
Managing your Mac in the enterprise – Intune’s magic potion
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Agenda

MacOS Management

How to get started compared to Windows endpoints

Improve your security posture

Platform SSO, Local Account Management, FileVault & Software Updates

Lessons Learned …

Because we learned it the hard way …

Community tools you say ?

Are there any ?

Conclusion

Recap of key takeaways, Q&A

About “Kim Heyrman”

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Endpoint Management

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M365 , security and a pinch of AVD ..

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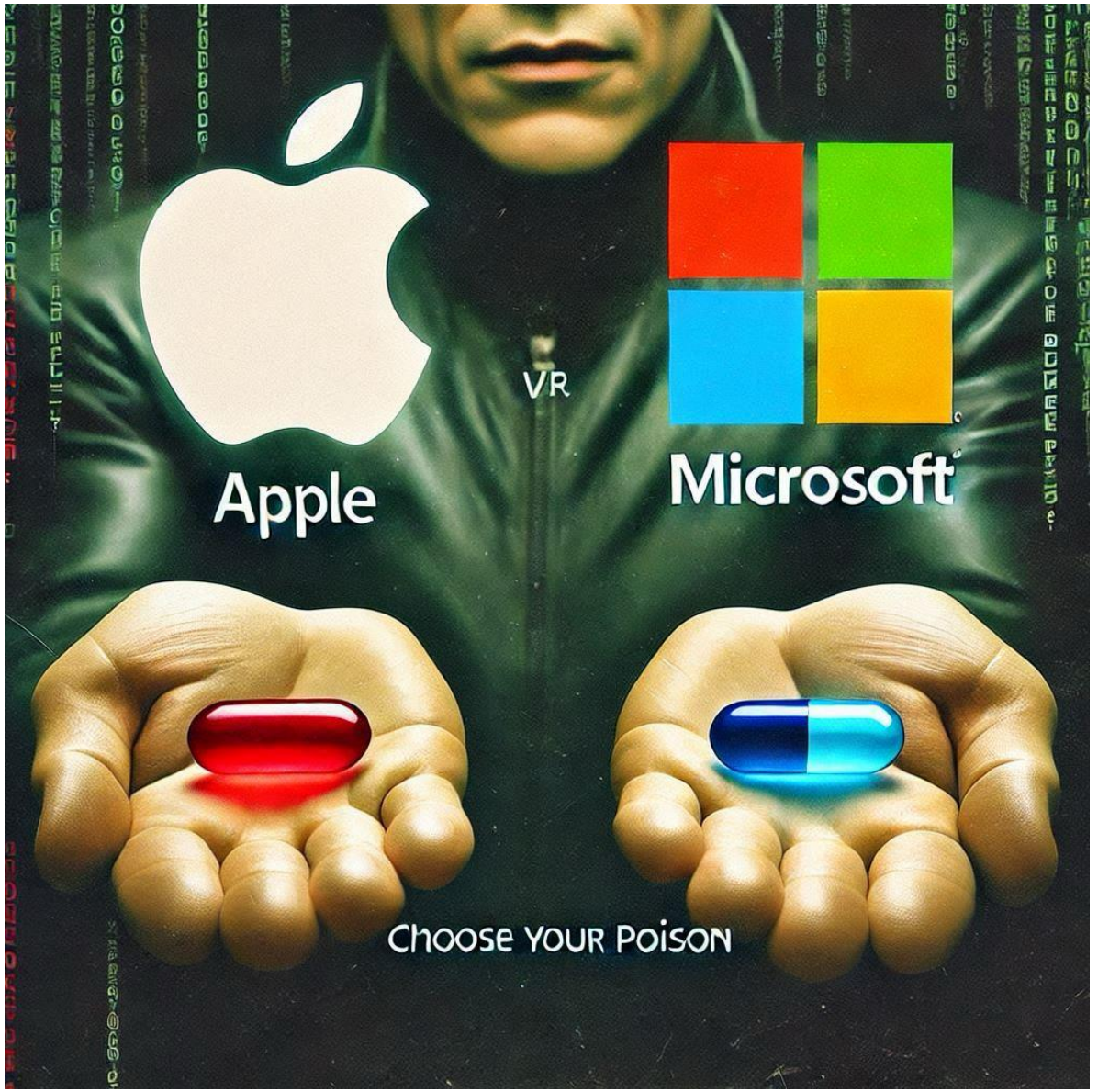
MacOS Management enrollment

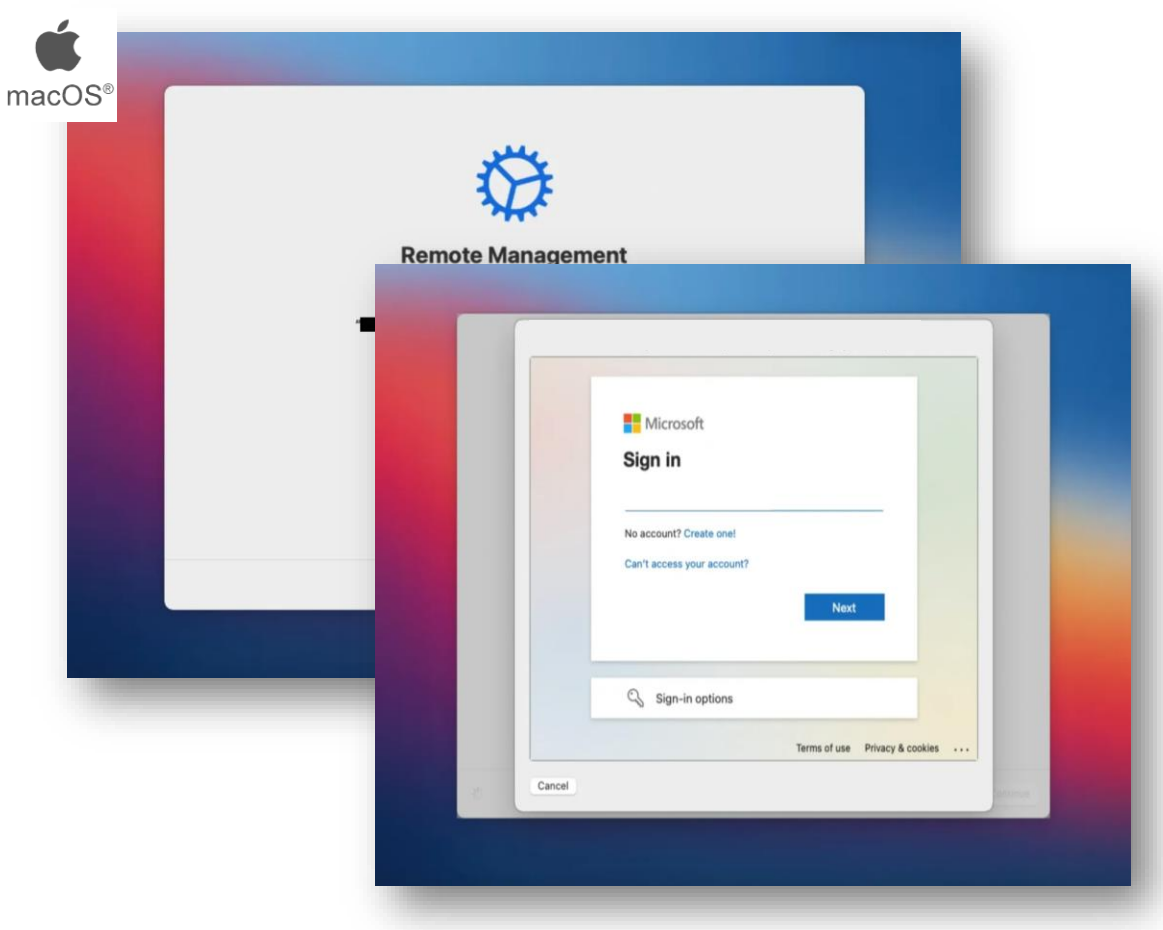
How to get started compared to Windows endpoints

Enterprises today…

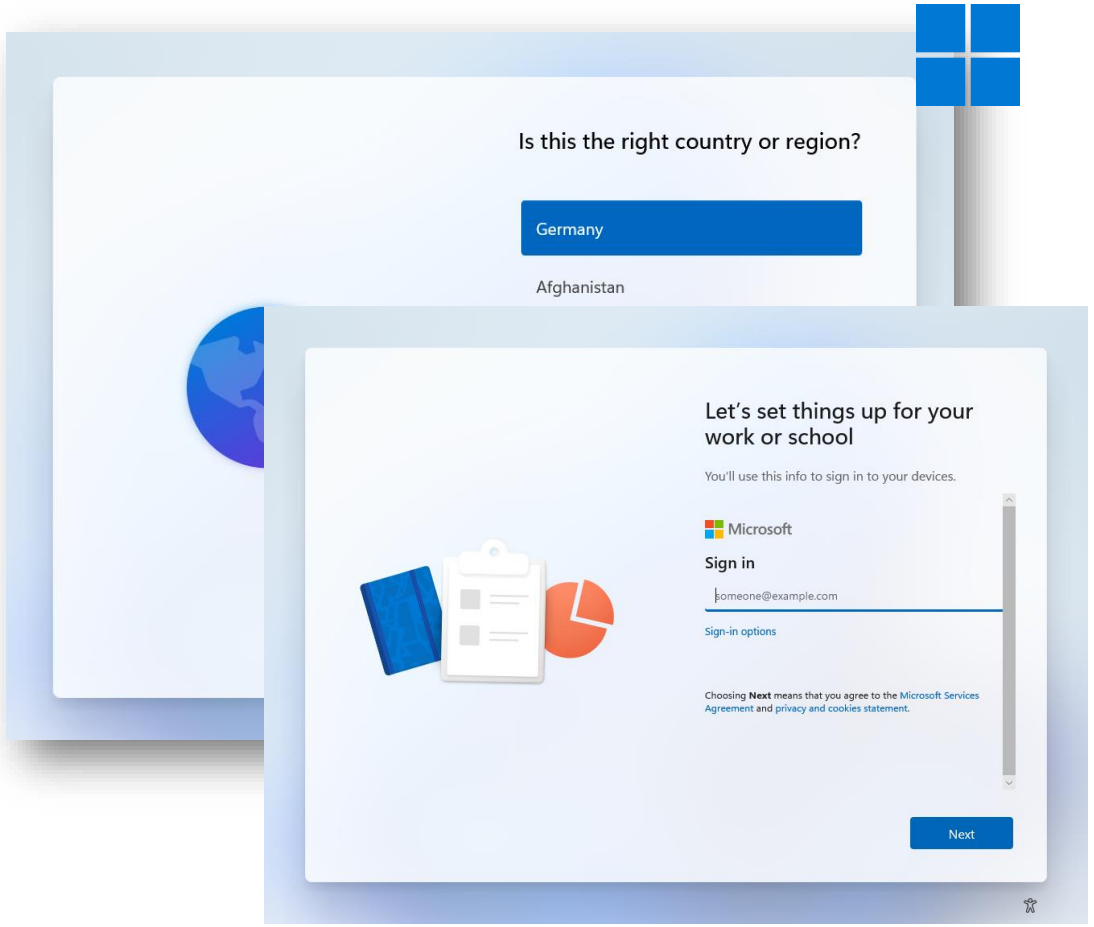


How to get started – ADE …

MacOS - Automatic Device Enrollment (ADE)



Windows - Autopilot



How to get started with ADE

- **Automatic Device Enrollment (ADE)**
  - Apple Business Manager
    - Link your Domain (like your Microsoft tenant)
    - To domain or not to domain capture ….

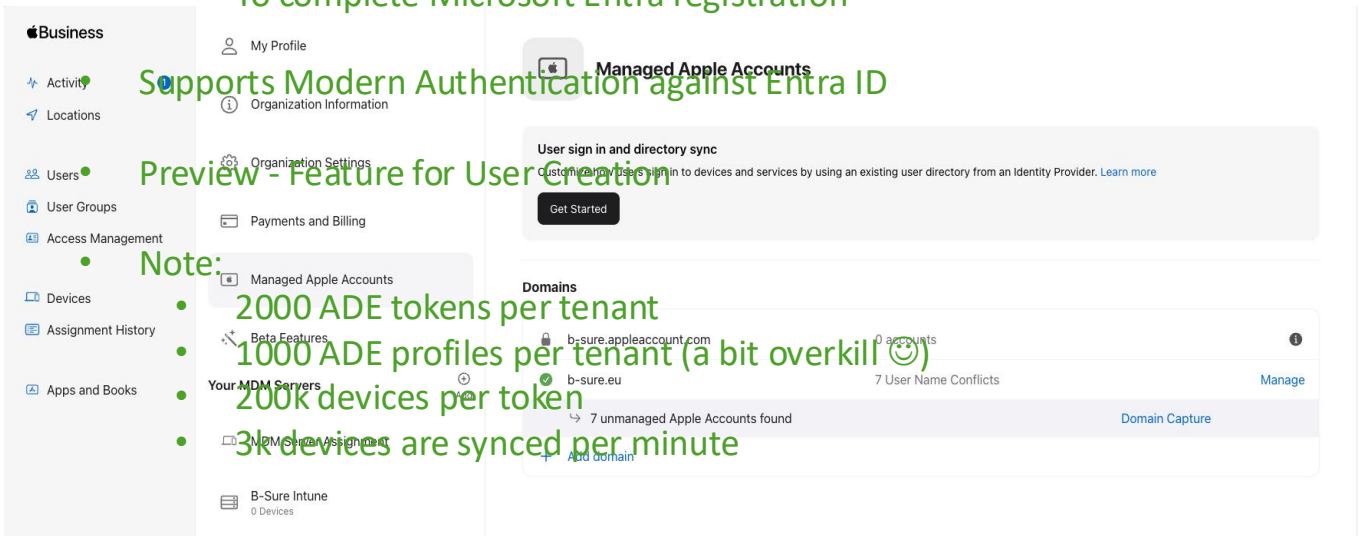
Domain capture process

After the domain capture process starts, personal Apple Accounts using that domain are notified in an email and in a notification on any device signed into the account. For notifications, the device must use iOS 18, iPadOS 18, macOS 15.1, visionOS 2.0, or later.

The email and notification present two options to the user:

- Choose a new primary email address to continue using their personal Apple Account.
- Transfer the personal Apple Account and its data to the organization, which then converts it into a Managed Apple Account.

- After enrollment Company Portal is required and user needs to sign in if
  - users need access to CA protected resources
  - To complete Microsoft Entra registration
- Supports Modern Authentication against Entra ID
- Preview - Feature for User Creation
- Note:
  - 2000 ADE tokens per tenant
  - 1000 ADE profiles per tenant (a bit overkill ☺)
  - 200k devices per token
  - 3k devices are synced per minute



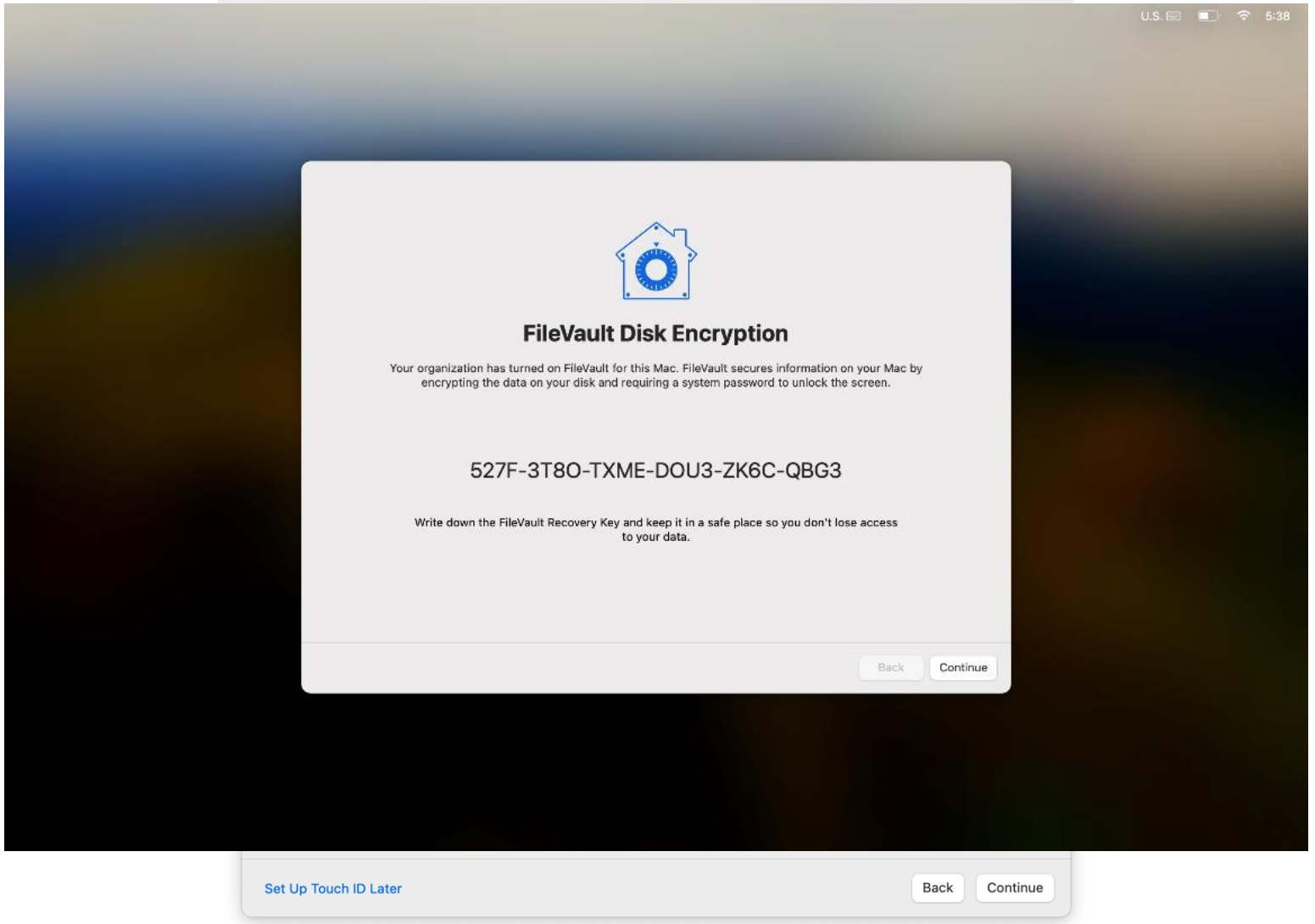
Enrollment Profile for ADE

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

Management Settings Edit

User Affinity & Authentication Method	
User affinity	Enroll with User Affinity
Authentication Method	Setup Assistant with modern authentication
Management Options	
Await final configuration	Yes
Locked enrollment	Yes

Enrollment Profile for ADE



Setup Assistant Edit

Department	OBVUS
Department Phone	69696969
Setup Assistant Screens	
Location Services	Show
Restore	Hide
Apple ID	Hide
Terms and conditions	Hide
Touch ID and Face ID	Show
Apple Pay	Hide
Siri	Show
Diagnostics Data	Hide
FileVault	Show
iCloud Diagnostics	Show
iCloud Storage	Hide
Display Tone	Hide
Appearance	Show
Registration	Hide
Screen Time	Hide
Privacy	Hide
Accessibility	Hide
Auto unlock with Apple Watch	Hide
Lockdown mode	Show
Wallpaper	Show
Terms of Address	Hide
Intelligence	Show

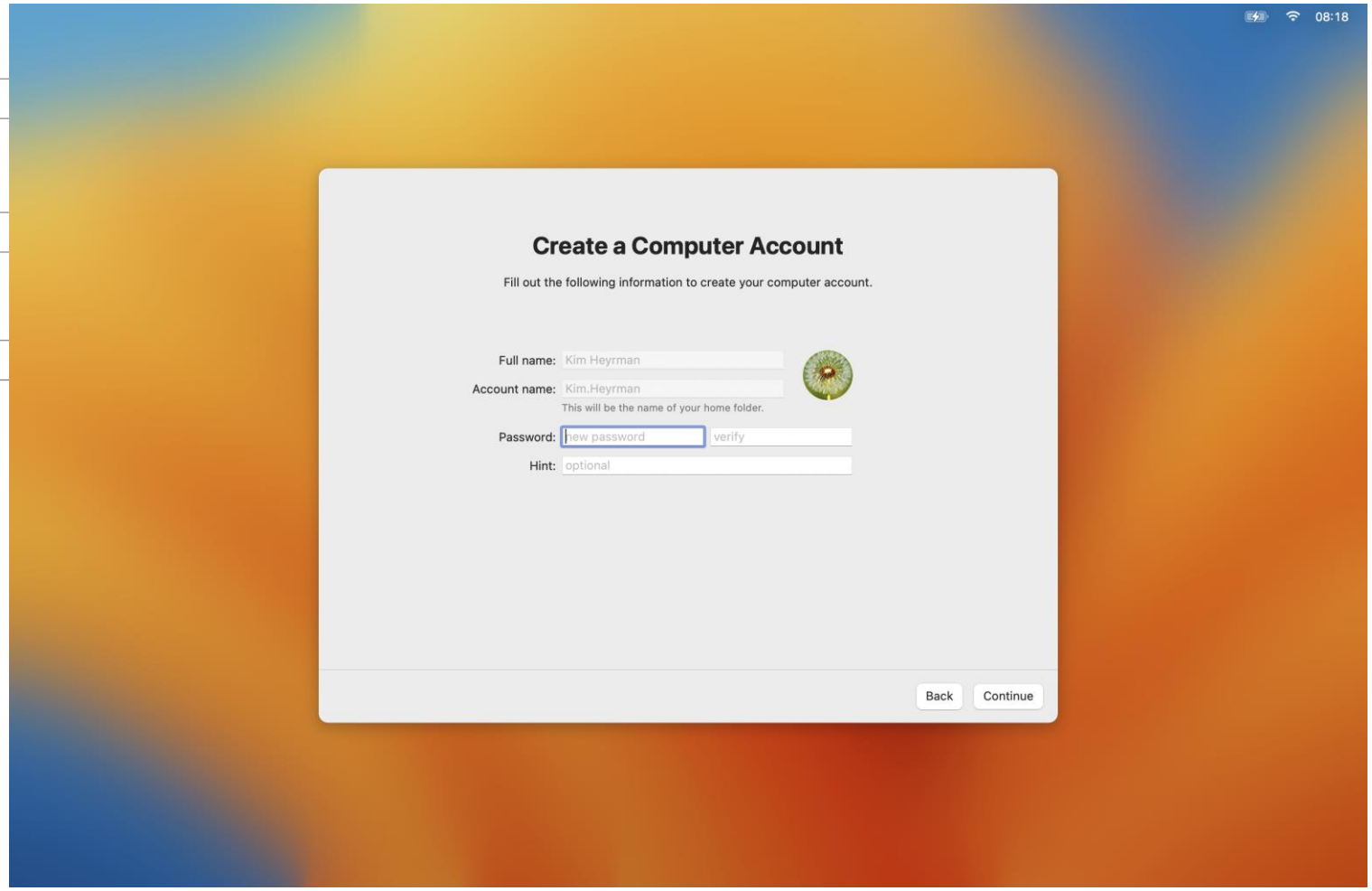
Enrollment Profile for ADE

Create and configure local admin and primary account on ADE enrolled Macs

Local primary account (preview)

Create a local primary account *	Yes
Prefill account info ⓘ	Yes / Not configured
Primary account name * ⓘ	{{partialupn}}
Supported variables: {{partialupn}}	
Primary account full name * ⓘ	{{username}}
Supported variables: {{username}}	
Restrict editing ⓘ	Yes / Not configured

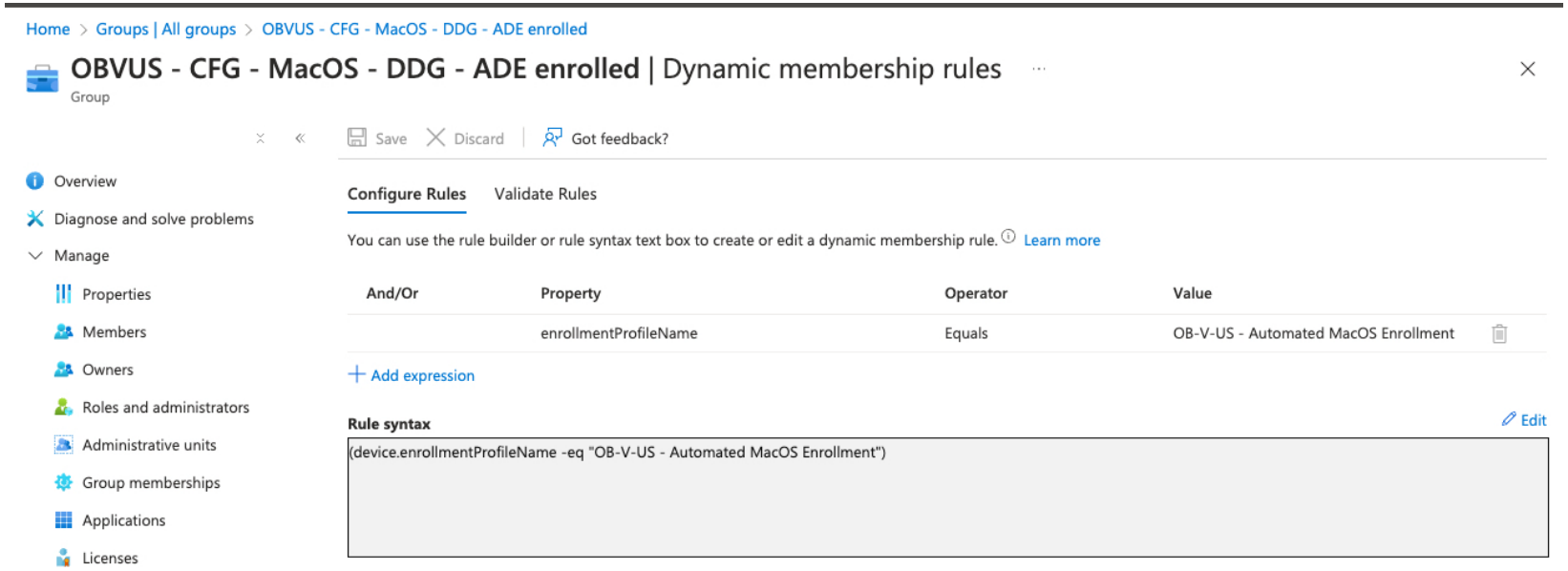
Await final configuration required !!



Dynamic groups for ADE Enrollment Profile

Create a naming logic in your different Enrollment Profiles :

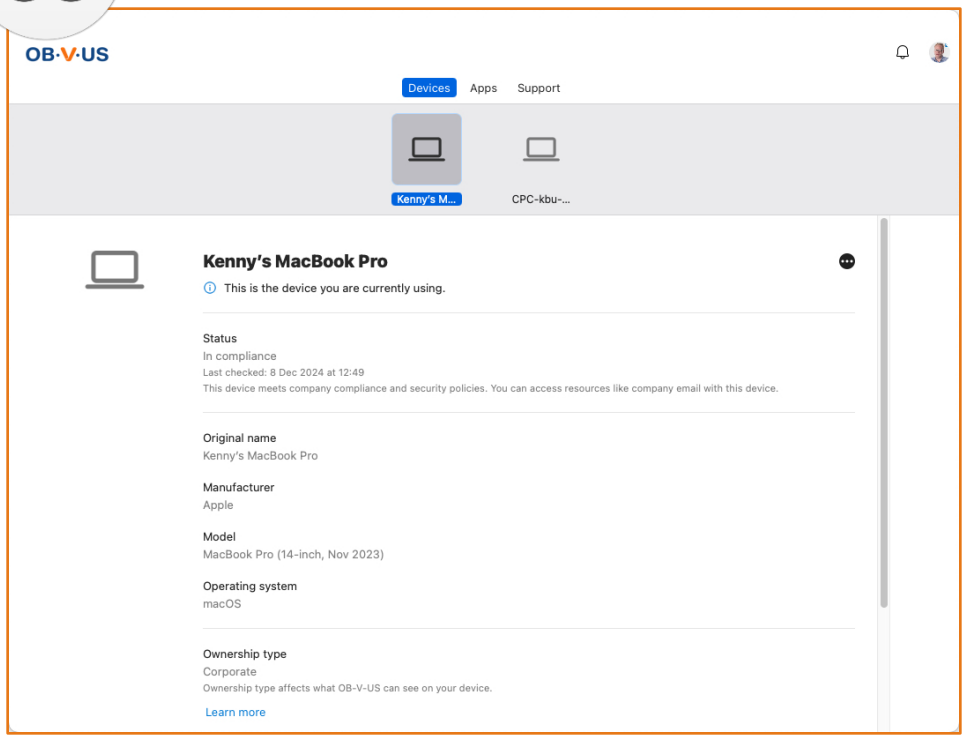
- **Create Dynamic Device groups based on EnrollmentProfileName to target different configuration baselines**

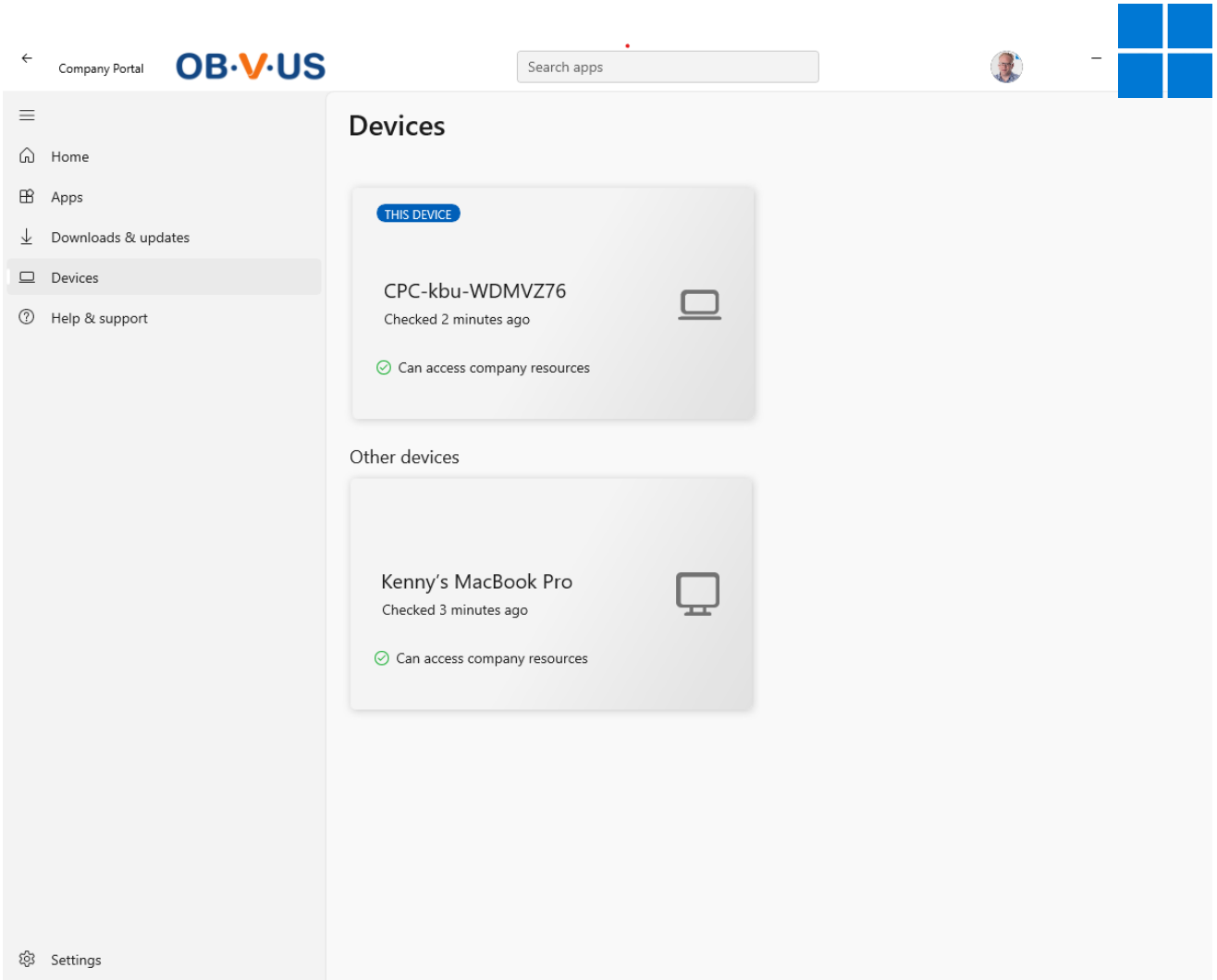


Company portal Look & Feel

Company Portal

mac OS





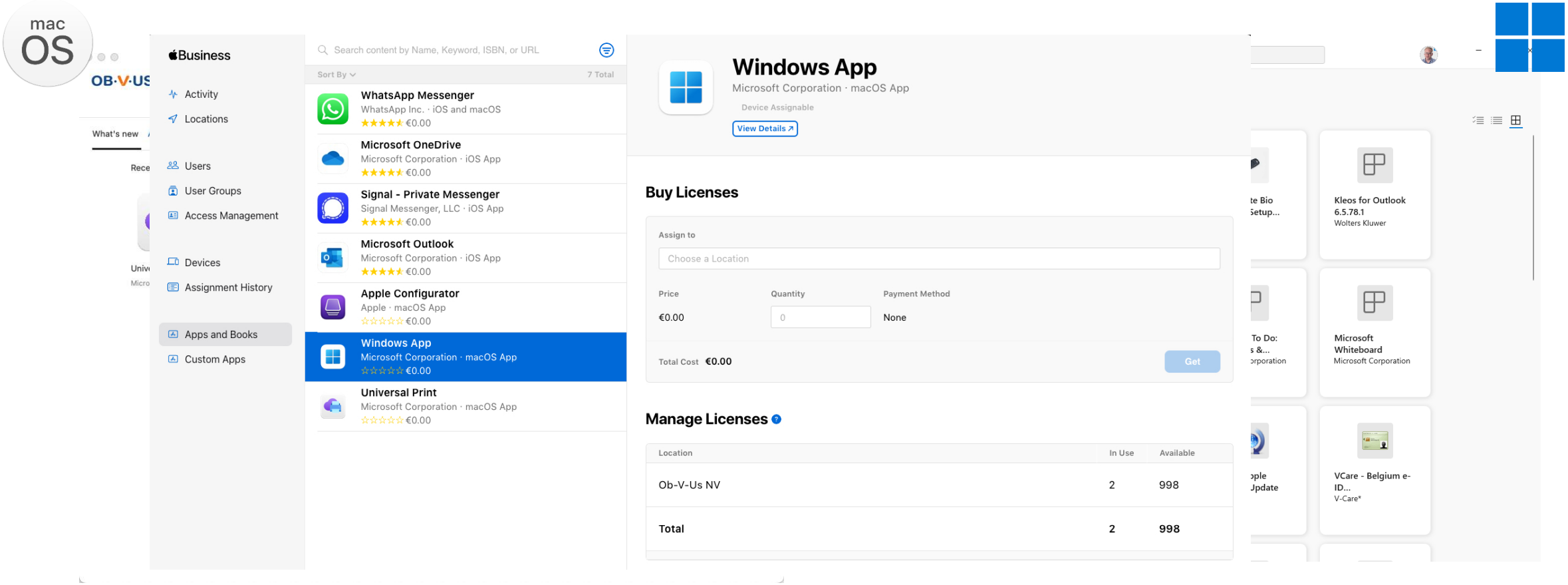
Application Delivery ?

How to deploy applications to your MacBook compared to Windows endpoints

Applications

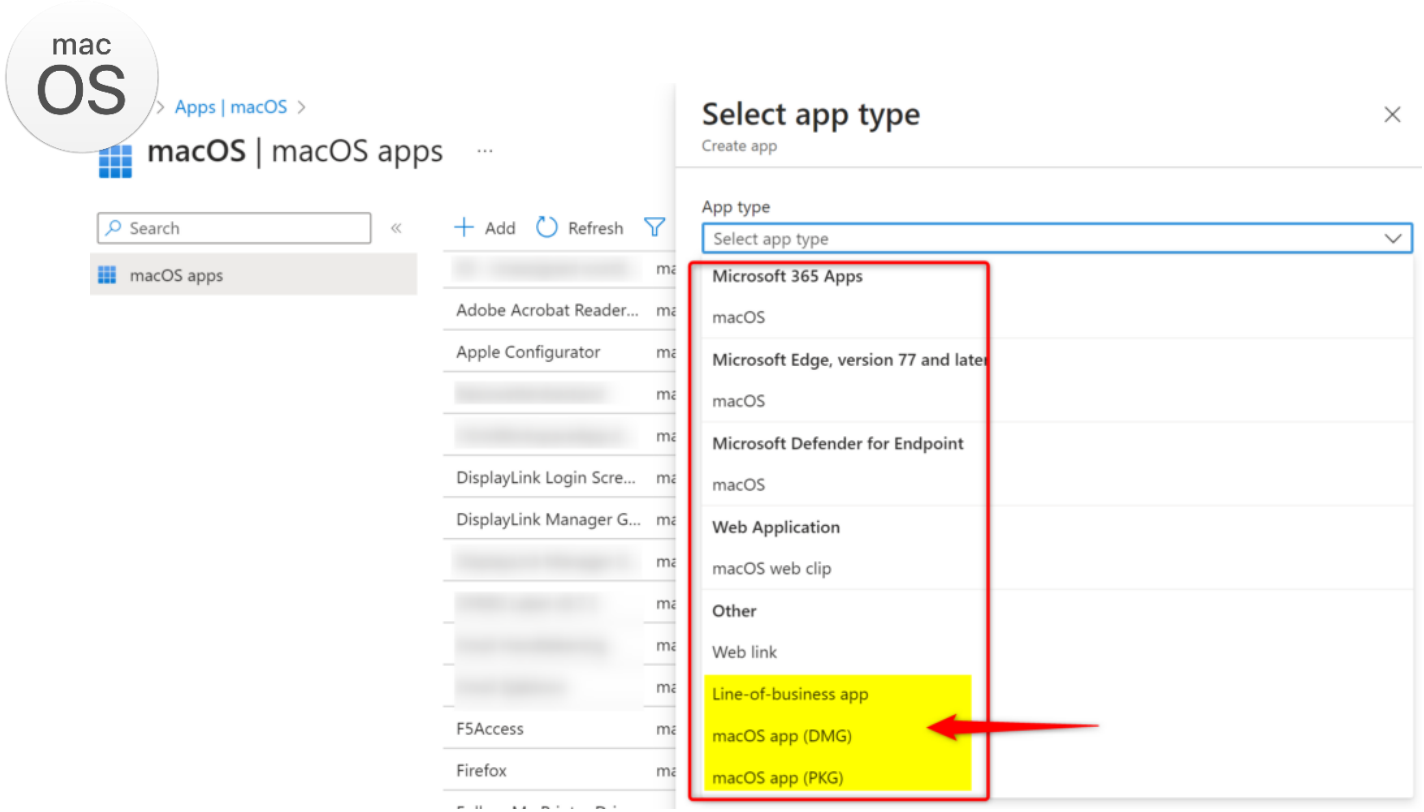
Not all applications for MacBook are in VPP store !

Apps



Applications

Package deployment



- DMG files are disk images that provide a simpler, drag-and-drop installation experience when installed manually.
  - Full disk access permission is required to update or delete DMG apps
- PKG files are installer packages native to macOS, essential for applications that need a structured installation process.
  - preinstall or a post-install script for complex customization.
  - The PKG file must successfully run using the installer command in Terminal
- MacOS LOB apps (Legacy way)
  - need to have a logo in order to be displayed in the Company portal App
  - LOB apps need to be signed

Deploying Microsoft 365 Apps for Mac

Option 1: Mac App Store via Volume Purchase Program (VPP)

Advantages

• It makes use of Apple's content caching, which can greatly improve deployment efficiency (Note: Intune can also be used to configure your content caches)

• It's possible to deploy the individual apps.

• It's easy to configure if you already have Apple Business Manager.

• You can configure the apps to uninstall on unenrollment.

• You can send an uninstall command to remove unwanted apps.

Disadvantages

• Teams is not yet in the Mac App Store (could be deployed via scripting agent)

• You cannot control which update channel to use.

• When OneDrive is deployed via VPP it will have a different bundleID than if it was installed via a standalone installer.

- VPP: com.microsoft.OneDrive-mac
- CDN: com.microsoft.OneDrive

• Updates via this approach can be unpredictable, especially if apps are permanently open.

Deploying Microsoft 365 Apps for Mac

Option 2: Deploying Microsoft 365 Apps for Mac via the Microsoft Content Delivery Network

Advantages

- It's easy to deploy. This mechanism is supported natively by Microsoft Intune. It is as simple as checking a box and providing a group of users to deploy it to.

- It includes the Microsoft Autoupdate (MAU) tool, which can be configured via plist to auto update and deploy insider builds of Office for testing to some users.

- It's possible to create a local MAU cache server for updates.

Disadvantages

- The initial download size (1.8GB) is large.

Deploying Microsoft 365 Apps for Mac

Option 3: Deploying Microsoft 365 Apps for Mac via the Intune Scripting Agent for Mac

Advantages

- Fastest install time.
- Additional logging.
- Can deploy either entire suite or in
- Possible to cache the initial installa webserver.
- Possible to create a local MAU cac updates. (only if you have slow slow no $$$ to upgrade your line)
- Includes the Microsoft Autoupdate can be configured via plist to auto u insider builds of Office for testing to some users.

Disadvantages

server infrastructure for caching.

ting skills.

cture complexity.

Improve your security posture

Platform SSO, Local Account Management and Software updates

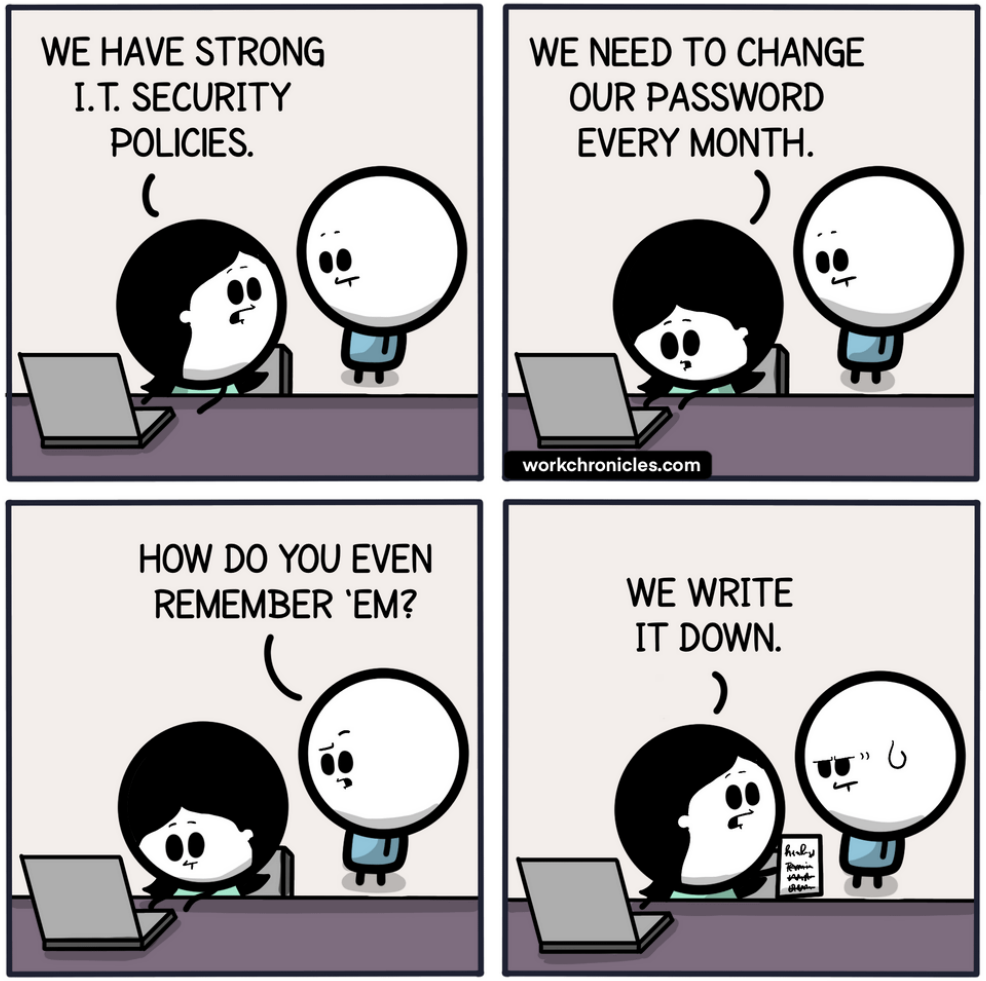
What do you mean with SSO ?

- Apple's enterprise single sign-on feature, supported since macOS 13.x
- provide SSO – even for applications not supporting Microsoft Authentication Library (MSAL)
- Platform SSO = enhancement to SSO plugin
  - Depending on choice, allows logging in with Entra ID Password
- key benefit: hardware-bound device record in Entra ID
- Enabled through MDM Profile

Options

- **Secure Enclave**
  - cryptographic key in Secure Enclave used for SSO with Entra ID
  - comparable to Windows Hello
  - but sign in still with local account and password
- **Smart Cards**
  - sign in with external smart card and SSO
- **Password sync**
  - local account password is in sync with Entra ID

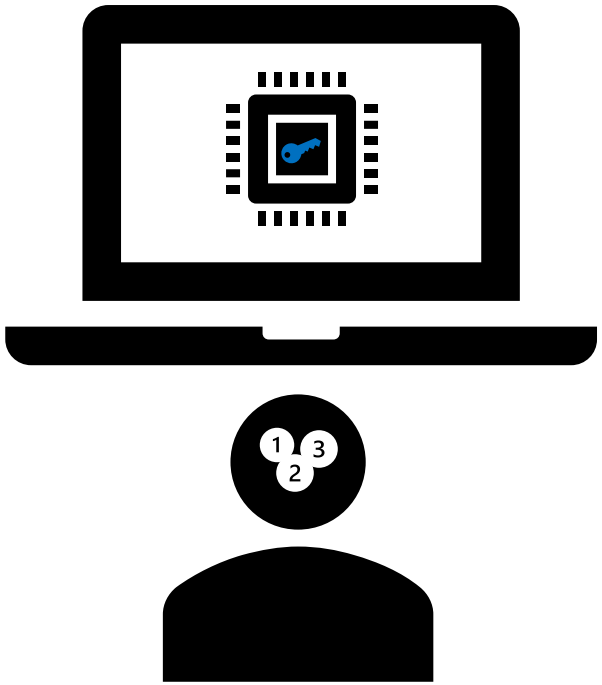
Secure Enclave

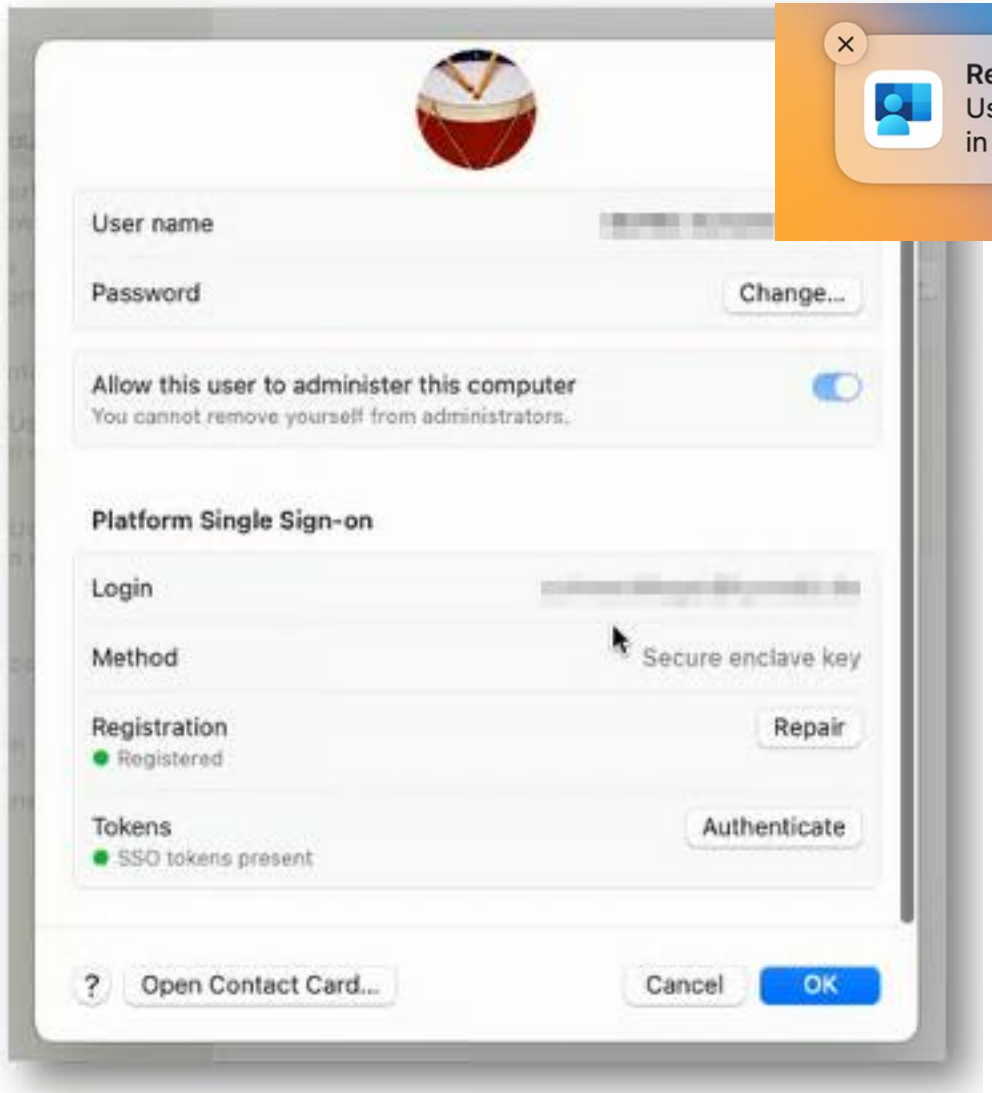


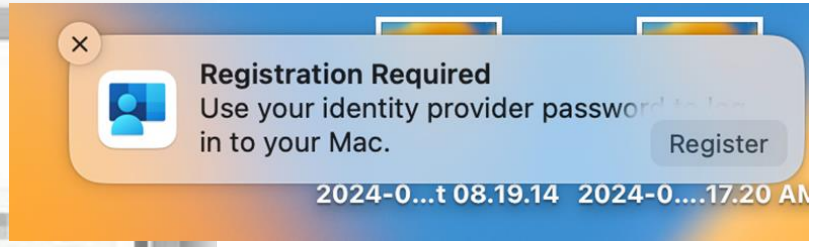
- ❤️ like Windows Hello
- ❤️ Touch ID possible
- ❤️ Hardware-bound cryptographic keys like TPM on Windows
- ❤️ Phishing resistant
- ❤️ SSO
- ❤️ passkey support

- 😱 Password still required (after reboot) or 24h biometric
- 😱 Password different than Entra ID
- 😱 no easy recovery of local password (no alternatives)

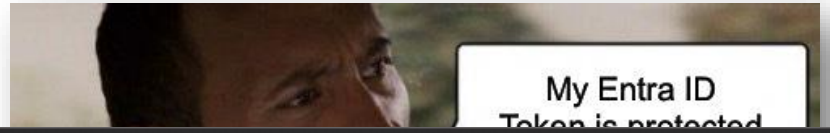
Secure Enclave

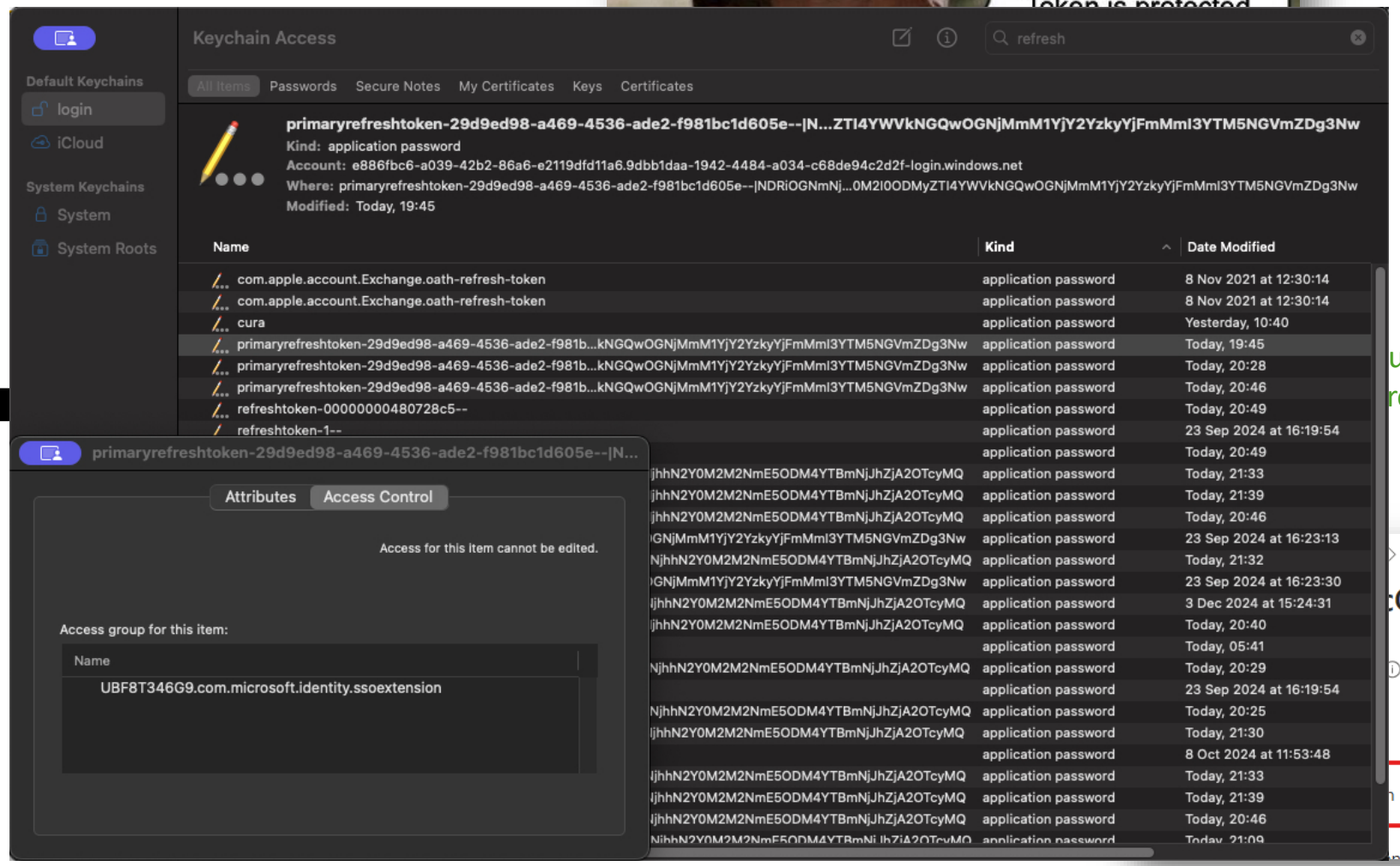




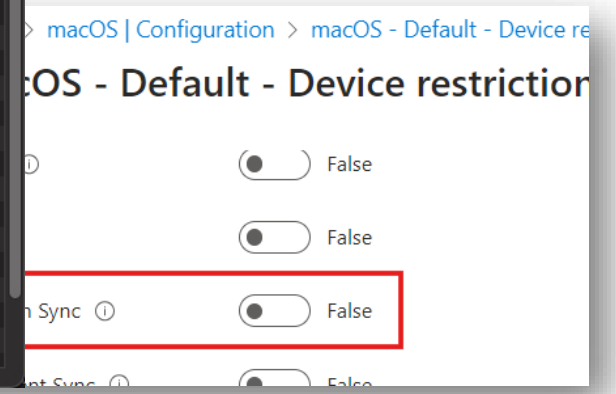


Secure Enclave





use and replay of Azure AD refresh token
rom Microsoft Edge in macOS Keychain

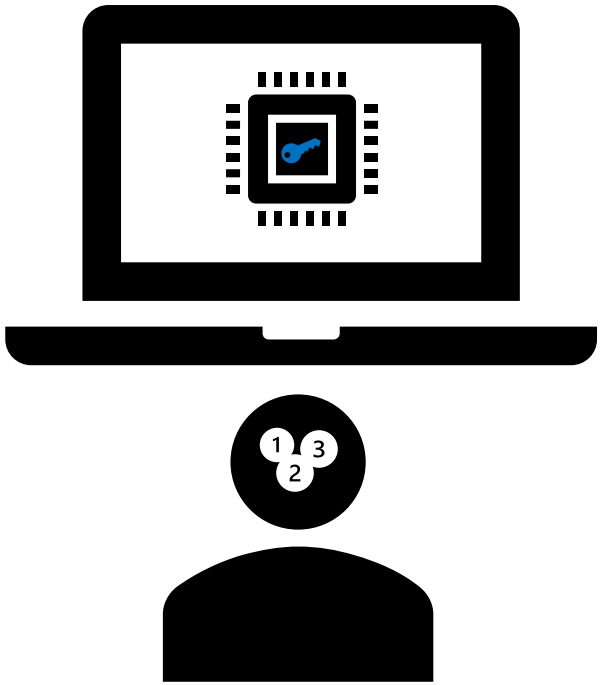


Password sync

- ❤️ user-friendly – one central password
- ❤️ Touch ID possible
- ❤️ SSO

- 😱 Secure enclave not used (instead: keychain for tokens)
- 😱 not phishing resistant / no Zero Trust
- 😱 not password-less
- 😱 local password still existing for FileVault

Comparison as reference

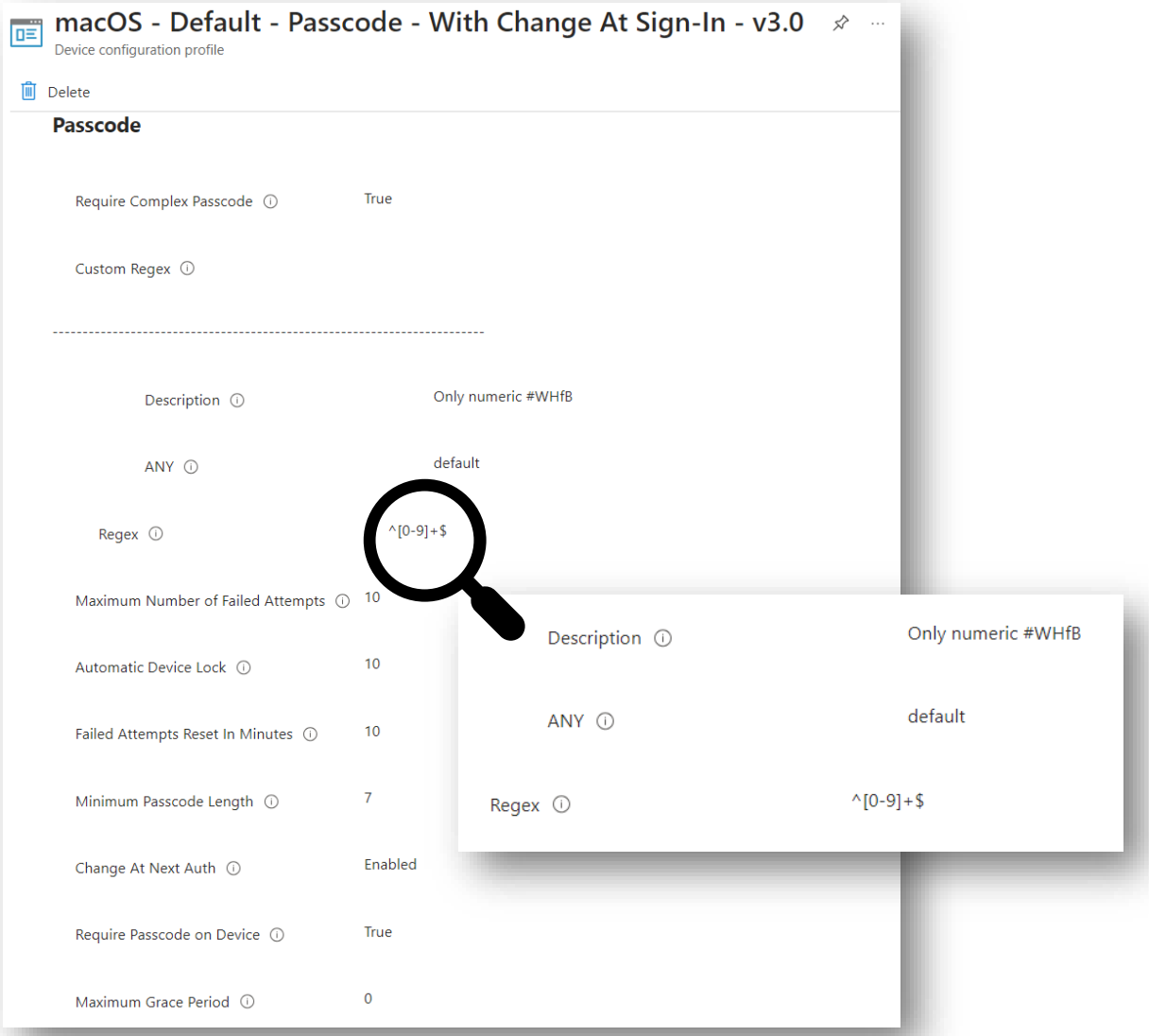


Feature	Secure Enclave	Password
Passwordless (phishing resistant)	✅	❌
TouchID supported for unlock	✅	✅
Can be used as passkey	✅	❌
MFA mandatory for setup	✅	❌
Multifactor authentication (MFA) is always recommended		
Local Mac password synced with Entra ID	❌	✅
Supported on macOS 14.x +	✅	✅
Optionally, allow new users to log in with Entra ID credentials (macOS 14.x +)	✅	✅

Configure Platform SSO for macOS devices | Microsoft Learn

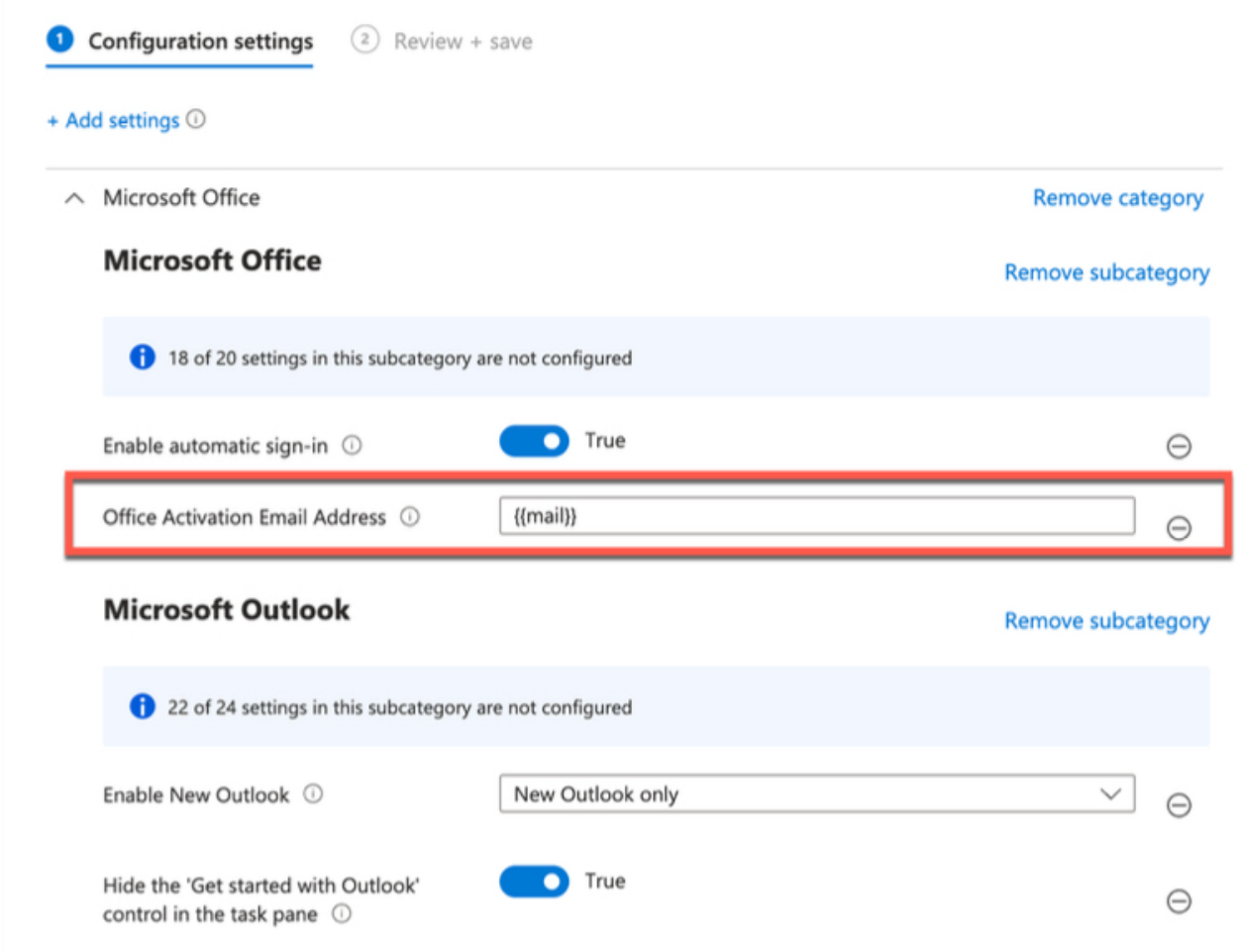
Best practices

- use Secure Enclave
- caution: no in-place migration from Password Sync to Secure Enclave possible
- numeric PIN instead of password



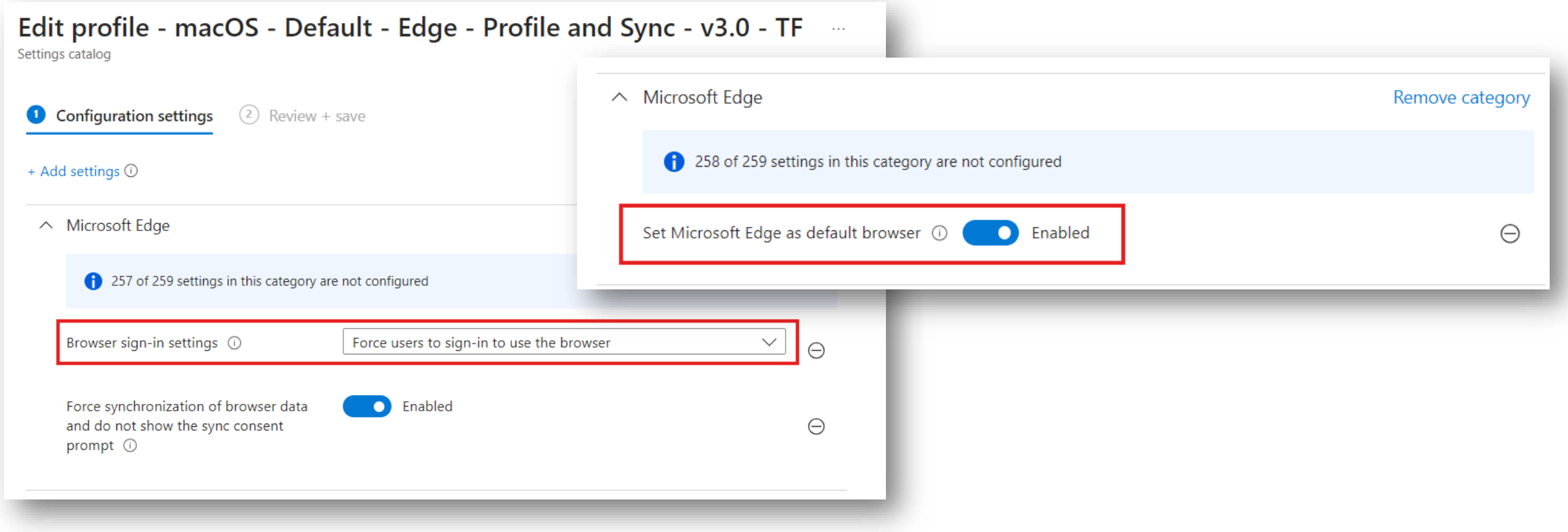
Deploying SSO for Microsoft 365 Apps

New settings available with
Intune 2408 + 2409 for macOS



Deploying SSO for Microsoft Edge

- **force login** to allow SSO to Entra ID authenticated websites
- **enable browser sync** for favorites etc.
- set as **default browser**



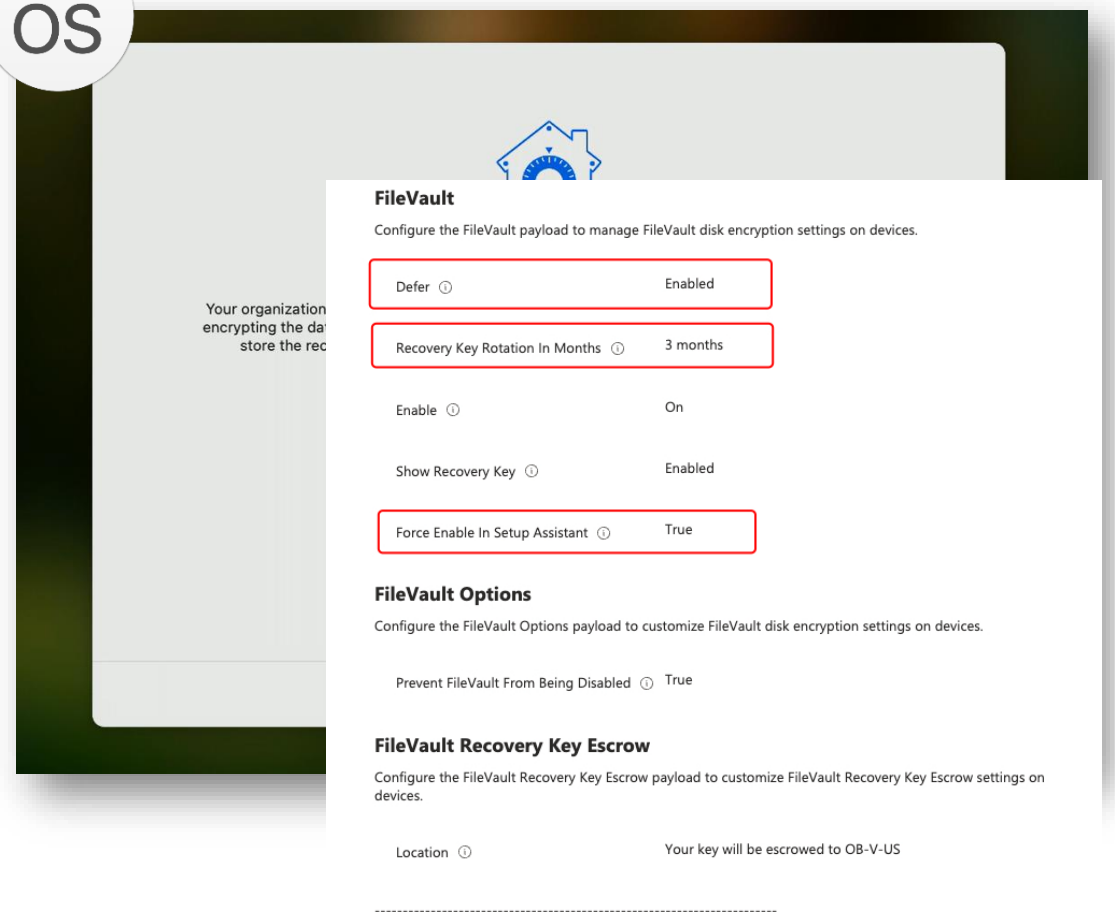
Improve security posture

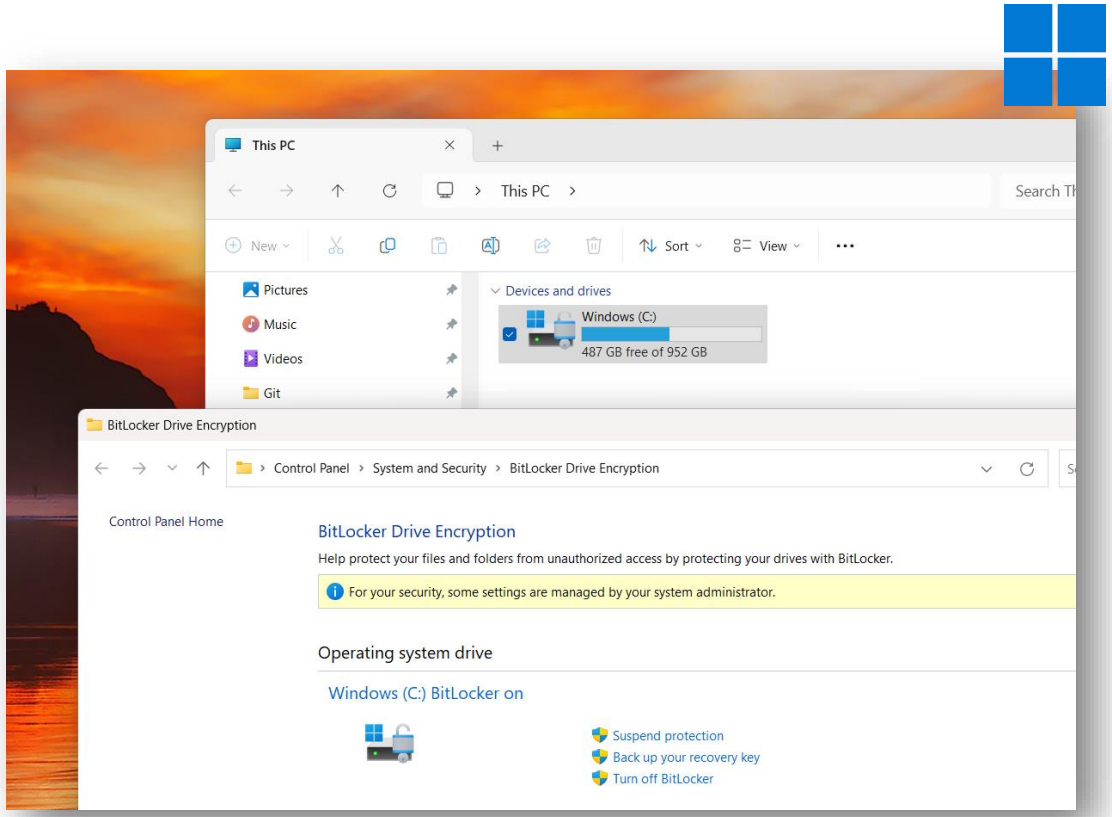
FileVault & Local Admin

Disk Encryption look & feel

Disk encryption

mac OS

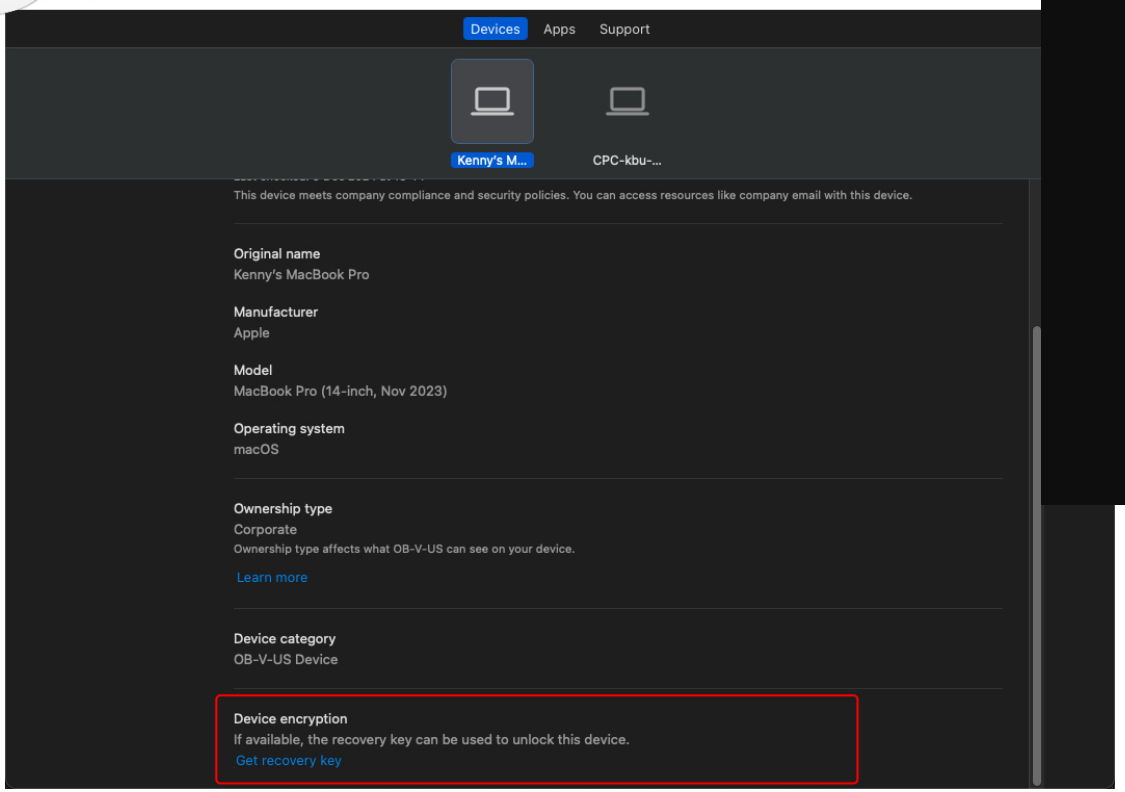


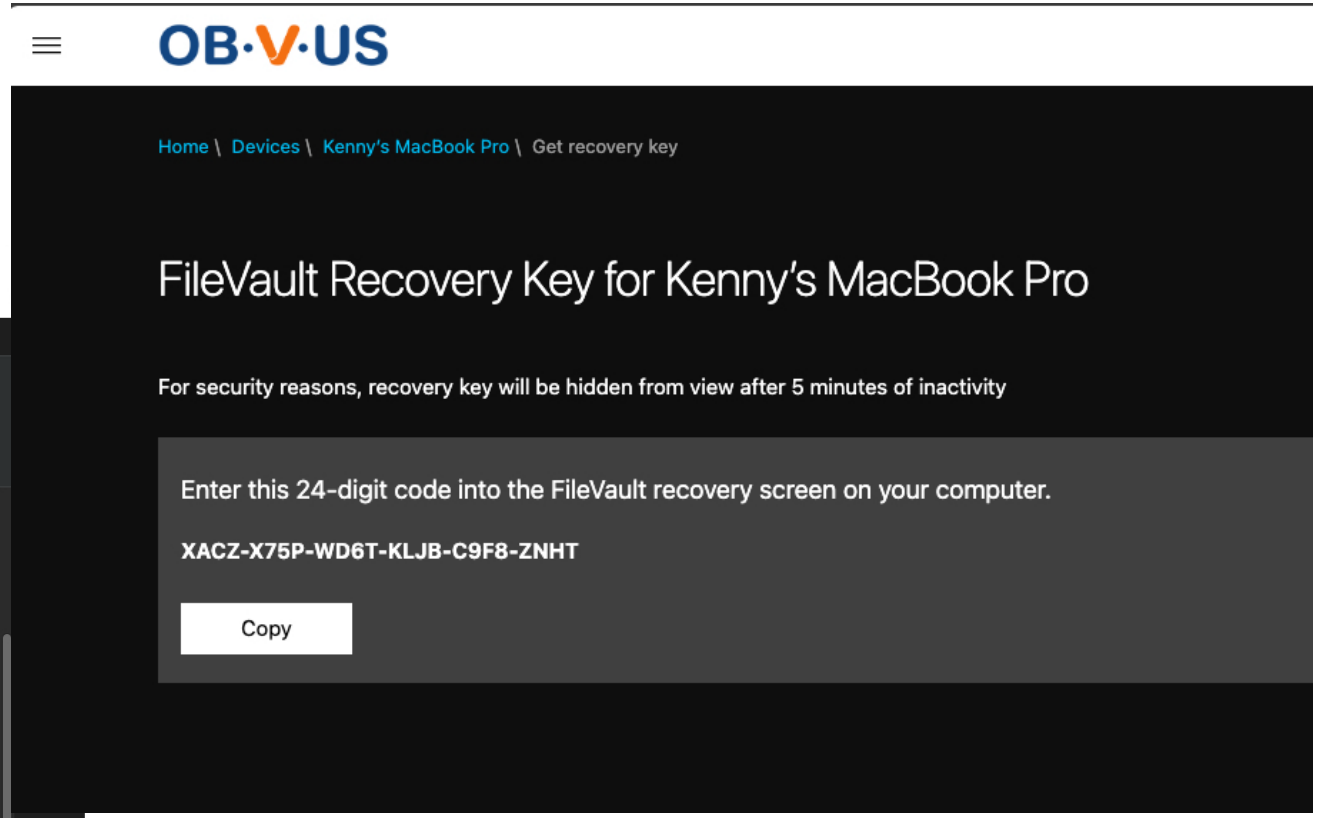


Recovery Key

Disk encryption

mac OS





LAPS for Mac

Improve security posture

DDM - Software updates

Introduction

Software Updates

macOS Sonoma +

Declarative Device Management (DDM) Remove category

These settings configure the declarations used by Apple's declarative device management feature. These settings are separate from older MDM settings and only apply to a device enabled for declarative management. Learn more about declarative management at developer.apple.com

Software Update Remove subcategory

2 of 4 settings in this subcategory are not configured

Target Date Time (UTC) * 15/08/2024 3:00 PM

Target OS Version * 14.6.1

macOS Sequoia +

Create profile

macOS - Settings catalog

These settings configure the declarations used by Apple's … feature. These settings are separate from older MDM settings and only apply to a de… declarative management. Learn more about declarative management at developer.apple.com

Software Update Settings Remove subcategory

Allow Standard User OS Updates: Allowed

Automatic Actions

Download: Allowed

Install OS Updates: Allowed

Install Security Update: Allowed

Deferrals

Major Period In Days *: 0

Minor Period In Days *: 0

System Period In Days *: 0

Notifications: Enabled

Lessons Learned ..

Common real-world macOS experiences

Software Updates – Ring Principle

- Create Dynamic Groups for rings

Rule syntax

```
(device.deviceManagementAppId -ne null) and (device.deviceOSType -eq "MacMDM") and (device.deviceOwnership -eq "Company") and ((device.deviceId -startsWith "0") or (device.deviceId -startsWith "1") or (device.deviceId -startsWith "a"))
```

- Office Example

Microsoft AutoUpdate (MAU)

Configure the Microsoft AutoUpdate preferences to control the update process for Microsoft applications on devices.

Days before forced updates	2
Deferred updates (Deprecated)	Defer 3 days

Lessons Learned

- User forgot their password
- ServiceDesk deleted Intune Computer object
- Bye Bye FileVault key because not synced in EntraID Object like Windows
- Reset of device mandatory

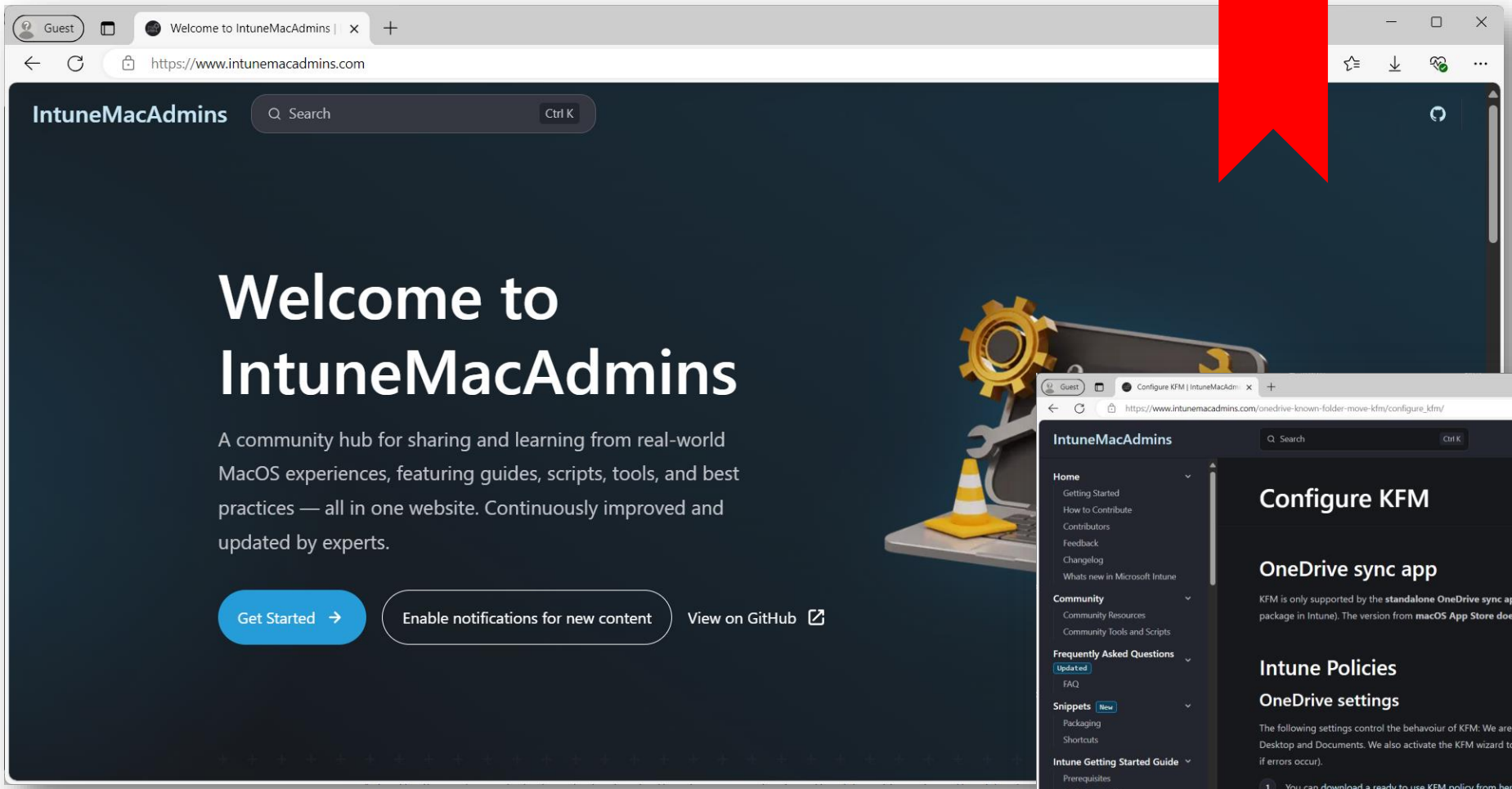
Lessons learned

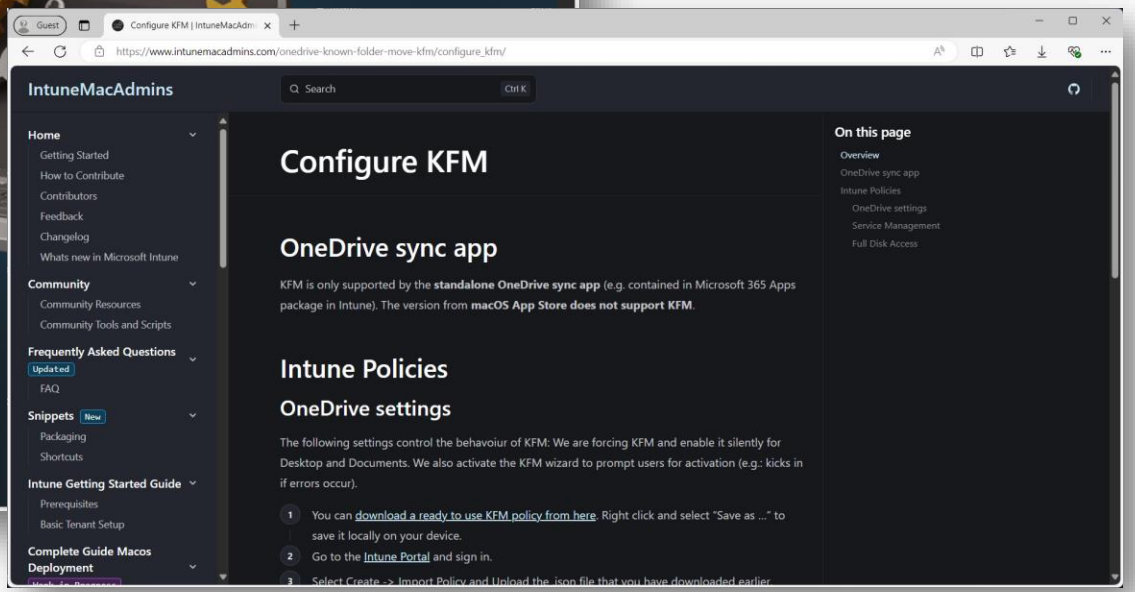
- If you do password sync –> Keep note of your Password Complexity policies
- Make sure that per-user-MFA is not enabled if you want to setup PSSO
- If you still require SSO on non-Microsoft apps, add this to the Platform SSO policy
  - You can’t have 2 SSO policies targeted on the same device → error
- You will need an extra tool like Intune Suite Remote Control ,TeamViewer or other as there is no built-in remote-control client
- When you need to hand back an end-of-lease device
  - Foresee an ADE release scenario
- If you buy an existing MacBook and want to add it to ADE
  - manually add it to ADE with Apple configurator – but be aware the first 30 days end user could step out

Community Tools ?

Share and learn from real-world macOS experiences

IntuneMacAdmins.com





Community tools

GitHub Repo with scripts and information

GitHub