

Standardize once, deploy everywhere with Autopilot

Hugo Salazar

About your speaker

Hugo A. Salazar

- Go live engineer
- 10 years of IT experience
- Started in a small MSP team
- Modern Work engineer
- Identity Access Management engineer
- I'm usually out camping



Agenda

1. Traditional deployment pain
2. Classic Autopilot: what worked and what didn't
3. What changed with device preparation
4. Demo: Setting up device configurations
5. Demo: Scaling with Nerdio Manager for MSP
6. Key takeaways and Q&A

My Autopilot story starts in 2020

- The world went remote overnight. Devices were impossible to find, and we needed a fleet ready yesterday.
- Traditional imaging suddenly felt too slow, too manual, and too tied to the office to keep up.
- Deployed Autopilot across dozens of partner environments

The pain of traditional deployment

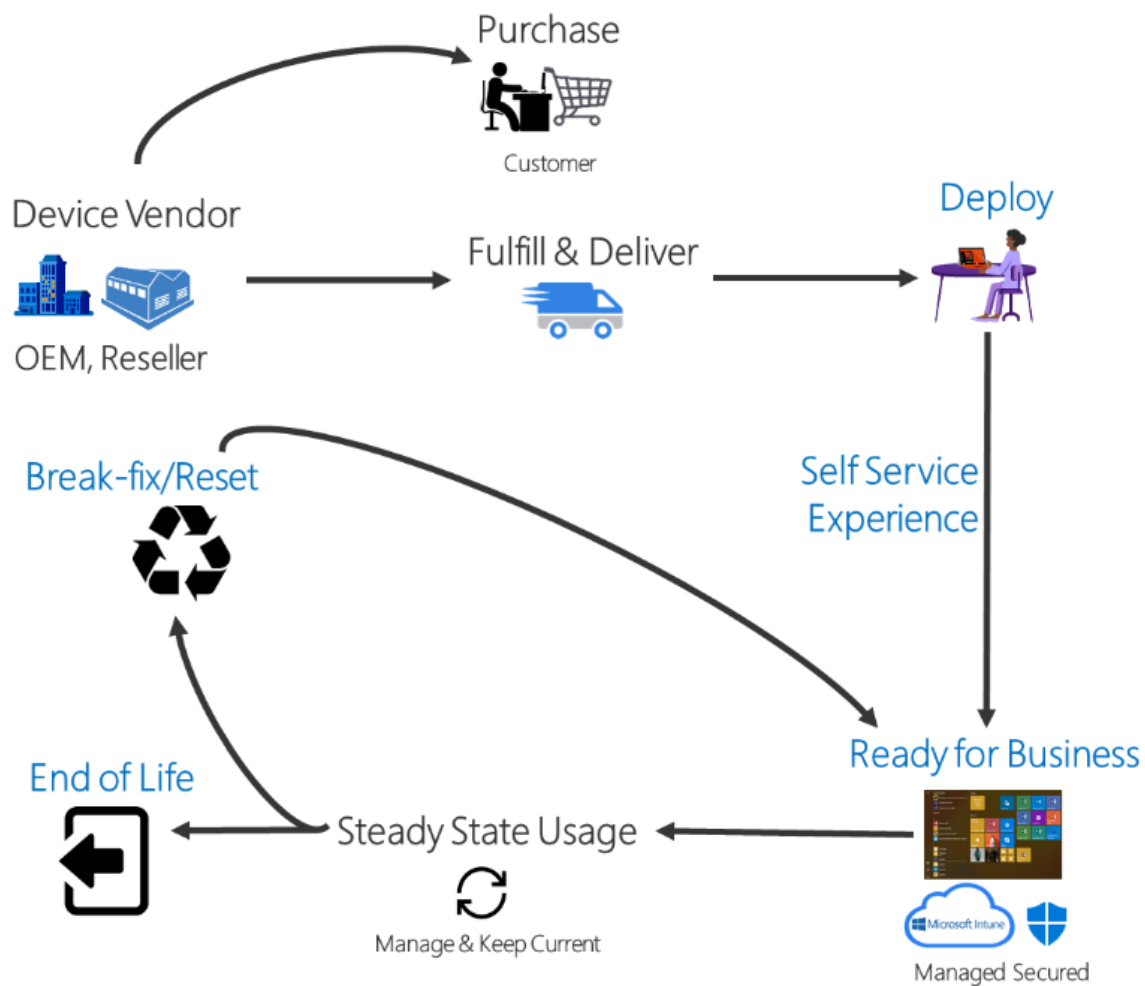
- Infrastructure: Imaging requires infrastructure, maintenance, and constant image updates.
- The logistics nightmare: Devices often ship from distributor to MSP, then from MSP to the end user.
- Margin killer: Manual prep work adds labor cost and lowers margins.
- The update debt: Devices can already be out-of-date before first sign-in.

Why Autopilot mattered

- The OEM-installed Windows build could be used as-is.
- No need to maintain custom images per hardware model.
- It reduced the need for hands-on staging by the MSP.

Classic Autopilot prerequisites

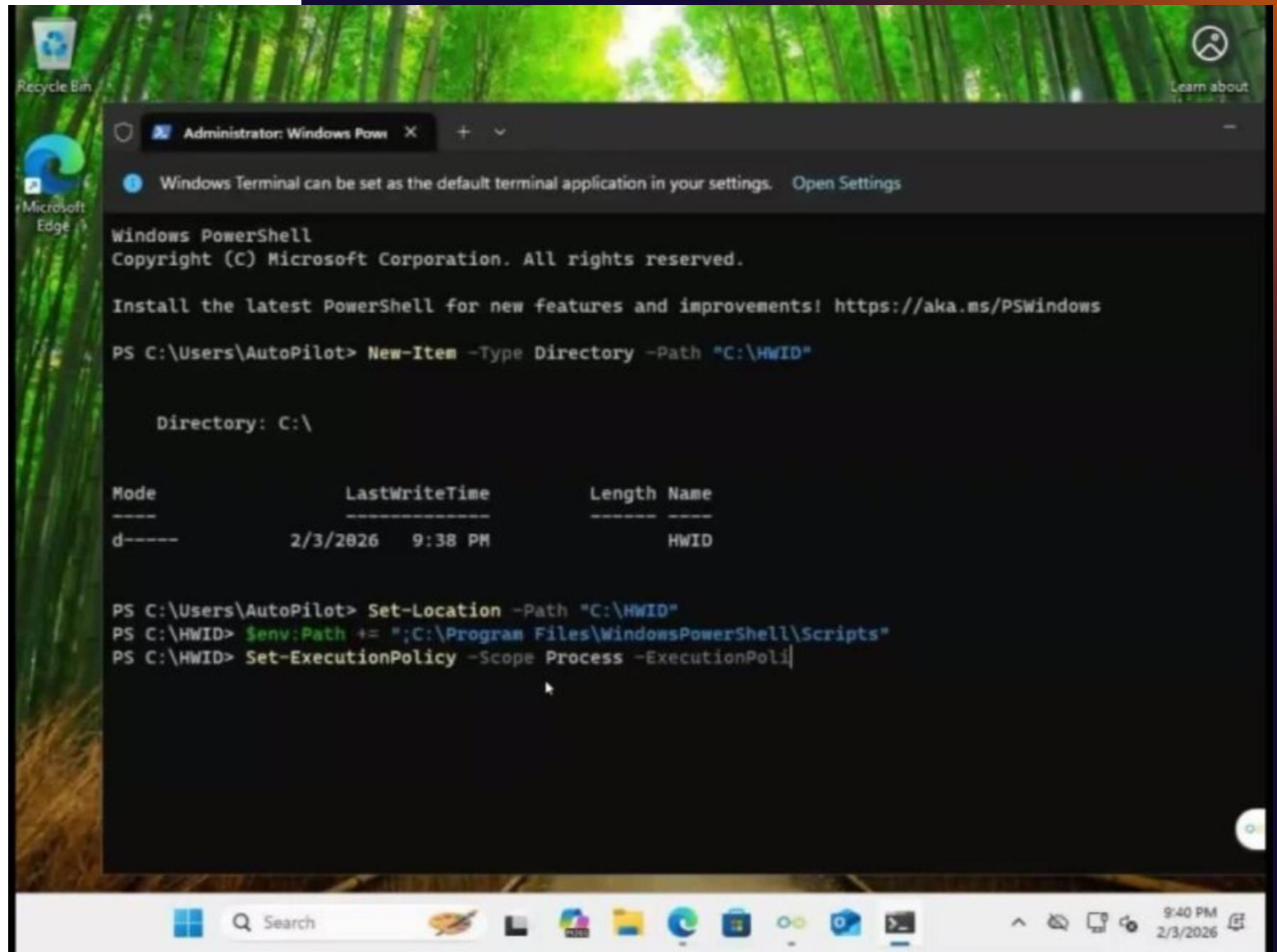
- Supported Windows edition — Pro, Enterprise, or Education.
- Licensing — M365 Business Premium, M365 E3/E5.
- Autopilot profile and Enrollment status page (ESP).
- Automatic MDM enrollment configured.
- Hardware hash uploaded to the tenant before power-on.



How classic Autopilot worked

- 1. Device is enrolled into the partner's tenant.
- 2. Device shipped directly to customer.
- 3. Device joins the network during OOB.
- 4. Autopilot profile downloads.
- 5. Device joins Microsoft Entra, enrolls in Intune.
- 6. ESP runs—apps, policies, configurations deploy.

The MSP tax hardware hash collection



The screenshot shows a Windows PowerShell terminal window running several commands to set up a directory for hardware hash collection. The terminal output includes a table showing the newly created directory.

```
Administrator: Windows Powe X + v
Windows Terminal can be set as the default terminal application in your settings. Open Settings
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\AutoPilot> New-Item -Type Directory -Path "C:\HWID"

Directory: C:\

Mode                LastWriteTime         Length Name
----                -
d-----            2/3/2026   9:38 PM             HWID

PS C:\Users\AutoPilot> Set-Location -Path "C:\HWID"
PS C:\HWID> $env:Path += ";C:\Program Files\WindowsPowerShell\Scripts"
PS C:\HWID> Set-ExecutionPolicy -Scope Process -ExecutionPoli
```

Mode	LastWriteTime	Length	Name
d-----	2/3/2026 9:38 PM		HWID

Why MSP scale made it worse

- Every tenant adds process overhead.
- Reuse and lifecycle events create cleanup work.
- The customer experience stayed clean, but the backend did not.

Why Microsoft evolved it

1

Simple

No need to maintain separate Autopilot profile and enrollment status page.

2

Fast

No more latency issues caused by dynamic groups.

3

Observable

Real time monitoring.

4

Reliable

Configurations and apps are delivered serially.

What changed in device preparation

- Better visibility into provisioning progress and failure states
- Reduced operational overhead compared with classic flows
- Better fit for cloud-native deployment models



Classic (v1) vs. device preparation (v2)

	Classic Autopilot	Device preparation
Device pre-registration	Required (hardware hash)	Not required
Join type	Entra join or hybrid	Entra join only
App delivery during OOB	Up to 100 apps via ESP	Up to 25 essential apps
Monitoring	Limited, delayed	Near real-time
Win32 + LOB in same deployment	No	Yes
Windows 10 support	Yes	No (Windows 11 only)

Device Preparation Set up

The screenshot displays the Microsoft Entra admin center interface for the tenant "Nerdio Partner Solutions CustomerD". The left-hand navigation pane includes sections for Home, Agents, Favorites, and a list of administrative tasks such as Overview, Users, Groups, Devices, Agents, Enterprise apps, App registrations, Roles & admins, Delegated admin partners, Tenant governance (Preview), Domain services, Conditional Access, Multifactor authentication, Identity Secure Score, Authentication methods, Account recovery, Password reset, Custom security attributes, Certificate authorities, External Identities, Cross-tenant synchronization, Entra Connect, and Backup and recovery (Preview).

The main content area is titled "Nerdio Partner Solutions CustomerD" and includes a search bar and a "Search your tenant" input field. Below this, the "Basic information" section provides the following details:

Name	Nerdio Partner Solutions CustomerD	Users	73
Tenant ID	56561305-56b4-48e9-a4b3-e1da60a8974b	Groups	147
Primary domain	partnersolutionscustomer.onmicrosoft.com	Applications	29
License	Microsoft Entra ID P1	Devices	66

The "Alerts" section contains two notifications:

- Global Administrators**: 22 Global Administrators. Microsoft recommends fewer than 5 Global Administrators. [View privileged role assignments](#)
- Migrate to the converged Authentication methods policy**: Please migrate your authentication methods off the legacy MFA and SSPR policies by September 2025 to avoid any service impact. [Learn more](#)

The "My feed" section shows two items:

- hsalazar@nerdiouniversity.icu**: Global Administrator. [View role information](#), [View profile](#)
- Microsoft Entra Connect**: Enabled. Last sync was more than 1 day ago. [Go to Microsoft Entra Connect](#)

The "Feature highlights" section includes five cards:

- Identity Protection**: View risky users, risky workload identities, and risky sign-ins in your tenant.
- Build a consumer app**: Brand, customize, and deploy an application within minutes with Microsoft Entra External ID.
- Access reviews**: Make sure only the right people have continued access.
- Authentication methods**: Configure your users in the authentication methods policy to enable passwordless authentication.
- Microsoft Entra Domain Services**: Lift-and-shift legacy applications running on-premises into Azure.

Intune Device Preparation Creation

The screenshot shows the Microsoft Intune admin center interface. The browser address bar indicates the URL is <https://intune.microsoft.com/#home>. The page title is "Nerdio Partner Solutions CustomerD".

Notifications:

- Update firewall configurations for new Intune network service endpoints. [Learn more about Intune network service endpoints](#)
- Multi Admin Approval is recommended. Protect sensitive actions with additional approval. [Learn more about Multi Admin Approval](#) [Get started](#)

Main Content:

Securely manage devices, access, and apps with Intune

Maximize productivity and simplify administration without compromising endpoint management and security.

Status:

Devices not in compliance	8
Configuration policies with errors or conflict	0
Client app install failures	0
Connector errors	0
Service health	Healthy
Account status	Active

Spotlight:

- Gain fleet-wide visibility into update status**
The Security update status dashboard shows update readiness across Windows Client, Windows Server, and Microsoft 365 apps. [Explore](#)
- Increase productivity with Cloud PCs**
Easily provision Windows 365 Cloud PCs and manage them alongside your physical devices. [Explore](#)

Get more out of Intune:

- [Microsoft Intune Blog](#)
- [Intune Customer Success](#)

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Operationalizing in Nerdio Manager for MSP

The screenshot displays the Microsoft Entra admin center interface. The browser address bar shows the URL: `https://entra.microsoft.com/#view/Microsoft_AAD_IAM/TenantOverview.ReactView/initialValue/TabId/recommendationResourceId/fromNav/identity`. The page title is "Nerdio Partner Solutions CustomerD".

Basic information table:

Property	Value	Property	Value
Name	Nerdio Partner Solutions CustomerD	Users	73
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Primary domain	partnersolutionscustomerd.onmicrosoft.com	Applications	29
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- Global Administrators:** 22. Microsoft recommends fewer than 5 Global Administrators. [View privileged role assignments](#)
- Migrate to the converged Authentication methods policy:** Please migrate your authentication methods off the legacy MFA and SSPR policies by September 2025 to avoid any service impact. [Learn more](#)

My feed:

- hsalazar@nerdiouniversity.icu:** Global Administrator. [View role information](#)
- Microsoft Entra Connect:** Enabled. Last sync was more than 1 day ago. [Go to Microsoft Entra Connect](#)

Feature highlights:

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- Access reviews:** Make sure only the right people have continued access.
- Authentication methods:** Configure your users in the authentication methods policy to enable passwordless authentication.
- Microsoft Entra Domain Services:** Lift-and-shift legacy applications running on-premises into Azure.

Group Templates

Solution baselines

Due to an Azure API change, 'Monthly Savings & Cost' estimates for AVD pools may be currently inaccurate. This is currently under review by Nerdio.

SOLUTION BASELINES

NAME	TYPE	CUSTOMER COMPLIANCE	ASSIGNMENTS	LAST MODIFIED
[ALL][ENTRA] Standard Baseline	Entrald (cloned)	<div><div style="width: 50%;"></div></div>	Development Tenant - Modern Work (Report-only)	Dec 12, 2025 07:12 AM
[ALL][MDO] CIS L1 Foundations	DefenderForO365 (cloned)	<div><div style="width: 100%;"></div></div>		Oct 17, 2025 08:34 PM
[ALL][PURVIEW] Standard Baseline	Purview (cloned)	<div><div style="width: 100%;"></div></div>		Mar 25, 2026 01:28 PM
[HIPAACLIENTS][ENTRA] CIS Level 1 Security Baseline	Entrald (cloned)	<div><div style="width: 100%;"></div></div>		Oct 31, 2025 06:22 AM
1. MWI - Solution Baseline for Defender for Endpoint	DefenderForEndpoint (cloned)	<div><div style="width: 100%;"></div></div>		Dec 9, 2025 08:50 AM
1. MWI - Solution Baseline for Defender for Office 365	DefenderForO365 (cloned)	<div><div style="width: 100%;"></div></div>	Nerdio Partner Solutions CustomerD (Enforced)	Sep 10, 2025 02:09 PM
1. MWI - Solution Baseline for Entra ID	Entrald (cloned)	<div><div style="width: 50%;"></div></div>	Nerdio Partner Solutions CustomerD (Enforced)	Mar 6, 2026 02:26 PM
1. MWI - Solution Baseline for Exchange Online	Exchange Online (cloned)	<div><div style="width: 75%;"></div></div>	Development Tenant - Modern Work (Report-only) Nerdio Partner Solutions CustomerD (Enforced)	Feb 19, 2026 10:44 AM
1. MWI - Solution Baseline for SharePoint & OneDrive	SharePoint & OneDrive (cloned)	<div><div style="width: 100%;"></div></div>		Jun 17, 2025 03:06 PM
1. MWI - Solution Baseline for Teams	Teams (cloned)	<div><div style="width: 100%;"></div></div>	Development Tenant - Modern Work (Enforced)	Feb 17, 2026 06:11 AM
Intune Solution Baseline - Use for Demos	Intune (cloned)	<div><div style="width: 100%;"></div></div>		Apr 27, 2026 06:26 PM
NerdioCon Demo - Intune SB	Intune (cloned)	<div><div style="width: 75%;"></div></div>	Nerdio Partner Solutions CustomerD (Report-only) TheSalazar.cloud (Enforced)	Apr 28, 2026 09:00 AM
Solution Baseline for Defender for Endpoint <small>Disabled</small>	DefenderForEndpoint (built-in)	<div><div style="width: 100%;"></div></div>		Sep 23, 2025 06:29 AM
Solution Baseline for Defender for Office 365 <small>Disabled</small>	DefenderForO365 (built-in)	<div><div style="width: 100%;"></div></div>		Jun 2, 2025 01:11 PM
Solution Baseline for Entra ID <small>Disabled</small>	Entrald (built-in)	<div><div style="width: 100%;"></div></div>		Dec 8, 2025 08:24 AM
Solution Baseline for Exchange Online <small>Disabled</small>	Exchange Online (built-in)	<div><div style="width: 100%;"></div></div>		May 13, 2025 11:50 AM
Solution Baseline for Intune <small>Disabled</small>	Intune (built-in)	<div><div style="width: 100%;"></div></div>		Jun 9, 2025 06:05 AM

Managing the Device Preparation Profile

Group Templates

Due to an Azure API change, 'Monthly Savings & Cost' estimates for AVD pools may be currently inaccurate. This is currently under review by Nerdio.

Group Templates Group Templates Tasks 10

Name	Group Type	Purpose Type	Membership Type	Configuration	Assignments	Actions
[ALL][PB1][EXCLUDE] Group Template [SG][PB1][EXCLUDE] NMM Windows Advanced Compliancy	Security Group	Policy Management	Assigned			
[DEMO] AOVPN Devices AOVPN Devices Demo	Security Group	Standard	Dynamic Device			
[DEMO] AOVPN Users AOVPN Users	Security Group	Standard	Assigned			
[DEMO] App Group #1 [DEMO] App Group #1	Security Group	Standard	Assigned			
[DEMO] Bloomberg Users [DEMO] Bloomberg Users	Security Group	Standard	Assigned			
[INTUNE TEST] NMM Windows Advanced Compliancy	Security Group	Policy Management	Assigned			
All Devices All Devices	Security Group	Policy Management	Dynamic Device			
All Intune Users All Intune Users	Security Group	Standard	Dynamic User			
All Users All Users	Security Group	Policy Management	Dynamic User			
DVC - Autopilotv2 DVC - Autopilotv2	Security Group	Standard	Assigned			
LS-License-E3 Nerdio Partner Solutions Custo-Microsoft 365 E5	Security Group	License Management	Assigned		License: Micr	

Showing 20 of 20 Page Size: 25

Refresh All New Group Template


Got a minute?
We value your feedback! Please take a minute to complete our short survey and help us improve your experience. [Start Survey](#)



How would you like to set up this device?

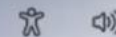
 Set up for personal use

Use a personal Microsoft account to get set up and have full control over this device.

 Set up for work or school

Get access to your organization's resources like email, network, apps, and services. Your organization will have full control over this device.

Next



Accounts

Accounts Accounts Tasks

Name	Status	Azure Info	Configuration Info	Usage	Actions
Development Tenant - Modern Work ID: 38	ACTIVE	Azure tenant: 6hmfj.onmicrosoft.com Subscription: - Azure region(s): - App Registration: 4e1d2a1d-5055-4072-af0b-3034ea0e52d9	Default Identity: Entra ID	Current Modern Work users: 17 IUL: No Last usage: Apr 20, 2026 10:40 AM	[→] ⋮
Nerdio Partner Solutions CustomerD ID: 16	ACTIVE	Azure tenant: partnersolutionscustomerd.onmicrosoft.com Subscription(s): Azure subscription 1 (95894e7a-8c75-45e7-8289-ac73642fb0e0) Azure region(s): uksouth, northcentralus, eastus, eastus2, centralus, westcentralus App Registration: 43aa2042-8b5e-4b18-a2c7-af58495693b2 Additional App Registration: 12c9895f-7561-4262-af83-ba256f18c6f6	Default Identity: Entra ID	Current AVD users: 3 Current Modern Work users: 3 Host Pools: 5 / CPU cores: 18 / IUL: Yes Last usage: Apr 28, 2026 01:14 PM	[→] ⋮
TheSalazar.cloud ID: 43	ACTIVE	Azure tenant: y353p.onmicrosoft.com Subscription: - Azure region(s): - App Registration: 4f173eb4-0dbc-4505-afd8-66efb9d9be97	Default Identity: Entra ID	Current Modern Work users: 22 IUL: No Last usage: Apr 28, 2026 10:52 AM	[→] ⋮

Showing 3 of 3 Page Size: 10

Refresh All New Account

Got a minute?
We value your feedback! Please take a minute to complete our short survey and help us improve your experience. [Start Survey](#)

Application Management at Scale

The screenshot displays the Nerdio Manager for MSP interface, specifically the Unified Catalog section. The left sidebar contains a navigation menu with categories like INSIGHTS, ACCOUNTS, SECURE SCORE, POLICY DRIFT MGMT, SESSION HOSTS, NONCOMPLIANT ENDPOINTS, PHYSICAL ENDPOINTS, SERVERS, BACKUP ISSUES, USER ACTIONS, CONSOLE CONNECT, RISKY USERS, INTUNE APPS, GLOBAL IMAGES, APPLICATIONS, SCRIPTED ACTIONS, and SOLUTION BASELINES. The main content area is titled 'Unified Catalog' and shows a list of applications. A notification banner at the top states: 'Due to an Azure API change, 'Monthly Savings & Cost' estimates for AVD pools may be currently inaccurate. This is currently under review by Nerdio.' Below this, there are tabs for 'Unified Catalog' and 'Unified Catalog Tasks' (30). A search and filter bar is present. The application list table has columns for App Name, App ID, Vendor, Repository, Versions, Assigned To, and Actions. Three applications are listed: Azure VPN Client, Google Chrome, and Google Chrome - Win32. A pagination bar at the bottom indicates 'Showing 3 of 3' and 'Page Size: 10'. An 'Import Application' button is located in the bottom right corner.

App Name	App ID	Vendor	Repository	Versions	Assigned To	Actions
Azure VPN Client ★	UUID	Microsoft Corporation	Windows	N/A		⋮
Google Chrome ★	UUID	Google	Windows	N/A		⋮
Google Chrome - Win32 ★	UUID	Alphabet	Windows	N/A		⋮

Why Nerdio makes it scalable

- Microsoft has made improved Autopilot. Nerdio makes it scalable.
- Group templates.
- Multi-tenant orchestration.
- Policy pipeline that works the same way across every client in your portfolio.
- App management.

Three recommendations

- 1. Pilot device preparation next week, not next quarter.
- 2. Build the profile right the first time.
- 3. Measure the pilot.

1. Pick the right pilot client

- Cloud-only skip the legacy cleanup tax.
- Ensure the device is not registered to classic Autopilot.
- Limit the scope.
- License - M365 Business Premium / E3 / E5.

2. Build the profile right the first time

- Use an assigned device group.
- Target the device group within your policies and applications
- Limit your essential apps.
- Mix Win32 and LOB apps freely.

3. Measure the pilot like a service launch

- Deployment success rate.
- Time-to-desktop. From OOBE start to productive desktop.
- Customer feedback.

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Q&A

Thank you

Please remember to fill out the post-breakout survey in the app

Stop by the **Nerdio booth in the Expo Hall** to take advantage of our exclusive, lowest-ever pricing on Microsoft 365 management!