

**INGRAM MICRO CLOUD**  
*More as a Service*

Cloud-Based Endpoint Management  
**Microsoft Intune**

Level 200 Course

**!! COURSE WILL START AT 09h15 !!**

Wifi SSID  
**Ingram\_Guest**  
 Code  
**Welcome!**

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*More as a Service*

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**Microsoft Intune**

Level 200 Course

**06 November 2024**

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# Diego Lens

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

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- [linkedin.com/in/diegolens](https://www.linkedin.com/in/diegolens) 



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


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## Modern Cloud Platforms

[Click the training to subscribe](#)

Training Title	Date	Microsoft Logo	INGRAM MICRO Logo
<b>Microsoft Azure Story Telling</b> 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.	18-Sep		
<b>Microsoft Azure Mission 65</b> Mission 65 provides a framework and a roadmap developed by Microsoft for partners that would like to assess the current security posture of their customers.	20-Sep		
<b>Azure Arc</b> 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.	15-Oct		
<b>Microsoft Azure Fundamentals</b> 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...	22-23 Oct		
<b>Azure Migrate Assessment &amp; Migration</b> Azure Migrate provides a central hub to track discovery assessment and migration of on-premises workloads and cloud VMs.	26-Nov		
<b>Azure Lighthouse &amp; Cost Management</b> As a Cloud Service Provider, you will manage multiple Azure tenants from multiple customers. Learn how Azure Lighthouse and Azure Cost Management will help you with your service management.	28-Nov		

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<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

**IN RAM MICRO** <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

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## Artificial Intelligence

Click the training to subscribe

**2-Oct** **Microsoft Copilot: Story Telling**  
Microsoft Copilot is an AI assistant that boosts productivity by integrating with Microsoft apps like Word, Excel, and PowerPoint. It helps with tasks such as drafting emails, generating reports and analyzing data, making work more efficient and less stressful.

**16-Oct** **Copilot for Microsoft 365 Technical**  
Copilot for Microsoft 365 boosts productivity by automating tasks and offering intelligent insights within Microsoft 365 apps. It seamlessly integrates with tools like Word, Excel, and Outlook to streamline your workflow.

**22-Nov** **Develop Power Apps with Copilot Integration**  
Learn how to develop Low Code Applications using Power Apps with Copilot Integration.

**Microsoft Fabric**  
Microsoft Fabric is an end-to-end data analytics platform that integrates data engineering, data warehousing, and data science to streamline data workflows and enhance business insights.

tba

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## Ingram Micro Cloud

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**24-Sep** **Quarterly Update**  
The Microsoft cloud landscape is changing rapidly. To make sure you don't miss any program change, incentive or product update, we are organizing a quarterly update.

**24-Oct** **Ingram Micro Cloud Marketplace**  
The Ingram Micro Cloud Marketplace is a top-of-the-line platform with lots of cool features. It's our mission to keep on improving our platform and to keep expanding the possibilities.

**26-Sep** **NIS2 directive: How to achieve compliance**

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**Are you organizing your own event for your customers ?**

**Searching for a speaker ?**

[diego.lens@ingrammicro.com](mailto: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](https://bit.ly/intune2024)

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Cloud-Based EndPoint Manager  
Microsoft Intune

# Course Overview

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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

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Satya Nadella : Keynote Ignite 2019

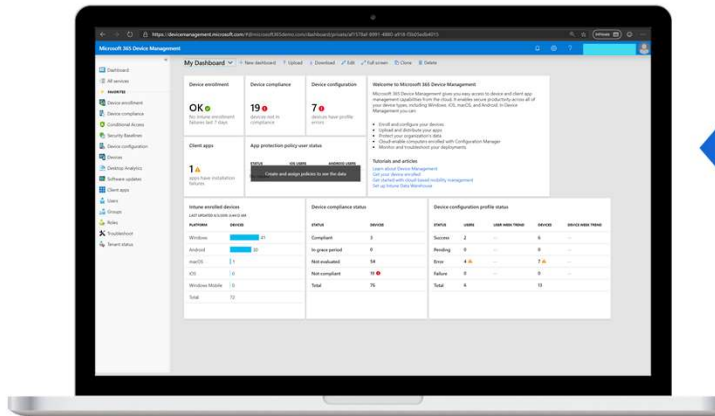
14

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In 2019...

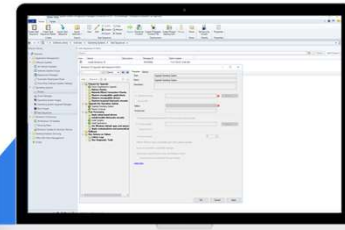
<https://devicemanagement.microsoft.com/>

## Device Management Admin Center (DMAC)

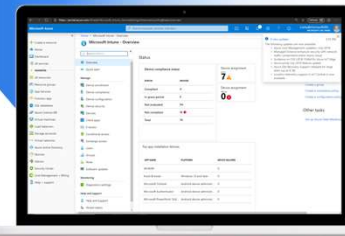


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## Configuration Manager



## Microsoft Intune

<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

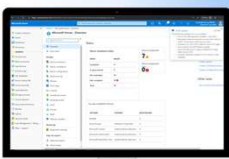
### Other endpoint management tools



### Configuration Manager



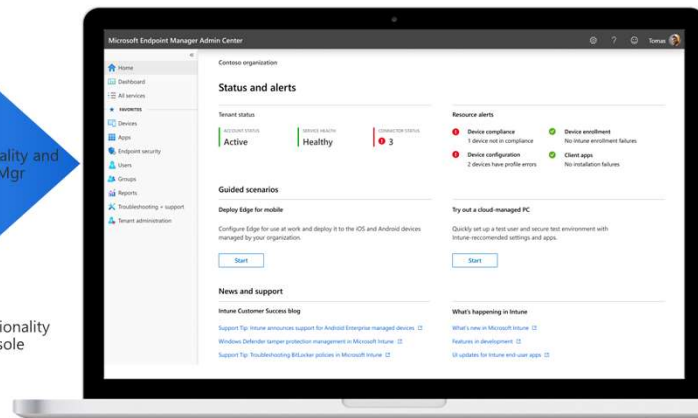
### Microsoft Intune



Feature integration: Desktop Analytics, Windows Autopilot, etc.

Surfaces familiar functionality and ingests data from ConfigMgr

Intune features and functionality replicated into MEM Console

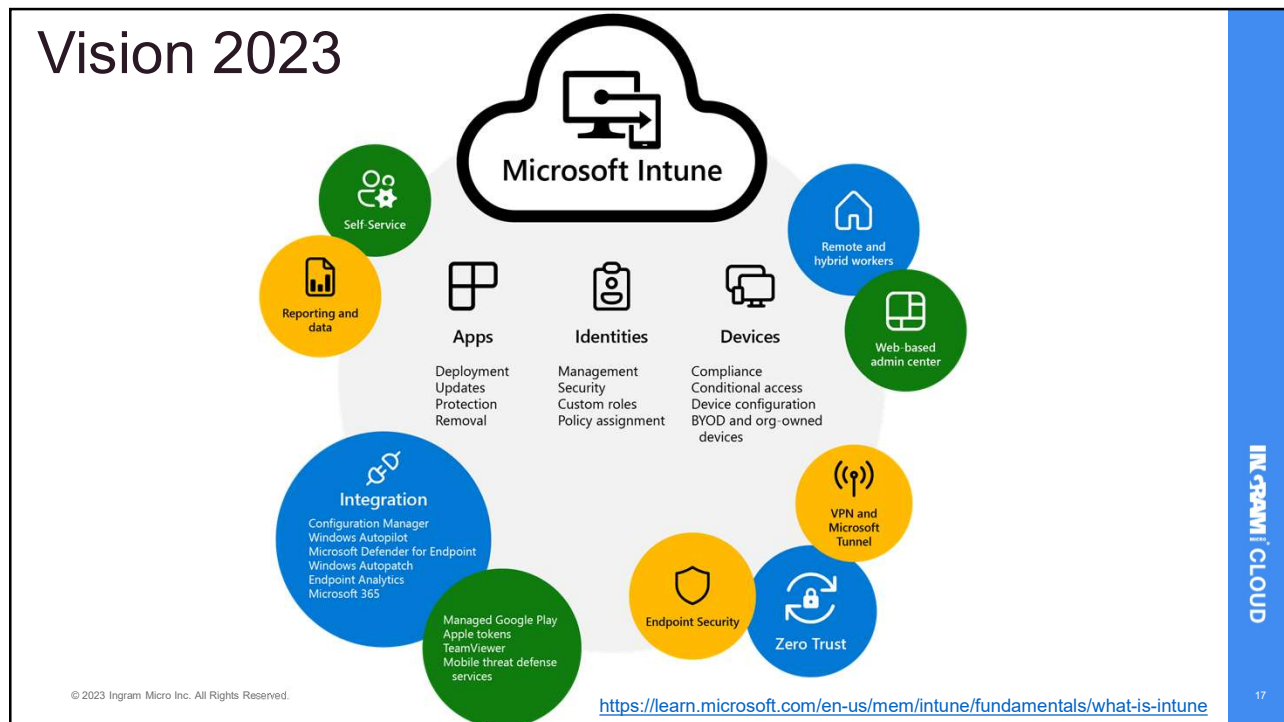
<https://endpoint.microsoft.com/>

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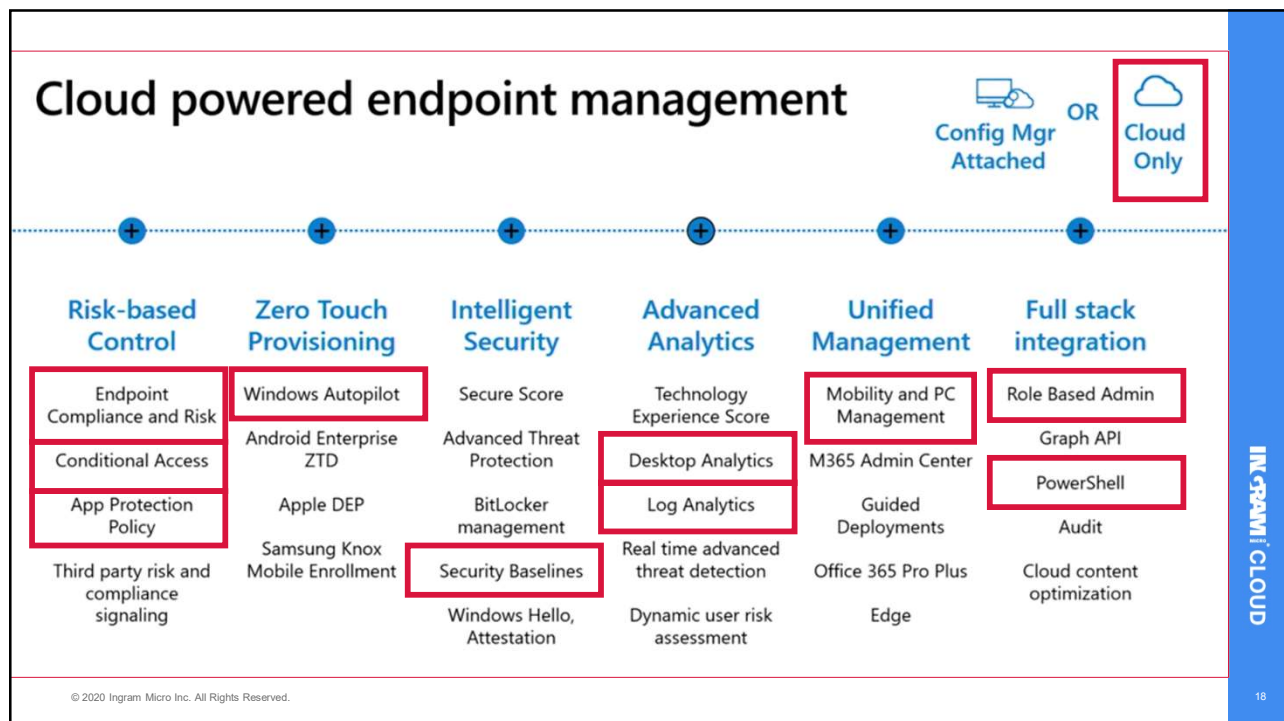
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**LAB 0**

Prepare your Windows 10 LAB Environment

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Licensing :

**Microsoft Intune Licensing**

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## Microsoft Intune plans



Intune Plan 1	Intune Suite	Intune Plan 2
<b>Included in</b> <ul style="list-style-type: none"> <li>Microsoft 365 E3</li> <li>Microsoft 365 E5</li> <li>Microsoft 365 F1</li> <li>Microsoft 365 F3</li> <li>Microsoft 365 Business Premium</li> <li>Enterprise Mobility + Security E3</li> <li>Enterprise Mobility + Security E5</li> </ul>	<b>Add-On</b> <b>Add to Plan 1 to utilize these solutions</b> <b>Included solutions*</b> <ul style="list-style-type: none"> <li>Remote help</li> <li>Endpoint Privilege Management</li> <li>Advanced Endpoint analytics</li> <li>Advanced app management</li> <li>Cloud certificate management</li> <li>Future advanced solutions**</li> <li>All Intune Plan 2 features</li> </ul>	<b>Add-On</b> <b>Add to Plan 1 to utilize these features:</b> <b>Included features</b> <ul style="list-style-type: none"> <li>Tunnel for Mobile App Management</li> <li>Specialty device management</li> <li>Future advanced capabilities**</li> </ul>
<b>Prerequisite</b> <ul style="list-style-type: none"> <li>Intune Plan 1</li> </ul>	<b>Prerequisite</b> <ul style="list-style-type: none"> <li>Intune Plan 1</li> </ul>	<b>Prerequisite</b> <ul style="list-style-type: none"> <li>Intune Plan 1</li> </ul>
8 \$	10 \$	4 \$

\*Also available as individual add-ons

\*\*Additional advanced features to be added in future releases

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

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## Microsoft Intune Single features

Microsoft Intune Remote Help : \$3,50/u/m

Microsoft Intune Endpoint Privilege Management (EPM) : \$3,00 /u/m

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Module 1 :

# Getting Started with Microsoft Intune

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## Mobile Device Management (MDM)

The diagram illustrates the benefits of Mobile Device Management (MDM). A central circle labeled "Transform businesses" is connected by dashed lines to six surrounding circles, each representing a key benefit:

- BYOD (Bring your own device)**: Represented by an icon of a laptop and a smartphone.
- Increased productivity**: Represented by an icon of a gear and a clock.
- Protect end user privacy**: Represented by an icon of a shield with a hand.
- Support multiple platforms**: Represented by an icon of an Android robot and an Apple logo.
- Reduce security risk**: Represented by an icon of a padlock.
- Comply with regulations**: Represented by an icon of a document with a checkmark.

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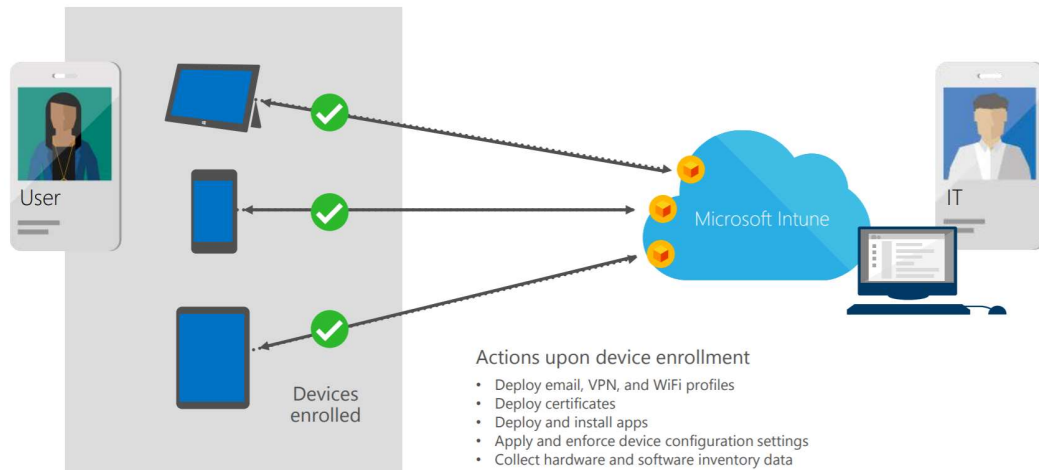
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## Enroll devices to access corporate resources



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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
<input type="checkbox"/> DESKTOP-TEO3AUJ	✔ Yes	Windows	10.0.18362.239	Azure AD joined	Megan Bowen	Microsoft Int...	N/A
<input type="checkbox"/> DESKTOP-T1AENK7	✔ Yes	Windows	10.0.18362.0	Azure AD registered	Alex Wilber	None	N/A
<input type="checkbox"/> DESKTOP-L8N3TD7	✔ Yes	Windows	10.0.18363.592	Azure AD joined	Adele Vance	Microsoft Int...	✔ Yes
<input type="checkbox"/> DESKTOP-LBIB7UL	✔ Yes	Windows	10.0.18363.592	Azure AD joined	Alex Wilber	Microsoft Int...	✔ Yes
<input type="checkbox"/> DESKTOP-MI41END	✔ Yes	Windows	10.0.18362.0	Azure AD joined	Megan Bowen	None	N/A
<input type="checkbox"/> 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.



Work or school account  
AlexW@M365x360184.OnMicrosoft.com

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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](#)

## Connection info

Management Server Address:  
<https://wip.mam.manage.microsoft.com:444/checkin>

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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.



Connected to Contoso's Azure AD  
Connected by AlexW@M365x360184.OnMicrosoft.com

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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](#)

## Connection info

Management Server Address:  
<https://r.manage.microsoft.com/devicegatewayproxy/cimhandler.ashx>

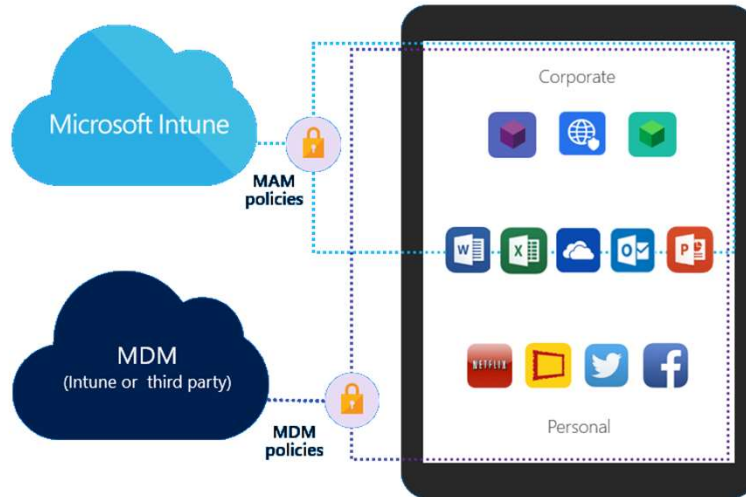
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# Mobile Application Management (MAM)



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# Unified Endpoint Management (UEM)

Figure 1. Magic Quadrant for Unified Endpoint Management



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Source: Gartner (August 2019)

As of July 2019

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Microsoft : Microsoft Endpoint Management  
Vmware : Workspace ONE - Airwatch  
IBM : IBM MaaS360®

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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 ⓘ

NoneSomeAll

MAM User scope ⓘ

NoneSomeAll

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

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# Configure Company Branding

Edit company branding

SaveDiscard

Sign-in page background image

Image size: 1920x1080px

File size: <300KB

File type: PNG, JPG, or JPEG ⓘ

Remove

Select a file

Banner logo

Image size: 280x60px

File size: 10KB

File type: Transparent PNG, JPG, or JPEG ⓘ

Remove

Select a file

Username hint ⓘ

✓

Sign-in page text ⓘ

Training LAB

✓

Advanced settings

Sign-in page background color ⓘ

✓

Square logo image

Image size: 240x240x (resizable)

Max file size: 50KB

PNG (preferred), JPG, or JPEG ⓘ

Remove

Select a file

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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)

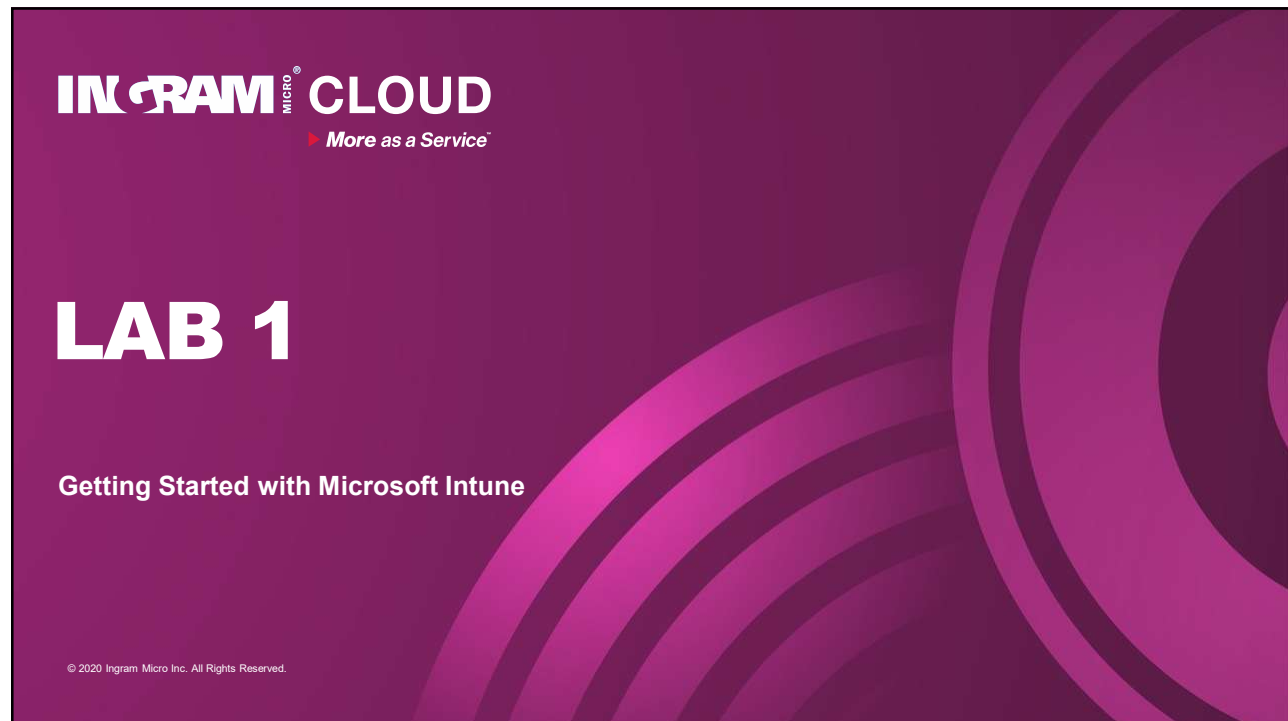
Create CNAME DNS resource records for your company's domain. For example, if your company's website is contoso.com, you would create a CNAME in DNS that redirects EnterpriseEnrollment.contoso.com to enterpriseenrollment-s.manage.microsoft.com.

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

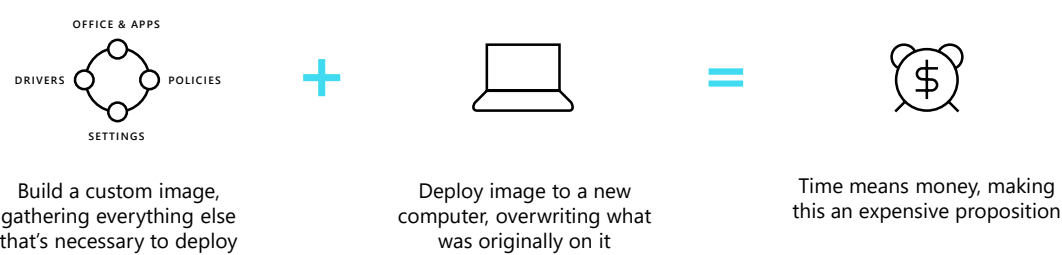
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## Traditional Windows deployment



The diagram illustrates the traditional Windows deployment process as a sequence of three steps connected by a plus sign and an equals sign. The first step shows a circular arrangement of icons labeled 'OFFICE & APPS', 'DRIVERS', 'POLICIES', and 'SETTINGS', with the text 'Build a custom image, gathering everything else that's necessary to deploy' below it. The second step shows a laptop icon with the text 'Deploy image to a new computer, overwriting what was originally on it' below it. The third step shows an alarm clock icon with a dollar sign inside, with the text 'Time means money, making this an expensive proposition' below it.

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

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

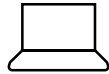
Time means money, making this an expensive proposition

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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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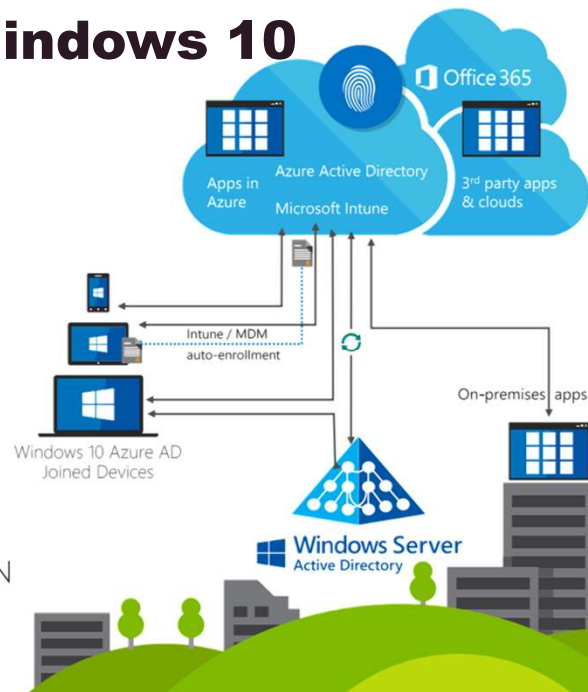
## Azure AD Join for Windows 10

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

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- **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

**User-driven  
mode with  
Azure AD Join**

Join device to Azure  
AD, enroll in  
Intune/MDM

AVAILABLE in 1809

**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+)**

AVAILABLE in 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**

AVAILABLE in 1903

**Self-deploying  
mode (preview)**

No need to provide  
credentials,  
automatically joins  
Azure AD

**General availability  
targeting CY20**

AVAILABLE in 1809

**Windows  
Autopilot for  
existing devices**

Windows 7/8.1 to  
Windows 10

ConfigMgr task  
sequence, followed  
by Windows  
Autopilot user-driven  
mode

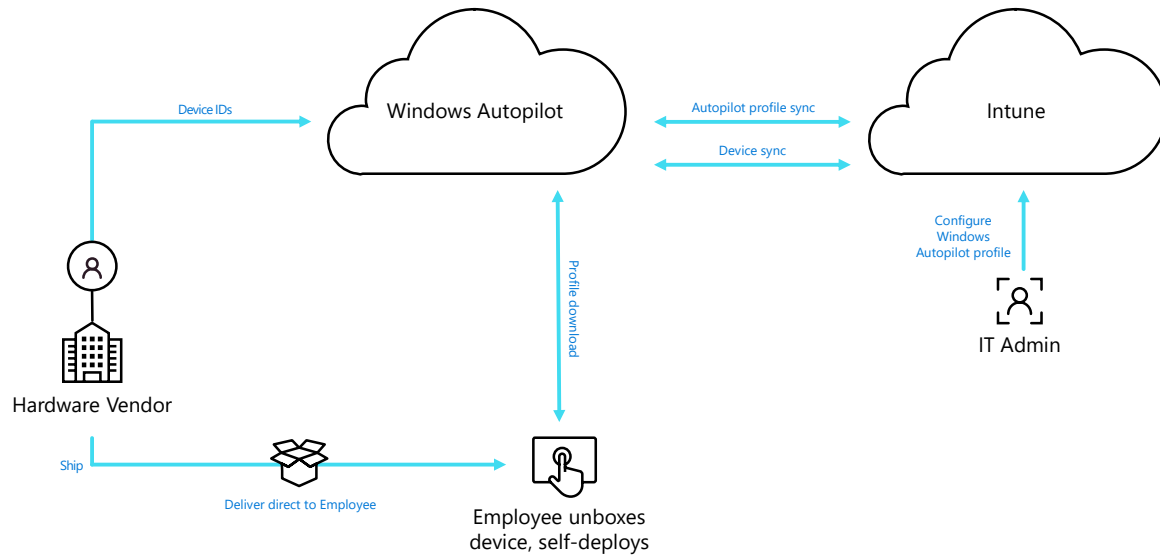
**New! Hybrid Azure  
AD Join support**

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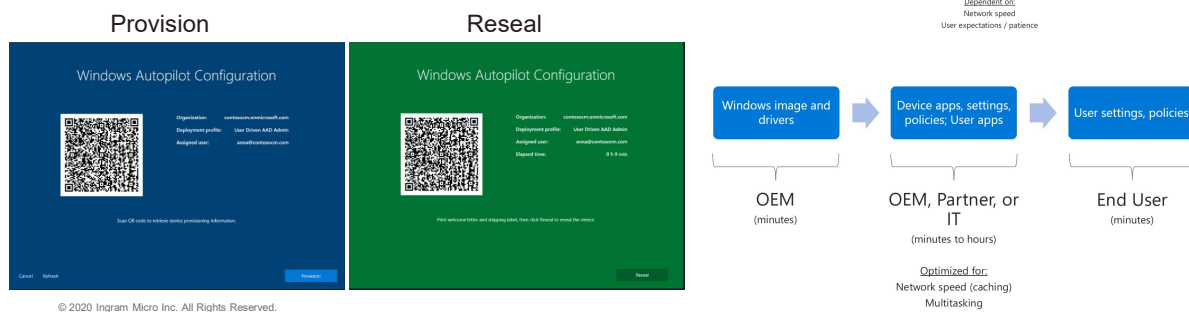
## Windows Autopilot overview



47

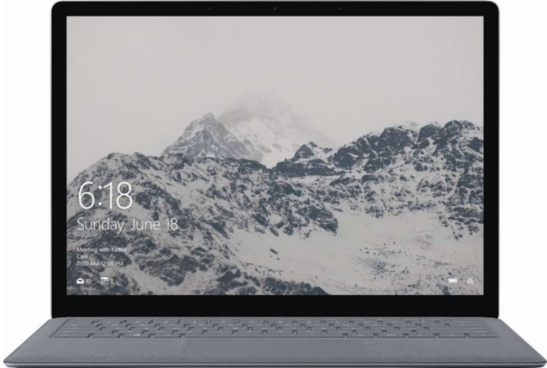
## Windows Autopilot White Glove

- 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 voordat 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](mailto:dell@ingrammicro.be)

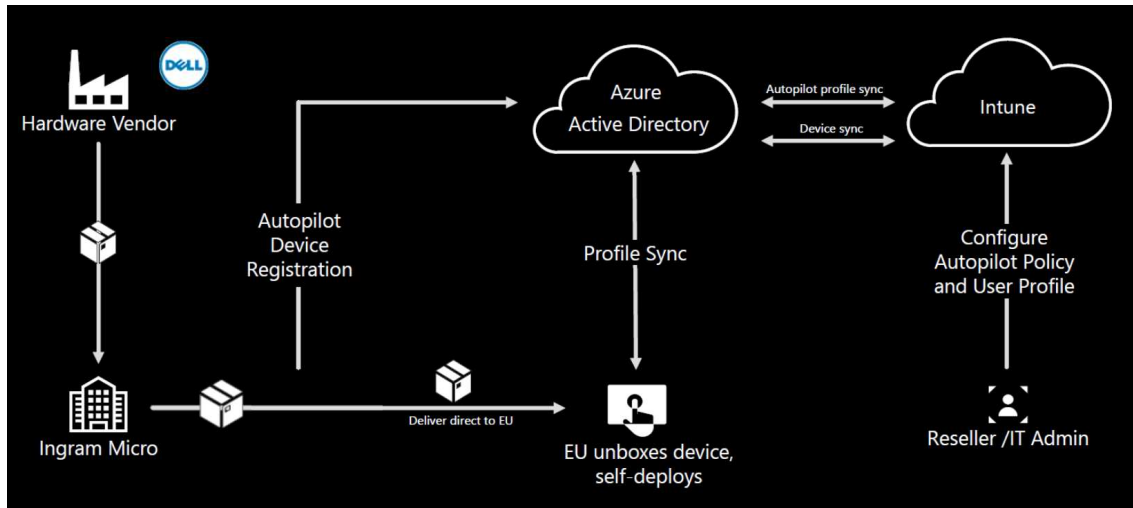


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## Order Dell PC + Add Autopilot DeviceID



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## Collect Hardware Device ID (Hardware Hash)

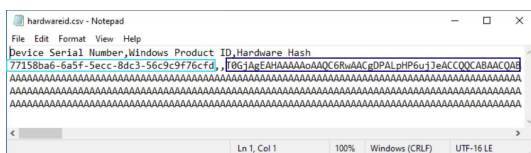
<https://aka.ms/autopilotShell>

Get-WindowsAutoPilotInfo.ps1

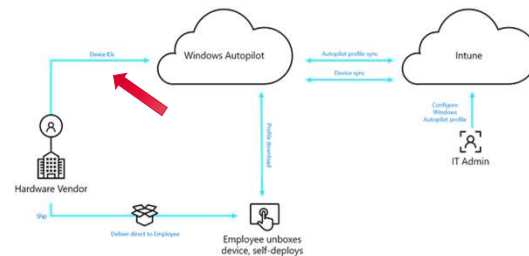
PowerShell

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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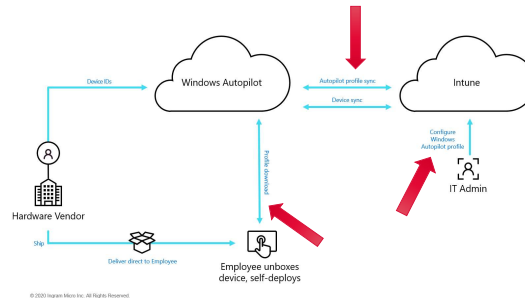
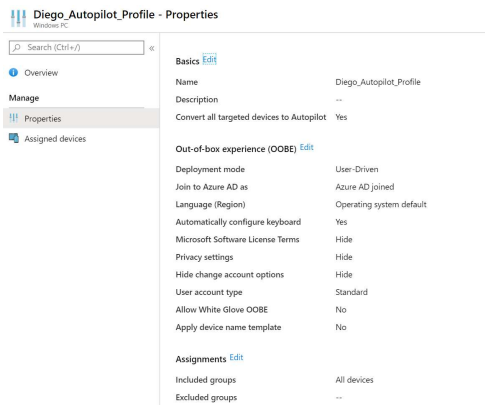
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# Autopilot Deployment Profile

- 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)**

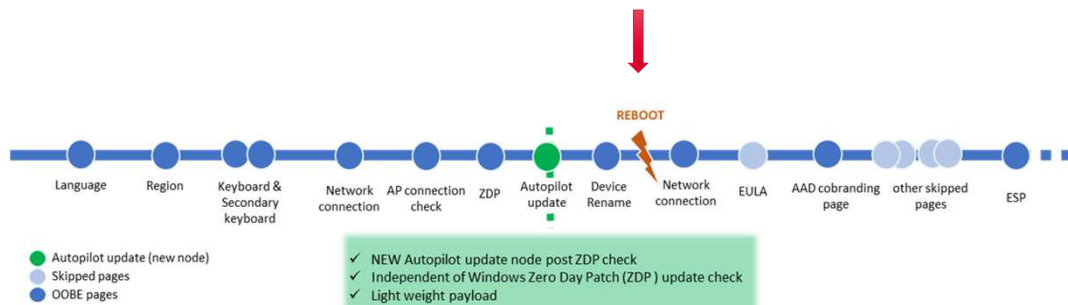
1. User-driven Hybrid Azure AD Join over the internet – VPN support (Q1CY20 preview)
2. Integration with Configuration Manager for running task sequences (H1CY20)
3. Group tag editing (Q4CY19)
4. Direct computer name assignment (Q4CY19 for Azure AD)
5. Windows Autopilot deployment report (Q4CY19)
6. 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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# Windows Autopilot Process



*This OOB flow is an illustration purpose only*

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\*ZDP : Zero Day Patch

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# Windows Autopilot Reset Feature


Removes personal files, apps & settings

Reapplies a device's original settings

Maintains the device's identity connection to Azure AD

Maintains the device's management connection to Intune

Trigger Windows Autopilot Reset from the PC :

CTRL +  + R.

Trigger Windows Autopilot Reset from Intune :

Devices > All Devices > Select Device > More > Autopilot Reset

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<https://docs.microsoft.com/en-us/mem/autopilot/windows-autopilot-reset>

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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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## LAB 2

Windows Autopilot with Microsoft Intune

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Module 3 :

# Deploy applications from Microsoft Store for Windows with Intune

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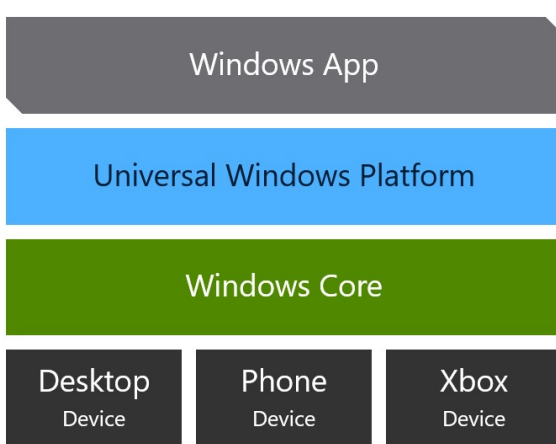
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## ***Universal Windows Platform (UWP)***

- 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



Windows App

Universal Windows Platform

Windows Core

Desktop Device

Phone Device

Xbox Device

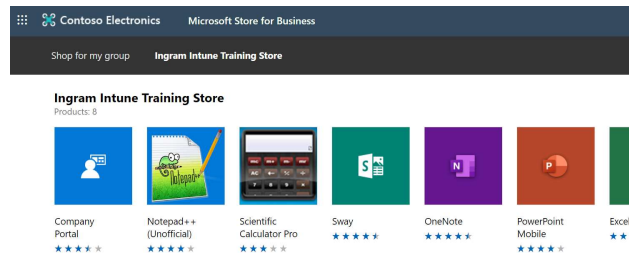
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## ***Microsoft Store for Business (Legacy)***

- 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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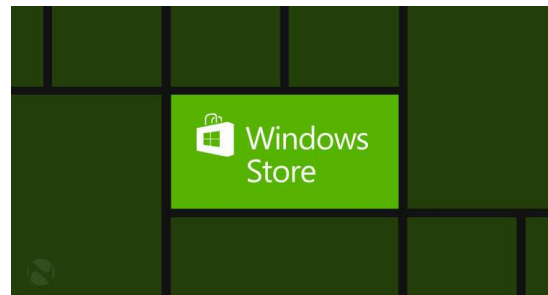
## ***Microsoft Store for Business/Education***

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

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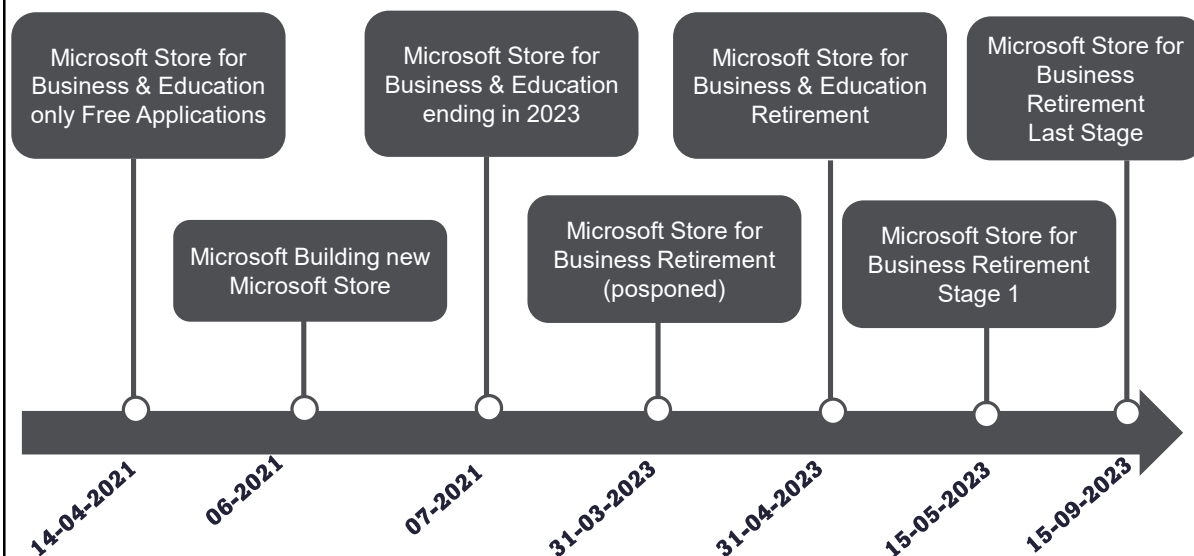
## ***Microsoft Store Apps in the past ...***

- 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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### ① 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](#).

### ① 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](#).

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

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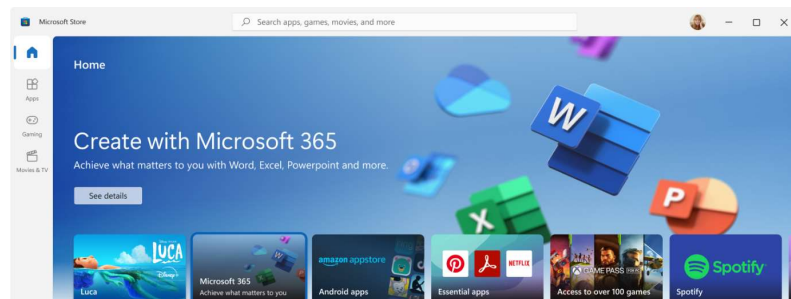
## New: Microsoft Store on Windows

- 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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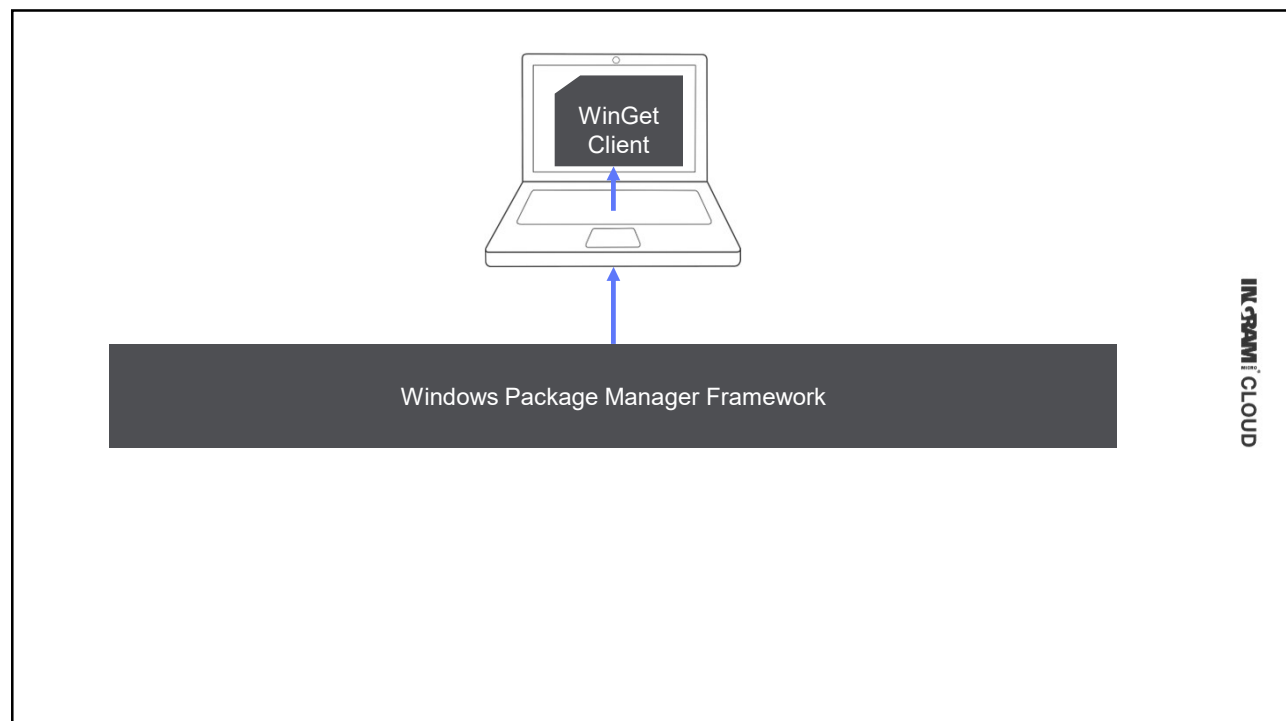
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## ***MSfB compared to MSoW***

- 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

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## ***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

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## ***Winget Software Package***

### Manifest

- YAML files
- Containing Metadata
- Describes the Installation

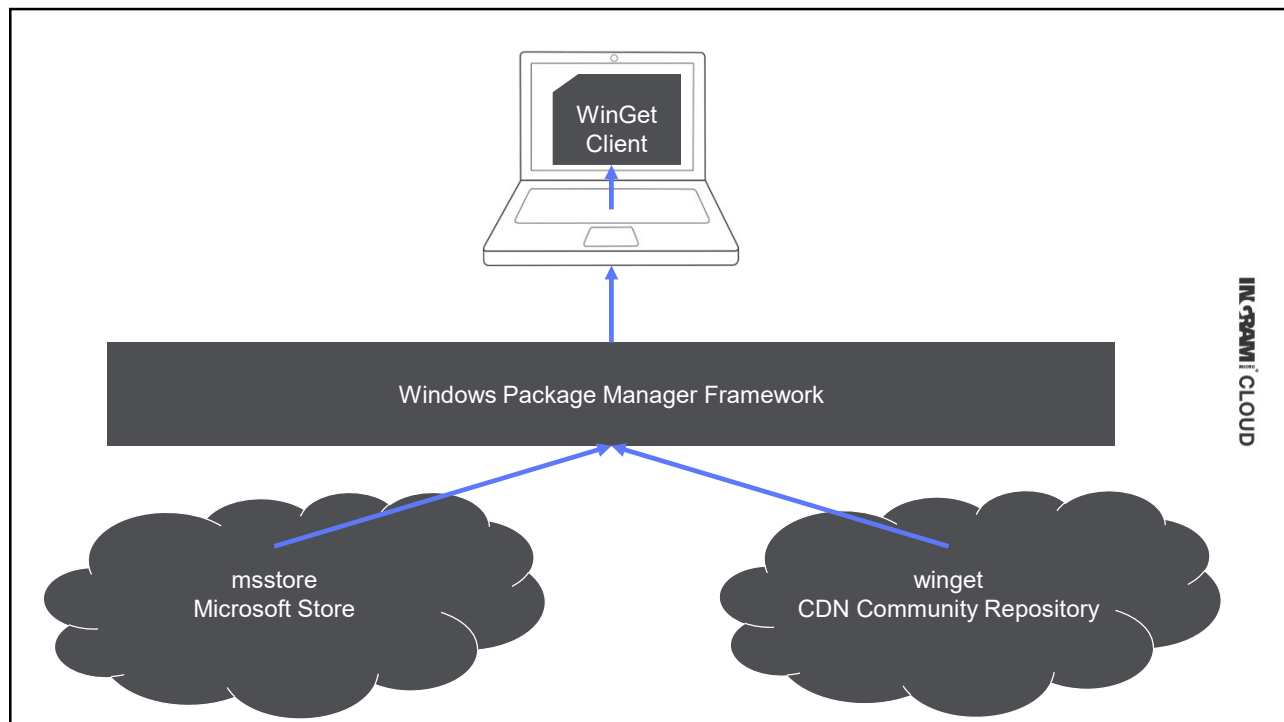
### Application Software

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

### Sources (Stores)

- **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

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## ***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)

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## Commands

### Winget search

Search Application + Id

```
C:\>winget search blender
```

Name	Id	Version	Source
Blender	9PP3C07GTVRH	Unknown	msstore
Blender 2.93 LTS	9N9DWD5GKD3V	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	9NBLGGH4WWGN	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

```
C:\>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

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

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## Commands

Winget --info

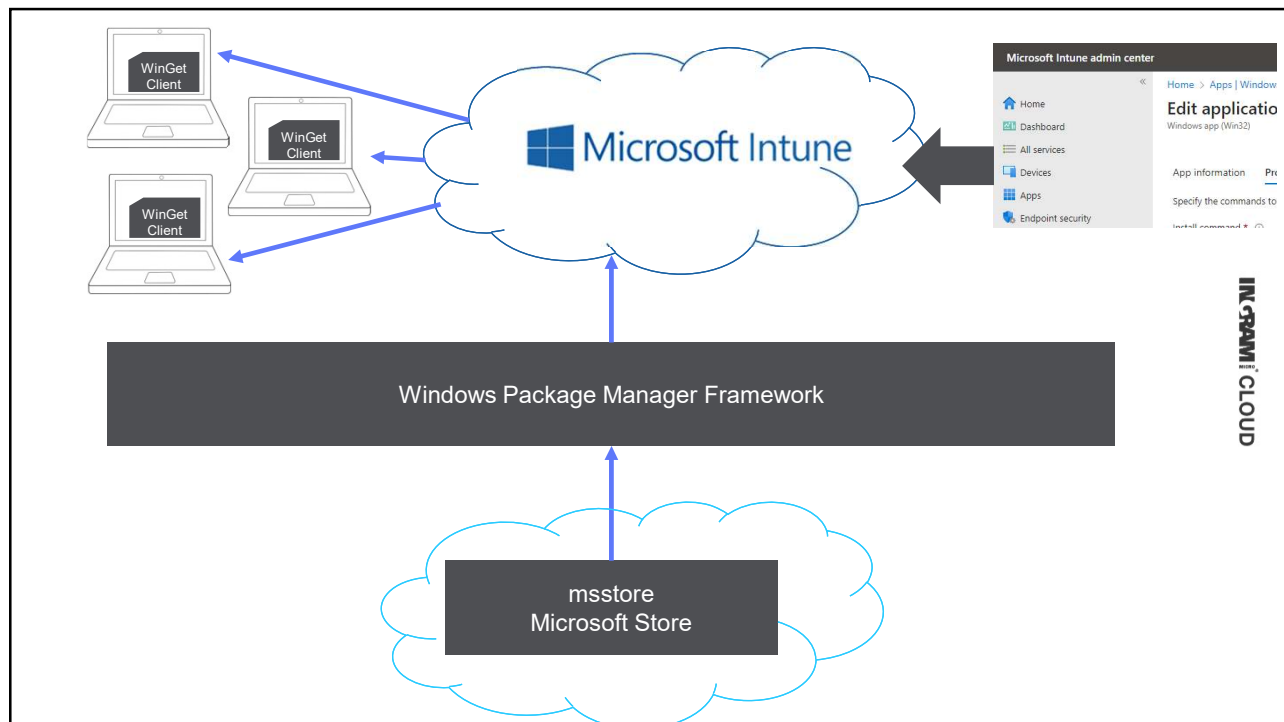
```
C:\>winget --info
Windows Package Manager v1.4.10173
Copyright (c) Microsoft Corporation. All rights reserved.

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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## ***Microsoft Intune + MSoW***

- Backend = Microsoft Intune Admin Center
- FrontEnd = WinGet client (API) + Company Portal


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# Company Portal

Company Portal is the Private Store for installable Company applications



## Company Portal

Microsoft Corporation • Business

♡ Wish list

★★★★★ 221

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

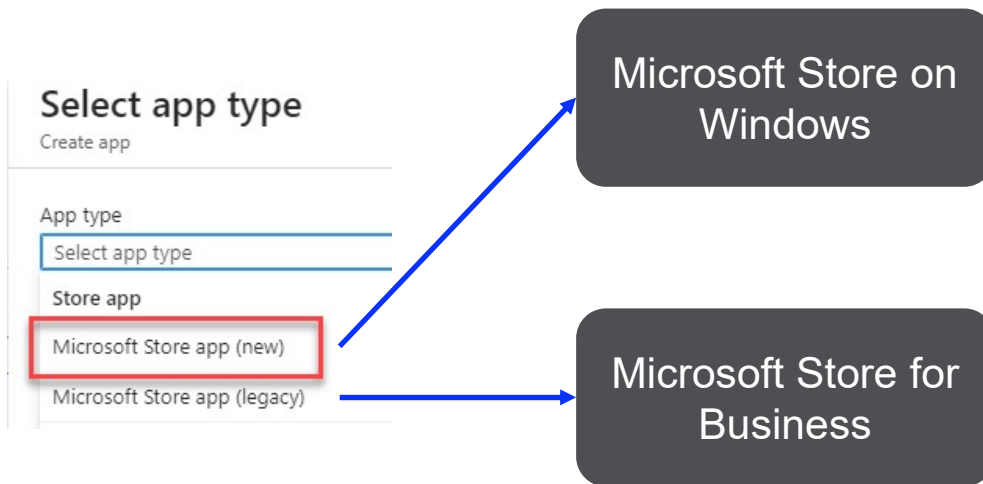
Windows app (Win32)

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## Microsoft Intune integration



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## Microsoft Store app (new)

Add App ...  
Microsoft Store app (new)

✓ App information 2 Assignments 3 Review + create

1 Win32 apps in the Microsoft Store app (new) are currently in preview.

Select app \* ⓘ 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 ⓘ XDP273C0XHQH2

Installer Type ⓘ Win32\*

Install behavior ⓘ System User

Category ⓘ 0 selected

Show this as a featured app in the Company Portal ⓘ Yes 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	XPDP273C0XHQH2	Unknown		msstore
Adobe Fresco	XP8C8R0ZKZR27V	Unknown		msstore
Adobe Creative Cloud	XPDLPKWG9SW2WD	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	9WZDNCRDMSG4	Unknown		msstore
Adobe Premiere Elements 2023	XP8JR4WQQRJMH	Unknown		msstore
Avocode	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
Crypt	Adobe.Crypt	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	XPDP273C0XHQH2	Unknown		msstore
Adobe Fresco	XP8C8R0ZKZR27V	Unknown		msstore
Adobe Creative Cloud	XPDLPKWG9SW2WD	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	9WZDNCRDMSG4	Unknown		msstore
Adobe Premiere Elements 2023	XP8JR4WQQRJMH	Unknown		msstore
Avocode	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
Crypt	Adobe.Crypt	0.5.0		winget
Brackets	Adobe.Brackets	1.14.17770		winget
Adobe Connect	Adobe.AdobeConnect	21.11.22		winget

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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

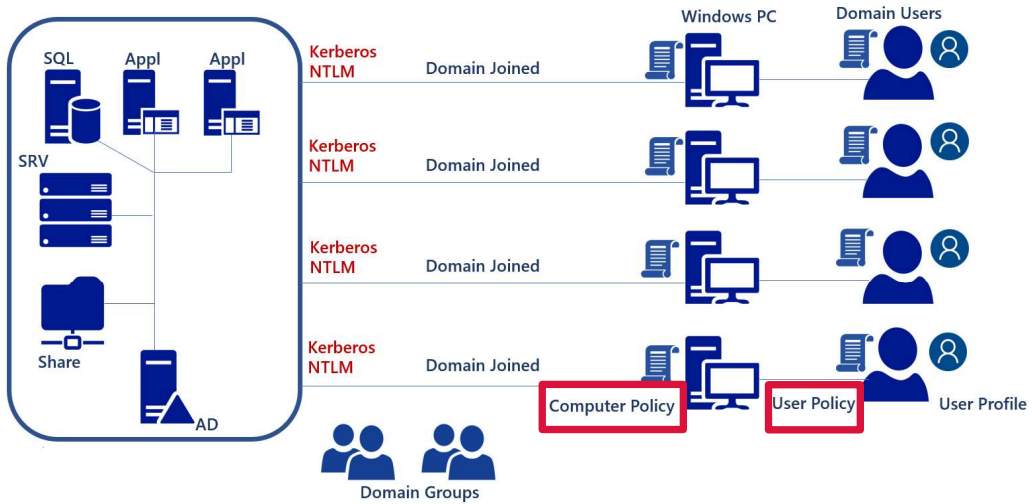
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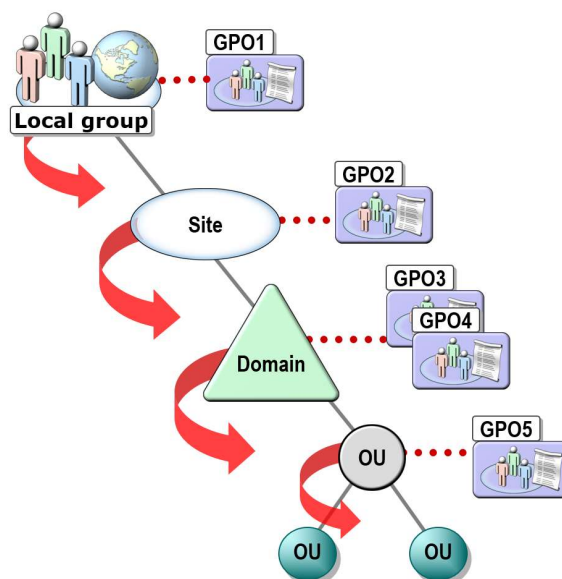
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## A standard On-Premise installation



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## Device restrictions in a Domain



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# Device Restrictions in Intune

Intune > Device Configuration > Profiles

The screenshot shows the 'Create profile' wizard in Microsoft Intune. The 'Device restrictions' template is highlighted in the 'Administrative Templates' list. The wizard includes fields for Name, Description, Platform (Windows 10 and later), and Profile type (Device restrictions). The 'Device restrictions' template is selected, and the 'Control Panel and Settings' section is visible on the right, showing various settings like System, App Store, Cellular and connectivity, Cloud Storage, Cloud Printer, Display, General, Location, Network and Internet, Personalization, Accounts, Time and Language, System Time modification, Region settings modification, Language settings modification, Gaming, Ease of Access, Privacy, and Update and Security.

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# Import personal ADMX-templates

Intune > Device Configuration > Profiles > Custom

The screenshot shows the 'Create profile' wizard in Microsoft Intune. The 'Custom' template is highlighted in the 'Administrative Templates' list. The wizard includes fields for Name (ADMX - Google Chrome - NIST), Description (Group Policy Objects (GPOs) - November 2018), Platform (Windows 10 and later), and Profile type (Custom). The 'Custom' template is selected, and the 'Settings' section is visible on the right, showing various settings like OMA-URI Settings, Add, and Export.

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# Endpoint Protection Profile

Intune > Device Configuration > Profiles > Endpoint Protection

Create profile

\*Name

Enter a name...

Description

Enter a description...

Platform \*

Windows 10 and later

Profile type \*

Endpoint protection

Settings

Configure

Scope (Tags)

0 scope(s) selected

Applicability Rules

0 Rule(s) Configured

Create

Endpoint protection

Windows 10 and later

Select a category to configure settings.

Microsoft Defender Applicatio...

10 settings available

Microsoft Defender Firewall

44 settings available

Microsoft Defender SmartSc...

2 settings available

Windows Encryption

40 settings available

Microsoft Defender Exploit Gu...

21 settings available

Microsoft Defender Applicatio...

2 settings available

Microsoft Defender Credential...

1 setting available

Microsoft Defender Security C...

18 settings available

Local device security options

46 settings available

Xbox services

5 settings available

OK

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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 Baselines


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

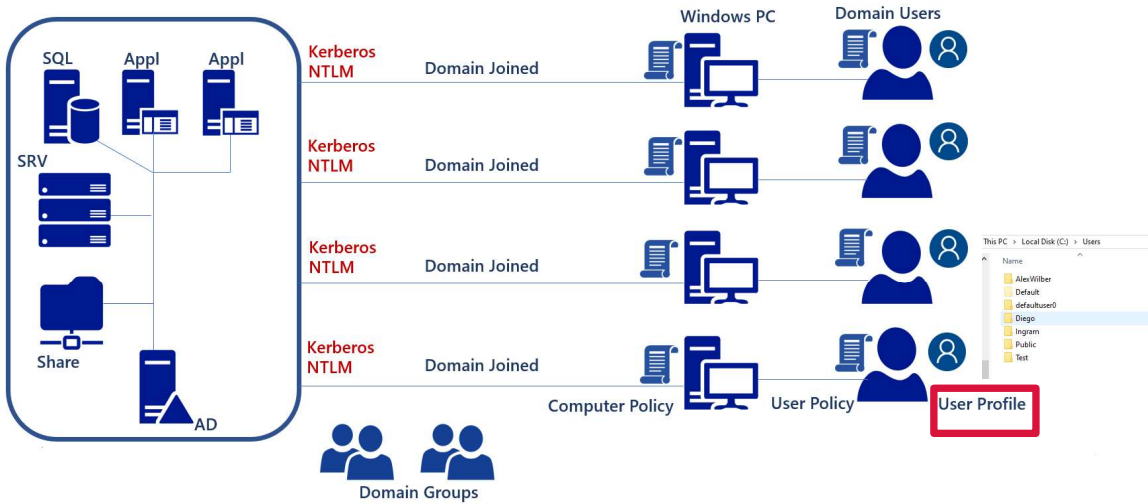
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## Standard Roaming Profiles



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## Modern Roaming Profiles

Windows 10 PC1



Windows 10 PC2



ESR KFM UE-V

Roaming Item	Roaming Solution	Storage
Common Windows 10 Items	Enterprise State Roaming (ESR)	Azure Active Directory
Modern Shell Items	Enterprise State Roaming (ESR)	Azure Active Directory
UWP App Settings	Enterprise State Roaming (ESR)	Azure Active Directory
Desktop Items, My Documents	Known Folder Move (KFM)	OneDrive for Business
Legacy Shell Items	User Experience Virtualization (UE-V)	OneDrive for Business
Win32 App Settings	User Experience Virtualization (UE-V)	OneDrive for Business

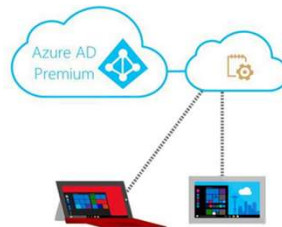
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# Enterprise State Roaming (ESR)

- 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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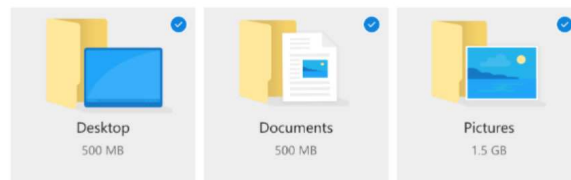
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# Known Folder Move (KFM)



- 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: Enable your users

Devices

Apps

Data

IT: Protect your data

Unify your environment

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## Before 2018 ... After 2018

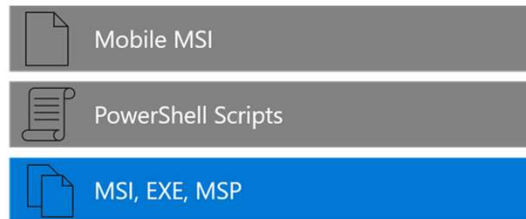
### In the Past



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



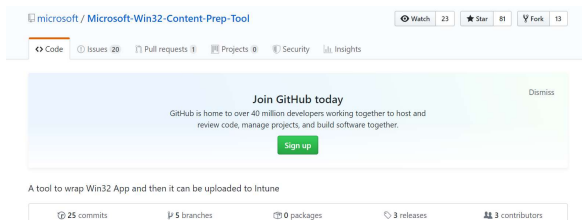
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# IntuneWinAppUtil.exe



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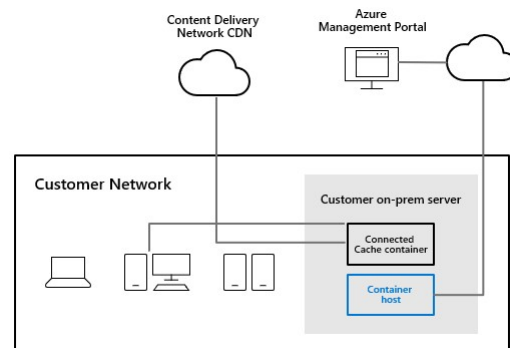
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# Microsoft Connected Cache (Ignite 2019)

- 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/MSCConnectedCacheSignup>
- <https://techcommunity.microsoft.com/t5/windows-introductory-blog/introducing-microsoft-connected-cache-microsoft-managed/ba-p/963898>



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# App Assignment & Monitoring

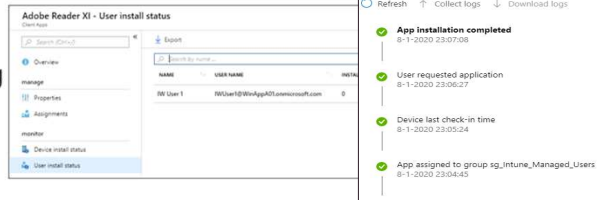
## App Assignment

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



## Monitoring

- Aligns with Intune app reporting



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# What is MSIX

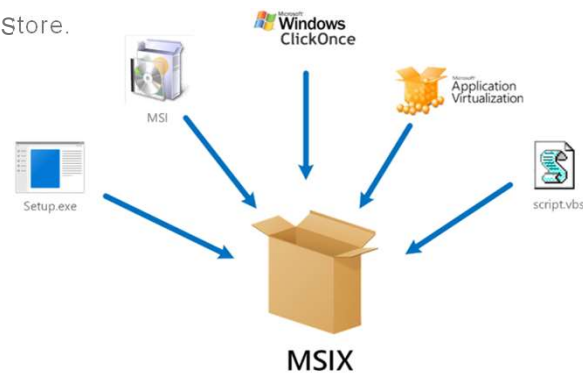
MSIX is a Windows app package format

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>

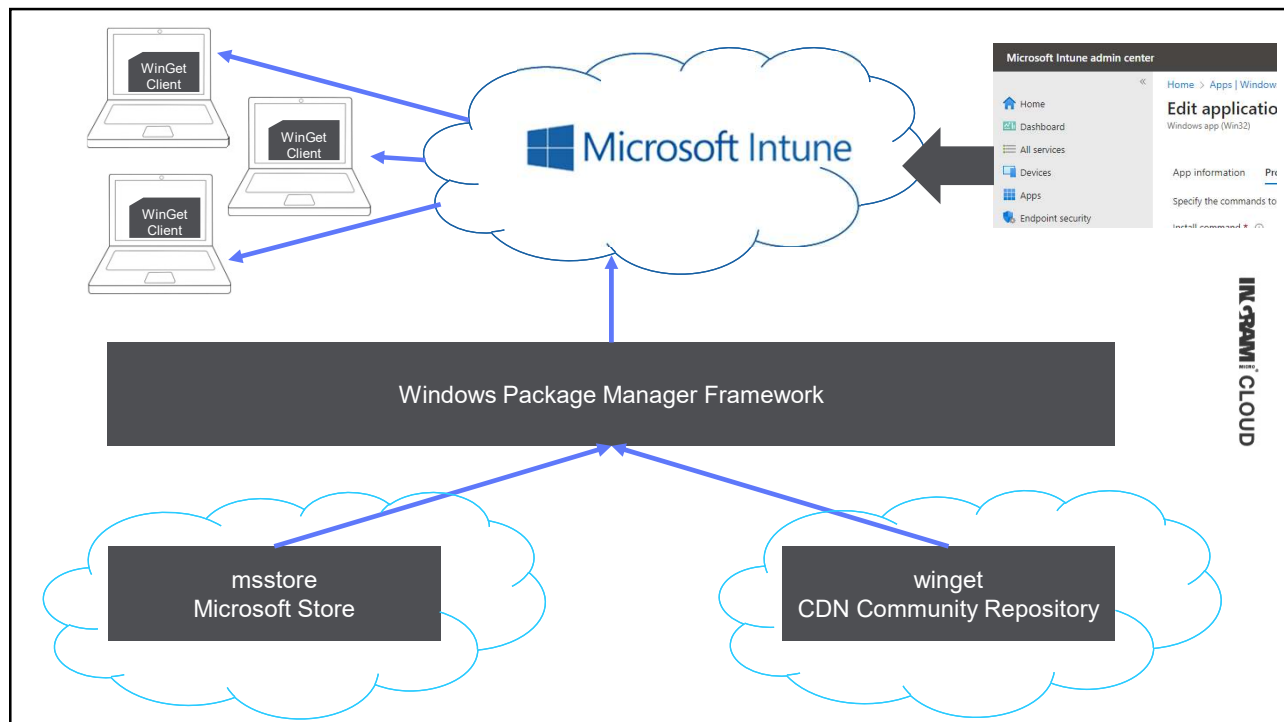
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## 1. Create an empty IntuneWin Application

```

C:\INTUNE\input>IntuneWinAppUtil.exe
Please specify the source folder: c:\intune\input
Please specify the setup file: empty.txt
Please specify the output folder: c:\intune\output
Do you want to specify catalog folder (Y/N)?N
INFO Validating parameters
INFO Validated parameters within 15 milliseconds
        
```

IntuneWinAppUtil

Folder with empty.txt

dummy.intunewin

<https://github.com/Microsoft/Microsoft-Win32-Content-Prep-Tool>

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## 2. Publish dummy.intunewin as win32 app

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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## 3. Launch winget install command

App information **Program** Requirements Detection rules Review + save

Specify the commands to install and uninstall this app:

Install command \* ⓘ  ✓

Uninstall command \* ⓘ  ✓

Install behavior ⓘ System **User**

Device restart behavior ⓘ  ▼

Specify return codes to indicate post-installation behavior:

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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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The screenshot shows the Chocolatey Community website. At the top, there's a navigation bar with links: Overview, Product, Community, Learn, Partners, About. Below the navigation bar, there's a notification box titled "Community Package Repository Notification" with a warning icon. The notification text states: "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". Below the notification, it says "There are 9750 Community Maintained Packages" and "Displaying Results 1 - 30 of 9750". There are three dropdown menus: "Normal View", "Stable Only", and "Popularity". Below these, there are three entries for "Adobe Acrobat Reader DC 2020.006.20042". Each entry shows a download count of 295,428,647. The first entry has a description: "View, print, sign, and annotate PDF files" and a list of tags: "By: ITIG0 ferventcoder doc shairfacher ITIG0 Tags: adobe reader adobe acrobat reader DC pdf MUI multilanguage". There is a button labeled "> choco install adobe reader".

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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	✓ Compliant	Windows	10.0.18363.592
<input type="checkbox"/> DESKTOP-L8N3TD7	MDM	Corporate	✓ Compliant	Windows	10.0.18363.592
<input type="checkbox"/> DESKTOP-LBIB7UL	MDM	Corporate	✓ Compliant	Windows	10.0.18363.592

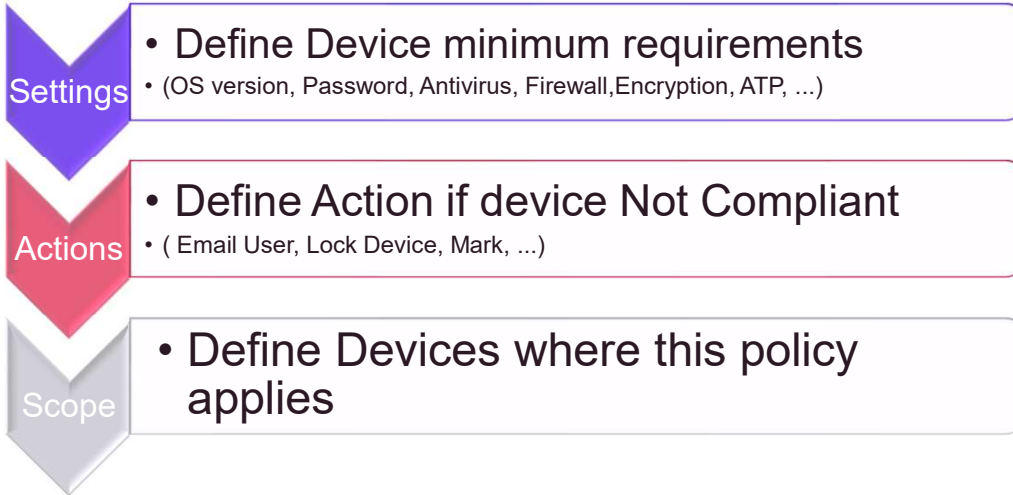
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## Device Compliance Policy



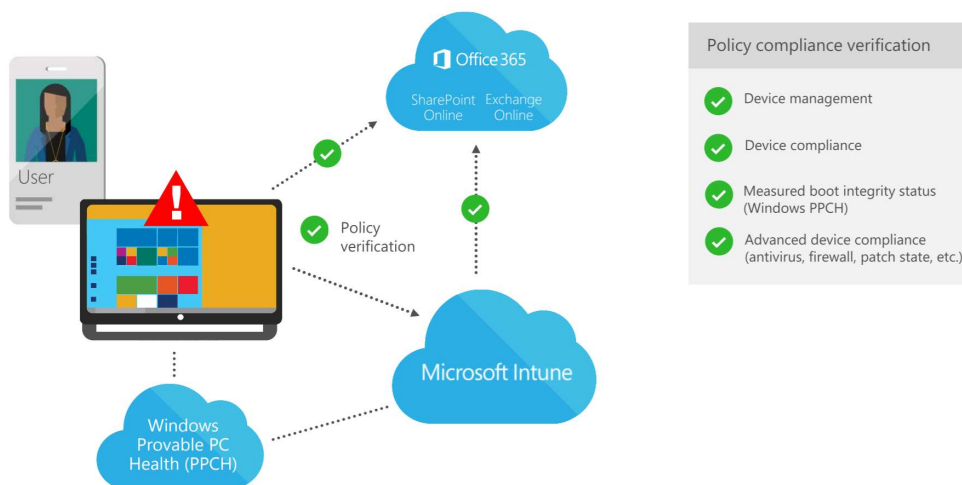
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## Device Compliance + Conditional Access



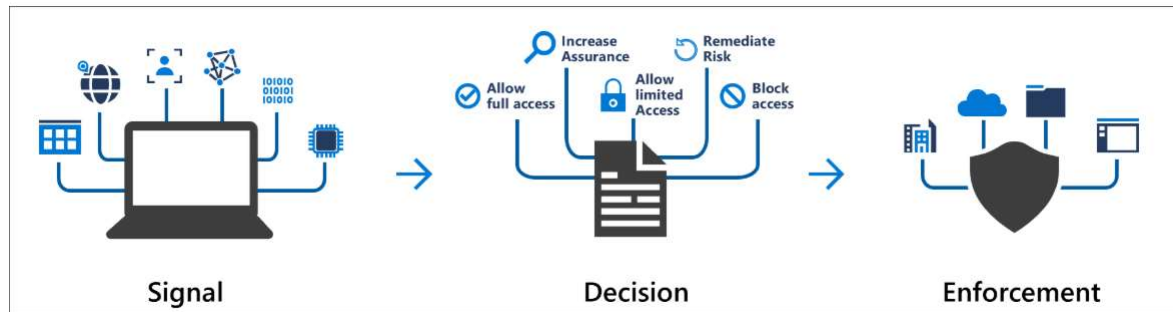
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# What is Conditional Access



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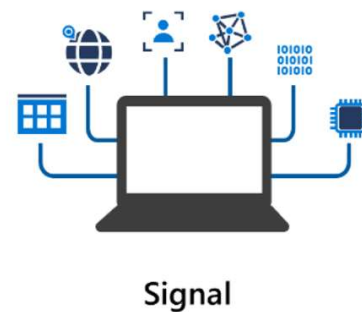
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# Common Signals

- 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)



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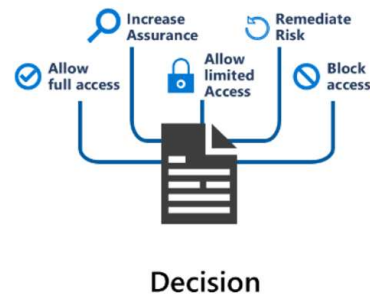
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## Common Decisions

- 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



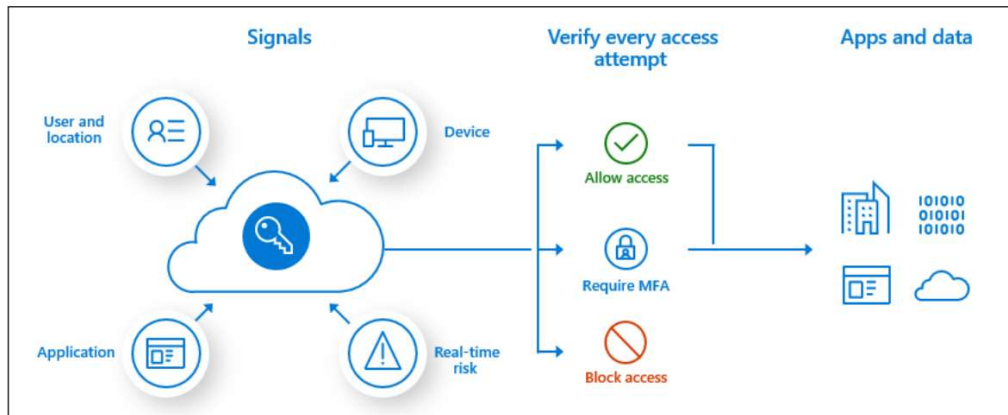
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## Conditional Access : total picture



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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

Device configuration - PowerShell scripts

Search (Ctrl+J)

+ Add

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

Help and support

Help and support

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

1 Basics 2 **Script settings** 3 Assignments 4 Review + add

Script location \*

Select a file

**User Context**  
(run with user credentials)

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**

**System Context**

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# Verify Installation Status

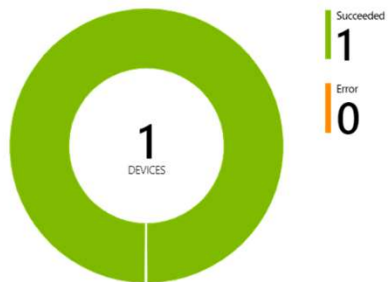
Created: : 01/10/20, 01:27:29 PM

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

Assigned : Yes

Groups assigned: : 1

Status for checked-in devices




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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)



Remote help

Signed in as: Alex  
AlexW@MSDx373829.OnMicrosoft.com  
[Sign in with a different account](#)

**Share security code**

The person you are helping needs a security code to let you connect to their device.

Security code: 415903  
Code expires in 06:52

How do you want to deliver this info?

[Copy to clipboard](#)  
[Provide instructions](#)  
[Cancel and start over](#)

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

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Remote help

Signed in as: Alex  
AlexW@MSDx373829.OnMicrosoft.com  
[Sign in with a different account](#)

**Give or get help**

Help solve problems on someone's device or get help if you're stuck.

**Get Help**

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

Security code from assistant  
415903

[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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## 1. Enable Remote Help on Tenant Level

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

Tenant admin | Remote help (preview) ...

Search (Ctrl+/)

- Tenant status
- Remote help (preview)
- Microsoft Tunnel Gateway
- Connectors and tokens
- Filters
- Roles
- Azure AD Privileged Identity Management
- Diagnostics settings
- Audit logs

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 commitment to your license terms for Windows ([Commercial Licensing Terms \(microsoft.com\)](#)).

Monitor Settings Remote help sessions

Enable remote help  [ⓘ](#)

Allow remote help to unenrolled devices  [ⓘ](#)

[Save](#)

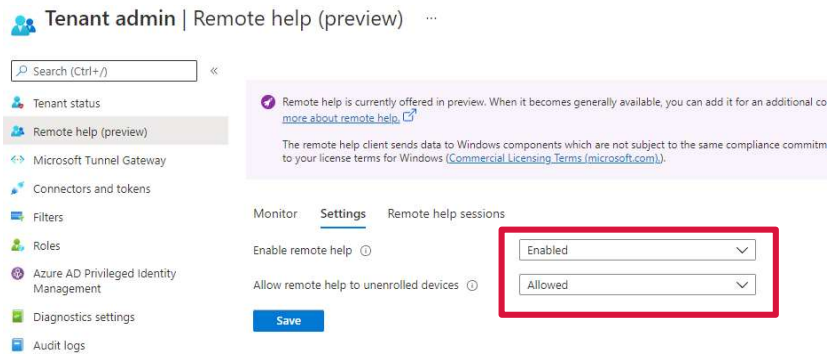
Enabled

Allowed

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## 2. Install Remote Client on PC Operator

<http://aka.ms/DownloadRemoteHelp>



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## 3. Install Remote Client on Devices

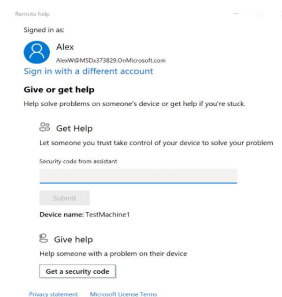
<http://aka.ms/DownloadRemoteHelp>

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>



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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

+ New policy | What If | Got feedback?

**i** Baseline Protection policies are a legacy experience which is being deprecated. All Baseline Protection policy organization, we recommend enabling Security defaults or configuring Conditional Access policies.

## 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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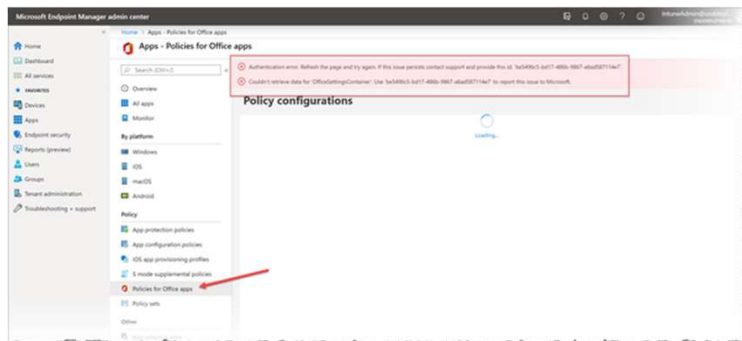
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# Policies for Office Apps

- 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



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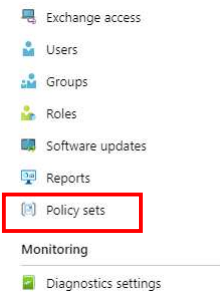
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# Intune Policy Sets

- Assignable Collection of apps, policies, and other management object
- 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>

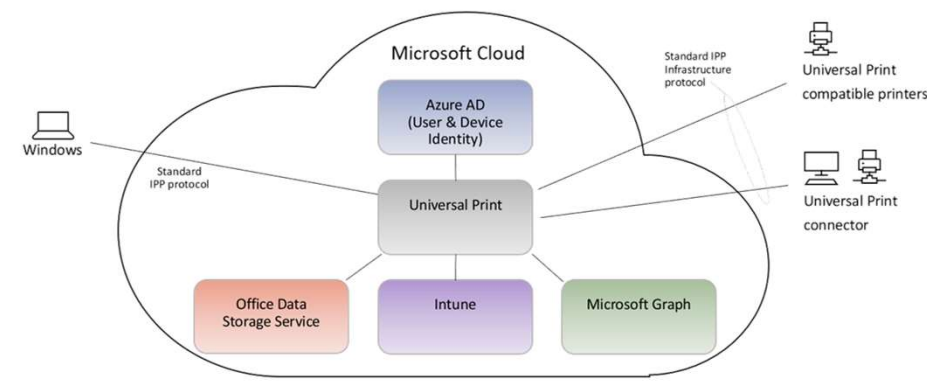
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# Universal Print

Available in Private Preview Only



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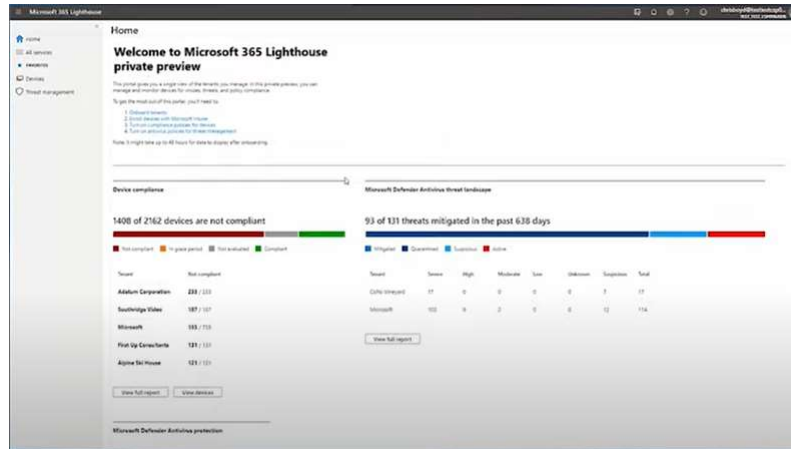
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# Microsoft 365 Lighthouse

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



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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.



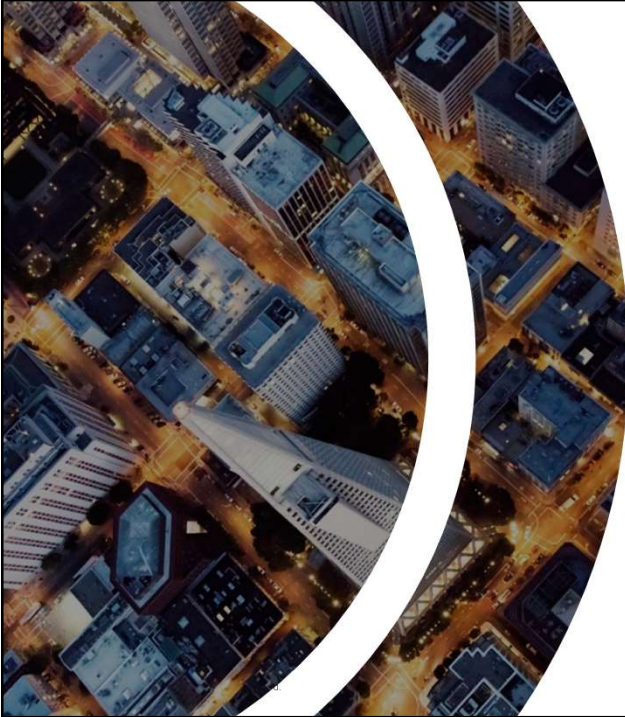
Have established Delegated Access Permissions (DAP) for each customer with global admin permissions.

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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**

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