

Streamlining macOS operations -Empowering efficiency with Microsoft Intune

MacSysAdmin 2024

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Key takeaways:

- macOS devices can be managed the same way as other devices in the enterprise.
- Intune keep your Apple devices secured

Agenda

What is Intune and where are we?

Past, current and future roadmap

Onboarding

Await final config, FileVault, ect...

Device Configuration

Direct Import, Zero Day, DDM



Platform SSO

A Swiss knife or an Iceberg?

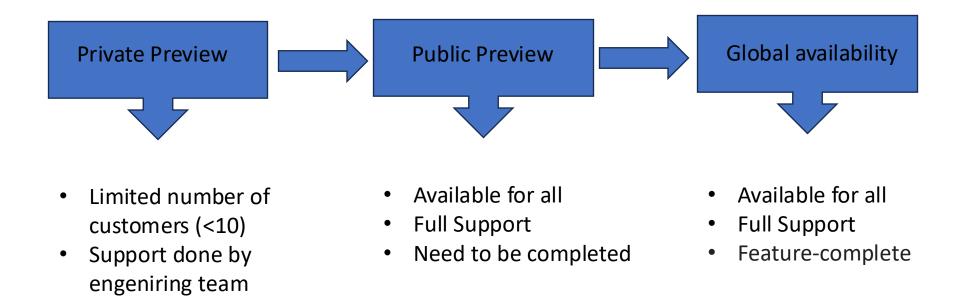


Flexible App and Remote Help

Terminology

directly







Intune macOS snapshot

Endpoint Security

- Firewall
- FileVault (Disk encryption)
- Gatekeeper
- Activation Lock
- Rapid Security Response

Conditional Access

Device compliance

Enrollment

- ADE with modern auth
- Local account management
- Await final configuration
- Platform SSO and passkeys

Configuration

- Entra single sign-on extension
- LDAP (AD)
- Restriction policies
- Custom policy support (iMazing)
- Passcode policies
- Software update
- Enterprise certificates/PKI
- Network configuration/ Proxy server
- Login window
- Managed login items
- Content caching
- Settings picker
- Device actions (Erase, Restart, etc.)
- DDM software update
- FileVault during setup assistant

3^{rd-}party integration

- Munki (App lifecycle)
- Privileges (Elevation control)
- Santa (Binary access control)
- Octory (Onboarding splash screen)
- Nudge (OS update controls)

Scripting

- User/Root scripts
 with schedules
- Custom attribute collection

Intune Suite

- Remote Help with full control
- Cloud PKI support

Apps

- DMG, PKG support & Available assignement
- Custom PKG pre/post install scripts
- Native integrations for Edge, Office, and Defender
- Config for Edge, Office, Defender, and OneDrive
- Custom preference
- Volume-purchased apps

Coming soon

- Custom app detection
- User channel support for resource access profiles
- Recovery lock management
- JIT compliance remediation
- Default hardware-bound Entra registration

New in last 12 months

Intune is the only needed solution for macOS management.

in last 12 months



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Await configuration after Automated Device Enrollment

Create a more secure onboarding experience by guaranteeing that the Mac is configured before releasing to the user.

User remains within Setup Assistant experience until first device check-in completes.

Micros	soft Intune admin center		
>>	Home > Devices macOS > macOS n	nacOS enrollment > Enrollment program tokens > Woodgrove.ms Profiles >	
^	Create profile		
≃ h	macOS		
=			
	Basics 2 Management Settin	ngs (3) Setup Assistant (4) Account Settings (5) Review + create	
	Define enrollment and management setti	ngs for your macOS devices. Learn more.	
•	User Affinity & Authentication Metho	d	
○ ∰	User affinity * 🕠	Select an option	
▲ [Management Options		
24 22	Await final configuration \bigcirc	Yes No	
×	Locked enrollment * 🛈	Select an option	



- Create and configure local admin and primary account on ADE enrolled Macs
- Admin account Azure AD LAPS integration for Mac.

Coming in 2 parts:

- Configure and restrict editing
- Set standard and create management admin account
- LAPS for macOS (2025)

ome > macOS with new Local Adr	nin Properties >	
dit profile		
Account Settings (2) Revie	w + save	
	it final configuration is set to Yes regardless of any other conf lisplays No. Learn more about local account management	iguration even if the toggle for this
Local primary account (preview)		
Create a local primary account *	Yes	~
Prefill account info 🕕	Yes Not configured	
Primary account name * ③	{{partialupn}}	
Supported variables: {{partialupn}}		
Primary account full name * 🛈	{{username}}	
Supported variables: {{username}}		
Restrict editing ①	Yes Not configured	
	1.	
	₹	

FileVault during Setup Assistant

Starting macOS 14, you can enforce FileVault encryption within Setup Assistant before the user can access company resources.

FileVault

Configure the FileVault payload to manage FileVault disk encryption settings on devices.

Defer (i) Enable (i)

On

Enabled

Force Enable In Setup Assistant 🛈

FileVault Options

Configure the FileVault Options payload to customize FileVault disk encryption settings on devices.

True

Prevent FileVault From Being Disabled () True



Managed device attestation with ACME

Strongest proof of hardware-bound (secure enclave) device identity that is attested to by Apple.

Managed Macs can provide the trusted attestation to prove device identity to servers.

Initiated via MDM, it protects the Intune enrollment cert against device spoofing.

Currently in private preview.

Sequoia only



Joel Slide's

Intune	not
InTune	!



Every device check-in which is every 8 hours, the device will try to connect to Intune and that's where Intune will check if the certificate is valid or not.

if its not valid - we fail the check-inif its valid - we proceed with the check-in

if the device fails to check-in after XX days ; the device will be out of compliance after XX days as set by admin. once the device is out of compliance, the user will lose their access to resources.

Note: The ACME cert is valid for 1 year, and between 6 months and 1 year, we attempt renewal to give one more year of validity to it.

•••	< >	
Q Search		
Sign in with your Apple Account		
🛜 Wi-Fi	Genera	
8 Bluetooth	Manage your overall setup and preferer updates, device language, A	
Network		
C Energy Saver	D About	h >
O General	Software Update	>
Accessibility	Software opdate	· · · · · · · · · · · · · · · · · · ·
O Appearance	Storage	>
Control Center		
Desktop & Dock	é AppleCare & Warranty	>
🔅 Displays		
Screen Saver	MirDrop & Handoff	>
Siri Siri		
🛞 Wallpaper	AutoFill & Passwords	>
Notifications	Date & Time	>
🚳 Sound	Language & Region	>
C Focus		



Admin console – Device attestation status report

- Reports > Device attestation status
- Cross platform Attested Windows and iOS/iPadOS and macOS devices show up here

All services > Reports	
Reports Device atte	station status (preview) $ imes$
✓ Search «	≡≡ Columns 🞍 Export 🕐 Restart 🗸 Attest
(i) Overview	All attestation status \sim All ownership \sim
Device management	Generate report Cancel Report generated on:
Device attestation status (preview)	
Device compliance	Not Started Completed Failed Unknown
Device configuration (preview)	
Group policy analytics (preview)	Search by Device Id, Device Name, or User
Windows updates (preview)	Showing 0 to 0 of 0 records Page 0 \checkmark of 0 Next >
Endpoint security	Select Device Name ↑↓ Primary UPN ↑↓ Device attestation ↑↓ Status Detail ↑↓ OS ↑↓ OS Version ↑↓
l Microsoft Defender Antivirus	Generate report to see data
🖳 Firewall	
Analytics	

Microsoft

Admin console – Per device attestation reporting

- Devices > iOS/iPadOS (or macOS) > choose a device > Overview > See more > Attestation capability and Attestation status
- Attestation capability
 - Enrolled with attestation capability
 - Enrolled without attestation capability * (Mac VMs / Shared iPads)

- Attestation status
 - Not tried
 - Failed
 - Succeeded
 - Not supported due to hardware
 - Not supported due to OS
 - Incomplete data from device
 - Attestation not offered

Home > Devices iOS/iPadOS > iOS/iPad	OS iOS/iPadOS devices >	
iPad …		
	🗙 Retire 🏷 Wipe 📋 Delete 🔒 Remote lock 🗘 Sync 🖉 Remove passcode 🕐 Restart (supervised only) 🕚 Shut down (su	upervised only) $ ightarrow$ Disable activation lock $ imes$ Revoke Licenses \oplus Lost Mode (supervised only) \cdots
() Overview	S Disable activation lock: Failed	
Manage		
Properties		
Monitor	Device name : iPad	Primary user : <u>Nika N.</u>
Hardware	Management name : d2d5b665-b487-4de0-8d94-9029946f082c_IPad_2/26/2023_2:20 AM	Enrolled by : <u>Nika N.</u>
	Ownership : Corporate	Compliance : Not Compliant
Discovered apps	Serial number : DLXYD3FQK7MC	Operating system : iOS
Device compliance	Phone number :	Device model : iPad Pro (12.9")(3rd generation)
Device configuration	Device manufacturer : Apple	Last check-in time : 3/6/2023, 8:46:33 PM
App configuration	Attestation capability: Enrolled with attestation capability	Remote assistance : Not configured
	Attestation status: Succeeded	
Recovery keys	See less	



 \times

Edit rule syntax

Admin console – Enrollment restriction & filter

You can create an edit rules directly by editing the syntax in the bay	Home > Devices Enroll devices > Enroll devices E	nrollment device platform restrictions >				
ou can create or edit rules directly by editing the syntax in the box below. Note that changes made here may not be reflected in the ule builder.	Create restriction Device type restriction					×
(device.isDeviceAttested -eq "False")	Basics Platform settings Scope	tags (4) Assignments (5) Review +	create			
	Specify the platform configuration restrictions that must to devices enrolled with the Company Portal. Intune class					n restrictions only apply
	MDM Allow	Block				
	Allow min/max range: Min	Max				
	Personally owned devices Allow	Block				
Edit rule syntax \times	Create restriction Device type restriction					
	Sasics Settings Sco	ope tags	leview + create			
ou can create or edit rules directly by editing the syntax in the box below. Note that changes made here may not be reflected in the	Included groups					
ule builder.	Add groups Add all users					
(device.isDeviceAttested -eq "True")	Groups	Group Members ()	Filter	Filter mode	Edit filter	Remove
	All users		isDeviceAttested	Include	Edit filter	Remove



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Direct Import, Zero Day, DDM

Platform SSO

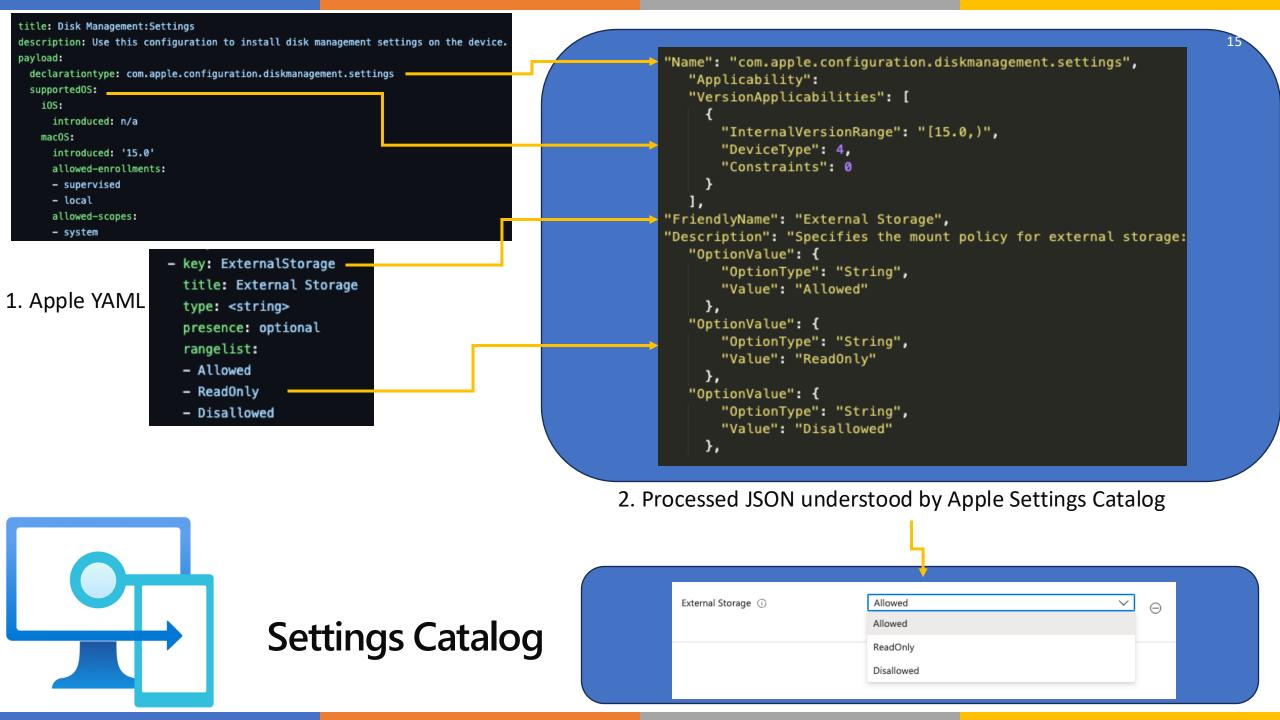
A Swiss knife or an Iceberg?

Applications & Suite

Flexible App and Remote Help







New features, zero day support



13 settir	41 settings in "Extensible Singl	78 settings in "Restrictions" category	
Setting	Setting name	Setting name	
	7 settings in "Safari	allow Genmoji	
~ C	Setting name	Allow Image Playground	
	Manage	Allow Internet Sharing Modification	
		Allow iPhone Mirroring	
		Allow iTunes File Sharing	
	3 settings in	Allow Local User Creation	☐ ■3556■
	Setting nar		
		Allow Music Service	
		Allow Passcode Modification	
		Allow Password Auto Fill Allow Password Proximity Requests	aka.ms/AppleDayZero
		Allow Password Sharing	aka.ms/Intune/Apple-Intelligence
	New User Aut		
	Non Platform		

Settings Catalog inc. Variables



- Before Settings Catalog, new features would take 2 sprints (8 weeks)
- Last year's day zero work for Sonoma took 3 days before we could begin testing. Less than 24h for Sequoia
- Now the process is automated. Once approved, New payloads go for immediate testing.
- We can even use variables in the payloads from Entra ID.

1 Configuration settings (2) Review + :	save	
Add settings ①		
∧ Microsoft Office		Remove category
Microsoft Office		Remove subcategory
i 18 of 20 settings in this subcategory ar	re not configured	
Enable automatic sign-in ①	True	\ominus
Office Activation Email Address 🔅	{{mail}}	Θ
Office Activation Email Address ① Microsoft Outlook	{{mail}}	Remove subcategory
Microsoft Outlook		

Declarative device management

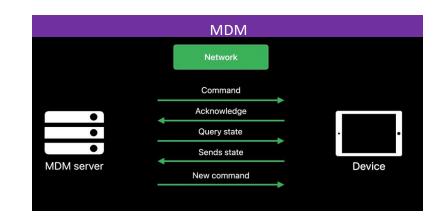


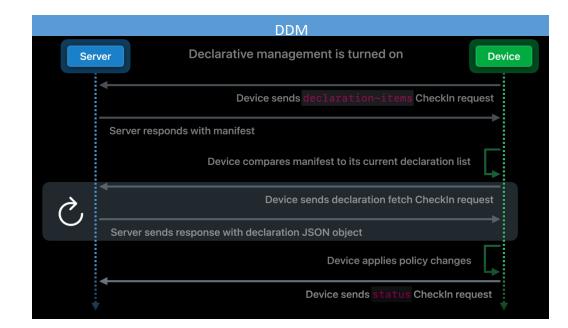
DDM is a new paradigm that can coexist with MDM. MDM is imperative and reactive.

- Multiple round trips between Intune and devices
- SW update based on 4 commands, not scalable

DDM is declarative and proactive.

- Admin configures desired state
- Device applies policy to itself
- Rich, async status updates



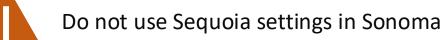




New DDM configuration for software update enforcement!

Specify OS/build to install by an exact time

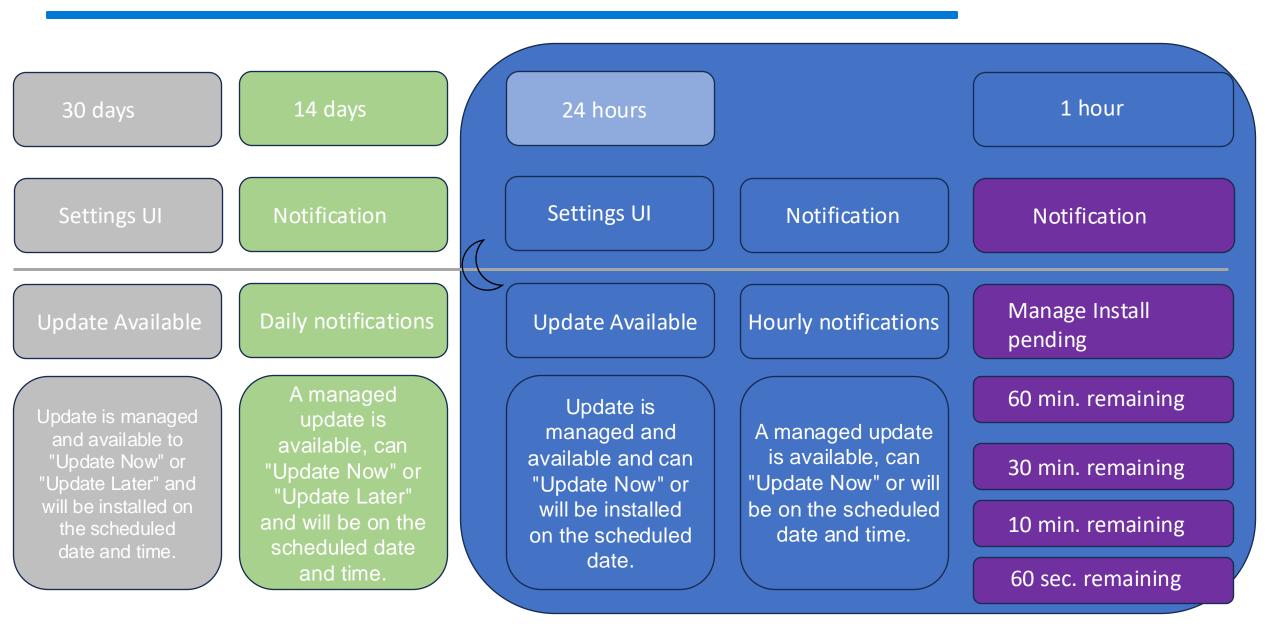
Only Version and date are mandatory



Create profile macOS - Settings catalog	×
Seasics Configuration settings	Scope tags ④ Assignments …
+ Add settings ①	
 Declarative Device Management (preview) 	Remove category
5 5	by Apple's declarative device management feature. These and only apply to a device enabled for declarative inagement at developer.apple.com Remove subcategory
Details URL ①	https://support.apple.com/en-us/HT213895 🧹 \ominus
Target Build Version (i)	23B81 🗸 🕞
Target Local Date Time * 🕕	12/15/2023 📾 12:00 AM
Target OS Version 🛈	14.1.1 🗸

Declarative Software Updates





DDM Settings



	\wedge Declarative Device Management (D	^ Declarative C	Software Update Settings		Remove subcategory
Declarative Device Manage	These settings configure the declarati separate from older MDM settings an declarative management at developer Passcode	d These settings	Allow Standard User OS Updates ①	Allowed	\ominus
 Declarative Device Manaç 		Software	Automatic Actions		\ominus
These settings configure the separate from older MDM s declarative management at	1 0 of 17 settings in this subcateg	01	Download ①	Allowed	Θ
Disk Management	Passcode Reuse Limit * ①	Details UR	Install OS Updates 🛈	Allowed	⊖
Restrictions	Minimum Passcode Length * 🛈	Target Bui	Install Security Update ①	Allowed	⊖
External Storage ①	Maximum Passcode Age In Days *	Target Dat	Deferrals		Θ
Network Storage ①	Minimum Complex Characters * (D Target OS	Major Period In Days * 🛈	0	Θ
	Maximum Number of Failed Atten	υ¢	Minor Period In Days * 🛈	0	Θ
	Maximum Grace Period * 🛈		System Period In Days * ①	0	
	Failed Attempts Reset In Minutes	* (i)	Notifications ①	Enabled	Θ
			Rapid Security Response		\ominus
			Enable 🕕	Enabled	\ominus

Certificate deployment in user keychain



- Admin can choose which keychain (device/user) resource access profile or certs are delivered to.
- By default, device keychain will be used.
- Scope: SCEP, PKCS, WiFi, VPN, Wired network, trusted (root) cert profiles.

Basics 2 Configuration setting	gs (3) Assignments (4) Review + create	
Deployment channel * ①	Device channel	\sim
	Device channel	
	User channel	
Г		1



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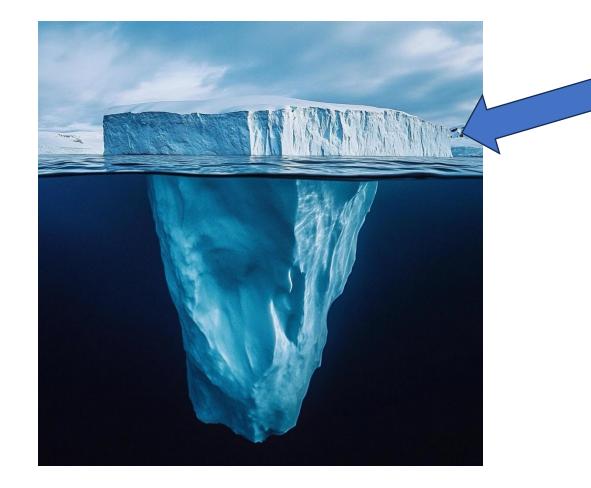
Applications & Suite

Flexible App and Remote Help









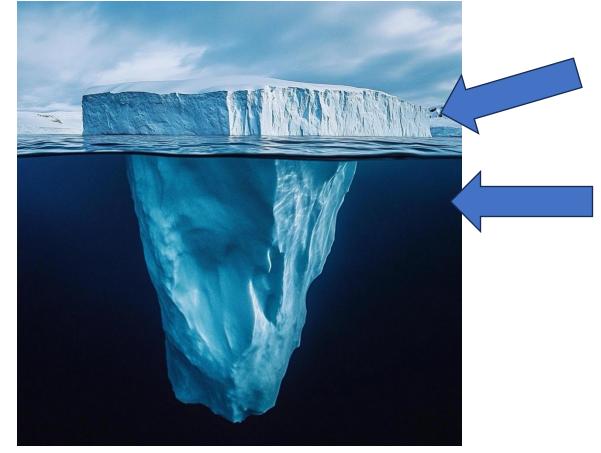
Allows logging on to your Mac using Entra ID password.

Platform SSO Breakdown



	Home > Devices macOS > macOS Configuration profiles > Platform SSO co	nfig >
	Edit profile - Platform SSO config	
	Configuration settings 2 Review + save	
	+ Add settings ①	
	∧ Authentication	Remove category
	Extensible Single Sign On (SSO) Configure an app extension that enables single sign-on (SSO) for devices.	Remove subcategory
	1 24 of 35 settings in this subcategory are not configured	
Applies to macOS 13.x –	Authentication Method (Deprecated) ① Password	Θ
	Registration Token ① {{DEVICEREGISTRATION}}	Θ
	Platform SSO	Θ
Applies to macOS 14.x _ and later	Authentication Method ① Password	





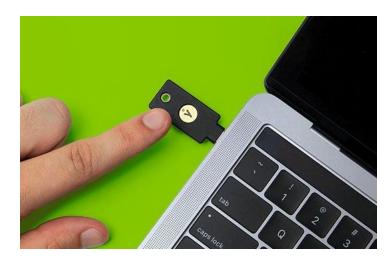
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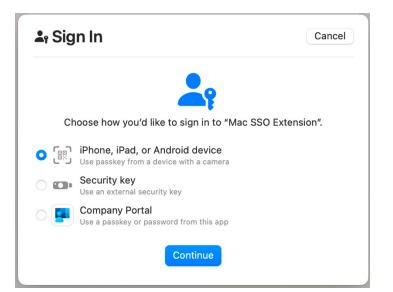
Secure the access with Secure enclave

Platform SSO Breakdown

- Secure Enclave is working with:
- Password
- Yubikey
- Passkey

Password:	
*******	-





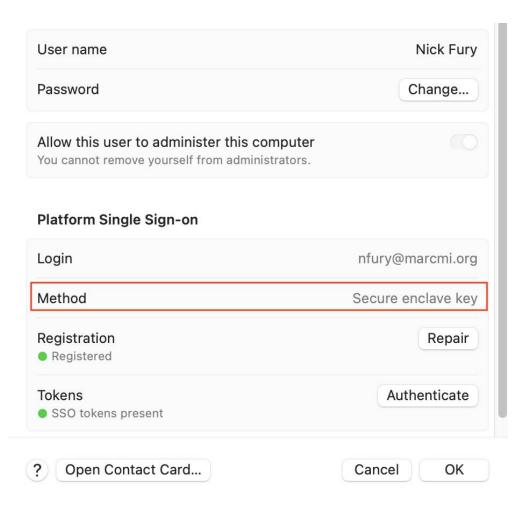
Sign In	Cancel
Scan this QR code with a device running iOS later, or another compatible device, to sign in SSO Extension".	
]
	!



Secure enclave storage is an alternative

- No Password synchronisation with the local account
- Secure the cloud & the token
- App-sso platform –s

```
User Configuration:
{
    "_sepKeyData" : "qz7yHHod8FeqlCs+v4IdoGrK4X06UoZXvwR2fTRSsL4="
    "created" : "2023-10-02T19:35:13Z",
    "lastLoginDate" : "2023-10-02T19:34:51Z",
    "loginType" : "POLoginTypeUserSecureEnclaveKey (2)",
    "state" : "POUserStateNormal (0)",
    "uniqueIdentifier" : "EE312758-E195-405D-8D39-D432559DCE3D",
    "userLoginConfiguration" : {
        "created" : "2023-10-02T19:35:13Z",
        "loginUserName" : "v***e@lab6523.onmicrosoft.com"
    },
    "version" : 1
}
```



Microsoft

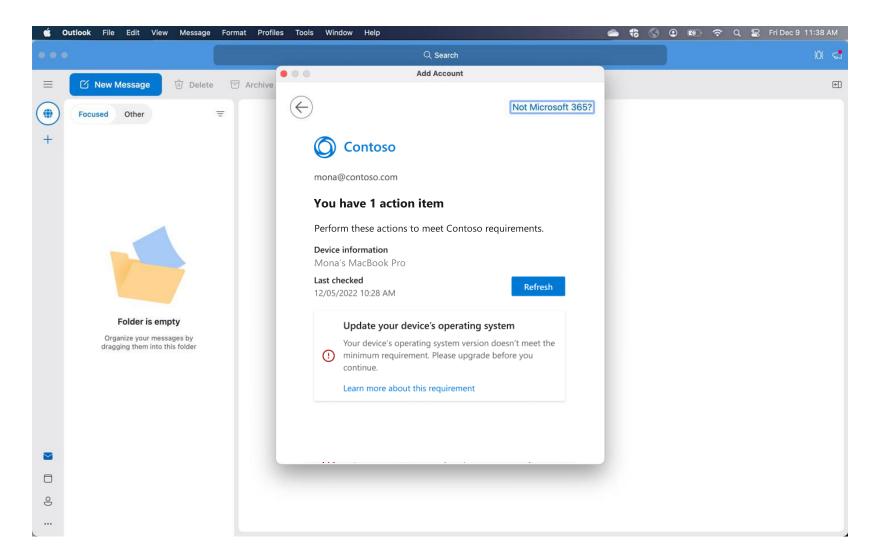
Platform SSO Breakdown (JIT Included)



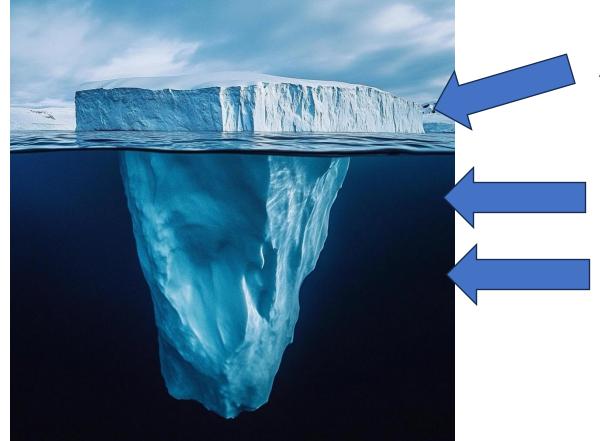
Noncompliance detection and remediation experience from within protected apps.

Company Portal app is not required!

Based on AAD SSO ext, any app using MSAL can benefit.







Allows logging on to your Mac using Entra ID password.

Secure the access with Secure enclave

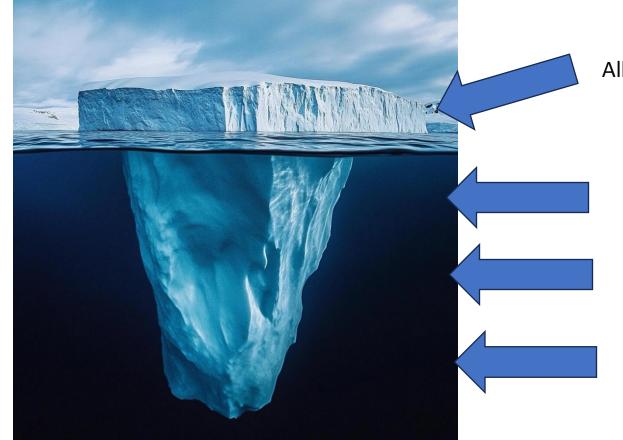
Any users from the enterprise can log



- New features in Platform SSO public preview:
 - Smartcard as an authentication method.
 - Enable Entra ID user creation at login.
 - Kerberos support.
 - Standard/admin privilege management.
- Coming later:
 - Granular privilege management using admin-configurable authorization mode.

Authentication Method 🛈	SmartCard	\checkmark
	Password	
	UserSecureEnclaveKey	
	SmartCard	
Enable Create User At L	ogin (i)	• Enabled
Enable Create User At L	ogin (i)	• Enabled
Enable Create User At L	ogin (i)	Enabled
	Standard	





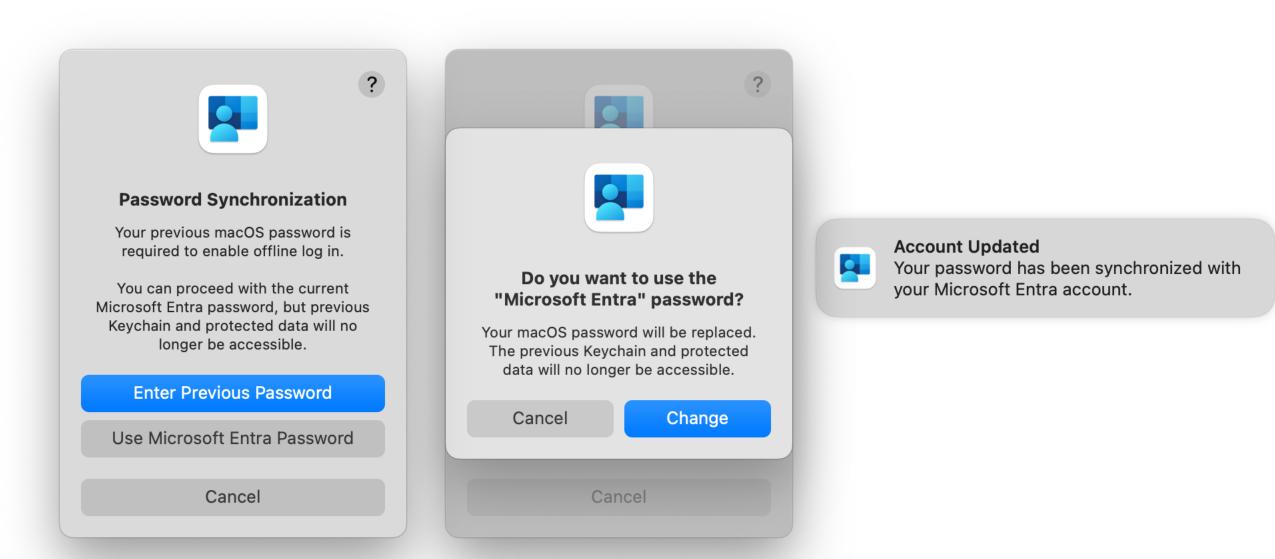
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Secure the access with Secure enclave

Any users from the enterprise can log

Set user as Standard / Admin







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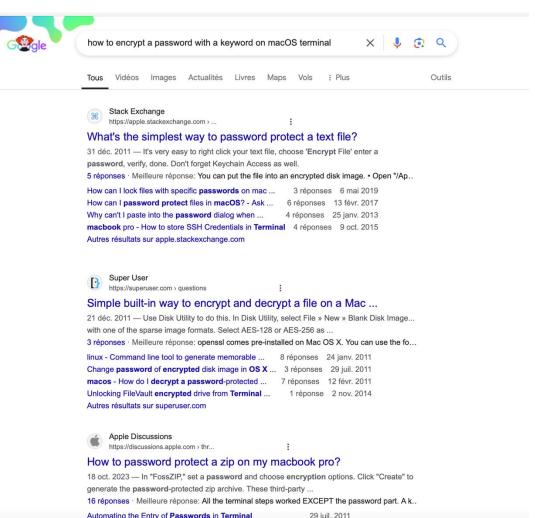






Admin: "I want a local admin account, with an encrypted password, and have my service desk be able

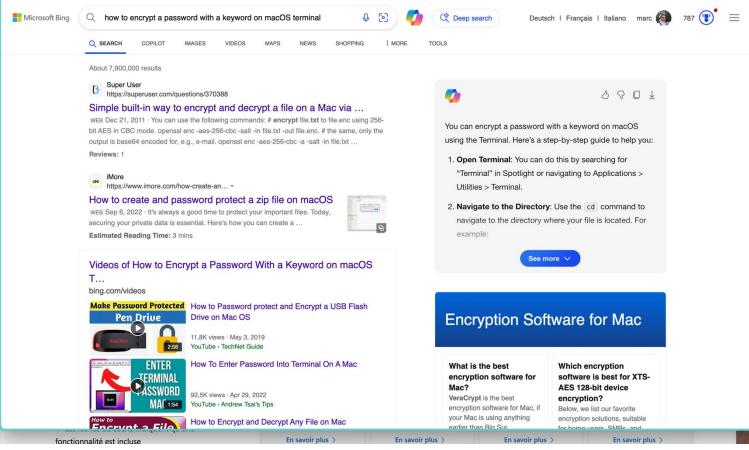
to unencrypt it"



Next IT

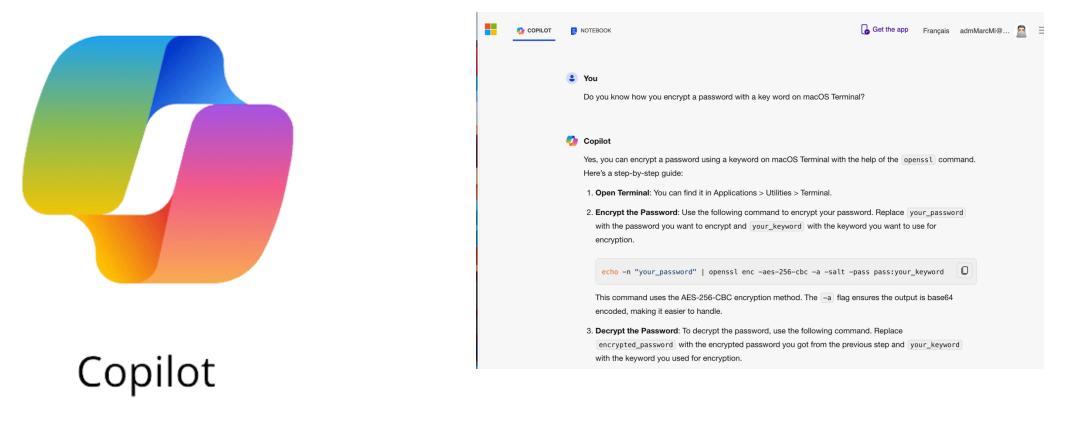


Admin: "I want a local admin account, with an encrypted password, and have my service desk be able to unencrypt it"



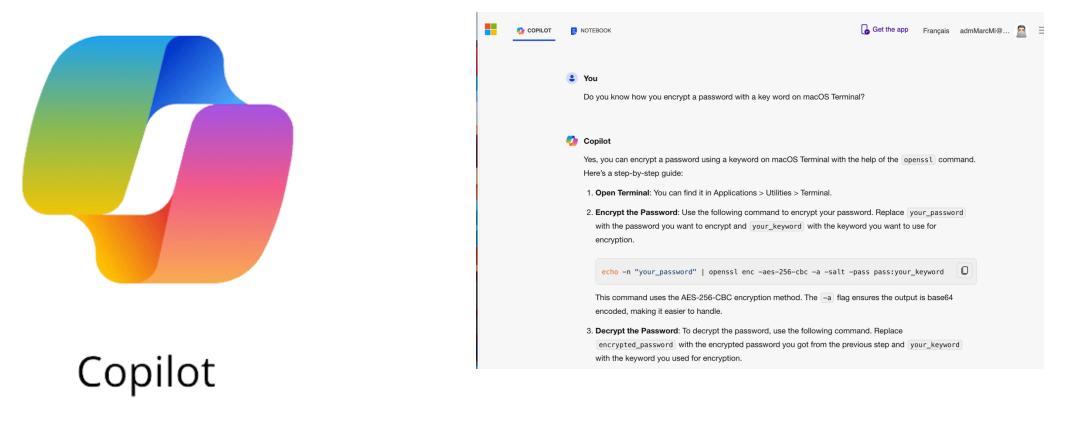


Admin: "I want a local admin account, with an encrypted password, and have my service desk be able to unencrypt it"





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macOS app management

Fundamental improvements & broad support for Mac app-types

Managed apps

Flat PKGs installed using MDM.

Simplified app upload.

Intune app wrapping tool is no longer needed.

Will take advantage of DDM improvements.

Purchased and custom apps are also supported.

DMG apps

Most common Mac apps.

Easy to create with macOS Disk Utility.

Intune supports DMGs containing one or more apps (not .zip).

Deployed using Intune agent.

Expanded app size to 8GB.

"Available" assignment type

Flexible PKG installers

Great for deploying unsigned, component, or custom (non-flat) packages.

Uses built-in installer command.

Pre and post install scripts

Deployed using Intune agent.

Expanded app size to 8GB.

"Available" assignment type



/* Microsoft Mac Admins Community */

in

LinkedIn aka.ms/MacAdmins

You can join it with just one click





Thankyou!



