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Gold









Silver



Technical Partners











About Mattias

Focus

Intune, Windows, automation & Debugging



My Blog

Denmark

MSEndpointMgr.com / blog.mindcore.dk



Certifications

Does drone certificate count?

Hobbies

Who needs a hobby when you have kids 🥨

Contact













Agenda

What paths are possible

Which paths exist to start the cloud native journey

Cloud-native strategy and vision

Having your strategy and vision defined is important

Provisioning and transitioning

Ways of transitioning a device to cloud-native

Fully automated solution

Automation can be expensive, but it will save you in the long run

What's next?

What has happened since we transitioned to cloud-native

Key takeaways:

- Insights on a fully automated complex transition LARGE SCALE
- Be inspired to get started with your cloud-native journey



Cloud native definition

• Cloud-na·tive [kloud]-['nādiv].

Endpoints or devices that can be deployed from anywhere. They receive their applications and configurations dynamically from the cloud and can easily be reset or restored.

• Cloud-native endpoints are Windows devices that are deployed using Windows Autopilot, joined to Microsoft Entra ID (Entra joined), and are automatically enrolled into Microsoft Intune.

Why cloud?





Scalebility and cybersecurity threat

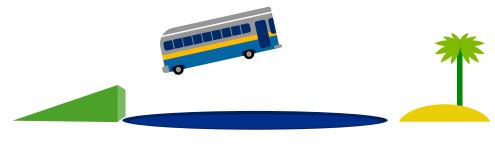
- Current on-prem situation cannot take the load of 1200 new employee every month
- Easier to open new offices worldwide without need to build infrastructure.
- To many hands to be involved to configure "normally" simple stuff making it complex.
- If hit by ransomware no good solution back to working state within reasonable time.
- Expertise on Configuration Manager decreasing while cloud goes up.
- Windows 10 going out of support.



Which paths exist to start the cloud native journey



Different paths to Cloud Native







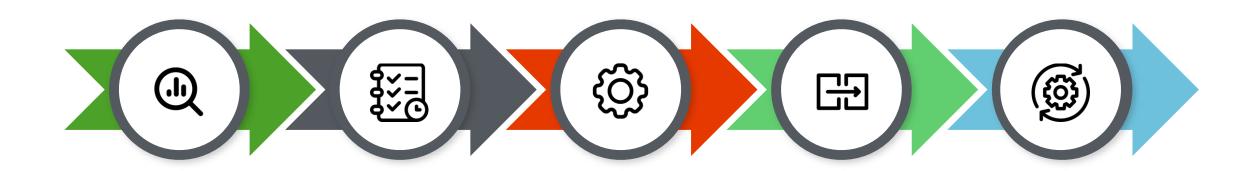


Workload transition (Co-management)





Careful planning and execution



Assess

Inventory environment and assess assets and resources

Plan

Create project plan and determine, organizational sponsorship

Configure

Build and configure necessary actions for a successful transition

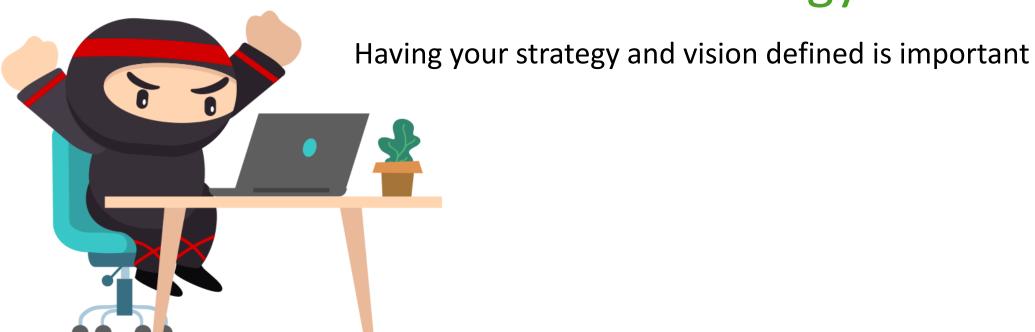
Transition

Execute transition project plan with through the organization

Operate

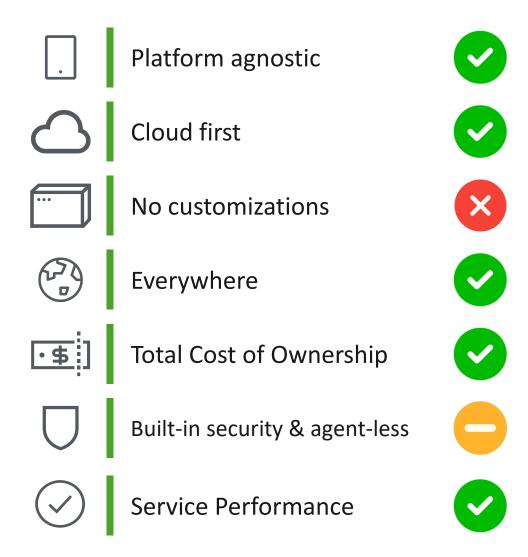
Move from a project phase to an operational phase

Cloud-native strategy and vision



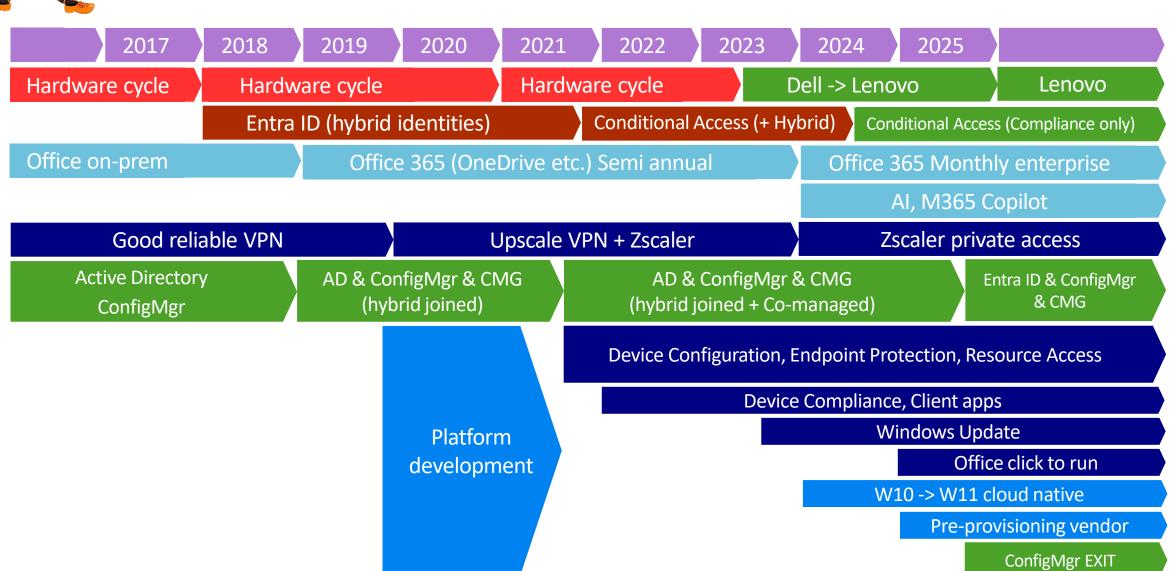


Strategy definition and principals





Historical aspects and prerequisites





What are we migrating from?

Windows 10 hybrid joined co-managed	Windows 11 cloud native with cm agent to handle apps
Office 32 bit	Microsoft 365 apps for enterprise x64
Trillex antivirus (Former McAfee)	Microsoft Defender
Trillex DLP	Microsoft Purview with DLP policies from Intune
Fireeye	Microsoft Defender for Endpoint (M365 E5)
Cisco AnyConnect	Zscaler zero trust private network access
Some GPO hardening	Full CIS baseline ASR Applocker full contrained language mode
On-prem PKI	Cloud PKI
Regular secured network 802.1x	Zero trust cisco ISE protected 802.1x



GOALS for transition



UPGRADE PROCESS

Time to complete the upgrade and onboarding to tenant is on average within 120 min

Measure: Time through LogAnalytics

Tool: LogAnalytics



SUCCESS RATE

The user must be able to complete the upgrade without support 95% of the time

Measure: Tickets & Devices Upgr.
Tool: ServiceNow & LogAnalytics



USER EXPERIENCE

Baseline user satisfaction with the upgrade experience (3 out of 5)

Measure: User Experience Surveys
Tool: Survey & NPS measure



SUPPORT READY

Support documentation have been drafted and knowledge transferred

Measure: Incidents escalated to L3
Tool: ServiceNow

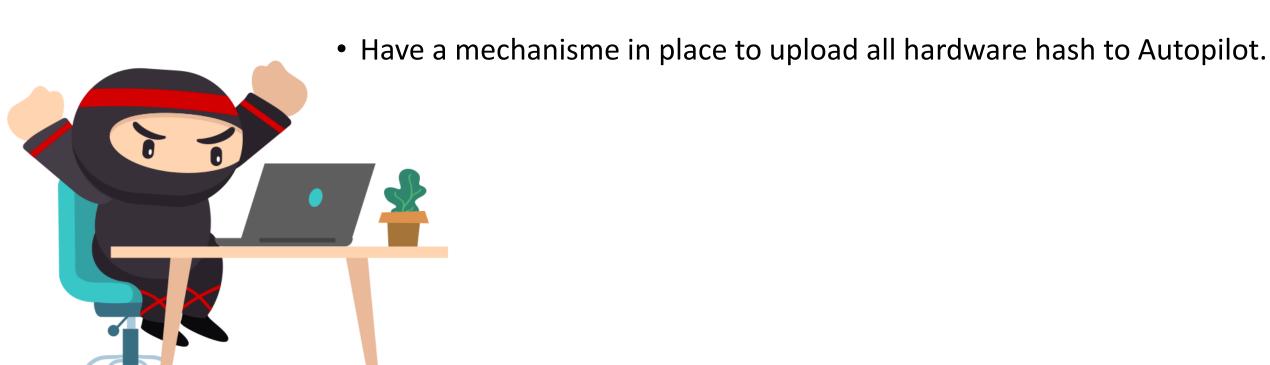


Be aware and choose what fits you

- There are no supported path from hybrid to cloud native without a wipe.
- Either way it will be inconvenient for the end user
- Wipe and load Pros and cons
- Swap hardware for all users Pros and cons
- Upgrade the existing OS to Windows 11 and wipe Pros and cons

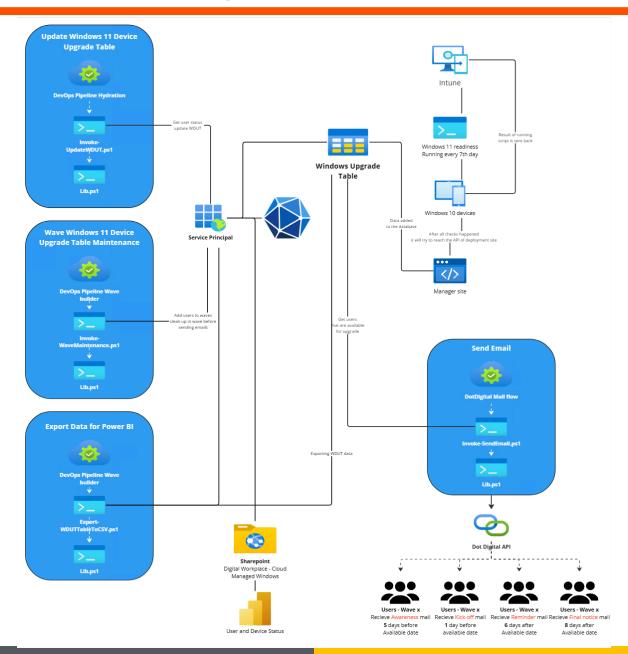
Before going into Automation mode 👺

- We ensure all the bits and bytes are on the devices before continue
- Pre-caching Windows 11 on users devices before starting to upgrade will save you massive of time
- Deploying an upgrade task sequence to everyone ahead of time
- Deploying an app called "upgrade assistant" We will look closer at that later.





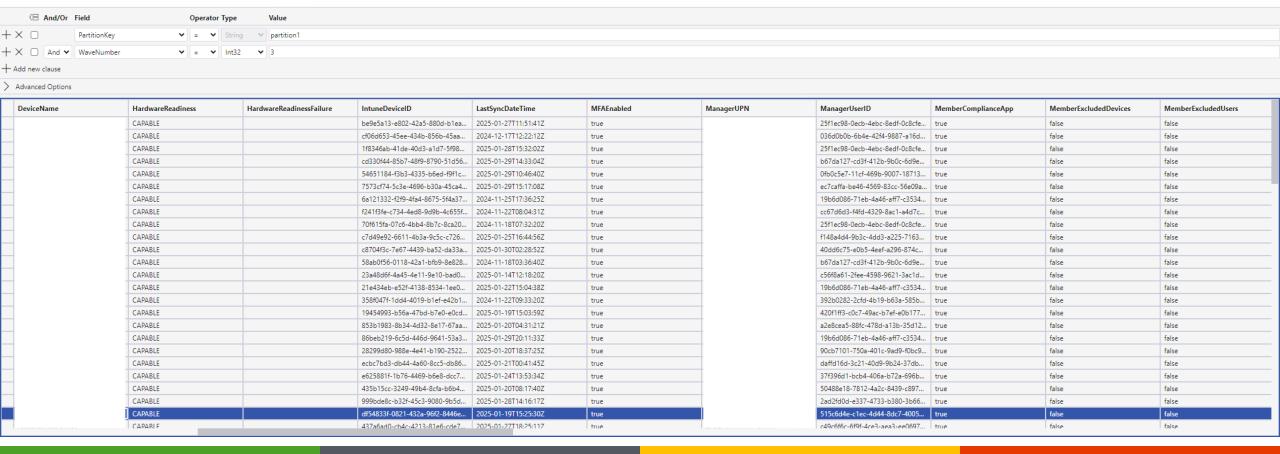
A masterpiece of information





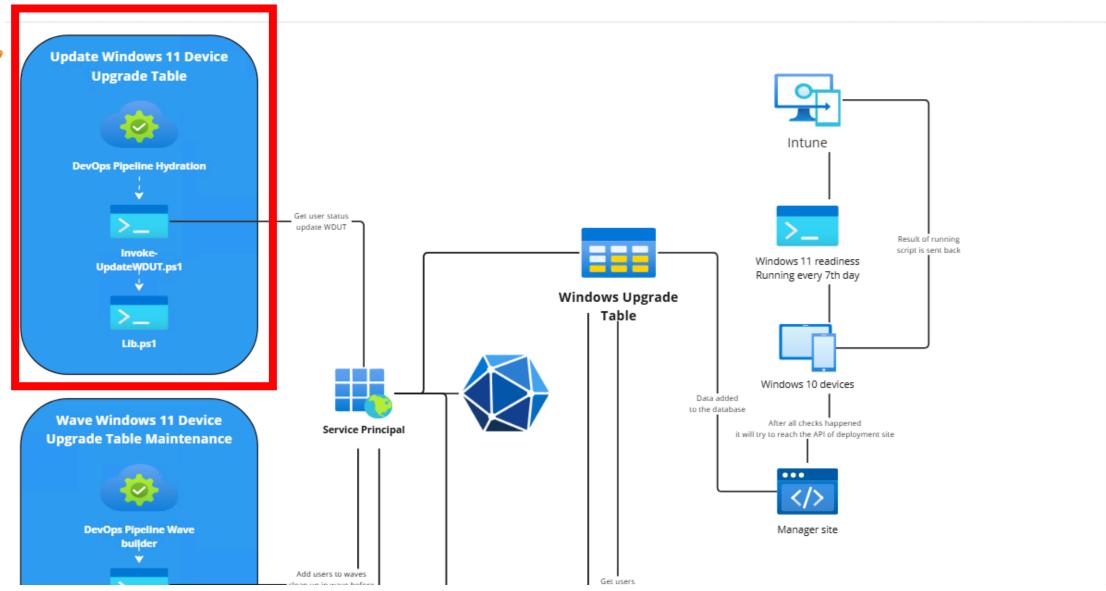
Database – Azure storage table

• 36 different information is gathered like user capabilities and device capabilities





Updating database with information

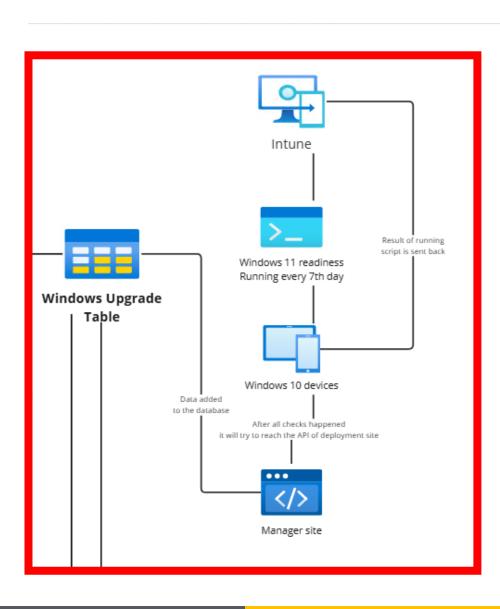


User eligibility

- Does the user have a manager?
- MFA enabled?
- Member of compliance app in workspace ONE?
- User Password Hash enabled?
- User part of a group enabled for joining device to entra?
- User has Zscaler zero trust enabled?
- User has Self service password reset enabled?
- User is Windows Hello for Business capable?
- User is NOT excluded?



How device details are gathered

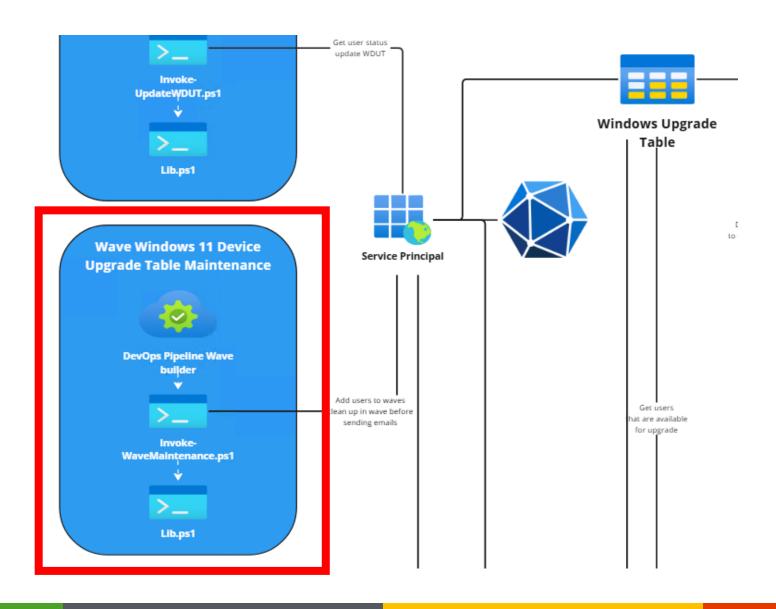


Device capable

- Devices is NOT a Windows 11?
- Freespace 30+GB?
- System RAM minimum 4GB?
- TPM present and enabled in at least version 2.0?
- Secureboot enabled?
- WinRE enabled?
- CPU family supported?
- Device registered in Autopilot?
- Device is NOT excluded?



Wave maintenance





Waves

VERBOSE: Command [Set-AzContext] succeeded.

[03:31:22:Main]::Running against azr table 'WDUT'

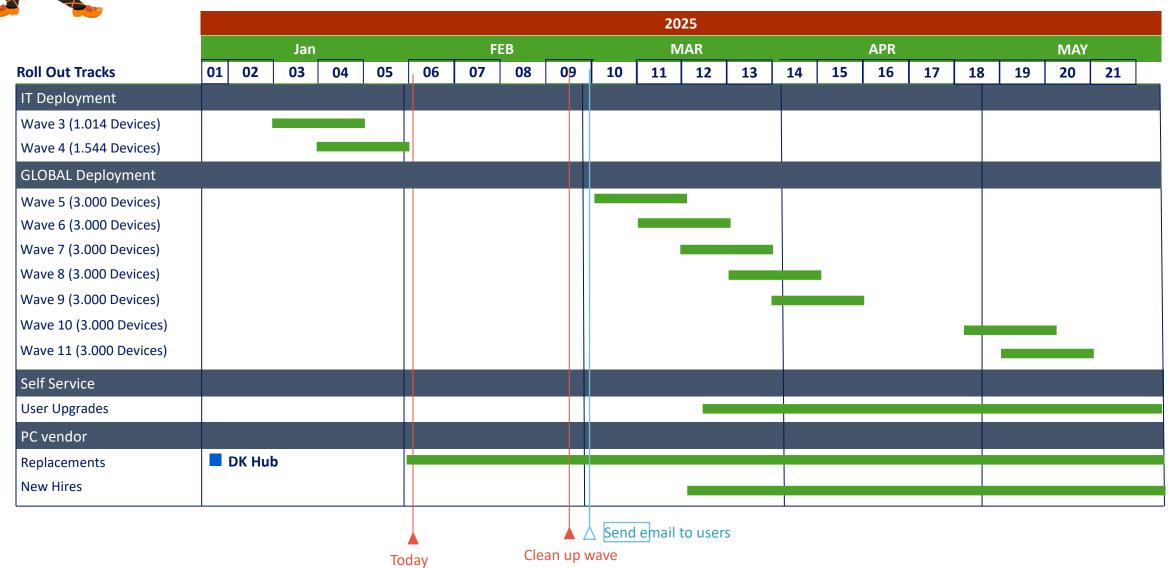
[03:32:10:Main]::Found '96928' devices, calculated '3343' for each wave, and found '127' devices (non-eligible or with missing availability - in the past from '2025-02-10T00:00:00') to move to future waves starting from '2025-03-10T00:00' and forward

WaveNumber	AvailabilityDate	DeadlineDate	CurrentWaveCount		
1	2024-11-18T00:00:00	2024-11-27T00:00:00	0		
2	2024-12-09T00:00:00	2024-12-18T00:00:00	187		
	2025-01-20T00:00:00	2025-01-29T00:00:00	897		
4	2025-01-27T00:00:00	2025-02-05T00:00:00	492		
	2025-02-03T00:00:00	2025-02-12T00:00:00	0		
6	2025-02-10T00:00:00	2025-02-19T00:00:00	0		
	2025-02-17T00:00:00	2025-02-26T00:00:00	0		
8	2025-02-24T00:00:00	2025-03-05T00:00:00	0		
	2025-03-03T00:00:00	2025-03-12T00:00:00	347		
10	2025-03-10T00:00:00	2025-03-19T00:00:00	2629		
11	2025-03-17T00:00:00	2025-03-26T00:00:00	2626		
12	2025-03-24T00:00:00	2025-04-02T00:00:00	2626		
13	2025-03-31T00:00:00	2025-04-09T00:00:00	2627		
14	2025-04-07T00:00:00	2025-04-16T00:00:00	218		
15	2025-04-14T00:00:00	2025-04-23T00:00:00	355		
16	2025-04-21T00:00:00	2025-04-30T00:00:00	381		
17	2025-04-28T00:00:00	2025-05-07T00:00:00	2729		
18	2025-05-05T00:00:00	2025-05-14T00:00:00	2627		
19	2025-05-12T00:00:00	2025-05-21T00:00:00	3184		
20	2025-05-19T00:00:00	2025-05-28T00:00:00	2628		
21	2025-05-26T00:00:00	2025-06-04T00:00:00	2628		
22	2025-06-02T00:00:00	2025-06-11T00:00:00	2628		
23	2025-06-09T00:00:00	2025-06-18T00:00:00	2627		
24	2025-06-16T00:00:00	2025-06-25T00:00:00	2626		
25	2025-06-23T00:00:00	2025-07-02T00:00:00	2628		
26	2025-06-30T00:00:00	2025-07-09T00:00:00	2628		
27	2025-07-07T00:00:00	2025-07-16T00:00:00	2626		
28	2025-07-14T00:00:00	2025-07-23T00:00:00	2628		
29	2025-07-21T00:00:00	2025-07-30T00:00:00	2626		
30	2025-07-28T00:00:00	2025-08-06T00:00:00	2629		
31	2025-08-04T00:00:00	2025-08-13T00:00:00	2627		
32	2025-08-11T00:00:00	2025-08-20T00:00:00	2628		
33	2025-08-18T00:00:00	2025-08-27T00:00:00	2628		
34	2025-08-25T00:00:00	2025-09-03T00:00:00	2628		
35	2025-09-01T00:00:00	2025-09-10T00:00:00	2629		

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10	2025-03-10T00:00:00	2025-03-19T00:00:00	2629
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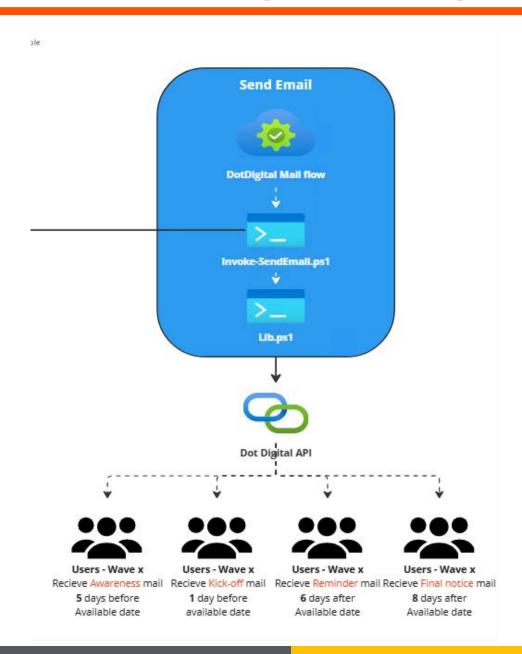


Maintenance and clean waves





Sending email logic





Available wave - Monday morning ~10.30





Windows 11 available

Great news - your PC is ready for Windows 11, and you can upgrade now or schedule it for later. The upgrade will take around 2-3 hours. In the beginning, you can continue to use the PC; later you will have to apply your PC settings. Access the Upgrade guide.

Be aware that your PC will be completely wiped during the upgrade process, so make sure to save your files, favorites and other local stored content.

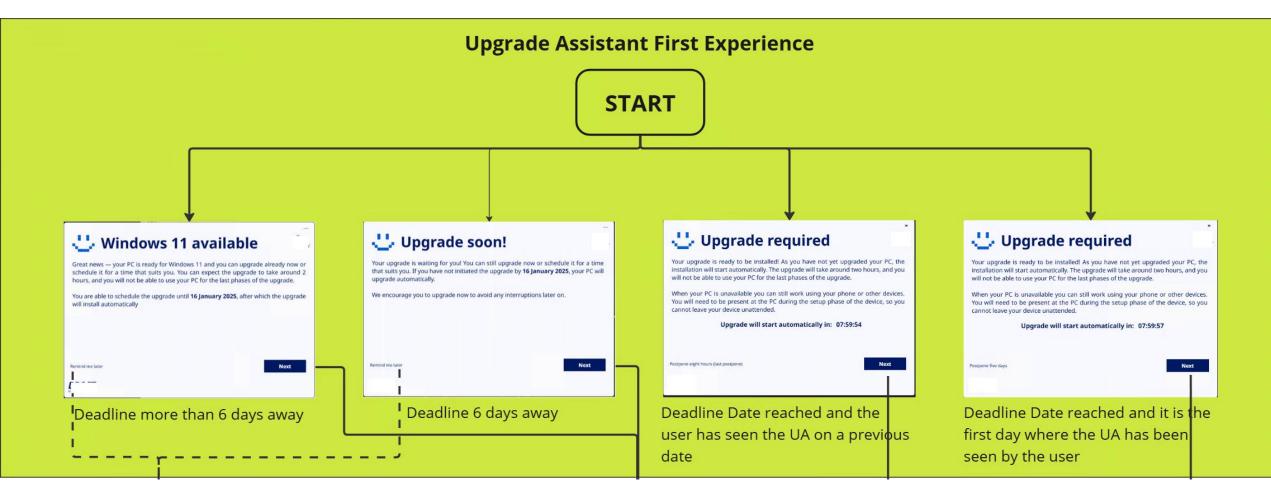
You can schedule the upgrade until 21 August 2025, after which the upgrade will install automatically.

Remind me later

Next

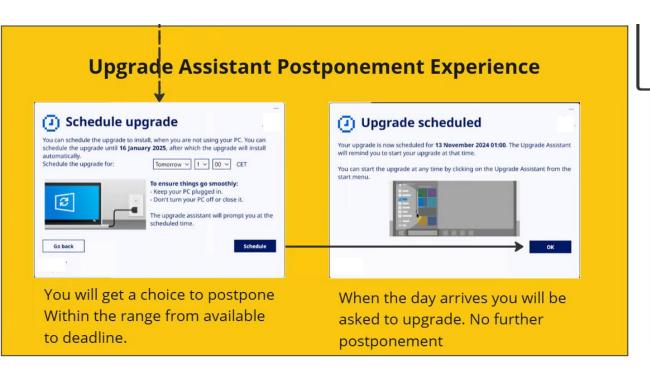


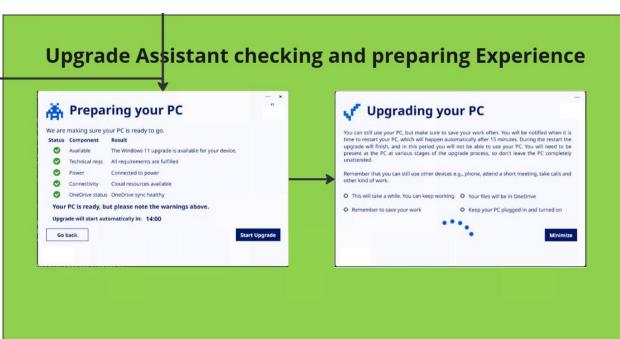
Upgrade experience first layer – end user





Upgrade experience second layer – end user

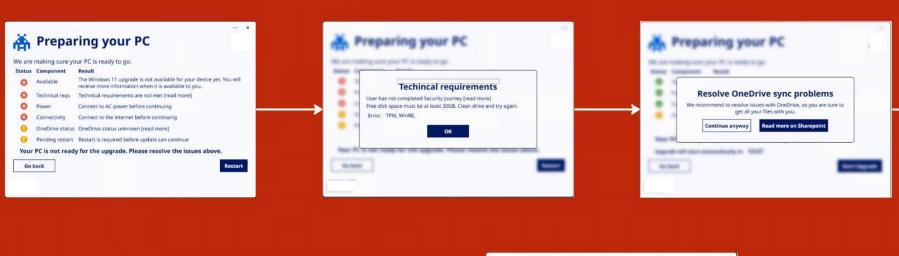






Upgrade experience last layer – end user

Upgrade Assistant failed Experience



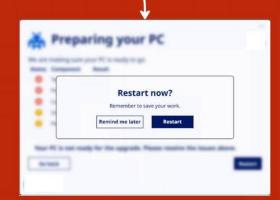
Oh snap! Something bad happened

Unfortunately an error occoured while trying to start the upgrade. Please try to reboot your device and try again. If the error persists, please contact your local IT support.

Error:

Invoking Not failed:

Copy error message and close window



The user process explained

Verify user has MFA, SSPR, ZPA and password hash enabled



device can upgrade to Windows 11 and add to wave

Pre-validate that the



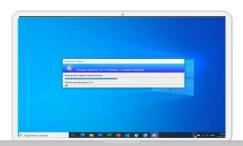
Everything pre loaded on the device, Windows 11 etc



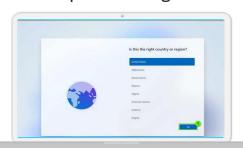
User recieve windows 11 shortcut and launch the process when suited



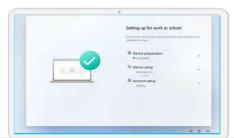
Task Sequence initiated upgrade with reset at the end



Windows 11 starts in OOBE, ready for provisioning



Device preparation phase with minimum apps



Device has been transitioned to cloud-native



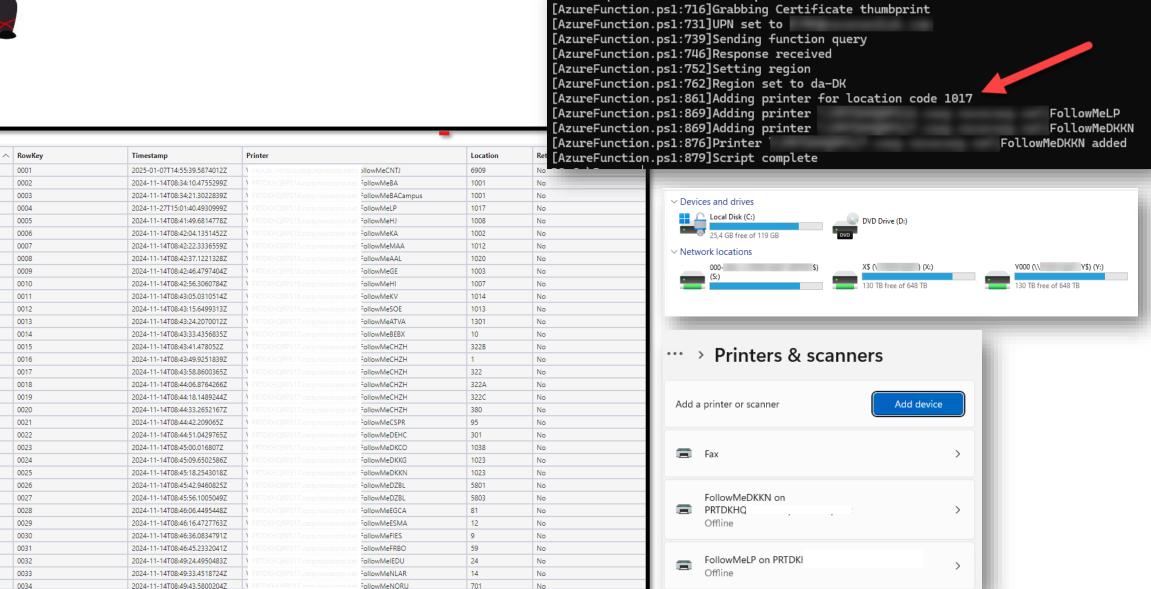


PartitionKey

Assign printers or mapped drives

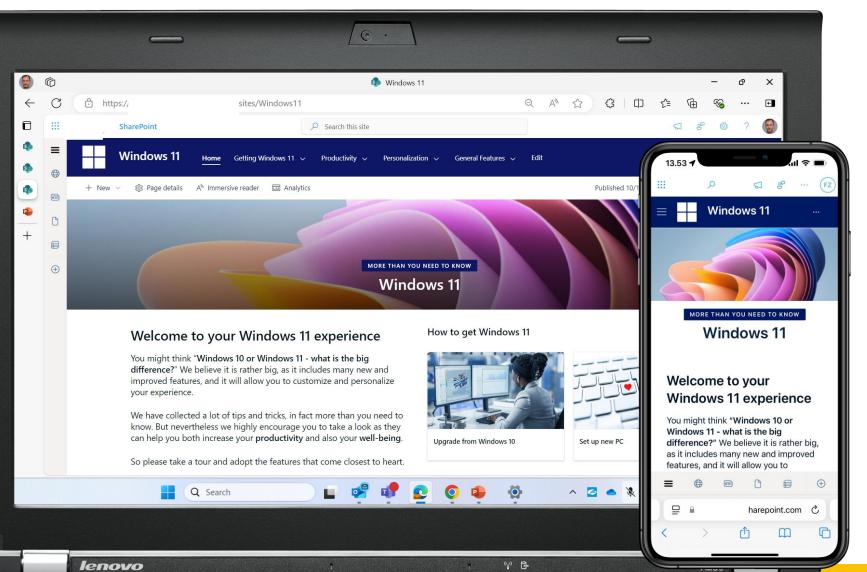
PS C:\Repos> .\AzureFunction.ps1

www.wpninjas.eu #WPNinjaS





Importance of adoption



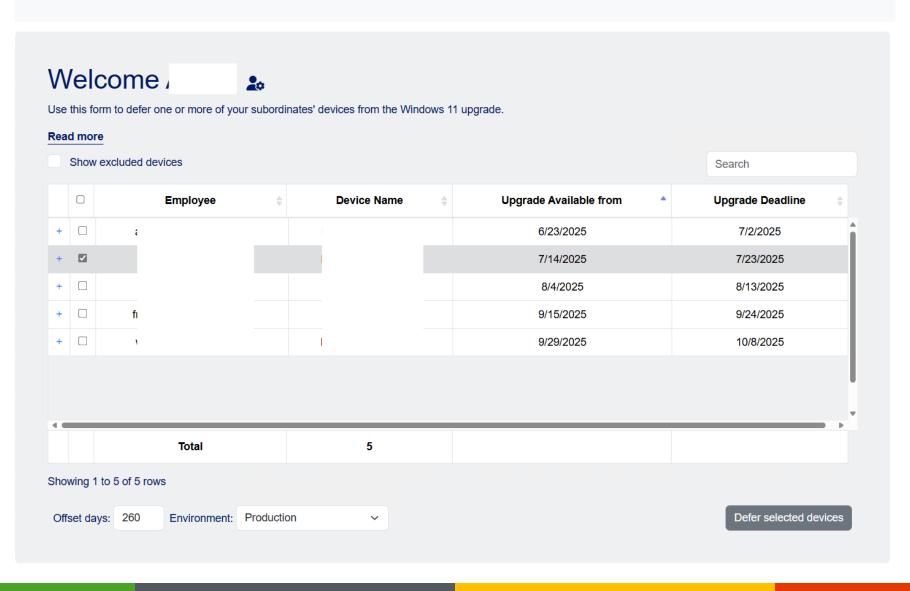
- Windows 11 More than you need to know site (URL shortcut; Win11/Windows 11)
- Windows 11 Upgrade app for iOS
- Windows 11 Community
- Windows 11 Webinars
 - Upgrade progress explained
 - Get started with Windows 11
 - Windows 11 All About Files



What is a user is in freeze zone?

www.wpninjas.eu #WPNinjaS

Windows 11 Deferral Requests





26KN

R2K5

179

93CT

√GFD

34

20 7/16/2025 12:00:00 AM

33 10/15/2025 12:00:00 AM

39 11/26/2025 12:00:00 AM

32 10/8/2025 12:00:00 AM

14 6/4/2025 12:00:00 AM

28 9/10/2025 12:00:00 AM

Give the people needed info

earch for User		Search for Device		Location	on		7	71374	96035	
I	~	All	,	✓ All		~	(Jsers Displayed	Devices D	isplayed
 User and Device Status Please use the filters above to find the User or Device you want to check, for more information, use the button on the right to find the data descriptions The coloured columns give the overall Device Capability and User Eligibility status, the columns to the right show the details (D=Device, U=User) If a user is not eligible because of SecMEMCMWALL, L3 support can add the user to the group 									rice Capability	
Device Name	Wave Upgrade Deadline	Device - Capability	D - Hardware	D - Details	D - Exclusion	D - Excluded Group	D - Model	User - Eligibility	U - Exclusion	U - MFA
.LS	16 6/18/2025 12:00:00	AM DEVICE READY	CAPABLE		false			USER READY	false	true
91	32 10/8/2025 12:00:00	DEVICE NOT READY	NOT CAPABLE	WinRE,	true	Sec-MEM-CMW- Windows11Upgrade- ReplacementPCs-Devices	Precision 5570 - Dell Inc.	USER READY	false	true true
348R	31 10/1/2025 12:00:00	AM DEVICE NOT READY	NOT CAPABLE	SecureBoot,	false			USER READY	false	true
51	14 6/4/2025 12:00:00 A	M DEVICE NOT READY	BLANK		false			USER READY	false	true
36AE	15 6/11/2025 12:00:00	AM DEVICE READY	CAPABLE		false			USER READY	false	true
25	15 6/11/2025 12:00:00	DEVICE NOT READY	NOT CAPABLE	WinRE,	true	Sec-MEM-CMW- Windows11Upgrade- ReplacementPCs-Devices	Latitude 5320 - Dell Inc.	USER READY	false	true true
:50B	17 6/25/2025 12:00:00	AM DEVICE READY	CAPABLE		false			USER READY	false	true
9	36 11/5/2025 12:00:00	MAM DEVICE NOT READY	CAPABLE		true	Sec-MEM-CMW- Windows11Upgrade- ReplacementPCs-Devices	Latitude 5320 - Dell Inc.	USER READY	false	true

false

false

false

false

false

true

Sec-MEM-CMW-

Windows11Llngrade-

SecureBoot,

false

false

false

false

false

false

true

USER READY

USER READY

USER READY

USER READY

USER READY

USER READY

Precision 7560

Dell Inc

CAPABLE

CAPABLE

CAPABLE

CAPABLE

NOT CAPABLE

UNDETERMINE

DEVICE READY

DEVICE READY

DEVICE READY

DEVICE READY

DEVICE NOT READY

DEVICE NOT READY

KPI performance

www.wpninjas.eu **#WPNinjaS**

KPI Dashboard for Windows 11

Filters: Service Offering: Cloud-Managed-Windows; Ticket-type: Incident



Upgrade Process to Windows 11

Select Time Period Upgrade Date

to have comparable results, select the same time period in both filters

19/11/2024 30/01/2025



Total Device Upgrades

1111

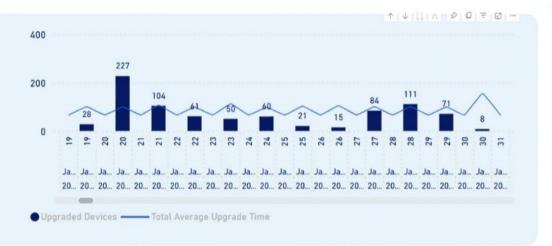
Devices Upgraded

Average Upgrade Time

103

Minutes

Target: 120 minutes



Support Readiness in Incidents

Select Time Period Incident Created

to have comparable results, select the same time period in both filters

19/11/2024 🖾 30/01/2025 🖾

Total Incidents Reported

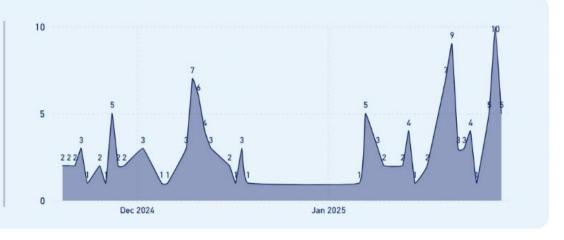
124

in time period selected

Tickets Assigned to L3

63

L3 assigned tickets





Custom Autopilot measurement

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Time Range: Last 24 hours ∨







Device details for Autopilot Provisioning

∠ Search							
DeviceName ↑↓ User enrolled device	↑↓ Autopilot Provision start	↑↓ Autopilot Provision ended	↑↓ Autopilot Provision Total	↑↓ AP profile downloaded ↑.	↑↓ AP ESP Status ↑↓	AP Full Provisioning	$\uparrow\downarrow$ Count ESP apps $\uparrow\downarrow$ Zscaler Version $\uparrow\downarrow$
PF4QTK15			minutes and seconds	Downloaded Successfully	Completed	Not completed	8 Zscaler 4.4.0.324
PF4S0DQW			minutes and seconds	Downloaded Successfully	Completed	Provisioning finished.	8 Zscaler 4.4.0.324
TEST-PF4LN48V			Not possible to calculate	Failed	not found	Not completed	8 Zscaler 4.4.0.324
FLVPZH3			21 minutes and 59 seconds	Downloaded Successfully	Completed	Provisioning finished.	8 Zscaler 4.4.0.324
PF4PW5DR			32 minutes and 30 seconds	Downloaded Successfully	Completed	Provisioning finished.	8 Zscaler 4.4.0.324
PF4DHQJ2			32 minutes and 47 seconds	Downloaded Successfully	Completed	Provisioning finished.	8 Zscaler 4.4.0.324
							•

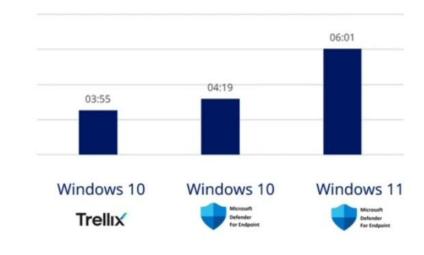


Performance increase

Novo Nordisk®

Performance of Standard PC's running Microsoft Defender for Endpoint (MDE) vs. Trellix





ThinkPad T14 Gen 3

24 minutes increase in battery life in average will be obtained when rolling out MDE as replacement for Trellix on **Windows 10**.

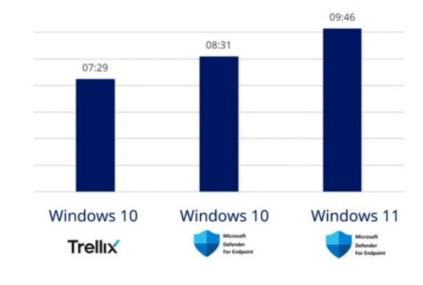
This is most likely due to more effective and less resource intensive background processes of MDE compared to Trellix.

Going to Windows 11 adds additionally 01:42 hours!



Performance increase





ThinkPad X13 Gen5

The faster model X13 Gen 5 has better power management and more power-efficient architecture leading to a very high overall battery life. The roll-out of MDE as replacement for Trellix will add a **1 hour and 2 minutes increase** in battery life in average.

Going to Windows 11 adds additionally 01:15 hours!

User feedback



All Set to use Windows 11 successfully upgraded now



Everything has been running smoothly.
Computer feels faster than before





Thanks for a smooth ride! I upgraded this morning and everything works well thus far



With Windows 11, my programs (excel, word, outlook) are opening much quicker

Extra positive fact



Win11 users* scores an average of **6** on PC Performance

"Significant performance upgrade. Boot time is <1 min from power on to first app opened (Teams)."

- User from Denmark

"Windows 11 Login Time is much quicker than Windows 10." - User from Australia



Thank You

