Troubleshooting Devices in Intune: Tips From the Trenches

Speakers

Jörgen Nilsson

Trusted Advisor - Onevinn

in/ccmexec/

Sandy

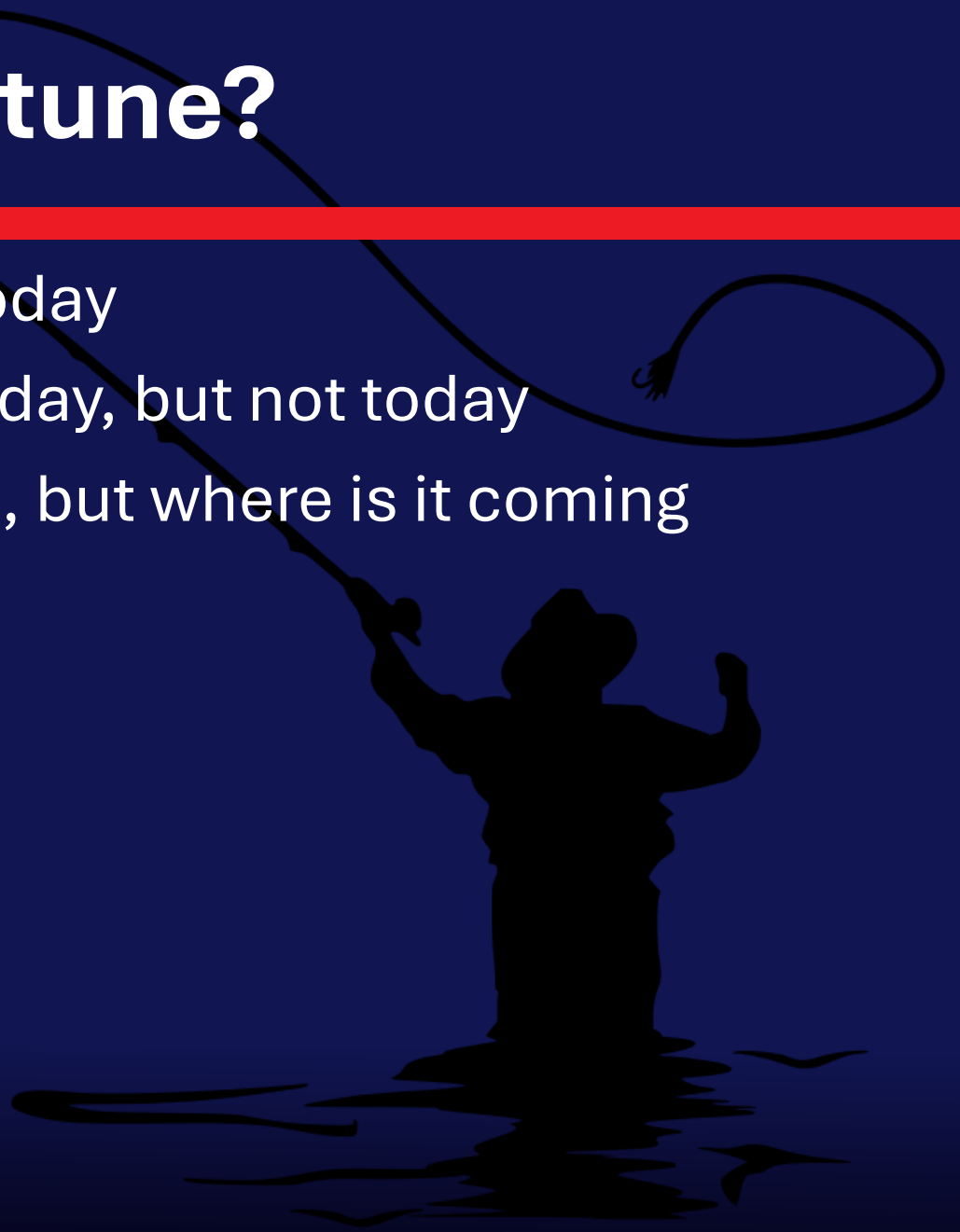
Senior Cloud Architect

in/sandy-tsang/

Can’t see our slides? Can’t hear? Need to repeat the question? Call us out!

When we troubleshoot Intune?

- Device was working yesterday, but not today
- Autopilot enrollment was working yesterday, but not today
- I know there a setting broke the machine, but where is it coming from?
- Application installed failed
- Update doesn’t install
- And many more….



Troubleshooting evolution

- Back in the olds days.
- Connecting to a BBS with a modem was how we could get information and hotfixes….

Or we ask a friend

Good old days…

Troubleshoot GPO/ConfigMgr

- Many, many log files
- Server sides/client side
- Complex but can see everything

Group Policies

- Gpresult
- RSOP
- GPupdate

Troubleshooting Intune

- Log files -> event log
- Registry values
- SyncML
- IME agent = log files ☺

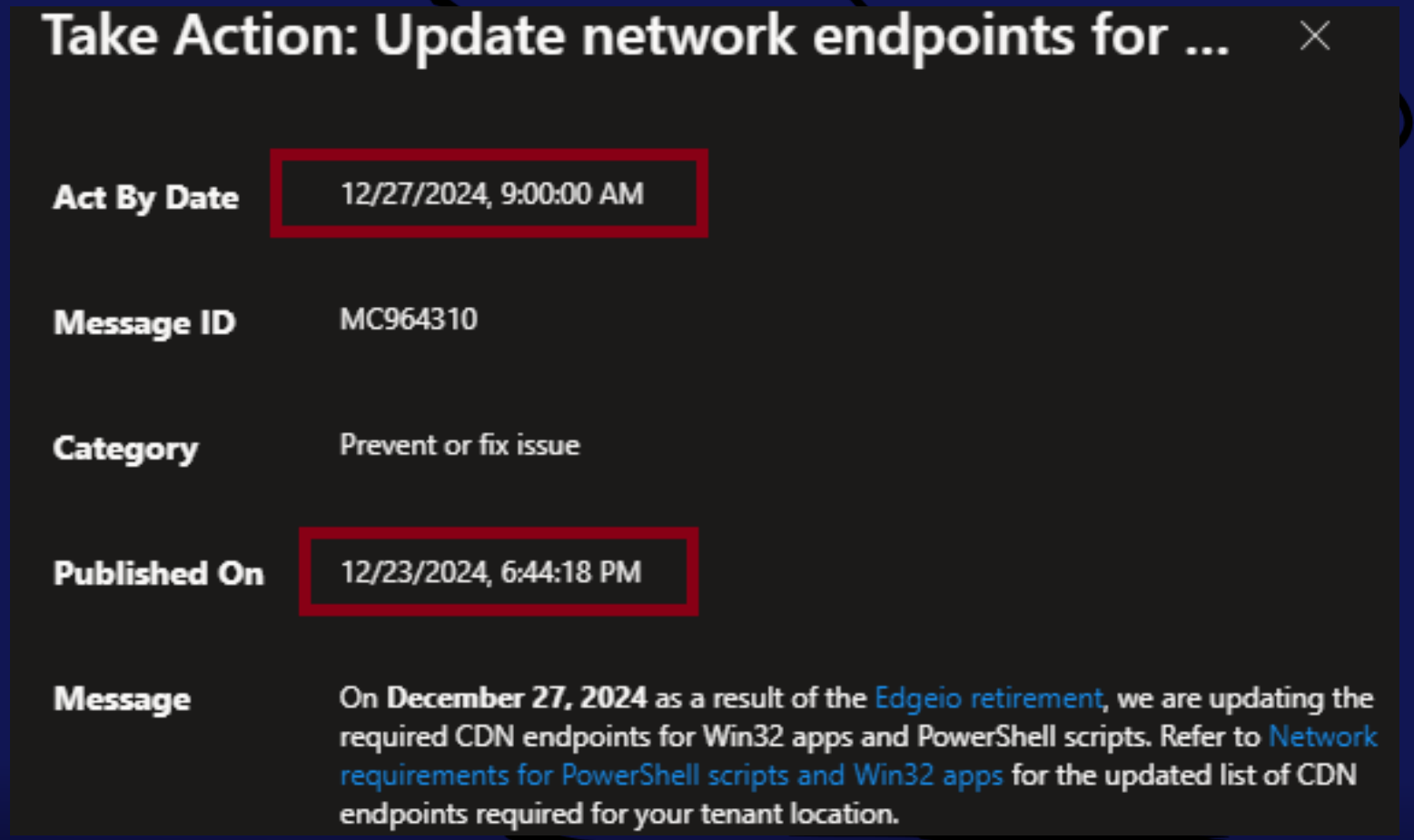
Tools:

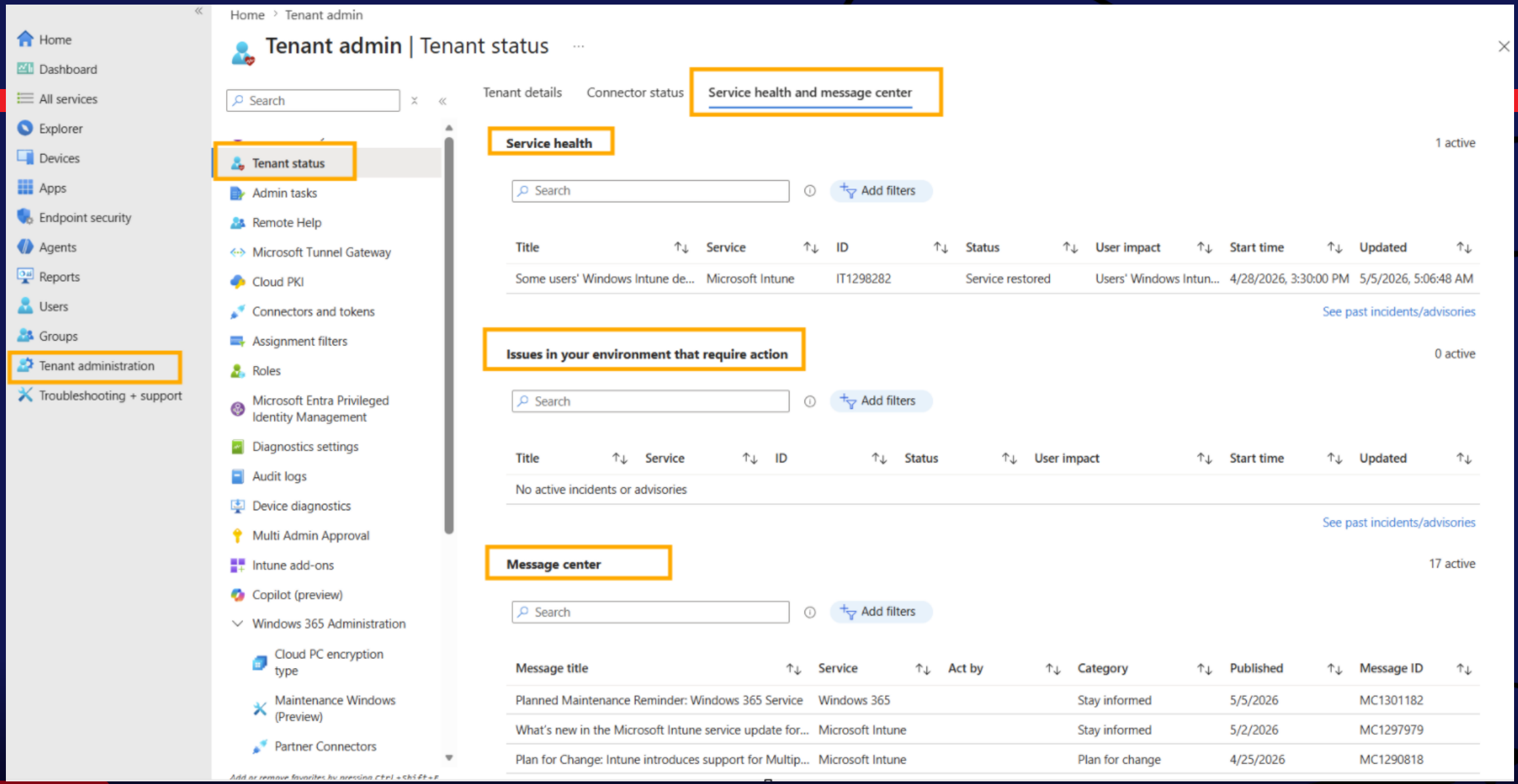
- Copilot
- Copilot for security
- ChatGPT…
- Community tools… Lots of them

Or we ask a friend or Microsoft

What is Intune?

- Intune is Cloud-based endpoint management solution
- We are not in control of backend changes anymore.




Home
Dashboard
All services
Explorer
Devices
Apps
Endpoint security
Agents
Reports
Users
Groups
Tenant administration
Troubleshooting + support
Home > Tenant admin
Tenant admin | Tenant status
Search
Tenant status
Admin tasks
Remote Help
Microsoft Tunnel Gateway
Cloud PKI
Connectors and tokens
Assignment filters
Roles
Microsoft Entra Privileged Identity Management
Diagnostics settings
Audit logs
Device diagnostics
Multi Admin Approval
Intune add-ons
Copilot (preview)
Windows 365 Administration
Cloud PC encryption type
Maintenance Windows (Preview)
Partner Connectors
Tenant details
Connector status
Service health and message center
Service health
1 active
Search
Add filters
Title
Service
ID
Status
User impact
Start time
Updated
Some users' Windows Intune de...
Microsoft Intune
IT1298282
Service restored
Users' Windows Intun...
4/28/2026, 3:30:00 PM
5/5/2026, 5:06:48 AM
See past incidents/advisories
Issues in your environment that require action
0 active
Search
Add filters
Title
Service
ID
Status
User impact
Start time
Updated
No active incidents or advisories
See past incidents/advisories
Message center
17 active
Search
Add filters
Message title
Service
Act by
Category
Published
Message ID
Planned Maintenance Reminder: Windows 365 Service
Windows 365
Stay informed
5/5/2026
MC1301182
What's new in the Microsoft Intune service update for...
Microsoft Intune
Stay informed
5/2/2026
MC1297979
Plan for Change: Intune introduces support for Multip...
Microsoft Intune
Plan for change
4/25/2026
MC1290818

What went wrong?

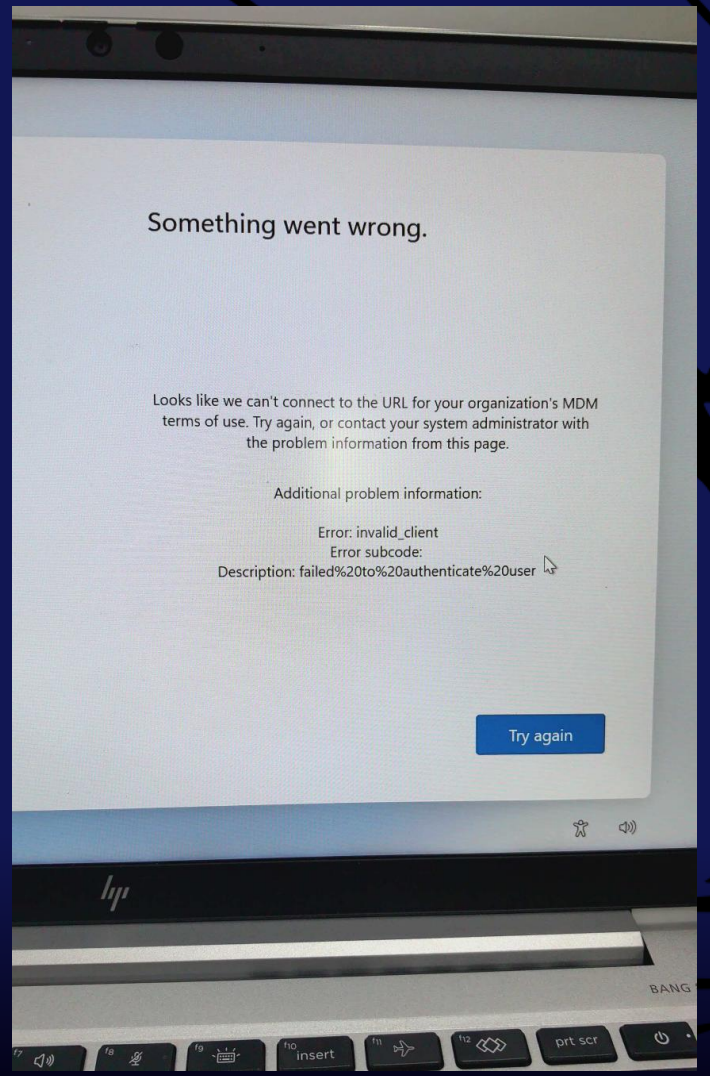
Customer: Hi Sandy, after MFA, this showed up, could you help us with this?

Sandy: during enroll the machine? or after everything is done?

Customer: during enroll the machine

Sandy: problem with one user?

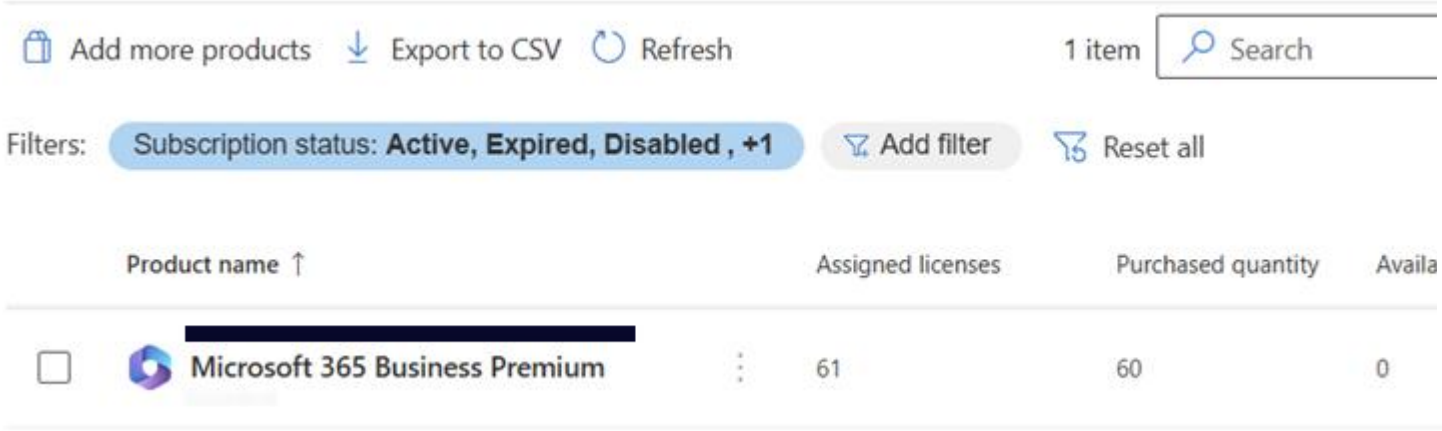
Customer: 4 new users today, all have this problem

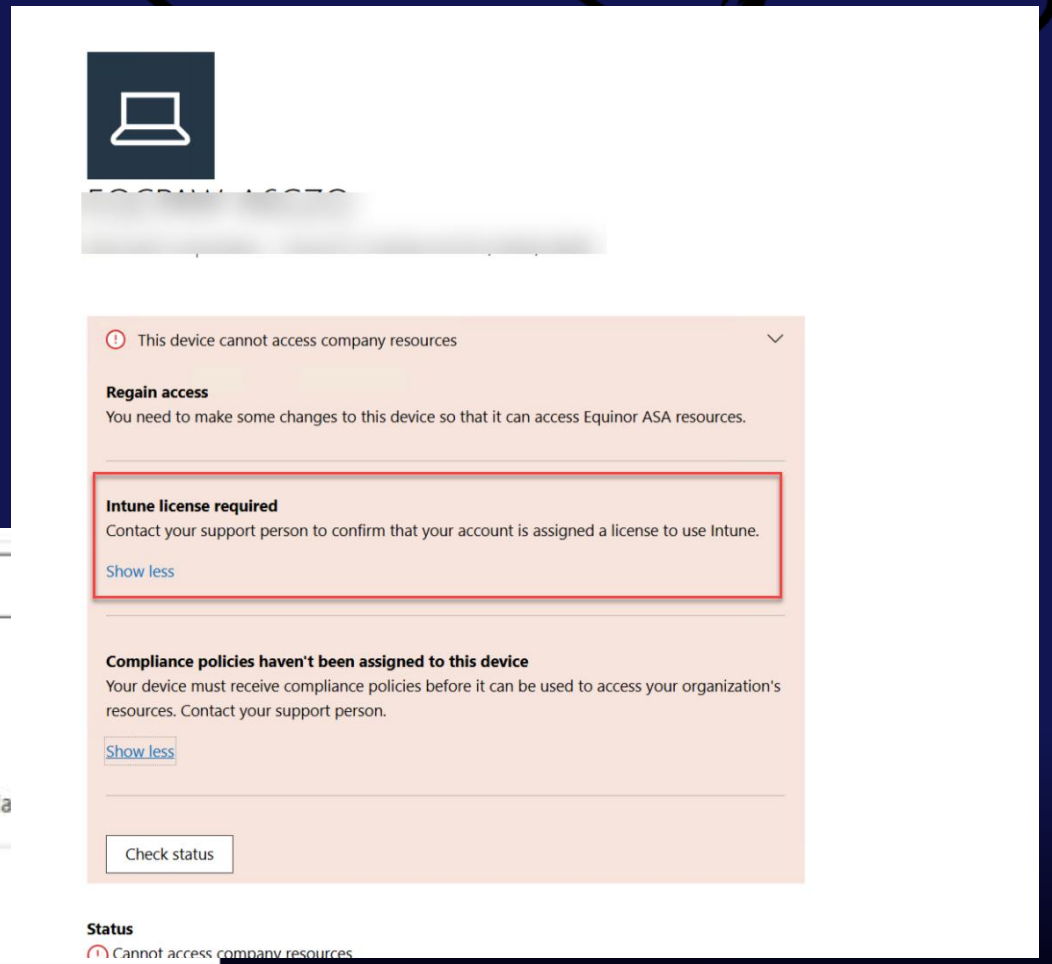


License

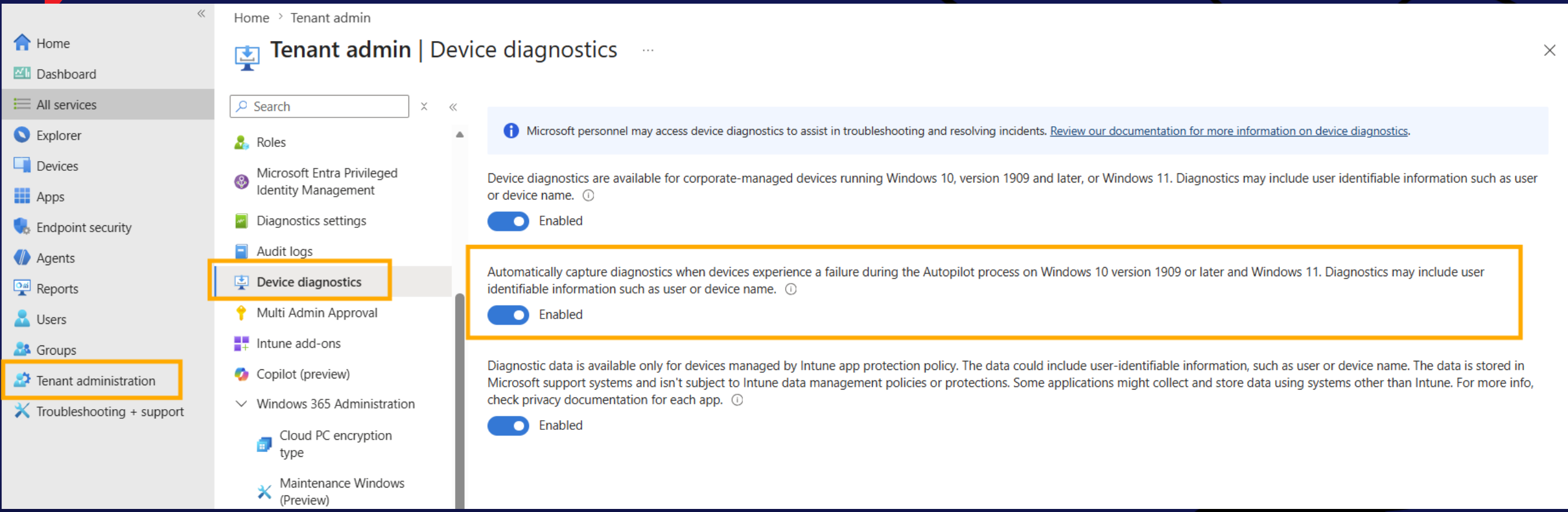
- Microsoft Intune is a **cloud-based endpoint management solution**

Make sure you have enough Intune License!!!





Automatic upload Autopilot failure logs



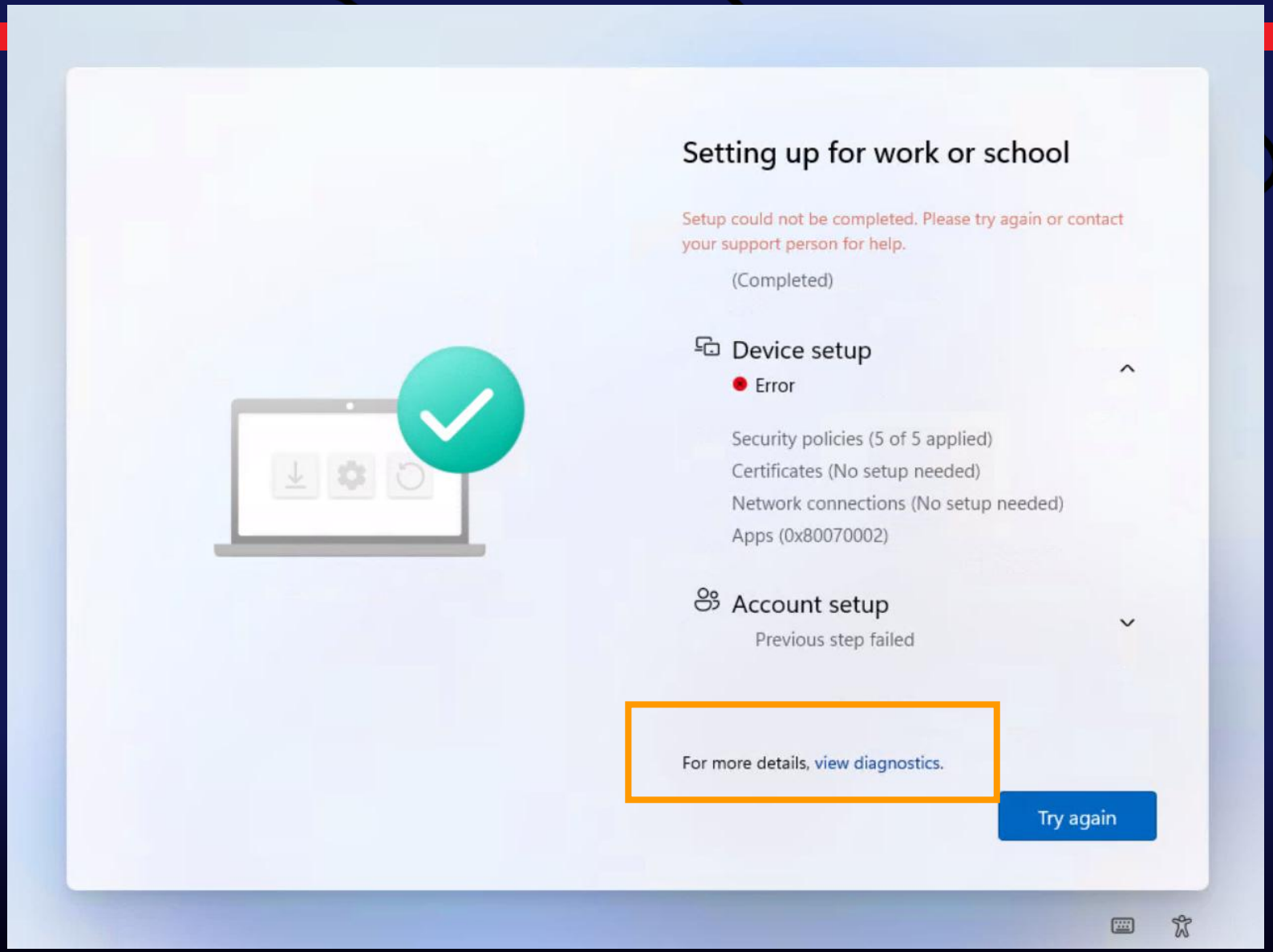
What went wrong?

- Autopilot failed…

It said:

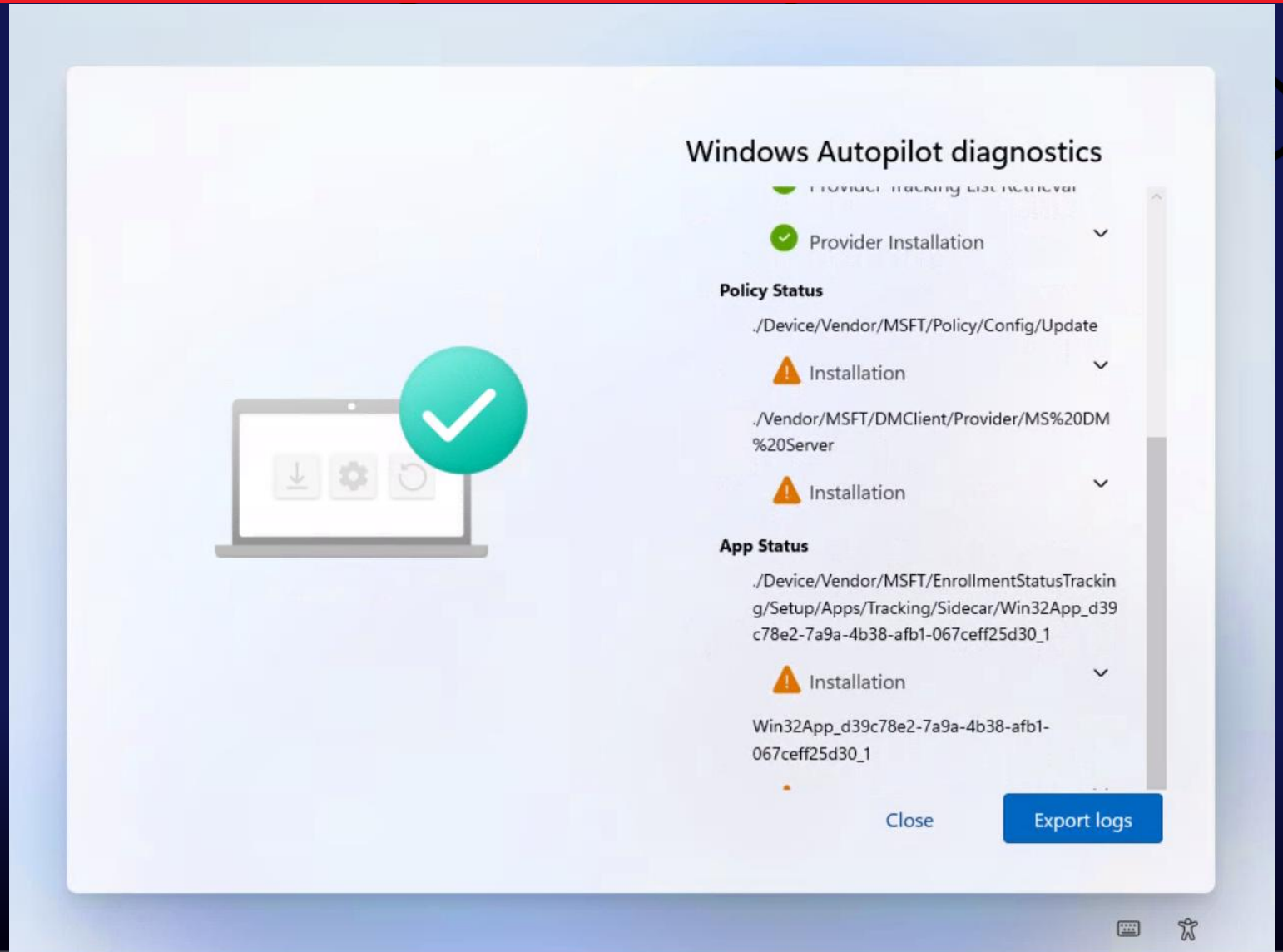
Apps (0x80070002)

Use “View Diagnostics” or Ctrl+Shift+D”

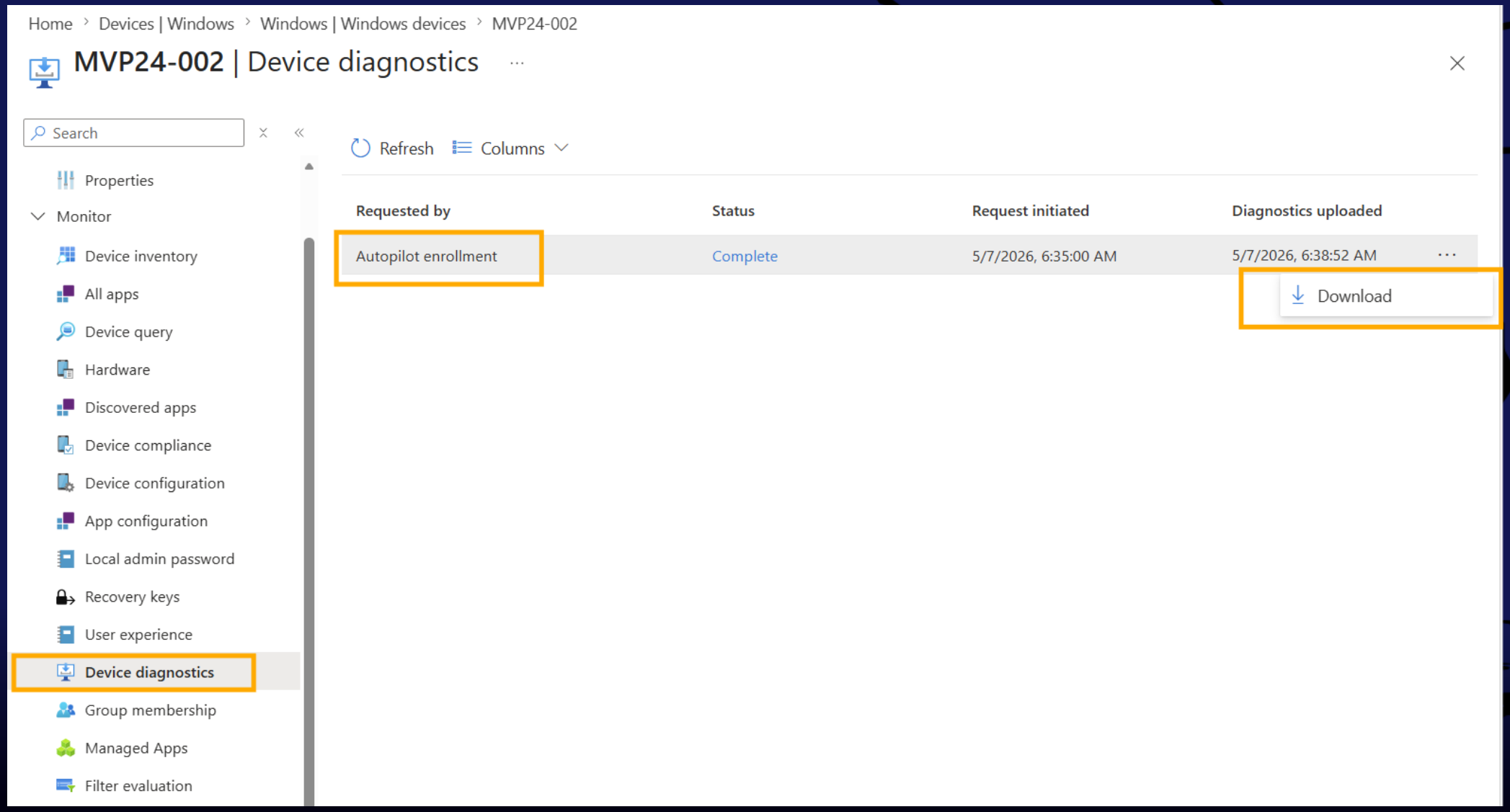


Is this useful?

What is Win32App_d39c78e2-7a9a-4b38-afb1-067ceff25d30_1 ?



Download diagnostic logs



DEMO

Read logs

MMS

Autopilot troubleshooting – Community version

- Tool Author: Andrew taylor(@Andrew Taylor) -ish
- Autopilot v2 support
- Troubleshooting information from Autopilot
- Run offline from .cab files

```
AUTOPILOT DIAGNOSTICS

OS version: 10.0.22631
EntDMID: 29082613-66f5-4349-a1d4-69f328c4e8ef
Enrollment status page:
 Device ESP enabled: True
 User ESP enabled: False
 ESP timeout: 60
 ESP blocking: Yes
 ESP allow try again: Yes
 ESP continue anyway: Yes
Delivery Optimization statistics:
 Total bytes downloaded: 1412692675
 From peers: 2% (29094925)
 From Connected Cache: 71% (1004068531)
```

```
OBSERVED TIMELINE:

Date                 Status                  Detail
----                 ------                  ------
2025-06-16 12:29:11Z SCP discovery successful Device Registration
2025-07-31 08:33:58Z Download started        {B94DDEE8-A4C1-4949-A981-3BCE77F79784}
2025-07-31 08:34:04Z Download started        {E5B693D7-0DE7-4AB6-81D8-6A4D8FAB051E}
2025-07-31 08:34:13Z Download finished       {B94DDEE8-A4C1-4949-A981-3BCE77F79784}
2025-07-31 08:34:14Z Installation started    {B94DDEE8-A4C1-4949-A981-3BCE77F79784}
2025-07-31 08:34:24Z Download finished       {E5B693D7-0DE7-4AB6-81D8-6A4D8FAB051E}
2025-07-31 08:34:25Z Installation finished   {B94DDEE8-A4C1-4949-A981-3BCE77F79784}
2025-07-31 08:34:31Z Installation started    {E5B693D7-0DE7-4AB6-81D8-6A4D8FAB051E}
2025-07-31 08:35:05Z Installation finished   {E5B693D7-0DE7-4AB6-81D8-6A4D8FAB051E}
2025-08-12 16:09:51Z Download started        {E94ADF8C-4B5C-4B3B-9603-744A0F6BDDC3}
2025-08-12 16:09:59Z Download finished       {E94ADF8C-4B5C-4B3B-9603-744A0F6BDDC3}
2025-08-12 16:10:00Z Installation started    {E94ADF8C-4B5C-4B3B-9603-744A0F6BDDC3}
2025-08-12 16:10:14Z Installation finished   {E94ADF8C-4B5C-4B3B-9603-744A0F6BDDC3}
2025-08-12 16:17:39Z Download started        {8fa1c545-8a16-4c02-9892-8d6d7a4e620f}
2025-08-12 16:17:48Z Download finished       {8fa1c545-8a16-4c02-9892-8d6d7a4e620f}
2025-08-12 16:18:11Z Installation started    {8fa1c545-8a16-4c02-9892-8d6d7a4e620f}
2025-08-12 16:18:54Z Installation finished   {8fa1c545-8a16-4c02-9892-8d6d7a4e620f}
2025-08-14 18:25:44Z Download started        {1D9E7560-F2C4-45CC-985E-1F85375E67EE}
2025-08-14 18:25:52Z Download finished       {1D9E7560-F2C4-45CC-985E-1F85375E67EE}
2025-08-14 18:25:54Z Installation started    {1D9E7560-F2C4-45CC-985E-1F85375E67EE}
2025-08-14 18:26:02Z Installation finished   {1D9E7560-F2C4-45CC-985E-1F85375E67EE}
2025-09-16 19:32:54Z DownloadStart           Microsoft Office C2R (16_0_19029_20244_I640_C2RX)
2025-09-16 19:33:55Z DownloadCompleted       Microsoft Office C2R (16_0_19029_20244_I640_C2RX)
2025-09-16 19:34:14Z DownloadStart           Microsoft Office C2R (16_0_19029_20244_I640_CAB)
2025-09-16 19:35:16Z DownloadCompleted       Microsoft Office C2R (16_0_19029_20244_I640_CAB)
2025-09-16 19:35:22Z DownloadStart           Microsoft Office C2R (16_0_19029_20244_A640_EXP_CAB)
2025-09-16 19:36:23Z DownloadCompleted       Microsoft Office C2R (16_0_19029_20244_A640_EXP_CAB)
2025-09-16 19:36:28Z DownloadStart           Microsoft Office C2R (16_0_19029_20244_S640_CAB)
2025-09-16 19:36:29Z DownloadCompleted       Microsoft Office C2R (16_0_19029_20244_S640_CAB)
```

PowerShell Gallery | Get-AutopilotDiagnosticsCommunity 6.3

Network (It is always DNS?)

SSL traffic inspection = NO!

- Must exclude necessary endpoints per-service not only Intune
- Example on results

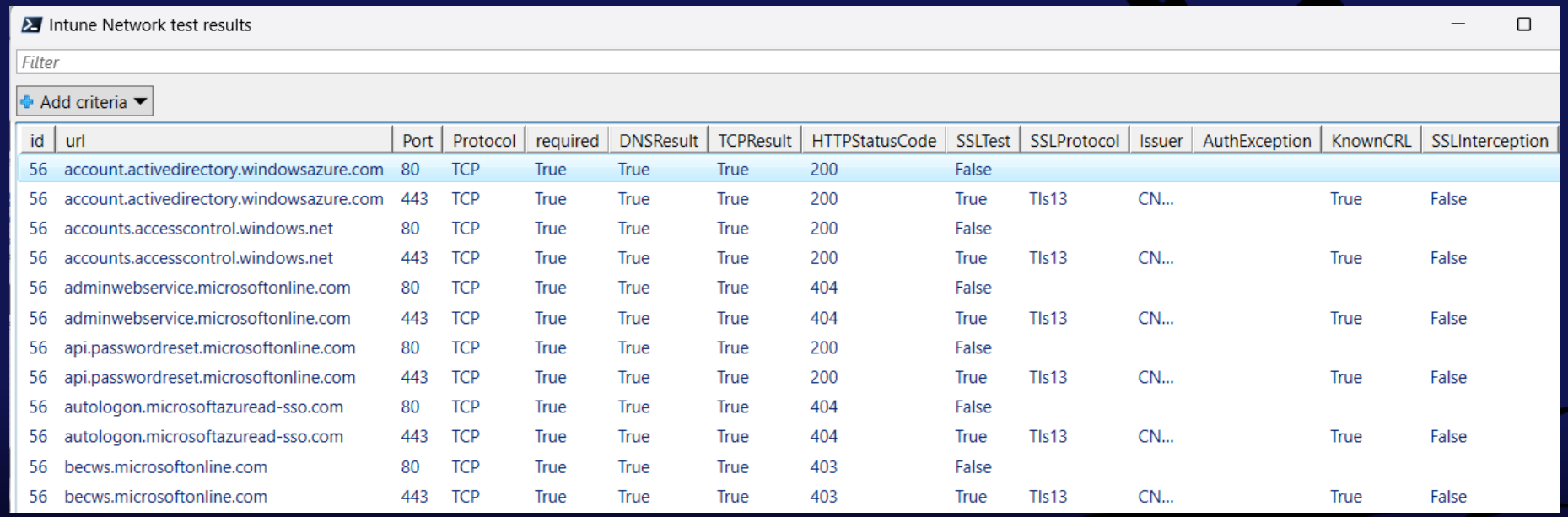
> **Note**
>
> SSL traffic inspection is not supported for 'manage.microsoft.com', 'dm.microsoft.com', or the Device Health Attestation (DHA) endpoints listed in the compliance section.

Device name	Managed by	Ownership	Compliance	OS	OS version
5f256f7b-9e37-4824-b5...	Co-managed	Unknown	See ConfigMgr	Windows	0.0.0.0
7ededf06-8c41-4d91-90...	Co-managed	Unknown	See ConfigMgr	Windows	0.0.0.0

Network endpoints for Microsoft Intune | Microsoft Learn

Intune Network Requirements

- By Martin Himken (more comprehensive than MS..)
- Test network connectivity required by Intune, Autopilot, Device registration, TPM and more..
- Comprehensive tests



id	url	Port	Protocol	required	DNSResult	TCPResult	HTTPStatusCode	SSLTest	SSLProtocol	Issuer	AuthException	KnownCRL	SSLInterception
56	account.activedirectory.windowsazure.com	80	TCP	True	True	True	200	False					
56	account.activedirectory.windowsazure.com	443	TCP	True	True	True	200	True	Tls13	CN...		True	False
56	accounts.accesscontrol.windows.net	80	TCP	True	True	True	200	False					
56	accounts.accesscontrol.windows.net	443	TCP	True	True	True	200	True	Tls13	CN...		True	False
56	adminwebservice.microsoftonline.com	80	TCP	True	True	True	404	False					
56	adminwebservice.microsoftonline.com	443	TCP	True	True	True	404	True	Tls13	CN...		True	False
56	api.passwordreset.microsoftonline.com	80	TCP	True	True	True	200	False					
56	api.passwordreset.microsoftonline.com	443	TCP	True	True	True	200	True	Tls13	CN...		True	False
56	autologon.microsoftazuread-sso.com	80	TCP	True	True	True	404	False					
56	autologon.microsoftazuread-sso.com	443	TCP	True	True	True	404	True	Tls13	CN...		True	False
56	becws.microsoftonline.com	80	TCP	True	True	True	403	False					
56	becws.microsoftonline.com	443	TCP	True	True	True	403	True	Tls13	CN...		True	False

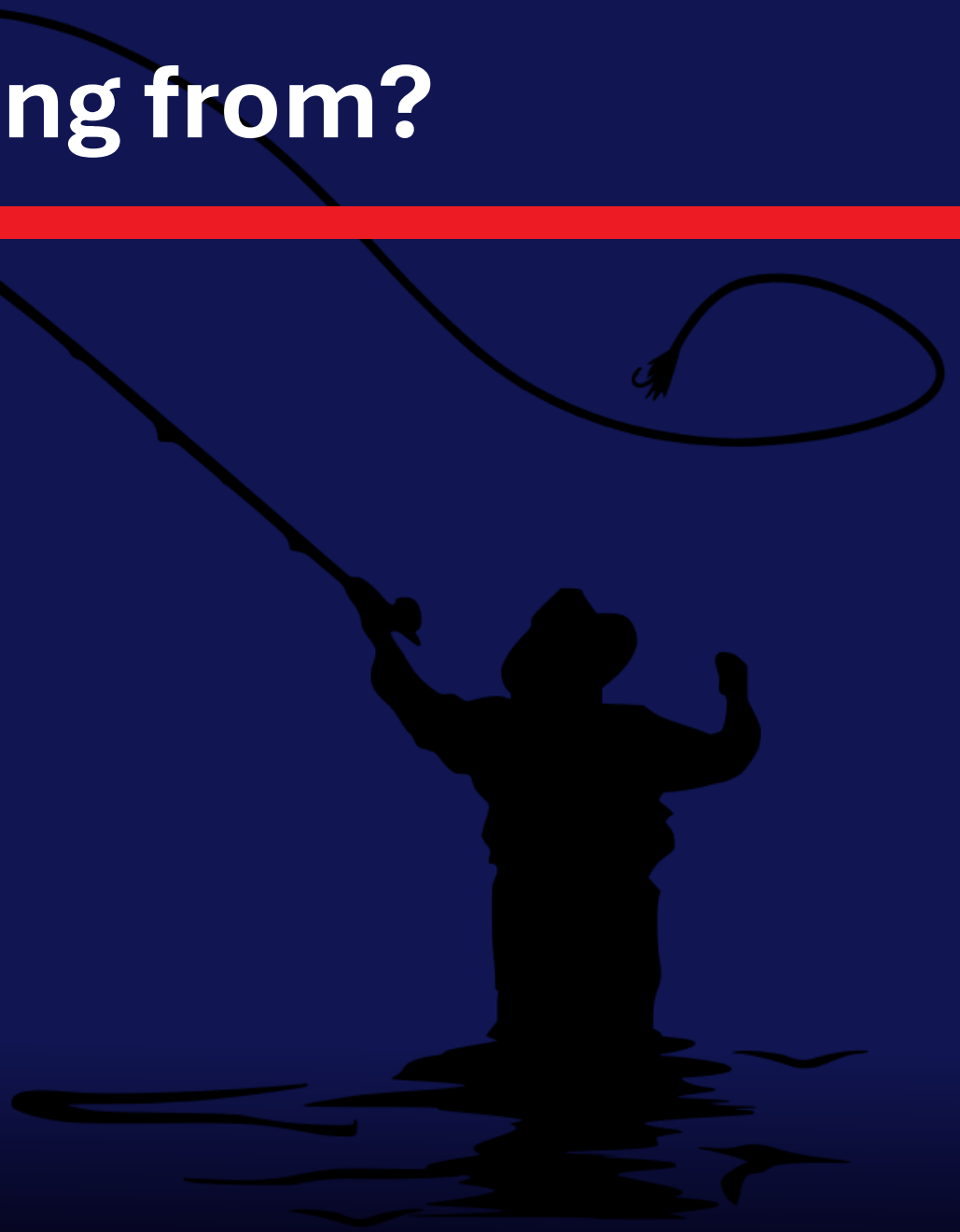
Intune Network Requirements - everything I learned – mAnimA.de

Troubleshoot Policies

Where is my setting coming from?

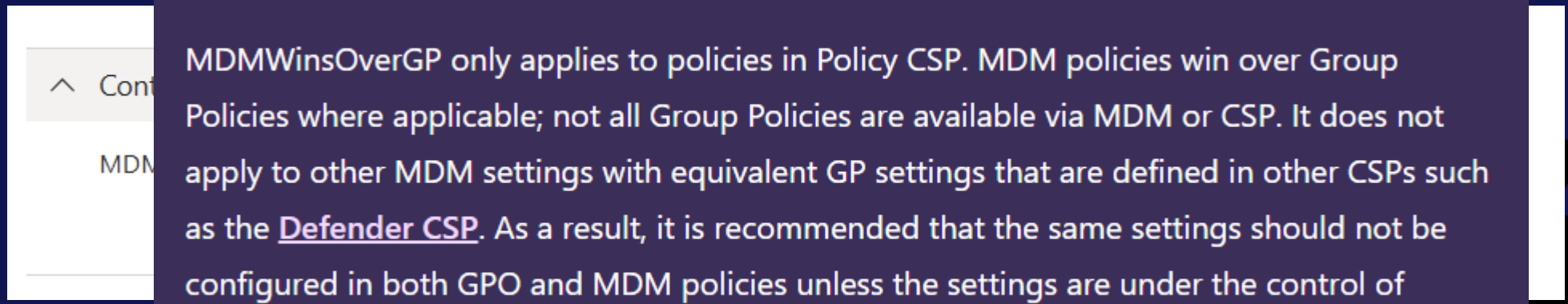
- Intune
- GPO, ConfigMgr (Hybrid co-managed)
- Cloud Policy (Edge, Office)
- Admin center (Copilot setting)

Resolve the conflict source!!!



MDMWinsOverGPO

- Only applies to the Policy CSP
- Settin ng.

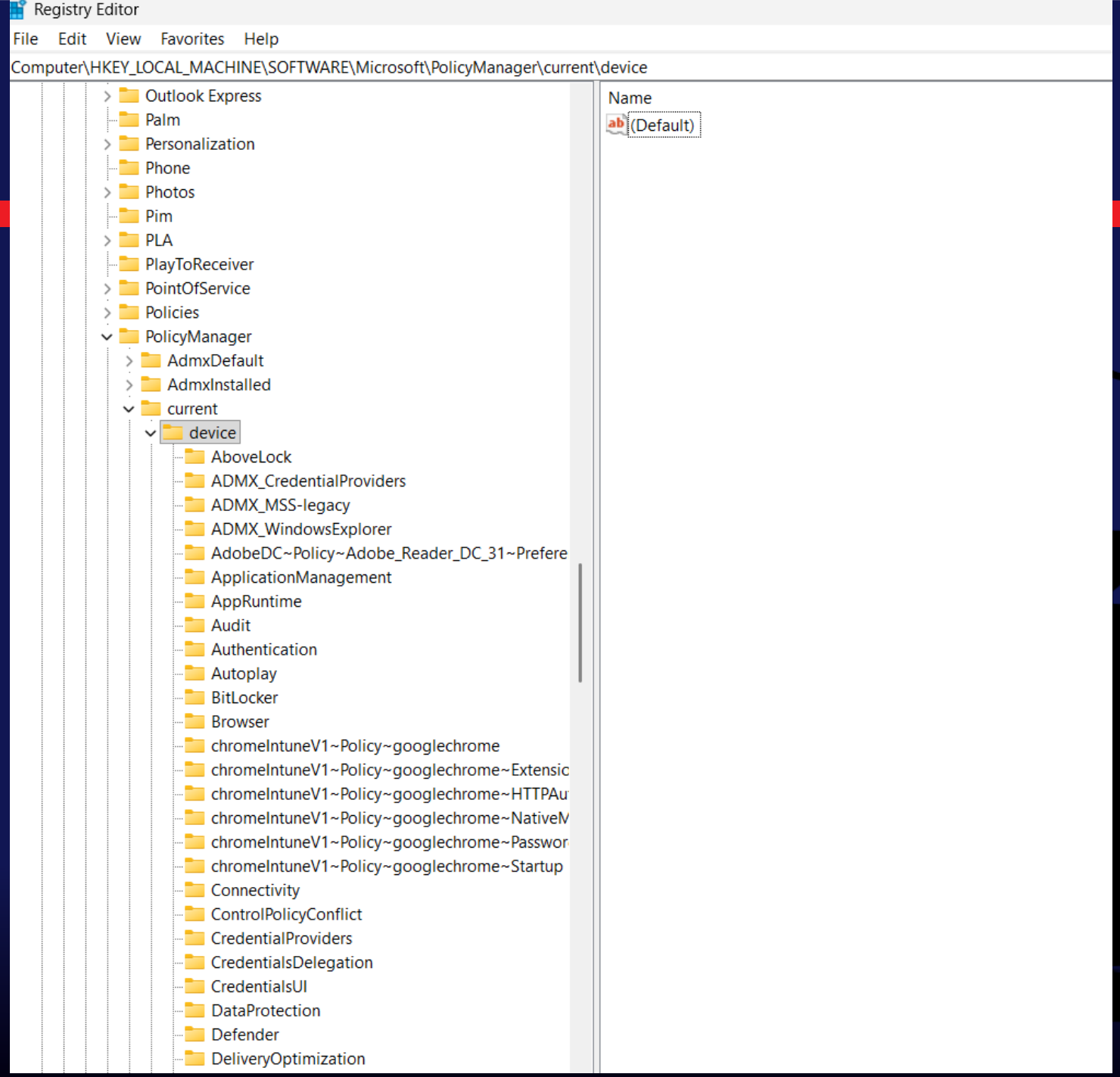


Note

MDMWinsOverGP only applies to policies in Policy CSP. MDM policies win over Group Policies where applicable; not all Group Policies are available via MDM or CSP. It does not apply to other MDM settings with equivalent GP settings that are defined in other CSPs such as the Defender CSP. As a result, it is recommended that the same settings should not be configured in both GPO and MDM policies unless the settings are under the control of MDMWinsOverGP. Otherwise, there will be a race condition and no guarantee which one wins.

https://learn.microsoft.com/en-us/windows/client-management/mdm/policy-csp-controlpolicyconflict#mdmwinsovergp

Intune


Registry Editor
File Edit View Favorites Help
Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\PolicyManager\current\device
Outlook Express
Palm
Personalization
Phone
Photos
Pim
PLA
PlayToReceiver
PointOfService
Policies
PolicyManager
AdmxDefault
AdmxInstalled
current
device
AboveLock
ADMX_CredentialProviders
ADMX_MSS-legacy
ADMX_WindowsExplorer
AdobeDC~Policy~Adobe_Reader_DC_31~Prefere
ApplicationManagement
AppRuntime
Audit
Authentication
Autoplay
BitLocker
Browser
chromeIntuneV1~Policy~googlechrome
chromeIntuneV1~Policy~googlechrome~Extensic
chromeIntuneV1~Policy~googlechrome~HTTPAu
chromeIntuneV1~Policy~googlechrome~NativeM
chromeIntuneV1~Policy~googlechrome~Passwor
chromeIntuneV1~Policy~googlechrome~Startup
Connectivity
ControlPolicyConflict
CredentialProviders
CredentialsDelegation
CredentialsUI
DataProtection
Defender
DeliveryOptimization
Name
(Default)

Intune Management extension(IME) and Win32Apps

Intune Management extension

Installs automatically

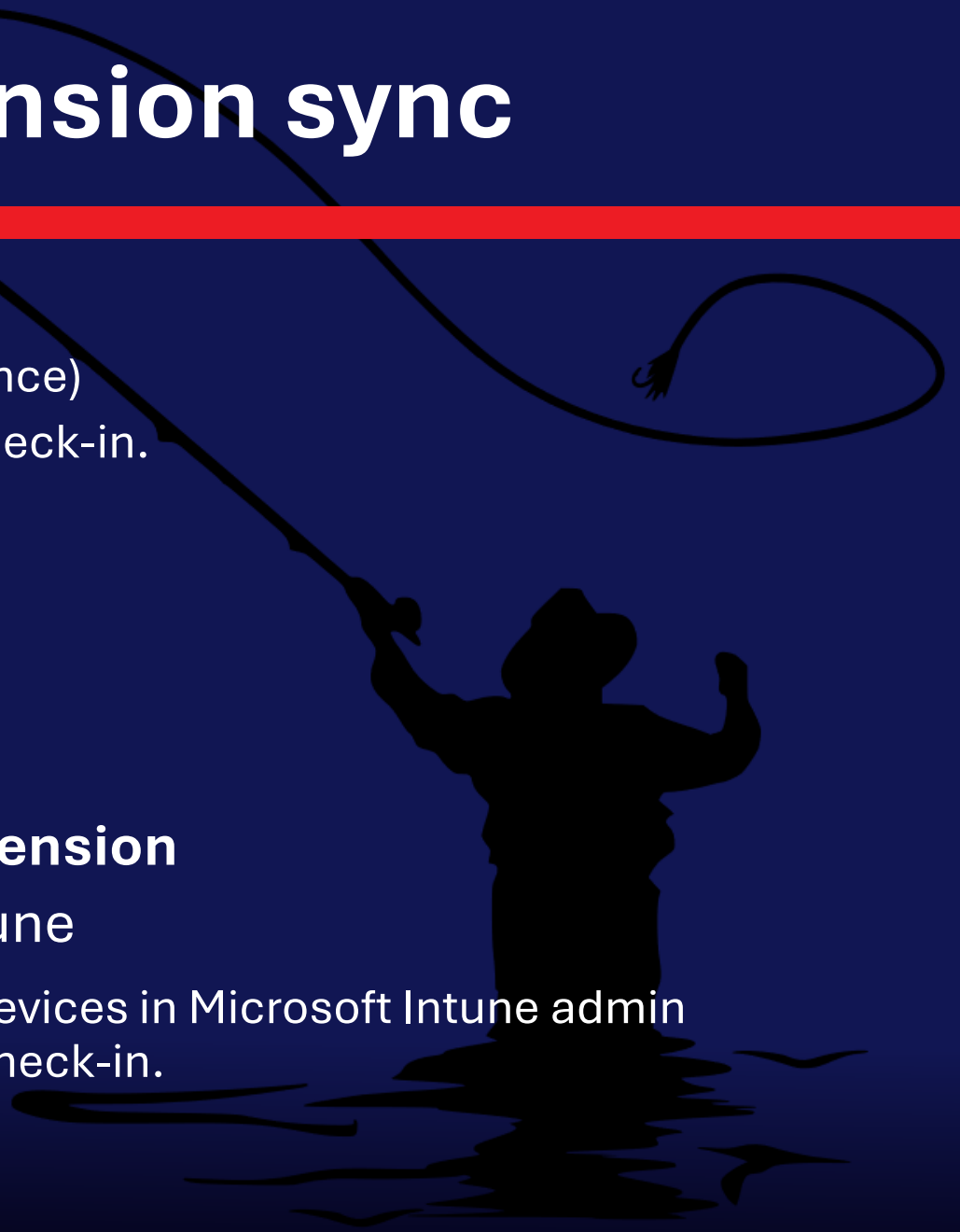
Updates automatically

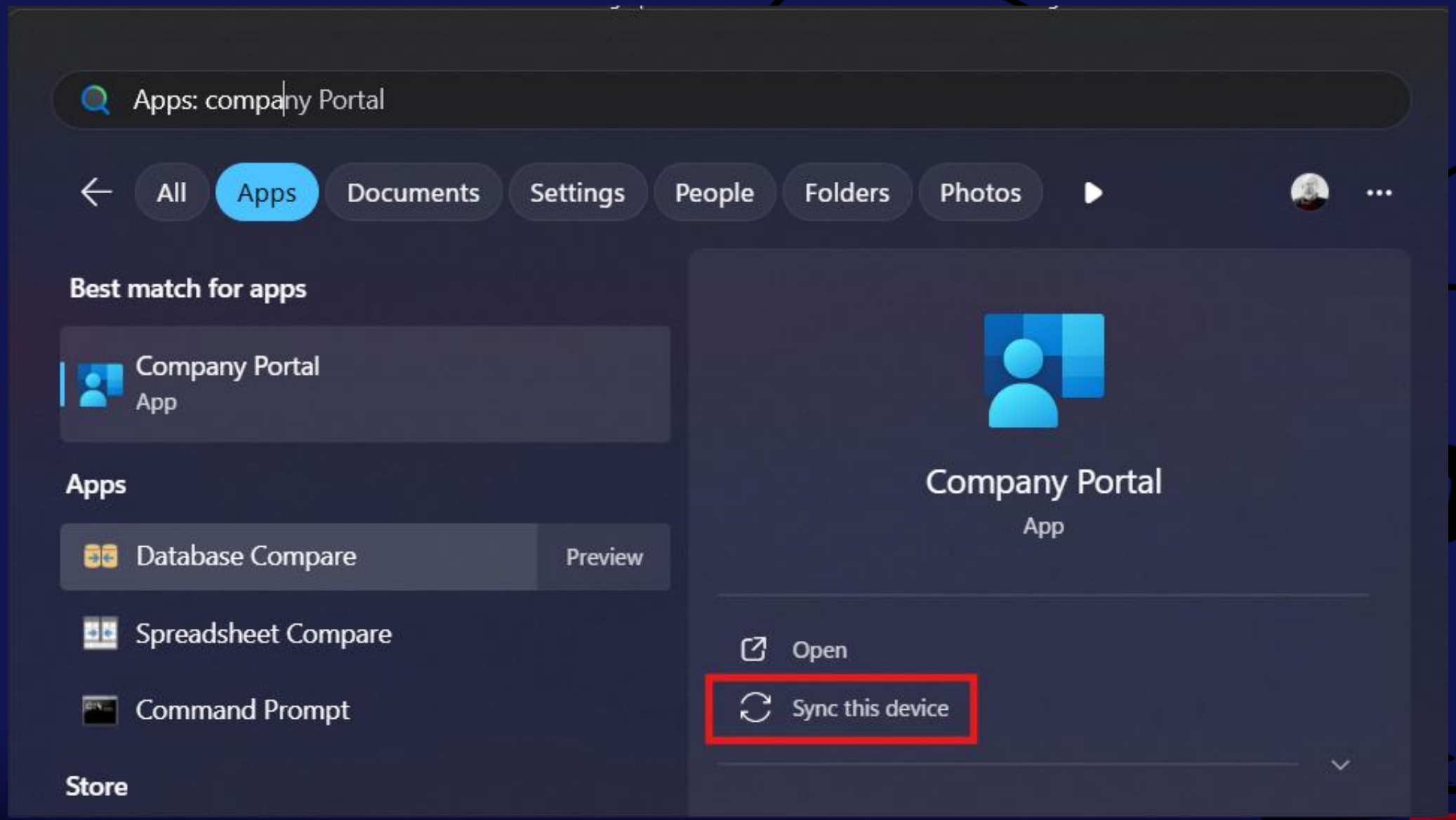
Extends Intune functionality with:

- PowerShell scripts
- Win32 apps
- Microsoft Store apps (WinGET)
- Custom compliance policy script
- Proactive remediations
- Software Inventory

Intune Management extension sync

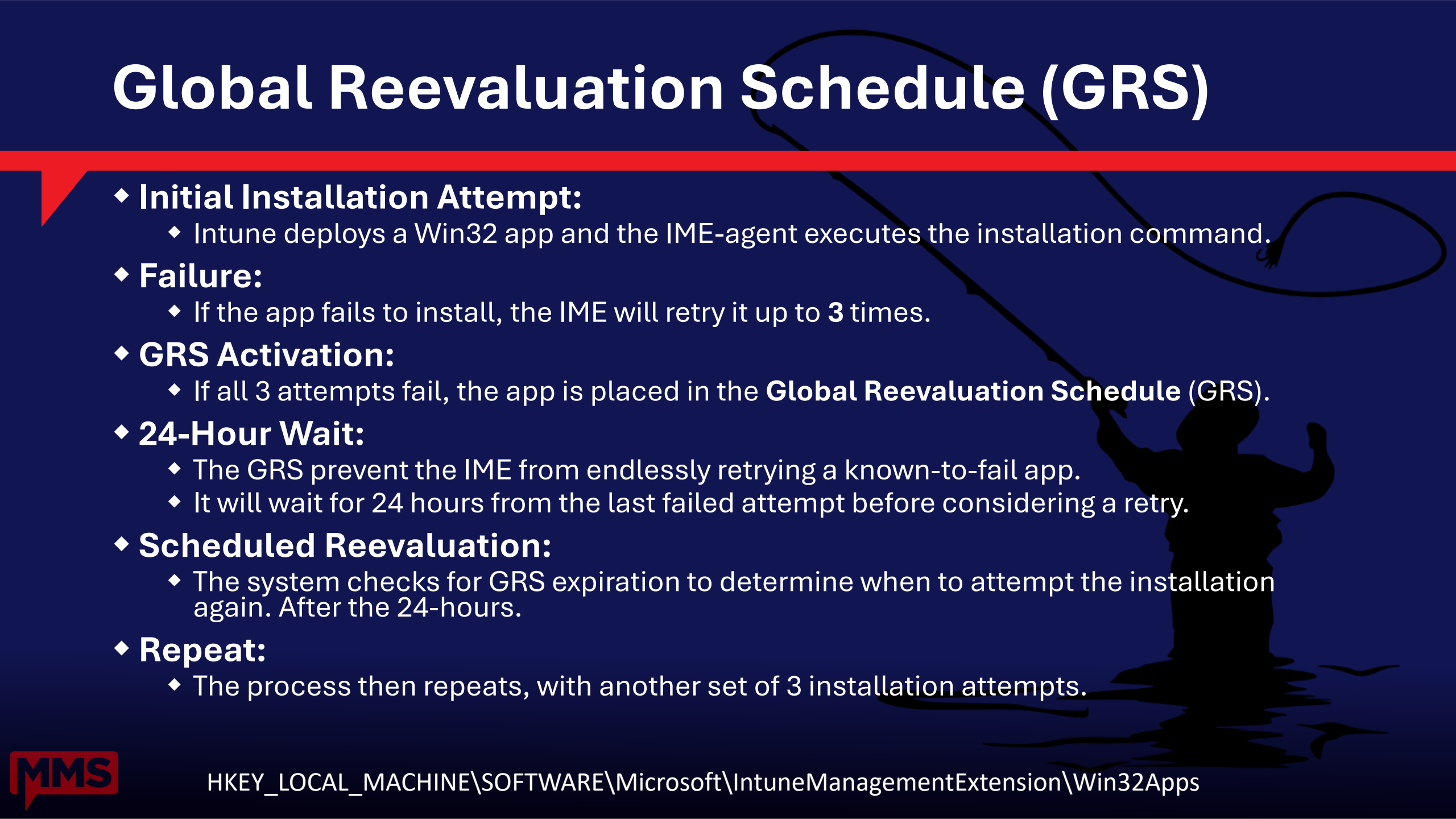
- IME Sync schedule
  - Checks with Intune services every 8 hour (maintenance)
  - This check-in process is independent of the MDM check-in.
- Manually initiate an IME check-in
  - **Company Portal** > **Settings** > **Sync**.
  - Initiates an **MDM** check-in **and** **IME** check-in.
- Alternative
  - Restart the service **IntuneManagementExtension**
  - The restart will initiating a check-in with Intune
- Note: The Sync actions from either the Settings app or Devices in Microsoft Intune admin center initiate an MDM check-in but don't force an IME check-in.




Apps: company Portal
All
Apps
Documents
Settings
People
Folders
Photos
Best match for apps
Company Portal
App
Apps
Database Compare
Preview
Spreadsheet Compare
Command Prompt
Store
Company Portal
App
Open
Sync this device

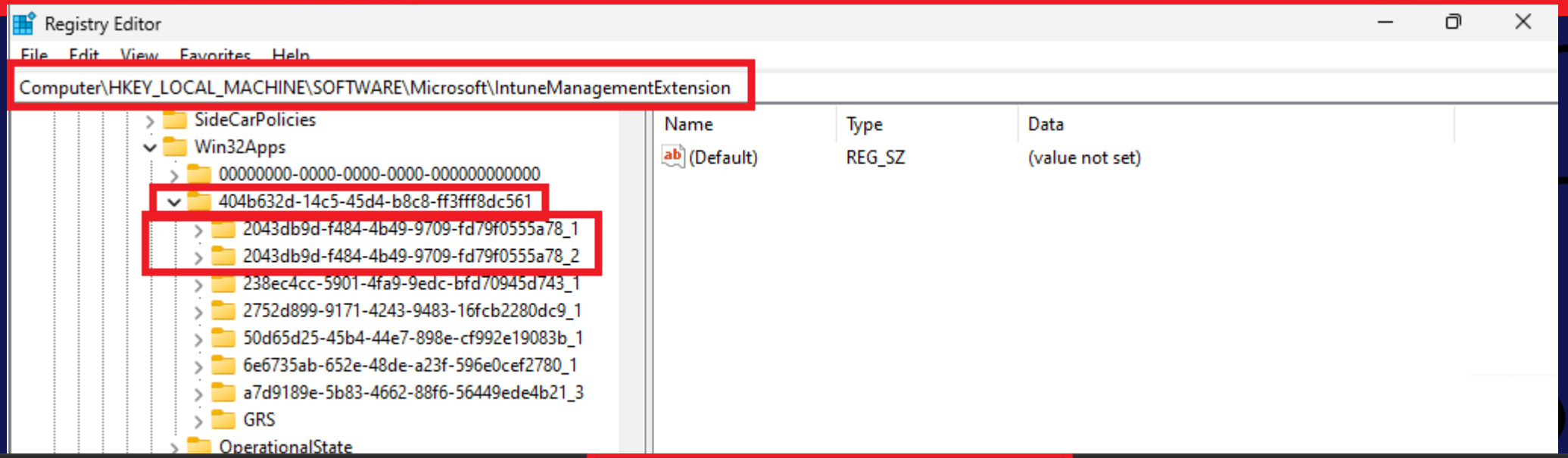
Global Reevaluation Schedule (GRS)

- **Initial Installation Attempt:**
  - Intune deploys a Win32 app and the IME-agent executes the installation command.
- **Failure:**
  - If the app fails to install, the IME will retry it up to **3** times.
- **GRS Activation:**
  - If all 3 attempts fail, the app is placed in the **Global Reevaluation Schedule** (GRS).
- **24-Hour Wait:**
  - The GRS prevent the IME from endlessly retrying a known-to-fail app.
  - It will wait for 24 hours from the last failed attempt before considering a retry.
- **Scheduled Reevaluation:**
  - The system checks for GRS expiration to determine when to attempt the installation again. After the 24-hours.
- **Repeat:**
  - The process then repeats, with another set of 3 installation attempts.



HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\IntuneManagementExtension\Win32Apps

Registry



https://intune.microsoft.com/#view/Microsoft_Intune_Apps/SettingsMenu/~/2/appId/2043db9d-f484-4b49-9709-fd79f0555a78

une admin center

Home > Apps | Windows > Windows | Windows apps > Remote Help

Remote Help | Properties

Client Apps

Search

Overview

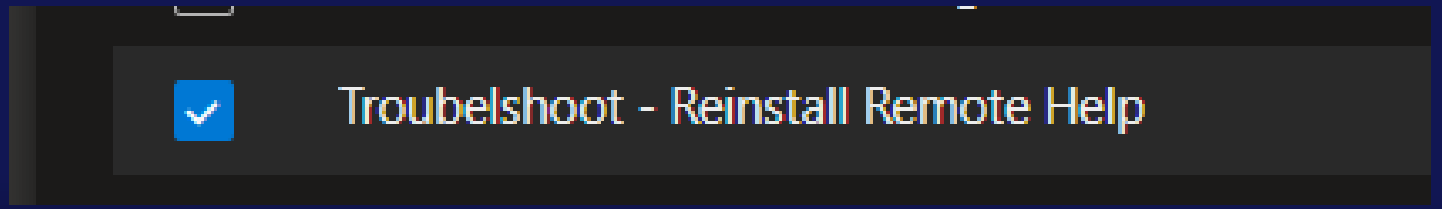
Manage

App information Edit

Name Remote Help

Reinstalling app remotely

- Uninstall the app if installed
- Remove the AppID in the registry
- Remove the GRS association
- Launch a new PowerShell process that restarts IME agent

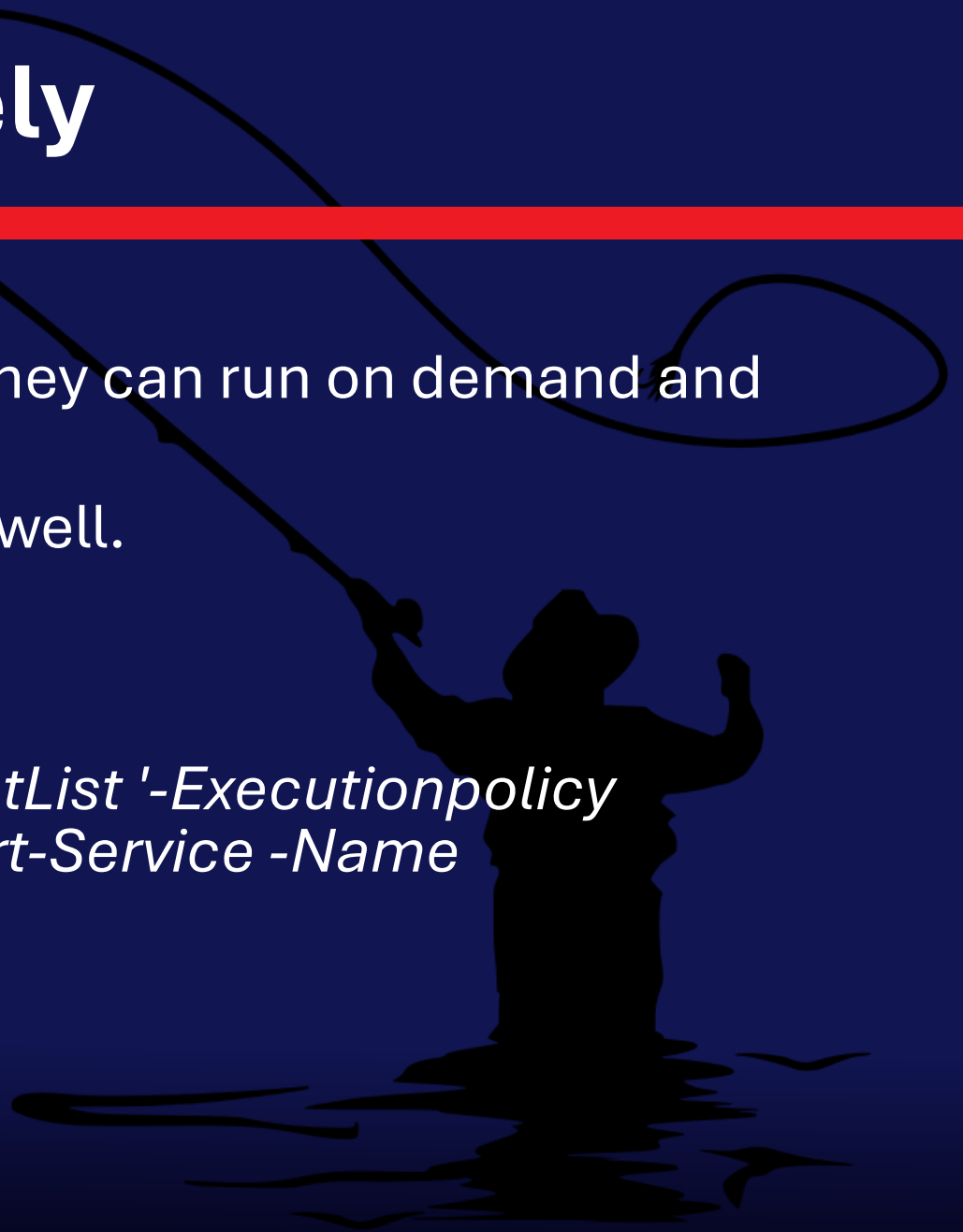


https://ccmexec.com/2025/01/reinstall-a-required-win32app-using-remediation-on-demand/

Restart IME agent remotely

“Application installation is slow”

- Empower ServiceDesk with a remediation they can run on demand and restart IME Agent.
- Important to train them and explain why as well.



#Restart IME service

Start-Process -FilePath powershell -ArgumentList '-Executionpolicy bypass -command "& {Start-Sleep 90 ; Restart-Service -Name IntuneManagementExtension -Force}"'

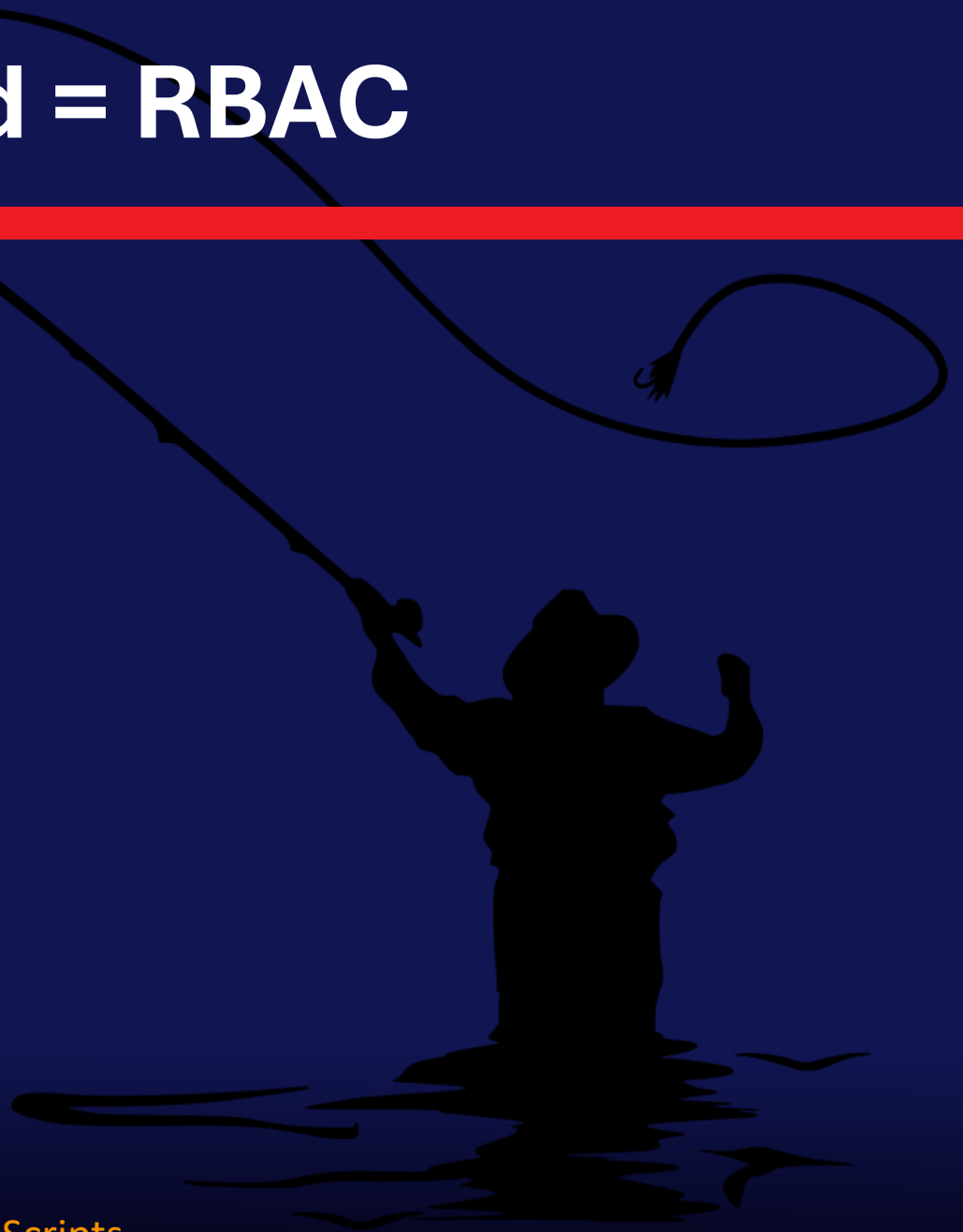
#Exit script

Exit 0

https://github.com/Ccmexec/Remediation-Scripts

Remediations on demand = RBAC

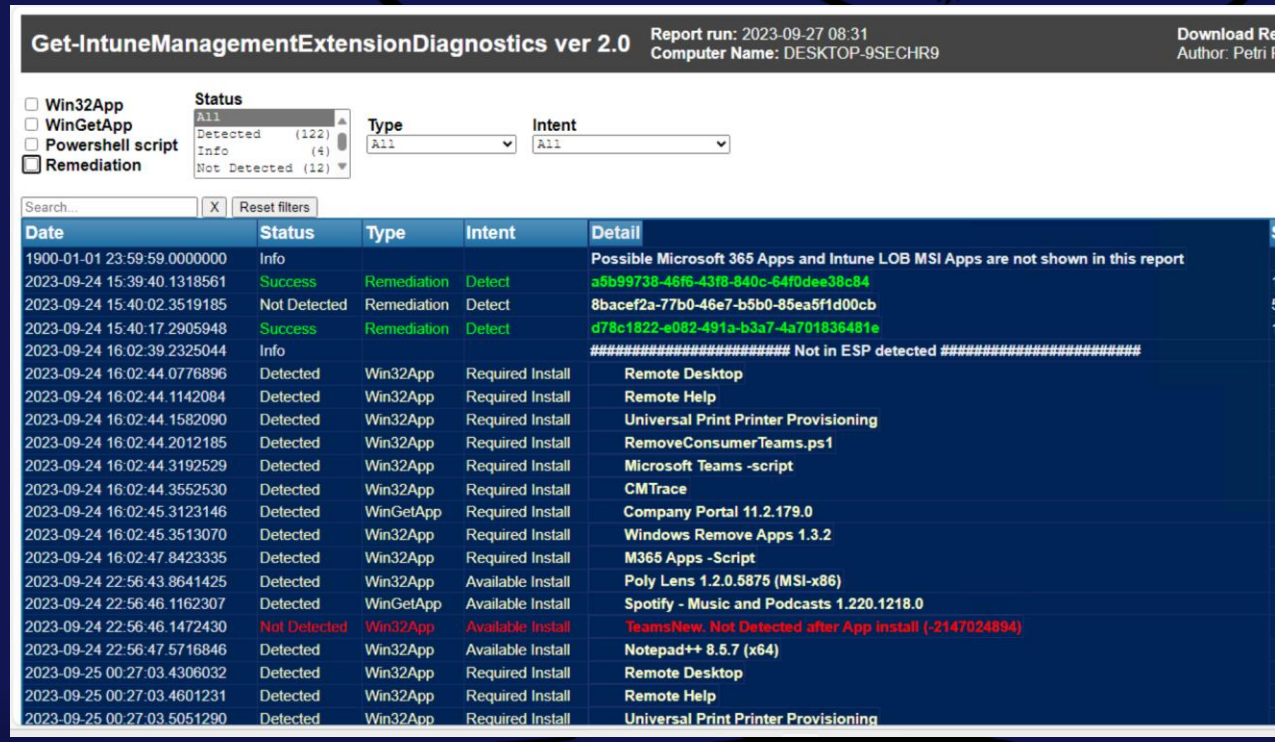
- Remediations on demand is a great
- Perfect in a Zero-trust scenario
- Requires RBAC to filter script
- Create your own repository



https://github.com/JayRHa/EndpointAnalyticsRemediationScripts

Intune Logreader – Petri Paavola

- Analyzes Microsoft Intune Management Extension (IME) log(s)
- Timeline of events
- Capable LogViewer
- HTML output
- -Online option will get real names for Remediations and PowerShell scripts.



Get-IntuneManagementExtensionDiagnostics ver 2.0 — **Report run:** 2023-09-27 08:31 — **Computer Name:** DESKTOP-9SECHR9 — Download Re / Author: Petri

Win32App
WinGetApp
Powershell script
Remediation

Status: All / Detected (122) / Info (4) / Not Detected (12)

Type: All

Intent: All

Search... | X | Reset filters

Date	Status	Type	Intent	Detail
1900-01-01 23:59:59.0000000	Info			Possible Microsoft 365 Apps and Intune LOB MSI Apps are not shown in this report
2023-09-24 15:39:40.1318561	Success	Remediation	Detect	a5b99738-46f6-43f8-840c-64f0dee38c84
2023-09-24 15:40:02.3519185	Not Detected	Remediation	Detect	8bacef2a-77b0-46e7-b5b0-85ea5f1d00cb
2023-09-24 15:40:17.2905948	Success	Remediation	Detect	d78c1822-e082-491a-b3a7-4a701836481e
2023-09-24 16:02:39.2325044	Info			########## Not in ESP detected ##########
2023-09-24 16:02:44.0776896	Detected	Win32App	Required Install	Remote Desktop
2023-09-24 16:02:44.1142084	Detected	Win32App	Required Install	Remote Help
2023-09-24 16:02:44.1582090	Detected	Win32App	Required Install	Universal Print Printer Provisioning
2023-09-24 16:02:44.2012185	Detected	Win32App	Required Install	RemoveConsumerTeams.ps1
2023-09-24 16:02:44.3192529	Detected	Win32App	Required Install	Microsoft Teams -script
2023-09-24 16:02:44.3552530	Detected	Win32App	Required Install	CMTrace
2023-09-24 16:02:45.3123146	Detected	WinGetApp	Required Install	Company Portal 11.2.179.0
2023-09-24 16:02:45.3513070	Detected	Win32App	Required Install	Windows Remove Apps 1.3.2
2023-09-24 16:02:47.8423335	Detected	Win32App	Required Install	M365 Apps -Script
2023-09-24 22:56:43.8641425	Detected	Win32App	Available Install	Poly Lens 1.2.0.5875 (MSI-x86)
2023-09-24 22:56:46.1162307	Detected	WinGetApp	Available Install	Spotify - Music and Podcasts 1.220.1218.0
2023-09-24 22:56:46.1472430	Not Detected	Win32App	Available Install	TeamsNew. Not Detected after App install (-2147024894)
2023-09-24 22:56:47.5716846	Detected	Win32App	Available Install	Notepad++ 8.5.7 (x64)
2023-09-25 00:27:03.4306032	Detected	Win32App	Required Install	Remote Desktop
2023-09-25 00:27:03.4601231	Detected	Win32App	Required Install	Remote Help
2023-09-25 00:27:03.5051290	Detected	Win32App	Required Install	Universal Print Printer Provisioning

https://github.com/petripaavola/Get-IntuneManagementExtensionDiagnostics

Application Control

Application Control for Business

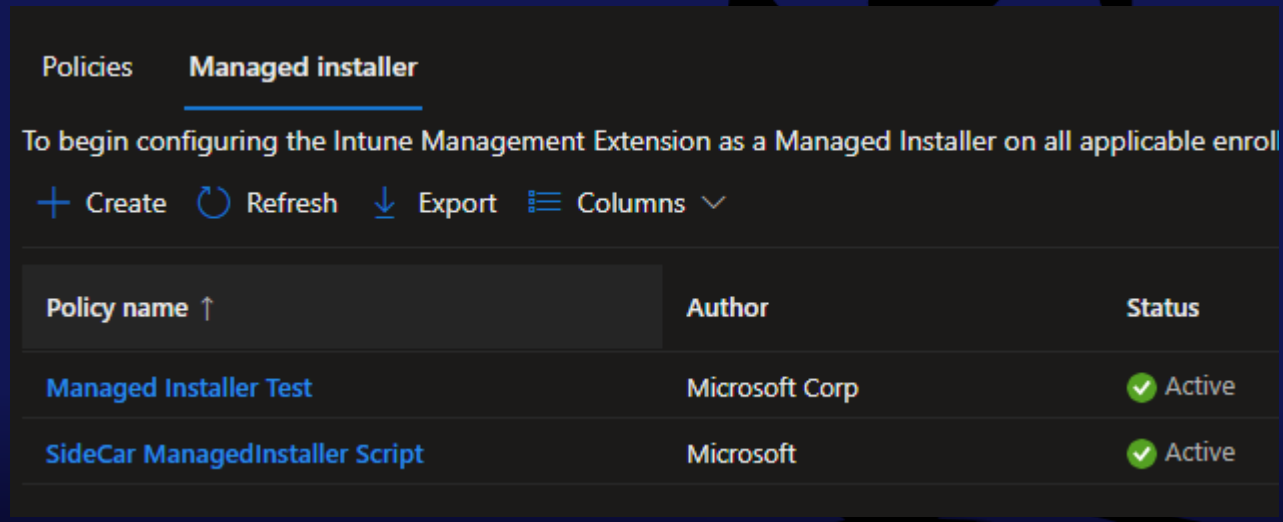
Managed Installer policy in Intune – enables it during Autopilot for it to work

Requires the files to be signed (hash exceptions is also possible, but must be handled manually)

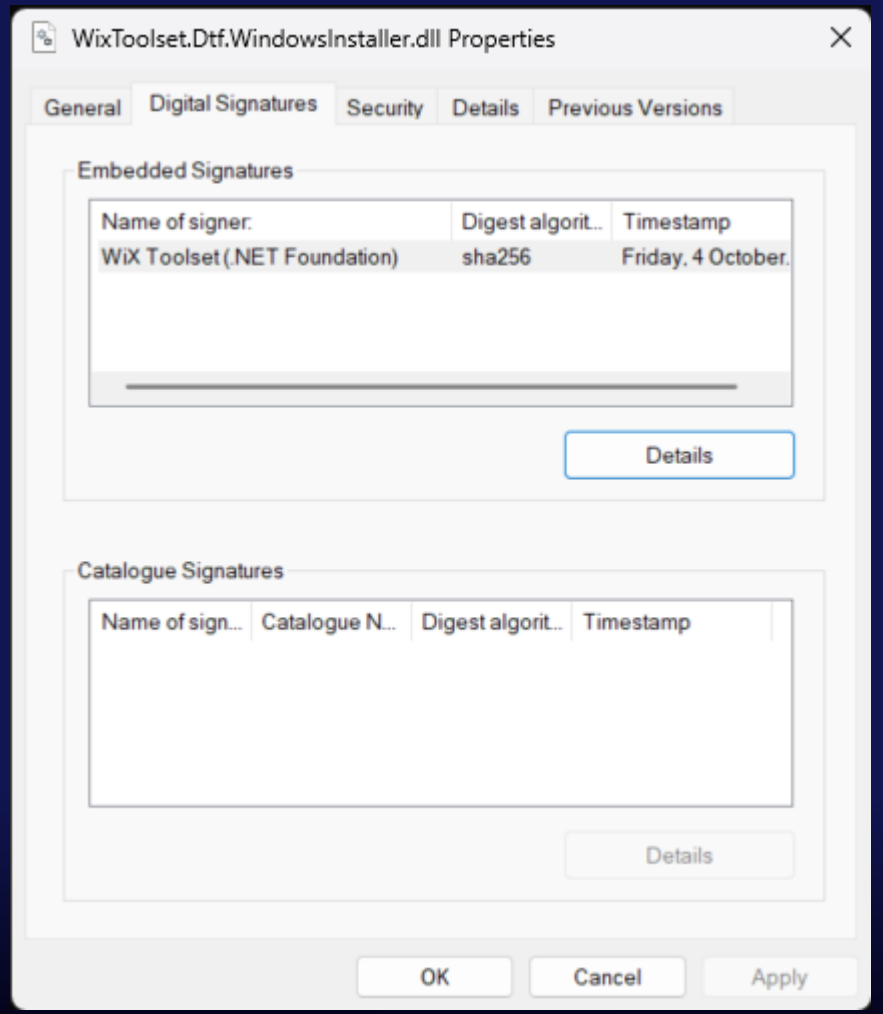
Unsigned installer files is a big issue, even for some Microsoft Software.

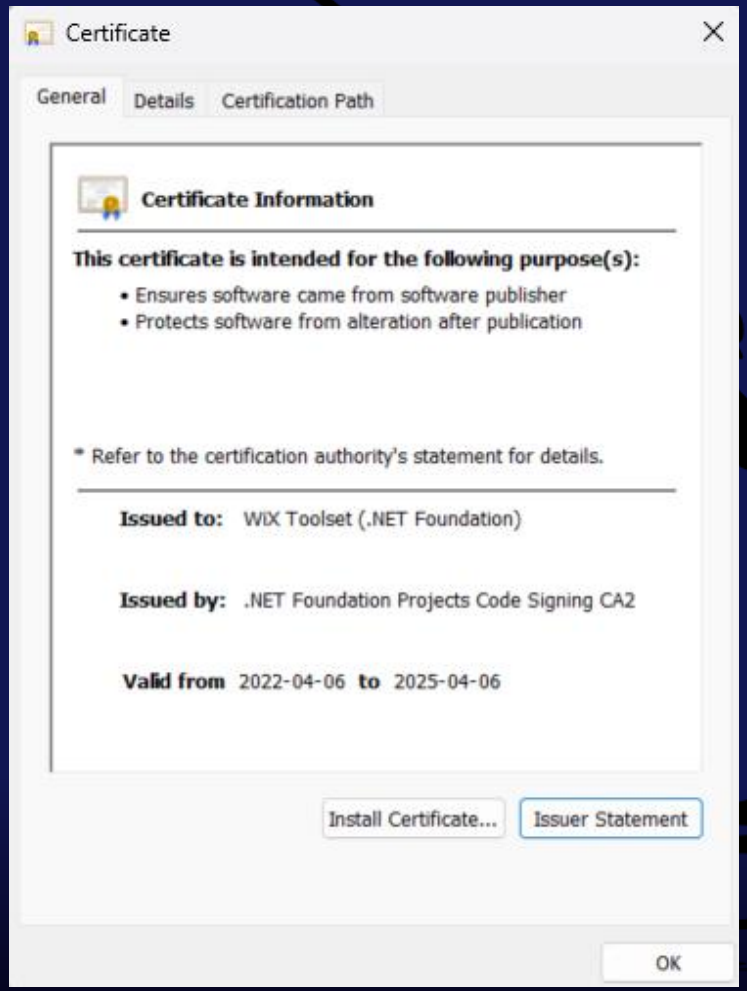
Known issues:

- Adds time to Autopilot V1
- WIX 3 custom action dll's are not signed
- WIX 4 and later custom action dll's are signed, but not by Microsoft



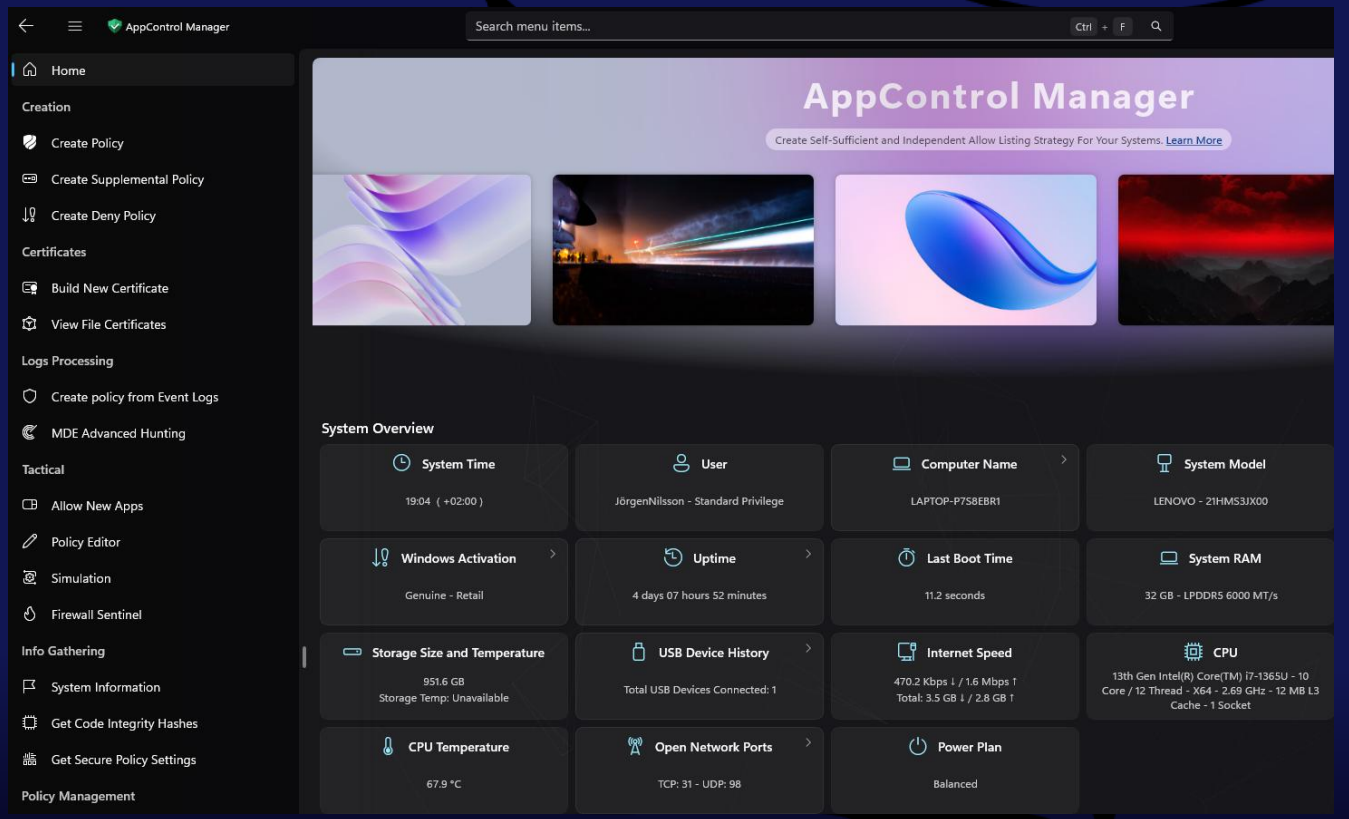
```
C:\Program Files\Remote Help>fsutil file queryea RemoteHelp.exe

Extended Attributes (EA) information for file C:\Program Files\Remote Help\RemoteHelp.exe:

Total Ea Size: 0x2db

Ea Buffer Offset: 0
Ea Name: $KERNEL.SMARTLOCKER.ORIGINCLAIM
Ea Value Length: 12c
0000:  01 00 00 00 00 00 00 00  00 00 00 00 01 00 00 00  ................
0010:  b3 a9 3e 01 e5 be b8 82  c6 09 12 45 b2 6b b5 2b  ..>........E.k.+
0020:  3f 7b 63 e1 11 f0 d6 f8  4b b9 ed 0d 70 71 40 dc  ?{c.....K...pq@.
0030:  00 00 00 00 00 00 00 00  ea 00 00 00 5c 00 3f 00  ............\.?.
0040:  3f 00 5c 00 43 00 3a 00  5c 00 50 00 72 00 6f 00  ?.\.C.:.\.P.r.o.
0050:  67 00 72 00 61 00 6d 00  20 00 46 00 69 00 6c 00  g.r.a.m. .F.i.l.
0060:  65 00 73 00 20 00 28 00  78 00 38 00 36 00 29 00  e.s. .(.x.8.6.).
0070:  5c 00 4d 00 69 00 63 00  72 00 6f 00 73 00 6f 00  \.M.i.c.r.o.s.o.
0080:  66 00 74 00 20 00 49 00  6e 00 74 00 75 00 6e 00  f.t. .I.n.t.u.n.
0090:  65 00 20 00 4d 00 61 00  6e 00 61 00 67 00 65 00  e. .M.a.n.a.g.e.
00a0:  6d 00 65 00 6e 00 74 00  20 00 45 00 78 00 74 00  m.e.n.t. .E.x.t.
00b0:  65 00 6e 00 73 00 69 00  6f 00 6e 00 5c 00 4d 00  e.n.s.i.o.n.\.M.
00c0:  69 00 63 00 72 00 6f 00  73 00 6f 00 66 00 74 00  i.c.r.o.s.o.f.t.
00d0:  2e 00 4d 00 61 00 6e 00  61 00 67 00 65 00 6d 00  ..M.a.n.a.g.e.m.
00e0:  65 00 6e 00 74 00 2e 00  53 00 65 00 72 00 76 00  e.n.t...S.e.r.v.
00f0:  69 00 63 00 65 00 73 00  2e 00 49 00 6e 00 74 00  i.c.e.s...I.n.t.
0100:  75 00 6e 00 65 00 57 00  69 00 6e 00 64 00 6f 00  u.n.e.W.i.n.d.o.
0110:  77 00 73 00 41 00 67 00  65 00 6e 00 74 00 2e 00  w.s.A.g.e.n.t...
0120:  65 00 78 00 65 00 00 00  00 00 00 00              e.x.e.......
```


WixToolset.Dtf.WindowsInstaller.dll Properties
General
Digital Signatures
Security
Details
Previous Versions
Embedded Signatures
Name of signer:
Digest algorit...
Timestamp
WiX Toolset (.NET Foundation)
sha256
Friday, 4 October
Details
Catalogue Signatures
Name of sign...
Catalogue N...
Digest algorit...
Timestamp
Details
OK
Cancel
Apply


Certificate
General
Details
Certification Path
Certificate Information
This certificate is intended for the following purpose(s):
• Ensures software came from software publisher
• Protects software from alteration after publication
* Refer to the certification authority's statement for details.
Issued to: WiX Toolset (.NET Foundation)
Issued by: .NET Foundation Projects Code Signing CA2
Valid from 2022-04-06 to 2025-04-06
Install Certificate...
Issuer Statement
OK

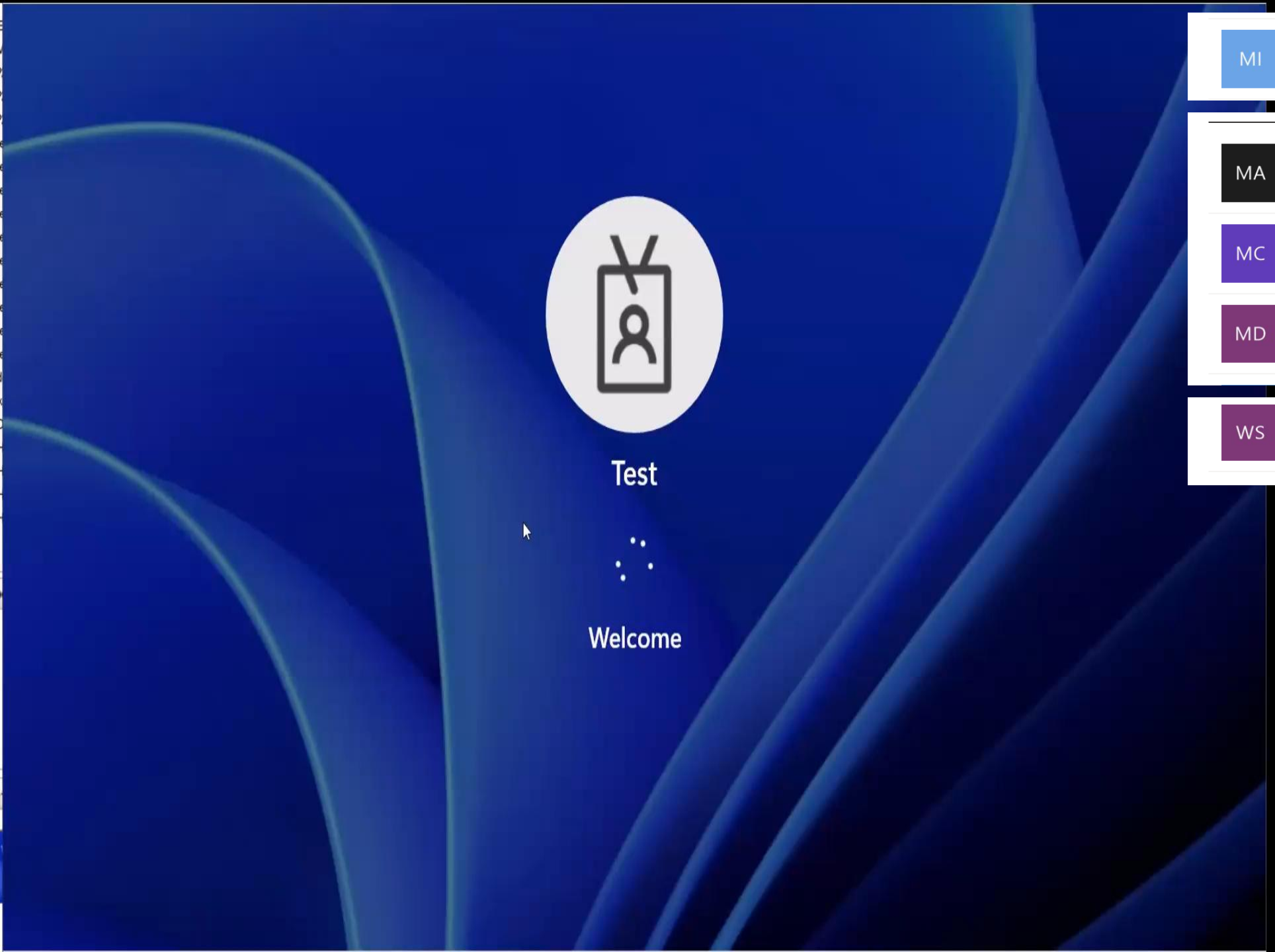
AppControl Manager

- Great to manage AppControl polices
- Available in the Microsoft Store
- THE tool to use to manage AppControl



https://apps.microsoft.com/detail/9PNG1JDDTGP8?hl=en-us&gl=SE&ocid=pdpshare

Conditional Access



MI
Microsoft Intune
0000000a-0000-0000-c000-0000000000...

MA
Microsoft Activity Feed Service
d32c68ad-72d2-4acb-a0c7-46bb2cf93873

MC
Microsoft Command Service
19686ca6-5324-4571-a231-77e026b0e06f

MD
Microsoft Device Directory Ser...
8f41dc7c-542c-4bdd-8eb3-e60543f607ca

WS
Windows Store for Business
45a330b1-b1ec-4cc1-9161-9f03992aa49f

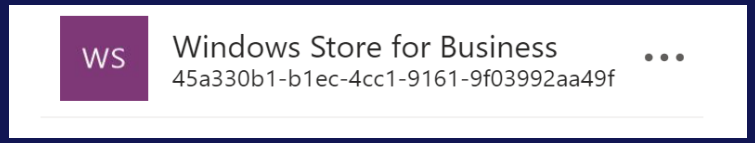
Subscription Based activation

- Easiest way of upgrading to Enterprise from pro
- Re-activated every 30 days
- Each user can activate 5 devices
- Activating shared devices
  - Either all users must have a Windows e3 license assigned
  - Shared devices must be excluded and activated in a different way (KMS,MAK)
    - HKEY_Local_Machine\System\Currentcontrolset\services\clipsvc\parameters
    - Value: DisableSubscription Reg_Dword Value=1

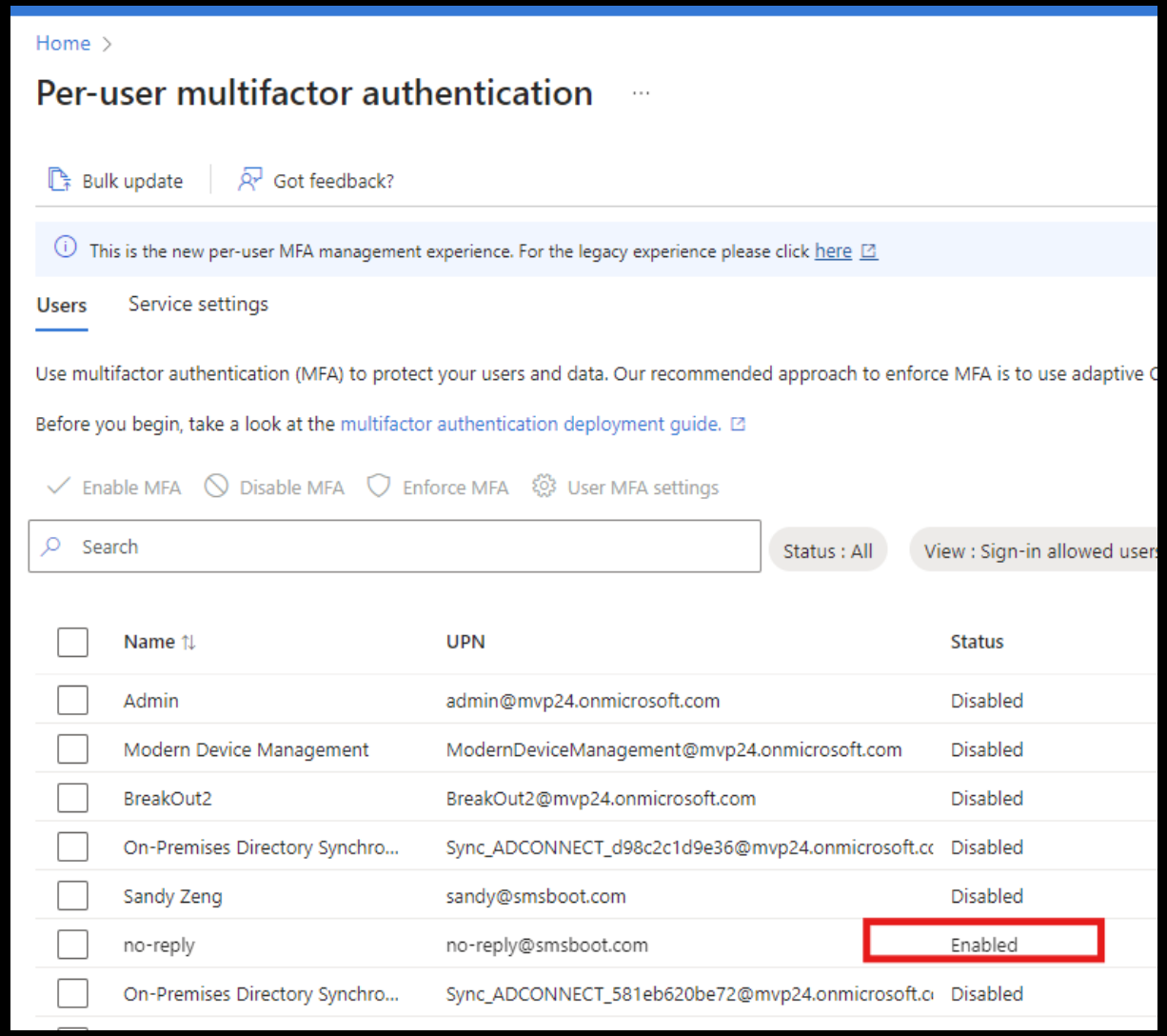
https://learn.microsoft.com/en-us/windows/deployment/windows-10-subscription-activation#existing-enterprise-deployments

Subscription based activation

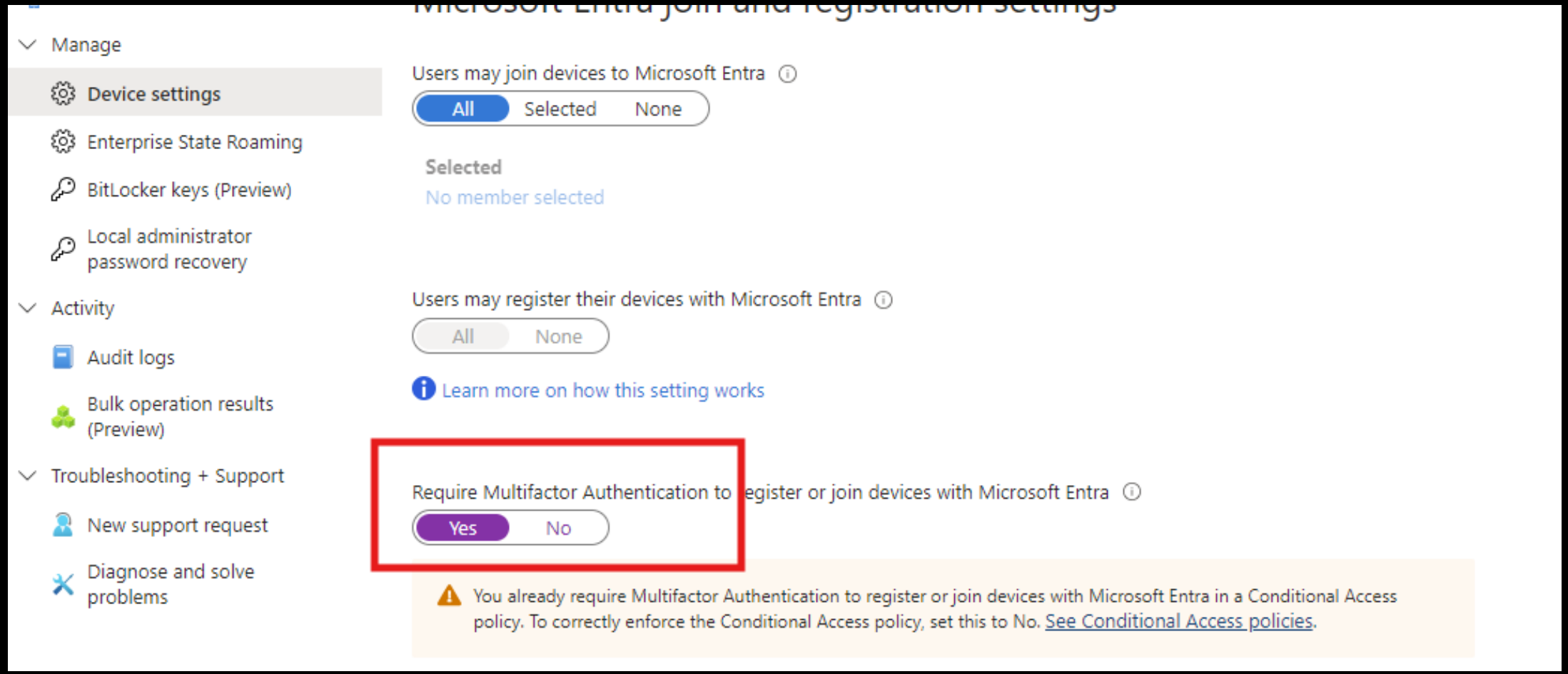
- Important: Devices will automatically “migrate” from MAK, KMS and AD-based activation to Subscription when a user with an assigned license logs on.
- Blocked by the “Work or school account problem”
- Exclude **Windows Store for business: AppID 45a330b1-b1ec-4cc1-9161-9f03992aa49f** from your Conditional Access framework.



Don't use Per-User MFA, should change to Disabled



Don't use enforce MFA here, you should change it to No, and use Conditional Access policy instead



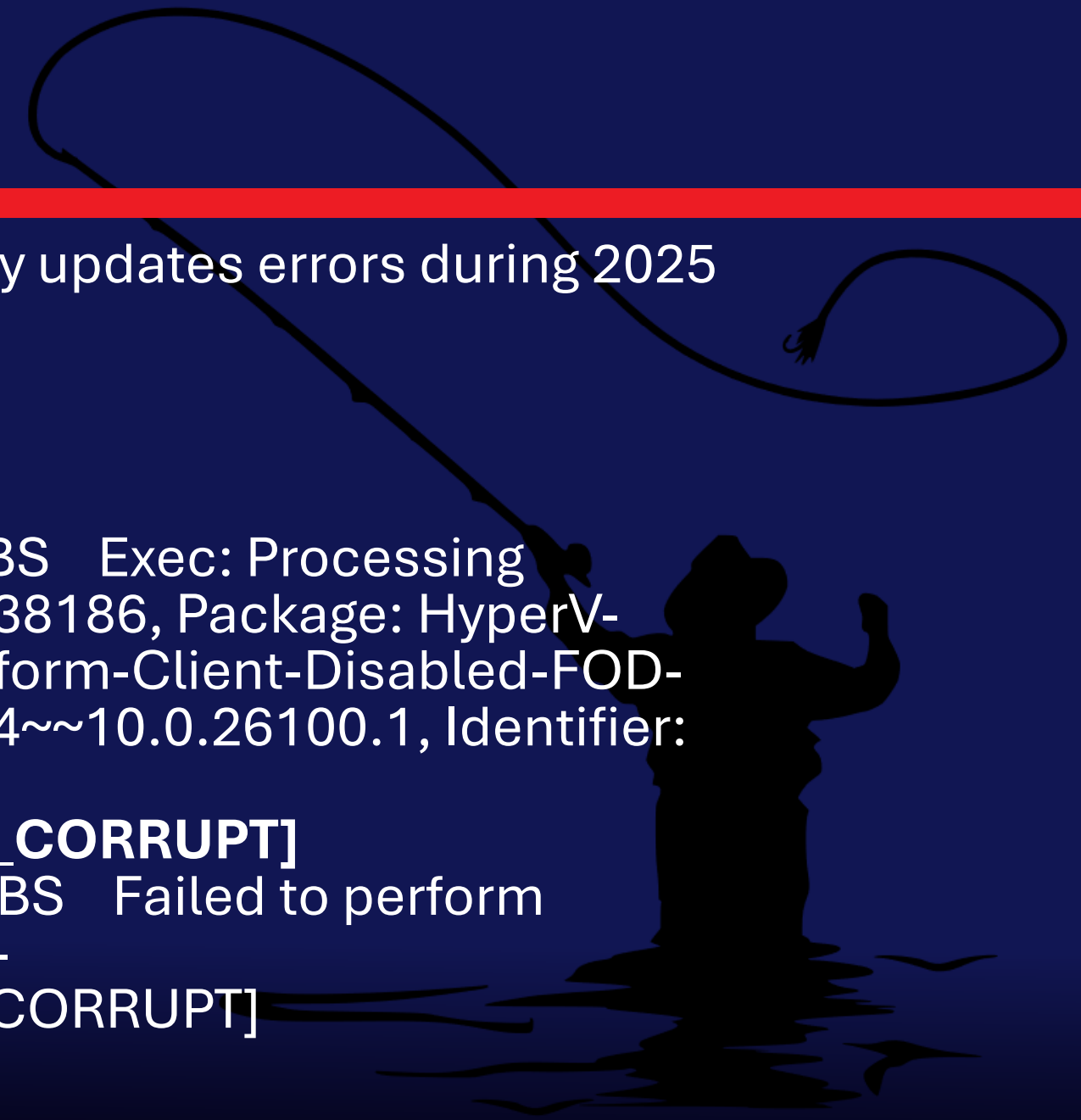
Updates

Quality update errors

- We have seen an increase in Quality updates errors during 2025

DISM.log

2025-08-06 15:02:44, Info CBS Exec: Processing complete. Session: 31196882_605738186, Package: HyperV-OptionalFeature-VirtualMachinePlatform-Client-Disabled-FOD-Package~31bf3856ad364e35~amd64~~10.0.26100.1, Identifier: KB777778 [HRESULT = 0x80073712 - **ERROR_SXS_COMPONENT_STORE_CORRUPT]**
2025-08-06 15:02:44, Error CBS Failed to perform operation. [HRESULT = 0x80073712 - ERROR_SXS_COMPONENT_STORE_CORRUPT]

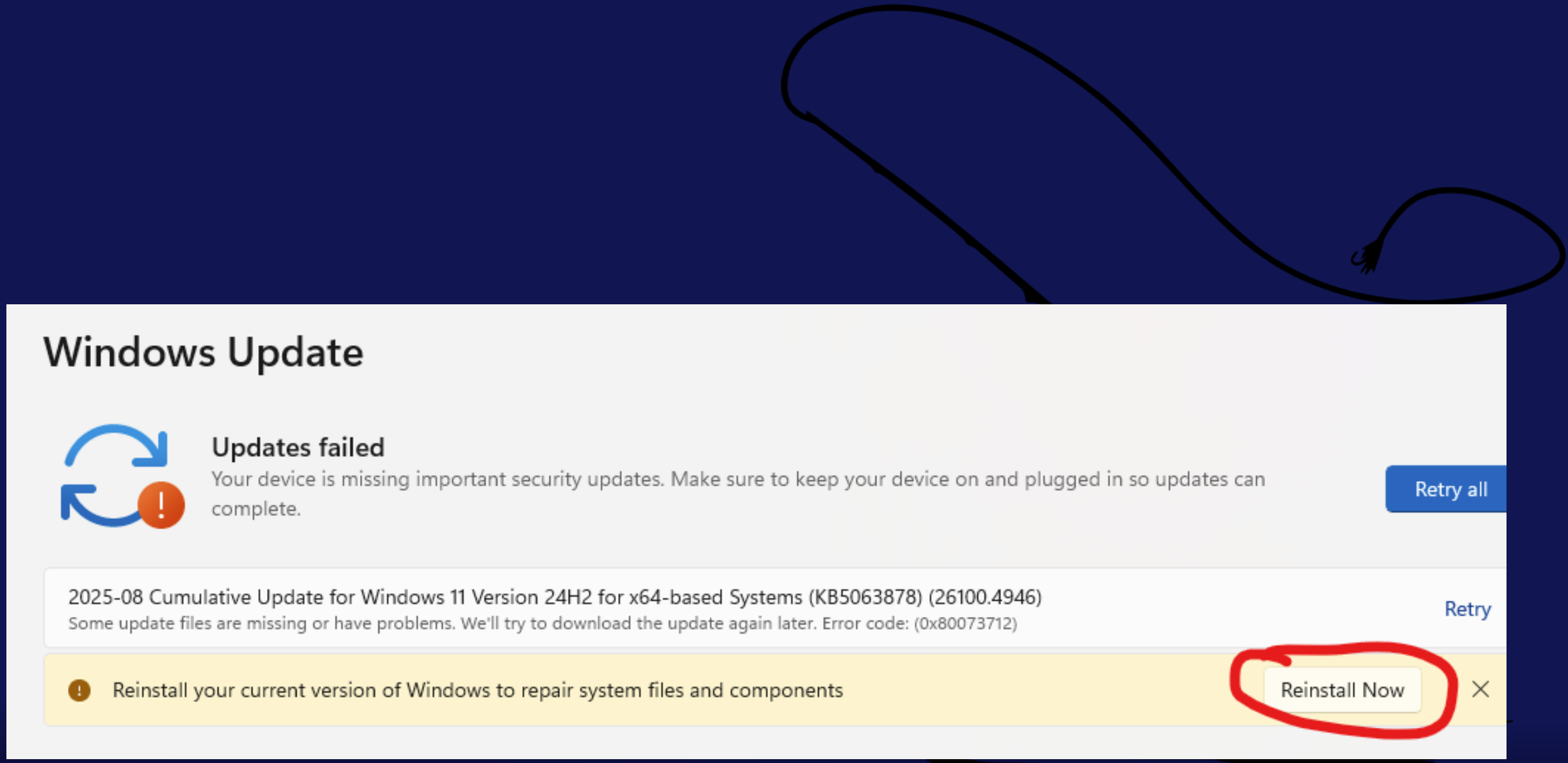


```
@2026/3/19:22:40:58.012 (F) Attempting to mark store corrupt with category [1:21 ml:22]'CorruptComponentValue'[gle=0x80004005]
t able to find \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\amd64_microsoft-windo
t find WindowsCopilot.adml in component Microsoft-Windows-Shell-GroupPolicy.Resources, version 10.0.26100.7920, arch amd64, culture [1:5]'sv-SE', nonSxS, pkt {
Moved file \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\amd64_microsoft-windows-
5) Staging WindowsInkWorkspace.adml (FD)
t able to find \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\WinSxS\amd64_microso
t able to find \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\amd64_microsoft-windo
Component Microsoft-Windows-Shell-GroupPolicy.Resources, version 10.0.26100.7920, arch amd64, culture [1:5]'fi-FI', nonSxS, pkt {1:8 b:31bf3856ad364e35} does
(F) Component directory missing. Dir: \SystemRoot\WinSxS\amd64_microsoft-windows-s..ouppolicy.resources_31bf3856ad364e35_10.0.26100.712_fi-fi_6408f8a0487d62b0
@2026/3/19:22:40:58.012 (F) onecore\base\wcp\componentstore\storelayout.cpp(2203): Error 800f0983 [Warning,Facility=15 (0x000f),Code=2435 (0x0983)] originated

@2026/3/19:22:40:58.012 (F) Attempting to mark store corrupt with category [1:21 ml:22]'CorruptComponentValue'[gle=0x80004005]
t find WindowsInkWorkspace.adml in component Microsoft-Windows-Shell-GroupPolicy.Resources, version 10.0.26100.7920, arch amd64, culture [1:5]'fi-FI', nonSxS,
Moved file \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\amd64_microsoft-windows-
24) Staging WindowsInkWorkspace.adml (FD)
t able to find \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\WinSxS\amd64_microso
t able to find \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\amd64_microsoft-windo
Component Microsoft-Windows-Shell-GroupPolicy.Resources, version 10.0.26100.7920, arch amd64, culture [1:5]'nb-NO', nonSxS, pkt {1:8 b:31bf3856ad364e35} does
(F) Component directory missing. Dir: \SystemRoot\WinSxS\amd64_microsoft-windows-s..ouppolicy.resources_31bf3856ad364e35_10.0.26100.712_nb-no_7fef3d2fdb187113
@2026/3/19:22:40:58.012 (F) onecore\base\wcp\componentstore\storelayout.cpp(2203): Error 800f0983 [Warning,Facility=15 (0x000f),Code=2435 (0x0983)] originated

@2026/3/19:22:40:58.012 (F) Attempting to mark store corrupt with category [1:21 ml:22]'CorruptComponentValue'[gle=0x80004005]
t find WindowsInkWorkspace.adml in component Microsoft-Windows-Shell-GroupPolicy.Resources, version 10.0.26100.7920, arch amd64, culture [1:5]'nb-NO', nonSxS,
Moved file \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\amd64_microsoft-windows-
50) Staging WindowsInkWorkspace.adml (FD)
t able to find \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\WinSxS\amd64_microso
Component Microsoft-Windows-Shell-GroupPolicy.Resources, version 10.0.26100.7920, arch amd64, culture [1:5]'sv-SE', nonSxS, pkt {1:8 b:31bf3856ad364e35} does
t able to find \\?\C:\Windows\SoftwareDistribution\Download\3098c1ec1634ae859359ccf1e1bd5a23\Package_for_RollupFix~~amd64~~26100.8037.1.19\amd64_microsoft-windo
(F) Component directory missing. Dir: \SystemRoot\WinSxS\amd64_microsoft-windows-s..ouppolicy.resources_31bf3856ad364e35_10.0.26100.712_sv-se_aa3e99389b6a84e3
@2026/3/19:22:40:58.012 (F) onecore\base\wcp\componentstore\storelayout.cpp(2203): Error 800f0983 [Warning,Facility=15 (0x000f),Code=2435 (0x0983)] originated
```

DEMO

Troubleshoot updates

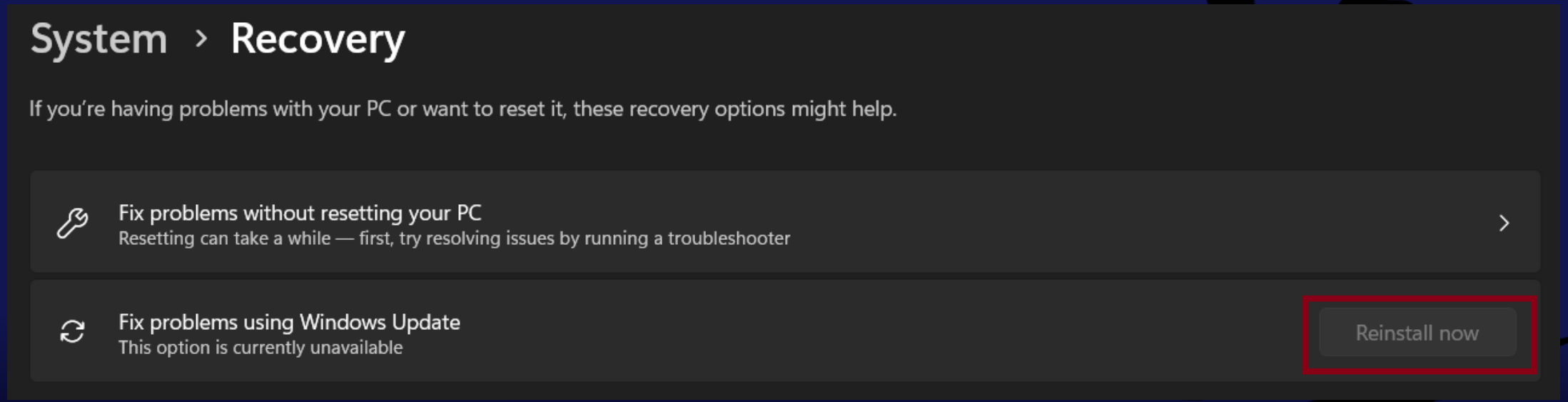
MMS


Windows Update
Updates failed
Your device is missing important security updates. Make sure to keep your device on and plugged in so updates can complete.
Retry all
2025-08 Cumulative Update for Windows 11 Version 24H2 for x64-based Systems (KB5063878) (26100.4946)
Some update files are missing or have problems. We'll try to download the update again later. Error code: (0x80073712)
Retry
Reinstall your current version of Windows to repair system files and components
Reinstall Now

Quality updates

- Solution: in-place upgrade to the same version of Windows 11!

1. Win32app with the Windows 11 installation files
2. setup.exe /auto upgrade /eula accept /DynamicUpdate disable



Fix issues by reinstalling the current version of Windows - Microsoft Support

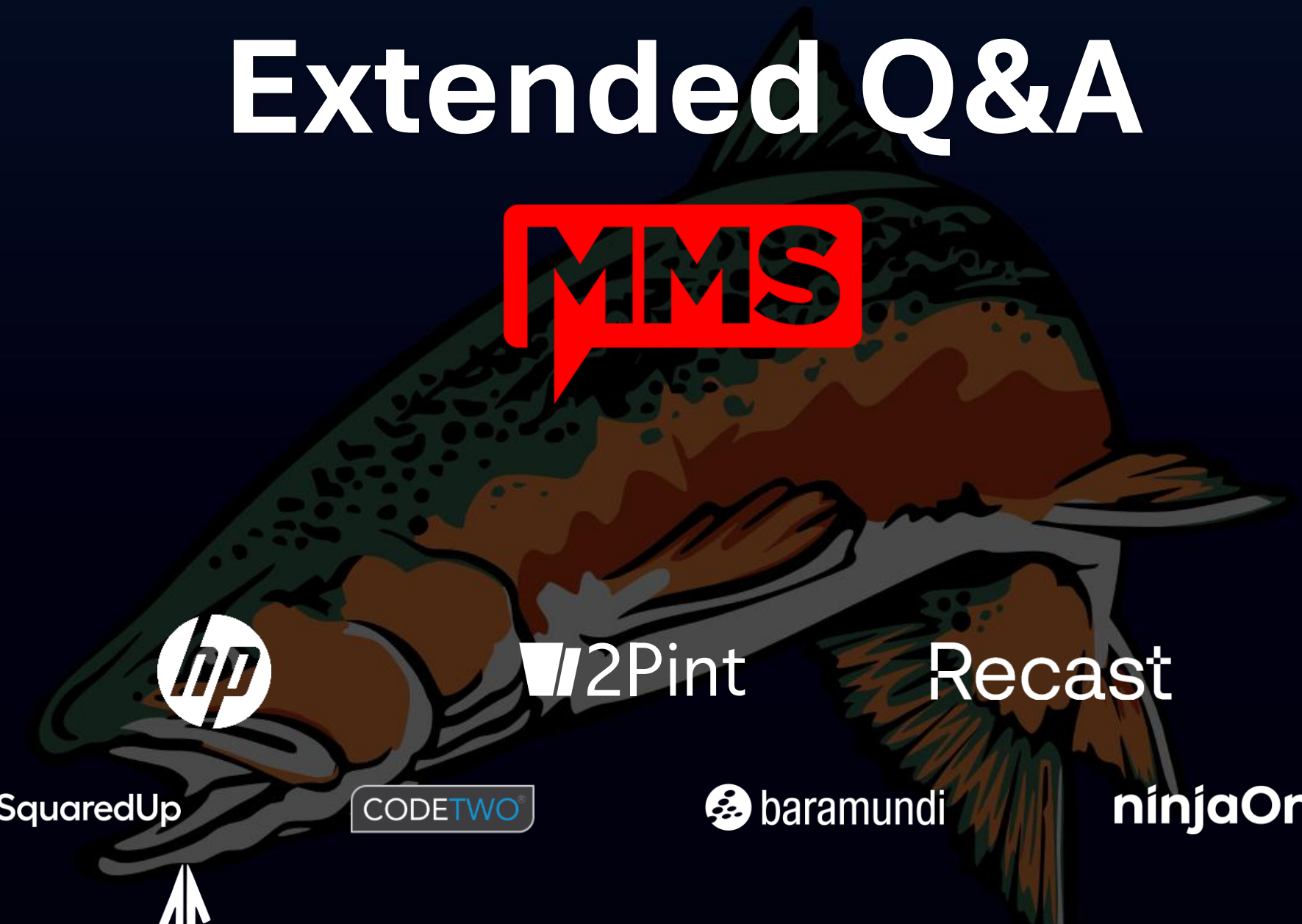
SAVE THE DATES

Oct 25-28, 2026

May 2-6, 2027

Oct 10-13, 2027

Extended Q&A



MMS

PATCH MY PC

hp

2Pint

Recast

robopack
empowered by SOFTWARE CENTRAL

SquaredUp

CODETWO

baramundi

ninjaOne

Rimo3

App Control

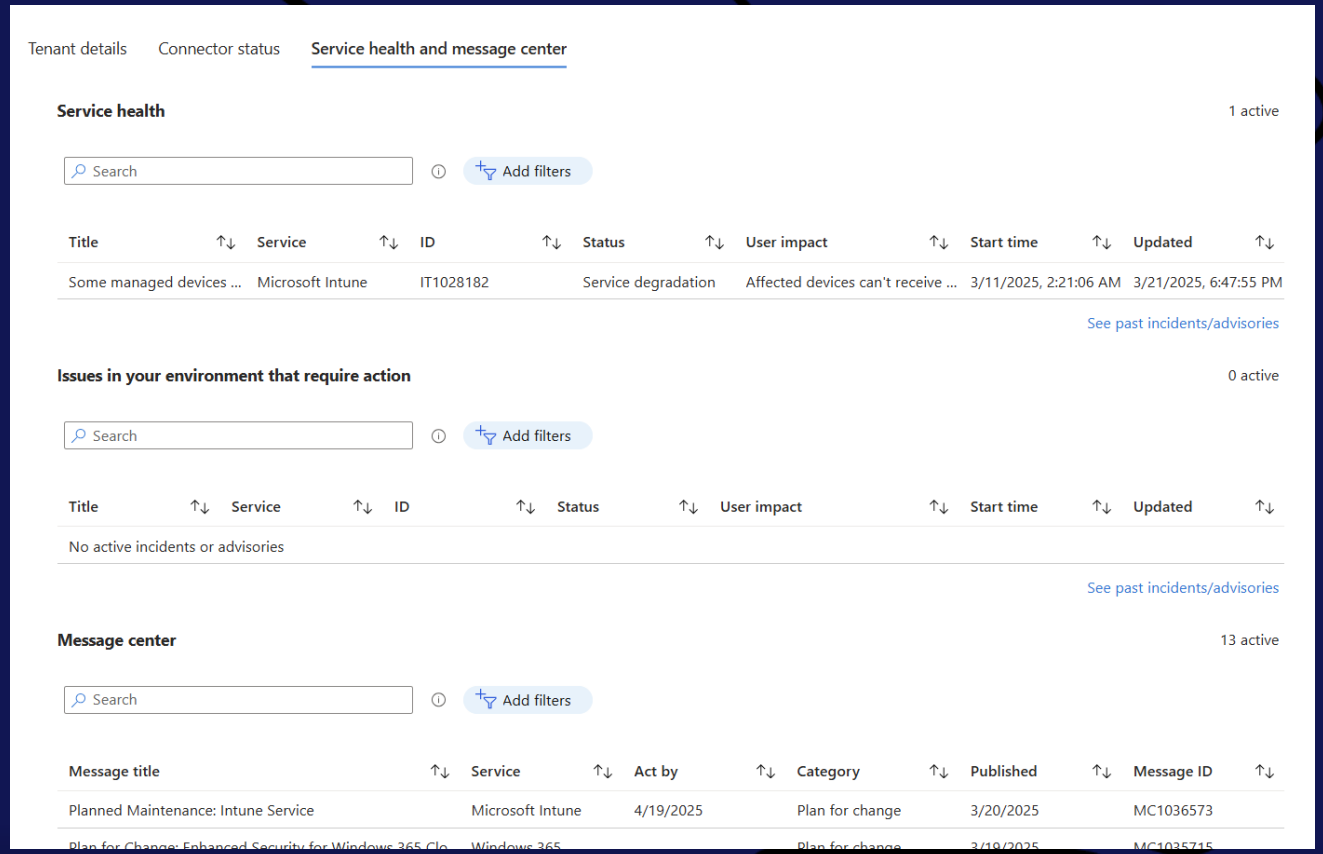
TeamViewer

numecent

aiden

When do we need to troubleshoot?

- What is the expectation? Should it actually work like this?
- Configuration is indeed wrong
- Always check Service Health and message center



Tenant details | Connector status | **Service health and message center**

Service health

1 active

Search | Add filters

Title	Service	ID	Status	User impact	Start time	Updated
Some managed devices ...	Microsoft Intune	IT1028182	Service degradation	Affected devices can't receive ...	3/11/2025, 2:21:06 AM	3/21/2025, 6:47:55 PM

See past incidents/advisories

Issues in your environment that require action

0 active

Search | Add filters

Title	Service	ID	Status	User impact	Start time	Updated
No active incidents or advisories						

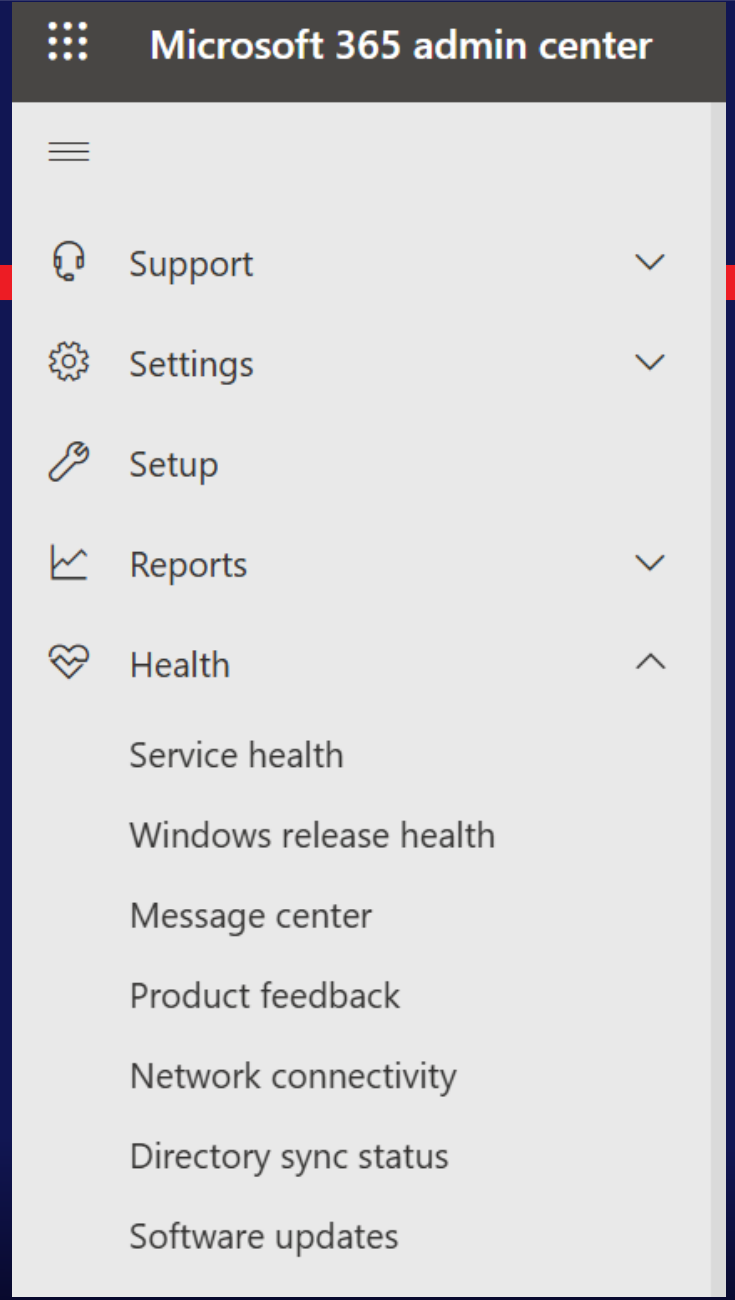
See past incidents/advisories

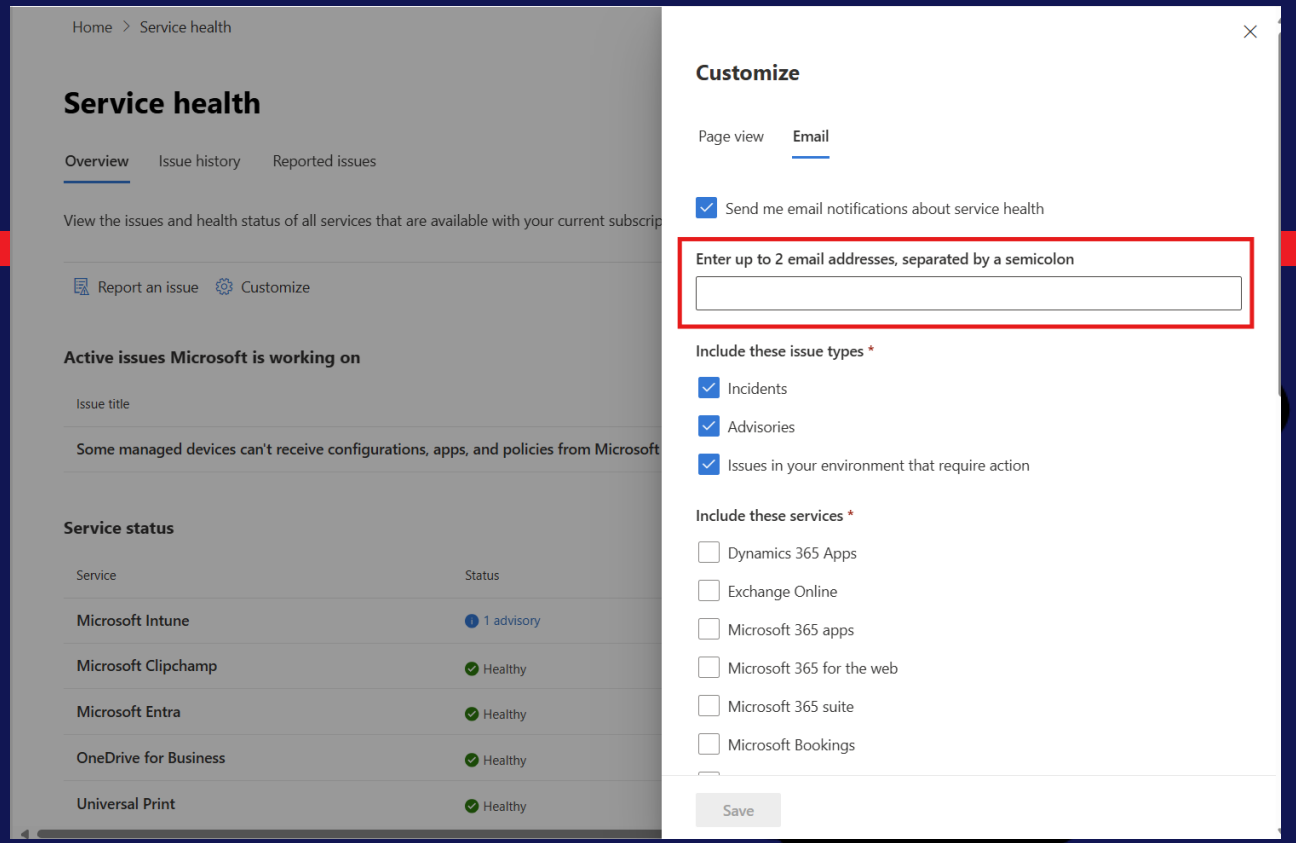
Message center

13 active

Search | Add filters

Message title	Service	Act by	Category	Published	Message ID
Planned Maintenance: Intune Service	Microsoft Intune	4/19/2025	Plan for change	3/20/2025	MC1036573
Plan for Change: Enhanced Security for Windows 365 Clo	Windows 365		Plan for change	3/19/2025	MC1035715


Microsoft 365 admin center
Support
Settings
Setup
Reports
Health
Service health
Windows release health
Message center
Product feedback
Network connectivity
Directory sync status
Software updates


Home > Service health
Service health
Overview
Issue history
Reported issues
View the issues and health status of all services that are available with your current subscrip
Report an issue
Customize
Active issues Microsoft is working on
Issue title
Some managed devices can't receive configurations, apps, and policies from Microsoft
Service status
Service
Status
Microsoft Intune
1 advisory
Microsoft Clipchamp
Healthy
Microsoft Entra
Healthy
OneDrive for Business
Healthy
Universal Print
Healthy
Customize
Page view
Email
Send me email notifications about service health
Enter up to 2 email addresses, separated by a semicolon
Include these issue types *
Incidents
Advisories
Issues in your environment that require action
Include these services *
Dynamics 365 Apps
Exchange Online
Microsoft 365 apps
Microsoft 365 for the web
Microsoft 365 suite
Microsoft Bookings
Save

Home > Service health

Service health

Overview | Issue history | Reported issues

View the issues and health status of all services that are available with your current subscrip

Report an issue | Customize

Active issues Microsoft is working on

Issue title
Some managed devices can't receive configurations, apps, and policies from Microsoft

Service status

Service	Status
Microsoft Intune	1 advisory
Microsoft Clipchamp	Healthy
Microsoft Entra	Healthy
OneDrive for Business	Healthy
Universal Print	Healthy

Customize

Page view | Email

- [x] Send me email notifications about service health

Enter up to 2 email addresses, separated by a semicolon

Include these issue types *

- [x] Incidents
- [x] Advisories
- [x] Issues in your environment that require action

Include these services *

- [ ] Dynamics 365 Apps
- [ ] Exchange Online
- [ ] Microsoft 365 apps
- [ ] Microsoft 365 for the web
- [ ] Microsoft 365 suite
- [ ] Microsoft Bookings

Save

Windows release health

May 10, 2025, 9:00 PM GI

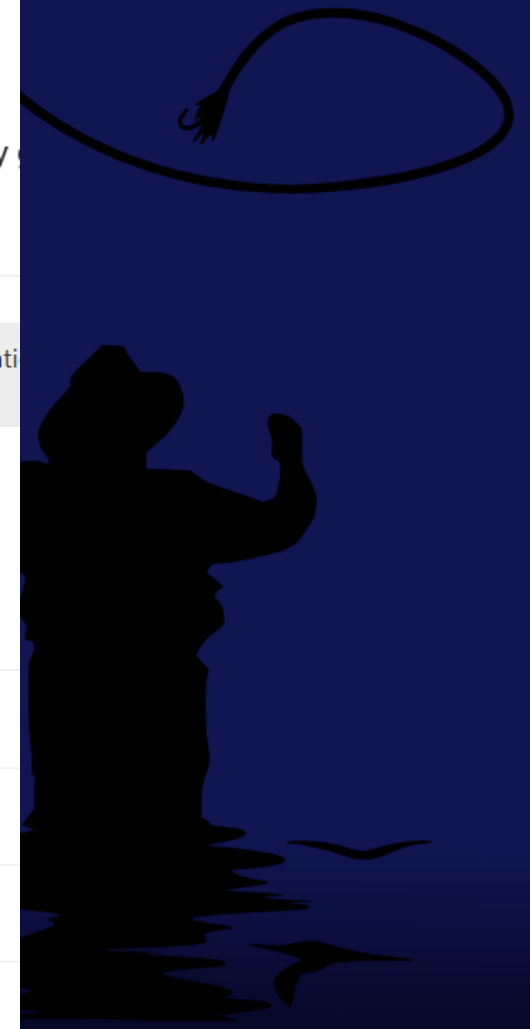
All versions | Known Issues | History

Find information about known issues for currently supported versions of the Windows operating system. To programmatically this known issue information, use the Windows Updates API in Microsoft Graph

We are now offering Windows release health known issue email notifications. Please select the Preferences icon to customize your email notificati settings.

Preferences

Version ↓	Active and recently resolved	History
Windows 11, version 24H2	View	View
Windows 11, version 23H2	View	View
Windows 11, version 22H2	View	View
Windows 11, version 21H2	No Issues	No Issues



Logon might fail with Windows Hello in Key Trust mode...

WR Windows release health <winhealth-noreply@microsoft.com>
To yinghua.ts@hotmail.com

Reply

If there are problems with how this message is displayed, click here to view it in a web browser.

Microsoft

Logon might fail with Windows Hello in Key Trust mode and log Kerberos Events

Status

Confirmed

Affected platforms

Server Versions	Message ID	Originating KB	Resolved KB
Windows Server 2025	WI1068853	KB5055523	-
Windows Server 2022	WI1068854	KB5055526	-
Windows Server 2019	WI1068855	KB5055519	-

Home > Message center

Message center

Each message gives you a high-level overview of a planned change and how it may affect y
users, and links out to more detailed information to help you prepare. Learn more about m
changes

Inbox Archive

Preferences Planner syncing

Filters: Service Tag Message state Relevance Status for your org

	Message title	
☐	**The March 2025 Windows non-security preview update is now available for some supported versions of Windows**	⋮
☐	**Planned Maintenance: Group and filter membership rule update**	⋮
☐	**(Updated) Final Reminder: Upgrade to the latest version of Microsoft Entra Connect Sync by April 7, 2025 to avoid impact**	⋮
☐	**Planned Maintenance: Intune Service**	⋮
☐	**(Updated) Device Management Changes for Microsoft Teams Android Devices (Intune AOSP migration)**	⋮

Preferences

- ☑ Primary e-mail address: (admin@mvp24.onmicrosoft.com)
- ☑ Other e-mail addresses

Enter up to two email addresses, separated by a semicolon.

Choose which emails you want to get

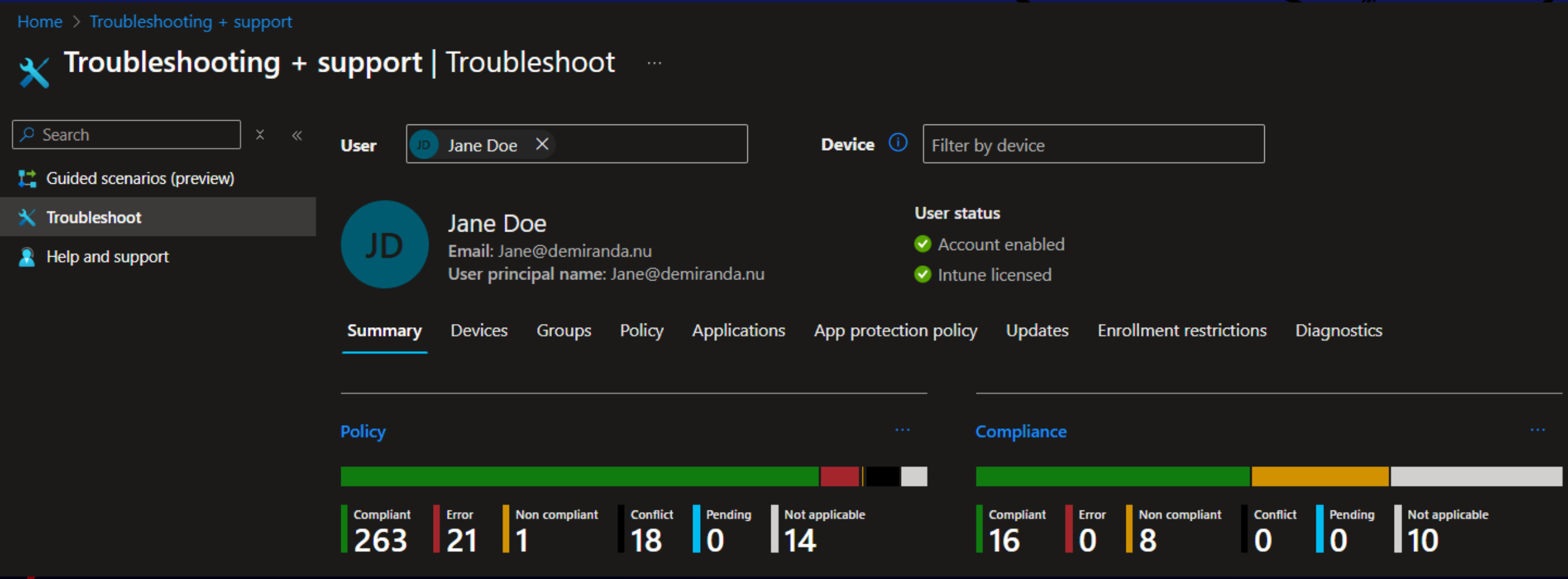
We may occasionally notify you about important updates that aren't covered by these settings.

- ☑ Send me emails for major updates
- ☑ Send me emails for data privacy messages
- ☑ Send me a weekly digest about services I select
  - ☐ Basic Mobility & Security
  - ☐ Dynamics 365 Apps
  - ☐ Exchange Online
  - ☑ General announcement
  - ☐ Microsoft 365 Apps
  - ☐ Microsoft 365 for the web
  - ☐ Microsoft 365 suite
  - ☐ Microsoft Bookings
  - ☐ Microsoft Clipchamp

Save

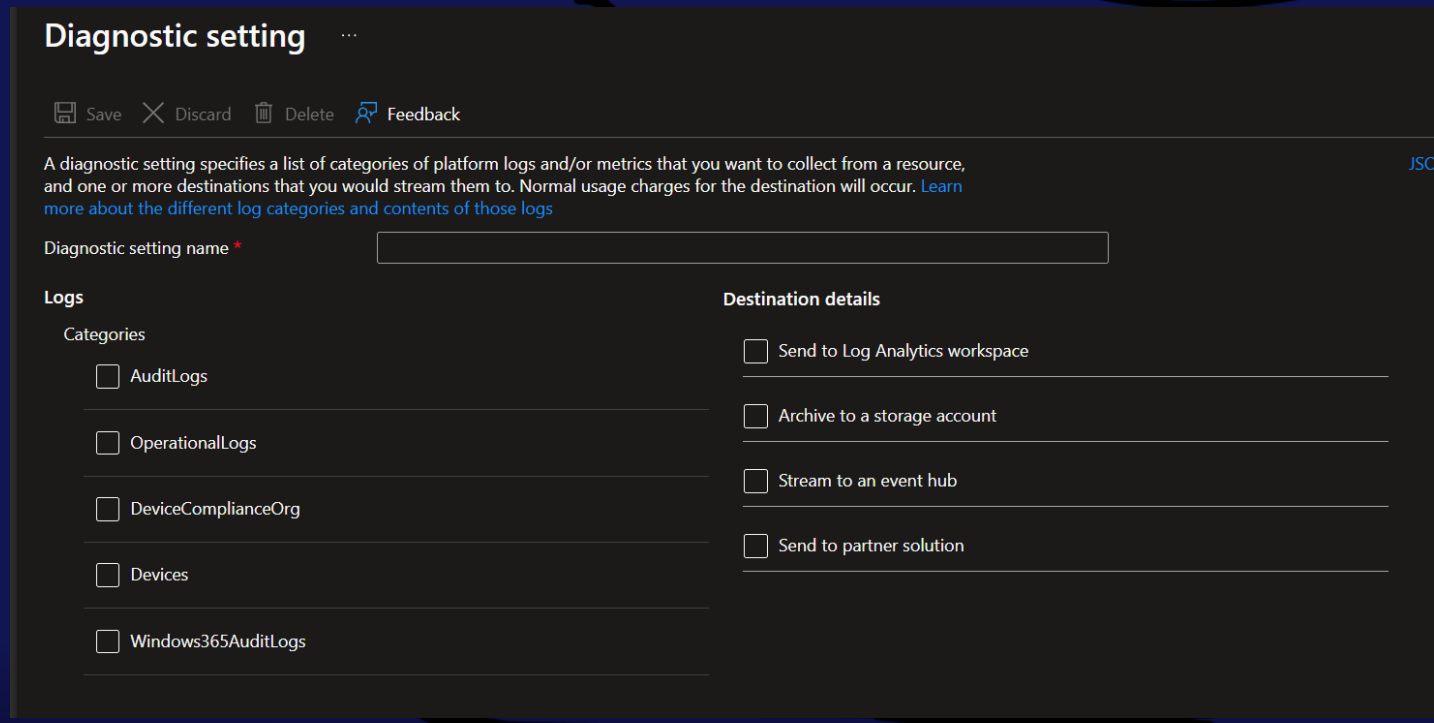
Intune troubleshooting

- Aka.ms/Intunetroubleshooting

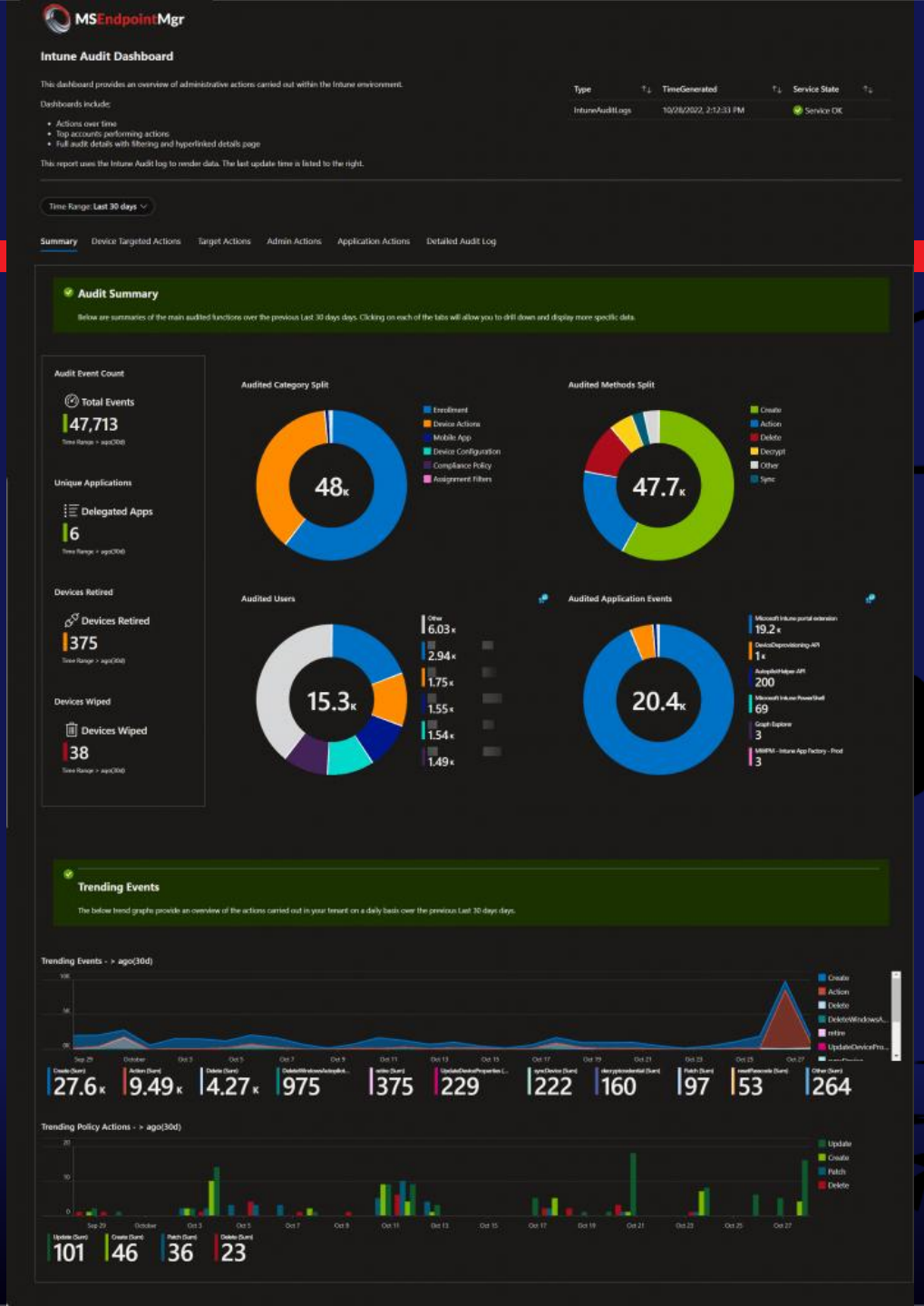


Who made a change?

- Audit Logs for the win!
- Send diagnostic settings to:
  - Log Analytics
  - Storage account
  - Stream to event hub
  - Partner solution



- https://msendpointmgr.com/2022/10/28/msendpointmgr-intune-audit-dashboard/



Test device registration connectivity

```
==========================================================
        Test Device Registration Connectivity
==========================================================

Test-DeviceRegConnectivity log file has been created.

Testing Internet Connectivity...
Checking winHTTP proxy settings...
      Access Type : DIRECT

Checking winInet proxy settings...
    Proxy Enabled : No
Proxy Server List :
Proxy Bypass List :
    AutoConfigURL :

Testing Device Registration Endpoints...
Testing connection via winInet...

Connection to login.microsoftonline.com ............... Succeeded.
Connection to device.login.microsoftonline.com ......  Succeeded.
Connection to enterpriseregistration.windows.net ..... Succeeded.

Test passed: Device is able to communicate with MS endpoints successfully under system context


Script completed successfully.
```

Test Device Registration Connectivity - Code Samples | Microsoft Learn

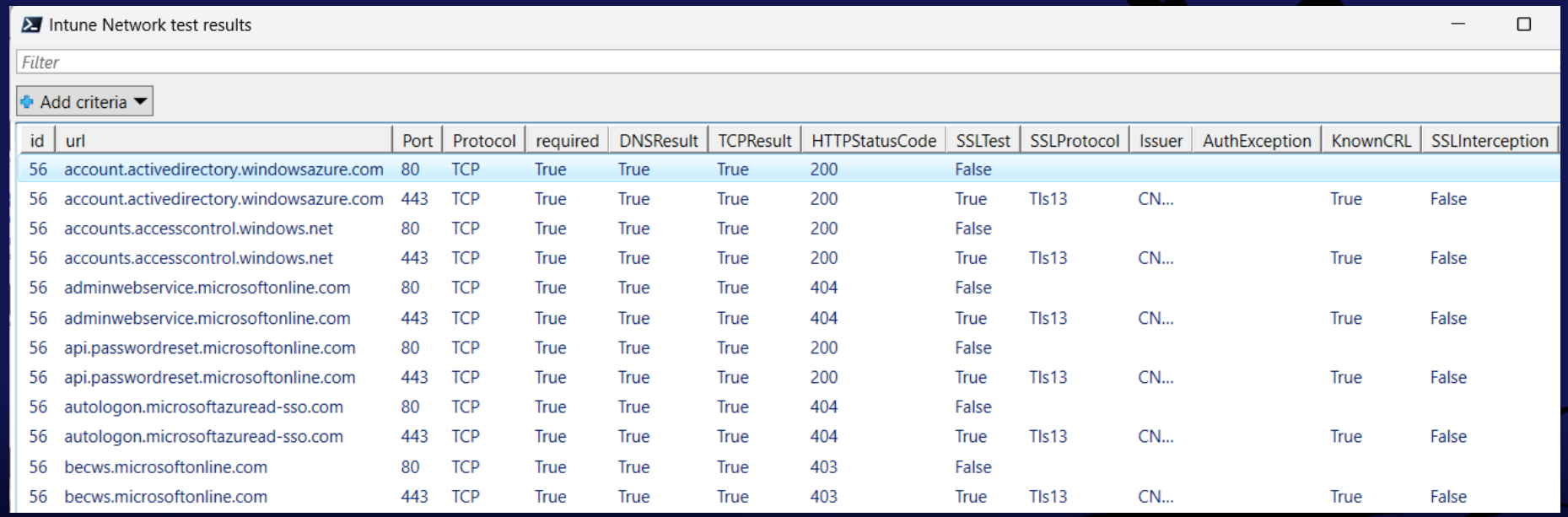
Troubleshoot registration

```
============================================================
        Device Registration Troubleshooter Tool
============================================================

Please provide any feedback, comment or suggestion

Enter (1) to troubleshoot Microsoft Entra Register

Enter (2) to troubleshoot Microsoft Entra join device

Enter (3) to troubleshoot Microsoft Entra hybrid join

Enter (4) to verify Service Connection Point (SCP)

Enter (5) to verify the health status of the device

Enter (6) to Verify Primary Refresh Token (PRT)

Enter (7) to collect the logs

Enter (Q) to Quit

DSRegTool log file has been created.


Please make a selection, and press Enter:
```

https://learn.microsoft.com/en-us/samples/azure-samples/dsregtool/dsregtool/

Intune Network Requirements

- By Martin Himken (more comprehensive than MS..)
- Test network connectivity required by Intune, Autopilot, Device registration, TPM and more..
- Comprehensive tests



id	url	Port	Protocol	required	DNSResult	TCPResult	HTTPStatusCode	SSLTest	SSLProtocol	Issuer	AuthException	KnownCRL	SSLInterception
56	account.activedirectory.windowsazure.com	80	TCP	True	True	True	200	False					
56	account.activedirectory.windowsazure.com	443	TCP	True	True	True	200	True	Tls13	CN...		True	False
56	accounts.accesscontrol.windows.net	80	TCP	True	True	True	200	False					
56	accounts.accesscontrol.windows.net	443	TCP	True	True	True	200	True	Tls13	CN...		True	False
56	adminwebservice.microsoftonline.com	80	TCP	True	True	True	404	False					
56	adminwebservice.microsoftonline.com	443	TCP	True	True	True	404	True	Tls13	CN...		True	False
56	api.passwordreset.microsoftonline.com	80	TCP	True	True	True	200	False					
56	api.passwordreset.microsoftonline.com	443	TCP	True	True	True	200	True	Tls13	CN...		True	False
56	autologon.microsoftazuread-sso.com	80	TCP	True	True	True	404	False					
56	autologon.microsoftazuread-sso.com	443	TCP	True	True	True	404	True	Tls13	CN...		True	False
56	becws.microsoftonline.com	80	TCP	True	True	True	403	False					
56	becws.microsoftonline.com	443	TCP	True	True	True	403	True	Tls13	CN...		True	False

Intune Network Requirements - everything I learned – mAnimA.de

SSL traffic inspection = BAD

- Must exclude necessary endpoints
- Example on results

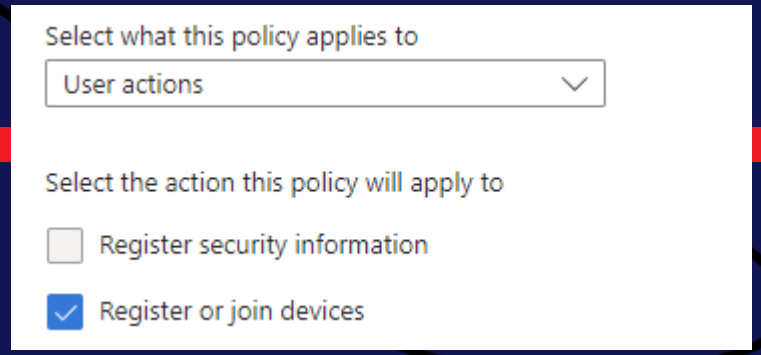
> **Note**
>
> SSL traffic inspection is not supported for 'manage.microsoft.com', 'dm.microsoft.com', or the Device Health Attestation (DHA) endpoints listed in the compliance section.

Device name	Managed by	Ownership	Compliance	OS	OS version
5f256f7b-9e37-4824-b5...	Co-managed	Unknown	See ConfigMgr	Windows	0.0.0.0
7ededf06-8c41-4d91-90...	Co-managed	Unknown	See ConfigMgr	Windows	0.0.0.0

Network endpoints for Microsoft Intune | Microsoft Learn

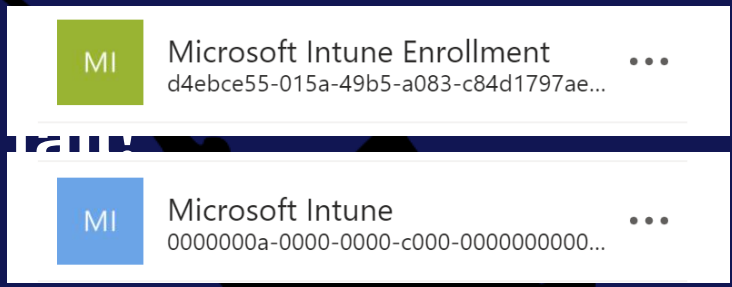
Your new network admin

Conditional Access



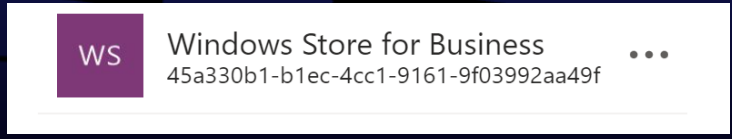
Conditional Access done correctly is a win!

Conditional Access **done incorrectly is an EPIC fail!**

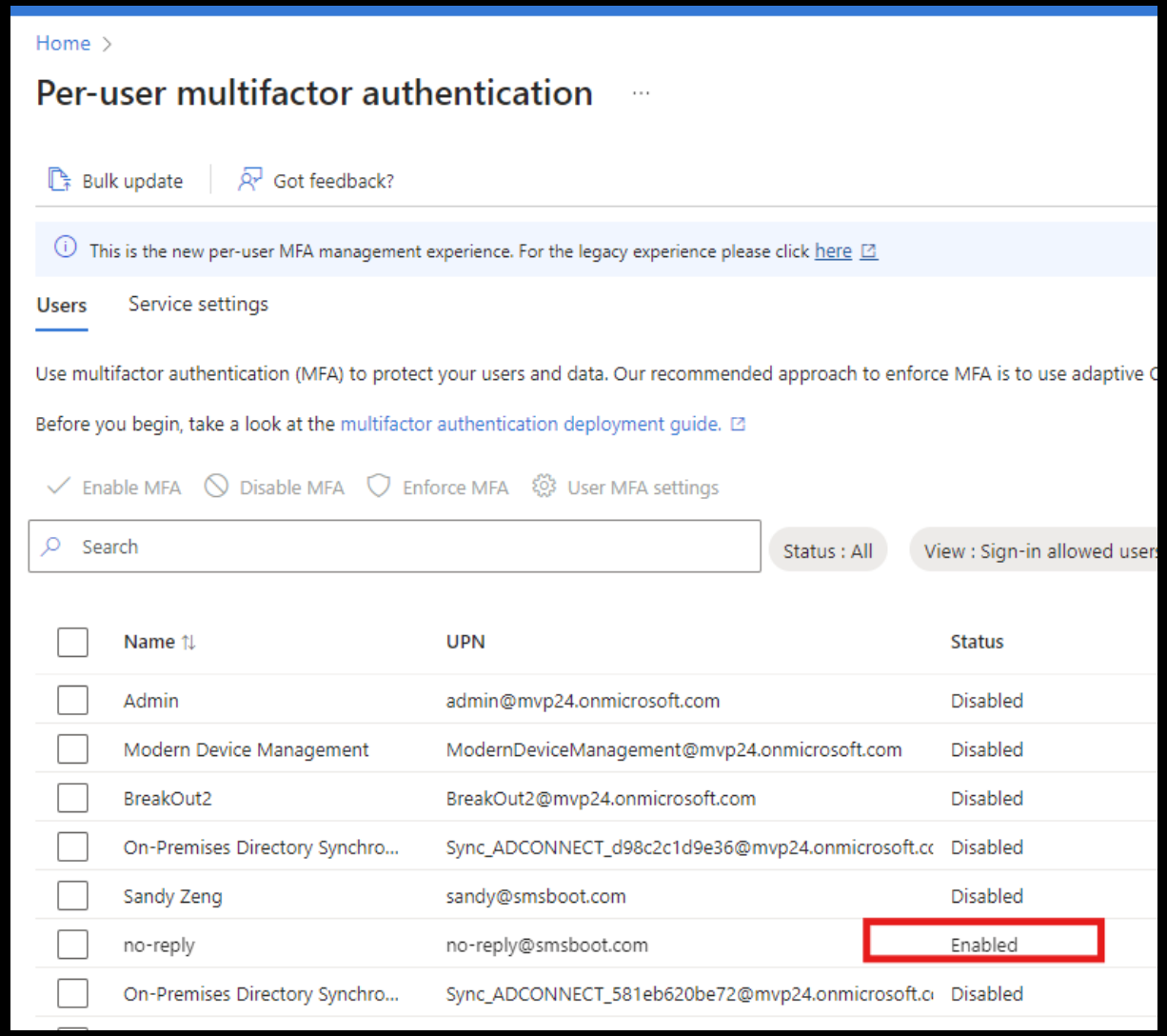


Why so many prompts during Autopilot?

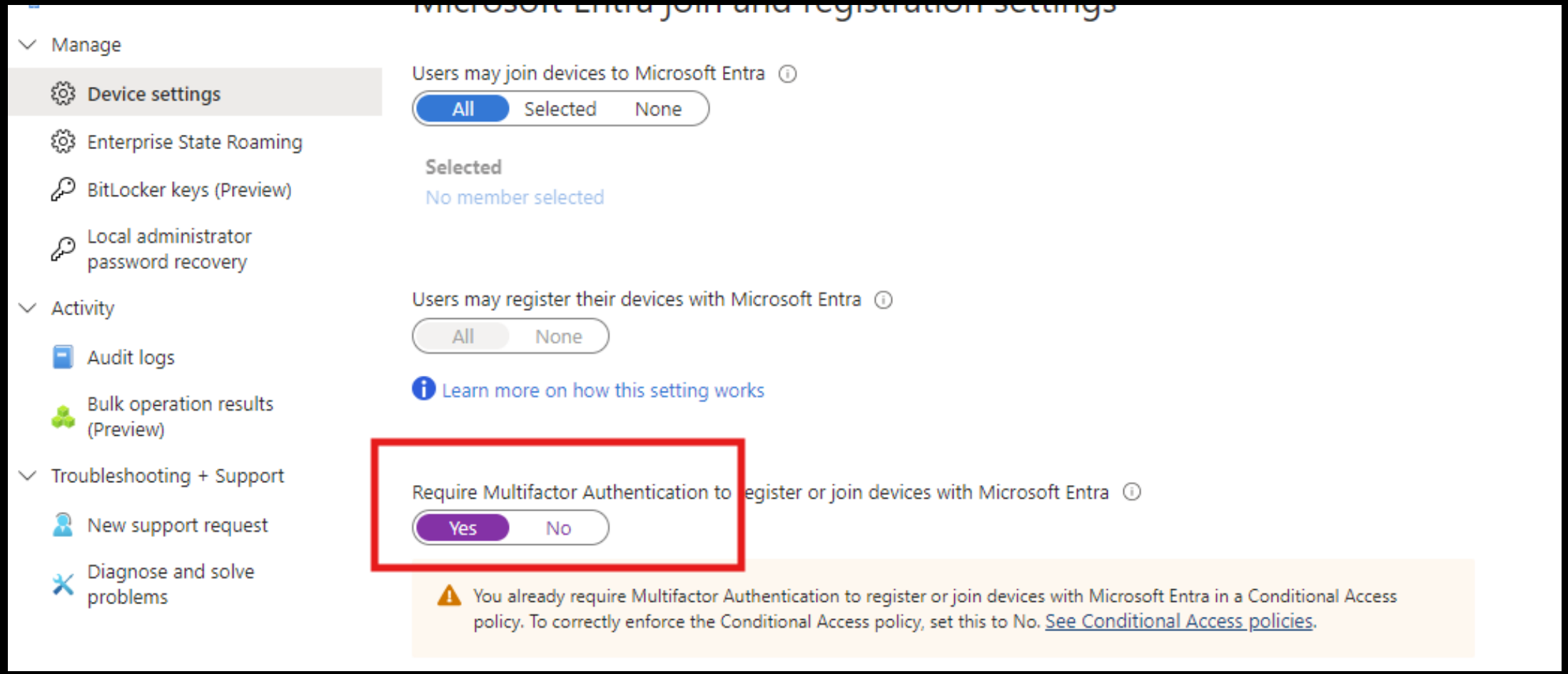
Pay attention to the apps you are targeting



Don't use Per-User MFA, should change to Disabled



Don't use enforce MFA here, you should change it to No, and use Conditional Access policy instead



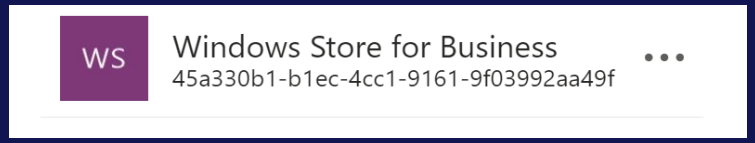
Subscription Based activation

- Easiest way of upgrading to Enterprise from pro
- Re-activated every 30 days
- Each user can activate 5 devices
- Activating shared devices
  - Either all users must have a Windows e3 license assigned
  - Shared devices must be excluded and activated in a different way (KMS,MAK)
    - HKEY_Local_Machine\System\Currentcontrolset\services\clipsvc\parameters
    - Value: DisableSubscription Reg_Dword Value=1

https://learn.microsoft.com/en-us/windows/deployment/windows-10-subscription-activation#existing-enterprise-deployments

Subscription based activation

- Important: Devices will automatically “migrate” from MAK, KMS and AD-based activation to Subscription when a user with an assigned license logs on.
- Blocked by the “Work or school account problem”
- Exclude **Windows Store for business: AppID 45a330b1-b1ec-4cc1-9161-9f03992aa49f** from your Conditional Access framework.



More than Intune policies

Config.office.com
(M365 Apps policy)

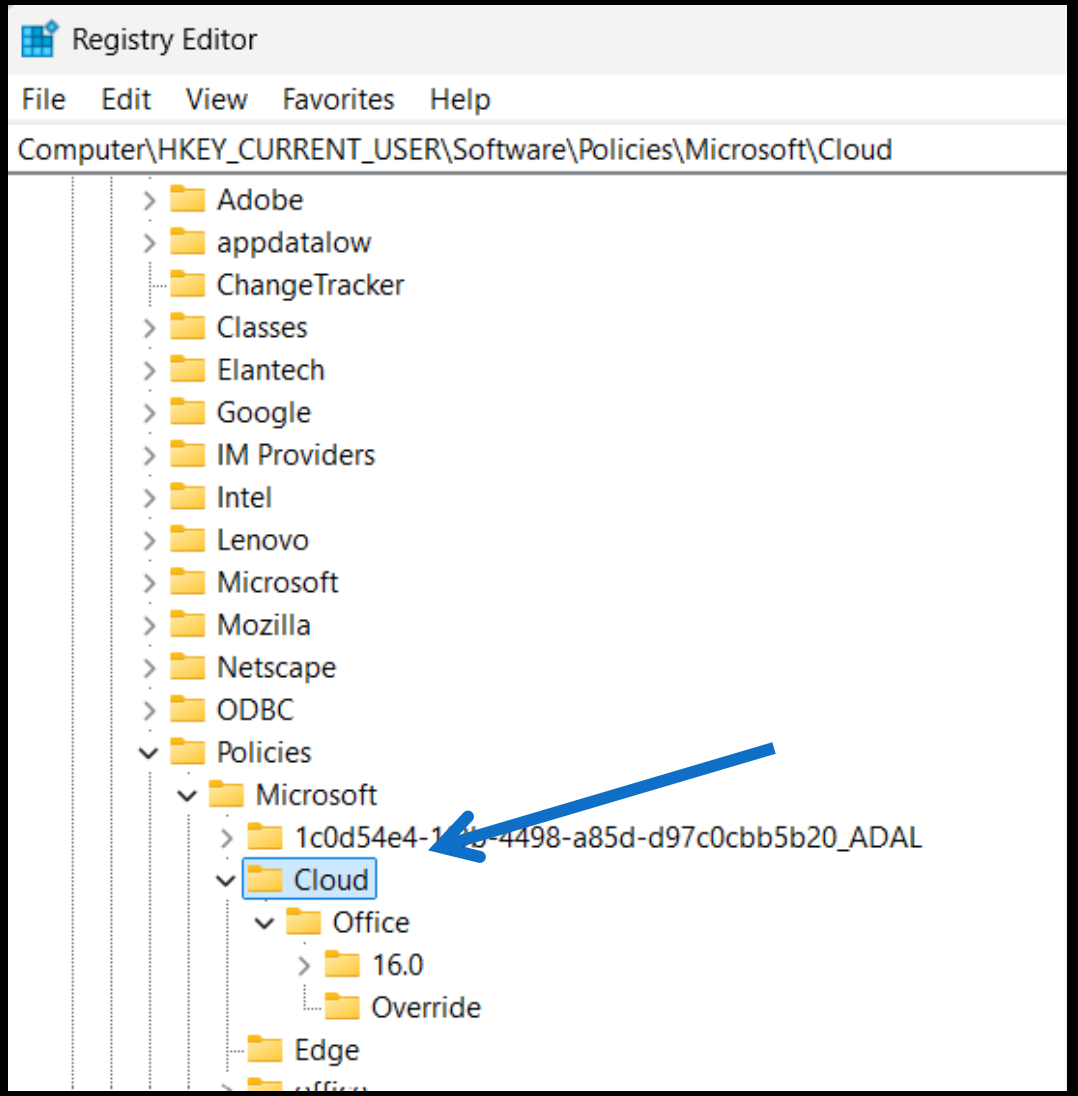
Intune

M365 Admin Center
(Edge policy)

Which policy wins?

M365 cloud policy https://config.office.com/

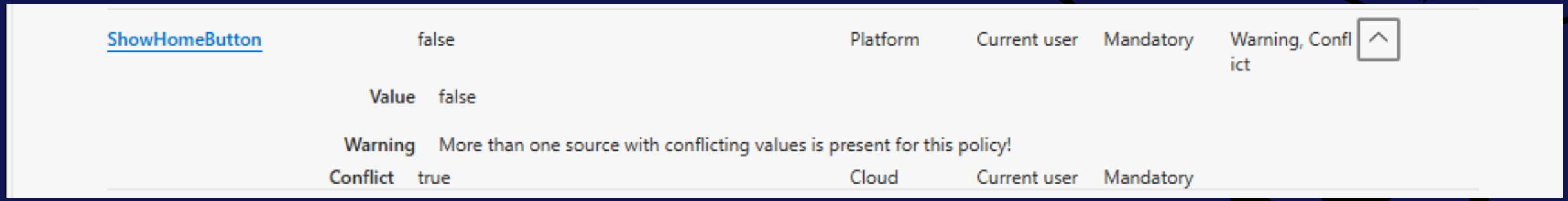
- Let you enforce policy settings for Microsoft 365 Apps for enterprise on a user's device, even if the device isn't domain joined or otherwise managed
- Policies from Cloud Policy are applied only when the Office app is restarted
- Cloud Policy includes many of the same **user-based** policy settings that are available in Group Policy
- Policy settings implemented by using Cloud Policy **take precedence** over Group Policy on Windows Server, and taking precedence over preference settings or locally applied policy settings



M365 cloud policy vs. Intune policies

- Our test result:
  - It get messy when using Intune configure **computer-based** settings conflict with Cloud policy **user-based** settings. Unexpected result
  - Intune **user-based** settings vs Cloud policy **user-based** settings: **Cloud Policy wins.**
  - Don’t do conflict, manage your settings from one place!!!

Edge Management Service vs. Intune

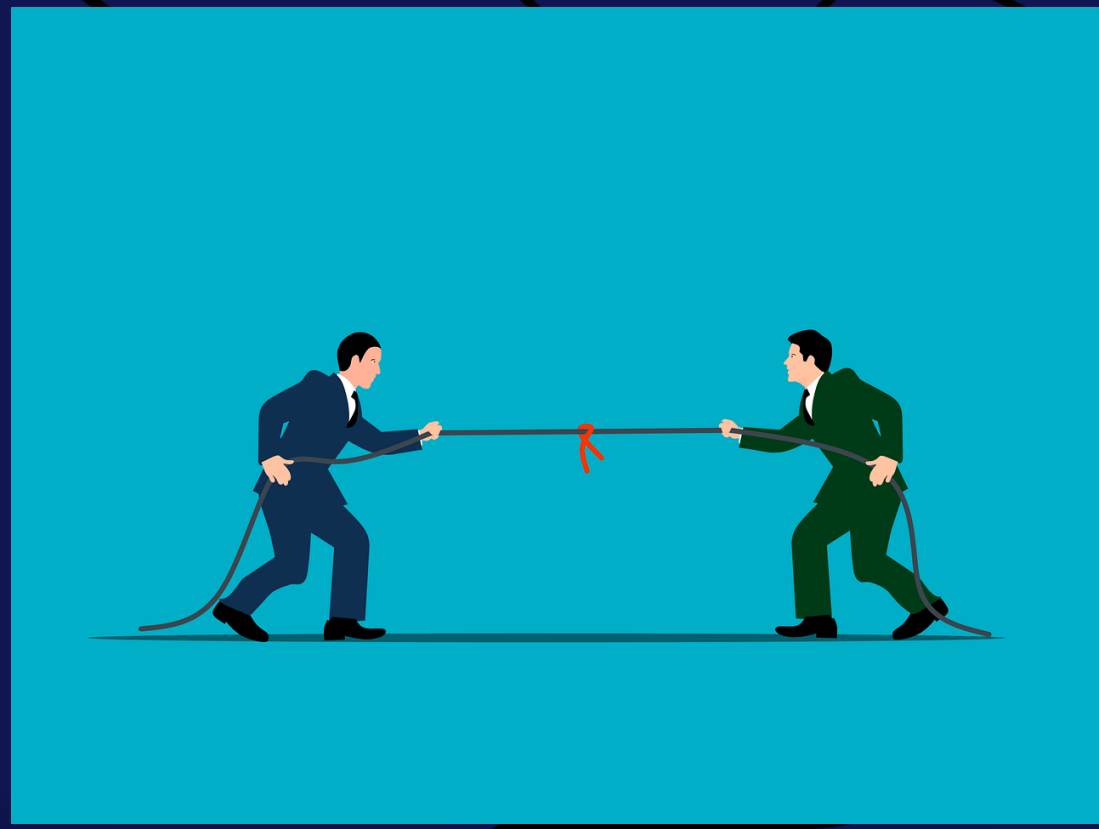


Two policies can be used to change this:

- EdgeManagementPolicyOverridesPlatformPolicy
- EdgeManagementUserPolicyOverridesCloudMachinePolicy

Policy/Profile Conflicts

- Intune policies are compiled server side!
- Compliance policy settings always have precedence over configuration profile settings.
- Compliance policy conflicts: The most restrictive compliance policy setting applies.
- Conflict is shown in Intune. Manually resolve these conflicts.
- Some conflicts are shown as error depending on setting type.



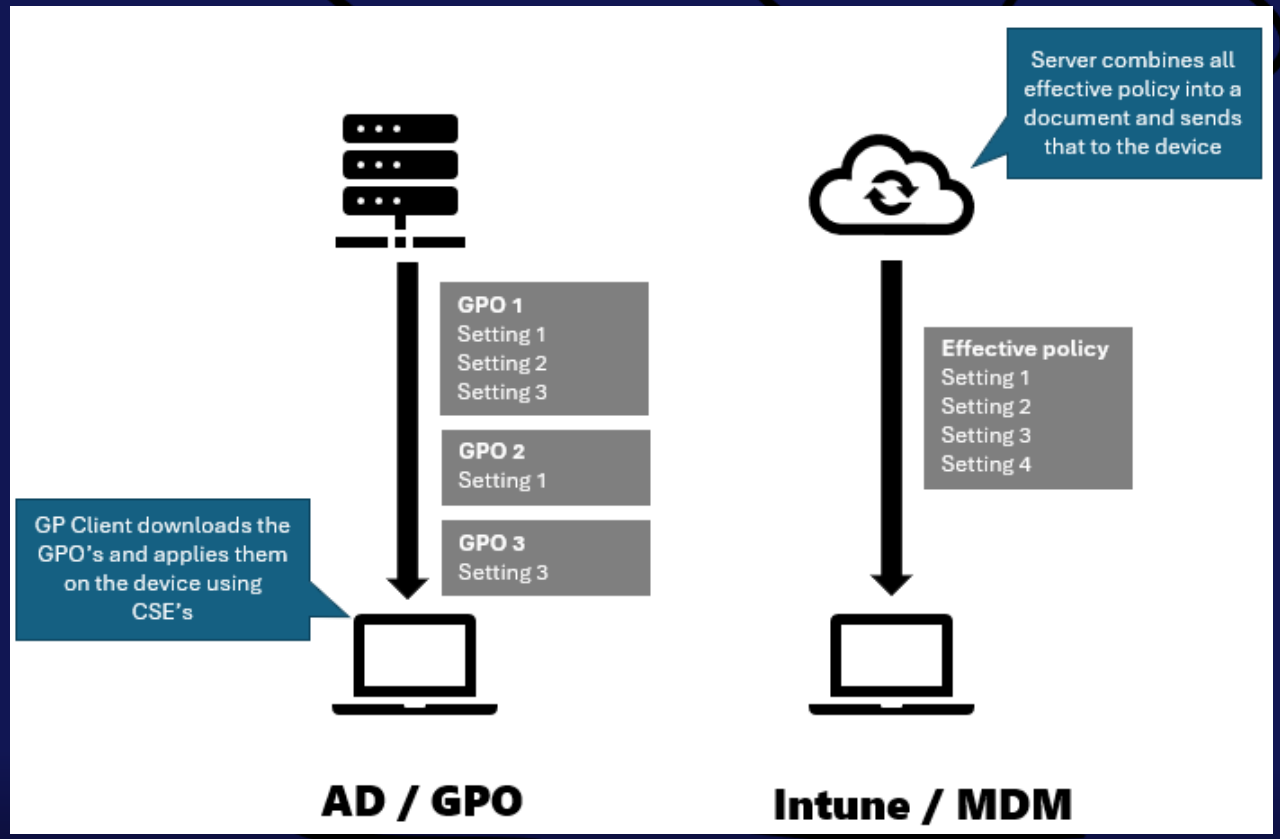
Intune policy

Intune policies are processed in the cloud

Group Policies are processed on the client

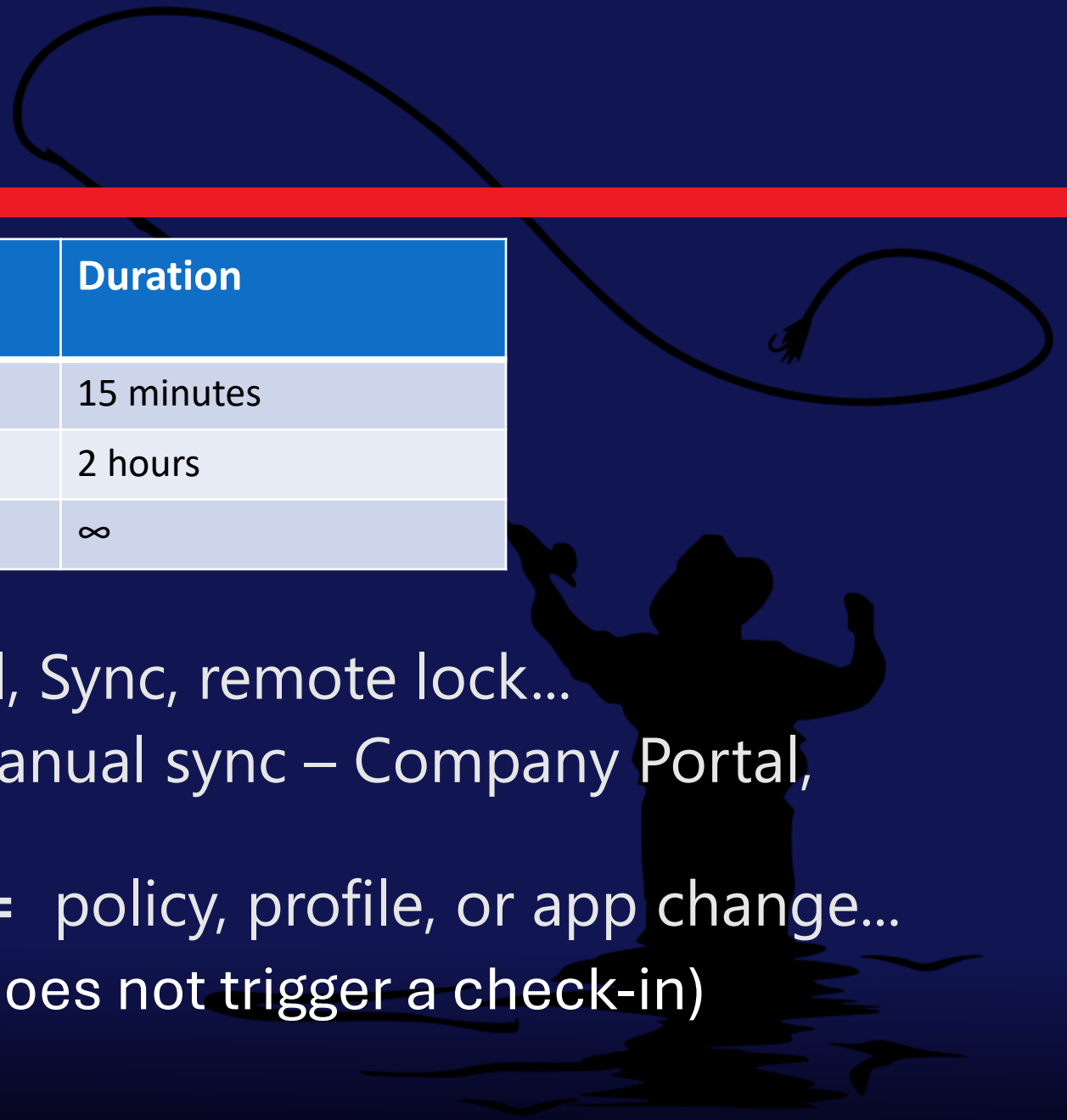
- Local Policy
- Site
- Domain
- OU

- We can have different values at different levels to handle exclusions
- That is not possible with Intune Policies



Policy - Sync

Scheduled check-in	Interval	Duration
New enrollment	3 minutes	15 minutes
New enrollment	15 minutes	2 hours
	8 hours	∞



- **Admin check-in** = Intune Portal, Sync, remote lock…
- **End user driven check-ins** = Manual sync – Company Portal, settings
- **Notification-based check-ins** = policy, profile, or app change…

(available apps deployed to user does not trigger a check-in)

Timing when removing a user policy

- Removing a user from an Entra ID group with a policy assigned to it.

- A profile applies to a user group. Later, a user is removed from the group. For the settings to be removed from that user, it can take up to 7 hours or more for:
  - The profile to be removed from the policy assignment in the Intune admin center
  - The device to sync with the Intune object using the platform-specific policy refresh cycle (in this article)

Questions with policies and profiles in Microsoft Intune | Microsoft Learn

Removing a policy

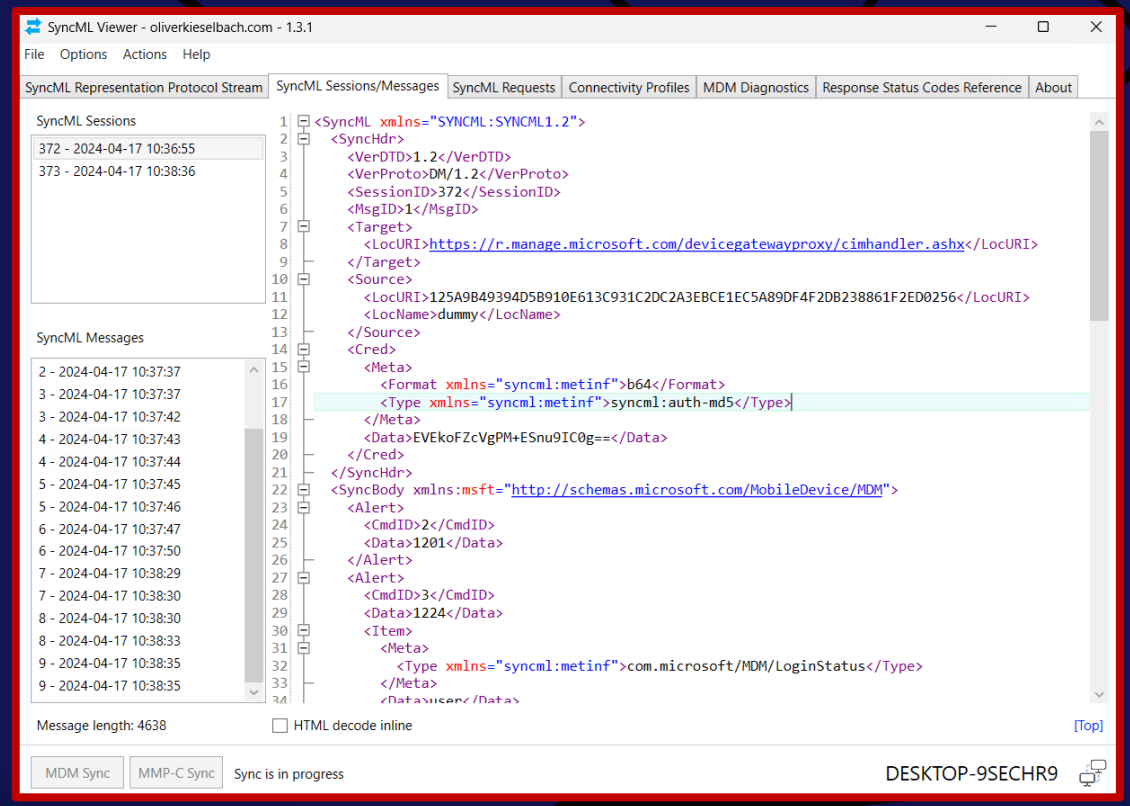
- Does not necessarily change the value back, depends on the CSP

> **Note**
>
> When a profile is removed or no longer assigned to a device, different things can happen, depending on the settings in the profile. The settings are based on CSPs, and each CSP can handle the profile removal differently. For example, a setting might keep the existing value, and not revert back to a default value. The behavior is controlled by each CSP in the operating system. For a list of Windows CSPs, see **configuration service provider (CSP) reference**.
>
> To change a setting to a different value, create a new profile, configure the setting to **Not configured**, and assign the profile. Once applied to the device, users should have control to change the setting to their preferred value.
>
> When configuring these settings, we suggest deploying to a pilot group. For more Intune rollout advice, see **create a rollout plan**.

https://learn.microsoft.com/en-us/mem/intune/configuration/device-profile-assign

SyncMLViewer

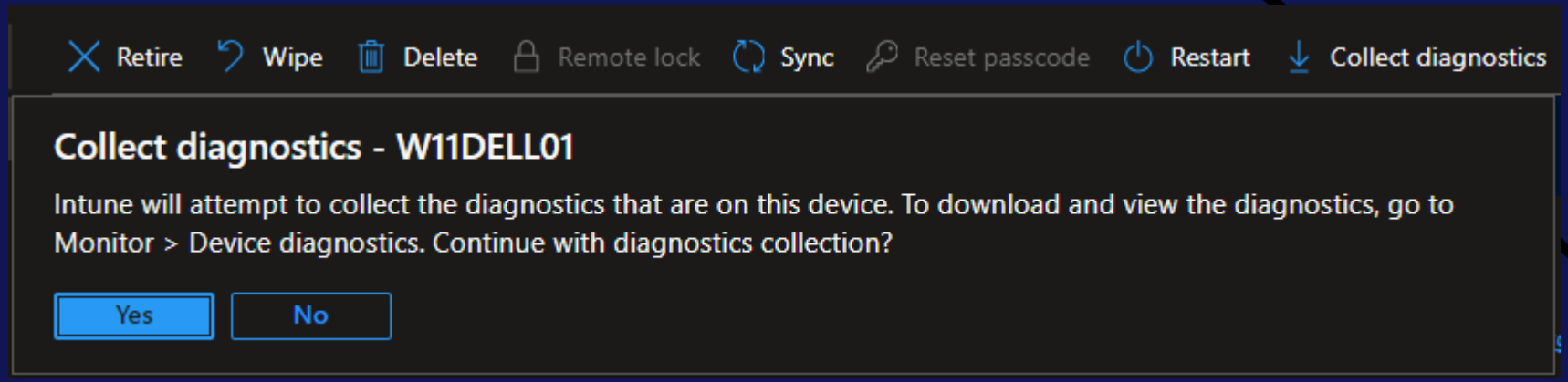
- Tool Author:
  Oliver Kieselbach(@okieselb)
  - https://github.com/okieselbach/SyncMLViewer
- Easily troubleshoot the SyncML stream
- MDM & MMP-C Sync
- Run MDMDiagnosticstool
- Open registry
- Connection profiles
- Available in WinGet repo!



Troubleshooting collect client logs

Manually collect diagnostic logs

- “Collect diagnostics” button from Intune

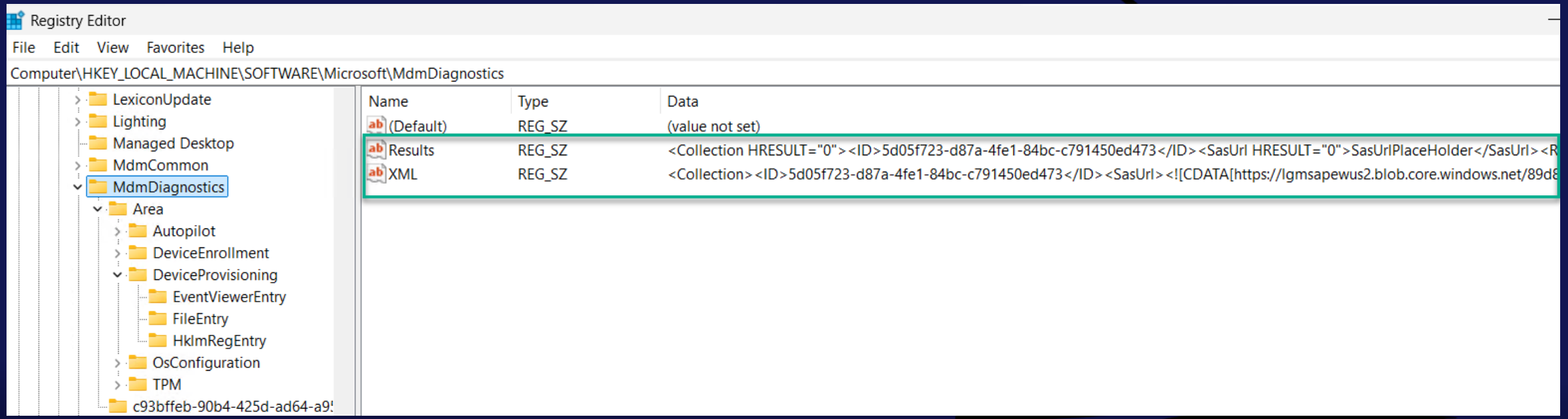


- Run command locally in the device
  - mdmdiagnosticstool.exe -area

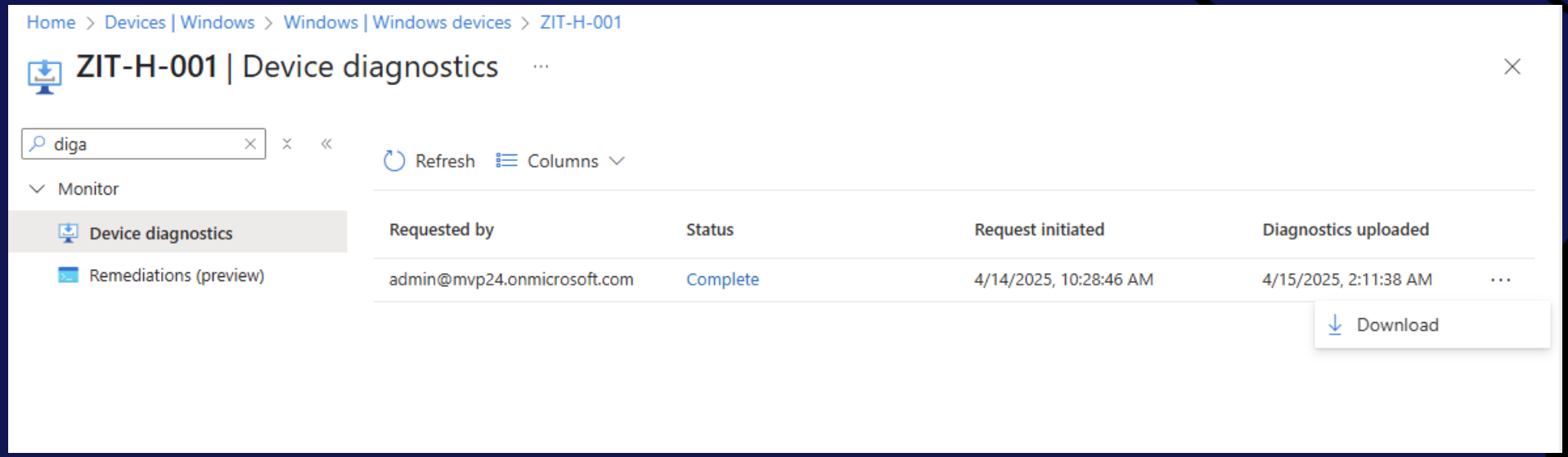
https://learn.microsoft.com/en-us/windows/client-management/mdm-collect-logs

Intune triggered collect diagnostics results

- Check from the device registry:
  HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MdmDiagnostics

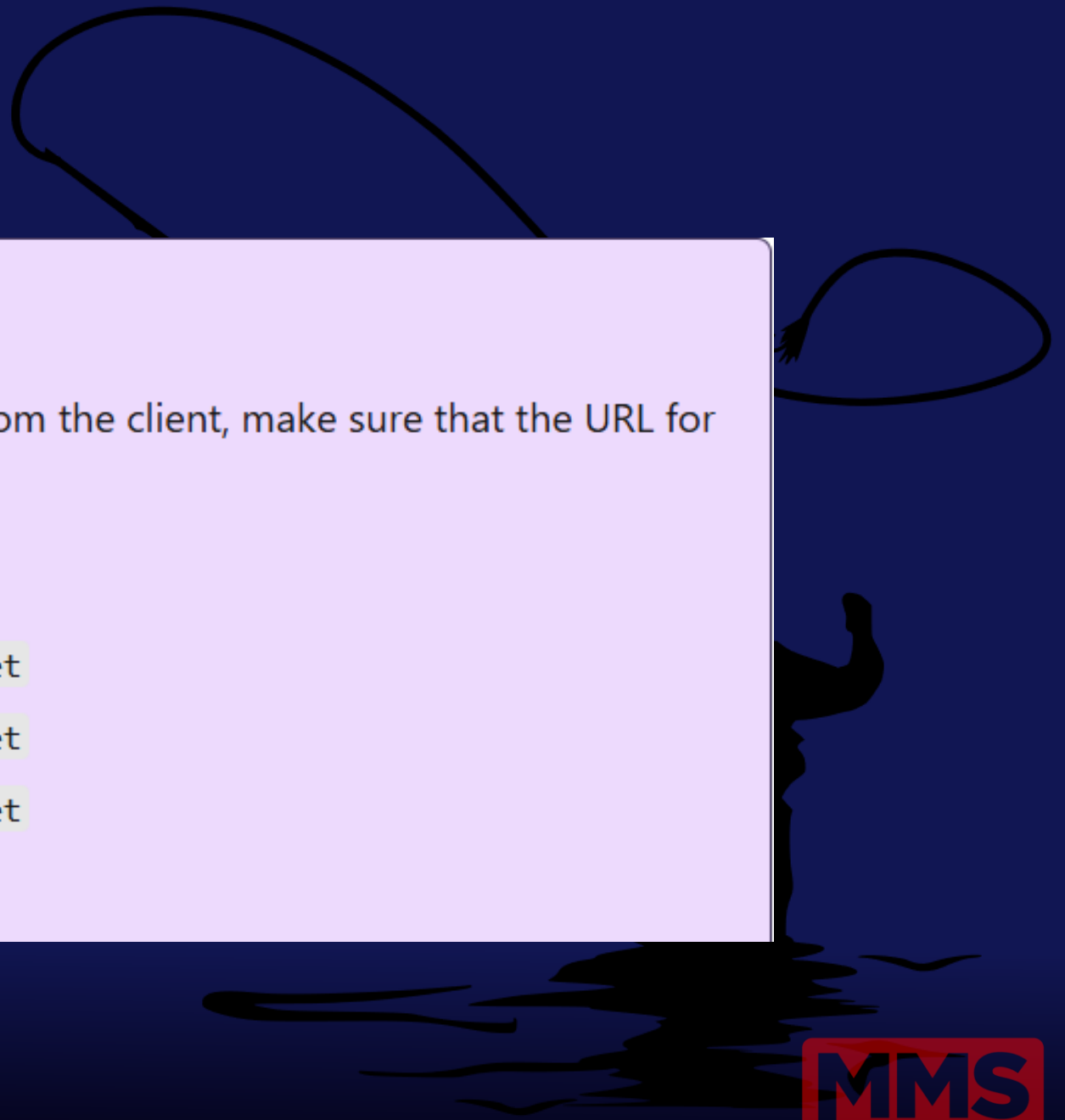


- Download the logs
- The diagnostic collection is stored for 28 days



- Don’t forgot network requirement

> **Note**
>
> For diagnostics to be able to upload successfully from the client, make sure that the URL for your region isn't blocked on the network:
>
> - `Europe - lgmsapeweu.blob.core.windows.net`
> - `Americas - lgmsapewus2.blob.core.windows.net`
> - `East Asia - lgmsapesea.blob.core.windows.net`
> - `Australia - lgmsapeaus.blob.core.windows.net`
> - `India - lgmsapeind.blob.core.windows.net`

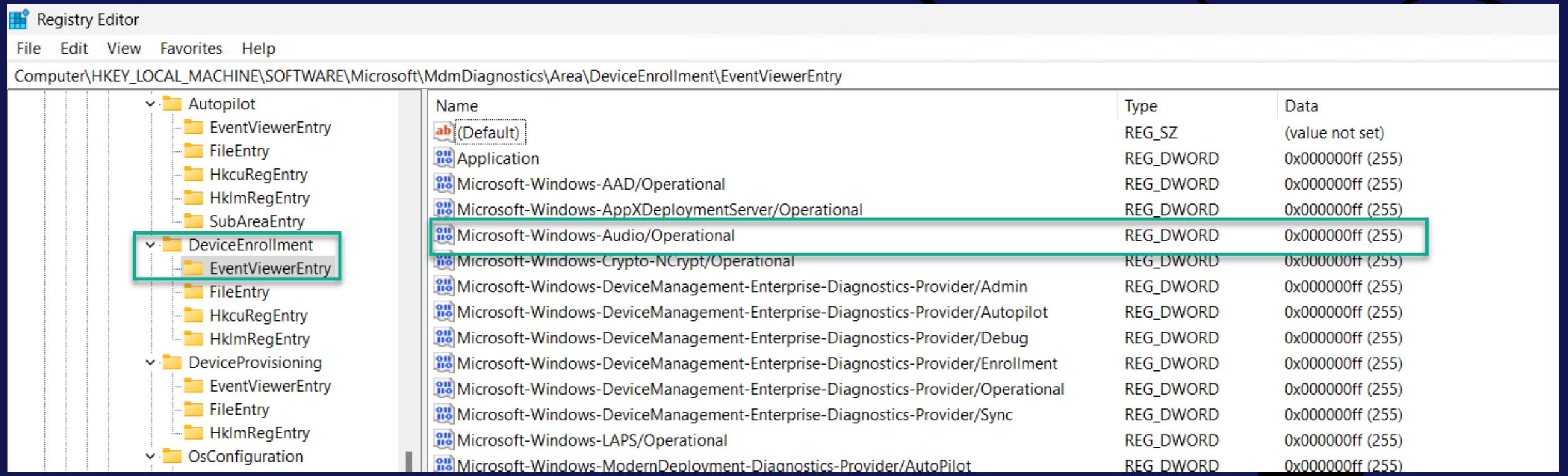


How to add more logs or events

From the XML result, we see it triggers command:
mdmdiagnosticstool.exe

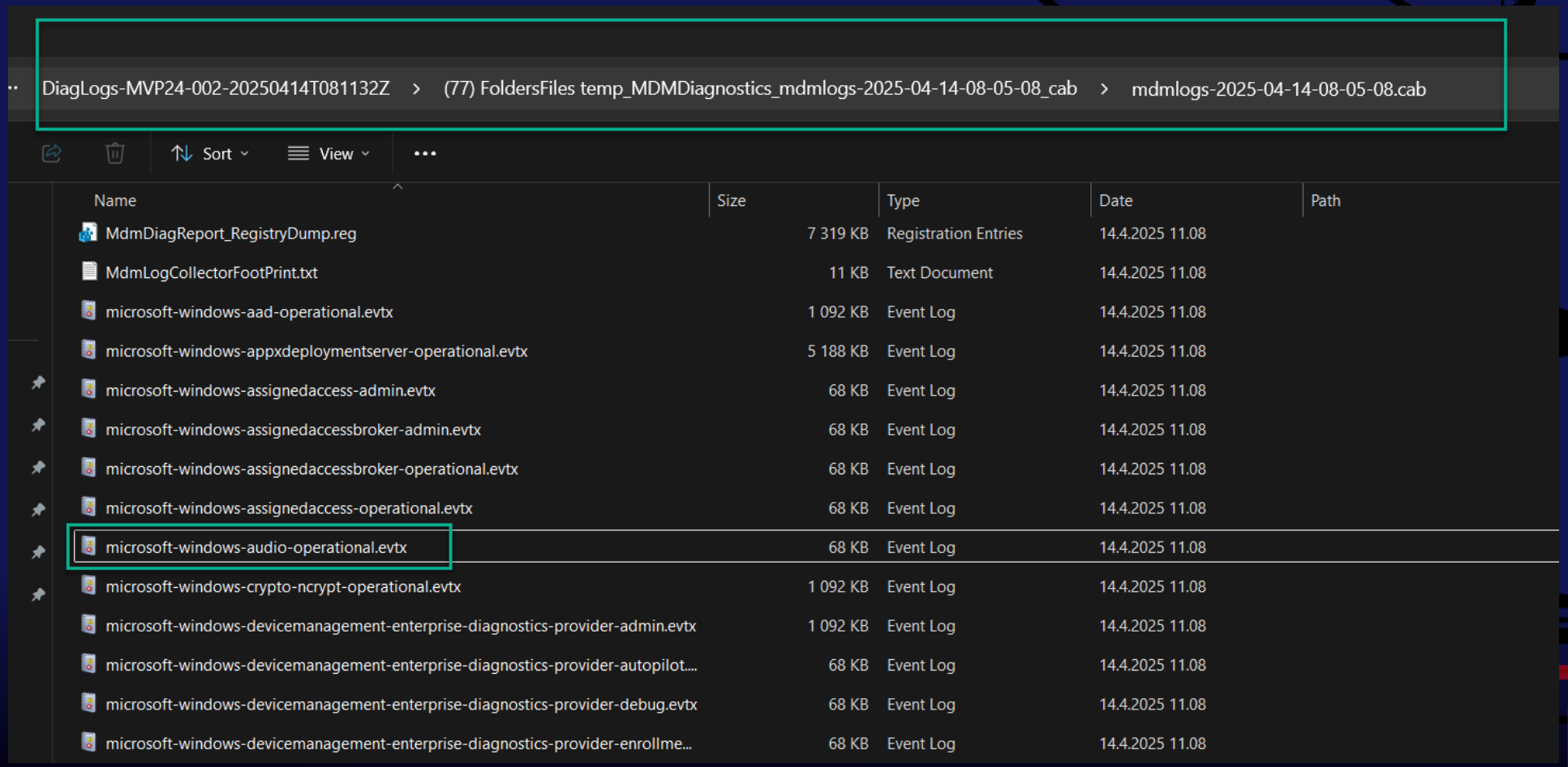
```
<Command>%windir%\system32\mdmdiagnosticstool.exe -area
Autopilot;deviceprovisioning;deviceenrollment;tpm;HololensFallbackDeviceOwner -cab
%temp%\MDMDiagnostics\mdmlogs-xxxx-xx-xx.cab</Command>
```

Add more logs to collect in registry



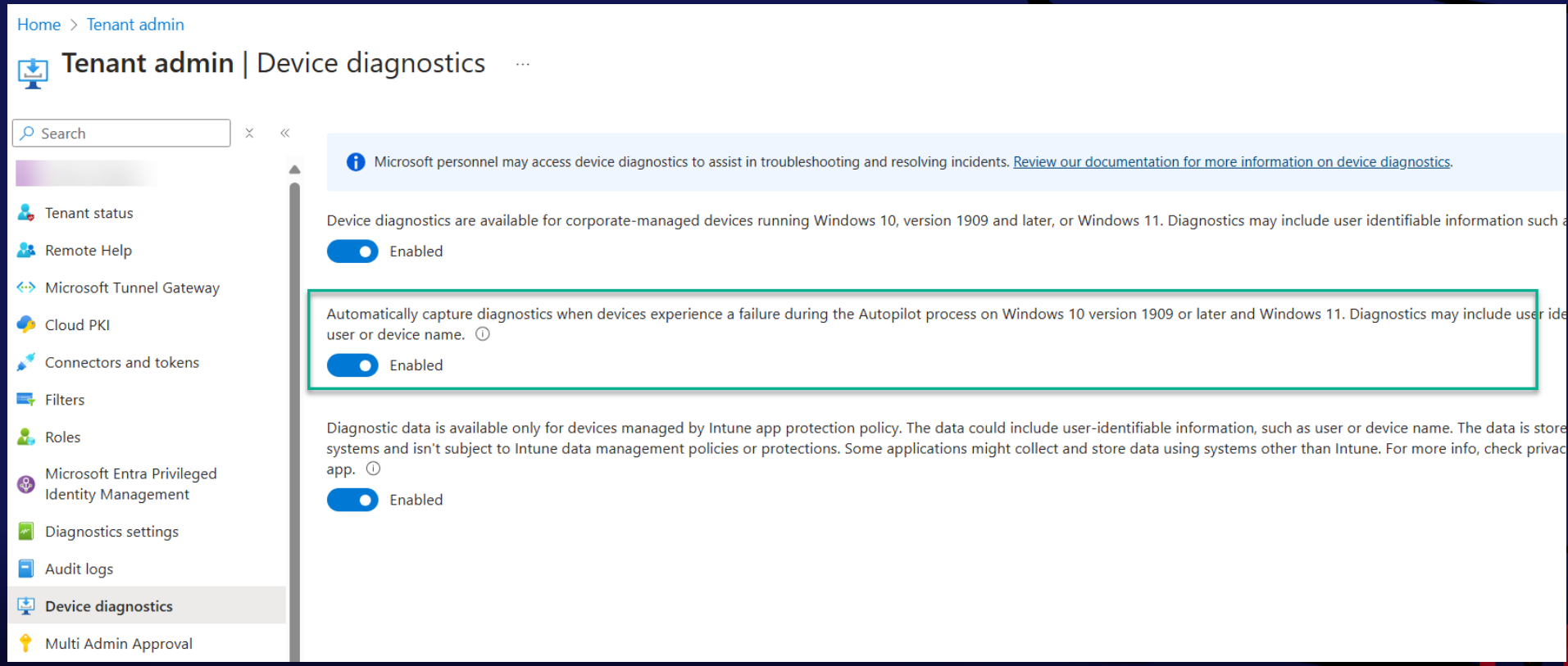
Add more logs or events

Check what logs, registry or events are supported
https://learn.microsoft.com/en-us/windows/client-management/mdm/diagnosticlog-csp



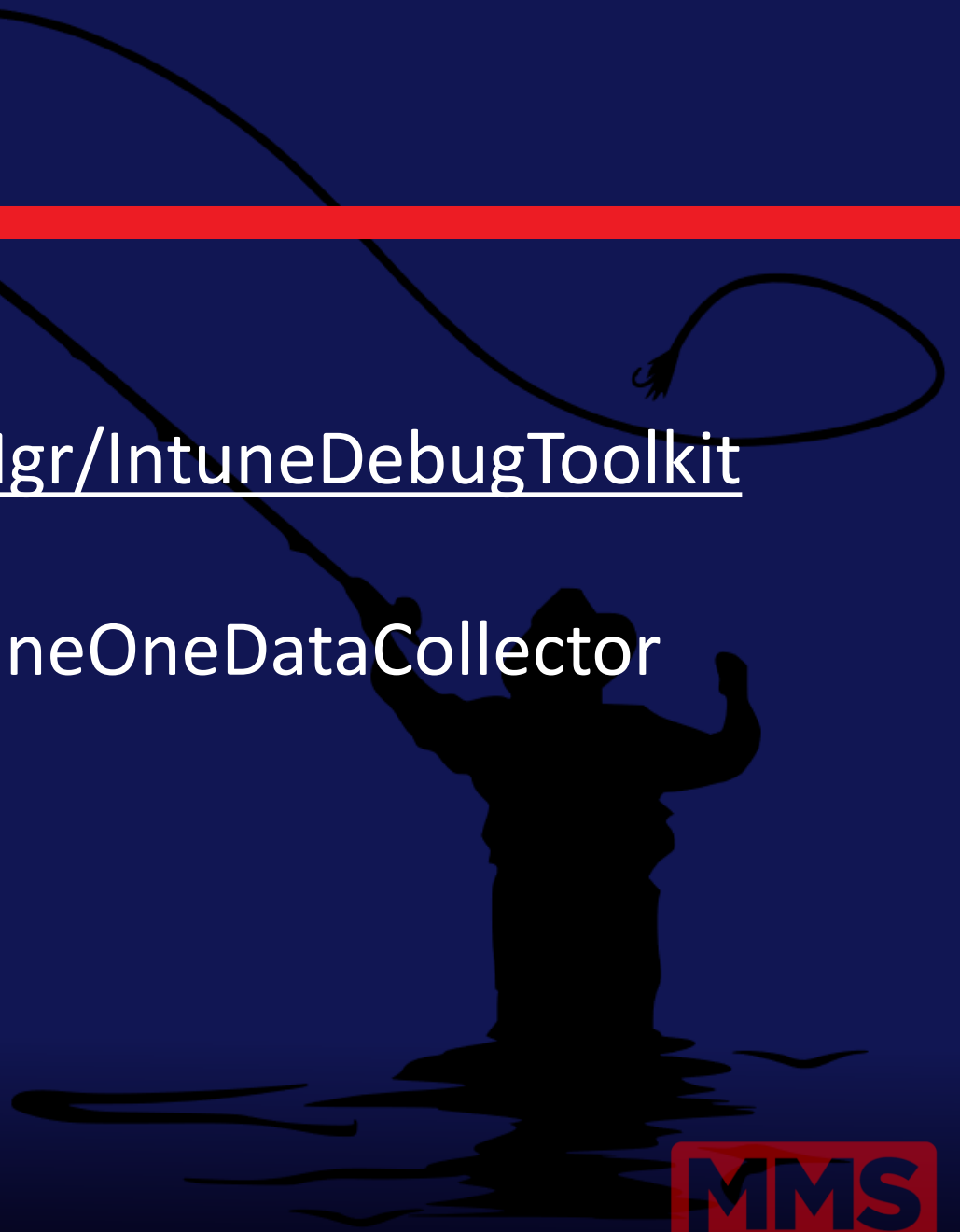
Automatic upload logs

- When Autopilot failed



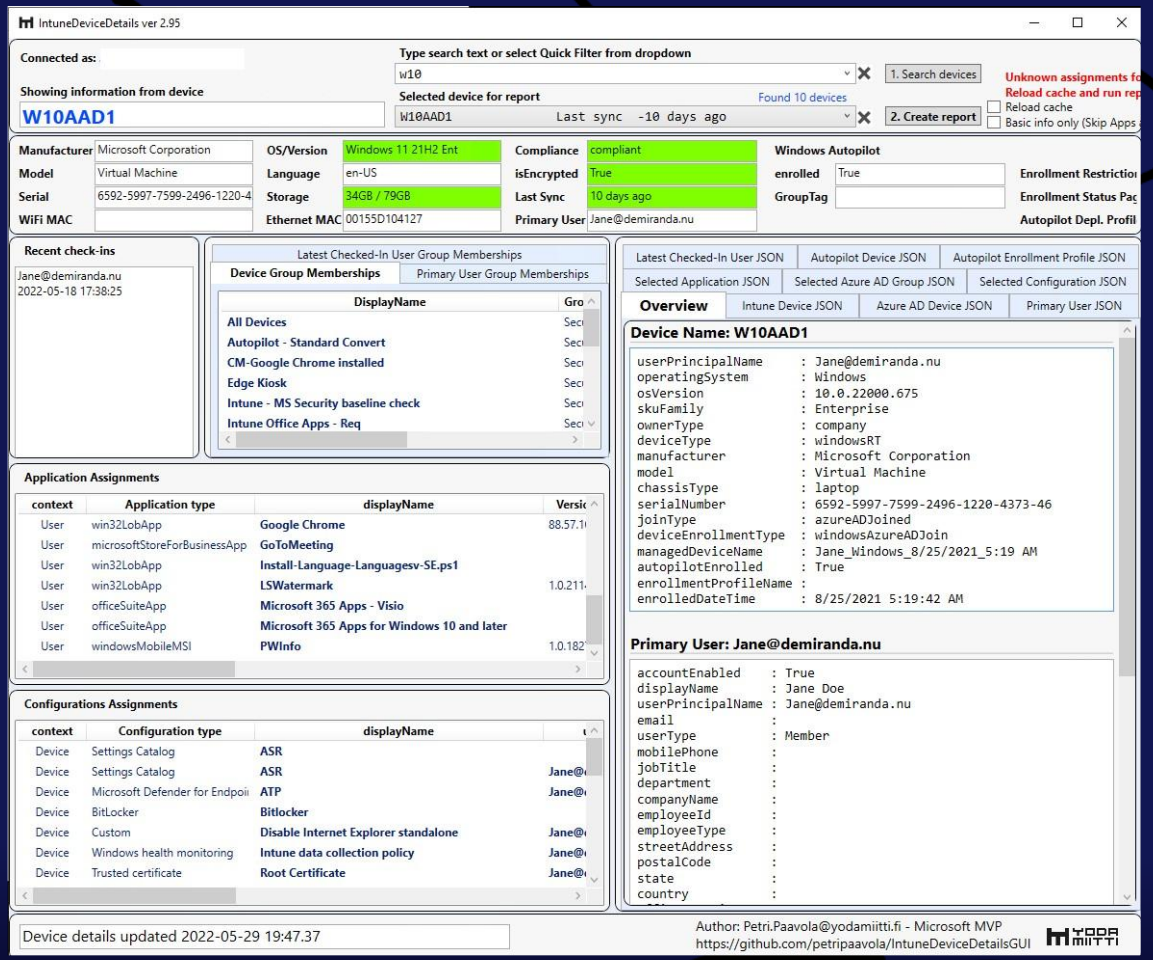
Intune debug tools

- https://github.com/MSEndpointMgr/IntuneDebugToolkit
- https://github.com/markstan/IntuneOneDataCollector



Intune Device Details GUI – Petri Paavola

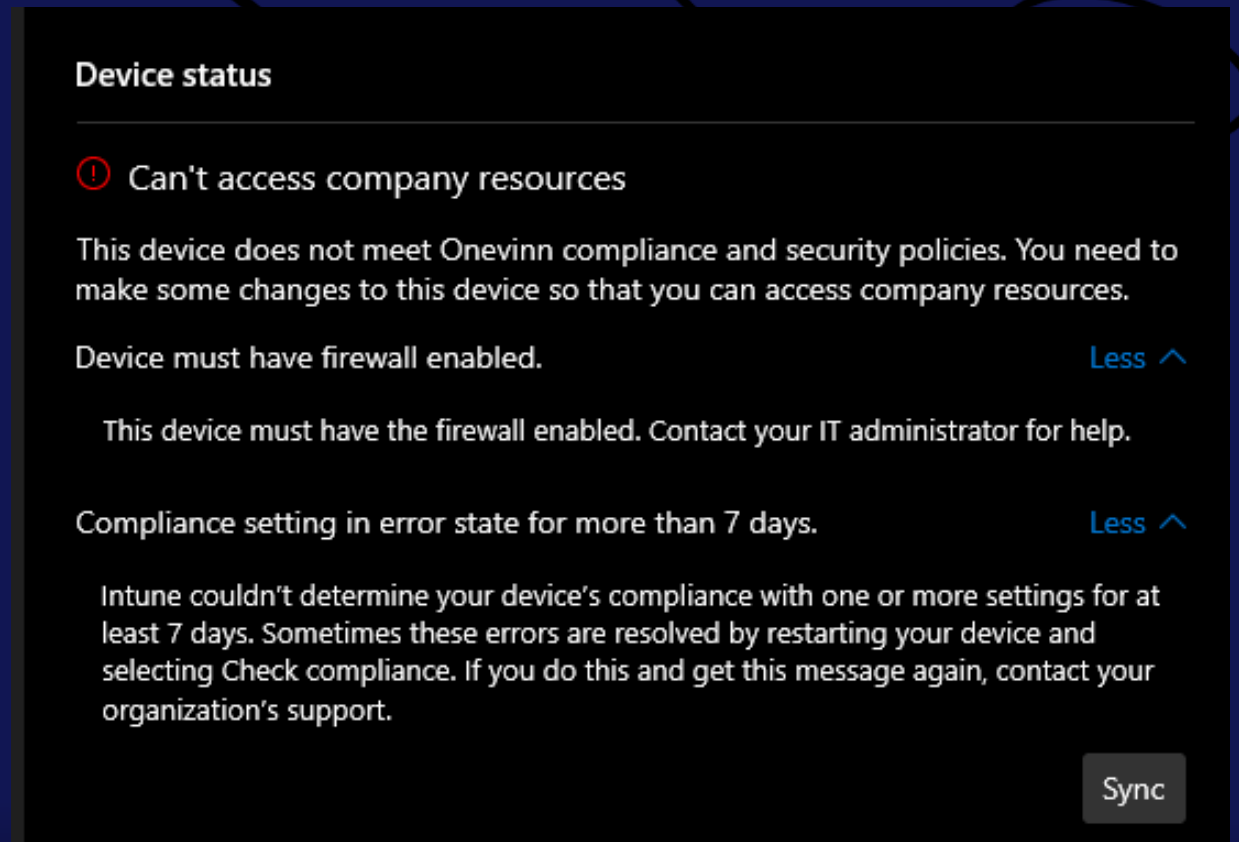
- Shows relevant device info
- Targeted apps and configuration profiles
- Including how Apps and Configuration Profiles are targeted
- Autopilot information
- And much more



https://github.com/petripaavola/IntuneDeviceDetailsGUI

Compliance Policy in error state

- Hardcoded behaviour
- A device in error state will become non-compliant after 7 days

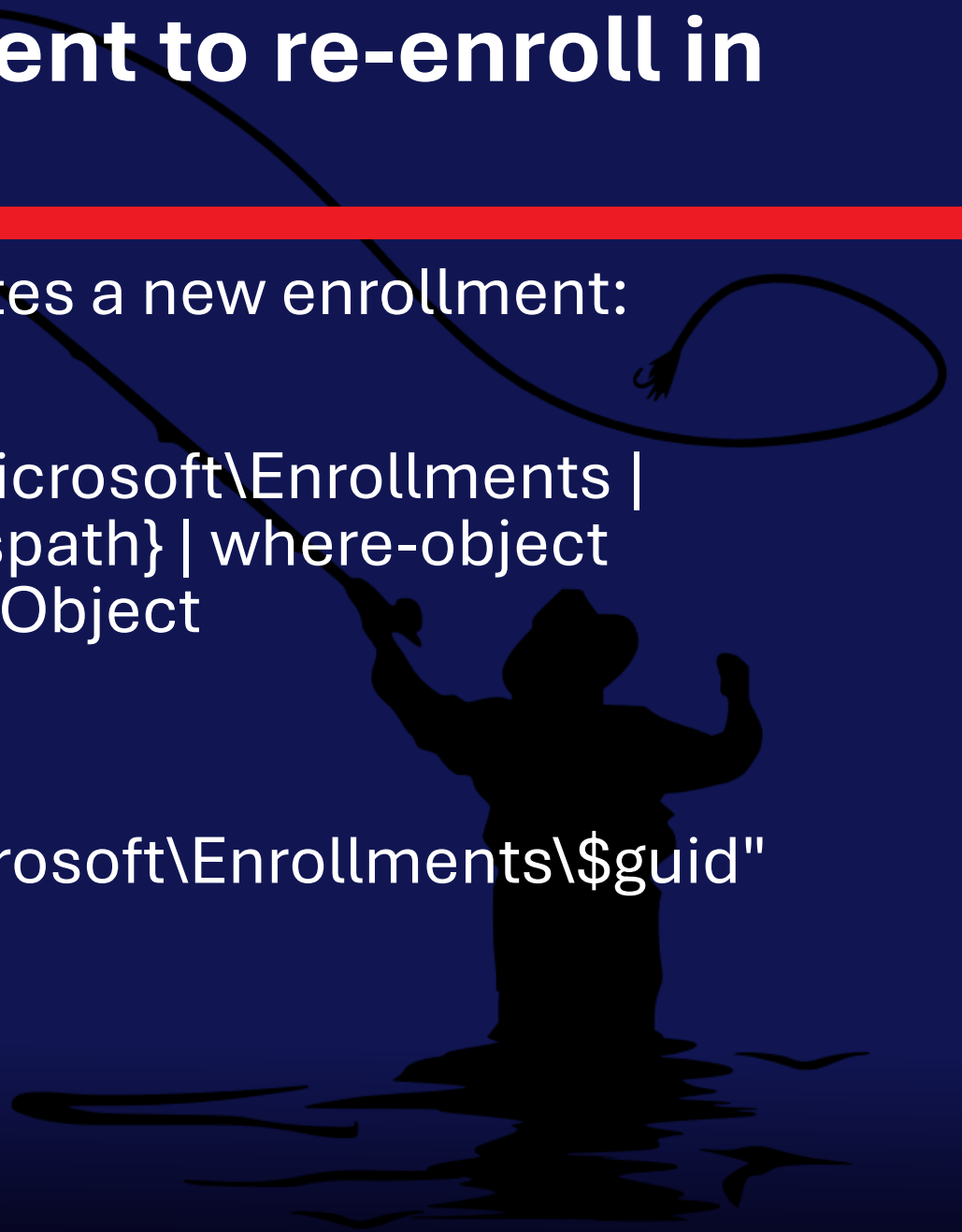


Setting	State	State details
Firewall	Error	2016345612(Syncml(500): The recipient encountered an unexpected condition which prevented it from fulfilling the request)

Forcing the Co-managed client to re-enroll in Intune

Removes the detection method and initiates a new enrollment:

```
$guid = Get-ChildItem HKLM:\Software\Microsoft\Enrollments |
  ForEach-Object {Get-ItemProperty $_.pspath} | where-object
  {$_.DiscoveryServiceFullURL} | Foreach-Object
  {$_.PSChildName}

Remove-Item -Path "HKLM:\Software\Microsoft\Enrollments\$guid"
  -recurse

Restart-Service -Name ccmexec
```



Run Query

Export

```
Registry('HKLM:\SOFTWARE\Microsoft\Enrollments\*')
```

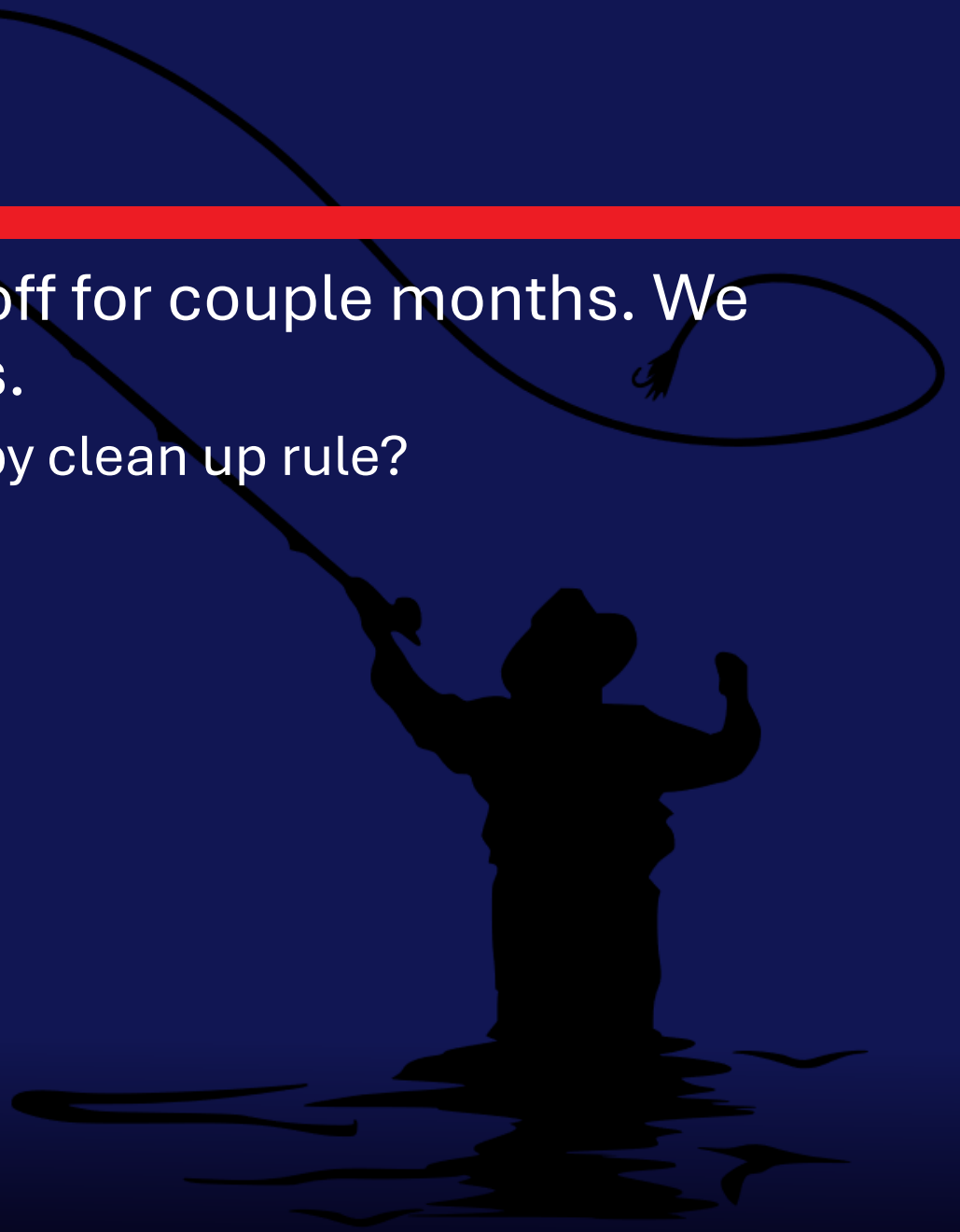
Device	Property	Value	Key
	DiscoveryServiceFullURL	https://enrollment.manage.microsoft.com/enrollmentserver/discovery.svc	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	PartnerOpaqueID		HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	AADResourceID		HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	AADOpaqueID		HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	AADTenantID	[redacted]	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	CorrelationID		HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	IsFederated	1	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	EnrollmentFlags	0	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	EnrollmentID	CA738399-E107-464B-95D9-95955CF9F168	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	NewKeyContainer	ConfigMgrEnrollment0	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	NewCryptoProvider	Microsoft Platform Crypto Provider	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	Status	Failed to process server enrollment provisioning, rolling back	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	RenewTimestamp	00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	RenewStatus	0	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	RenewErrorCode	0	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\CA738399-E107-464B-95D9-95955CF9F168
	EnrollmentState	1	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\DAD70CC2-365B-450D-A8AB-2EB23F4300CC
	EnrollmentType	10	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\DAD70CC2-365B-450D-A8AB-2EB23F4300CC
	EnrollmentState	1	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\ED4A1C99-4A93-44F2-A917-21D73146F7B5
	EnrollmentType	12	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\ED4A1C99-4A93-44F2-A917-21D73146F7B5
	ProviderID	WMI_Bridge_SCCM_Server	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\ED4A1C99-4A93-44F2-A917-21D73146F7B5
	EnrollmentState	1	HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Enrollments\EE4AAC98-C174-4941-82B1-D121E493E4FB

Forcing client to re-join

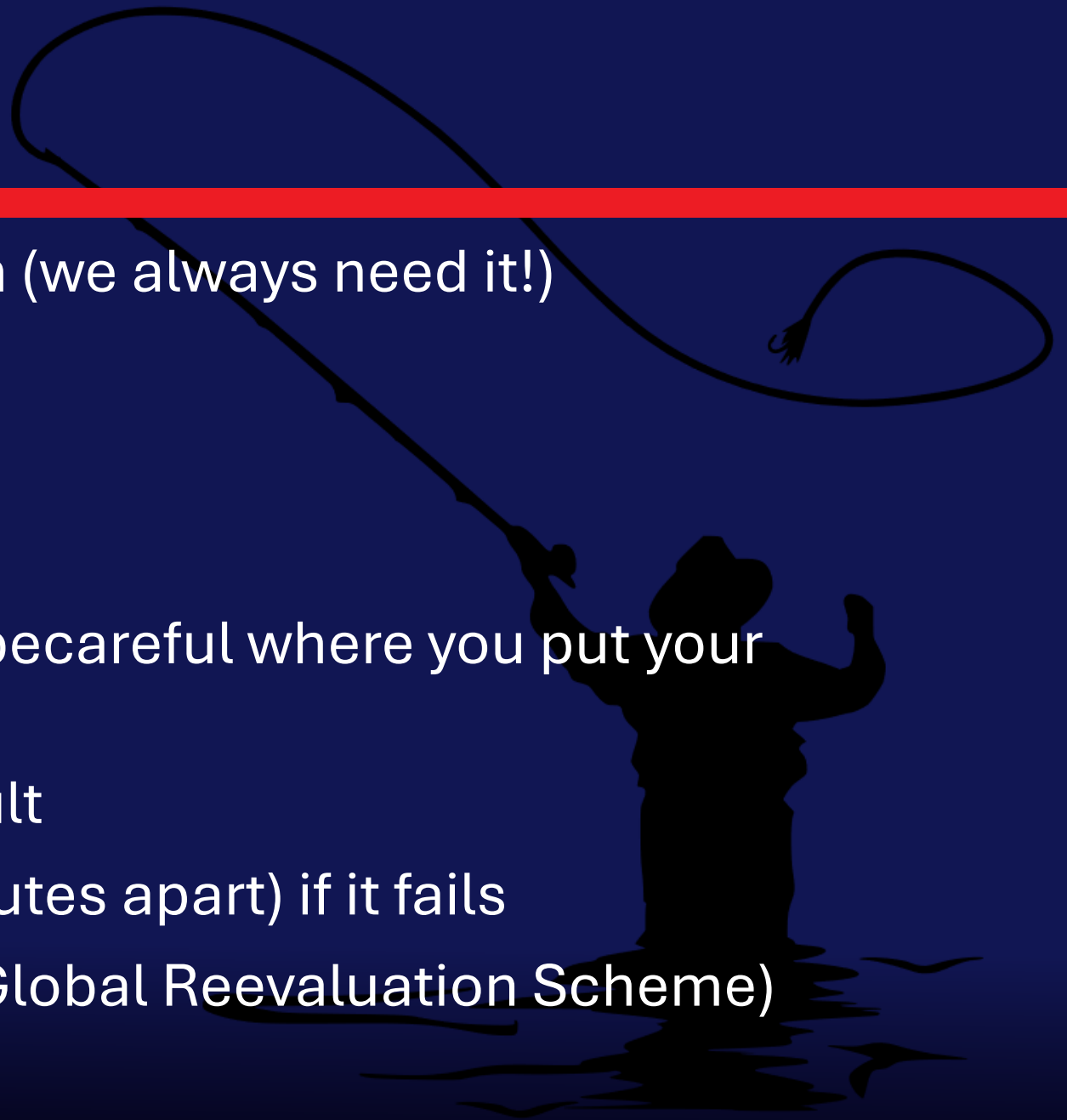
- dsregcmd.exe /leave /debug
- Sync Entra AD connect
- dsregcmd.exe /join /debug

Cloud-native client

- Challenge: User has been away or time off for couple months. We have Intune device clean up rule 30 days.
  - What if the Intune device object is deleted by clean up rule?
- Force the client to reenroll
  - dsregcmd.exe /forcerecover



IME - Facts



- Installed when first needed to run (we always need it!)
  - Scripts
  - Remediation scripts
  - Win32App
  - Software Inventory
- IntuneWin32App run as 32-bits, becareful where you put your registry keys
- Syncs every 60 Minutes per default
- Tries to install app 3 times (5 minutes apart) if it fails
- Every 24 hours after that (GRS – Global Reevaluation Scheme)

IME – Log files

Log files:

- C:\ProgramData\Microsoft\IntuneManagementExtension\Logs
  - AgentExecution.log – Log file for PowerShell detection methods
  - ClientHealth.log – Log file for IME health and remediation actions
  - DeviceHealthMonitoring – Log file for Appcrash, app events
  - HealthScripts – Log file for remediation scripts
  - IntuneManagementExtension.log – IME related events, sync
  - **AppWorkload.log – added 2024-08 – App related events**
  - Sensor.log – Log file for subscribed events.
  - AppActionProcessor.log – Log file for AppActions

Content Cache location:

- Win32Apps - C:\Program Files (x86)\Microsoft Intune Management Extension\Content\Incoming\
- Remediation scripts - C:\Windows\IMECache\HealthScripts

IME flow

```
PowerShell] Script Default Timer is set to 24 hour
Detect whether the managed installer is enabled.
starting task
Win32AppTimer interval is : 3600000 ms
Starting Win32AppOnTimer task...
[EmsAgentService:RequiredAppTask] Device is either not in 'Win 10 S Mode' or not a '19H2 (Win 10 S supported) or later' build.
set timer, delayed seconds = 140 for workload Win32RequiredApp
Starting Available app timer task...
[EmsAgentService:AvailableAppTask] Device is either not in 'Win 10 S Mode' or not a '19H2 (Win 10 S supported) or later' build.
set timer, delayed seconds = 30 for workload Win32AvailableApp
Starting content manager...
```

Run PowerShell Scripts and Remediations → Random Sleep → Win32Apps detect/install → Random Sleep → Software Inventory

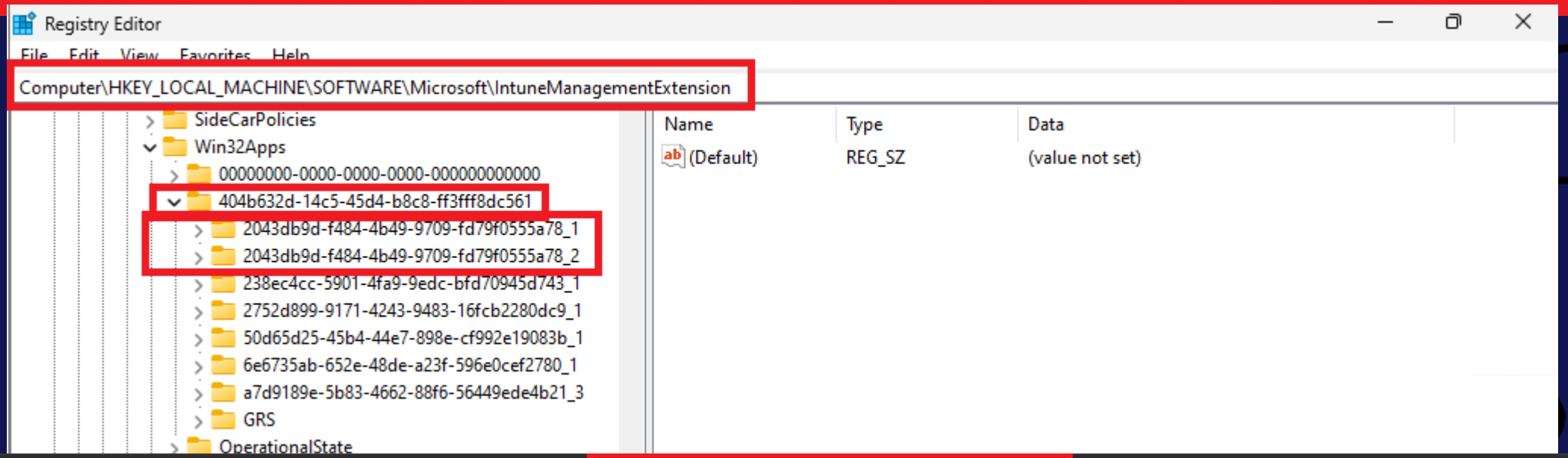
```
Successfully updated throttling info. workload AgentCheckIn, currentCnt = 4
Finish throttle checking.
[Win32AppInventory] Saving throttle info in inventory flow
[Win32AppInventory] Inventory collector thread starts.
[Win32AppInventory] CollectApplicationInventory starts
[Win32AppInventory] Starting Win32 app inventory collection via WMI (Expanded)
[Win32AppInventory] Id: 0000570fddd7afde62bd641f2d4232008ba90000ffff Name: Notepad++ (64-bit x64) Version: 8.5.7
[Win32AppInventory] Id: 0000f70290ca1beb3a22ec29cc1b41732ae60000ffff Name: Microsoft 365 Apps for enterprise - en-us Version: 16.0.16626.20208
```

Disable User ESP – Kiosk scenarios

- IME checks that USER ESP completed otherwise it will NEVER install a Win32 App anymore.

```
[Win32App] GetLogonIdFromFirstSyncReg check subkey: S-1-12-1-3972641916-1128363478-2181379757-4105040
[Win32App] GetLogonIdFromFirstSyncReg Found userSIDFromFirstSync: S-1-12-1-3972641916-1128363478-21813
[Win32App] GetLogonIdFromFirstSyncReg Got isSyncDoneForUserStr: 1 under: SOFTWARE\Microsoft\Enrollments\
[Win32App] Checking ESP status and found isSyncDoneForUser: True
Finished ESP phase check before kicking off PowerShell script. ESP phase NotInEsp
Delaying PS and Win32 app workload checkins by seconds = 118 in the first check in on start/restart.
[GenericWorkload] Initiating GenericWorkload Checkin
```

Registry



https://intune.microsoft.com/#view/Microsoft_Intune_Apps/SettingsMenu/~/2/appId/2043db9d-f484-4b49-9709-fd79f0555a78

une admin center

Home > Apps | Windows > Windows | Windows apps > Remote Help

Remote Help | Properties

Client Apps

Search

Overview

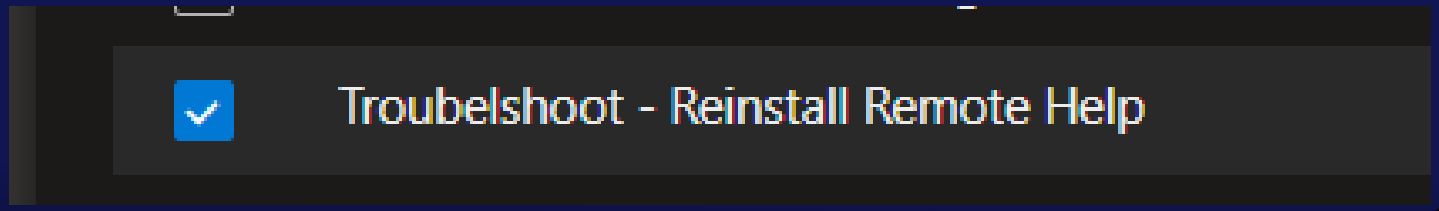
Manage

App information Edit

Name Remote Help

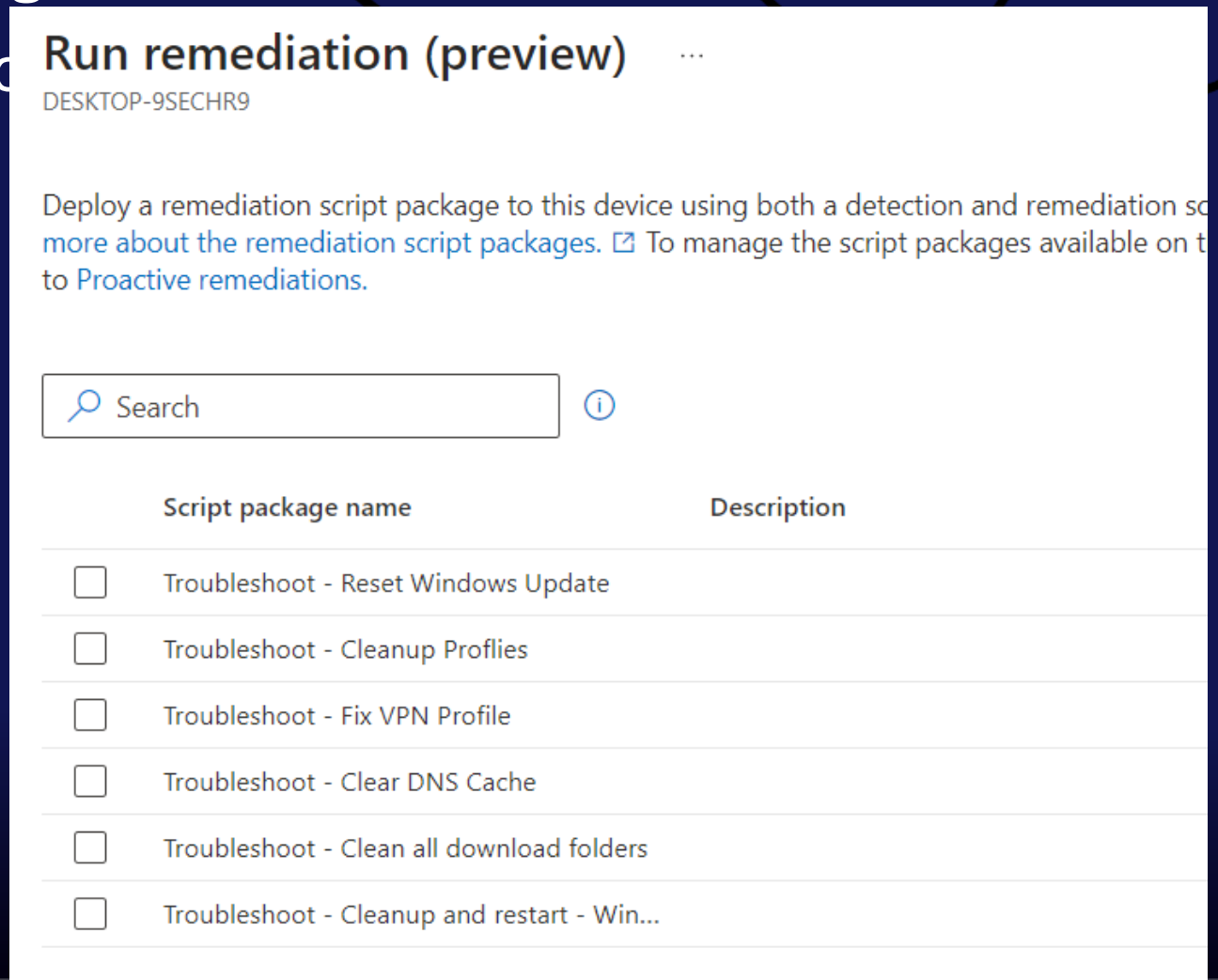
Reinstalling app remotely

- Uninstall the app if installed
- Remove the AppID in the registry
- Remove the GRS association
- Launch a new PowerShell process that restarts IME agent



Remediations on demand = RBAC

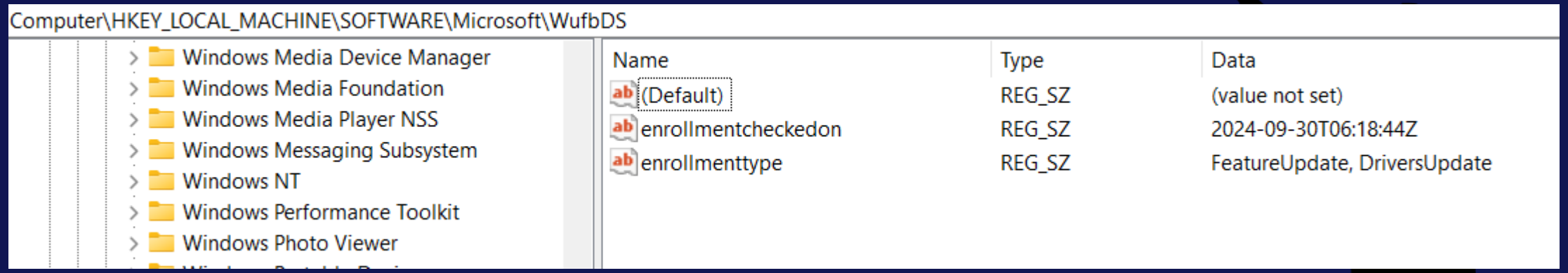
- Remediations on demand is a great
- Perfect in a Zero-trust scenario
- Requires RBAC to filter script



https://github.com/JayRHa/EndpointAnalyticsRemediationScripts

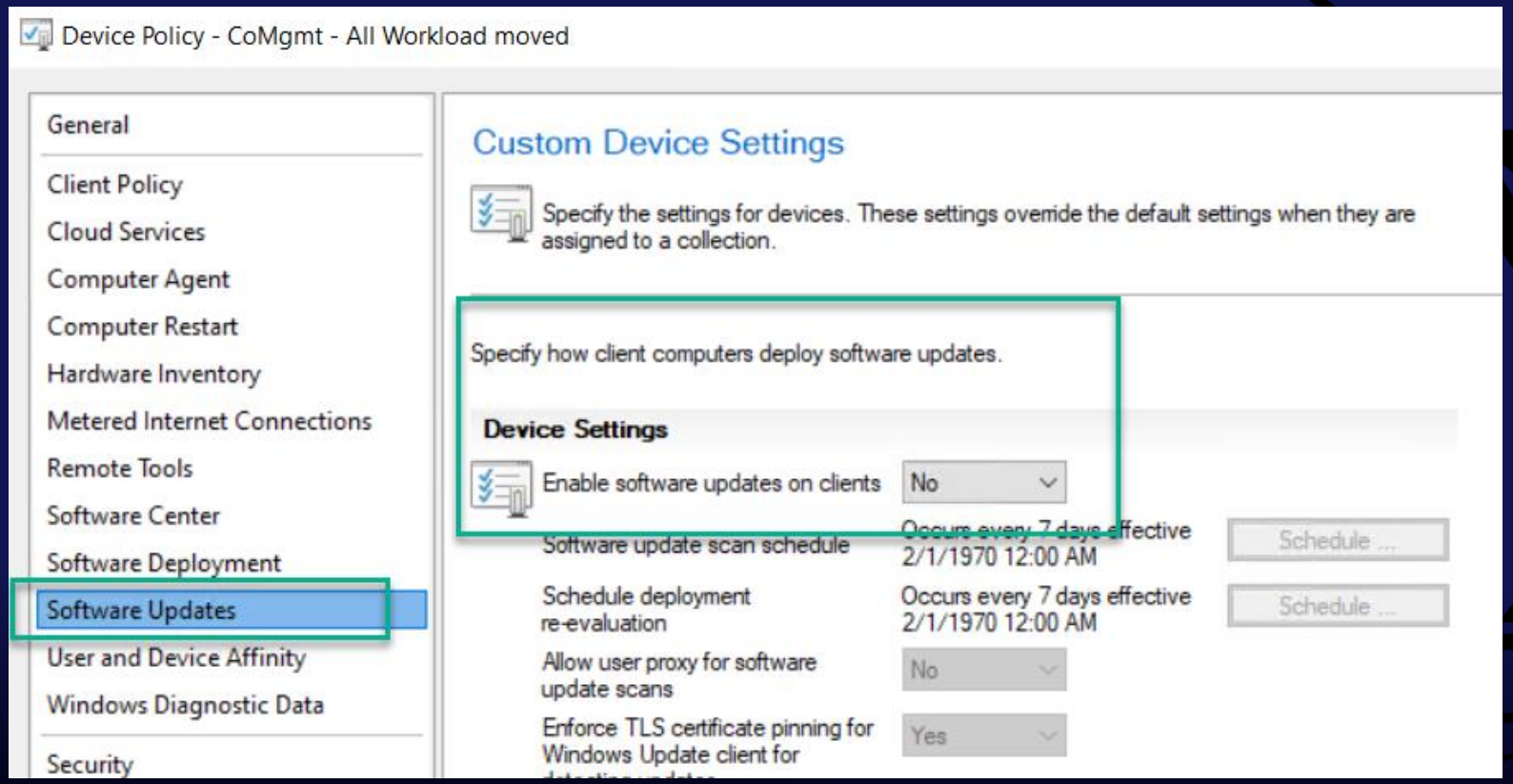
Troubleshoot WufBDS registration

- https://patchmypc.com/troubleshooting-windows-feature-updates-with-graph



Installing machine from ConfigMgr

Managing update with Windows Update for Business in Intune



Did you notice?

Autopatch changes from message center

Update to Windows Autopatch diagnostic d...

Translate

MC996580, Published date: 02/04/2025, 02:04:49 AM

Updated February 4, 2025: We have updated the content.

Windows Diagnostics data settings must be configured for Windows Autopatch reports to accurately include devices and update status. The minimum necessary Windows diagnostic data collection level to be configured on devices registered to Autopatch with the following diagnostic data settings: Windows 10 and Windows 11 - Required

With this change:

- Windows Autopatch will cease to deploy and configure the Windows Data Diagnostics policy. Previously, as part of the Autopatch feature activation process, Windows Autopatch deployed a policy named **Windows Autopatch - Data collection** which set the Windows diagnostics data collection level to Optional (previously labeled as Full) for managed devices. You will be able to configure and maintain the Windows Diagnostics Data level policy in your environment.
- As part of the ongoing service maintenance Windows Autopatch will remove the **Windows Autopatch - Data collection** policy from tenants starting **March 03, 2025**, Pacific Standard Time. This change will be completed in 2 weeks.

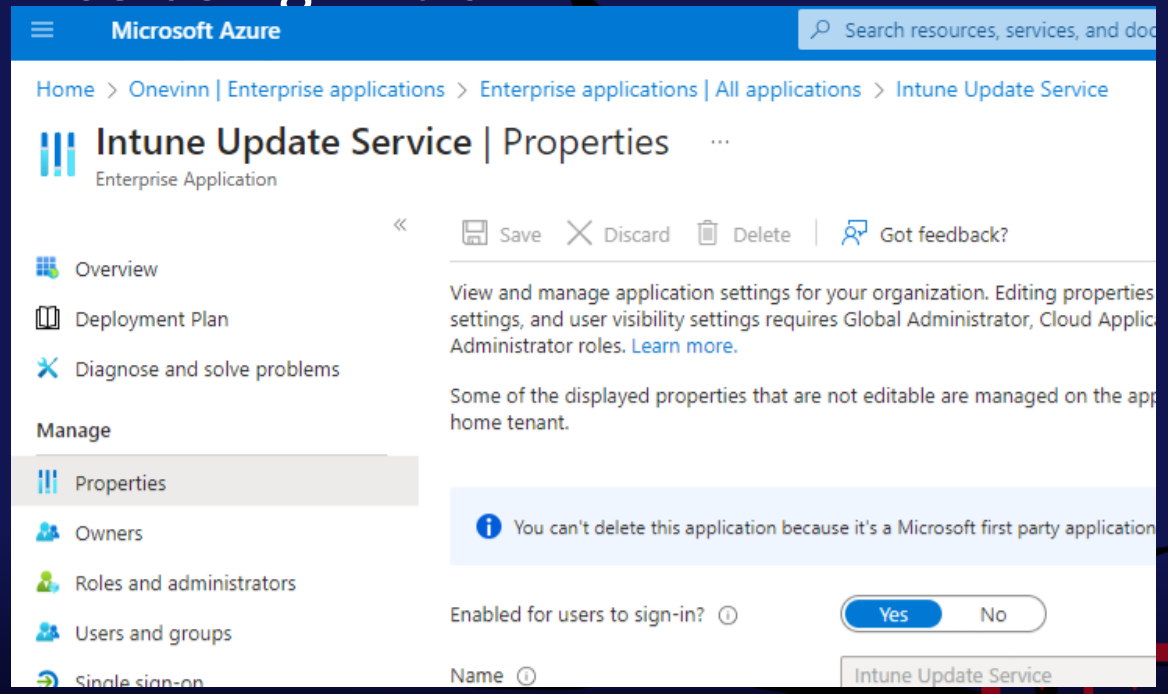
Action required:

Create and deploy a Windows Diagnostic data collection policy with at least the recommended minimum setting to all Autopatch devices prior to this change. You may see missing Client State and Client Substate values if your devices are not configured with the recommended Windows Diagnostics settings and level. Alternatively, you may already be covered with existing data collection policies in your environment.

TIP: You may want to consider using the **Windows Autopatch - Devices All** group which contains all of the active, registered devices presently in your Autopatch implementation across any and all Autopatch Groups. This is a service-managed group (subject to changes at any time). **Not Registered** devices will not appear in this Entra group.

No Drivers are deployed anymore?

- We have seen this in the wild
- Users authenticate to Intune Update Service using Entra Enterprise application

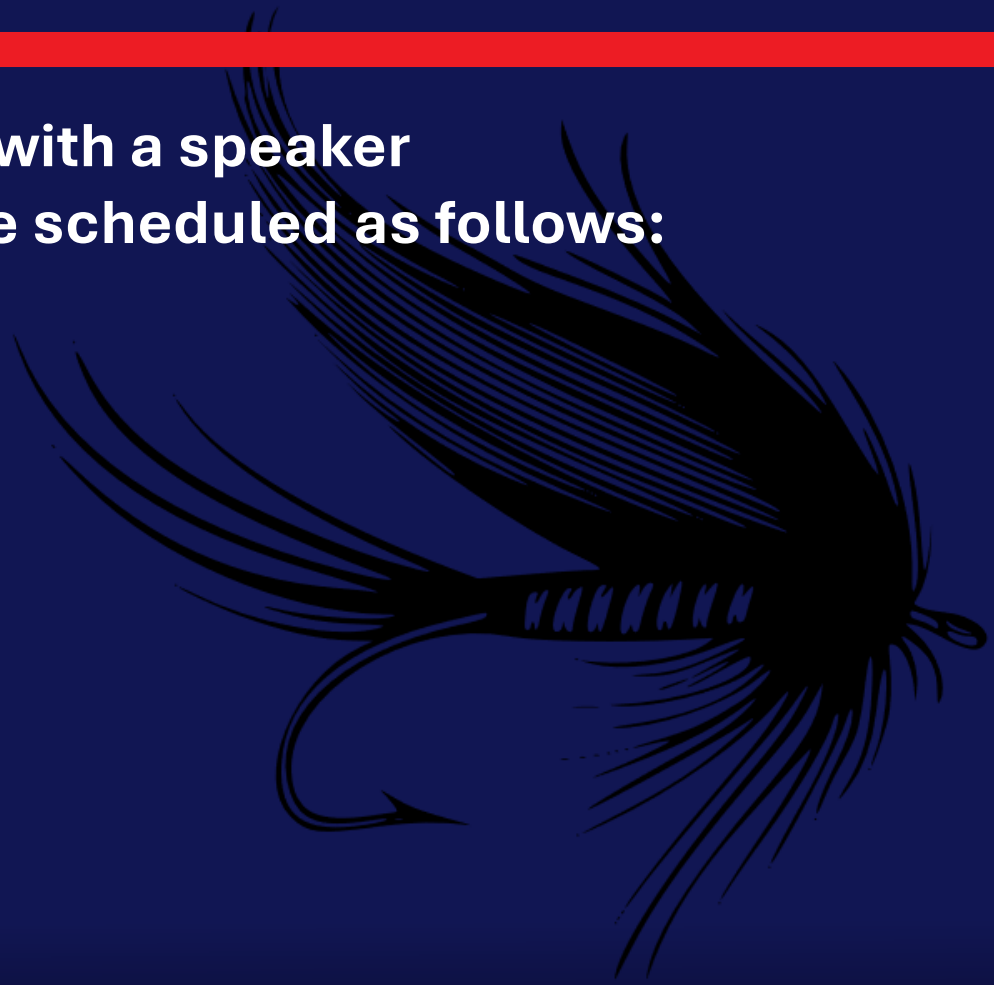


Useful blog post

- https://techcommunity.microsoft.com/blog/intunecustomersuccess/troubleshooting-windows-feature-updates-in-microsoft-intune/4401828

Fishing Sessions

Be sure to find Wally and sign up for 1:1 time with a speaker
If you'd like to "catch" us for a session, we are scheduled as follows:



Don't forget to leave feedback for your speakers!

Save the Dates

12-15 Oct. 2025

May 3-7, 2026

Oct 25-28, 2026