Microsoft

Deploying Windows 10 and managing updates at Microsoft

What we'll cover today
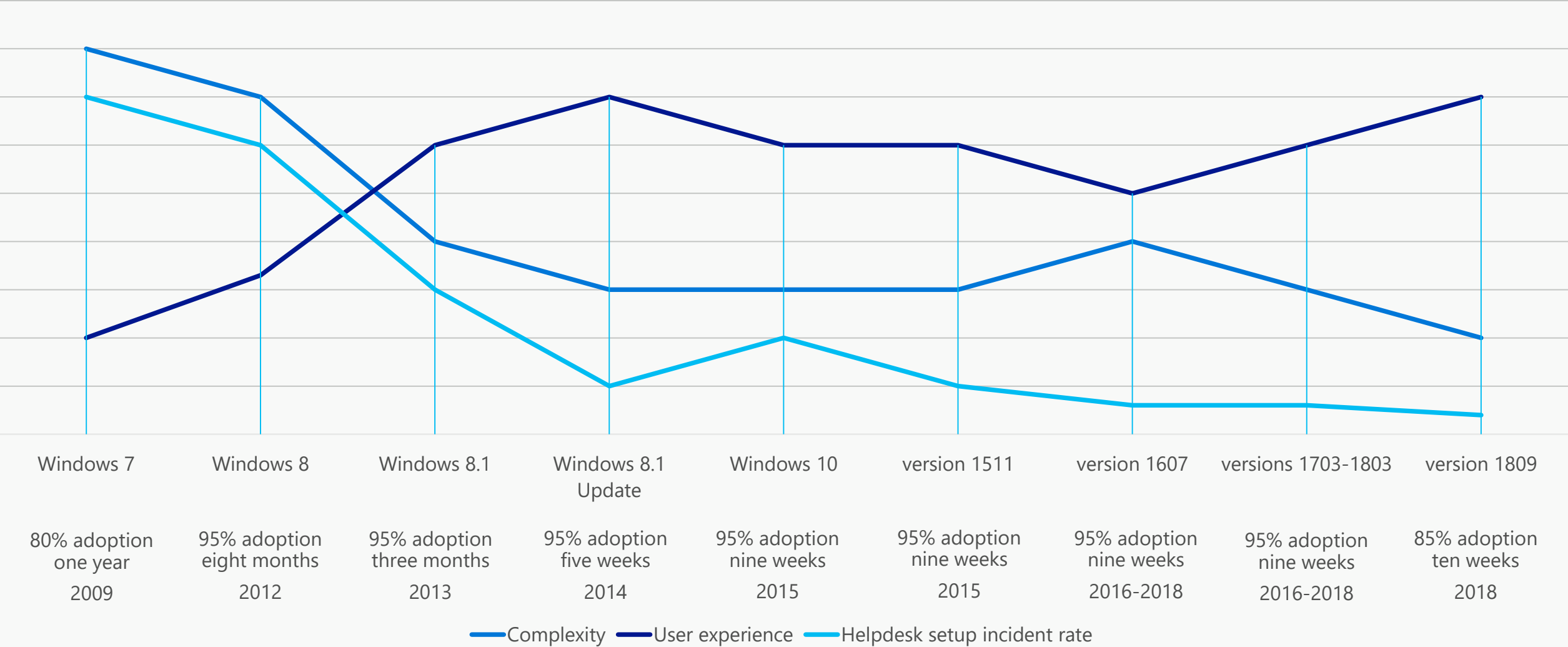
$\rightarrow$ Windows as a service
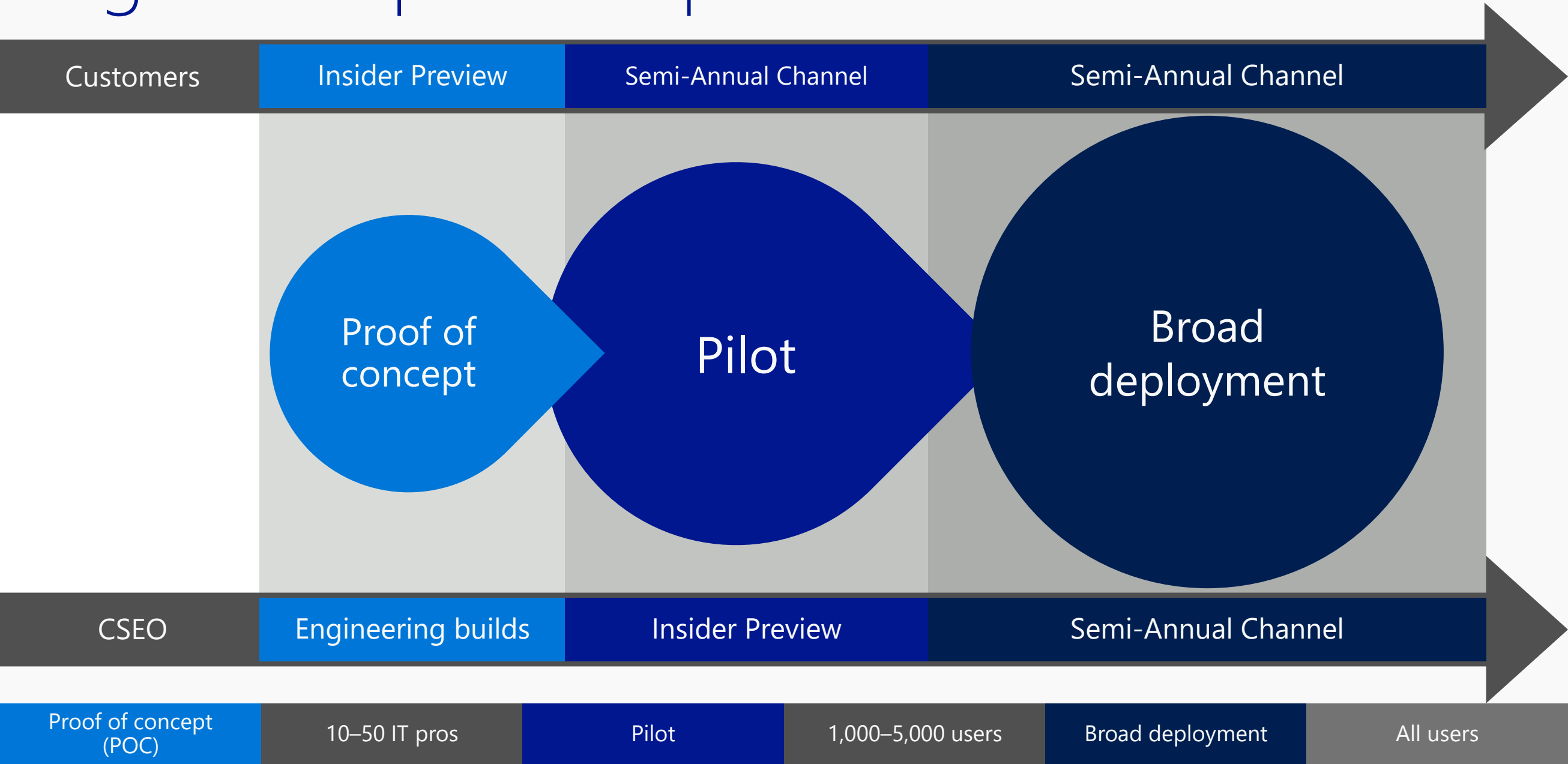
$\rightarrow$ Compatibility

$\rightarrow$ Go modern

Transitioning to Windows as a service

Custom solution → MDT + IT Easy → Upgrade experiment → Update → OSD → OSD → Three ways → OSD → Windows Update for Business

Windows 7 | Windows 8 | Windows 8.1 | Windows 8.1 Update | Windows 10 | version 1511 | version 1607 | versions 1703-1803 | version 1809

80% adoption one year 2009

95% adoption eight months 2012

95% adoption three months 2013

95% adoption five weeks 2014

95% adoption nine weeks 2015

95% adoption nine weeks 2015

95% adoption nine weeks 2016-2018

95% adoption nine weeks 2016-2018

85% adoption ten weeks 2018

— Complexity — User experience — Helpdesk setup incident rate

Agile enterprise adoption

Customers	Insider Preview	Semi-Annual Channel	Semi-Annual Channel

Proof of concept → Pilot → Broad deployment

CSEO	Engineering builds	Insider Preview	Semi-Annual Channel

Proof of concept (POC)	10–50 IT pros	Pilot	1,000–5,000 users	Broad deployment	All users

Our approach

Early adopter community

- Early experimentation
- Recognition and leaderboards
- Real-time feedback
- Scenario validation
- Use for other areas in IT

User-centric support
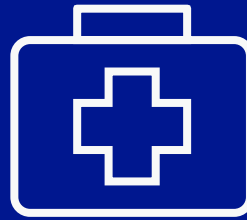
- Social
- Users helping users
- Moderators to ensure questions are answered
- Early detection system

Mission control

- 30-minute sync session, three times a day
- Support and IT SMEs
- Real-time feedback
- Enabling agile remediation

Windows Update for Business migration

Benefits

- Eliminated packaging, replication, testing, and publishing associated with System Center Configuration Manager OSD saving approximately 200 hours

- Support for all OS languages and architectures, not just the ones CSEO officially supports

- Windows Update user experience provides users more control over when updates are installed

- Works for both on prem AD joined devices and Azure AD joined devices

- Reduce bandwidth utilization using Delivery Optimization.

- Offer blocks now available to devices using Windows Update for Business. (Fixed in 1903)

Traditional
Business-owned
AD domain-joined
Physical infrastructure

Modern
Business-owned and BYOD
Azure AD domain-joined
Cloud services

Windows Update Service

Managed through Configuration Manager
More control

Managed in Microsoft Intune
Simplified IT processes

Devices configured to connect to WUfB for updates via group policy

Windows Update for Business

Devices configured to use WUfB by updating cloud service provider (CSP)

218,000 Windows 10 devices

20,000 Windows 10 devices

Lessons Learned

- Some users love the auto-restart experience, but it can result in lost work.

- Can't use Windows Update for Business for just feature or quality updates, needs to be both.

- No task sequence to address deployment issues
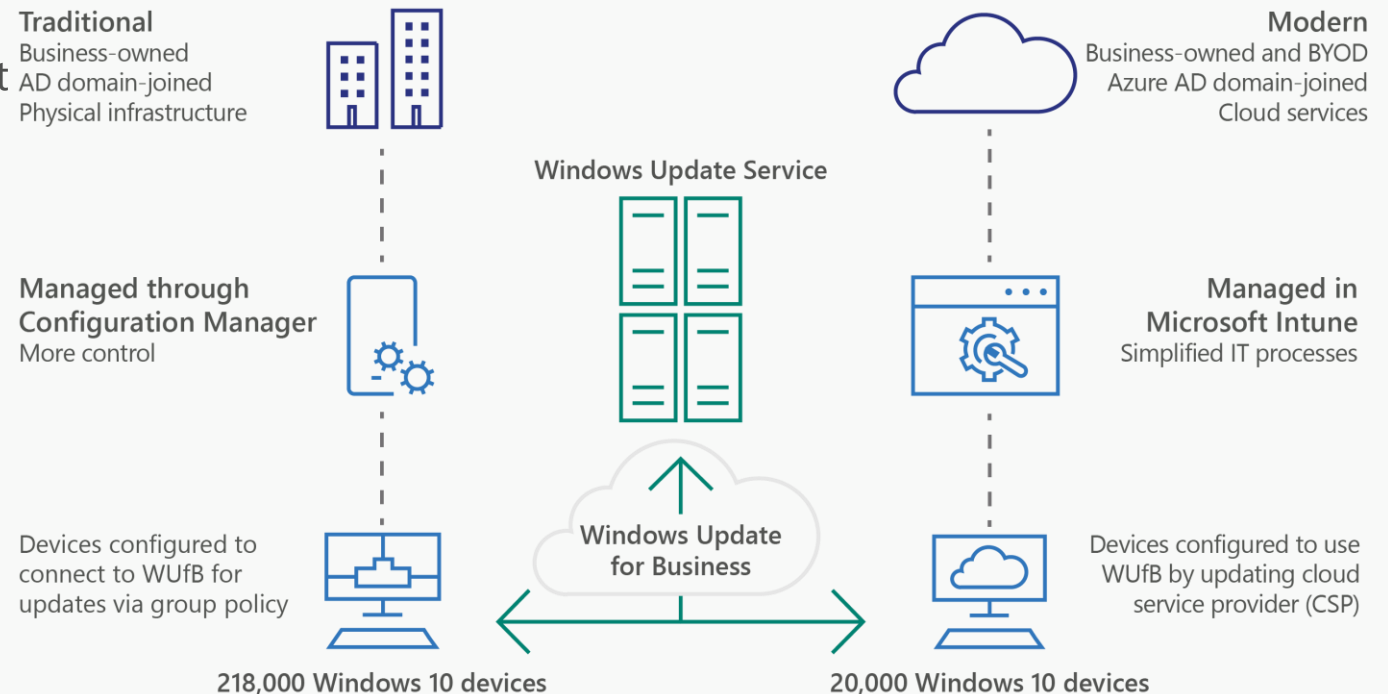
Case Study: [Keeping Windows 10 devices up to date with Microsoft Intune and Windows Update for Business](#)

Offer blocks: https://docs.microsoft.com/en-us/windows/release-information/status-windows-10-1903

# Do you need to test quality updates?

Deployment approach

- Stopped formal application compatibility testing program after Windows 8
- 20,000-device pilot is used for validation before broad deployment
- Issues are tracked through telemetry, Feedback Hub, Yammer, and Helpdesk

Safety valves

- Users can opt-out of pilot program
- If there are issues, the update can be rolled back

Lessons learned

- To date, we haven't seen application compatibility issues with this approach
- Need more real-time insights
- Have a plan in place in to address issues

Pilot

Broad deployment

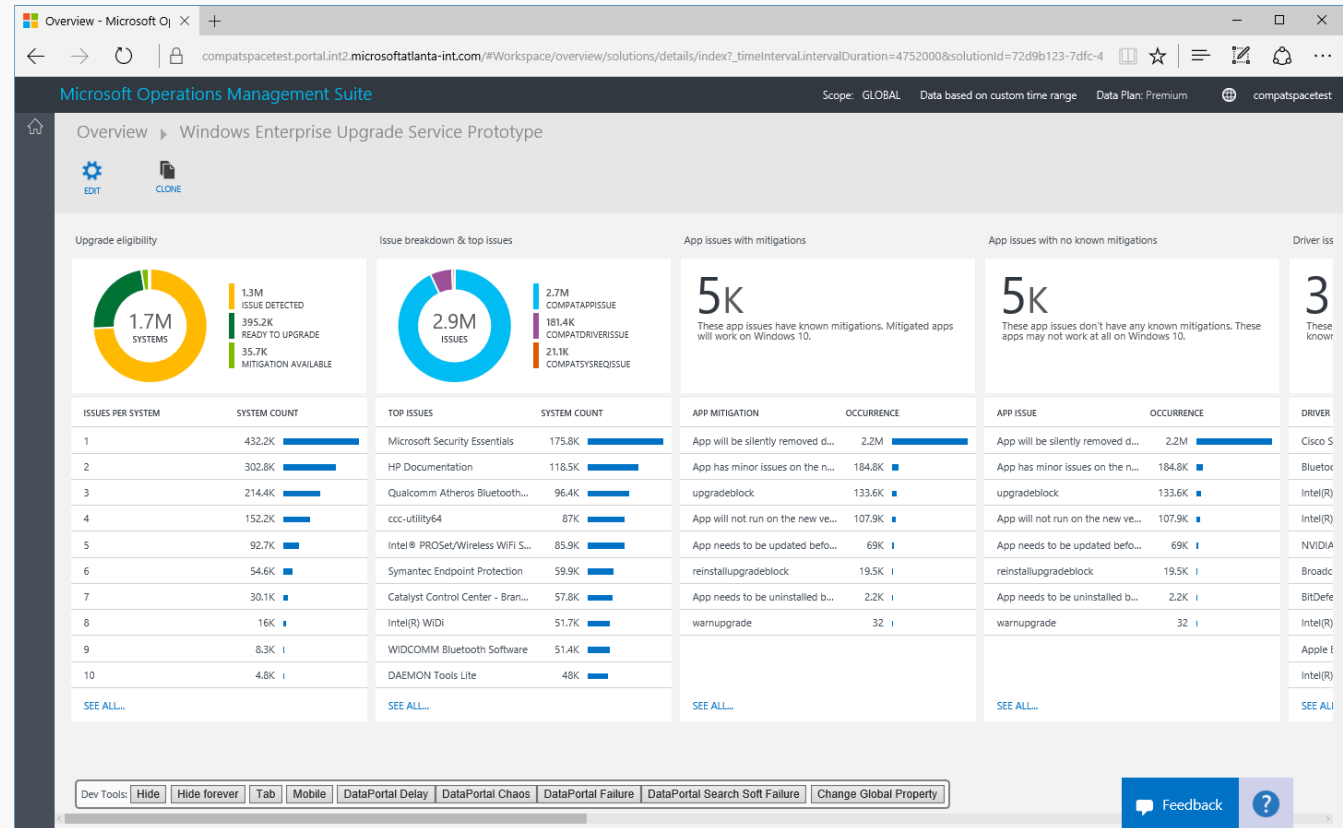| Pilot | 20,000 devices | Broad deployment | All devices |
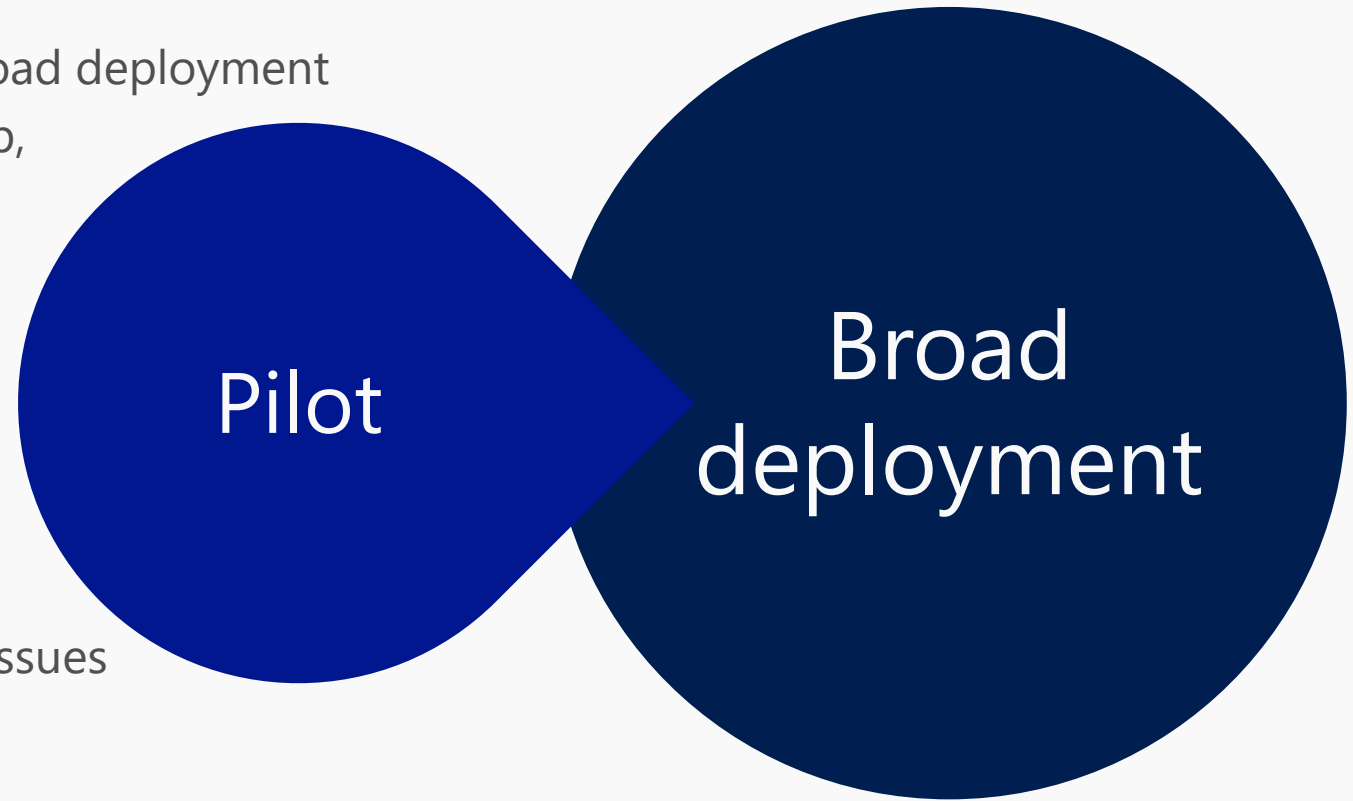
Windows / Desktop Analytics

Upgrade readiness provides powerful insights and recommendations about the computers, applications, and drivers in your organization, at no extra cost and without additional infrastructure requirements

Benefits

- Identify applications and devices with known compatibility issues
- Track in-house developed apps
- Prioritize issues for further investigation
- Prioritize test cases based on data
- Integrates with Configuration Manager
- Use for safe device targeting

Read more at https://docs.microsoft.com/en-us/configmgr/desktop-analytics/overview

Desktop App Assure: https://techcommunity.microsoft.com/t5/FastTrack-Blog/Standing-behind-our-application-compatibility-promise-Desktop/ba-p/262110

Feature update compatibility

Environment

96% of application portfolio is browser-based

1% are universal applications

Edge is the primary browser
Use site list for Edge to Internet Explorer switching

Approach

Test only business critical applications **≈250**

Remaining **≈1,650** applications are tracked through adoption

Business-critical apps use common code bases and tools

≈250   critical applications

≈1,650   applications in business unit portfolios

|	Critical	Pass rate
Windows 8	286	97%
Windows 8.1	300	98%
Windows 8.1 Update	138	98%
Windows 10	278	98%
Windows 10 November update	265	100%
Windows 10 Anniversary Update	236	100%
Windows 10 Creators Update	55	100%
Windows 10 Fall Creators Update	204	94%
Windows 10 April Update	205	93%

Go modern

Vision

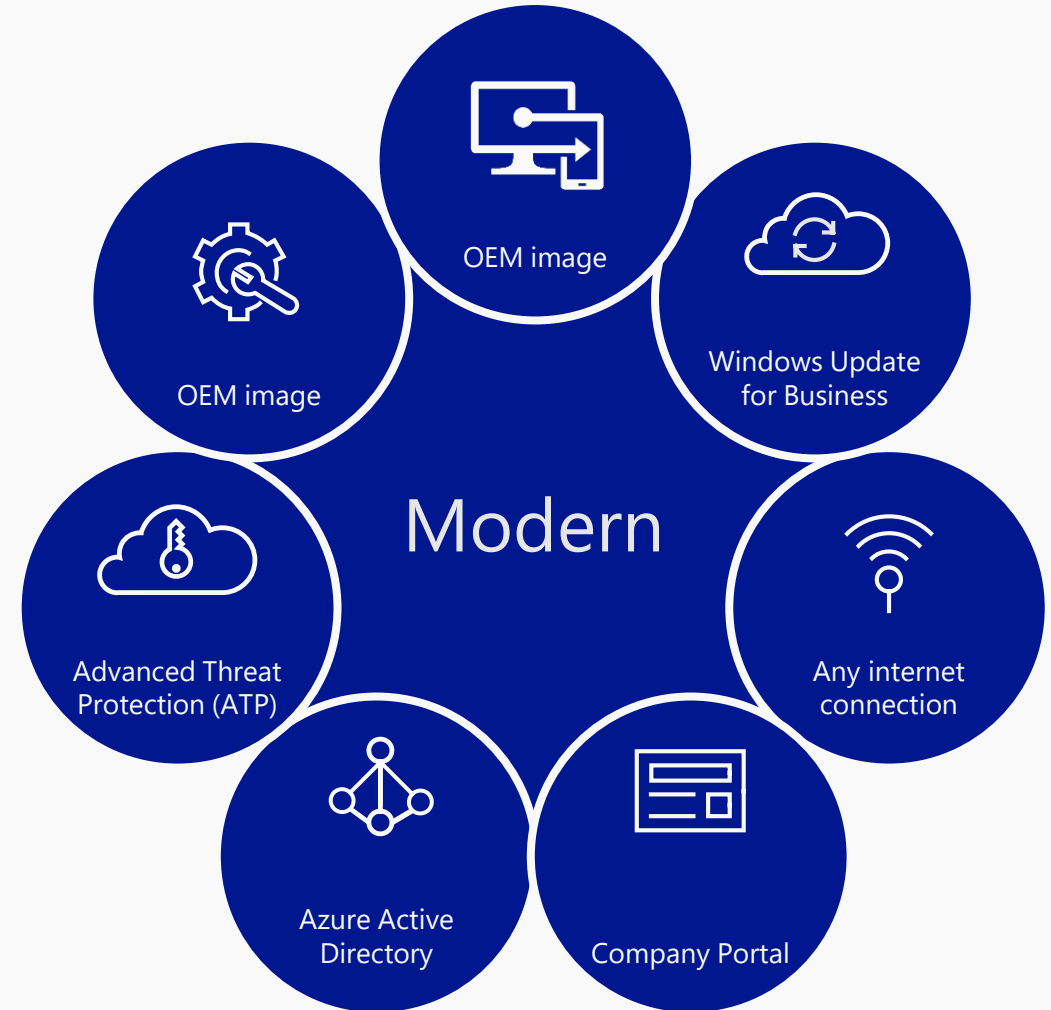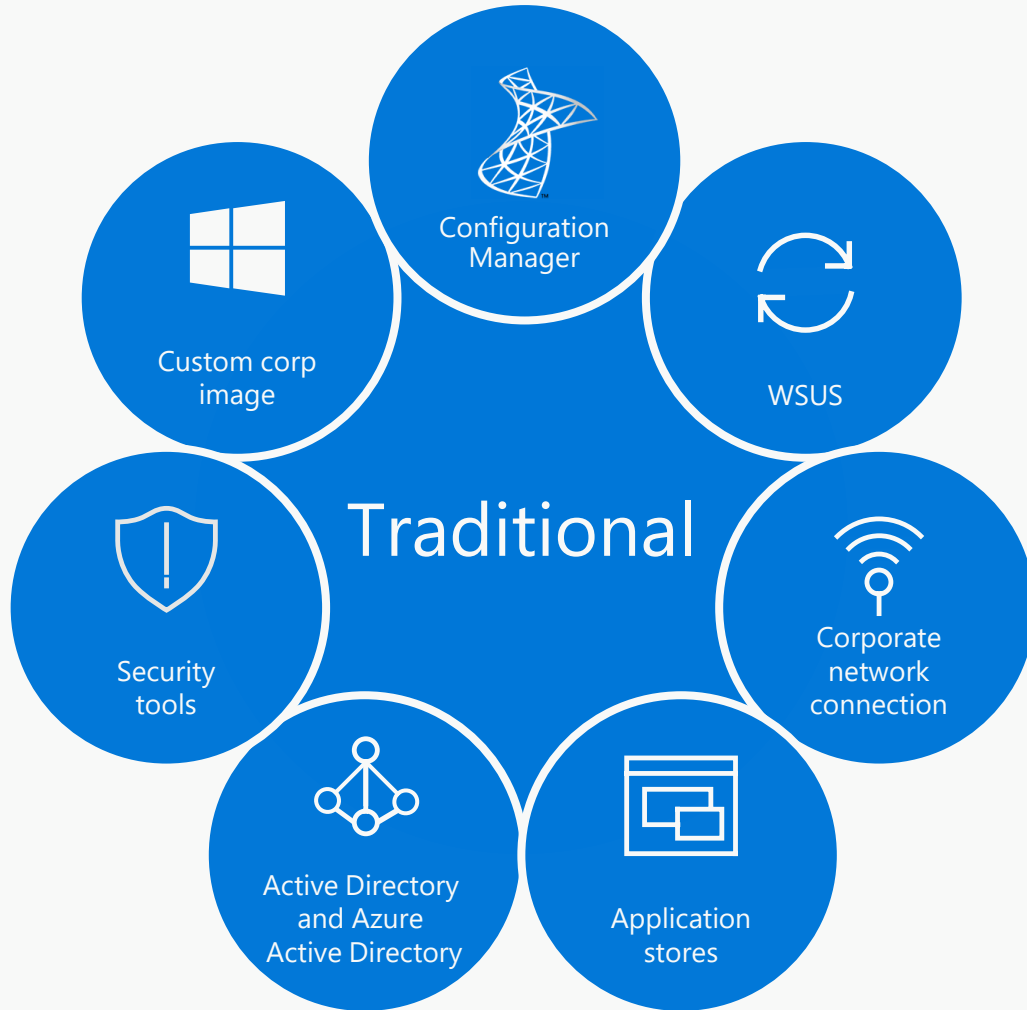Can **seamlessly access corporate resources** from any device and internet connection

Device management tasks are **transparent to the user**
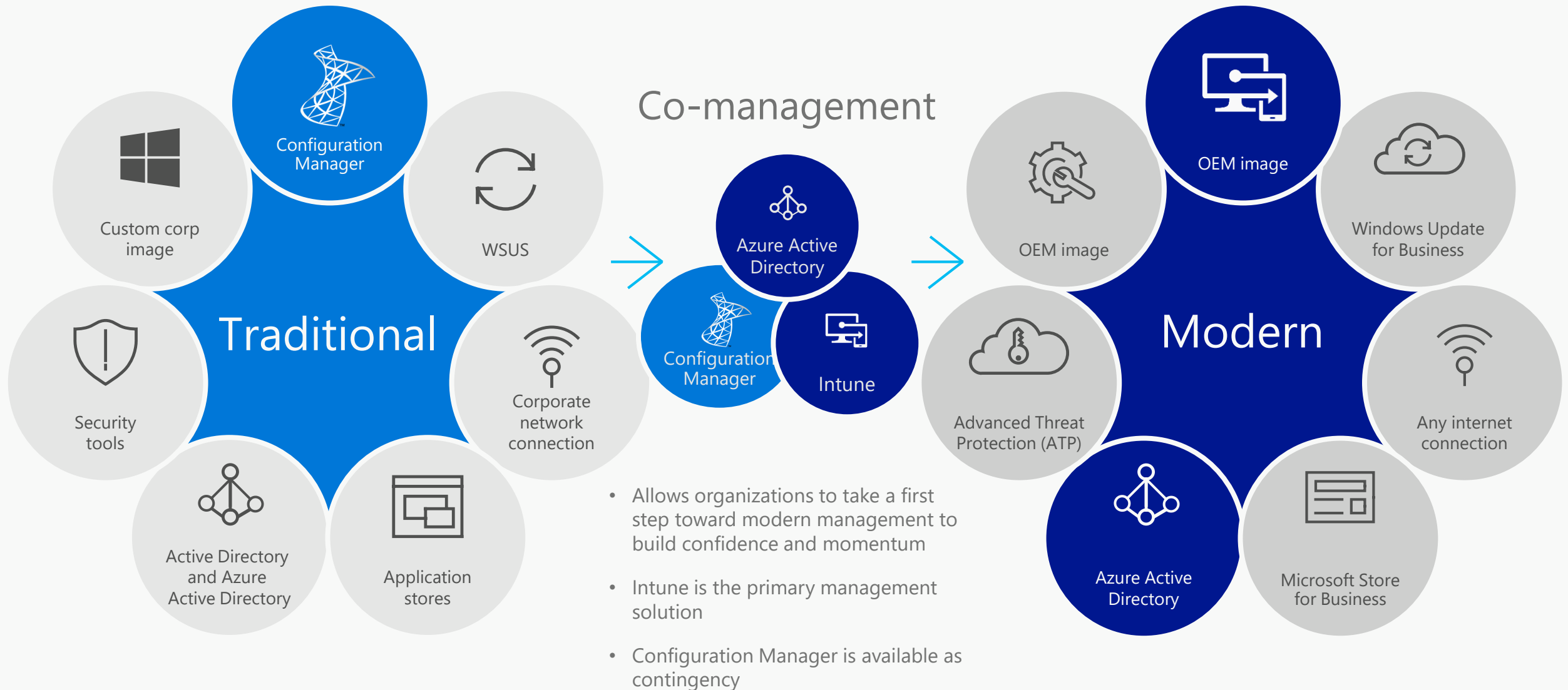

Users

IT pros
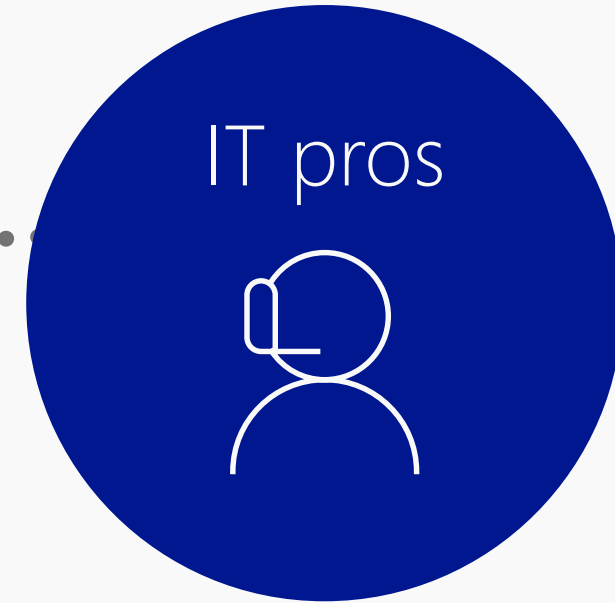
Can **efficiently manage all devices** through the cloud using a **single console with integrated telemetry and automation**

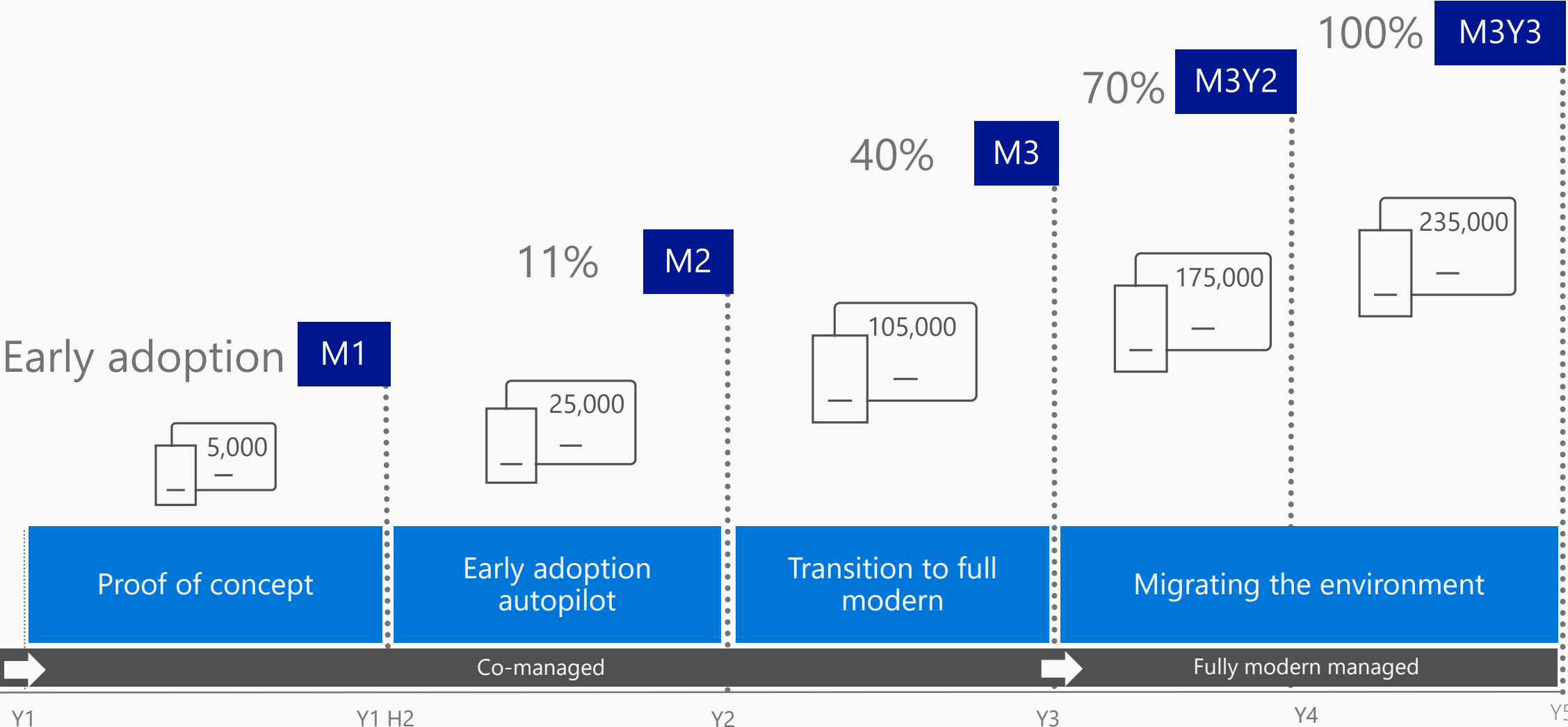Have confidence their **IP is secure, and environment will remain stable**

Evolution

Traditional

- Custom corp image
- Configuration Manager
- WSUS
- Corporate network connection
- Application stores
- Active Directory and Azure Active Directory
- Security tools

Co-management

- Azure Active Directory
- Configuration Manager
- Intune

- Allows organizations to take a first step toward modern management to build confidence and momentum

- Intune is the primary management solution

- Configuration Manager is available as contingency

Modern

- OEM image
- Windows Update for Business
- Any internet connection
- Microsoft Store for Business
- Azure Active Directory
- Advanced Threat Protection (ATP)
- OEM image

Our migration

100% **M3Y3**

70% **M3Y2**

40% **M3**

11% **M2**

235,000

175,000

105,000

Early adoption **M1**

25,000

5,000

Proof of concept	Early adoption autopilot	Transition to full modern	Migrating the environment

Traditional → Co-managed → Fully modern managed

Y1   Y1 H2   Y2   Y3   Y4   Y5

*Where apps available through Microsoft Store

Lessons learned

Lessons learned

User experience

- Configuration Manager OSD pre-caching the build locally before install and improved OSD user notifications update
- Windows Update for Business user interface to schedule update

Adopt agile processes
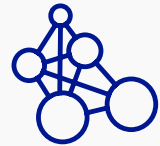
- Iterate and use proof of concept > pilot > broad deployment
- Build culture to fail fast and move forward
- Don't forget the user community

Compatibility
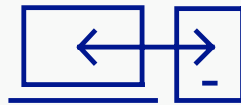
- Focus on the critical business apps (the top 10 percent)
- Use desktop analytics
- Stop testing apps for monthly quality updates
- Use EmIE to determine how sites open

Windows Update for Business

- Start doing POCs and pilots to enable broad adoption
- Use delivery optimization to minimize internet egress

Go modern

- Start evaluating minimum security requirements
- Build roadmap to adopt using Azure AD, Active Directory, and co-management

Resources

Access all IT Showcase resources at Microsoft.com/ITShowcase

- [Overview of Windows as a service](#)
- [Keeping Windows 10 devices up to date with Microsoft Intune and Windows Update for Business](#)
- [How Microsoft uses Dynamics 365 to manage Windows Update releases](#)
- [Preparing your organization for a seamless Windows 10 deployment](#)

Microsoft

CSEO Showcase

How Microsoft does IT

→ Visit the website
microsoft.com/itshowcase