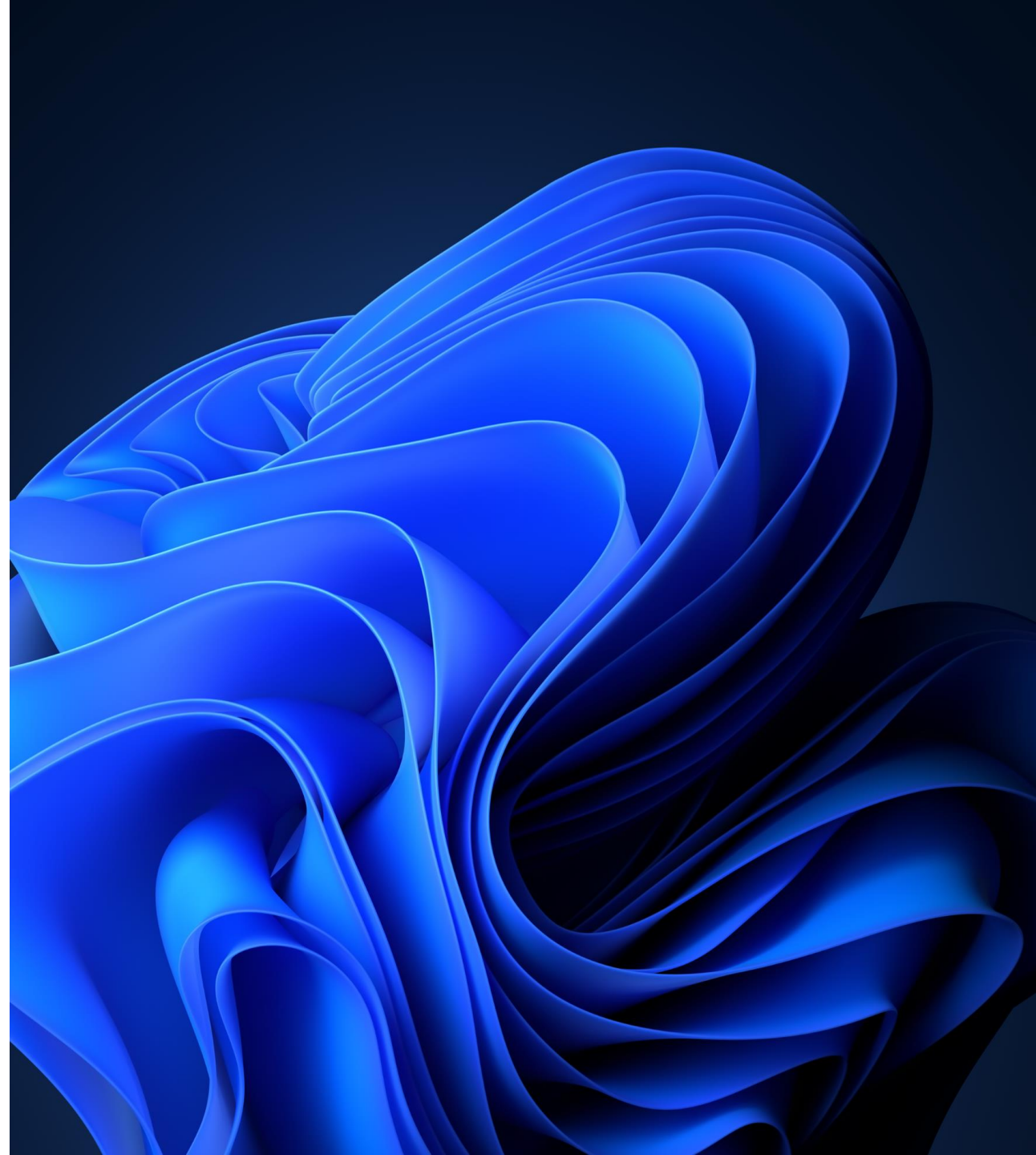




# Windows 11 Enterprise

## Upgrade and deployment



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# Agenda

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What's new with Windows 11

Deployment considerations and prerequisites


Go modern for deployment

Resources

Q&A

# Roadmap to modernizing endpoints

# Identity and Access, Device and App Management, Zero Trust

Continue the journey with  **Windows 11**



## Identity & Access

- Cloud Identity
- Passwordless
- Conditional Access
- Microsoft Defender for Identity



## Cloud Files & Services

- OneDrive
- Teams
- Microsoft Defender for Office



## Endpoint Servicing

- Windows Update for Business
- M365 Apps MEC



## Modern Devices

- Windows, iOS and Android
- Surface / Secured Core PCs
- HoloLens, Surface Hub & Specialty



## Device Management

- Windows Autopilot
- Co-Management
- Configurations and Policies
- Application Mgmt.
- Device Health and Compliance
- Endpoint Analytics

## Endpoint Security

- Cloud managed firmware
- Secure Boot and BitLocker
- Windows Hello for Business
- Microsoft Defender for Endpoint



## Virtualized Endpoints

- Azure Virtual Desktop
- Windows 365



## Microsoft Managed Devices

- Device management
- Security monitoring

← Advance the journey across the Zero Trust security model →

## Consistent Windows Enterprise value

### Exclusive Windows Enterprise capabilities

Cloud activation

Universal Print

Endpoint Analytics proactive remediation

Windows Update for Business deployment service

Diagnostics data controls

Microsoft Desktop Optimization Pack

Windows Update Health in Microsoft 365 admin center

Modern BitLocker Management

Application Guard for Edge

Application Control

Credential Guard

DirectAccess and Always-On VPN (device tunnel)

Windows Secure Score

## Features and entitlements available in Windows Enterprise subscriptions

### Entitlements

Azure Virtual Desktop

Windows 365 Enterprise

Microsoft FastTrack

App Assure

### Windows licensing

#### **Windows Enterprise 10 & 11**

No changes to Enterprise licensing

Windows 11 uses Windows 10 activation keys

### Windows Servicing

#### **Windows 10**

Windows 10 is supported through Oct 2025

One yearly feature update in the second half of the year supported for 30 months

#### **Windows 11**

General Availability October 5, 2021

One yearly feature update in the second half of the year supported for 36 months



# Summary

## What's new in Windows 11

### Productive

**Simple, modern visuals**, with a new **Start Menu**, and enhanced user experience, including **Snap groups**, and **Snap layouts**

**Great tablet experience**, enables quicker actions with touch or pen, and a redesigned customizable on-screen keyboard and enhanced inking.

**Integrated Voice Typing**, so you can speak naturally to type

**Microsoft Power Automate ships with the OS**, so people can focus on what is important and automate the rest.

### Collaborative

#### Inclusive video conferencing

Turn microphone on and off right from the taskbar<sup>4</sup> so everyone's voice is heard.

Share any windows from Taskbar<sup>4</sup> while in a call and maintain Taskbar access while presenting.

Keep the background in the background with intelligent noise cancelling and blur.

#### New features that require MSA<sup>3</sup>

Teams chat from the taskbar

Widgets, personalized content

Android Apps on Windows<sup>4</sup>

New Microsoft Store

### Secure

**Virtualization-based security** (VBS) and **Hypervisor-Enforced Code Integrity** (HVCI) **turned on by default**<sup>1</sup>

**Security policies locked down** and stay locked<sup>1</sup>

**Improvements for Windows Hello for Business hybrid deployments** and AMD USB secure camera support.

Support for **Pluton security processor**<sup>2</sup>

**Wi-Fi 6E**<sup>2</sup> support better throughput and security

### Consistent

**Near parity between MDM and Group Policy** for complete Cloud connected management.

**Enhanced Universal Print** saves cost by eliminating print servers

**Run virtual apps like local**, Windows 11 works better together with virtual desktop, and virtualized apps

**One feature release per year** and 36 months of servicing per release

**Windows 365 Enterprise** entitlement

<sup>1</sup> Requires a new or reimaged PC, <sup>2</sup> New hardware required, <sup>3</sup> Can be disabled on Enterprise PCs <sup>4</sup> **Coming in a future release; appearance may vary.**

# Windows 11

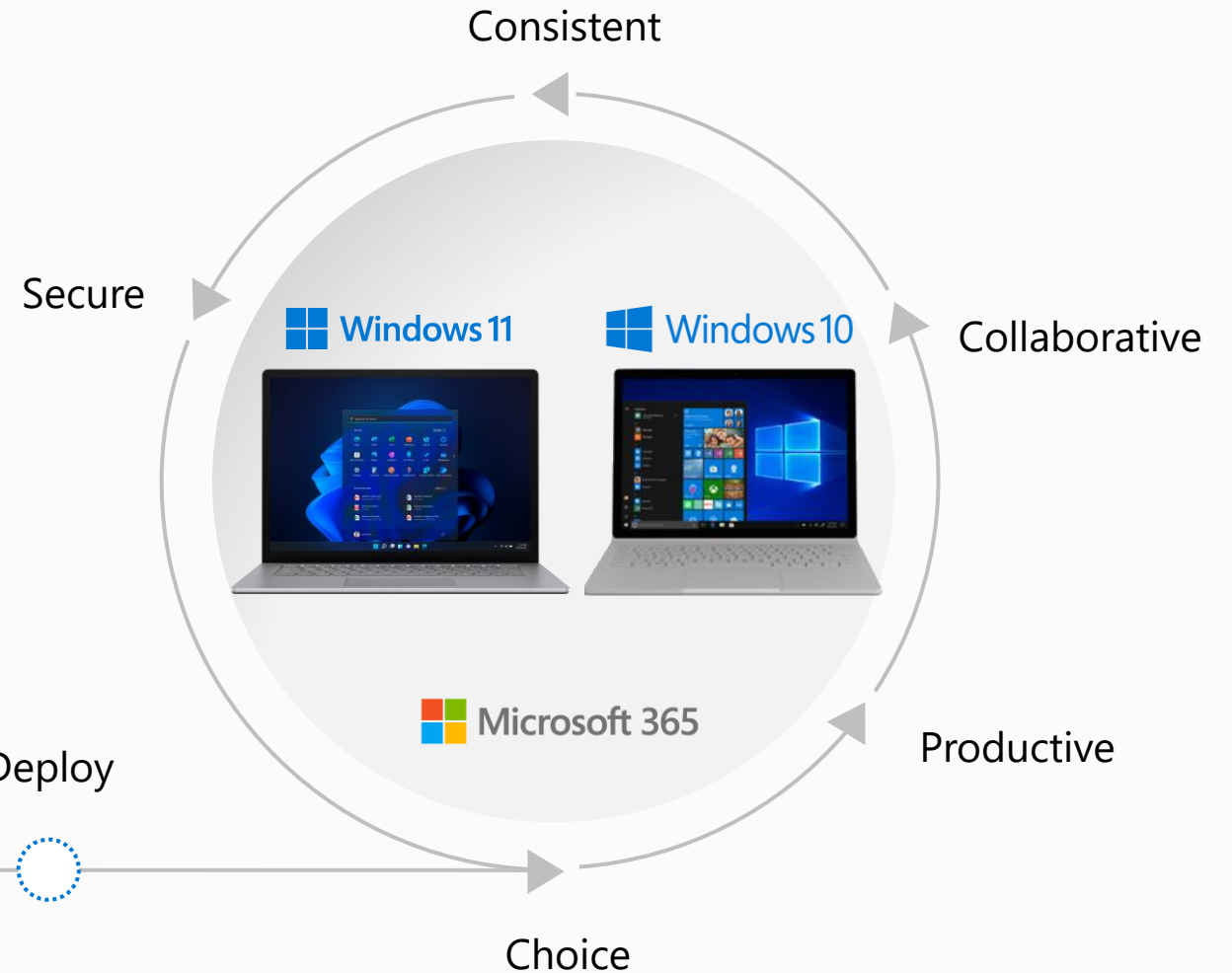
## Windows 10 & 11 Cohabitate:

- Update devices that meet the hardware floor
- Same servicing framework & process
- Same tooling & management approach
- Same ring strategy and approach – just another feature update
- Run the same applications
- Familiar user experiences
- Same deployment cadence

Plan

Prepare

Deploy



# Feature deprecations, removals & changes

## New desktop experiences

- **New Start Menu and Windows Taskbar**
- Desktop wallpaper cannot be roamed
- News and Interest is now Widgets
- Snipping tool updated
- 3D Viewer, OneNote for Win 10, Paint 3D and Skype are only available from the Store
- Touch Keyboard no longer docks/undocks on screen sizes 18: plus

## Removed desktop experiences

- **Internet Explorer**
- Tablet mode
- Math input panel
- Quick status on lock screen
- Timeline and Wallet
- Cortana at boot or pinned to the taskbar

## Configuration change considerations

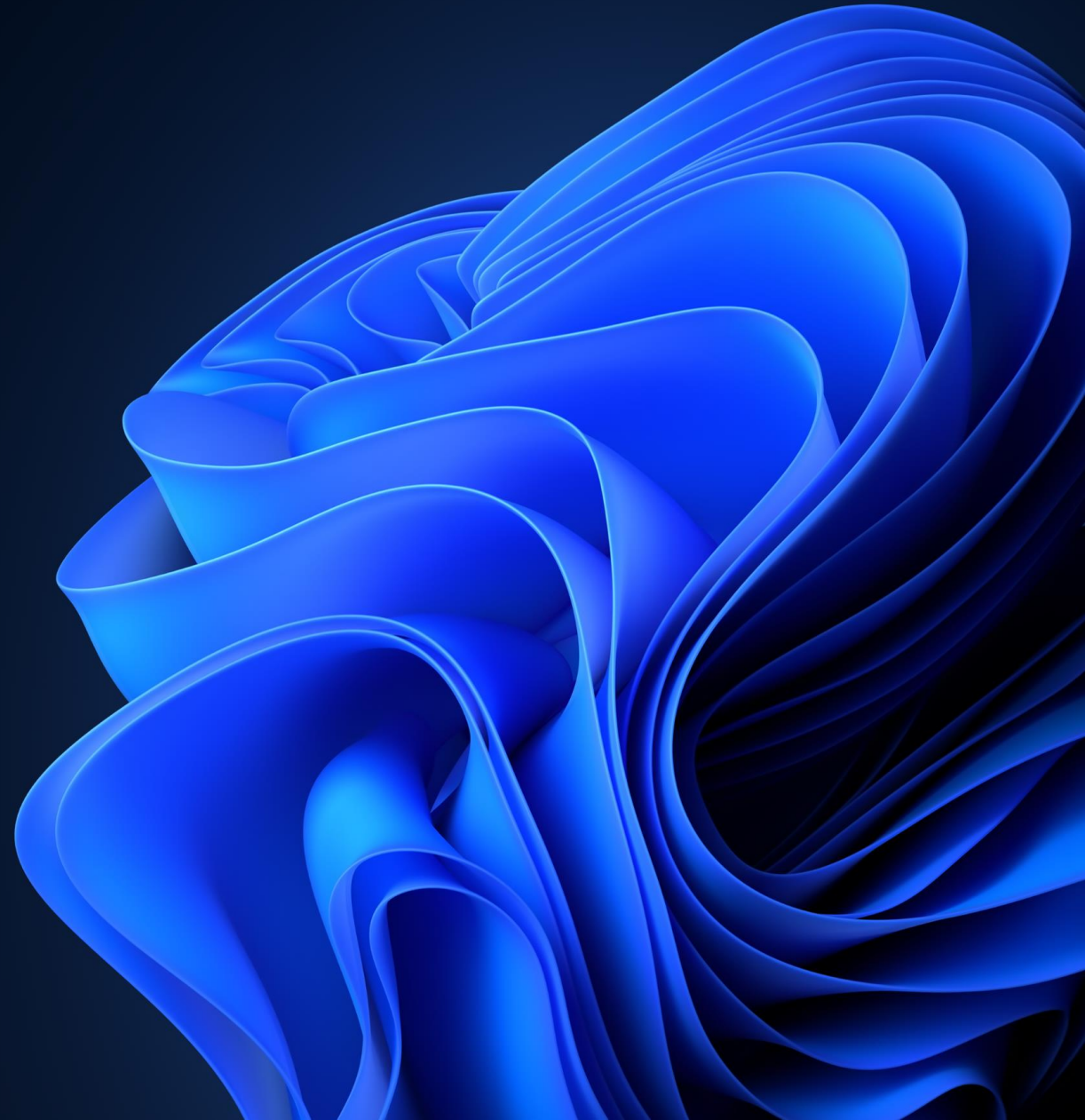
- **Multi-app Kiosk mode**
- Start Menu and Taskbar
- S-mode only available on Home Edition



# Windows 11

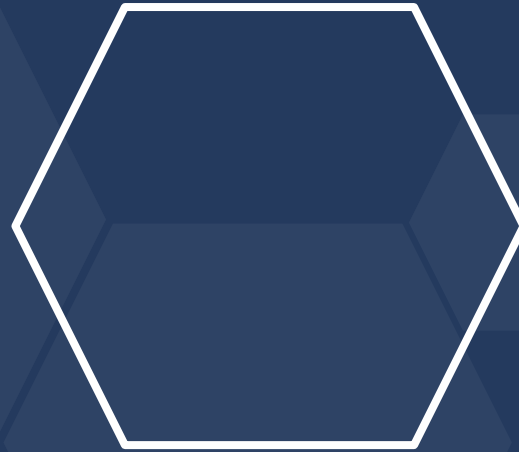
## What Doesn't change

- Just another step of digital transformation
- Servicing framework & process
- Modern management via the cloud
- Tooling & management
- Analytics to make data-driven decisions
- App compatibility promise
- Hands-off hardware provisioning via Windows Autopilot
- Use of a statistically relevant ring strategy & structure
- Service & change management maturity
- Licensing





# Planning your move to Windows 11



# Windows 11

## How & where to get it

### For IT administrators

Available through the same, familiar servicing channels we utilize today for Windows 10 feature updates, including:

- Windows Server Update Services (WSUS)
- Windows Update for Business

Windows 11 can also be downloaded from [Visual Studio Subscriptions](#), the [Software Download Center](#) (via the Windows 11 Installation Assistant or the Media Creation Tool), and the [Volume Licensing Service Center](#) (VLSC).

Use your existing deployment and management tools.

- [Administrative Templates \(.admx\) for Windows 11](#)
- [Group Policy Settings Reference Spreadsheet for Windows 11](#)
- [Windows 11 Enterprise Evaluation](#)
- [Windows Assessment and Deployment Kit \(Windows ADK\) for Windows 11](#)
- [Windows 11 Security Baseline](#)
- Remote Server Administration Tools (RSAT) for Windows 11

### [Windows Insider Program for Business](#)

ISO's have been published and are readily available.

Running Pro, Enterprise and Education editions of Windows 10? Same control over when and how to roll out the upgrade.

# Lifecycle

## Windows 10

One release per year (starting with 21H2)

Monthly cumulative quality updates

Home and Pro editions: 18 months

Enterprise editions: 30 Months

## Windows 11

One release per year

Monthly cumulative quality updates

Home and Pro editions: 24 months

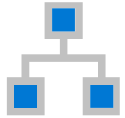
Enterprise editions: 36 months

*Formal support ends October 14, 2025, except LTSC editions*

# Windows 11 Readiness

## Hardware Eligibility

How do I know if my hardware estate is ready?



## Management Tools

What have I got to do with my management tools in order to deploy?



## User Readiness

What do my end users need to know about Windows 11?



## Plan for Coexistence

What does it look like to run Windows 10 and 11 in parallel?



## Windows 11 Hardware requirements

To install or upgrade to Windows 11, devices must meet a set of minimum hardware requirements

### Processor:

1 gigahertz (GHz) or faster with two or more cores on a [compatible 64-bit processor](#) or system on a chip (SoC)

### RAM:

4GBs or greater

### Storage space:

64GBs or larger

### Graphics card:

Compatible with DirectX 12 or later with WDDM 2.0 driver

### System firmware:

UEFI, Secure Boot capable

### TPM:

Trusted Platform Module (TPM) version 2.0

### Display:

High definition (720p) display, 9" or greater, 8 bits per color channel

### Internet connection:

Internet access is required to perform updates and to download and take advantage of some features. Windows 11 Home edition requires internet connectivity and a Microsoft Account to complete device setup on first use.

**Note:** S mode is only supported on Home Edition on Windows 11. If you are running a different edition of Windows in S mode, you will need to first [switch out of S mode](#) prior to upgrading. Switching a device out of Windows 10 in S mode also requires internet connectivity.

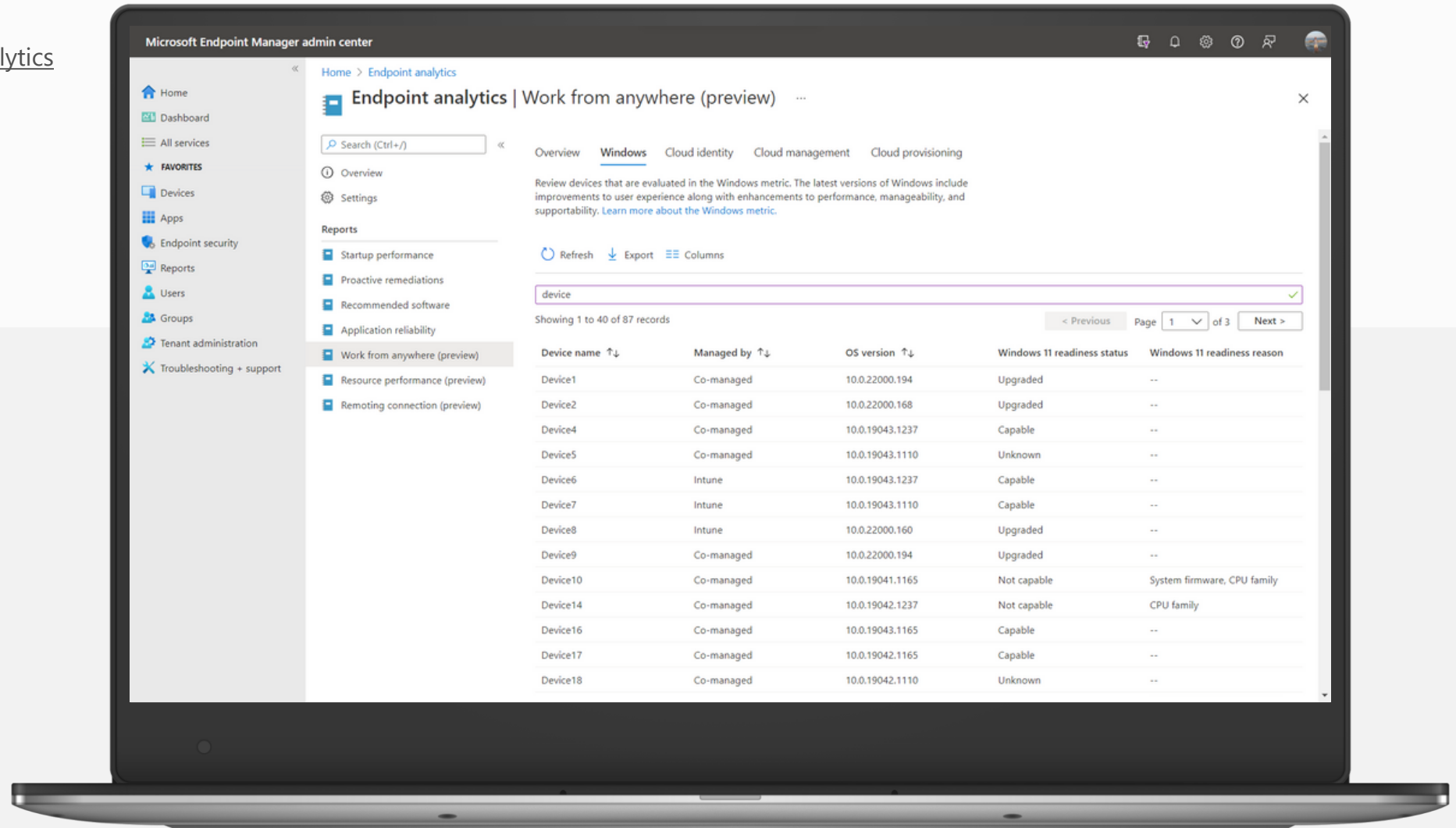
Learn more: <https://www.microsoft.com/windows/windows-11-specifications>

# Windows 11 Hardware requirements

To install or upgrade to Windows 11, devices must meet a set of minimum hardware requirements

## Learn more:

[aka.ms/windows/EndpointAnalytics](https://aka.ms/windows/EndpointAnalytics)

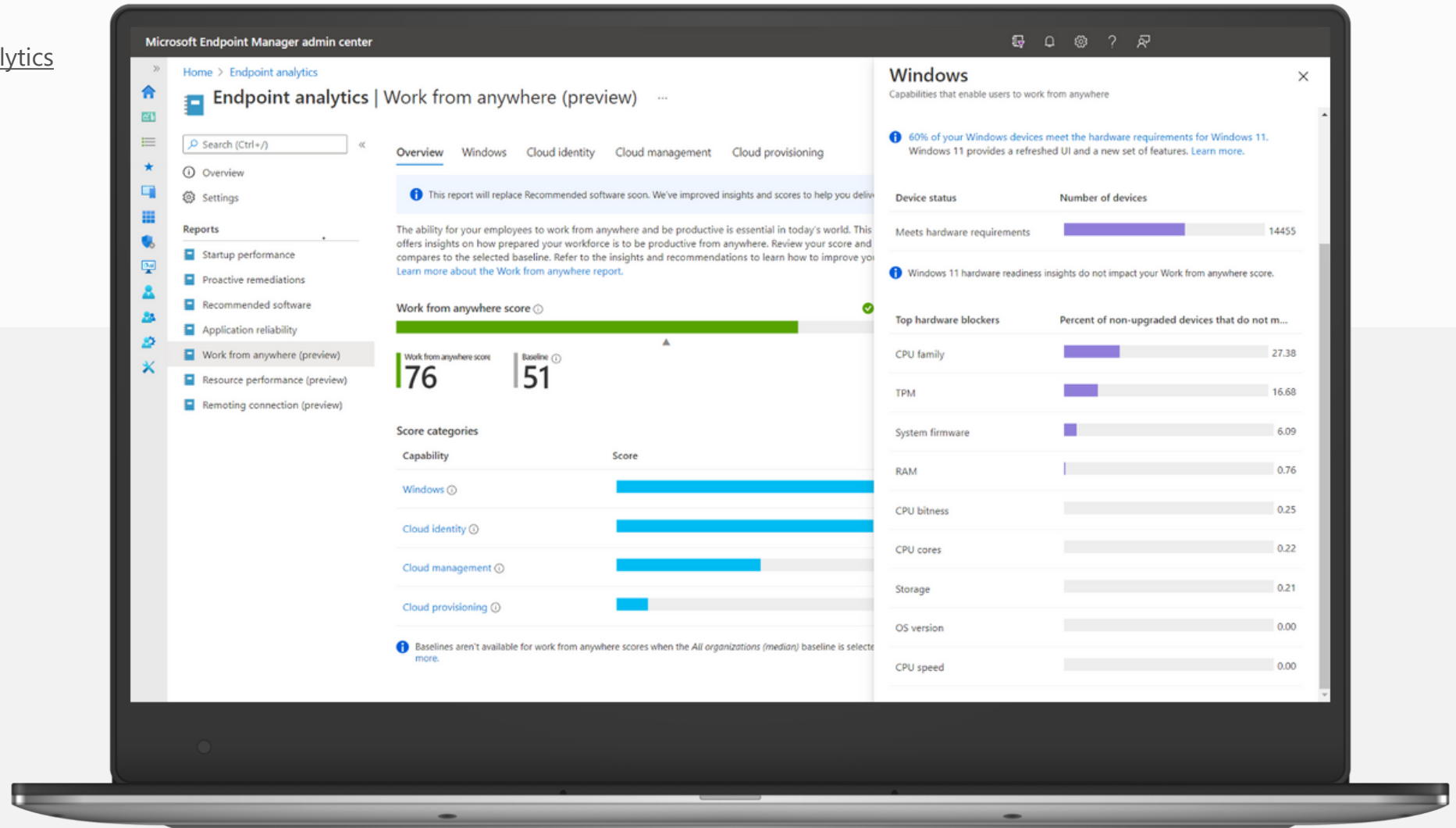


Note: Windows 11 hardware requirements can be checked in Endpoint Analytics. Microsoft Desktop Analytics does not support providing insights for Windows 11.

# Windows 11 Hardware requirements

To install or upgrade to Windows 11, devices must meet a set of minimum hardware requirements

**Learn more:**  
[aka.ms/windows/EndpointAnalytics](https://aka.ms/windows/EndpointAnalytics)



Note: Windows 11 hardware requirements can be checked in Endpoint Analytics. Microsoft Desktop Analytics does not support providing insights for Windows 11.

When apps work on Windows 10,  
they work on Windows 11.

Engage the App Assure service  
to fix problems you identify

**Microsoft takes responsibility for compatibility.**  
Guaranteed by App Assure.

**837,699**

Number of apps  
evaluated

**99.6%**

Application  
compatibility rate

**90 M**

Unblocked  
endpoints

**44 M**

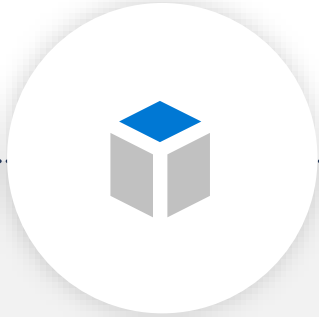
Helpdesk calls  
prevented (est.)

**\$7.6 B**

Estimated customer  
cost savings

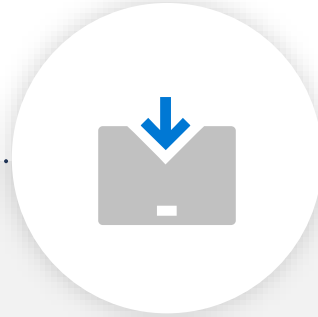


### Reduced quality update package size



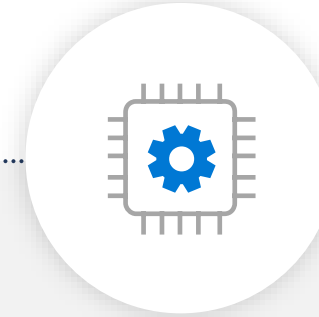
~40% reduction in LCU size through more efficient packaging and removal of reverse differentials.

### Reduced download size to client



Additional reduction in download size to client through granular selection of required update payloads for customers who keep their devices up to date month over month.

### Improved installation orchestration



Advances in orchestration of package installation works great in Catalog MSU.

If it works in Windows Update, it works in Microsoft Update via common, Unified Update Platform (UUP) technology.

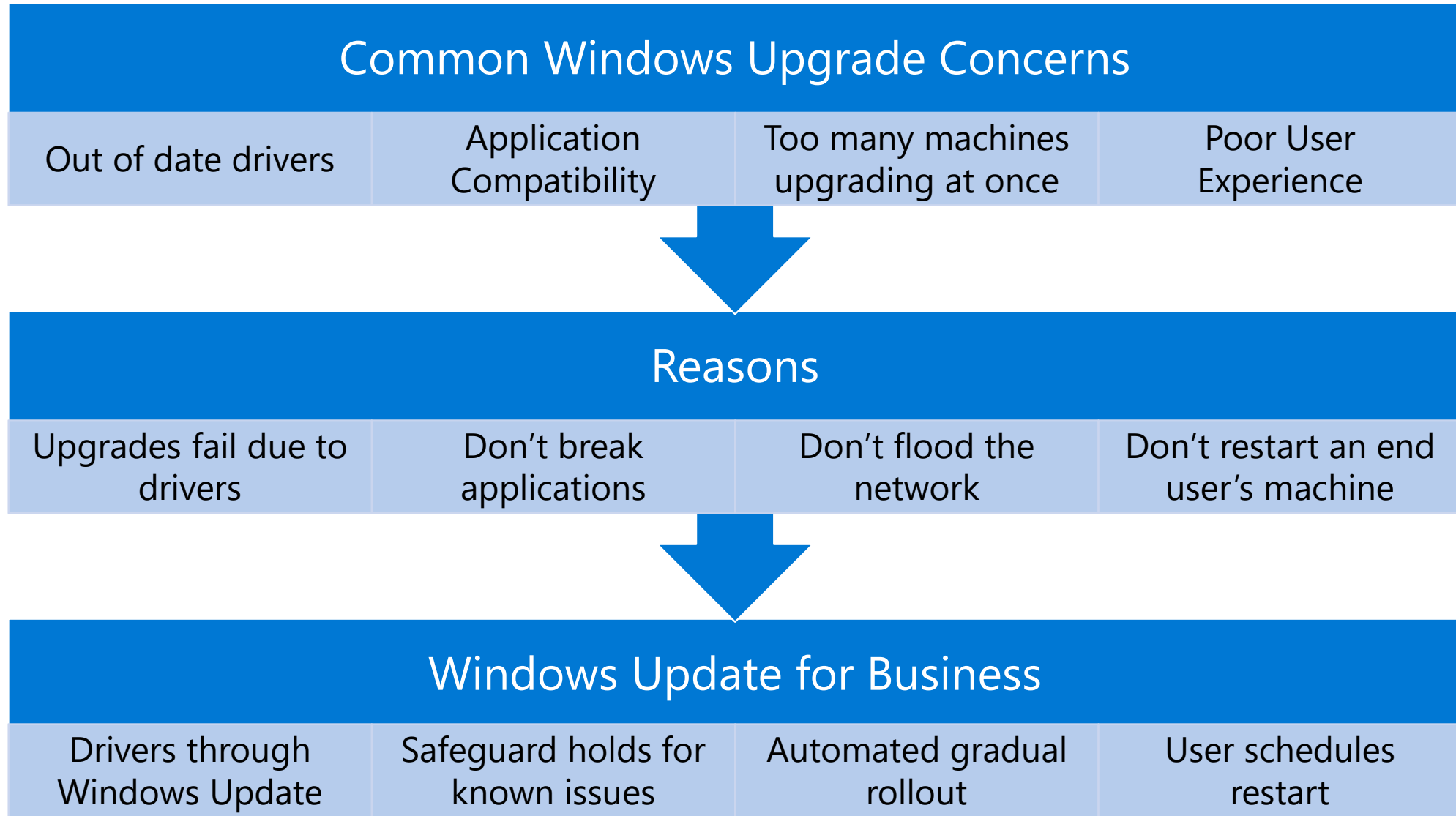
**Consistent management and servicing**

Upgrade to Windows 11 using tools and processes the you already have in place today for Windows 10

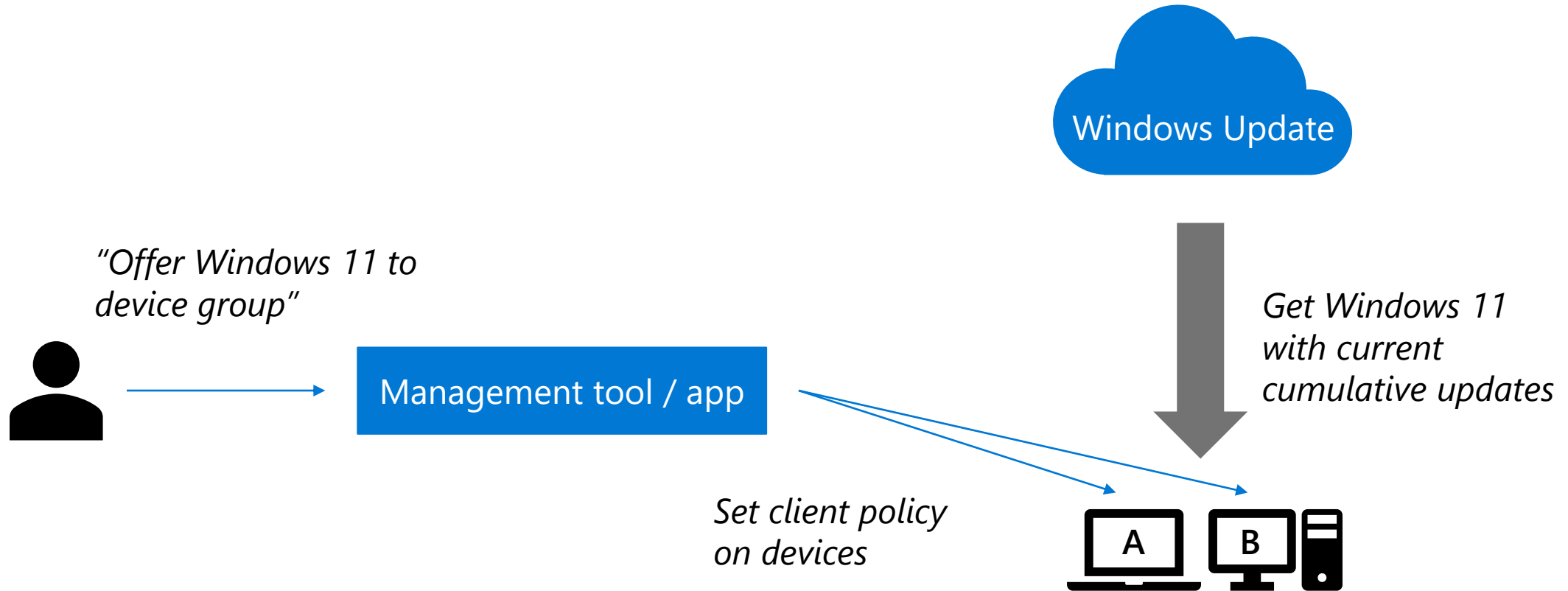
Upgrade channel	Management tool, analytics	Upgrade supported
Third-party	Third-party management tools and analytics	✓*
On-premises	Windows Server Update Service, Windows Update for Business	✓
	Microsoft Endpoint Configuration Manager 2107	✓
	Endpoint Analytics	✓
The cloud	Microsoft Endpoint Manager Intune, Windows Update for Business	✓
	Update Compliance, Endpoint Analytics	✓

\*Dependent on third-party partner support.

# Simplify deployments with Windows Update for Business



# Controlling Windows updates



Only devices that meet Windows 11 pre-requisites and have this policy set will get Windows 11.

# Windows 11

## How to succeed

Understand the hardware requirements & update your hardware refresh policy today

Leverage Endpoint Analytics to ensure hardware readiness and the best Windows endpoint experience

Start early validation with Windows Insider for Business

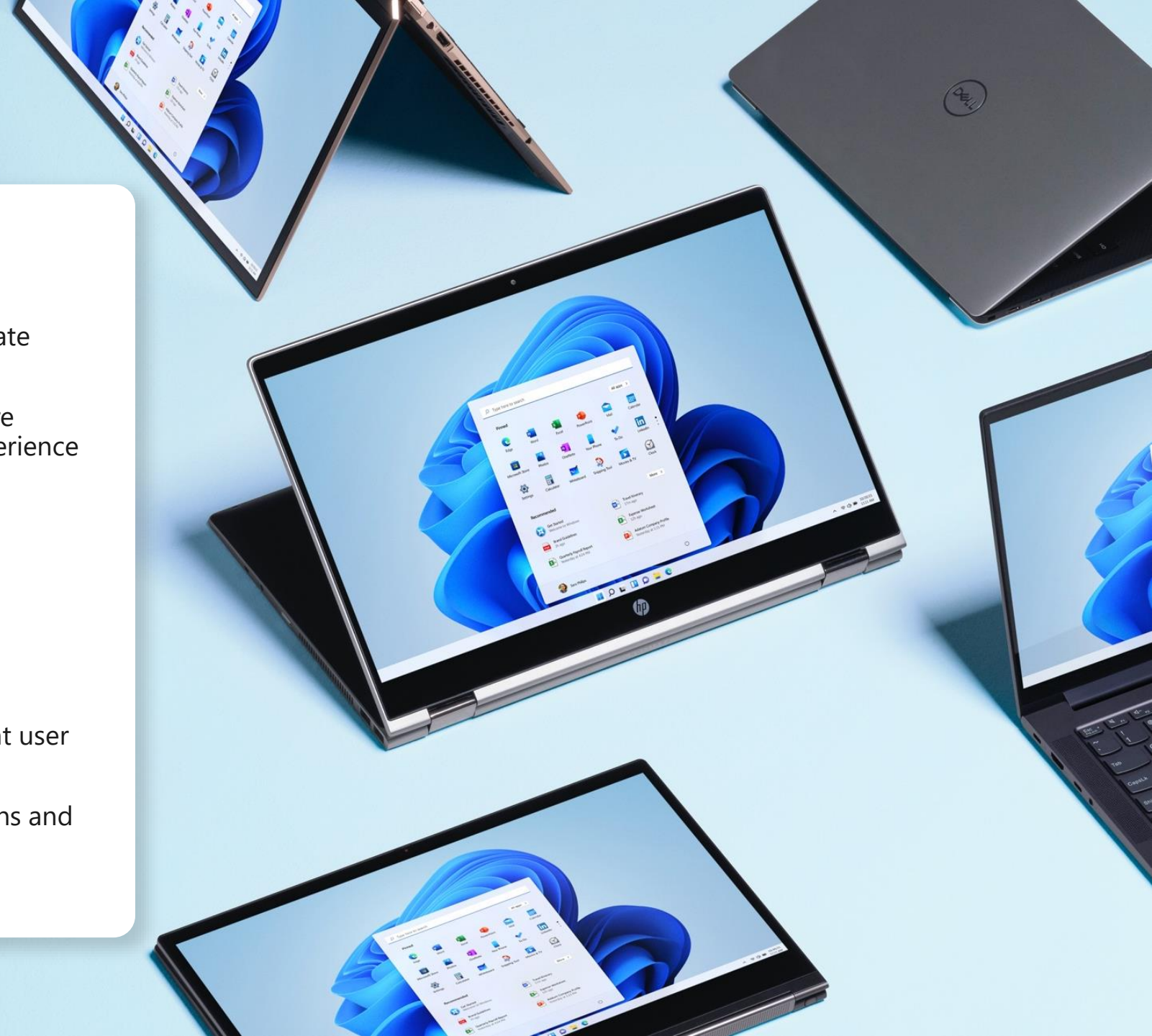
Establish a plan for cohabitation

Partner with the CISO on new security features

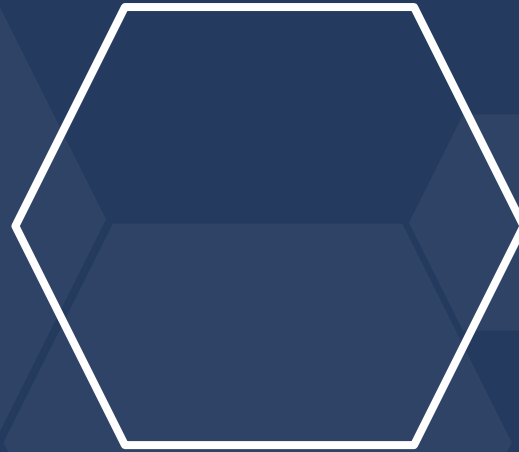
Engage FastTrack and App Assure

Develop communication plan ensuring the right user expectations & prep your support org

Build feedback loops and refine communications and plans as you broaden deployment

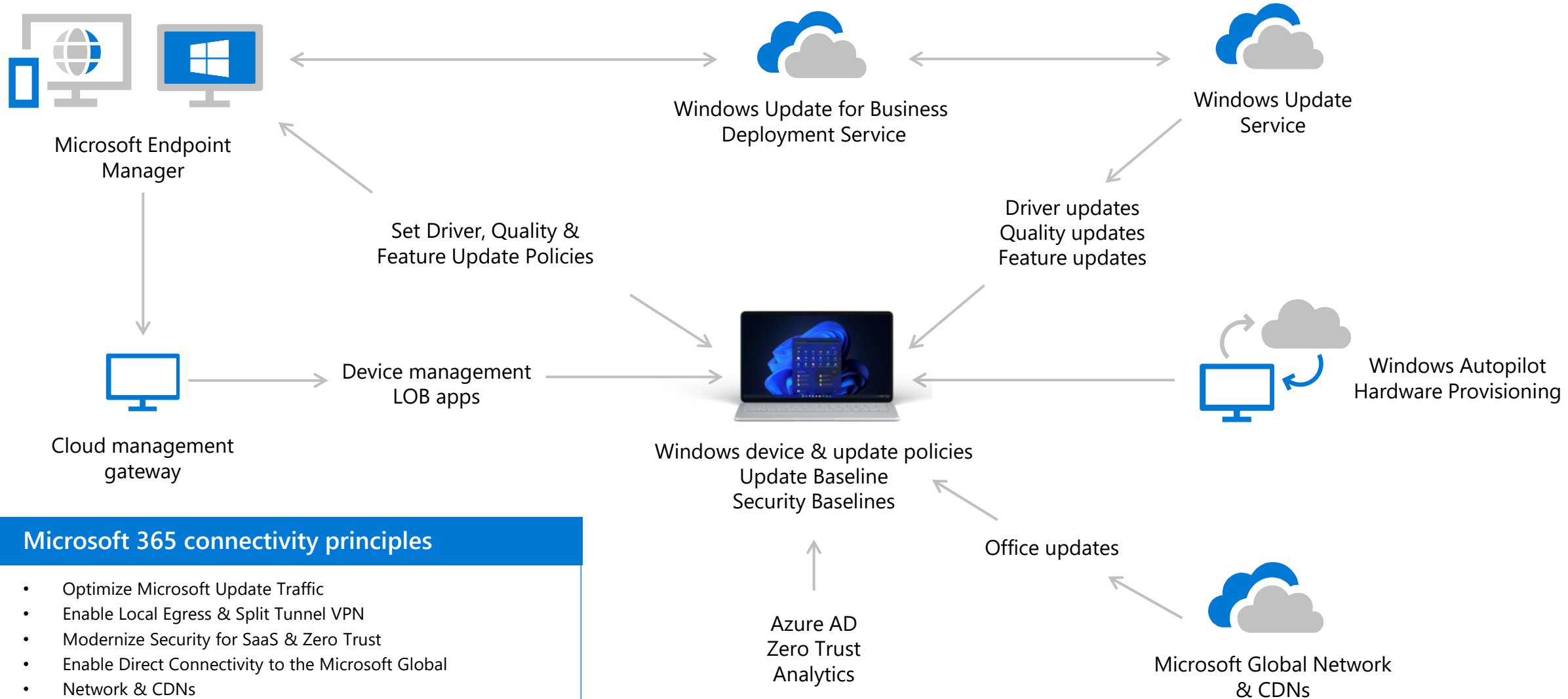


Go modern



# Windows 11

## Cloud & modern managed scenarios



### Microsoft 365 connectivity principles

- Optimize Microsoft Update Traffic
- Enable Local Egress & Split Tunnel VPN
- Modernize Security for SaaS & Zero Trust
- Enable Direct Connectivity to the Microsoft Global Network & CDNs

## Modern Endpoint Goals

### Enabling the next generation of hybrid work



Bridge workforce productivity and security for today's anywhere workstyle by evolving end user computing

---



Improve employee experience, build resiliency, simplify compliance, lower TCO

---



Create cloud connected, multi-platform experiences for IT and Employees

---



Identity and access management with policies and dynamic access decisions that enable a Zero Trust security model





## Endpoint modernization scenarios



Deploy and protect endpoints for **remote/hybrid** workforces.

Cross platform: Windows, iOS, iPad OS, Mac OS, Android

Secure devices with built in app protection

High performance secure access

Streamline deployment with zero touch provisioning

Transform remote computing



Improve the endpoint experience for **frontline workers**.

Broad device support

Automatic enrollment

Custom device configurations

Shared device experiences

Cloud identities



Reimagine the **next generation** of your endpoint estate.

Deliver great Windows experiences

Modern devices and firmware security

Transform virtualized experiences

Cloud manage on premises Windows devices

Always up to date OS, drivers, firmware & software

← Advance the journey across the Zero Trust security model →

**Proactive remediation**  
with Microsoft Defender for Endpoint,  
integration across other threat defense tools

**Device Configurations**  
optimized for Zero Trust,  
foundational for advanced security

**Single pane of glass**  
to simplify management and  
security of endpoints

**Meet the increased need for agility and resilience without sacrificing security**

**Why we need a modern security solution for the hybrid workplace**

### **Empower IT Administrators**

Help IT Administrators easily protect, enable and enforce access seamlessly, while allowing for customization to meet specific user and policy requirements for access, privacy, compliance and more.

### **Enable a Zero Trust security model**

Organizations of all sizes need comprehensive control over access to information, applications, and network resources from anywhere without compromising the user experience.

### **Protect the business**

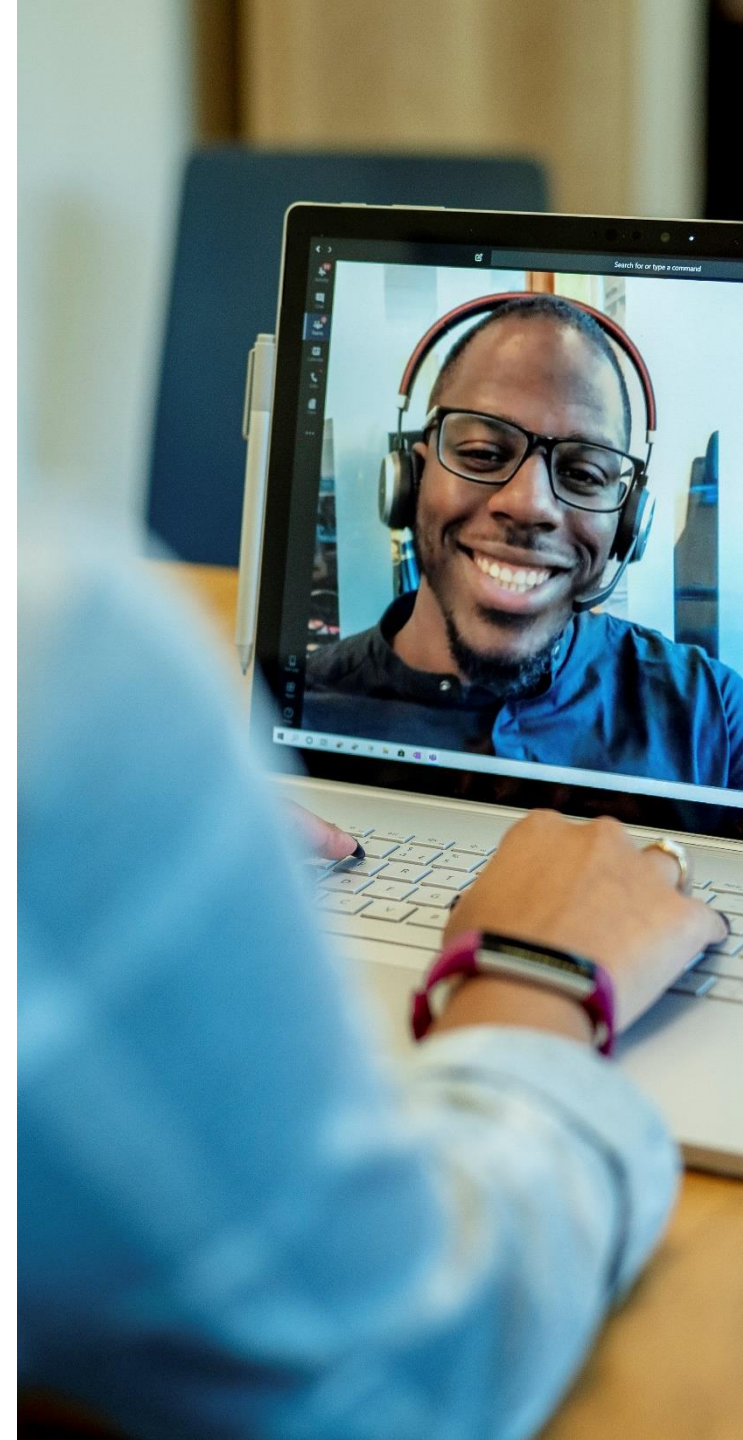
The expansion of access and ability to work anywhere has also introduced new threats and risks. From the chip to the cloud, hardware and software must work together to stop threats.

### **Deliver a consistent workplace experience anywhere**

To support a hybrid workforce, organizations need the ability to seamlessly manage devices, identities, apps, and information through the cloud.

### **Unlock potential with the right devices**

Whatever their role or location, people need the right device to do their job well—whether working in an office, at home, or serving customers in frontline environments.



## Security by default

Windows 11 delivers powerful protection from chip to cloud

In Windows 11, hardware and software security work together to help keep users, data, and devices protected.

Protects against threats by separating hardware from software with hardware root-of-trust, for powerful security from the start

Protect the OS against unauthorized access to critical data

Delivers robust application security and prevents access to unverified code

Protects user identities with passwordless security

Extends security to the cloud to help protect devices, data, apps, and identities from anywhere



# Resources



### Important Windows 11 GA Blogs

**Commercial GA announcement**

[aka.ms/Windows/blog018](https://aka.ms/Windows/blog018)

**Windows 11 GA IT Pro Blog**

[aka.ms/Windows/blog019](https://aka.ms/Windows/blog019)

**Windows 11 GA Servicing Blog**

[aka.ms/Windows/blog020](https://aka.ms/Windows/blog020)

**Windows 11 GA Security**

[aka.ms/Windows/blog021](https://aka.ms/Windows/blog021)

**Power Automate blog**

[aka.ms/Windows/blog022](https://aka.ms/Windows/blog022)

**Application Compatibility**

[aka.ms/Windows/blog023](https://aka.ms/Windows/blog023)

**Microsoft Endpoint Manager**

[aka.ms/Windows/blog024](https://aka.ms/Windows/blog024)

**Universal Print Update**

[aka.ms/Windows/blog026](https://aka.ms/Windows/blog026)

**Windows 11 & Windows 365**

[aka.ms/Windows/blog027](https://aka.ms/Windows/blog027)

**Windows 11 & Azure Virtual Desktop**

[aka.ms/Windows/blog028](https://aka.ms/Windows/blog028)

### Windows 11 evergreen blog sites

**New hardware requirements**

[aka.ms/Windows/blog011](https://aka.ms/Windows/blog011)

**Windows IT Pro**

[aka.ms/windowsitproblog](https://aka.ms/windowsitproblog)

**Universal Print**

[aka.ms/upblog](https://aka.ms/upblog)

**Microsoft Endpoint Manager**

[aka.ms/memblog](https://aka.ms/memblog)

### Microsoft.com

**Windows 11 Enterprise**

[aka.ms/Windows11Enterprise](https://aka.ms/Windows11Enterprise)

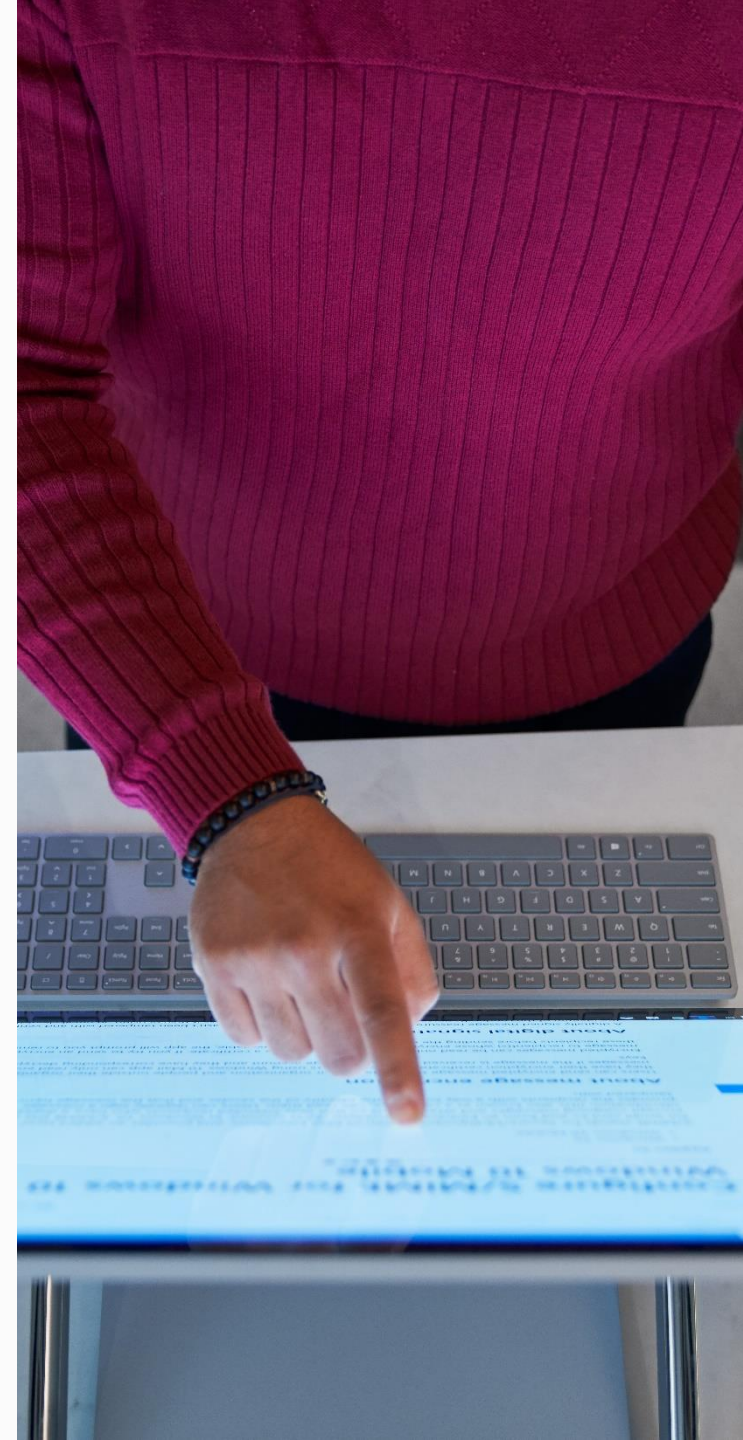
**Windows 11 Pro**

[aka.ms/Windows11Pro](https://aka.ms/Windows11Pro)

### Docs.microsoft.com

**IT Pro documentation**

[aka.ms/Windows/docs001](https://aka.ms/Windows/docs001)



Thank you



## What about TPM in China?

Coming soon to the Windows 11 FAQ:

### Does the TPM 2.0 requirement introduce export limitations that make it impossible to use Windows 11 in some countries?

TPM 2.0 was ISO certified in 2015 and was approved by both Russia and China. It then became required for all Windows 10 PCs in 2016, except in China where it was granted a time-limited waiver, to give sufficient time for partners to identify suppliers and components. That waiver expired in 2018 and the TPM 2.0 requirement has been in effect since then. TPM 2.0 will continue to be a hardware requirement for Windows 11 and we are not aware of any blockers to devices with TPM chips being sold in these countries.

Devices flagged with known compatibility issues

Blocked from Windows 11 upgrade

Not available in WSUS

## Compatibility issues have been found between Oracle VirtualBox and Windows 11

Status	Originating update	History
Confirmed	N/A	Last updated: 2021-10-06, 17:26 PT Opened: 2021-10-04, 12:18 PT

Microsoft and Oracle have found a compatibility issue between VirtualBox and Windows 11, when Hyper-V or Windows Hypervisor is installed. You might be unable to start Virtual machines (VMs) and you might receive an error.

To safeguard your upgrade experience, we have applied a compatibility hold on these devices from installing or being offered Windows 11. If your organization is using [Update Compliance](#), the safeguard ID is 35004082.

**Workaround:** To mitigate the safeguard, you will need to remove Hyper-V or Windows Hypervisor until this issue is resolved with an update Oracle plans to release in October 2021. You can check Oracle's progress by monitoring their [ticket #20536](#). If you are no longer using VirtualBox, uninstalling it should also mitigate the safeguard. Please note, if there are no other safeguards that affect your device, it can take up to 48 hours before the upgrade to Windows 11 is offered.

### Affected platforms:

- Client: Windows 11, version 21H2

**Next steps:** Oracle is working on a resolution and is estimated to release a compatible version of VirtualBox in October 2021.

**Note** We recommend that you do not attempt to manually upgrade using the Update now button or the Media Creation Tool until this issue has been resolved. If you are trying to upgrade to Windows 11, you might encounter an upgrade compatibility hold and receive the message, "VirtualBox. Your PC requires the latest version of this app. Click Learn More for more information on how to update this app."

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