

1



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Diego Lens

- 24 Years working in Distribution
- Cloud Enablement
- Sales/Technical Trainings
- Microsoft Azure
- Microsoft 365
- Azure Virtual Desktop

• diego.lens@ingrammicro.com

• linkedin.com/in/diegolens

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Modern Cloud Platforms

18-Sep

Microsoft Azure Story Telling

Microsoft Azure is a cloud computing platform that offers Virtual Machines, Cloud Storage, AI and IoT solutions, as well as tools and services for various industries and scenarios.

20-Sep

Microsoft Azure Mission 65

Mission 65 provides a framework and a roadmap for partners that would like to assess the current security posture of their customers.

15-Oct

Azure Arc

Azure Arc is designed to help you simplify the complexity of managing Multi-Cloud and Hybrid-Cloud environments with the best of Azure's Management Services and tools.

22-23 Oct

Microsoft Azure Fundamentals

Join our Technical Hands On training. You will configure many resources like virtual Machines, different storage types, VNETs, Subnets, Azure Backup, VPN Gateway and many more ...

26-Nov

Azure Migrate Assessment & Migration

Azure Migrate provides a central hub to track discovery, assessment and migration of on-premises workloads and cloud VMs

28-Nov

Azure Lighthouse & Cost Management

As a Cloud Service Provider, you will manage multiple Azure accounts for multiple customers. Learn how Azure Lighthouse and Azure Cost Management will help you with your service management.

Click the training to subscribe

INGRAM

<https://bit.ly/2024H2>

Training Calendar 2024 – Q3-Q4

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Seamless Security

Click the training to subscribe

25-Sep **Microsoft 365 Story Telling**
Learn the stories you can use to explain the most important security features in a Microsoft 365 offering

6-Nov **Microsoft Intune**
Microsoft Intune is a cloud-based service that manages and secures endpoints, applications and data across your organization

27-Nov **Microsoft Defender for Business**
Microsoft Defender for Business is a security solution included in Microsoft 365 Business Premium to help protect small businesses against cyber security threats

13-Nov **Microsoft Entra Suite**
Microsoft Entra Suite is the new product family that encompasses all of Microsoft's identity and access management capabilities

11-Dec **Microsoft Defender XDR**
Microsoft Defender XDR is a set of security products and solutions that protect your organization from cyberattacks

20-Nov **Microsoft Purview Information Protection**
Microsoft Purview Information Protection is a cloud-based service that helps you discover, classify, protect and govern sensitive data across your hybrid environment

INGRAM <https://bit.ly/2024H2> Training Calendar 2024 – Q3-Q4

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Connected Workplace

Click the training to subscribe

9-Oct **Windows 365 and Azure Virtual Desktop Story Telling**
Windows 365 and Azure Virtual Desktop are bringing Desktop Virtualization to the next level

4-Dec **Azure Virtual Desktop Setup a POC**
Learn how to install your first Azure Virtual Desktop installation. Discover the AVD components like a Workplace, Hostpools, Application Groups, FSLogix

18-Dec **Azure Virtual Desktop Advanced Topics**
Learn how to do a production installation with Azure Virtual Desktop. Learn the concepts like Golden Images, AutoScaling, Printing and Monitoring

INGRAM <https://bit.ly/2024H2> Training Calendar 2024 – Q3-Q4

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Artificial Intelligence

[Click the training to subscribe](#)

Microsoft Copilot: Story Telling
2-Oct

Copilot for Microsoft 365 Technical
16-Oct

Develop Power Apps with Copilot Integration
22-Nov

Microsoft Fabric
tba

INGRAM <https://bit.ly/2024H2> Training Calendar 2024 – Q3-Q4

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Ingram Micro Cloud

[Click the training to subscribe](#)

Quarterly Update
24-Sep to 10-Dec

Ingram Micro Cloud Marketplace
24-Oct

NIS2 directive: How to achieve compliance
26-Sep

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Are you organizing your own event for your customers ?

Searching for a speaker ?

diego.lens@ingrammicro.com

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VM Name: NOVEM-1	Public IP Address: 20.0.72.161
VM Name: NOVEM-10	Public IP Address: 172.167.123.167
VM Name: NOVEM-11	Public IP Address: 51.143.156.233
VM Name: NOVEM-12	Public IP Address: 172.166.233.46
VM Name: NOVEM-13	Public IP Address: 172.167.159.121
VM Name: NOVEM-14	Public IP Address: 20.162.211.186
VM Name: NOVEM-15	Public IP Address: 172.167.12.222
VM Name: NOVEM-16	Public IP Address: 172.167.214.24
VM Name: NOVEM-17	Public IP Address: 20.68.5.57
VM Name: NOVEM-18	Public IP Address: 20.0.234.132
VM Name: NOVEM-2	Public IP Address: 172.167.227.18
VM Name: NOVEM-3	Public IP Address: 172.167.21.157
VM Name: NOVEM-4	Public IP Address: 20.0.41.2
VM Name: NOVEM-5	Public IP Address: 172.167.31.20
VM Name: NOVEM-6	Public IP Address: 20.68.4.76
VM Name: NOVEM-7	Public IP Address: 172.166.128.6
VM Name: NOVEM-8	Public IP Address: 4.234.86.11
VM Name: NOVEM-9	Public IP Address: 51.142.192.91

vmadmin
Password123!

bit.ly/intune2024

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Cloud-Based EndPoint Manager
Microsoft Intune

Course Overview

Diego Lens

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Course Overview

- **What is Microsoft Intune**
- **Getting Started with Microsoft Intune**
- **Windows Autopilot with Intune**
- **Deploy Applications from Store**
- **Device Restrictions & Policies**
- **Modern Roaming Profiles**
- **Install WIN32 Applications**
- **Conditional Access**
- **Install Powershell script with Intune**
- **New Developments**

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Introduction :

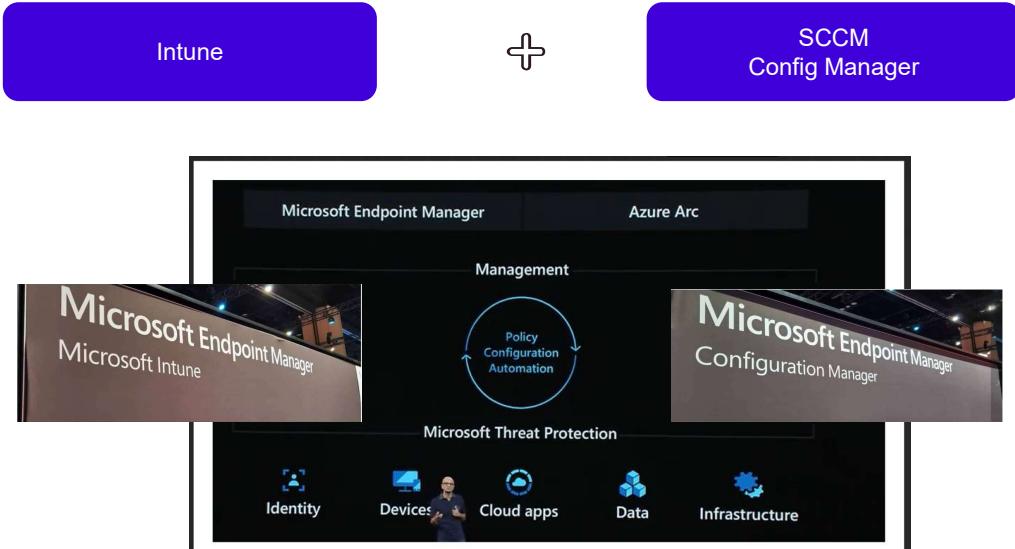
What is Microsoft Intune

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Intune + SCCM Config Manager

Microsoft Endpoint Manager

Azure Arc

Management

Policy Configuration Automation

Microsoft Threat Protection

Identity Devices Cloud apps Data Infrastructure

Microsoft Endpoint Manager Configuration Manager

Satya Nadella : Keynote Ignite 2019

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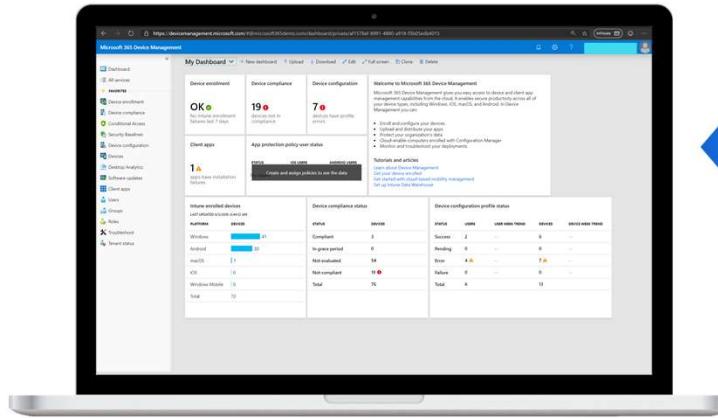
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In 2019...

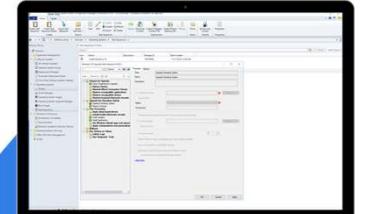
<https://devicemanagement.microsoft.com/>

Device Management Admin Center (DMAC)

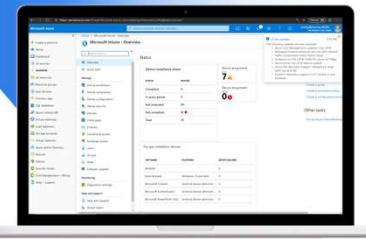


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Configuration Manager



Microsoft Intune



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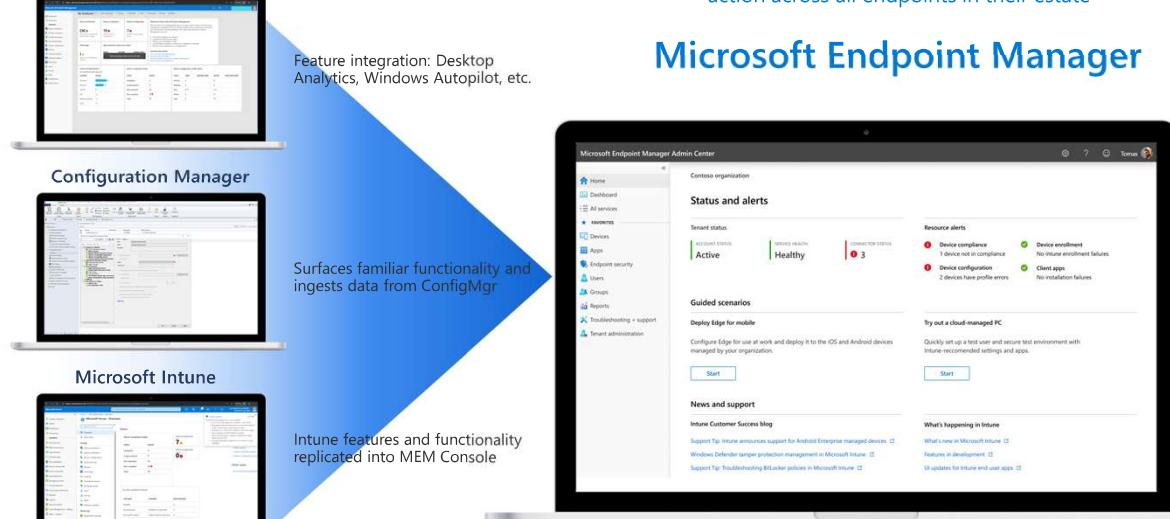
<https://portal.azure.com>

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In 2020

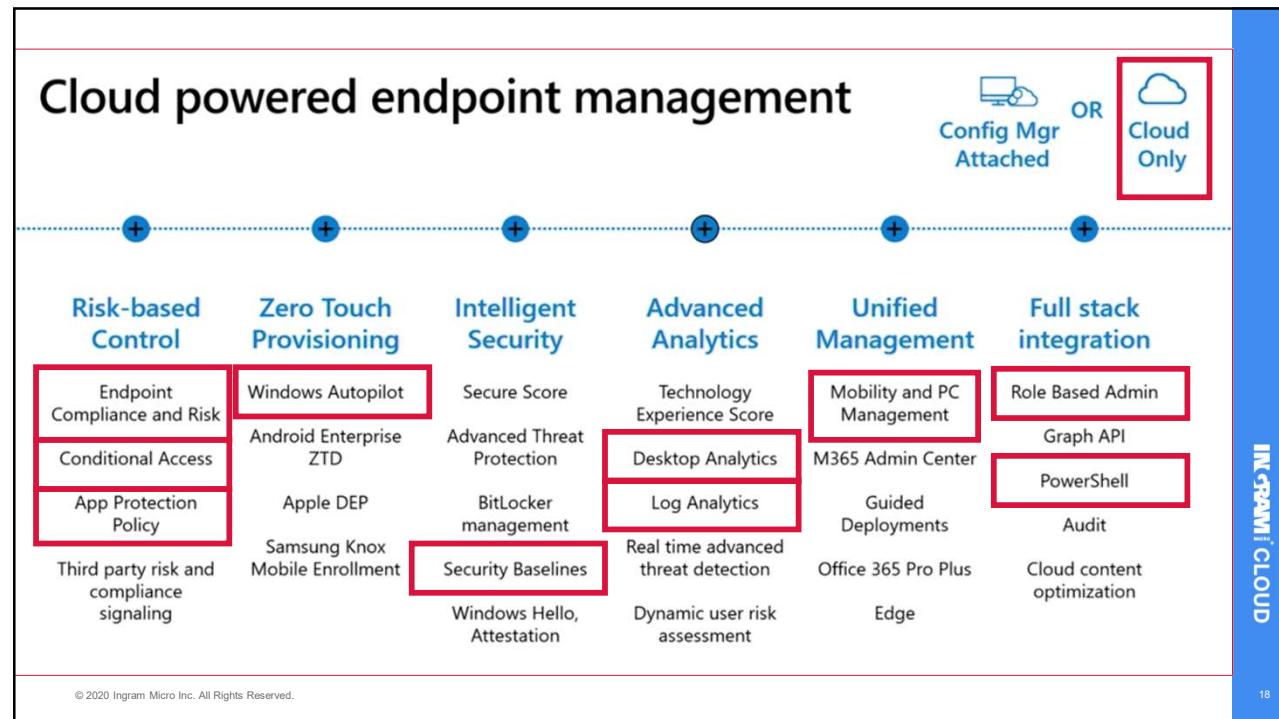
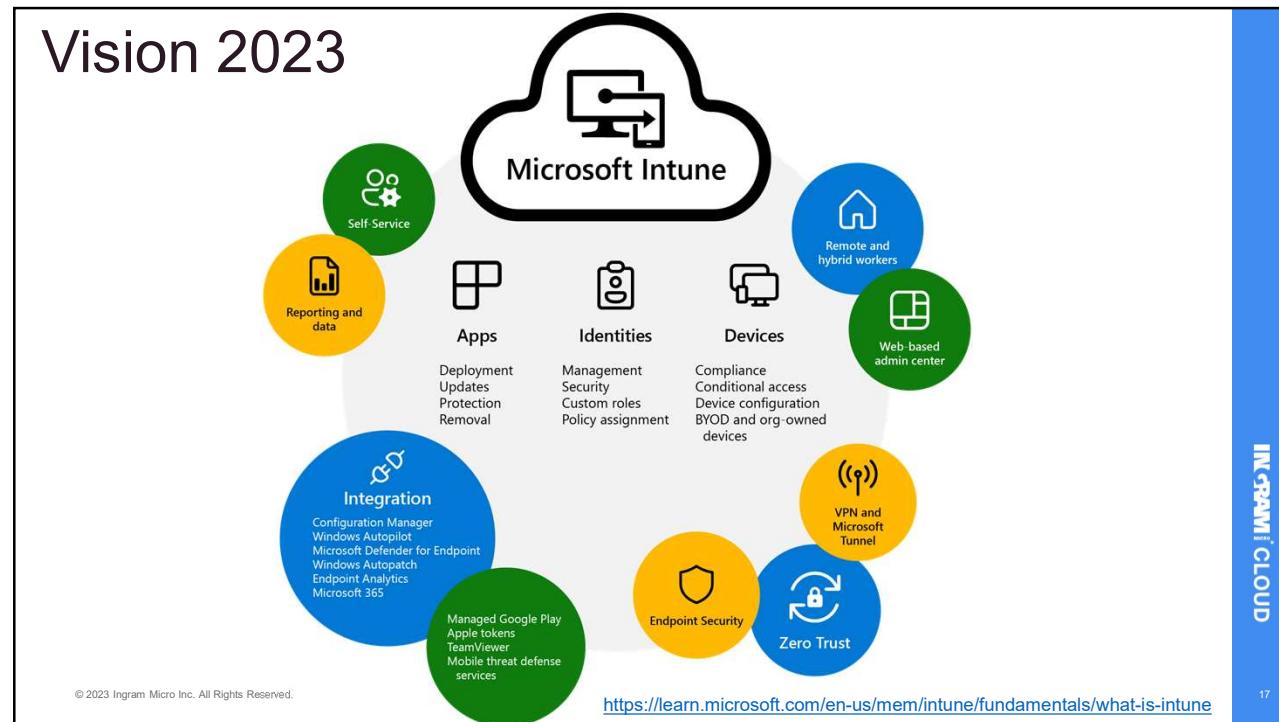
Integrated solution for IT admins to understand and take action across all endpoints in their estate

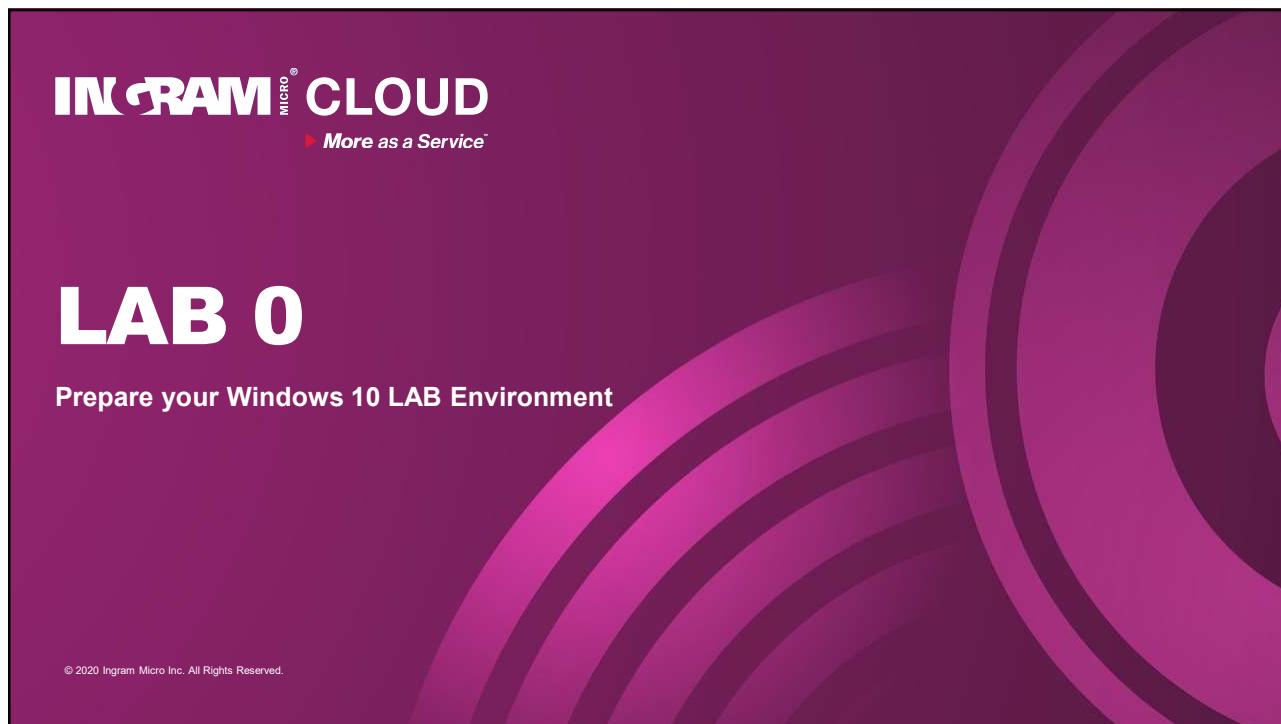
Microsoft Endpoint Manager



<https://endpoint.microsoft.com/>

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LAB 0

Prepare your Windows 10 LAB Environment

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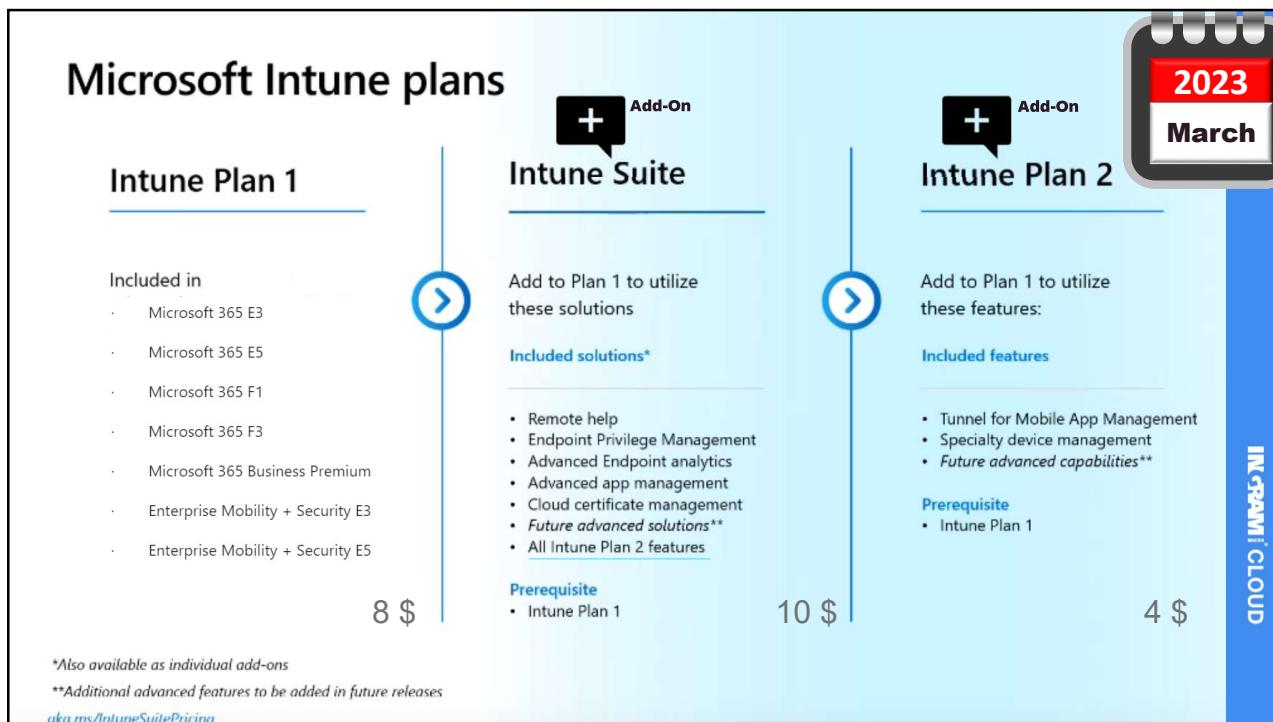
Licensing :

Microsoft Intune Licensing

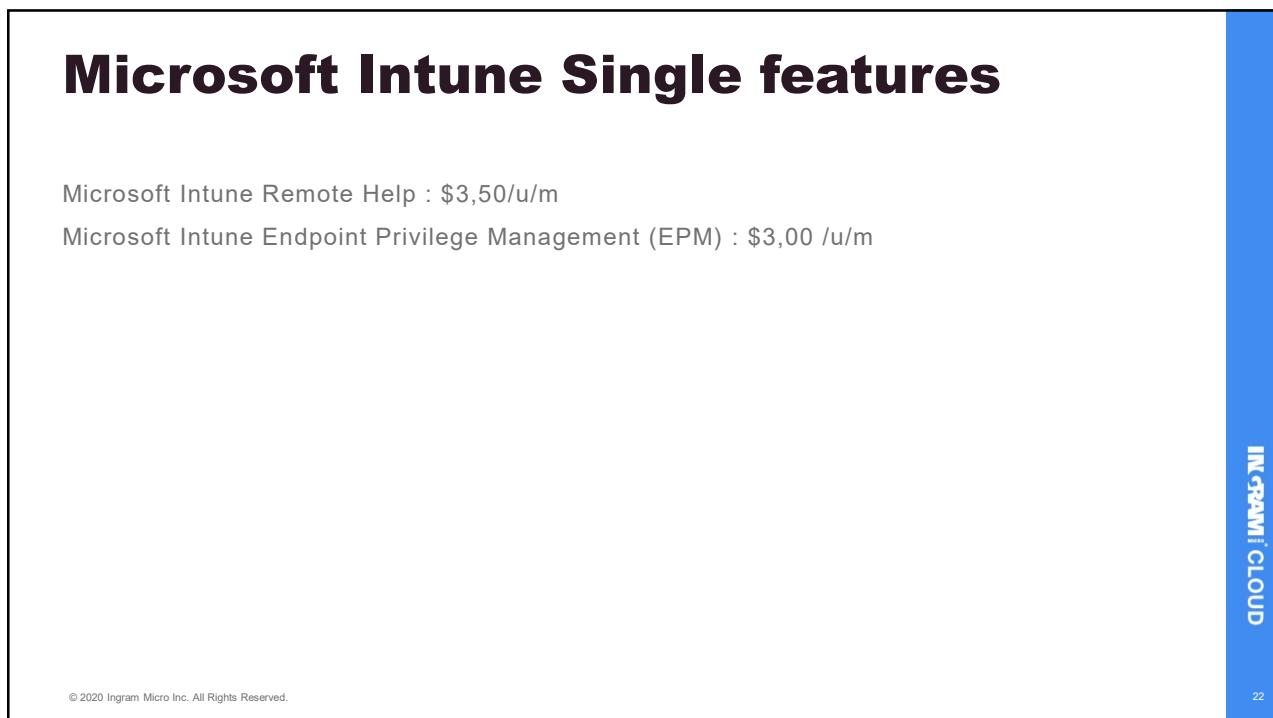
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Module 1 :

Getting Started with Microsoft Intune

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Mobile Device Management (MDM)



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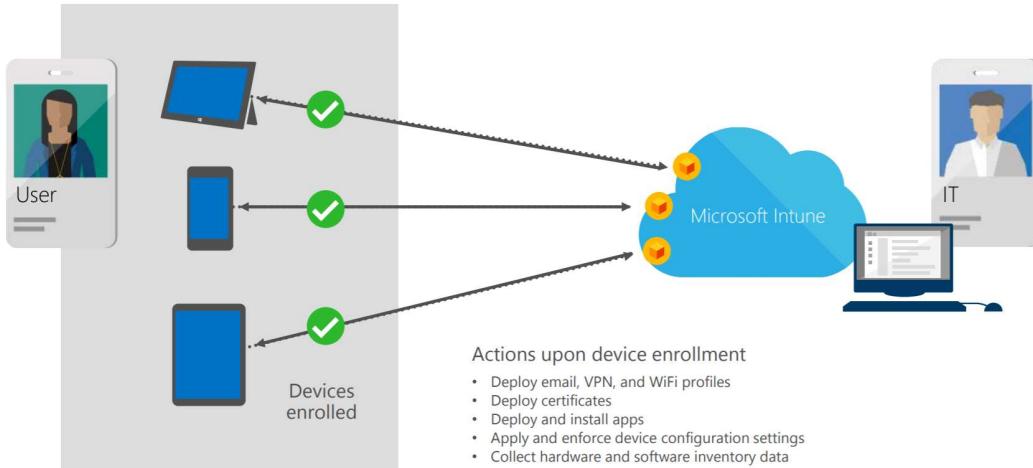
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Enroll devices to access corporate resources



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Azure Active Directory Devices

- Join Type
 - Azure Active Directory Registered
 - Azure Active Directory Joined
- MDM
 - None
 - Microsoft Intune
- Compliant

Name	Enabled	OS	Version	Join Type	Owner	MDM	Compliant
DESKTOP-TE03AUJ	✓ Yes	Windows	10.0.18362.239	Azure AD joined	Megan Bowen	Microsoft Int...	N/A
DESKTOP-T1AENK7	✓ Yes	Windows	10.0.18362.0	Azure AD registered	Alex Wilber	None	N/A
DESKTOP-L8N3TD7	✓ Yes	Windows	10.0.18363.592	Azure AD joined	Adele Vance	Microsoft Int...	✓ Yes
DESKTOP-LBIB7UL	✓ Yes	Windows	10.0.18363.592	Azure AD joined	Alex Wilber	Microsoft Int...	✓ Yes
DESKTOP-MI41END	✓ Yes	Windows	10.0.18362.0	Azure AD joined	Megan Bowen	None	N/A
DESKTOP-H2SH332	✓ Yes	Windows	10.0.18363.592	Azure AD joined	Alex Wilber	Microsoft Int...	✓ Yes

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Azure Active Directory Registered

- Windows 10 > Settings > Accounts > Access Work or School
 - Windows Icon
- Content Protection
- No Device Protection

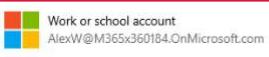
Managed by mddprov account

Connecting to work or school allows your organization to control some things on this device, such as settings and applications.

Access work or school

Get access to resources like email, apps, and the network. Connecting means your work or school might control some things on this device, such as which settings you can change. For specific info about this, ask them.

 Connect



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Areas managed by mddprov account

mddprov account manages the following areas and settings. Settings marked as Dynamic might change depending on device location, time, and network configuration.

[More information about Dynamic Management](#)

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Azure Active Directory Joined

- Windows 10 > Settings > Accounts > Access Work or School
 - Briefcase Icon
- Device Protection
- Enrolled for Intune

Managed by Contoso

Connecting to work or school allows your organization to control some things on this device, such as settings and applications.

Access work or school

Get access to resources like email, apps, and the network. Connecting means your work or school might control some things on this device, such as which settings you can change. For specific info about this, ask them.

 Connect



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Areas managed by Contoso

Contoso manages the following areas and settings. Settings marked as Dynamic might change depending on device location, time, and network configuration.

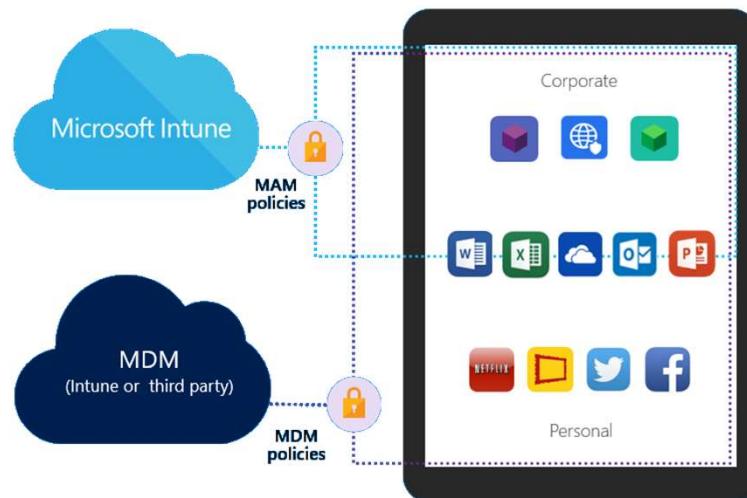
[More information about Dynamic Management](#)

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Mobile Application Management (MAM)



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Unified Endpoint Management (UEM)

Figure 1. Magic Quadrant for Unified Endpoint Management



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Intune Licensing

Configured on User level

Azure Active Directory > Users > {User} > Licenses

Intune is included in the following licenses:

- Microsoft 365 E5
- Microsoft 365 E3
- Enterprise Mobility + Security E5
- Enterprise Mobility + Security E3
- Microsoft 365 Business Premium
- Microsoft 365 F1
- Microsoft 365 Government G5
- Microsoft 365 Government G3

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Enable Intune MDM Authority

Azure Portal > Intune > Device Enrollment

Learn more about [choosing your MDM Authority](#).

- Intune MDM Authority
- Configuration Manager MDM Authority
- None

MDM authority : Intune

Account status : [Active](#)

[Choose](#)

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Enable MDM & MAM User Scope

MDM user scope ⓘ

None Some **All**

MAM User scope ⓘ

None Some **All**

Azure Portal > Azure Active Directory > Mobility (MDM + MAM)

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Configure Company Branding

Edit company branding
Azure Active Directory

Sign-in page background image
Image size: 1920x1080px
File size: <300KB
File type: PNG, JPG, or JPEG ⓘ



Banner logo
Image size: 280x60px
File size: 10KB
File type: Transparent PNG, JPG, or JPEG ⓘ



Username hint ⓘ

Sign-in page text ⓘ

Advanced settings

Sign-in page background color ⓘ

Square logo image
Image size: 240x240px (resizable)
Max file size: 50KB
PNG (preferred), JPG, or JPEG ⓘ



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CNAME DNS Entries

<https://docs.microsoft.com/en-us/intune/enrollment/windows-enroll>

Simplify Windows enrollment without Azure AD Premium

To simplify enrollment, create a domain name server (DNS) alias (CNAME record type) that redirects enrollment requests to Intune servers. Otherwise, users trying to connect to Intune must enter the Intune server name during enrollment.

Step 1: Create CNAME (optional)

Create CNAME DNS resource records for your company's domain. For example, if your company's website is contoso.com, you would create a CNAME in DNS that redirects EnterpriseEnrollment.contoso.com to enterpriseenrollment-s.manage.microsoft.com.

Although creating CNAME DNS entries is optional, CNAME records make enrollment easier for users. If no enrollment CNAME record is found, users are prompted to manually enter the MDM server name, enrollment.manage.microsoft.com.

Type	Host name	Points to	TTL
CNAME	EnterpriseEnrollment.company_domain.com	EnterpriseEnrollment-s.manage.microsoft.com	1 hour
CNAME	EnterpriseRegistration.company_domain.com	EnterpriseRegistration.windows.net	1 hour

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LAB 1

Getting Started with Microsoft Intune

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Module 2 :

Windows Autopilot with Intune

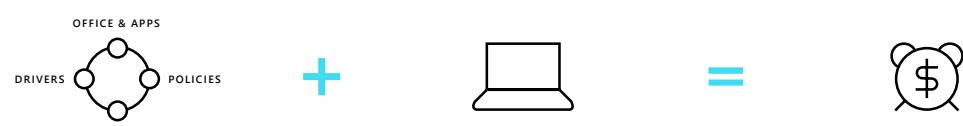
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Traditional Windows deployment



OFFICE & APPS

DRIVERS POLICIES

SETTINGS

+

=

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Build a custom image, gathering everything else that's necessary to deploy

Deploy image to a new computer, overwriting what was originally on it

Time means money, making this an expensive proposition

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Modern Windows deployment



Un-box and turn on
off-the-shelf Windows PC



Transform with minimal
user interaction



Device is ready
for productive use

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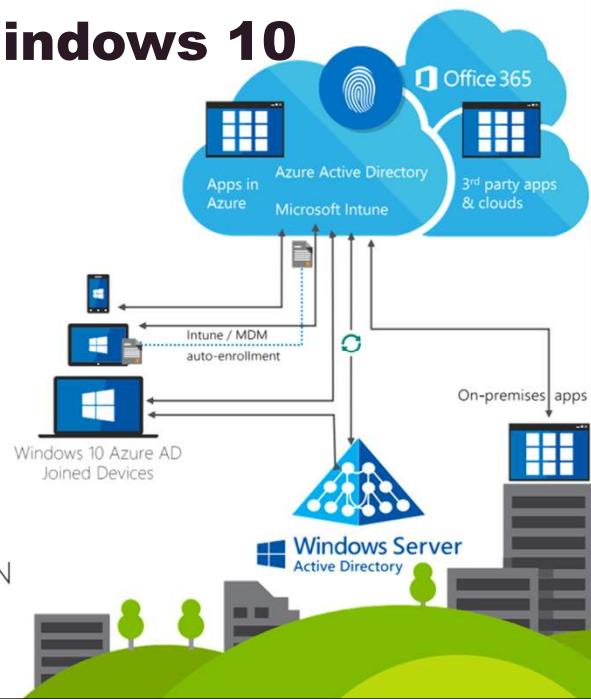
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Azure AD Join for Windows 10

Azure AD Join makes it possible to connect work-owned Windows 10 devices to your company's Azure Active Directory.

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

- ▶ 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



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Three simple steps



Register devices



Assign a profile



Deploy

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Three simple steps



Register devices



Assign a profile



Deploy

- **Have devices registered automatically**
 - Request clean images, choice of Windows 10 version at the same time (if available)
 - Specify group tag to help segment devices by purpose
 - Devices are automatically tagged with the purchase order ID
- **Register devices yourself via Intune for testing and evaluation using [Get-WindowsAutopilotInfo](#) PowerShell script**
- **Register existing Intune-managed devices automatically with harvested hardware hash**

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Three simple steps



Register devices



Assign a profile



Deploy

- **Use Intune:**

- Select profile scenario (user-driven, self-deploying)
- Configure needed settings
- Assign to an Azure AD group so Intune will automatically assign to all devices in the group

- **Use a dynamic Azure AD group to automate this step**

- Consider static Azure AD group for exceptions

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Three simple steps



Register devices



Assign a profile



Deploy

- **Boot up each device**
- **Connect to network (Wi-Fi, Ethernet)**
- **Enter credentials (if required)**

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What is Autopilot ?

Is a way to get a device under Modern Management

It is not a deployment tool

It's a way to deliver devices directly to the end user without Imaging

Company Branding needs to be configured

Devices must have Network Connectivity and must have access to Internet

Pre-Installed Windows 10 Professional version 1703 or later

Licensing : Azure Active Directory Premium P1 or P2

Users must be allowed to Join Devices in Azure AD

Microsoft Intune is needed to Manage the devices



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Windows Autopilot // Deployment Scenarios

AVAILABLE in 1703

AVAILABLE in 1809

AVAILABLE in 1903

AVAILABLE in 1903

AVAILABLE in 1809

User-driven mode with Azure AD Join

Join device to Azure AD, enroll in Intune/MDM

User-driven mode with Hybrid Azure AD join

Join device to AD, enroll in Intune/MDM
Coming soon!
Deploy over VPN (preview in Q1CY20, 1903+)

Windows Autopilot white glove (preview)

White glove partners or IT staff can pre-provision Windows 10 PC to be fully configured and business-ready for an org or user

General availability targeting CY20

Self-deploying mode (preview)

No need to provide credentials, automatically joins Azure AD
General availability targeting CY20

Windows Autopilot for existing devices

Windows 7/8.1 to Windows 10
ConfigMgr task sequence, followed by Windows Autopilot user-driven mode

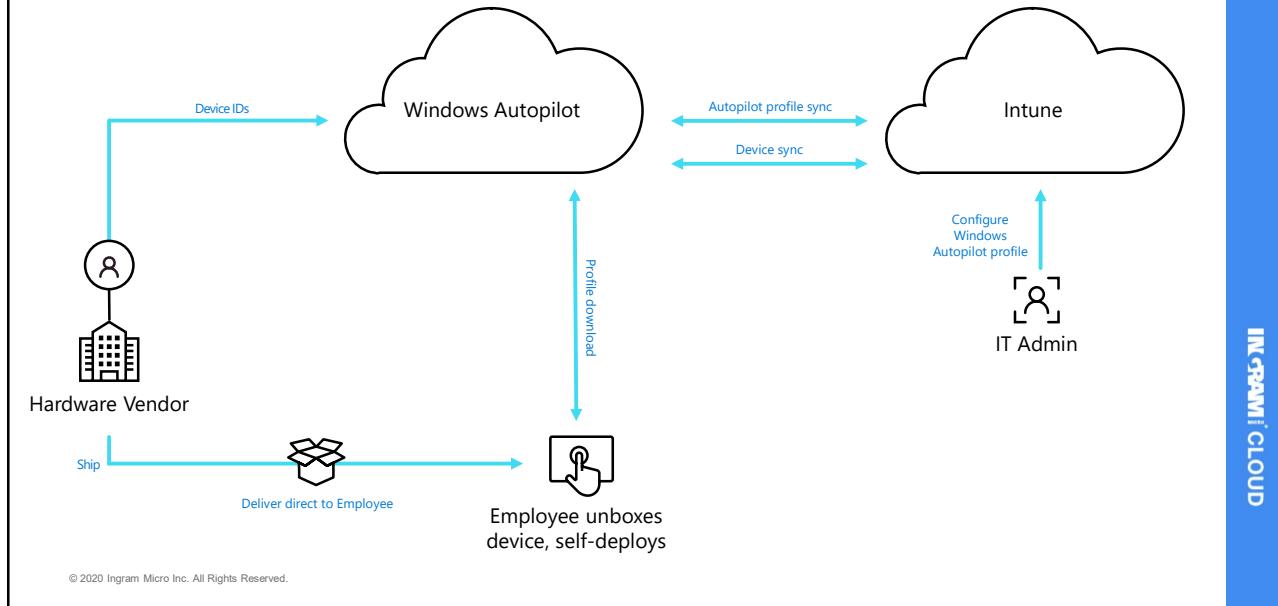
New! Hybrid Azure AD Join support

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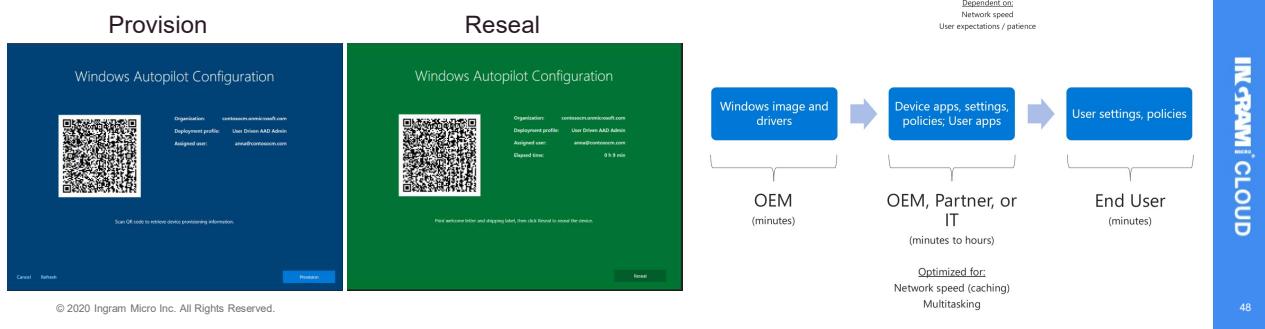
Windows Autopilot overview



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Windows Autopilot White Glove

- Windows Autopilot enables organizations to easily provision new devices
- Users must wait, while the applications/updates are installing
- This part can be done by the Distributor or Partner
- Windows 10, version 1903 or later is required
- TPM 2.0 Chip is required
- The Image is Resealed after the process



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The deployment process // Transforming the device



- Office 365 ProPlus
- Single-file MSIs (LOB apps)
- Intune Management Extensions
- Security Baselines
- Administrative Templates
- Software Update rings
- OneDrive for Business
- Kiosk templates
- Device Firmware Configuration Interface (DFCI)

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Windows Autopilot Device Configurations

there are multiple ways how devices can be identified :

Device serial number	Windows product ID	Hardware hash	Manufacturer name	Device model
Yes	Yes	Yes		
Yes	Yes	Yes		
Option		Yes		
Option	Yes			

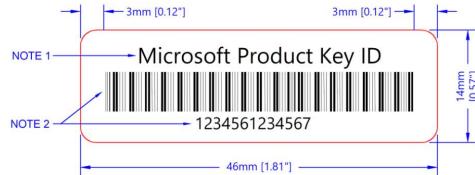
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Windows Autopilot Product Key ID



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Order Dell PC + Add Autopilot DeviceID

Windows AutoPilot
Help mij bij mijn keuze

Zonder Windows AutoPilot 0,00 €

Windows AutoPilot

i Microsoft stelt toestemming van de klant verplicht voor dat apparaten door Dell mogen worden geregistreerd voor Autopilot. Als u geen toestemming hebt gegeven, dan klikt u [hier](#) om deze stap af te ronden.

Geef een geldig Tenant ID en Domein op.

Tenant ID i

Domein i

Windows AutoPilot met groepstag - Alleen online 0,00 €

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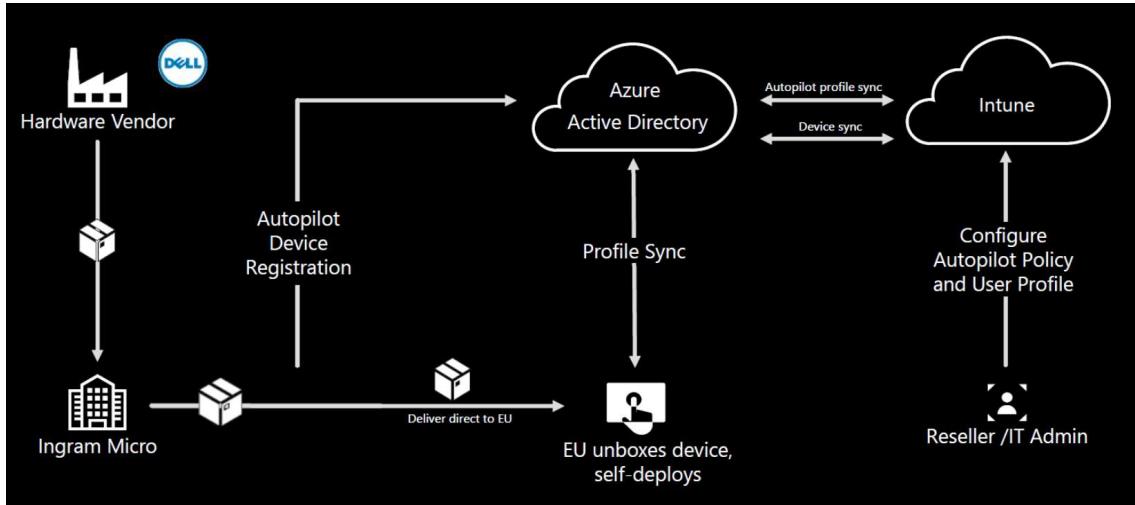
More Info : dell@ingrammicro.be



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Order Dell PC + Add Autopilot DeviceID



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Collect Hardware Device ID (Hardware Hash)

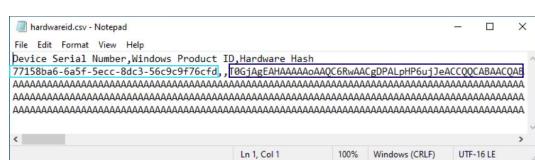
<https://aka.ms/autopilotShell>

Get-WindowsAutoPilotInfo.ps1

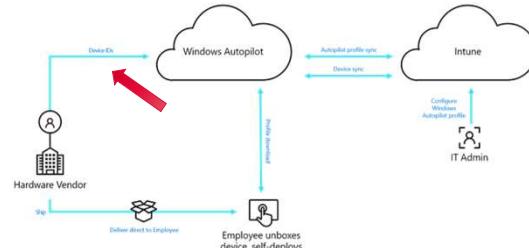
PowerShell

Copy

```
md c:\\HWID
Set-Location c:\\HWID
Set-ExecutionPolicy -Scope Process -ExecutionPolicy Unrestricted
Install-Script -Name Get-WindowsAutoPilotInfo
Get-WindowsAutoPilotInfo.ps1 -OutputFile AutoPilotHWID.csv
```



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Autopilot Deployment Profile

- Autopilot deployment profiles are used to configure the Autopilot devices
- You can create up to 350 profiles per tenant.

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Windows Autopilot // Top 10 new features coming soon)

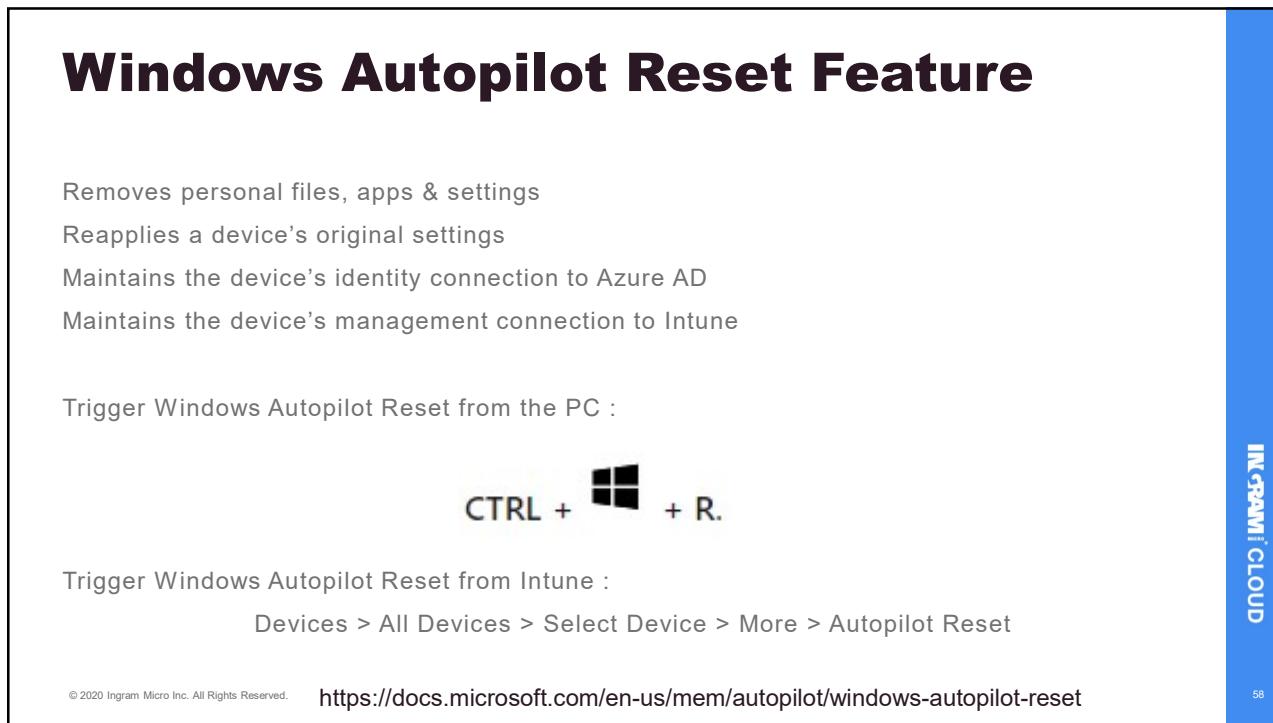
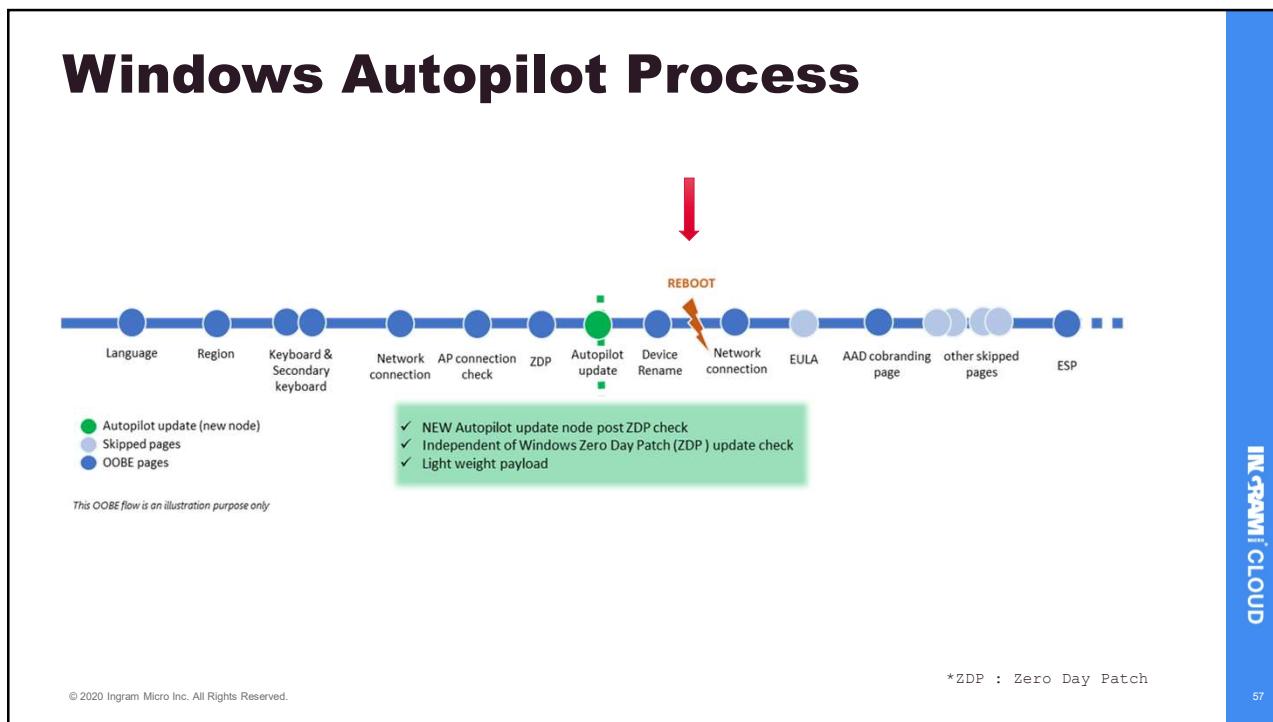
1. User-driven Hybrid Azure AD Join over the internet – VPN support (Q1CY20 preview)
2. Integration with Configuration Manager for running task sequences (H1CY20)
3. Group tag editing (Q4CY19)
4. Direct computer name assignment (Q4CY19 for Azure AD)
5. Windows Autopilot deployment report (Q4CY19)
6. Aligned naming options for Azure AD and Hybrid Azure AD (CY20)
7. Guided scenarios to help with initial setup and configuration
8. ESP enhancements for targeting, disabling user ESP, Nth user
9. Full network documentation (URLs, IP addresses, etc.)
10. Windows 10 configuration for features, language packs, in-box apps

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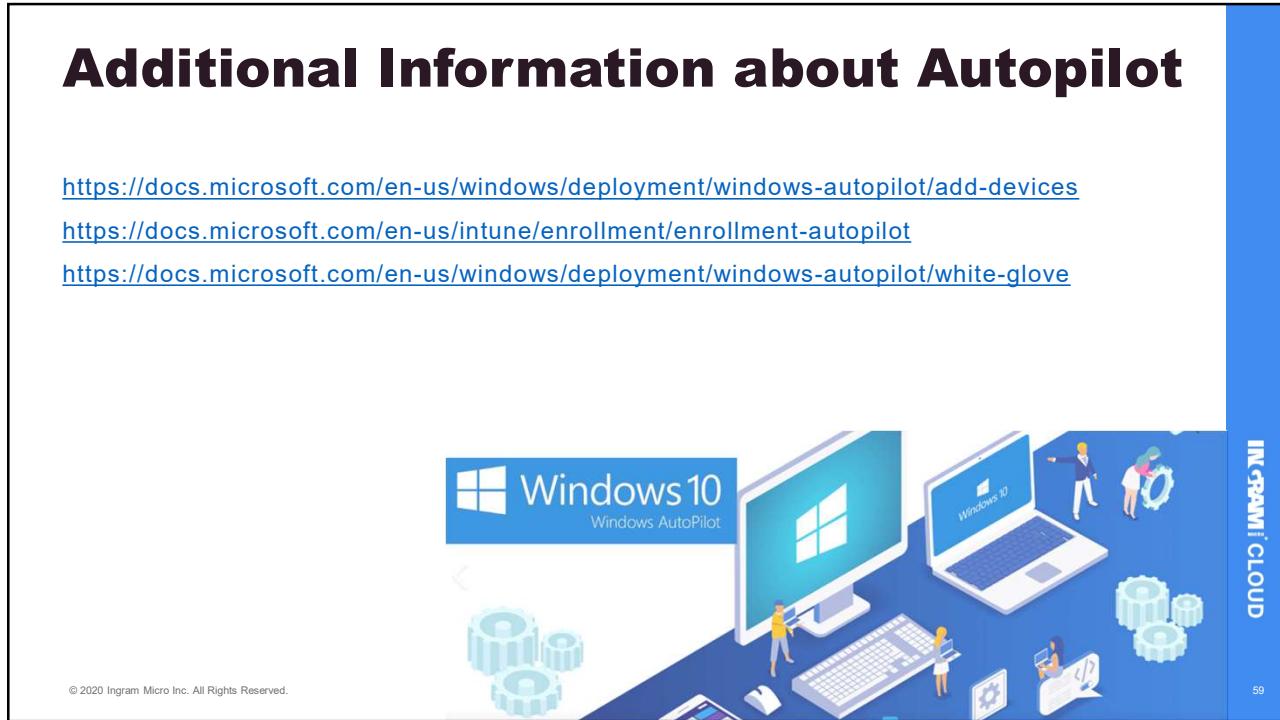


Additional Information about Autopilot

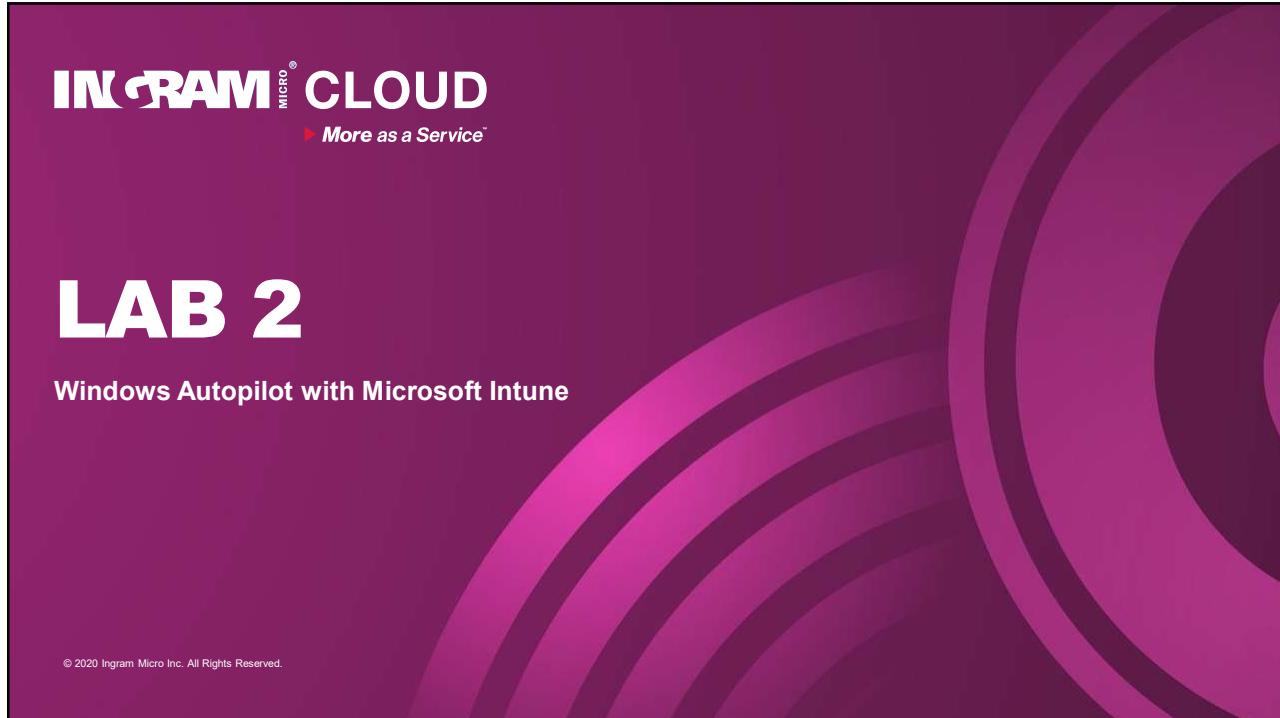
<https://docs.microsoft.com/en-us/windows/deployment/windows-autopilot/add-devices>

<https://docs.microsoft.com/en-us/intune/enrollment/enrollment-autopilot>

<https://docs.microsoft.com/en-us/windows/deployment/windows-autopilot/white-glove>



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Module 3 :

Deploy applications from Microsoft Store for Windows with Intune

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Universal Windows Platform (UWP)

•One Operating System

- One Windows core for all devices

•One App Platform

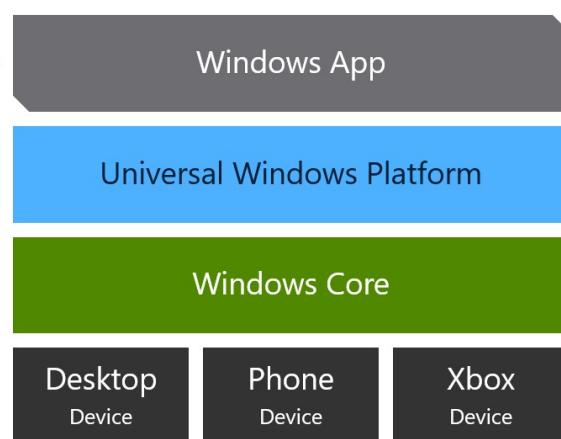
- Apps run across every family

•One Dev Center

- Single submission flow and dashboard

•One Store

- Global reach, local monetization
- Consumers, Business & Education



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Microsoft Store for Business (Legacy)

- distribute free and paid apps
- no cost
- manage Microsoft Store apps and private line-of-business apps in one inventory
- Private Store can be Activated
- <https://businessstore.microsoft.com>



<https://learn.microsoft.com/en-us/microsoft-store/>

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Microsoft Store for Business/Education

- Centralized Management
 - SMB
 - Schools
- Private Store offering
 - Make apps available for multiple persons
- App license Management

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Microsoft Store Apps in the past ...

- Not very popular
- Started with Windows 8
- Limited number of Applications
- Full-Screen mode Applications
- Updated in Windows 10 ...

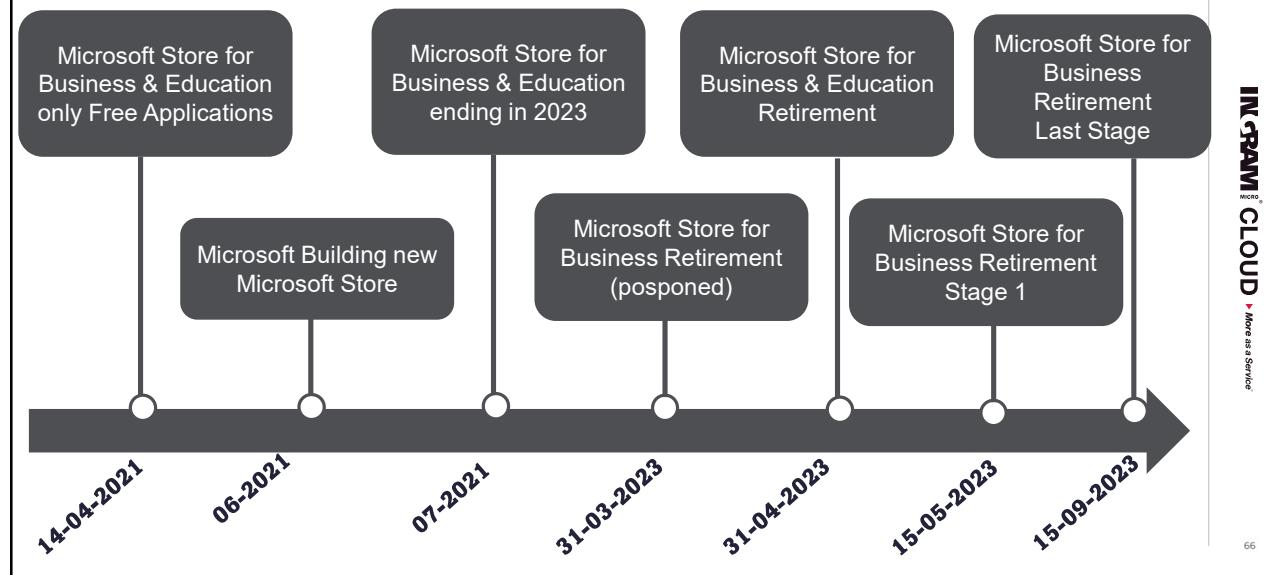


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Microsoft Store for Business announcements



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Important

The retirement of Microsoft Store for Business and Microsoft Store for Education has been postponed. We will update this notice when a new retirement date is announced. You can continue to use the current capabilities of free apps until that time. For more information about this change, see [Update to Intune integration with the Microsoft Store on Windows](#) and [FAQ: Supporting Microsoft Store experiences on managed devices](#).

Important

Starting on April 14th, 2021, only free apps will be available in Microsoft Store for Business and Education. For more information, see [Microsoft Store for Business and Education](#).

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<https://learn.microsoft.com>
<https://aka.ms/StoreTransition>

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New: Microsoft Store on Windows

- Microsoft Store for Business will Retire (Q1 2023)
- A new Microsoft Store on Windows 10 / 11 is released (H2 2022)
- Always latest application version
- Support for **Windows Package Manager (Winget)**
 - (similar like Chocolatey)
 - Command-line utility



<https://aka.ms/NewStore>

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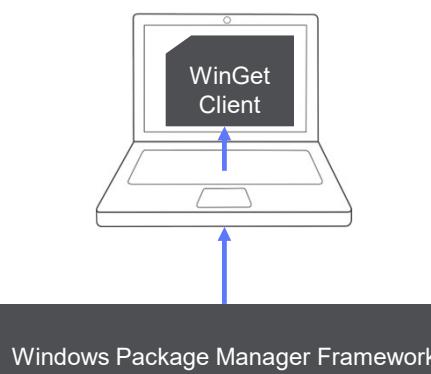
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MSfB compared to MSoW

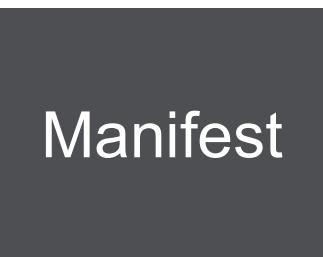
- Windows Package Manager integration
- Open set of API's that can integrate with any UEM Solution
 - (Unified endpoint management)
 - Of course also Intune ☺
- Backend = Windows Package Manager Framework
- FrontEnd = WinGet client (Command-Line Tool)
- Software added by Microsoft or any other ISV
- Not only UWP, but many other packages supported
- New Apps > Not in the Microsoft Store on local device



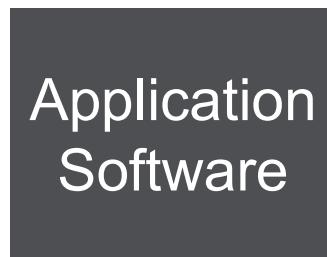
Windows Package Manager

- Announced in May, 2020 in Preview
- First version released in May, 2021
- Automation process of getting software on your Windows PC
 - Application Discovery
 - Application Installation
 - Application Update
- Repository of Trusted Applications
- API's
- UEM Integration

Winget Software Package



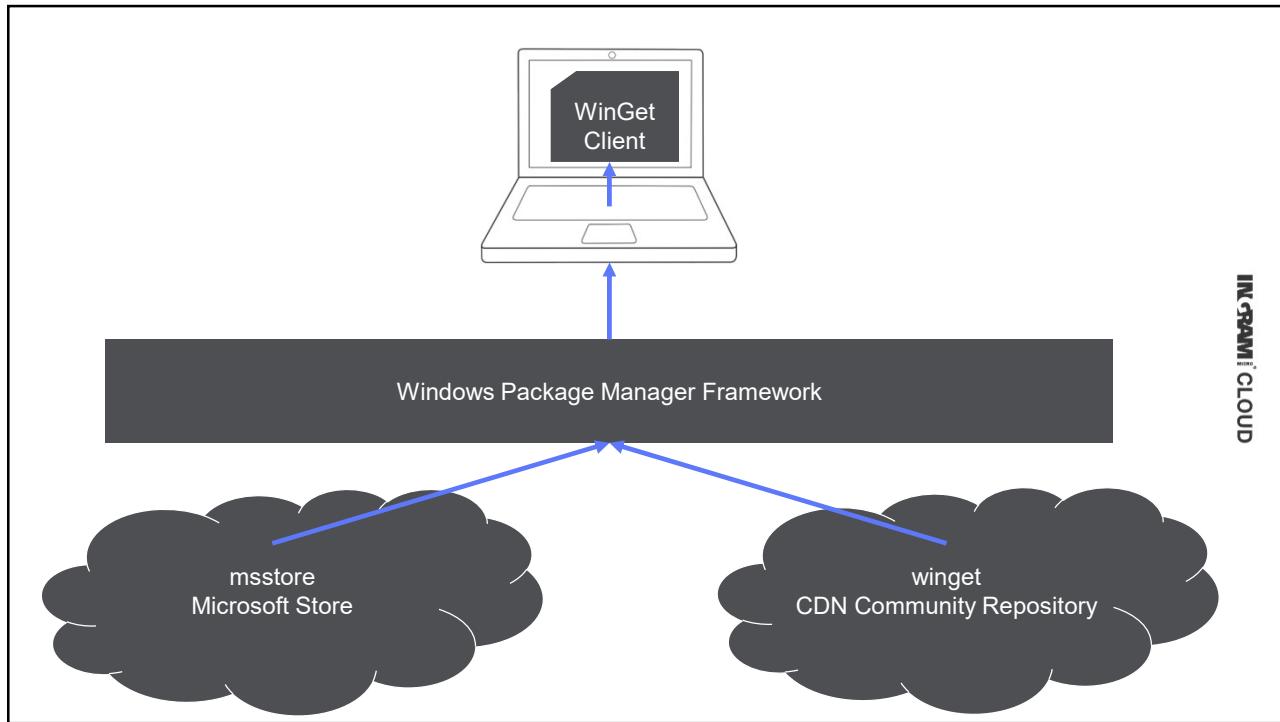
- YAML files
- Containing Metadata
- Describes the Installation



- Universal Windows Platform (UWP)
- Progressive Web Apps (PWA)
- MSIX
- Win-32 (.Msi , setup.exe)



- **Msstore:** Microsoft Store
- **Winget:** Community Repository
- Private Source



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WinGet Client

- Part of Windows Operating System from Windows 11 22H2
- Distributed within the [App Installer](#) package
 - On Windows 11
 - On Windows 10 (Windows 10 1809 or later)
- Distributed as [msixbundle package](#)
 - <https://aka.ms/getwinget>
- Winget is a Command-line driven package installer

```
C:\Windows>winget
AppInstaller Command Line v1.0.41061.0
Copyright (c) Microsoft Corporation

AppInstaller command line utility enables installing applications from the command line.
```



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WinGet Client : Notes

- It may take a few days to get the updated App Installer
- Manually Update :
 - You need to install VC++ v14 Desktop Framework Package
 - Only necessary on older builds of Windows 10

Commands

Winget source list

```
C:\Users\belend00>winget source list
Name      Argument
-----
msstore https://storeedgefd.dsx.mp.microsoft.com/v9.0
winget https://cdn.winget.microsoft.com/cache
```

Known Sources (Repositories)

Commands

Winget search

Search Application + Id

Name	Id	Version	Source
Blender	9PP3C07GTVRH	Unknown	msstore
Blender 2.93 LTS	9N9DW5GKD3V	Unknown	msstore
Blender 3.3 LTS	9N1SLK9R16TW	Unknown	msstore
Blender 2.83 LTS	9NDC4WK85MS6	Unknown	msstore
Ultimate Photo Blender / Mixer	9NHT9NJG3849	Unknown	msstore
Fused : Double Exposure, Video and Photo Blender	9NBLGGH1JJ6D	Unknown	msstore
Photo Blender Camera	9NBLGGH6CRW5	Unknown	msstore
Photo Blender : Photo Editor	9P1VP6V0SKCL	Unknown	msstore
Overlays and Photo Blender	9NS6Q06D2RR5	Unknown	msstore
Video Blender and Photo Blender Mixer	9NBLGGH4WMGN	Unknown	msstore
Photo Blender TB	9NBLGGH4QPMR	Unknown	msstore
Converting Colors - Color Blender	9N8L8W5TTD6S	Unknown	msstore
Blender	BlenderFoundation.Blender	3.5.0	winget

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Commands

Winget install {application}

```
C:\>winget install blender
Multiple packages found matching input criteria. Please refine the input.
Name   Id           Source
-----
Blender 9PP3C07GTVRH      msstore
Blender BlenderFoundation.Blender winget

C:\>winget install blender --source msstore
Found Blender [9PP3C07GTVRH] Version Unknown
This package is provided through Microsoft Store. winget may need to acquire the package from Microsoft Store on behalf
of the current user.
Agreements for Blender [9PP3C07GTVRH] Version Unknown
Version: Unknown
Publisher: Blender Foundation
```

Install Application

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Commands

Winget list

Name	Id	Version
AttackIQAgent (remove only)	AttackIQAgent	3.7.25.0
Blender	9PP3C07GTVRH	3.5.1.0
Microsoft Edge	Microsoft.Edge	112.0.1722.58
Microsoft Edge Update	Microsoft.Edge Update	1.3.173.55
Microsoft Edge WebView2 Runtime	Microsoft.EdgeWebView2Runtime	112.0.1722.58
Cortana	Microsoft.549981C3F5F10_8wekyb3d8bbwe	4.2204.13303.0
Microsoft Edge	Microsoft.Edge_8wekyb3d8bbwe	1.3.173.55

List Installed Applications

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Commands

Winget show

```
C:\>winget show notepad++ --versions
Found Notepad++ [Notepad++.Notepad++]
Version
-----
8.5.2
8.5.1
8.5
8.4.9
8.4.8
8.4.7
8.4.6
8.4.5
8.4.4
```

Show Available Application versions

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Commands

Winget upgrade

Winget uninstall

Commands

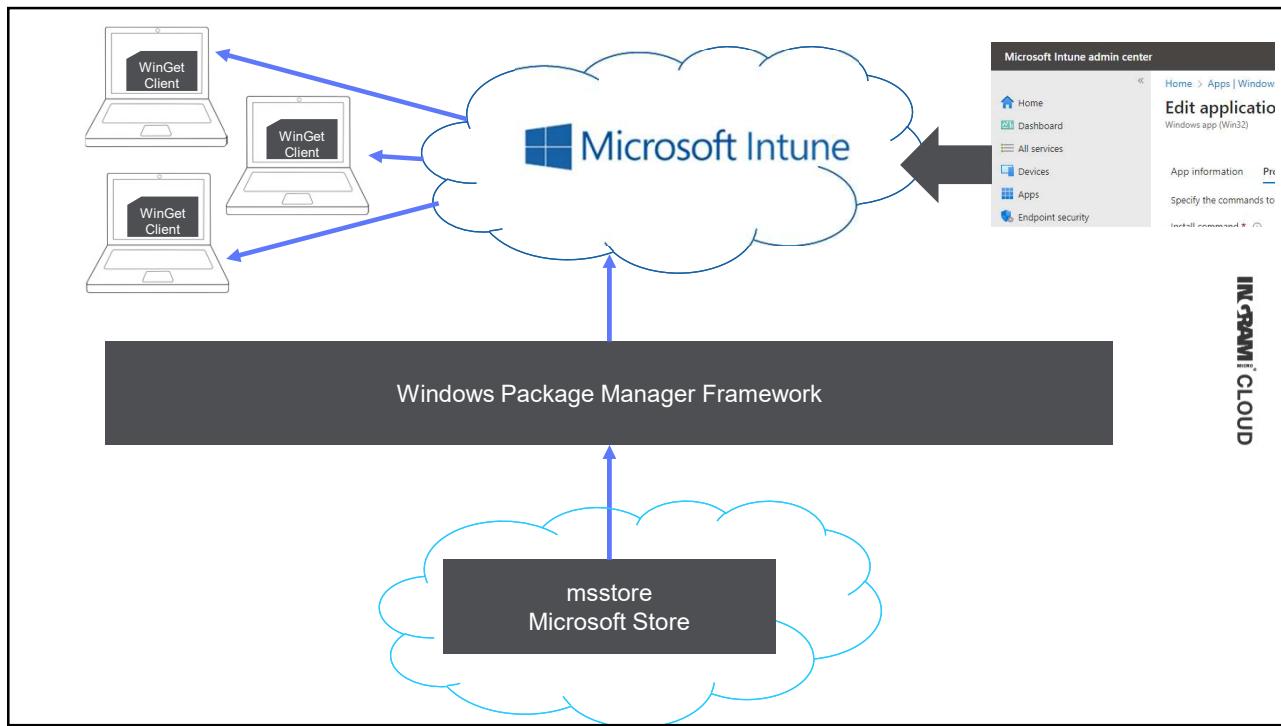
Winget --info

```
C:\>winget --info
Windows Package Manager v1.4.10173
Copyright (c) Microsoft Corporation. All rights reserved.

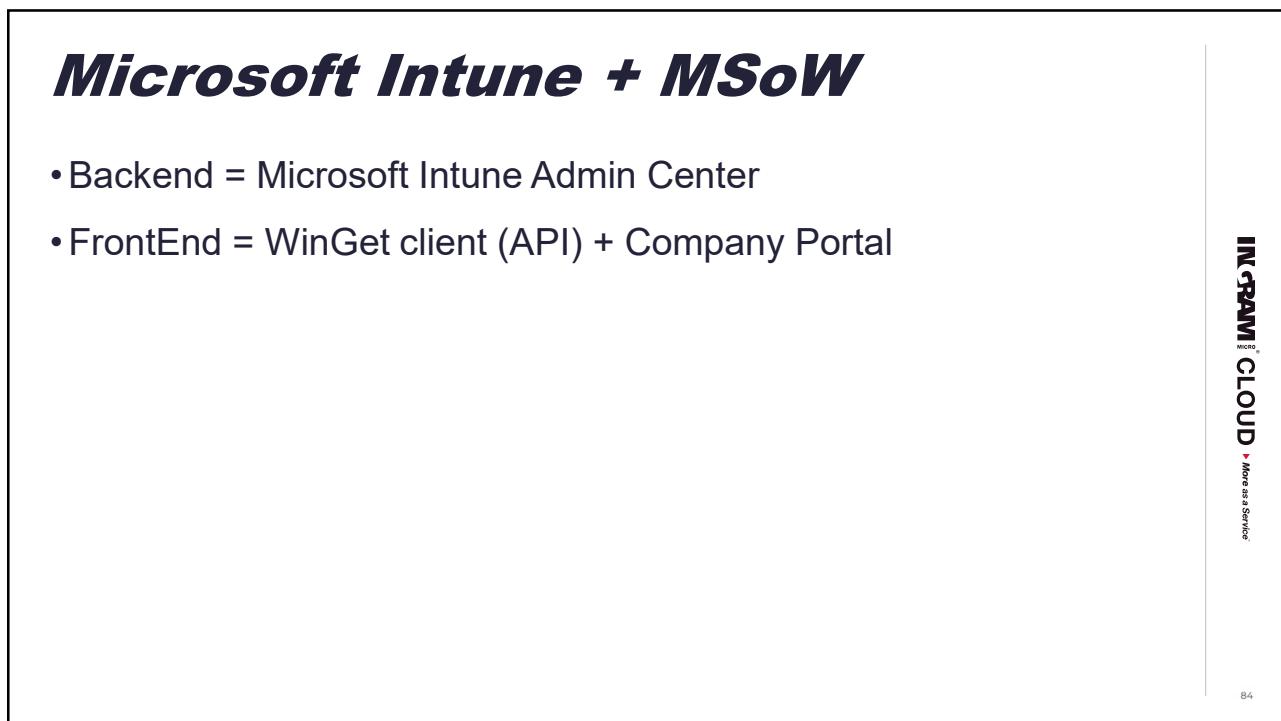
Windows: Windows.Desktop v10.0.19043.2364
System Architecture: X64
Package: Microsoft.DesktopAppInstaller v1.19.10173.0

Logs: %LOCALAPPDATA%\Packages\Microsoft.DesktopAppInstaller_8wekyb3d8bbwe\LocalState\DiagOutputDir
User Settings: %LOCALAPPDATA%\Packages\Microsoft.DesktopAppInstaller_8wekyb3d8bbwe\LocalState\settings.json

Links
-----
Privacy Statement  https://aka.ms/winget-privacy
License Agreement https://aka.ms/winget-license
Third Party Notices https://aka.ms/winget-3rdPartyNotice
Homepage          https://aka.ms/winget
Windows Store Terms https://www.microsoft.com/en-us/storedocs/terms-of-sale
```



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Company Portal

Company Portal is the Private Store for installable Company applications



Company Portal

Microsoft Corporation • Business

Wish list

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Microsoft Intune helps organizations manage access to corporate app the app that lets you, as an employee of your company, securely acce:

More

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Microsoft Store app (new) 11-2022

Select app type

Create app

App type

Select app type

Store app

Microsoft Store app (new)

Microsoft Store app (legacy)

Microsoft 365 Apps

Windows 10 and later

Microsoft Edge, version 77 and later

Windows 10 and later

Web Application

Windows web link

Other

Web link

Line-of-business app

Windows app (Win32)

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Microsoft Intune integration

Select app type

App type

Microsoft Store app (new)

Microsoft Store on Windows

Microsoft Store for Business

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Microsoft Store app (new)

Add App

Microsoft Store app (new)

App information

Search the Microsoft Store app (new)

Name: Adobe Acrobat Reader DC

Description: Adobe Acrobat Reader is the free, trusted global standard for viewing, printing, e-signing, sharing, and annotating PDFs.

Publisher: Adobe Inc.

Package Identifier: XPDP273C0XHQH2

Installer Type: Win32*

Install behavior: System

Category: 0 selected

Show this as a featured app in the Company Portal: No

Information URL: Enter a valid url

Privacy URL: <https://www.adobe.com/privacy/policy-linkfree.html>

Package Identifier

System

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Winget search adobe

Name	Id	Version	Match	Source
Adobe Express	9P94LH3Q1CP5	Unknown		msstore
Adobe Lightroom	9PNLG4ZG0XGJ	Unknown		msstore
Adobe Acrobat Reader DC	XPPD273C0XHQH2	Unknown		msstore
Adobe Fresco	XP8C8R0ZKZR27V	Unknown		msstore
Adobe Creative Cloud	XPDLPKW9SW2WD	Unknown		msstore
Adobe Photoshop Express	9WZDNCRFJ27N	Unknown		msstore
Adobe Experience Manager Forms	9ND12RLXTGTT	Unknown		msstore
Adobe Content Viewer	9WZDNCRFJBZ1	Unknown		msstore
Adobe Photoshop Express Toshiba version only	9WZDNCRDFSG4	Unknown		msstore
Adobe Premiere Elements 2023	XP8JR4WQQRJMHT	Unknown		msstore
Avocode	Avocode	4.15.6	Tag: adobe winget	
Adobe Acrobat Reader DC (64-bit)	Adobe.Acrobat.Reader.64-bit	23.001.20143	Tag: adobe winget	
Adobe Acrobat Reader DC	Adobe.Acrobat.Reader.32-bit	23.001.20143	Tag: adobe winget	
Adobe DNG Converter	Adobe.DNGConverter	15.0.0		winget
Cryptr	Adobe.Cryptr	0.5.0		winget
Brackets	Adobe.Brackets	1.14.17770		winget
Adobe Connect	Adobe.AdobeConnect	21.11.22		winget

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Select app type

Create app

App type

Select app type

Store app

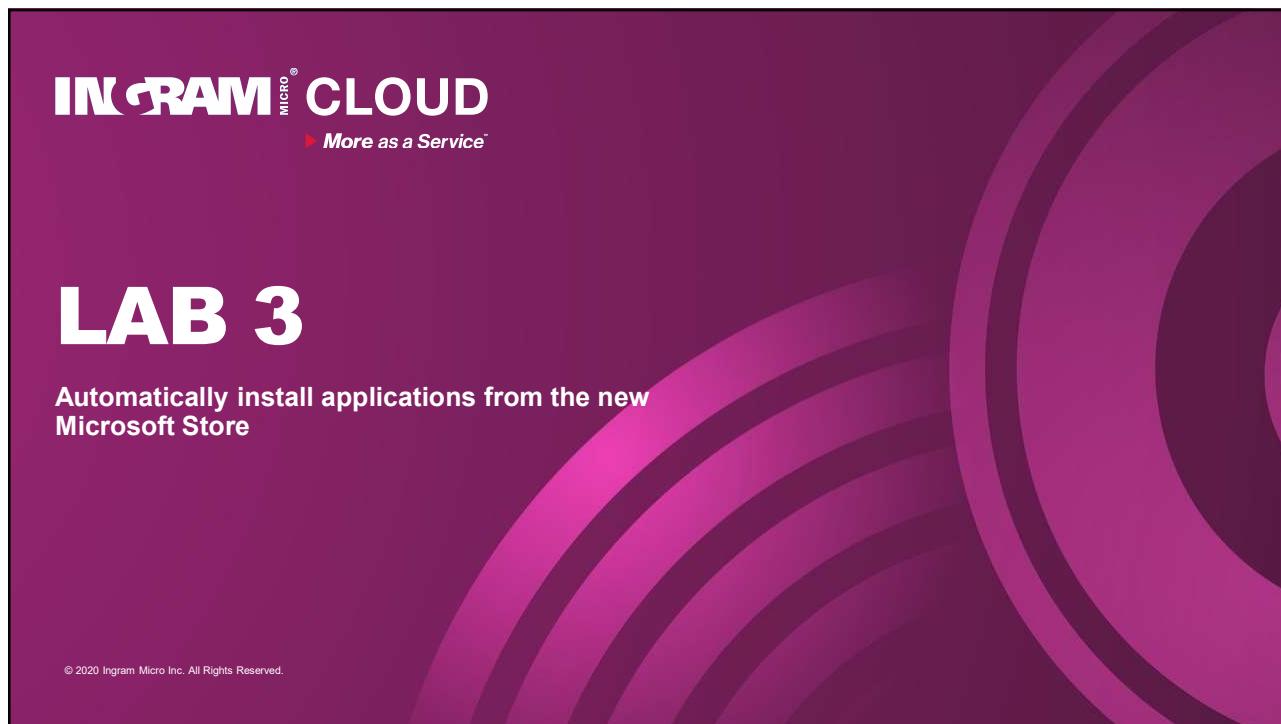
Microsoft Store app (new)

Microsoft Store app (legacy)

Name	Id	Version	Match	Source
Adobe Express	9P94LH3Q1CP5	Unknown		msstore
Adobe Lightroom	9PNLG4ZG0XGJ	Unknown		msstore
Adobe Acrobat Reader DC	XPPD273C0XHQH2	Unknown		msstore
Adobe Fresco	XP8C8R0ZKZR27V	Unknown		msstore
Adobe Creative Cloud	XPDLPKW9SW2WD	Unknown		msstore
Adobe Photoshop Express	9WZDNCRFJ27N	Unknown		msstore
Adobe Experience Manager Forms	9ND12RLXTGTT	Unknown		msstore
Adobe Content Viewer	9WZDNCRFJBZ1	Unknown		msstore
Adobe Photoshop Express Toshiba version only	9WZDNCRDFSG4	Unknown		msstore
Adobe Premiere Elements 2023	XP8JR4WQQRJMHT	Unknown		msstore
Avocode	Avocode	4.15.6	Tag: adobe winget	
Adobe Acrobat Reader DC (64-bit)	Adobe.Acrobat.Reader.64-bit	23.001.20143	Tag: adobe winget	
Adobe Acrobat Reader DC	Adobe.Acrobat.Reader.32-bit	23.001.20143	Tag: adobe winget	
Adobe DNG Converter	Adobe.DNGConverter	15.0.0		winget
Cryptr	Adobe.Cryptr	0.5.0		winget
Brackets	Adobe.Brackets	1.14.17770		winget
Adobe Connect	Adobe.AdobeConnect	21.11.22		winget

Name	↑↓	Publisher	↑↓	Type
Adobe Express		Adobe Inc.		UWP
Adobe Lightroom		Adobe Inc.		UWP
Adobe Acrobat Reader DC		Adobe Inc.		Win32*
Adobe Fresco		Adobe Inc.		Win32*
Adobe Creative Cloud		Adobe Inc.		Win32*
Adobe Photoshop Express		Adobe Inc.		UWP
Adobe Content Viewer		Adobe Inc.		UWP

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LAB 3

Automatically install applications from the new Microsoft Store

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Module 4 :

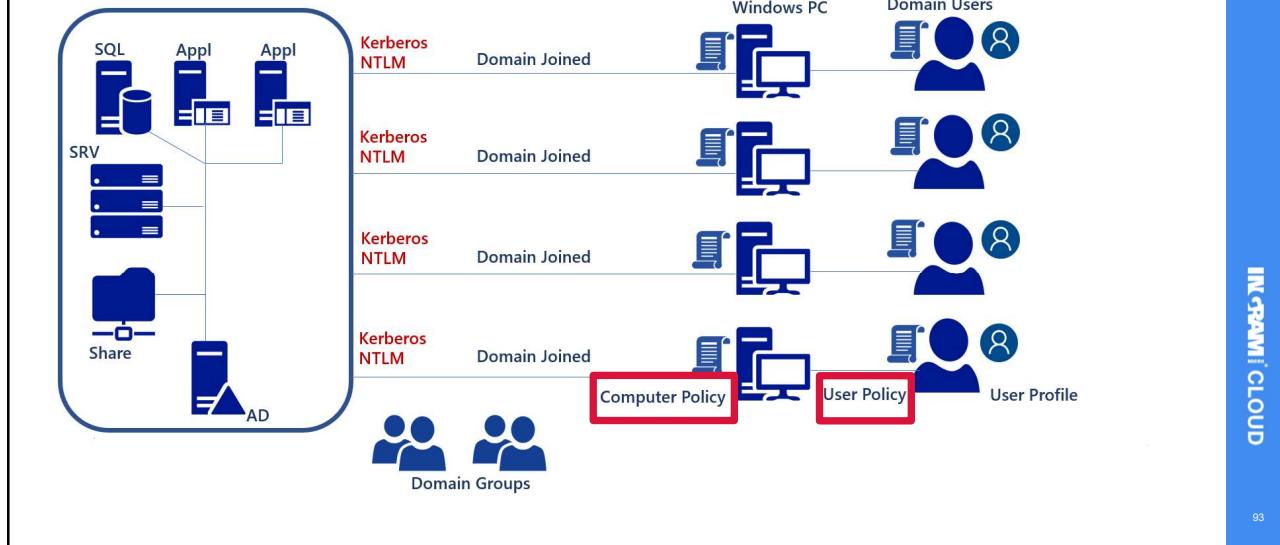
Configure Device Restrictions and Security Policies

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A standard On-Premise installation

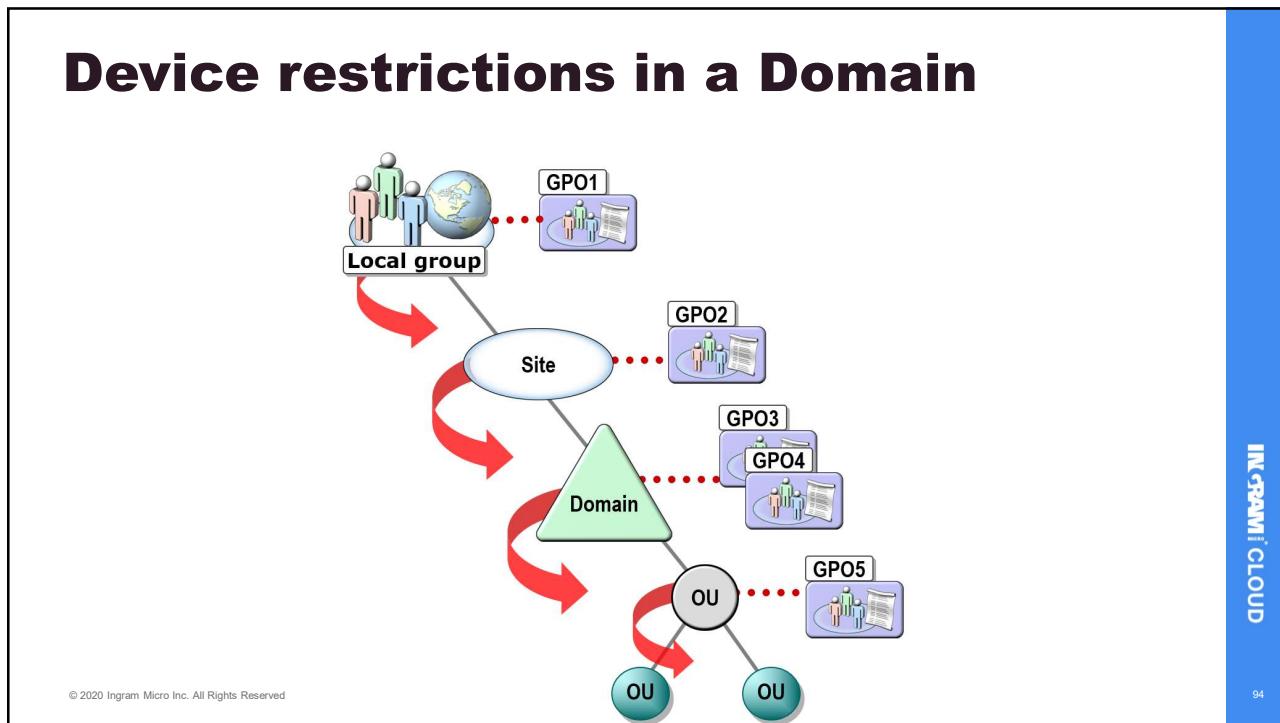


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Device restrictions in a Domain



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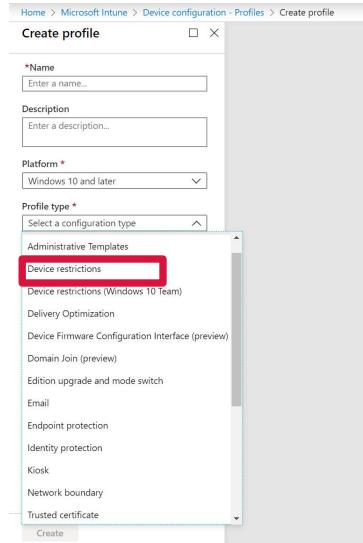
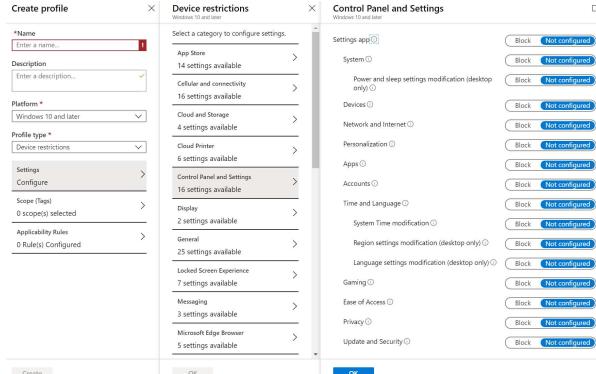
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Device Restrictions in Intune

Intune > Device Configuration > Profiles



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Import personal ADMX-templates

Intune > Device Configuration > Profiles > Custom

Save
Discard

*** Name**
ADMX - Google Chrome - NIST

Description
Group Policy Objects (GPOs) - November 2018

*** Platform**
Windows 10 and later

*** Profile type**
Custom

Settings
1 configured

OMA-URI Settings ...

NAME	DESCRIPTION	OMA-URI	VALUE
Google Chrome A...		/Device/Vendor/...	<?xml version="1.... ...
Google Chrome - ...	Allow download r...	/Device/Vendor/...	<enabled/> <data... ...
Google Chrome - ...	Allow media auto...	/Device/Vendor/...	<disabled/> ...
Google Chrome - ...	Allow media auto...	/Device/Vendor/...	<enabled/> <data... ...
Google Chrome - ...	Allow running plu...	/Device/Vendor/...	<disabled/> ...
Google Chrome - ...	Ask where to save	/Device/Standard/...	enabled/...

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Endpoint Protection Profile

Intune > Device Configuration > Profiles > Endpoint Protection

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Security Baselines

Intune > Device Security > Security Baselines

Help to make your devices secure with Security Baseline Policies

MDM Security Baseline : <https://docs.microsoft.com/en-us/windows/client-management/mdm/>

Windows 10 Security Baselines

MDM Security Baseline
Associated Profiles 0
Versions 1
Last Published 6/1/2019

Microsoft Edge Baseline
Preview: Microsoft Edge baseline
Associated Profiles 0
Versions 1
Last Published 9/1/2019

Microsoft Defender ATP Baseline
Associated Profiles 0
Versions 1
Last Published 6/2/2019

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LAB 4

Deploy Computer Policies within Intune

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Module 5 :

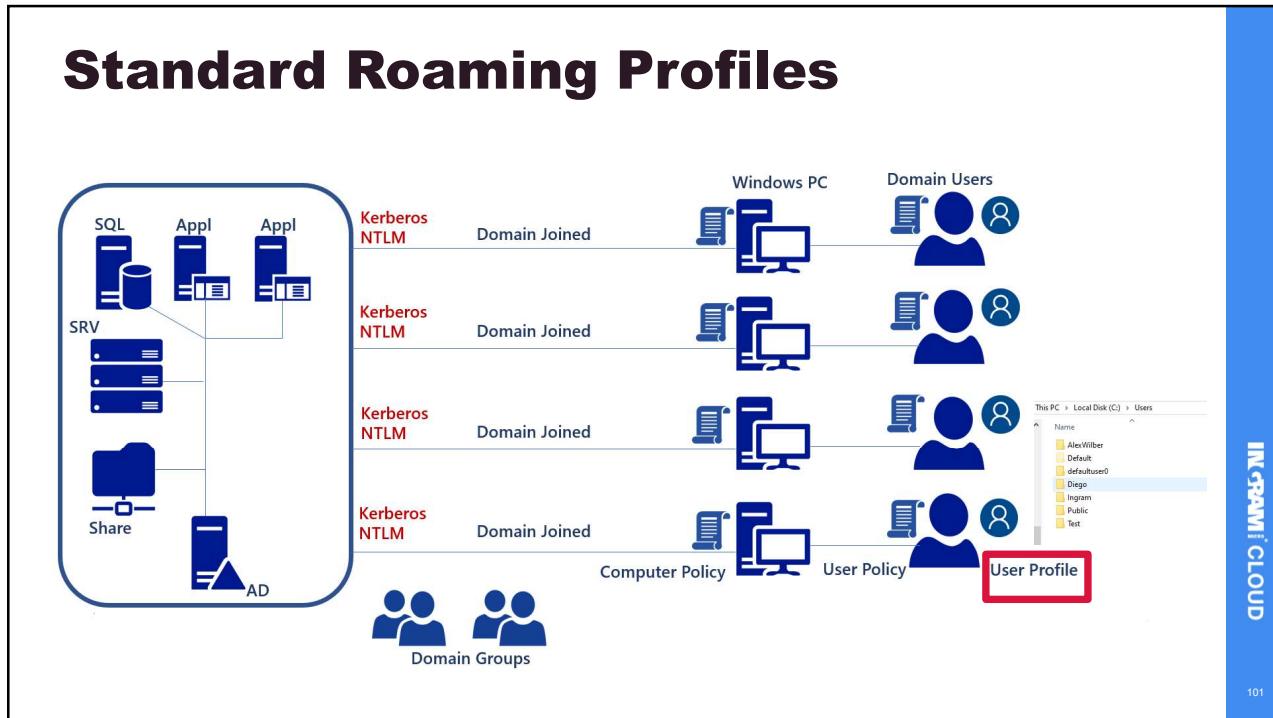
Modern Roaming Profiles

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Standard Roaming Profiles

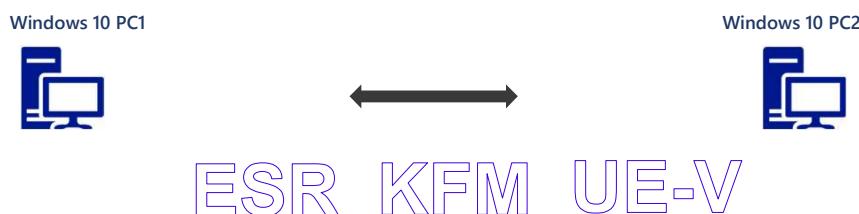


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Modern Roaming Profiles



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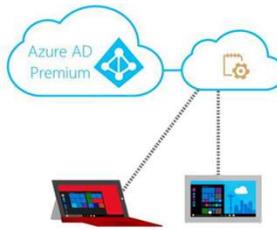
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Enterprise State Roaming (ESR)

- Azure AD Premium Subscription
- Azure Active Directory > Devices > Enterprise State Roaming
- Securely synchronize user settings
- Synchronize application setting
- What is synchronized ?
 - App Data (Roaming directory)
 - Themes
 - Internet Explorer
 - Microsoft Edge
 - Passwords
 - Language preferences
 - Ease of access features
 - Control Panel
 - Windows Settings

Enterprise State Roaming (ESR)



Settings Roaming...

- Themes
- IE / Edge Settings
- Control Panel
- Other Windows Settings
- Application Settings (UWA)

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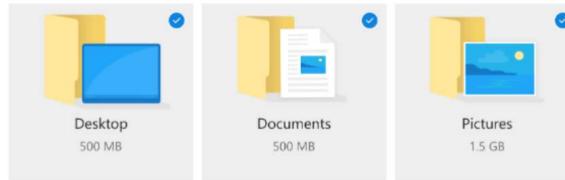
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Known Folder Move (KFM)



- KFM is a OneDrive sync feature that works with Windows 10
- This feature allows business users to backup/redirect their Windows Folders:
 - Desktop
 - Documents
 - Pictures
- to OneDrive for Business.



Remaining space in OneDrive: 2.5 GB

Start protection

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User Experience Virtualization (UE-V)

- A feature of Windows 10 Enterprise
- When also Legacy Applications are installed on the PC's
- Synchronization based on OneDrive or File Server
- Roam Application Settings for Win32 Applications
 - Some Applications have an own synchronization mechanism (example Google Chrome)
- Enabled with a PowerShell script

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LAB 5

Modern Roaming Profiles

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Module 6 :

Install WIN32 Applications with Intune

Winget

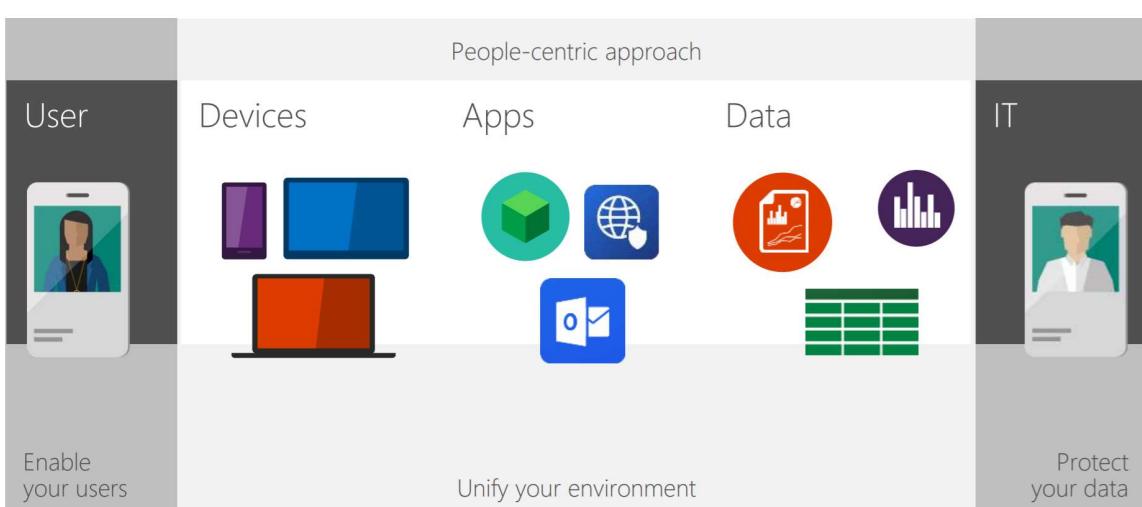
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Deploy LOB Applications on Devices



People-centric approach

User	Devices	Apps	Data	IT
				
Enable your users	Devices	Apps	Data	IT

Enable your users Unify your environment Protect your data

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Before 2018 ... After 2018

In the Past



Limited to single file MSI for Win32 apps

Challenge for customers to deploy complex Windows apps

What's New



- ✓ Leverage MSIX packaging tool to convert your existing Win32 apps to MSIX
- ✓ Use new Intune capability to directly deploy Win32 apps (MSI, EXE and MSP/MST)

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Deploy Applications with Intune

- Windows 10 Store Applications
- MSI – MSIX installations
- EXE files cannot be published directly
- EXE files need to be “wrapped” into an .INTUNEWIN file



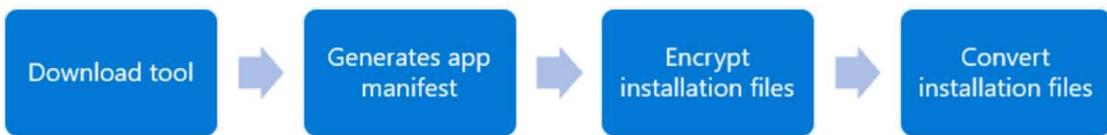
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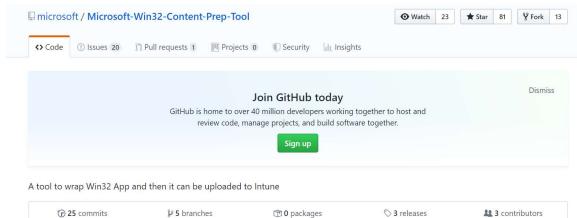
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IntuneWinAppUtil.exe



→ .intunewin

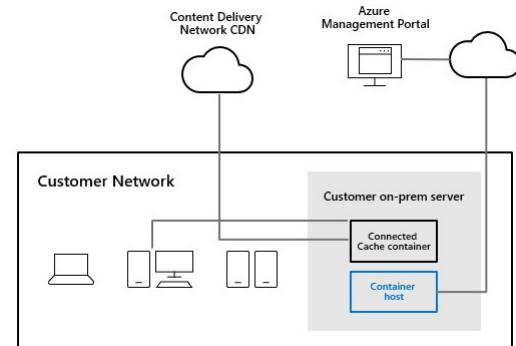


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Microsoft Connected Cache (Ignite 2019)

- In SCCM also called **Delivery Optimization In-Network Cache** (DOINC)
- It offloads Delivery Optimization service traffic to local sources
- It does this behavior by efficiently caching content at the byte range level
- <https://aka.ms/MSConnectedCacheSignup>
- <https://techcommunity.microsoft.com/t5/windows-it-blog/introducing-microsoft-connected-cache-microsoft-managed/ba-p/963898>



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App Assignment & Monitoring

App Assignment

- Required
- Available
- Uninstall
- Rich targeting (include/exclude)



Monitoring

- Aligns with Intune app reporting

Event	Details
App installation completed	8-1-2020 23:07:08
User requested application	8-1-2020 23:06:27
Device last check-in time	8-1-2020 23:05:24
App assigned to group sg_intune_Managed_Users	8-1-2020 23:04:45

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What is MSIX

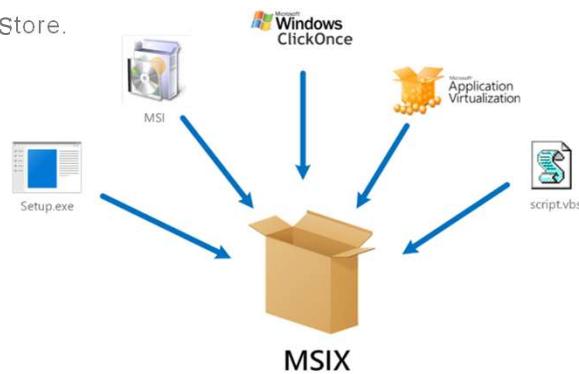
MSIX is a Windows app package format

Provides a modern packaging experience for all kinds of Windows applications.

Modern packaging and deployment features to Win32, WPF, and WinForm apps.

Existing applications can be converted into MSIX packages

MSIX packaging tool can be found in Microsoft Store.



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Application Packaging challenges

Windows software packaging can be a time-consuming experience

Engineers spend hours deploying Windows software manually

Traditional tools are complex & ineffective

Software installers are messy

Software management is like the Wild West

System Context <> User Context

Application Updates

Finding Install /uninstall switches is difficult



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Winget & Intune integration

Packages are maintained centrally by the ISV Publisher of the Package

Installation Integration directly in Andpoint Manager Admin Center



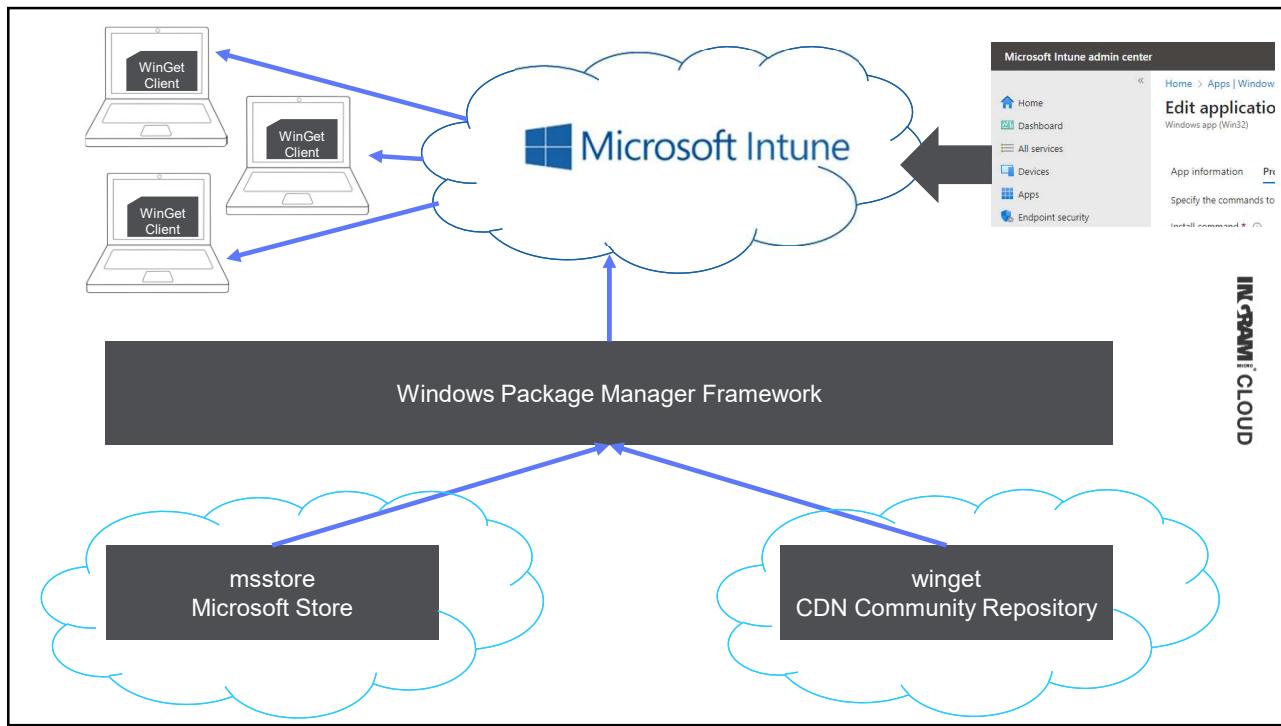
<https://aka.ms/StoreTransition>

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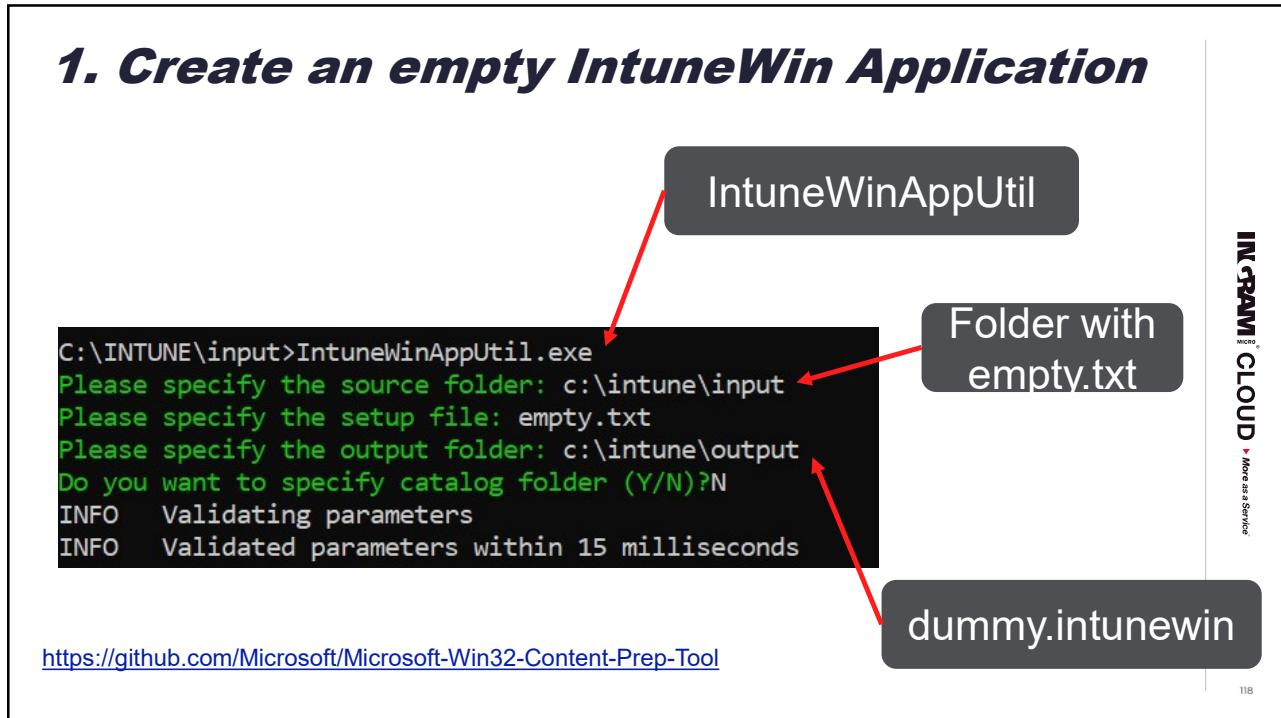
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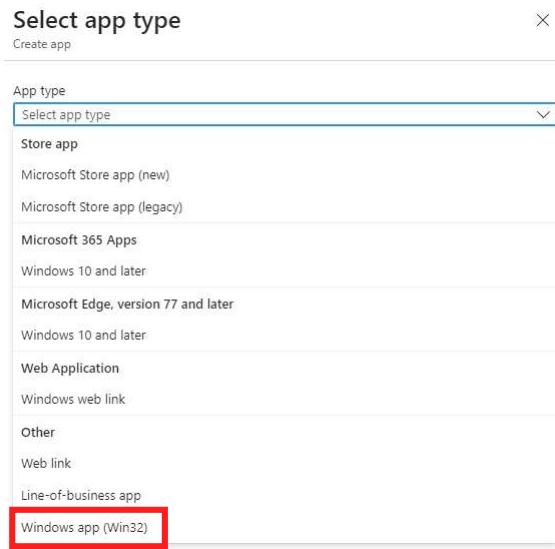


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2. Publish dummy.intunewin as win32 app



The screenshot shows a 'Select app type' dialog box. At the top, there is a 'Create app' link. Below it, a dropdown menu is open, showing various app type categories: 'Store app', 'Microsoft 365 Apps', 'Windows 10 and later', 'Microsoft Edge, version 77 and later', 'Windows 10 and later', 'Web Application', 'Windows web link', 'Other', 'Web link', 'Line-of-business app', and 'Windows app (Win32)'. The 'Windows app (Win32)' option is highlighted with a red box. The 'INGRAM MICRO CLOUD' logo is visible on the right side of the dialog.

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3. Launch winget install command



The screenshot shows the 'Program' tab of an app configuration interface. The tabs at the top are 'App information', 'Program' (which is selected), 'Requirements', 'Detection rules', and 'Review + save'. Below the tabs, there is a section for specifying commands to install and uninstall the app. The 'Install command' field contains the command: 'cmd /c winget install notepad++ --source winget --accept-source-agreements'. The 'Uninstall command' field contains the command: 'cmd /c winget uninstall notepad++'. Under the 'Install behavior' section, the 'User' radio button is selected, while 'System' is unselected. The 'Device restart behavior' dropdown is set to 'App install may force a device restart'. The 'INGRAM MICRO CLOUD' logo is visible on the right side of the interface.

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What is Chocolatey ?

Chocolatey is a software package management solution

Is an Open Source project

Chocolatey simplifies the packaging by using a [Universal Packaging format](#)

Write Once, Deploy Anywhere

Installs on Windows 7 + , Windows 2003 +

Install on Windows Docker Containers

Integrates perfectly in Intune

<https://www.chocolatey.org>

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Chocolatey Community

<https://www.chocolatey.org>

<https://www.chocolatey.org/packages>

Community package repository

9750 Community Maintained Packages

Community maintained

Everything goes through VirusTotal



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⚠ Community Package Repository Notification
Your use of the packages on this site means you understand they are not supported or guaranteed in any way. Due to the unreliability due to distribution rights, these packages should not be used as is for organizational purposes either. [Learn more](#)

There are 9750 Community Maintained Packages
Displaying Results 1 - 30 of 9750

Normal View

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Chocolatey with Intune



1. Create an Chocolatey Agent INTUNEWIN Package
2. Add the Package to the Intune Portal
3. Install the Chocolatey Agent Software
4. Deploy the other needed software

```

1 $localprograms = choco list --localonly
2 if ($localprograms -like "*firefox*")
3 {
4     choco upgrade firefox -y
5 }
6 Else
7 {
8     choco install firefox -y
9 }

```

<https://www.thelazyadministrator.com/2020/02/05/intune-chocolatey-a-match-made-in-heaven/>

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LAB 6

Install WIN32 applications with Intune & Winget

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Module 7 :

Conditional Access and Device Compliance

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Device Compliance

Intune > Device Compliance
devices must meet some Device Compliance Settings

0 Devices selected (100 max)

Device name	Managed by	Ownership	Compliance	OS	OS version
<input type="checkbox"/> DESKTOP-H2SH332	MDM	Corporate	<input checked="" type="checkbox"/> Compliant	Windows	10.0.18363.592
<input type="checkbox"/> DESKTOP-L8N3TD7	MDM	Corporate	<input checked="" type="checkbox"/> Compliant	Windows	10.0.18363.592
<input type="checkbox"/> DESKTOP-LBIB7UL	MDM	Corporate	<input checked="" type="checkbox"/> Compliant	Windows	10.0.18363.592

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Device Compliance Policy



- Define Device minimum requirements
- (OS version, Password, Antivirus, Firewall, Encryption, ATP, ...)



- Define Action if device Not Compliant
- (Email User, Lock Device, Mark, ...)



- Define Devices where this policy applies

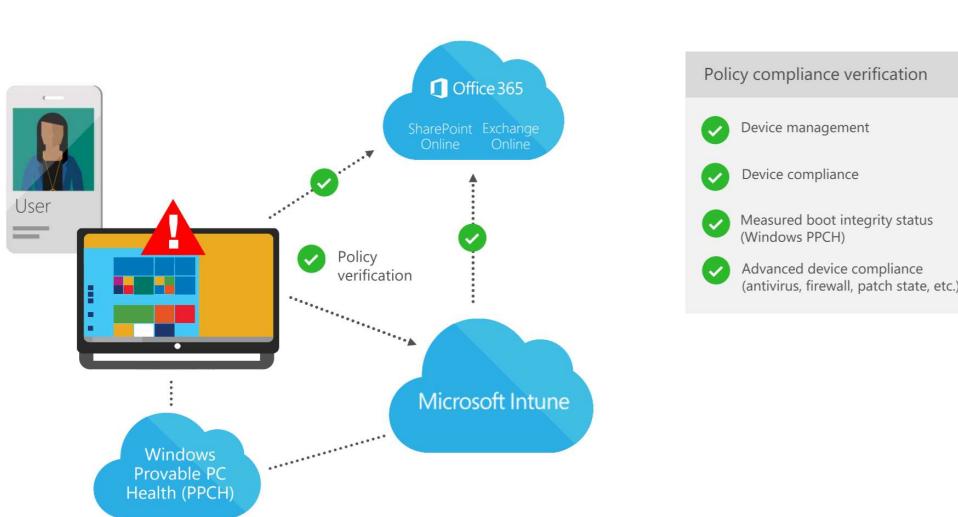
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Device Compliance + Conditional Access



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What is Conditional Access



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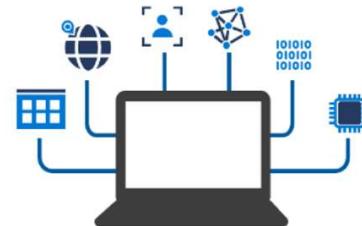
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Common Signals

- User or group membership
- IP Location information
- entire countries IP ranges
- Devices of specific platforms
- Devices marked with a specific state
- Users attempting to access specific
- Real-time and calculated risk detection
- Microsoft Cloud App Security (MCAS)



Signal

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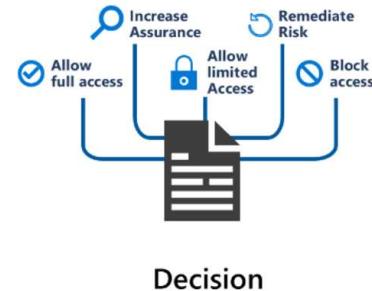
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Common Decisions

- Block access
 - Most restrictive decision
- Grant access
 - Least restrictive decision, can still require one or more of the following options:
 - Require multi-factor authentication (MFA)
 - Require device to be marked as compliant
 - Require Hybrid Azure AD joined device
 - Require approved client app
 - Require app protection policy (preview)



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Common Enforcement Policies

- Requiring multi-factor authentication for users with administrative roles
- Requiring multi-factor authentication for Azure management tasks
- Blocking sign-ins for users attempting to use legacy authentication protocols
- Requiring trusted locations for Azure Multi-Factor Authentication registration
- Blocking or granting access from specific locations
- Blocking risky sign-in behaviors
- Requiring organization-managed devices for specific applications



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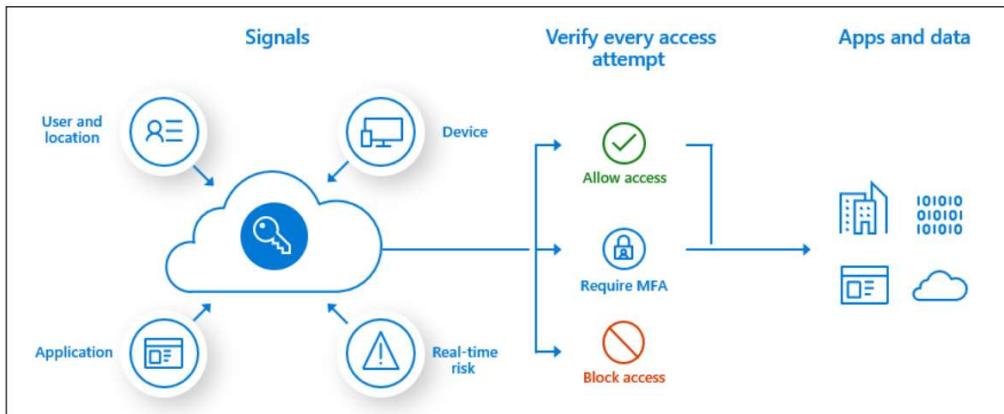
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Enforcement

Conditional Access : total picture



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LAB 7

Creating Compliance and
Conditional Access Policies

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Module 8 :

Launch PowerShell script with Intune

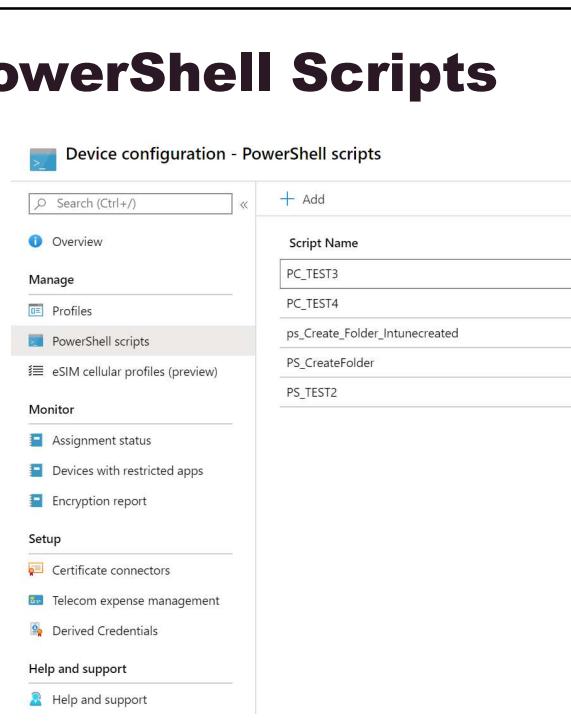
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Define PowerShell Scripts



The screenshot shows the 'Device configuration - PowerShell scripts' section of the Ingram Micro Intune portal. The left sidebar includes links for Overview, Manage (Profiles, PowerShell scripts, eSIM cellular profiles (preview)), Monitor (Assignment status, Devices with restricted apps, Encryption report), Setup (Certificate connectors, Telecom expense management, Derived Credentials), and Help and support (Help and support). The 'PowerShell scripts' link is highlighted. The main content area shows a list of PowerShell scripts with the following details:

Script Name
PC_TEST3
PC_TEST4
ps_Create_Folder_Intunecreated
PS_CreateFolder
PS_TEST2

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PowerShell script settings

Home > Devices | Scripts >

Add PowerShell script ...

Basics Script settings Assignments Review + add

Script location * Select a file

Run this script using the logged on credentials (Yes No)

Enforce script signature check (Yes No)

Run script in 64 bit PowerShell Host (Yes No)

User Context
(run with user credentials)

System Context

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Verify Installation Status

Created: 01/10/20, 01:27:29 PM

Last Modified: 01/10/20, 01:27:29 PM

Assigned: Yes

Groups assigned: 1

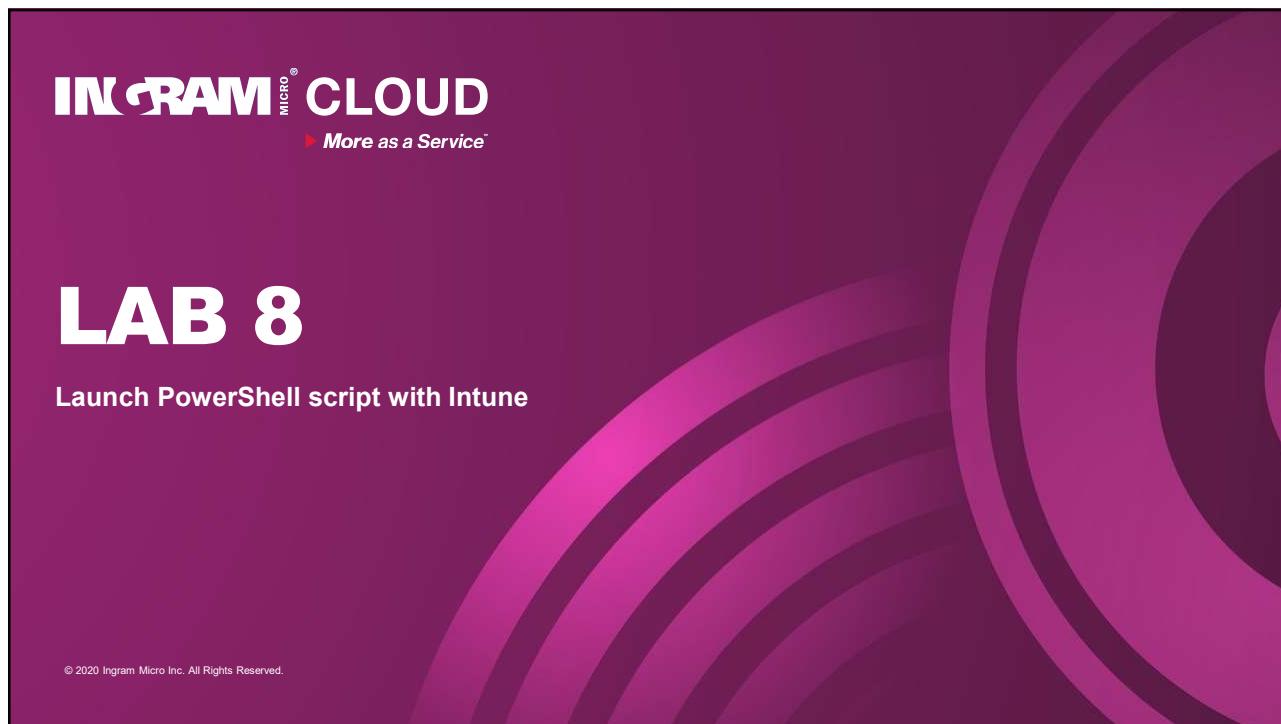
Status for checked-in devices

Succeeded	Error
1	0

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LAB 8

Launch PowerShell script with Intune

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Module 9 :

The new developments in Microsoft Endpoint Manager

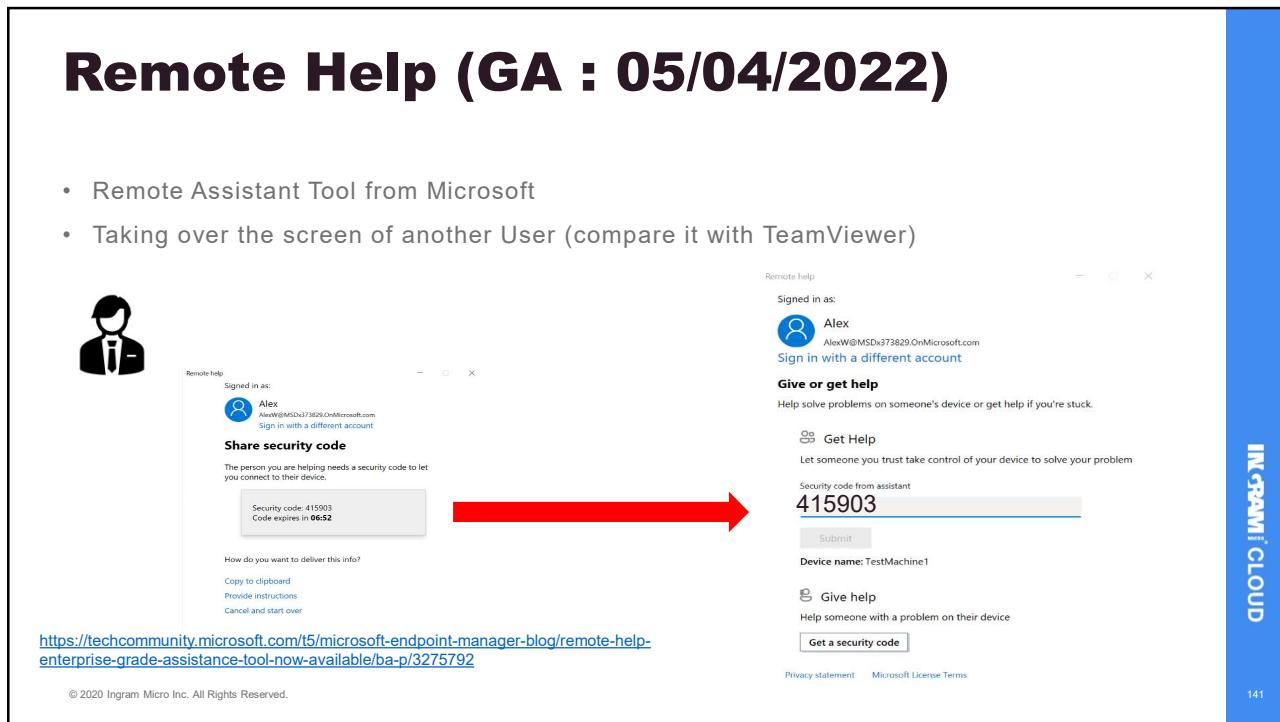
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Remote Help (GA : 05/04/2022)

- Remote Assistant Tool from Microsoft
- Taking over the screen of another User (compare it with TeamViewer)



The screenshot shows the Microsoft Remote Help interface. On the left, a 'Share security code' section displays a security code (415903) that expires in 06:52. A red arrow points from this section to the 'Give or get help' section on the right. The 'Give or get help' section shows a security code from the assistant (415903) and a 'Submit' button. The interface also includes sections for 'Get Help' (let someone take control of your device), 'Give help' (help someone with a problem on their device), and 'Get a security code'.

<https://techcommunity.microsoft.com/t5/microsoft-endpoint-manager-blog/remote-help-enterprise-grade-assistance-tool-now-available/ba-p/3275792>

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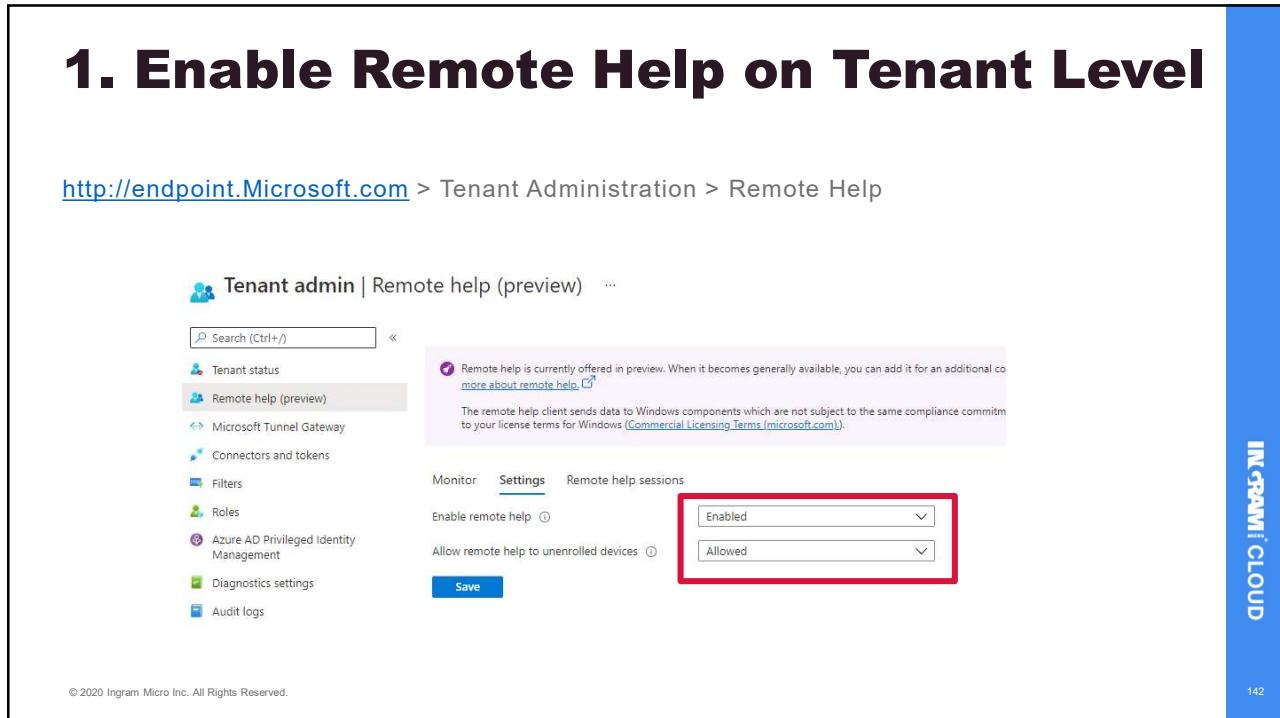
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1. Enable Remote Help on Tenant Level

<http://endpoint.Microsoft.com> > Tenant Administration > Remote Help



The screenshot shows the Microsoft Tenant Administration interface under the 'Remote help (preview)' section. The 'Settings' tab is selected. Under 'Enable remote help', the dropdown menu is set to 'Enabled' and the 'Allow remote help to unenrolled devices' dropdown is set to 'Allowed'. Both dropdowns are highlighted with a red box.

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2. Install Remote Client on PC Operator

<http://aka.ms/DownloadRemoteHelp>

Tenant admin | Remote help (preview) ...

Search (Ctrl+ /) < More about remote help

Remote help is currently offered in preview. When it becomes generally available, you can add it for an additional cost. [more about remote help](#)

The remote help client sends data to Windows components which are not subject to the same compliance commitments as your license terms for Windows. [Commercial Licensing Terms \(microsoft.com\)](#)

Monitor Settings Remote help sessions

Enable remote help ⓘ Enabled

Allow remote help to unenrolled devices ⓘ Allowed

Save

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3. Install Remote Client on Devices

<http://aka.ms/DownloadRemoteHelp>

Make an IntuneWin application

<https://docs.microsoft.com/en-us/mem/intune/remote-actions/remote-help#install-and-update-remote-help>

More Info

<http://aka.ms/remotehelp>

Remote help

Signed in as: Alex

Sign in with a different account

Give or get help

Get help

Let someone you trust take control of your device to solve your problem

Security code from assistant

Submit

Device name: TestMachine1

Give help

Help someone with a problem on their device

Get a security code

Privacy statement Microsoft License Terms

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Baseline Policy replacement

- Feb 29th 2020 : Microsoft will remove the “baseline policies” from Azure AD
 - Intune > Conditional Access > Policies
- AAD Security Defaults is a good replacement
 - AAD > Properties > Security Defaults

Policy Name

- Baseline policy: Require MFA for admins (Preview)
- Baseline policy: End user protection (Preview)
- Baseline policy: Block legacy authentication (Preview)
- Baseline policy: Require MFA for Service Management (Preview)

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Policies for Office Apps

- Same info as <https://config.office.com>
- ADMX Based Policies
 - Only for Intune Managed Devices
 - Computer & User Policies
 - Will win over Policies for Office Apps (if overlapping)
- Policies for Office Apps
 - Applies to
 - Domain Joined Devices
 - AAD Joined Devices
 - Devices in Workgroup
 - User Policies only

Policy configurations

Policy

- App protection policies
- App configuration policies
- OS app provisioning profiles
- 1 mode supplemental policies
- Policies for Office apps

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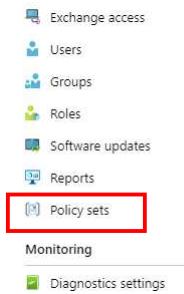
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Intune Policy Sets

- Assignable Collection of apps, policies, and other management objects
- By creating a policy set, you can group the following features into a set which you can assign to either device or user groups:
 - Apps
 - App configuration policies
 - App protection policies
 - Device configuration profiles
 - Device compliance policies
 - Device type restrictions
 - Windows autopilot deployment profiles
 - Enrollment status page



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<https://docs.microsoft.com/en-us/mem/intune/fundamentals/policy-sets>

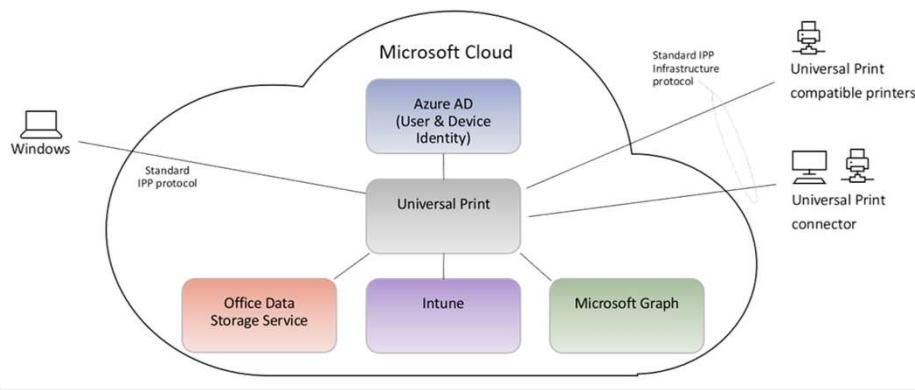
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Universal Print

Available in Private Preview Only



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Microsoft 365 Lighthouse

As an MSP, manage the Devices of multiple customers (Tenants) from one portal

The screenshot shows the Microsoft 365 Lighthouse portal. On the left, a sidebar has 'Devices' selected. The main area displays 'Device compliance' with a bar chart showing 3408 of 2762 devices are not compliant. Below this is a table of tenant compliance counts. To the right, a 'Microsoft Defender Antivirus threat landscape' chart shows 91 of 111 threats mitigated in the past 638 days, with a breakdown by severity (High, Quarantine, Suspicious, Low).

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<https://aka.ms/LighthouseNextStep>

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Key Requirements for M365 Lighthouse



Customers need to have devices enrolled to light up device compliance and anti-virus user stories.



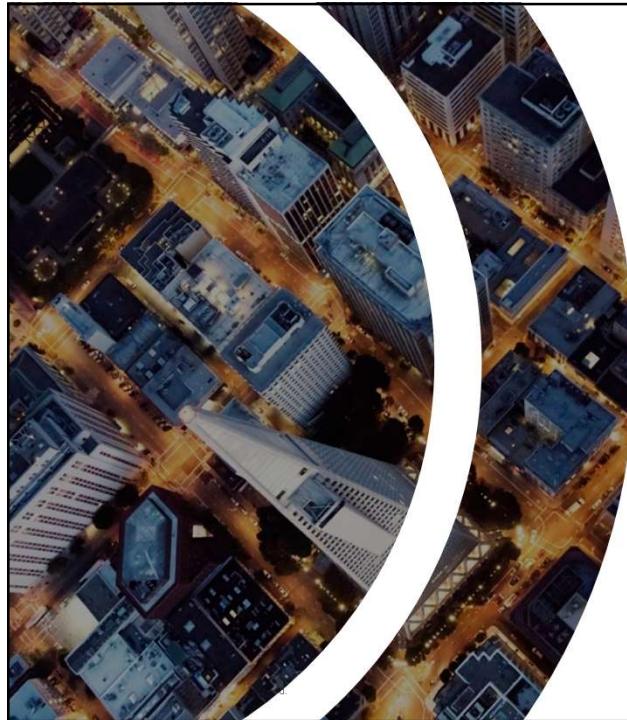
Have established Delegated Access Permissions (DAP) for each customer with global admin permissions.

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Wrap Up

- **What is Microsoft Endpoint Manager**
- **Getting Started with Microsoft Intune**
- **Windows Autopilot with Intune**
- **Deploy Applications from Store**
- **Device Restrictions & Policies**
- **Modern Roaming Profiles**
- **Install WIN32 Applications**
- **Conditional Access**
- **Install Powershell script with Intune**
- **New Developments**