AllThingsCloud

SIMPLIFY

INTUNE | SECURITY | M365 | AZURE

macOS Security with Intune;

From Basics to Bulletproof

Focus

Microsoft **Intune** and all things **Security**

Hobbies

Hiking, Woodworking, RC planes & heli

You will never be ready, just start

My Blog

https://allthingscloud.blog

Awards

Microsoft® Most Valuable Professional

Oktay Sari

Modern Workplace Consultant

Contact

@oktay_sari

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Agenda

01

macOS Security with Intune

- The basics
- The must haves
- Advanced security configurations
- Lessons learned & what to avoid

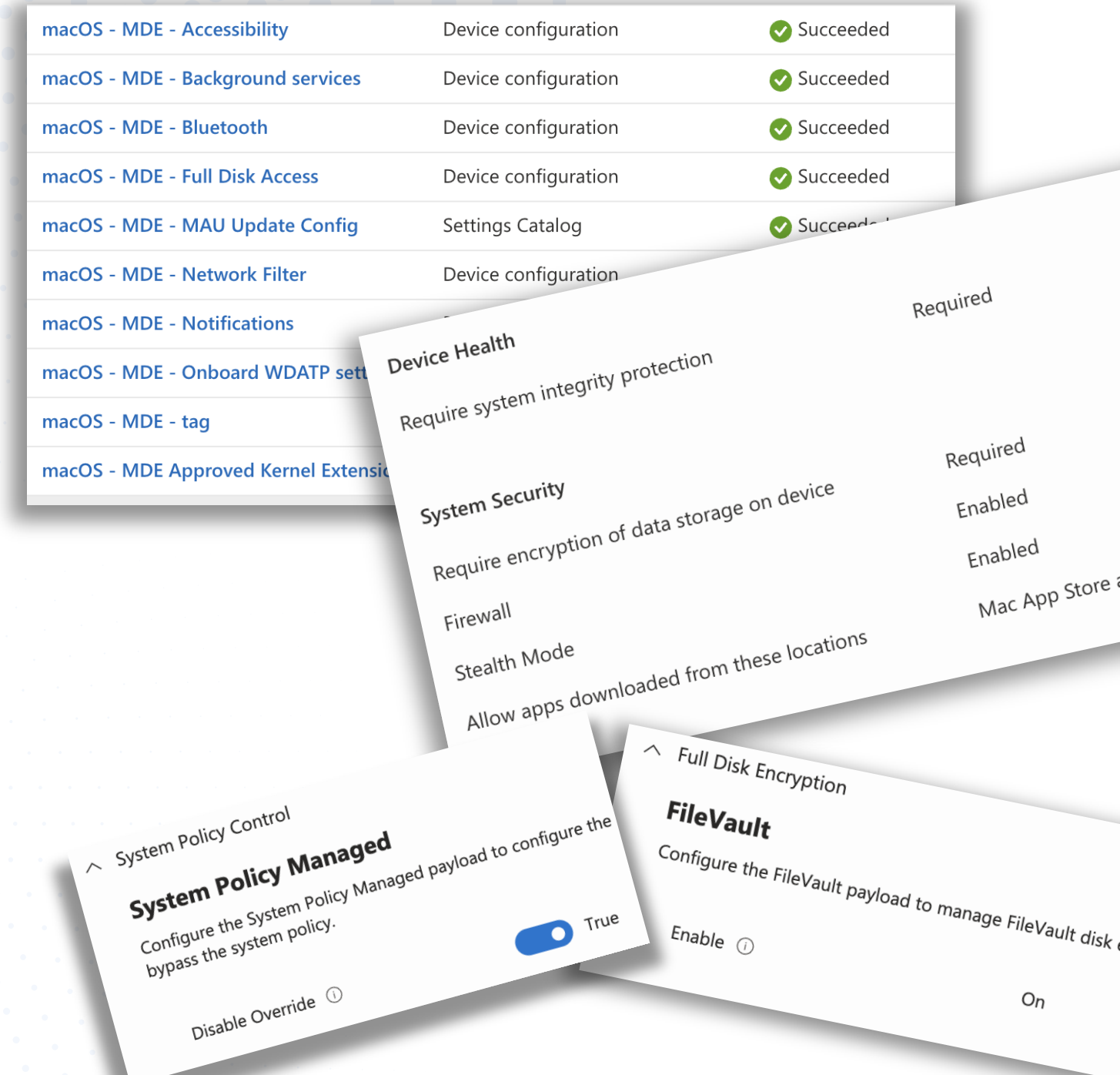
MacOS
Security
Best practices
from the field

Start with

The Basics

The Basics

1. Compliance policies
2. Device restrictions and features
3. OS and Software Updates
4. Defender for Endpoint



The Must Haves

The Must Haves

1. User and Accounts and Access
2. Disable Sharing options
3. Saving and Sharing Passwords
4. Cloud and storage

The Must Haves

1 User and Accounts and Access

- ❑ Disable password hints (login screen)
- ❑ Always show username and password window (vs list all users)
- ❑ Disable Guest accounts and remove guest Home folder
- ❑ Enable file name extensions

The Must Haves

2 Disable Sharing options

- ❑ Remote Apple Events
- ❑ Internet Sharing
- ❑ Screen Sharing (can have a negative impact)
- ❑ Printer Sharing
- ❑ Bluetooth Sharing
- ❑ SMB Sharing

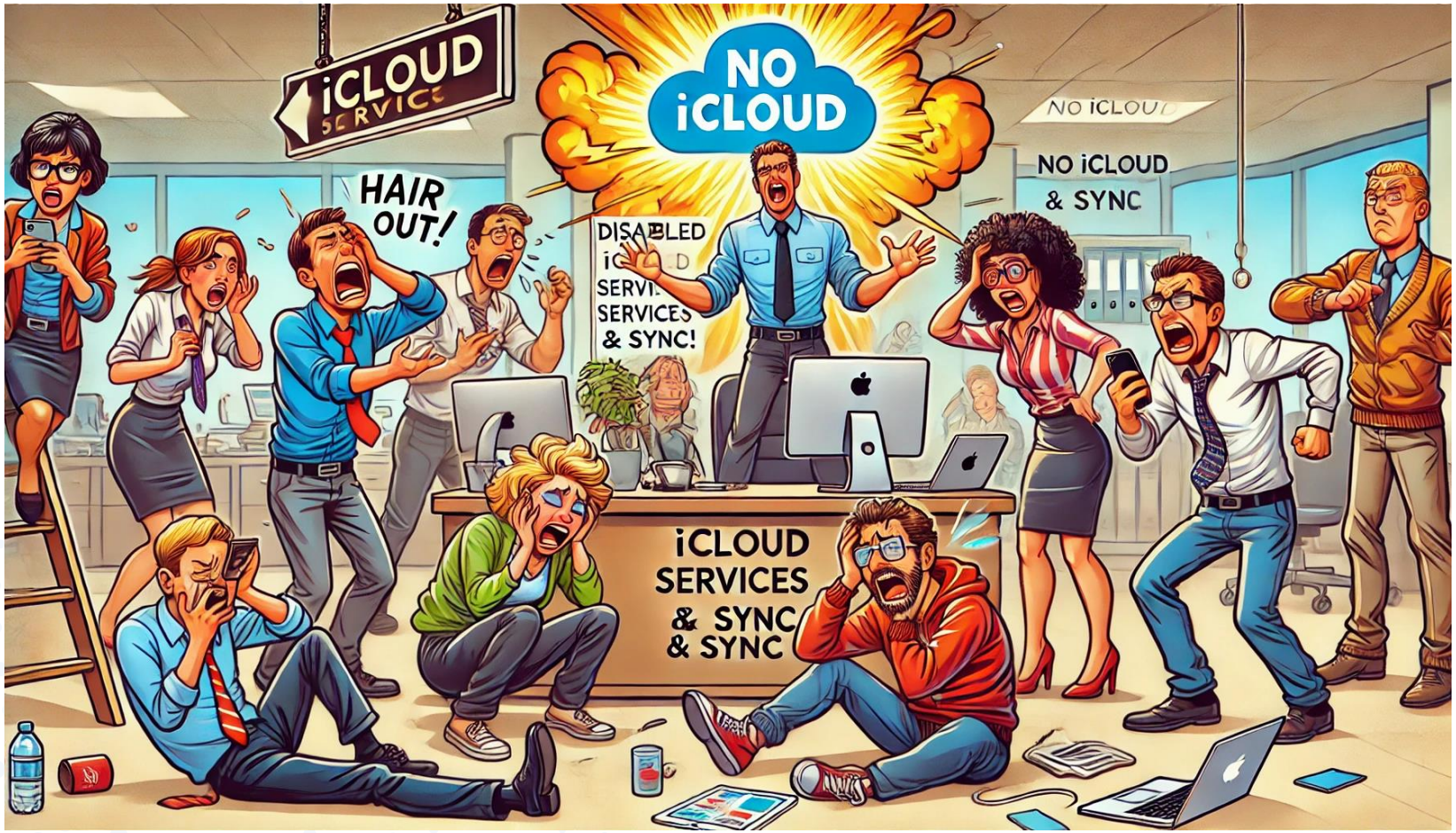
The Must Haves

3 Disable Sharing and Saving Passwords

- ❑ Disable Password Auto Fill
- ❑ Disable Password Proximity Request
- ❑ Disable Password Sharing

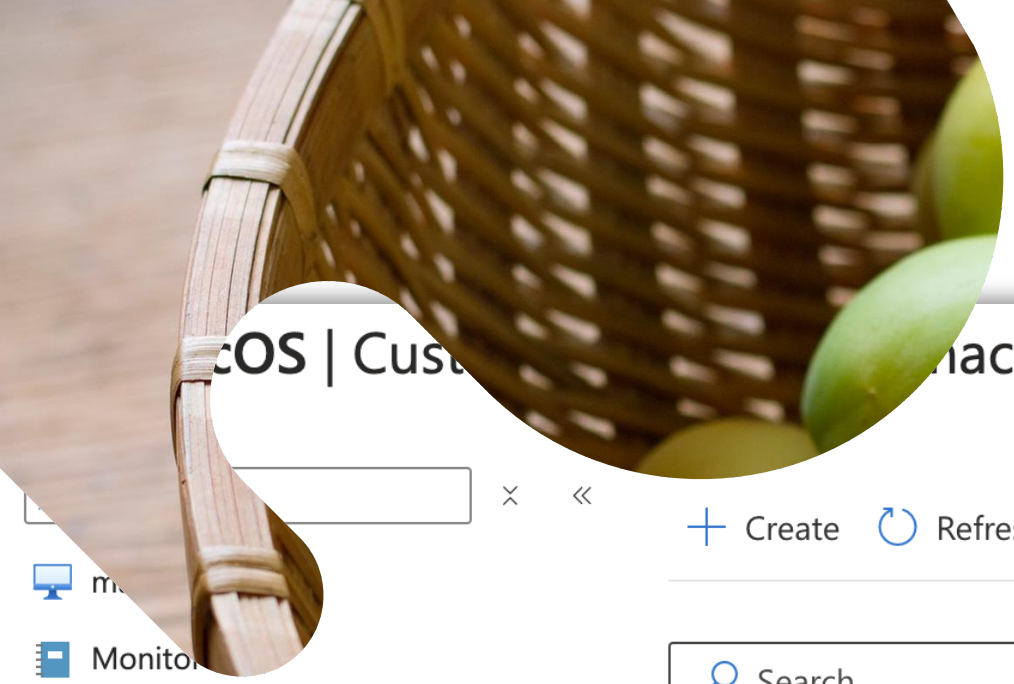
If you want to drive everyone nuts...

4 Disable all iCloud services and syncs



Advanced Security configurations

Custom attributes



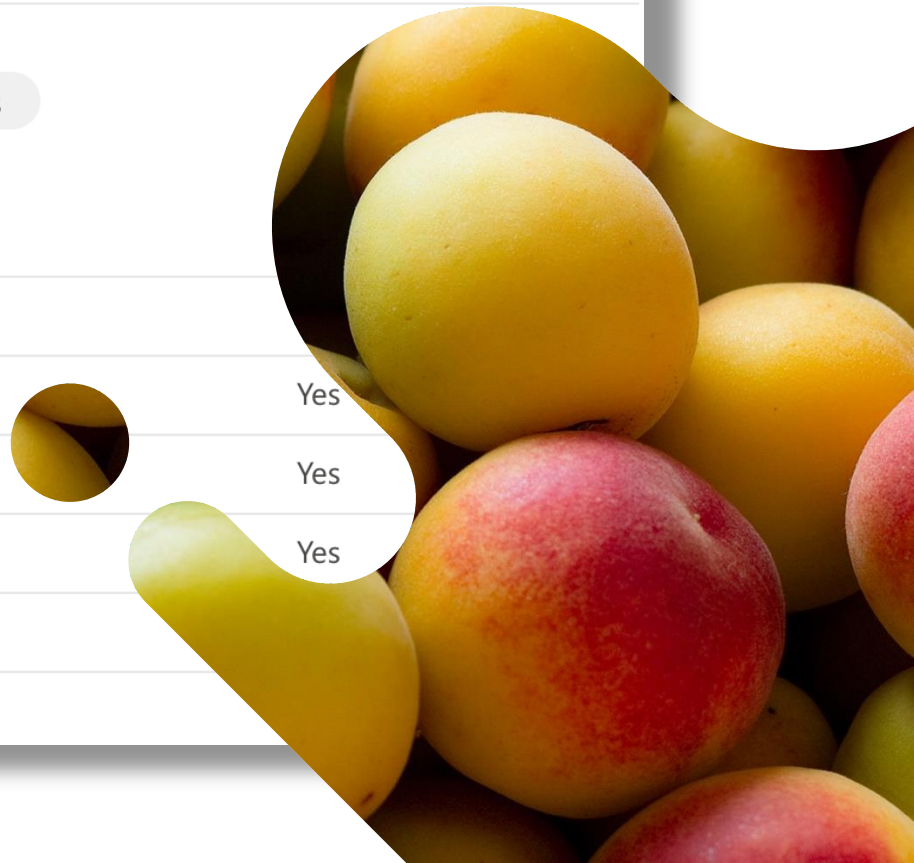
cOS | Cust … acOS

Create | Refresh | Export | Columns | 5 items

Search | Add filters

- Monitor
- Device onboarding
  - Enrollment
- Manage devices
  - Configuration
  - Compliance
  - Scripts
- Manage updates
  - macOS updates

Attribute name ↑	Attribute type	
macOS - Check Defender is Running	String	
macOS - Check Gatekeeper status	String	Yes
macOS - Check Google Chrome version	String	Yes
macOS - Fetch Defender Version	String	Yes
macOS - Fetch Edge Version	String	



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MacOS Scripts

devices
tor
onboarding
nt
es
Configuration
Compliance
Scripts
Manage updates
macOS updates
Organize devices
Device clean-up rules
Custom attributes for macOS

Export Columns

Add filters

Script name ↓	Platform	Assigned
Rename MacOS	macOS	Yes
macOS - Hardening - CIS_lvl1 - Show all filename extensions	macOS	
macOS - Hardening - CIS_lvl1 - Secure User's Home Folders	macOS	
macOS - Hardening - CIS_lvl1 - Enable Apple Mobile File Integrity	macOS	
macOS - Hardening - CIS_lvl1 - Disable NFS Server	macOS	
macOS - Hardening - CIS_lvl1 - Disable HTTP Server	macOS	
macOS - Hardening - CIS_lvl1 - Disable Guest Access to Shared Fo	macOS	Yes
macOS - Hardening - CIS_lvl1 - Disable File Sharing	macOS	Yes
macOS - Hardening - CIS_lvl1 - Delete Guest Home Folder	macOS	
macOS - Hardening - CIS_lvl1 - Controlled Audit records	macOS	
macOS - Hardening - CIS_lvl1 - Administrator Account Restriction:	macOS	
macOS - Hardening - CIS_lvl1 - Admin Password for system wide s	macOS	

macOS Security Compliance

The macOS Security Compliance Project is an open source effort to provide a programmatic approach to generating security guidance

Source: https://github.com/usnistgov/macos_security

Search this guide

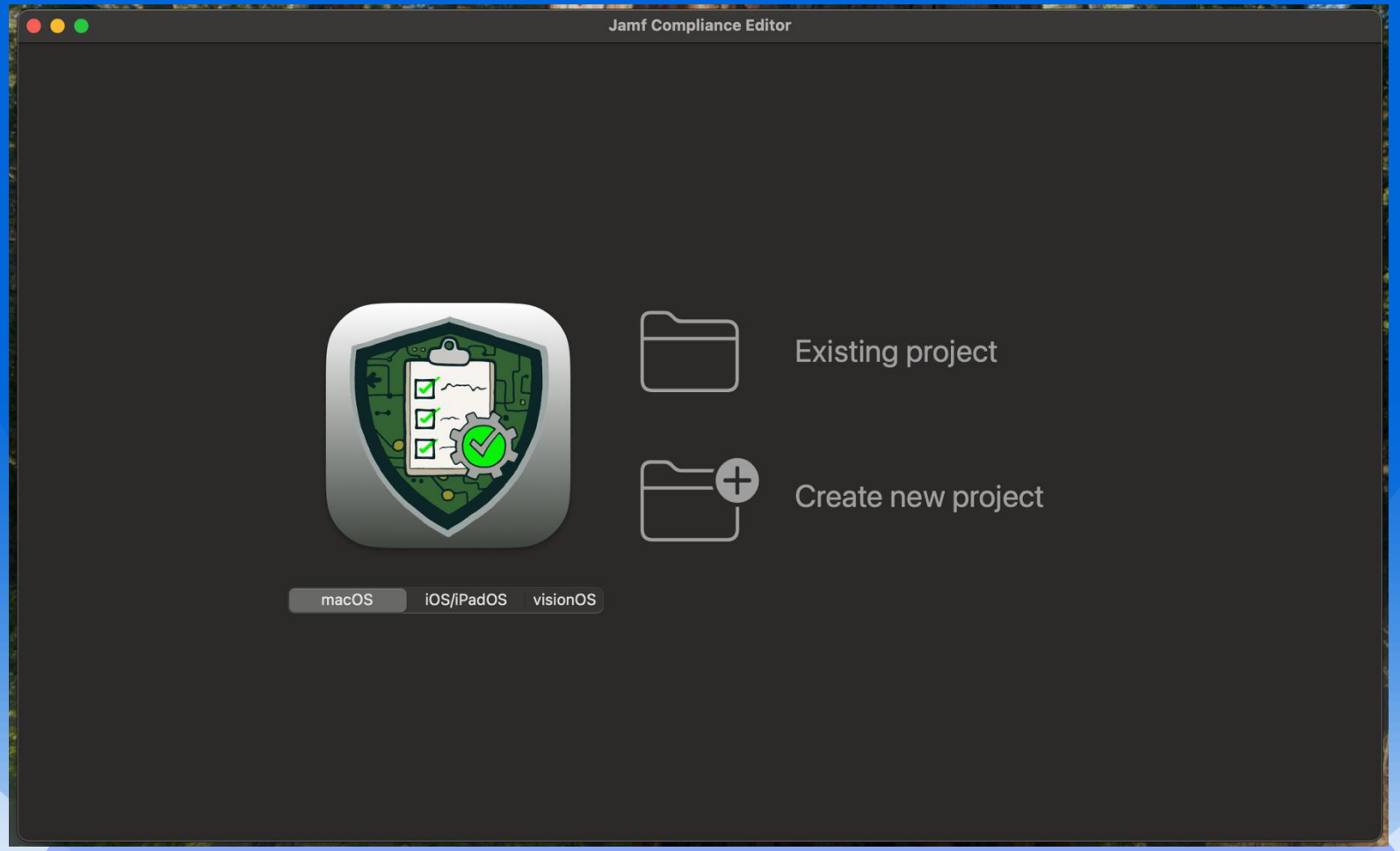
Table of Contents

macOS Security Compliance Project

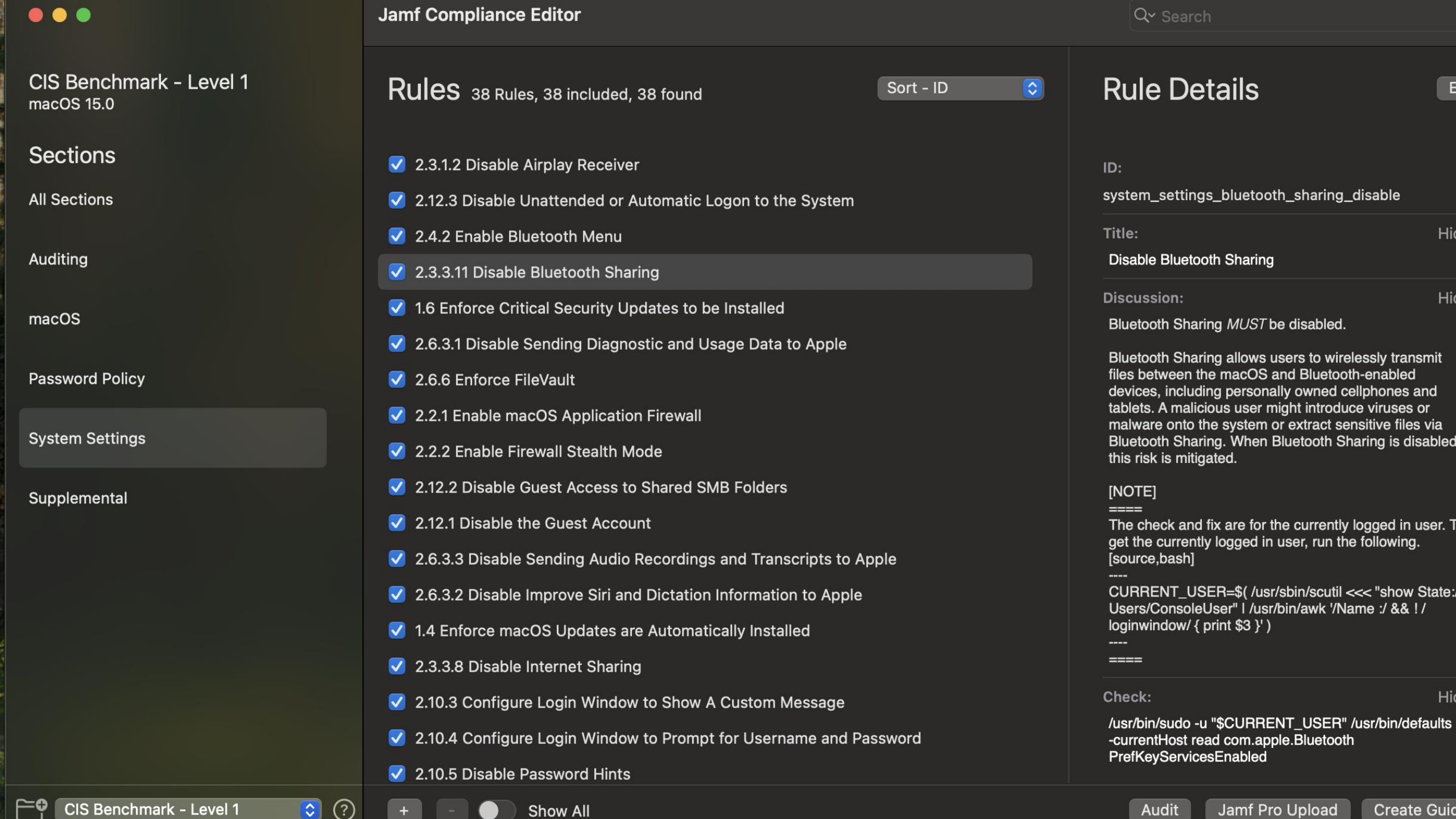
The macOS Security Compliance Project (mSCP) is an open source effort to provide a programmatic approach to generating security guidance. The project can be used to output customized documentation, scripts (logging and remediation), configuration profiles, and an audit checklist based on the baseline used. It is authoritative through NIST Special Publication 800-219, Automated Secure Configuration Guidance from the macOS Security Compliance Project (mSCP).

Source:https://support.apple.com/guide/certifications/macos-security-compliance-project-apc322685bb2/web

Jamf Compliance Editor



Source: https://github.com/Jamf-Concepts/jamf-compliance-editor/releases


Jamf Compliance Editor
Search
CIS Benchmark - Level 1
macOS 15.0
Sections
All Sections
Auditing
macOS
Password Policy
System Settings
Supplemental
Rules 38 Rules, 38 included, 38 found
Sort - ID
2.3.1.2 Disable Airplay Receiver
2.12.3 Disable Unattended or Automatic Logon to the System
2.4.2 Enable Bluetooth Menu
2.3.3.11 Disable Bluetooth Sharing
1.6 Enforce Critical Security Updates to be Installed
2.6.3.1 Disable Sending Diagnostic and Usage Data to Apple
2.6.6 Enforce FileVault
2.2.1 Enable macOS Application Firewall
2.2.2 Enable Firewall Stealth Mode
2.12.2 Disable Guest Access to Shared SMB Folders
2.12.1 Disable the Guest Account
2.6.3.3 Disable Sending Audio Recordings and Transcripts to Apple
2.6.3.2 Disable Improve Siri and Dictation Information to Apple
1.4 Enforce macOS Updates are Automatically Installed
2.3.3.8 Disable Internet Sharing
2.10.3 Configure Login Window to Show A Custom Message
2.10.4 Configure Login Window to Prompt for Username and Password
2.10.5 Disable Password Hints
Rule Details
ID:
system_settings_bluetooth_sharing_disable
Title:
Disable Bluetooth Sharing
Discussion:
Bluetooth Sharing MUST be disabled.
Bluetooth Sharing allows users to wirelessly transmit files between the macOS and Bluetooth-enabled devices, including personally owned cellphones and tablets. A malicious user might introduce viruses or malware onto the system or extract sensitive files via Bluetooth Sharing. When Bluetooth Sharing is disabled this risk is mitigated.
[NOTE]
====
The check and fix are for the currently logged in user. T
get the currently logged in user, run the following.
[source,bash]

CURRENT_USER=$(/usr/sbin/scutil <<< "show State:
Users/ConsoleUser" | /usr/bin/awk '/Name :/ && ! /
loginwindow/ { print $3 }')

====
Check:
/usr/bin/sudo -u "$CURRENT_USER" /usr/bin/defaults
-currentHost read com.apple.Bluetooth
PrefKeyServicesEnabled
CIS Benchmark - Level 1
Show All
Audit
Jamf Pro Upload

Compliance Audit

CIS Benchmark - Lev...
macOS 15.0
14/12/2024

Passed: 27 Failed: 64

Result: 29.67%

macOS	34	⚠
Disable Power Nap		✓
Ensure Warn When Visiting A Fraudulent Website in Safari Is Enabled		⚠
Disable Root Login		⚠
Enforce Enrollment in Mobile Device Management		✓
Must Use an Approved Antivirus Program		✓
Ensure No World Writable Files Exist in the System Folder		✓
Disable iPhone Mirroring		⚠
Disable Automatic Opening of Safe Files in Safari		⚠
Enable Authenticated Root		✓
Ensure Advertising Privacy Protection in Safari Is Enabled		⚠

Save Run

os_root_disable

Title

Disable Root Login

Result

0

Expected Result

integer: 1

Description

To assure individual accountability a
unauthorized access, logging in as r
window _MUST_ be disabled.

The macOS system _MUST_ require
be authenticated with an individual a
prior to using a group authenticator,
administrator users _MUST_ never lo
root.

Source: https://beta.apple.com/for-it

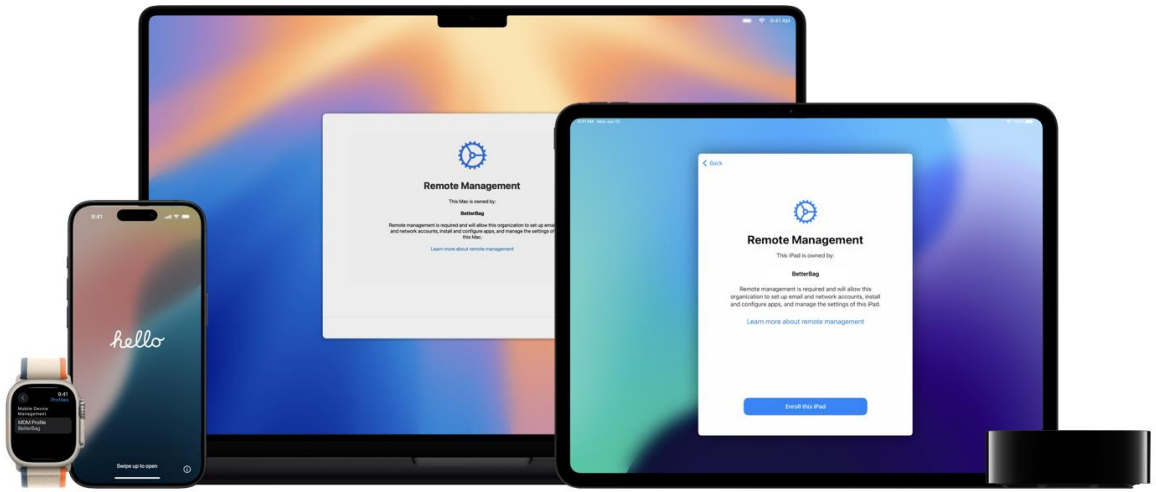
Mac Evaluation Utility

Version
4.6.4

Released
November 22, 2024

Mac Evaluation Utility 4.6.4 Release Notes

Mac Evaluation Utility 4.6.4



AppleSeed for IT

AppleSeed for IT provides IT professionals and technology managers an opportunity to evaluate pre-release software in your unique work environments. Test against your IT infrastructure, corporate network, and mission critical apps to make sure you are ready to support employees, staff, and students with the latest Apple software.

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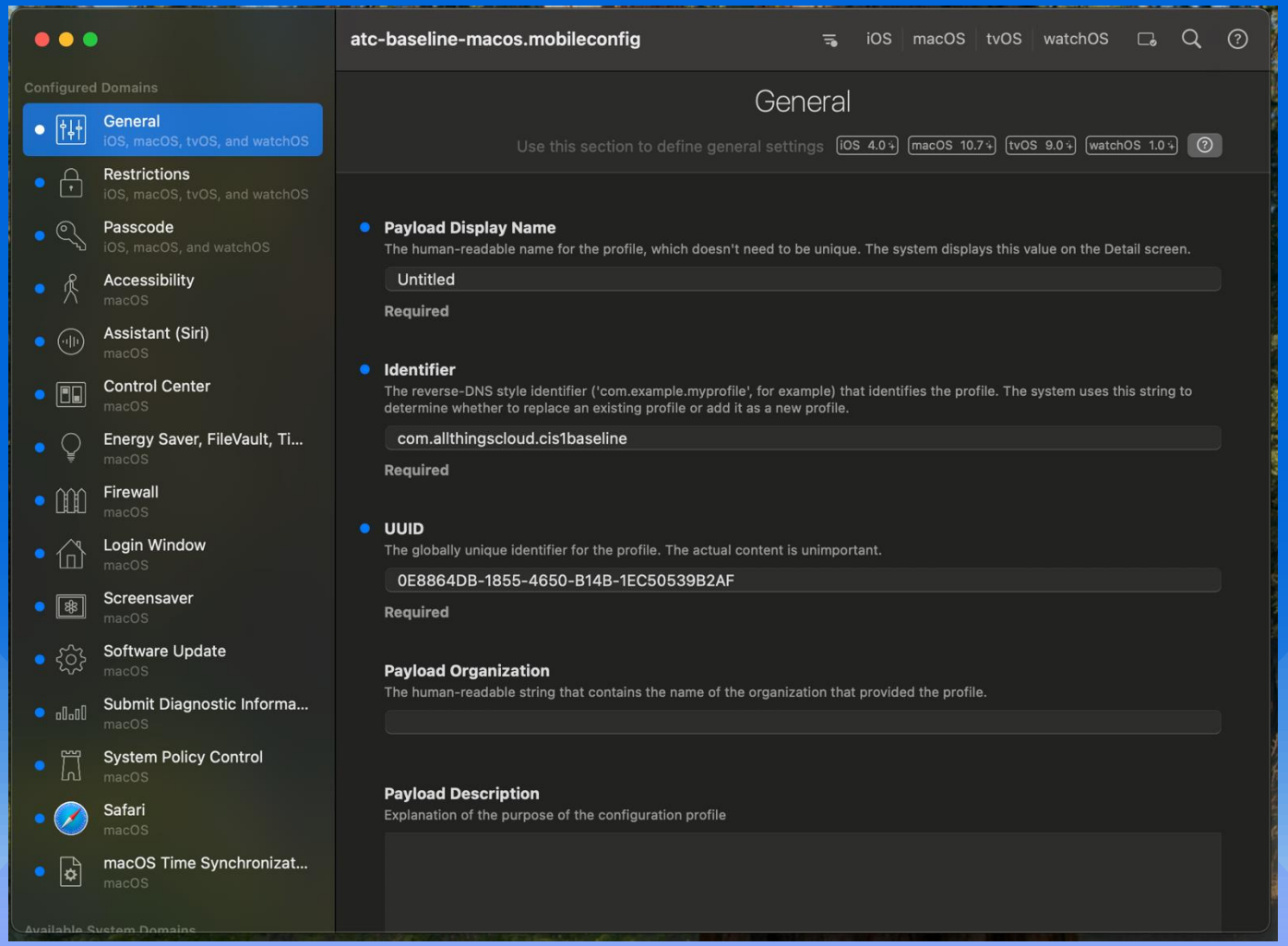
iMazing Profile Editor



Source: https://imazing.com/profile-editor

Common mistakes

Gatekeeper: Only configured with compliance policy!
You should **also configure restrictions** that do **not allow users to override Gatekeeper**

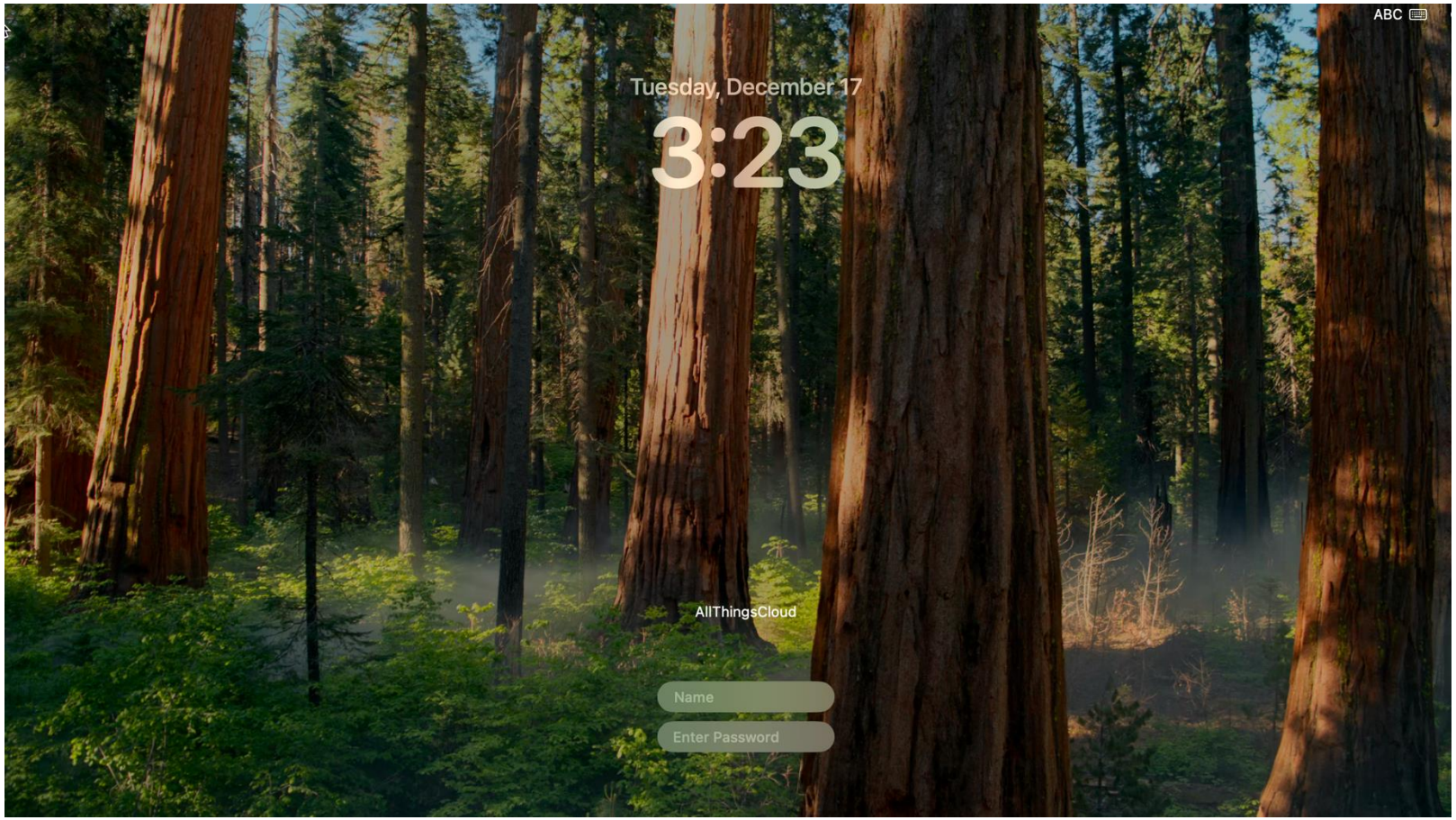
Platform SSO: Password sync?
Make sure your compliance policy (password settings) and configuration profiles (password settings) match!
Tip: Do not use compliance policies to enforce password settings. Instead, use configuration profile

Enrollment Profile: Await Final Configuration is not configured
You should **enable Await Final Configuration**

Human nature: We tend to finish to soon
You should take your time and don’t rush things

Common mistakes

Login configuration: Do not show username config
You should inform users what to expect. They probably don’t know their username!



Common mistakes

Know what impact policies have:

Example: Ensure Wake for Network Access Is Disabled

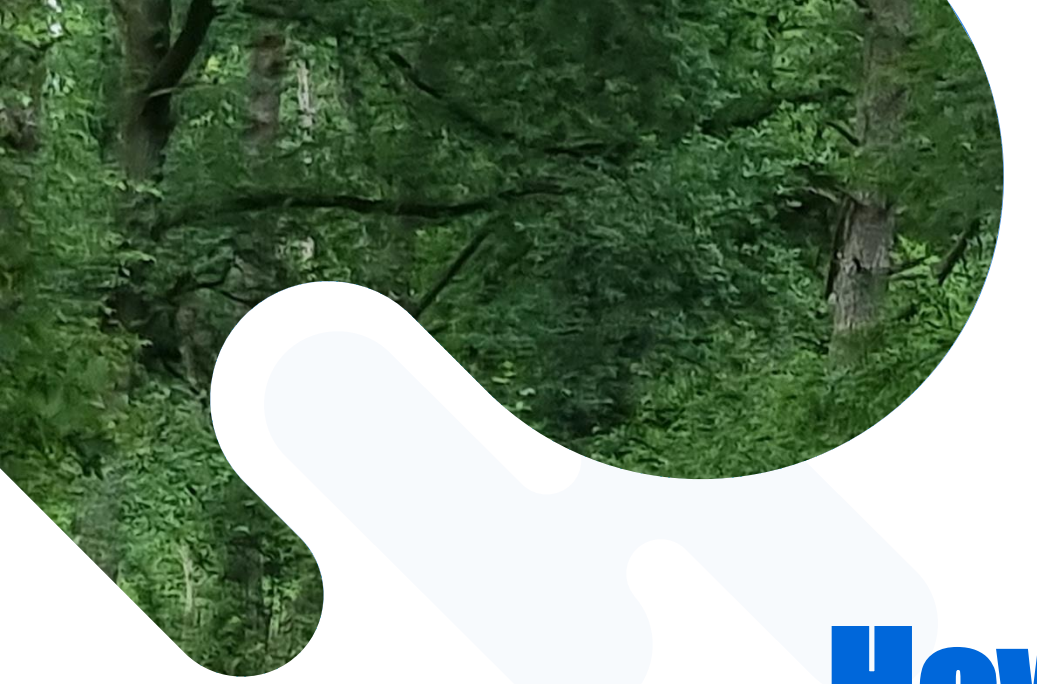
This feature **allows the computer to take action when the user is not present** and the computer is in energy saving mode. This macOS feature is meant to **allow the computer to resume activity as needed regardless of physical security controls.**

This feature allows other users to be able to access your computer's shared resources, such as shared printers or Apple Music playlists, **even when your computer is in sleep mode.**

Rationale: Disabling this feature mitigates the risk of an attacker remotely waking the system and gaining access.

Impact: Management programs like **Apple Remote Desktop Administrator** use wake-on-LAN to connect with computers. If turned off, such management programs will not be able to wake a computer over the LAN. **If the wake-on-LAN feature is needed, do not turn off this feature.**

Turning off Wake for Network Access will also **not allow Find My to work when the computer is asleep**. It will also give this warning: "**You won't be able to locate, lock, or erase this Mac while it's asleep because Wake for network access is turned off.**"



How to start?

Roadmap


01 STEP
Prerequisites
Always check if you meet all prerequisites.
02 STEP
Inventory
Devices
OS
Software
03 STEP
Start with the Basics
Don’t rush things
04 STEP
Pilot
pilot and assess policy impact:minimum 14 days
05 STEP
Step-up
Take things to a higher level

Questions?

Thank You

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SIMPLIFY
INTUNE | SECURITY | M365 | AZURE

Happy holidays
&
have a great 2025!

Resources

1. https://developer.apple.com/business/documentation/Configuration-Profile-Reference.pdf
2. https://en.wikipedia.org/wiki/MacOS_version_history
3. https://workbench.cisecurity.org/
4. https://www.tenable.com/audits/CIS_Apple_macOS_15.0_Sequoia_v1.0.0_L2
5. https://trusted.jamf.com/docs/establishing-compliance-baselines
6. https://github.com/SkipToTheEndpoint/OpenIntuneBaseline
7. https://github.com/microsoft/shell-intune-samples/tree/master/macOS
8. https://github.com/Jamf-Concepts/jamf-compliance-editor/releases
9. https://www.linkedin.com/groups/13007354/ (Microsoft Mac Admins)
10. https://learn.microsoft.com/en-gb/mem/solutions/end-to-end-guides/macos-endpoints-get-started?tabs=esso
11. https://beta.apple.com/for-it