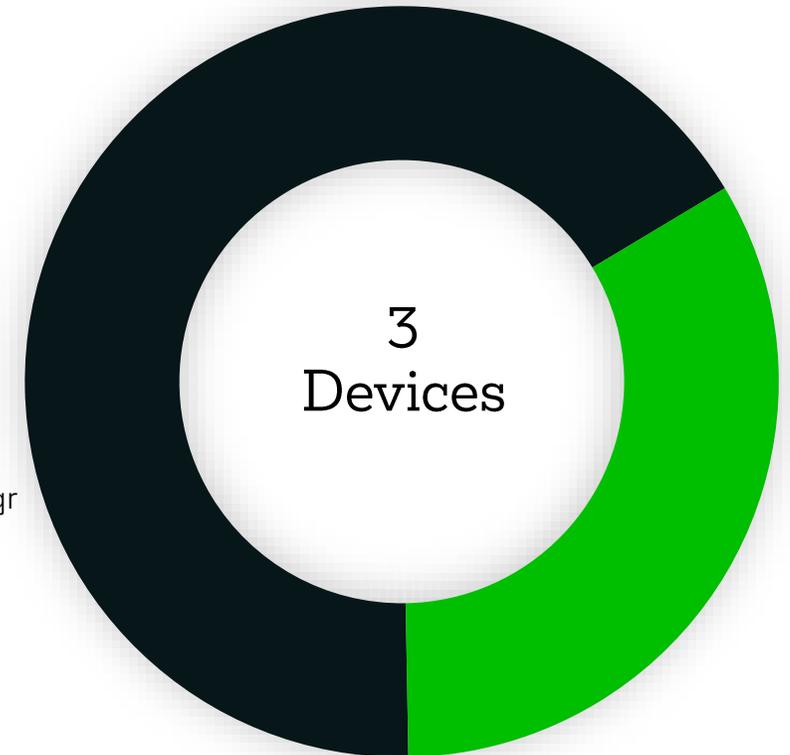
Microsoft Endpoint Manager (MEM) provides compliance policies, which are device-level rules that determine whether a device is compliant with organisation's "secure device" definition.

Compliance policies can be applied to

- iOS/iPadOS devices (iPhones, iPads, iPods)
- Android devices
- Windows devices
- macOS devices



Total
3 devices



Use of device compliance



Conditional access

Conditional access policies can use device compliance to grant or block access to organisational resources.

Grant

Select the controls to be enforced.

Block access

Grant access

Require multi-factor authentication ⓘ

Require device to be marked as compliant ⓘ

Require Hybrid Azure AD joined device ⓘ

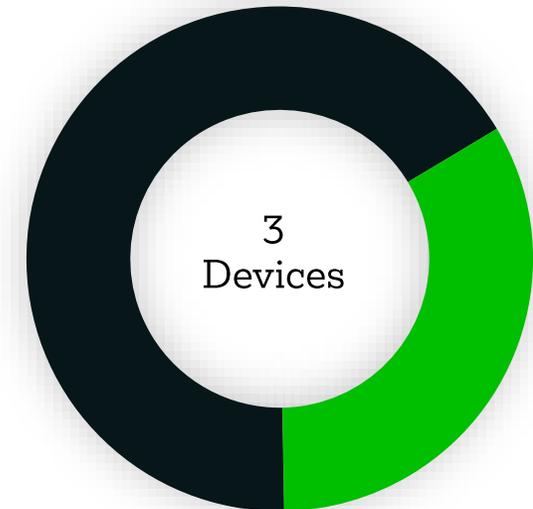
Require approved client app ⓘ
[See list of approved client apps](#)

Monitoring

Organisation-wide device compliance



Total
3 devices



Staying secure during OS updates

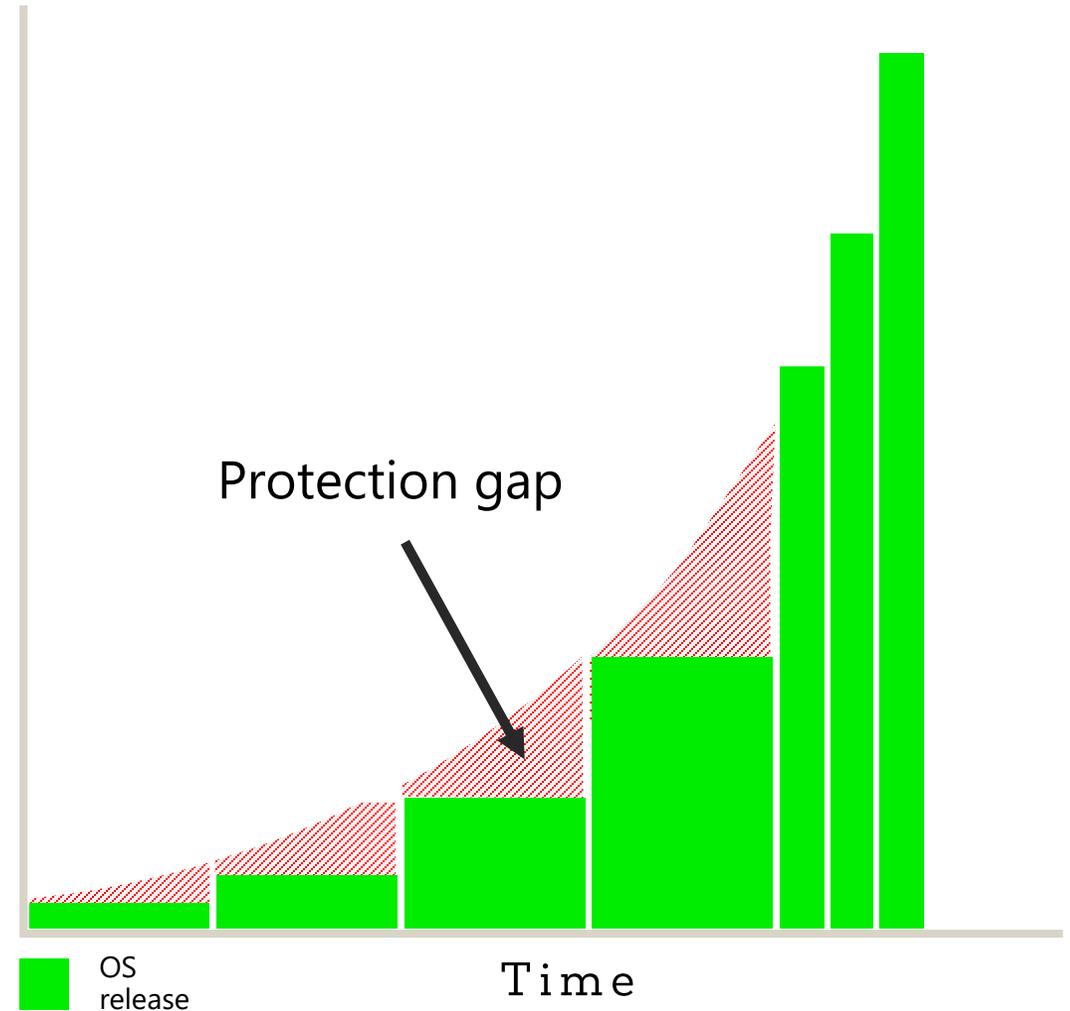


Attackers take advantage of periods between OS releases

Stay ahead of the attackers with continual improvements

Continual evolution of features to:

- Secure data and devices
- Secure user identities
- Detect and respond quickly to attacks





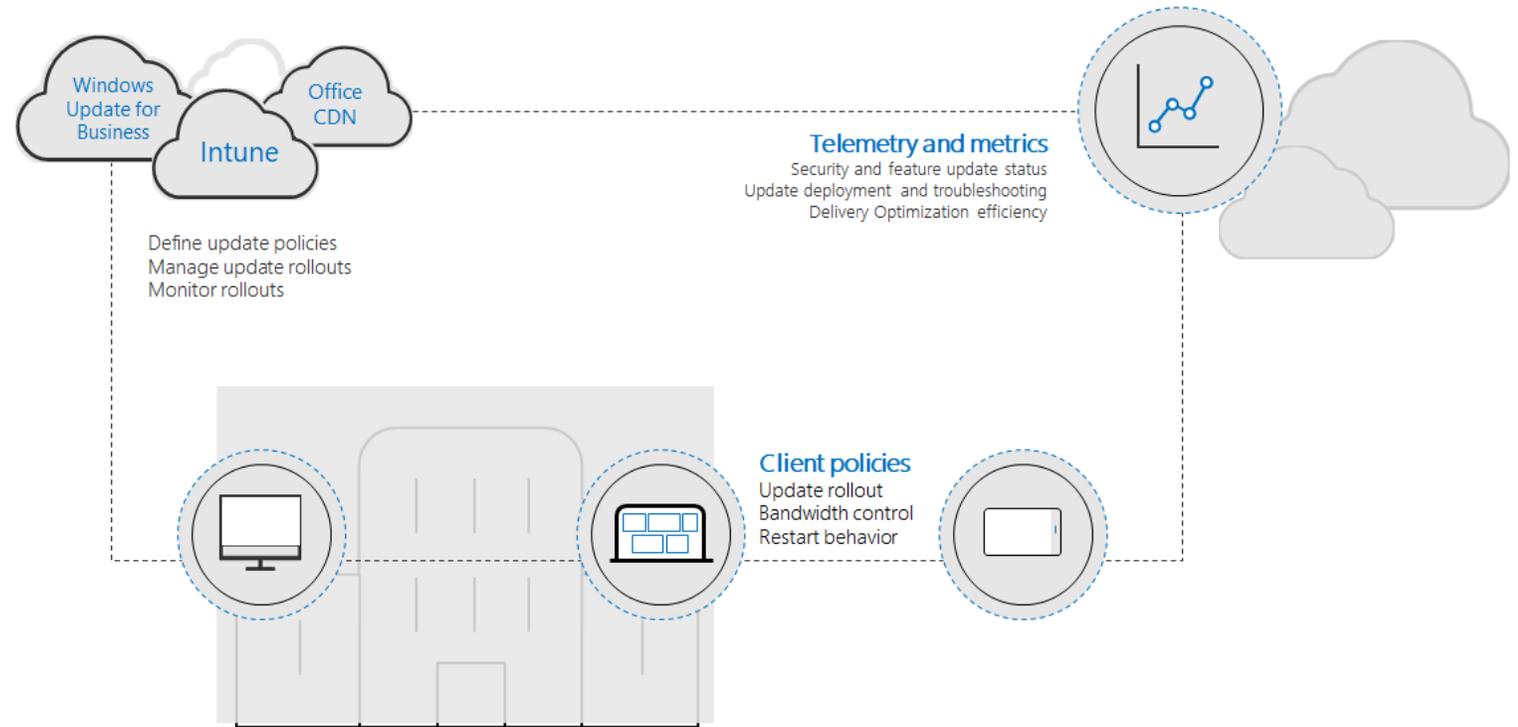
Keeping Windows up-to-date with Microsoft Endpoint Manager and Windows Update for Business

Microsoft Endpoint Manager

Provides OS update policies for Windows to enrolled devices

Windows Update for Business

Provides actual OS update to devices



Managing updates from the cloud

Reduce on-premises infrastructure and simplify management

Windows 10 OS updates



Windows 10 update rings in Microsoft Endpoint Manager provide ability to Configure update settings

- Windows 10 Servicing Branch
- Restart options
- Defer installations of updates
- Set deadlines for applying updates

The screenshot displays the Microsoft Intune console interface for configuring Windows 10 Update Rings. The breadcrumb navigation at the top reads: Home > Microsoft Intune > Software updates - Windows 10 Update Rings > Default update ring example. The main title is 'Default update ring example' with a close button (X) in the top right corner. Below the title, there is a search bar labeled 'Search (Ctrl+ /)' and a set of action buttons: Delete, Pause, Resume, Extend, and Uninstall. The 'Uninstall' button is highlighted with a red box. The left sidebar contains a navigation menu with the following items: Overview (selected), Manage (Properties, Assignments), and Monitor (Device status, User status). The main content area shows the following details for the update ring: Created: 01/17/19, 10:24:07 AM; Last Modified: 01/17/19, 10:24:07 AM; Feature: Running; Quality: Running; Groups assigned: 1. At the bottom, there is a section titled 'Profile assignment status — Windows 10 and later devices' which shows a bar chart with a green bar representing 'Succeeded' and a value of '0'.

Office 365 updates



Microsoft O365 Apps admin center

- Manage updates to Office 365 apps using Servicing Profiles
- On-board clients into Monthly Enterprise channel
- Create 'waves' for deployment
- Defer if needed
- Rollback device groups

The screenshot displays the Microsoft 365 Apps admin center interface. The left sidebar contains navigation options: Home, Servicing, Monthly Enterprise (selected), Customization, Health, Inventory, Learn More, and Setup. The main content area is titled 'Servicing Profile' and includes tabs for Overview, Devices, Issues, and Settings (selected). Under 'All settings', there are links for Device selection criteria, Rollout waves, Update exclusion windows, and Update deadline. The 'Device selection criteria' section provides instructions on how to start with all devices or specify additional criteria. It includes a 'Devices' section with two radio button options: 'Include all devices' (selected) and 'Choose groups to include'. At the bottom, there is a toggle switch for 'Use additional criteria to select devices for the servicing profile', which is currently turned 'On'.

Completed 0 Failed 0 In progress 0 Not started 0 Roll back 0



Mobile Threat Defense (MTD) for device risk-based conditional access



Microsoft Defender for Endpoint or MTD solution partner detects:

- ✓ Malicious apps
- ✓ Device manipulation
- ✓ Network exploits
- ✓ Data privacy violations

Microsoft Intune: Evaluates compliance based on level of threat reported by MTD solution.

Azure AD Conditional Access: Allows or blocks access.



Allow
Enforce MFA
Enroll device



Block access
Wipe device

Microsoft Defender for Endpoint

Mobile Threat Defense partners on iOS and Android



Microsoft Defender for Endpoint (Android)



Web Protection

Anti-phishing
Block unsafe network connections
Custom indicators: allow/block URLs



Malware Scan

Alerts for malware, PUA
Files scan
Storage and memory peripheral scans



Single Pane of Glass Reporting

Alerts for phishing
Alerts for malicious apps
Auto-connection for reporting in Microsoft Defender Security Center



Conditional Access

Block risky devices
Mark devices non-compliant



Supported Configurations

Device Administrator
Android Enterprise (Work Profile)



Licensed by Microsoft

Included in per user licenses that offer Microsoft Defender for Endpoint
Part of the 5 qualified devices for eligible licensed users
Reach out to your account team or CSP

Microsoft Defender for Endpoint (iOS)



Web Protection

Anti-phishing

Block unsafe network connections

Custom indicators: allow/block URLs



Single Pane of Glass Reporting

Alerts for phishing

Auto connection for reporting in Microsoft Defender Security Center



Supported Configurations

Supervised

Unsupervised



Licensed by Microsoft

Included in per user licenses that offer Microsoft Defender for Endpoint

Part of the 5 qualified devices for eligible licensed users

Reach out to your account team or CSP



Support and Retire

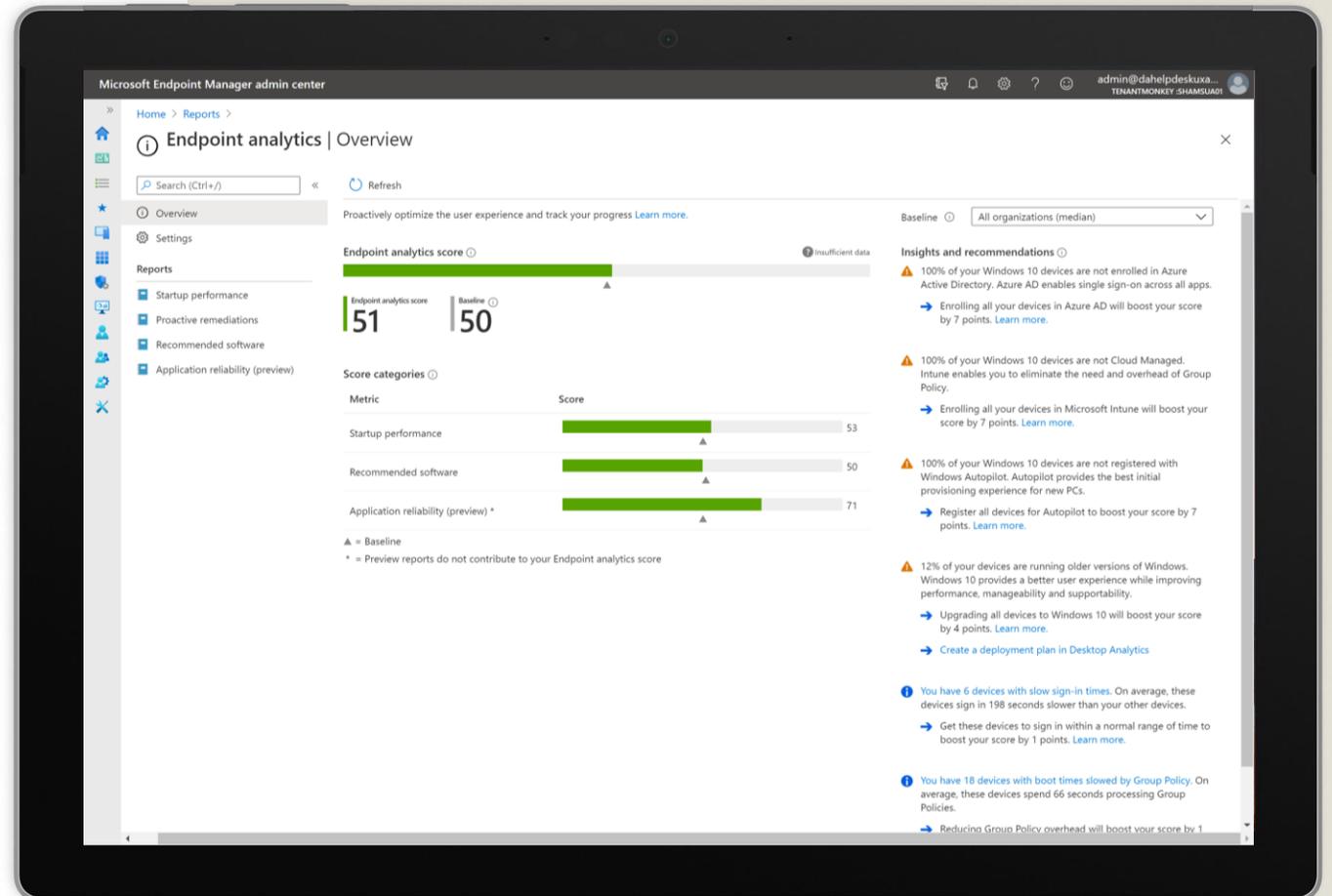
Endpoint analytics is an important part of the Microsoft Productivity Score

Address end-user pain points – including ones that go unreported

Proactively detect and remediate common support issues before end-users know there's a problem

Improve corporate access for remote users with recommended software

Identify and troubleshoot reliability issues with desktop applications (preview)



Endpoint analytics requirements

Enroll devices via **Configuration Manager** with **Tenant Attach** feature or with Intune

Windows 10 devices must be **Azure AD joined** or **hybrid Azure AD joined**

Supported licenses

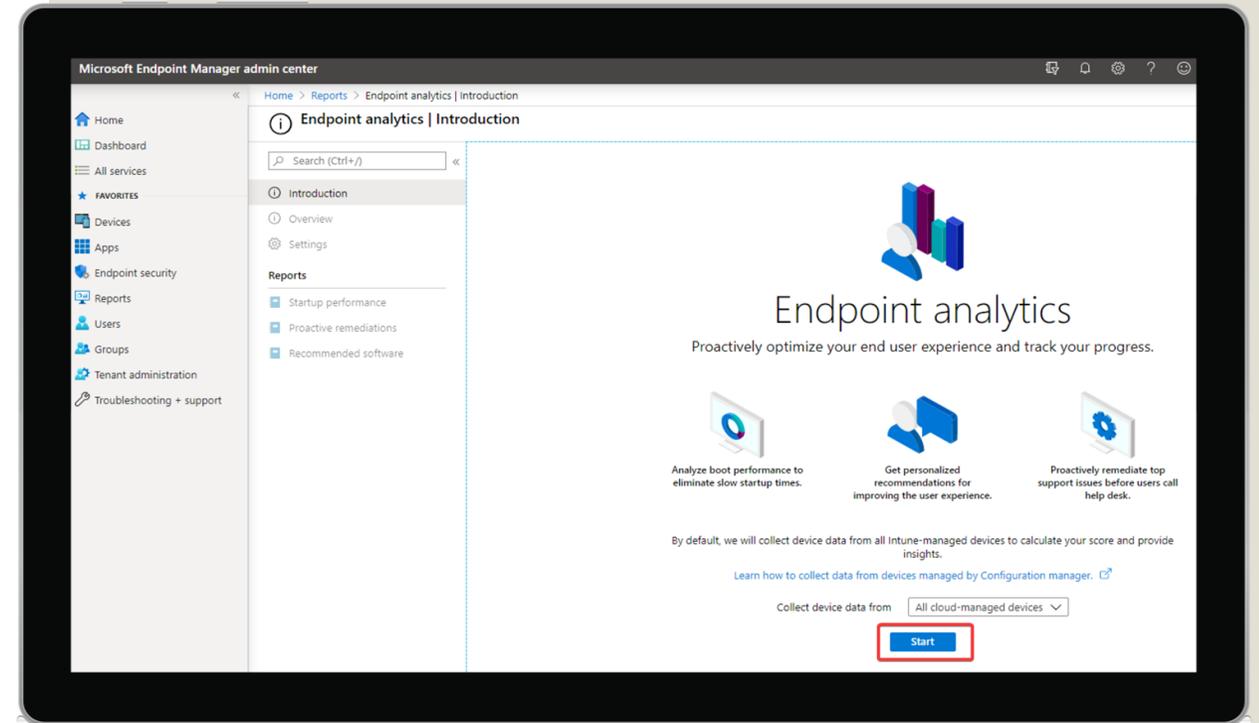
- Enterprise Mobility + Security E3 or higher
- Microsoft 365 Enterprise E3 or higher

Startup performance

Windows 10 Enterprise/Education or higher

Proactive remediations also require one of the following licenses for the managed devices:

- Windows 10 Enterprise E3 or E5 (included in Microsoft 365 F3, E3, or E5)
- Windows 10 Education A3 or A5 (included in Microsoft 365 A3 or A5)
- Windows Virtual Desktop Access E3 or E5



Startup performance



Monitor your scores (0 to 100)

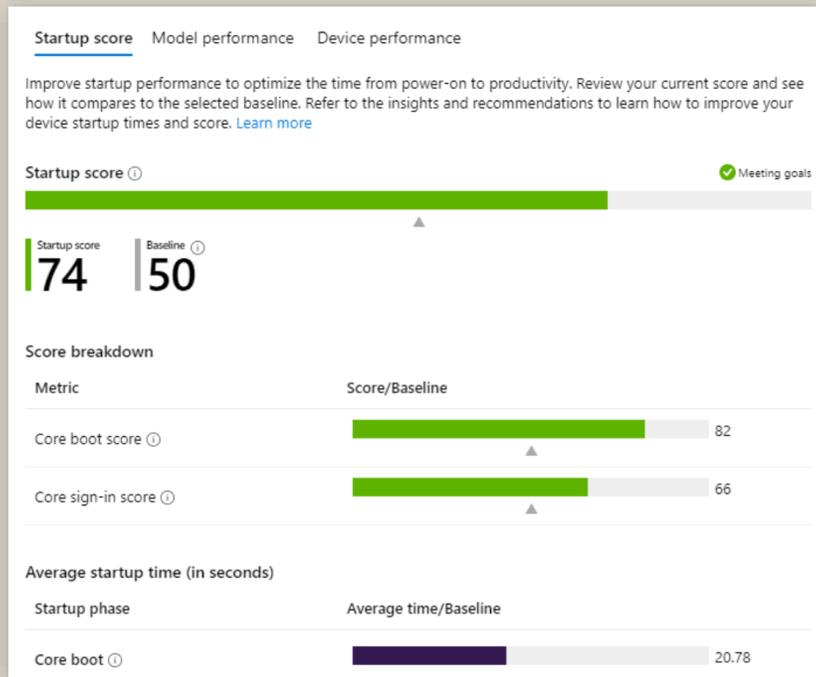
Boot score

Sign-In score

Check Insights and recommendations as

Slow boots and sign-in times

GPO impact during the startup



Baseline ⓘ

All organizations (median) ▼

Insights and recommendations ⓘ

- ⚠ You have 29953 devices with slow sign-in times. On average, these devices sign in 144.24 seconds slower than your other devices.
→ Get these devices to sign in within a normal range of time to boost your score by 5 points. [Learn more](#)
- ⚠ You have 12997 devices with HDD. On average, these devices boot 30.47 seconds slower and sign in 53.69 seconds slower than your devices with SSD.
→ Upgrading these devices will boost your score by 3 points. [Learn more](#)

Proactive remediations

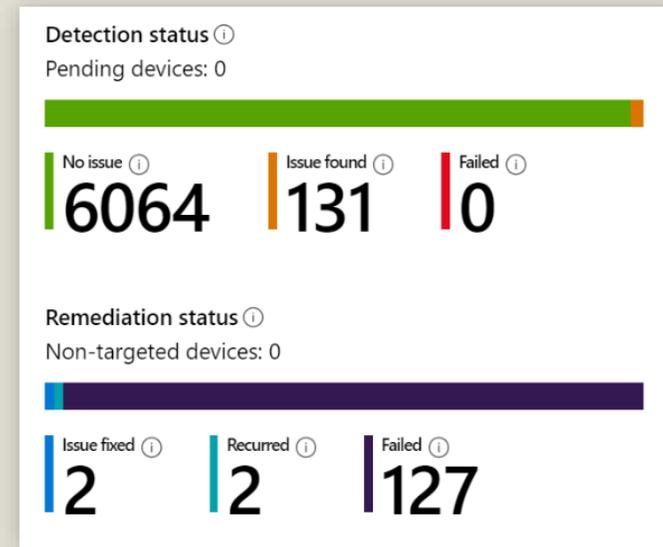
Proactive remediations are **script packages that can detect and fix common support issues** on a user's device before they even realize there's a problem

Two scripts, **one for detection and another one for remediation**

These remediations can help to **reduce support calls**

Check out remediation scripts ready to be used

<https://docs.microsoft.com/en-us/mem/analytics/powershell-scripts>



Detection script *

Input script text

Remediation script

Input script text

Run this script using the logged-on credentials Yes No

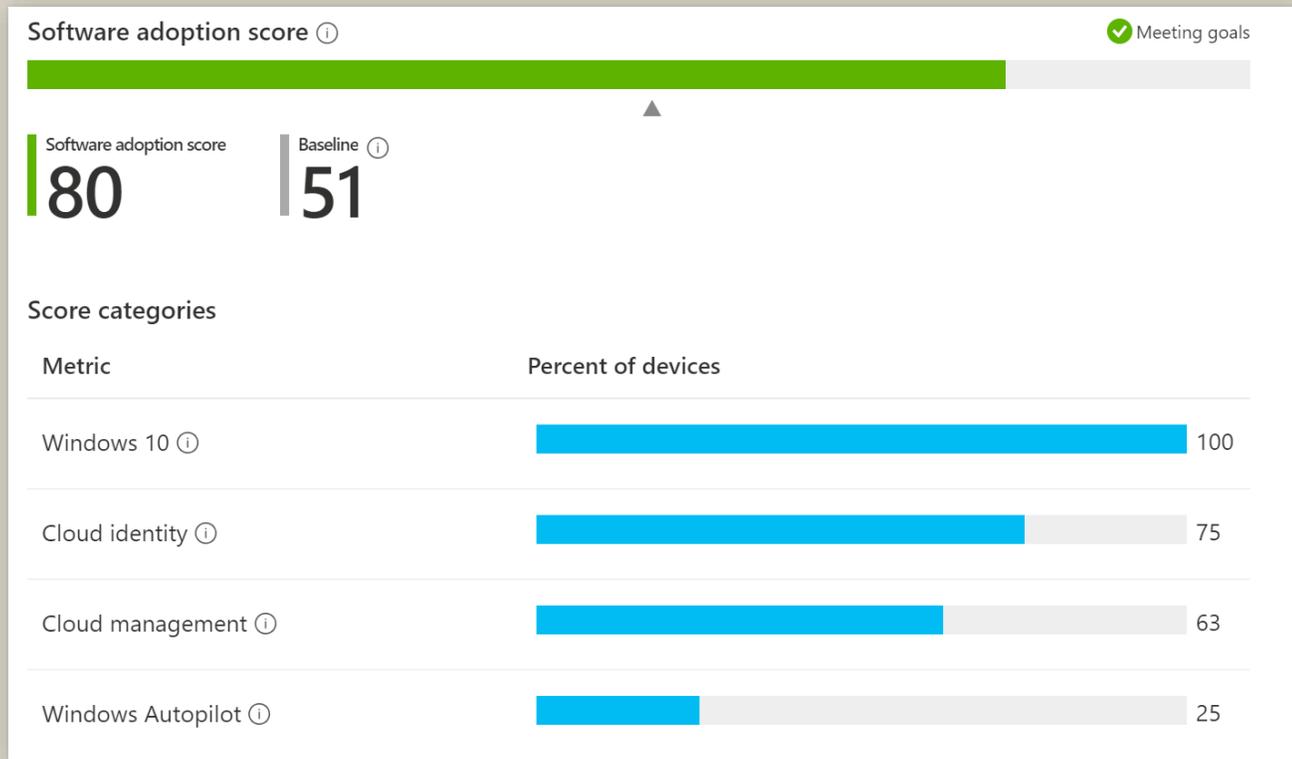
Enforce script signature check Yes No

Run script in 64-bit PowerShell Yes No

Recommended software



The Software adoption score represents a weighted average of the percent of devices that have deployed various recommended software like Windows 10 Deployment, Azure Identity, Autopilot Device or Device Enrolled in Intune



Insights and recommendations

- ! 75% of your Windows 10 devices are not registered with Windows Autopilot. Autopilot provides the best initial provisioning experience for new PCs.
→ Register all devices for Autopilot to boost your score by 11 points. [Learn more](#)
- ! 38% of your Windows 10 devices are not Cloud Managed. Intune enables you to eliminate the need and overhead of Group Policy.
→ Enrolling all your devices in Microsoft Intune will boost your score by 5 points. [Learn more](#)
- ! 25% of your Windows 10 devices are not enrolled in Azure Active Directory. Azure AD enables single sign-on across all apps.
→ Enrolling all your devices in Azure AD will boost your score by 4 points. [Learn more](#)

Wipe vs Retire



Wipe	Retire
Restore the device to its factory defaults	Removes managed app data, settings, and email profiles that were assigned by using Intune but leaves the user's personal data on the device
Removes all company and user data and settings	Removes the device from Intune management next time when the device checks in
Can be performed on Windows, iOS/iPadOS and Android devices	Use the Delete action instead if you want to remove the device immediately

Common scenarios	Suggested action
Lost device	Remote lock whilst looking for device, Wipe if the device cannot be found
Stolen device	Wipe
Retire device	Wipe
Forgotten passcode	Passcode reset
User leaving company, personal device enrolled to Intune	Retire



Thank you

—————> Any questions?

About Kocho

At Kocho, we believe **greatness** lies in everyone. That's why we exist, to help ambitious companies realise their potential.

By combining the power of Microsoft cloud technology with world-class identity, cyber security and our team of talented people, we take our clients on a journey of secure cloud transformation.

And we're with you every step of the way. Because the path to greatness isn't walked alone. We help you adopt and embrace the right technology solutions at the right time.

The result? Sustainable and secure growth that amplifies your business success.

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Gold Security
Gold Datacenter
Gold Cloud Platform
Gold Cloud Productivity
Gold Application Developer
Gold Windows and Devices
Gold Enterprise Mobility Management
Gold Small and Midmarket Cloud Solutions

