



WORKPLACEDUDES  
*meetup*



# macOS Management With Microsoft Intune

# About Me



Somesh Pathak



Infrastructure Engineer @ NN Group



someshpathak@hotmail.com



@pathak\_somesh



<https://www.intuneirl.com>

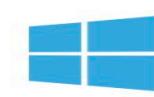
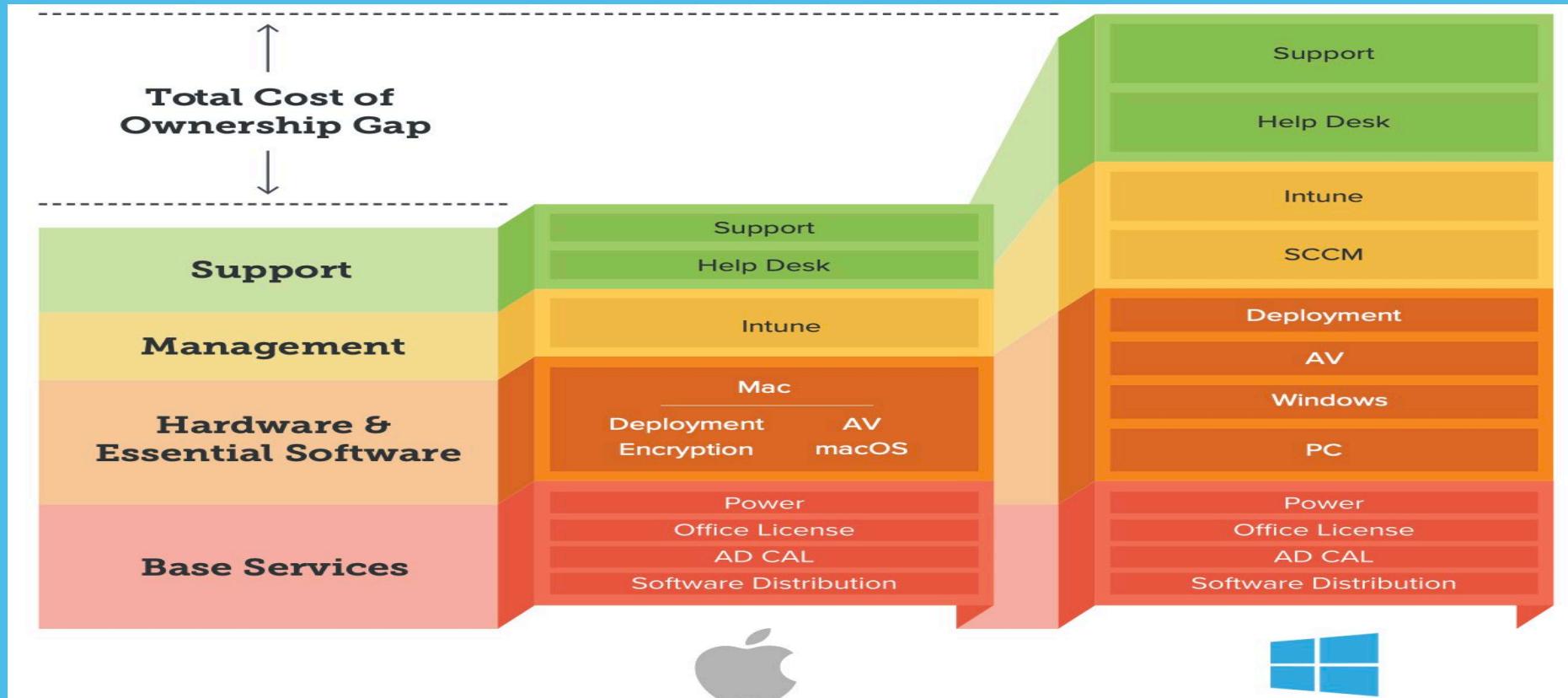


WORKPLACEDUDES

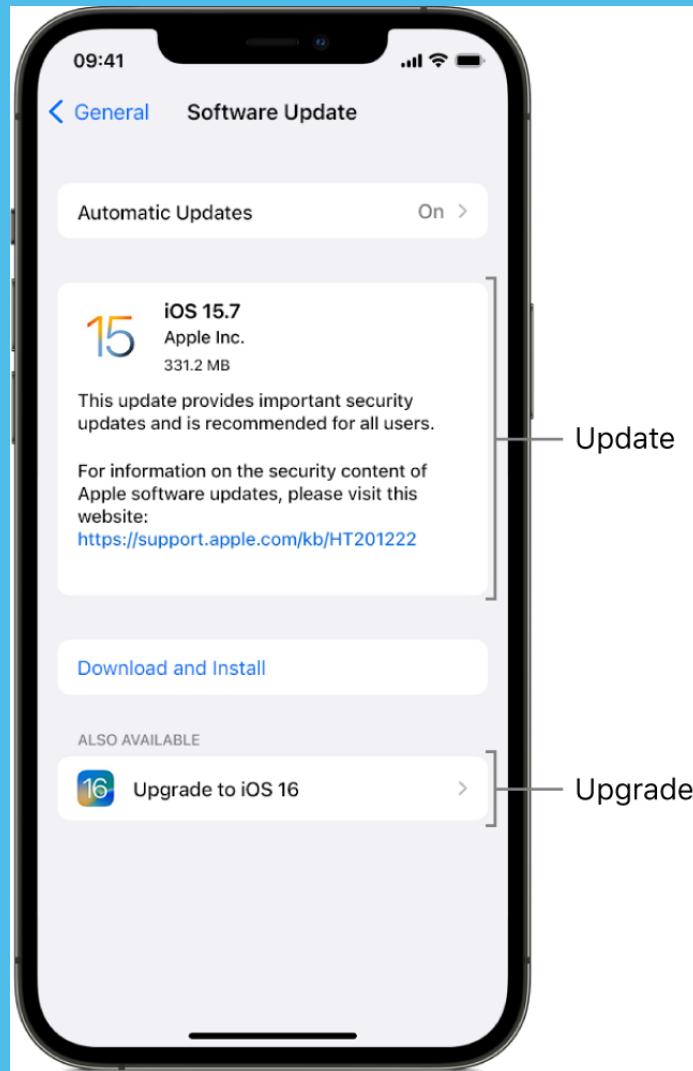


**Mac Is Less Expensive Than  
PC!**

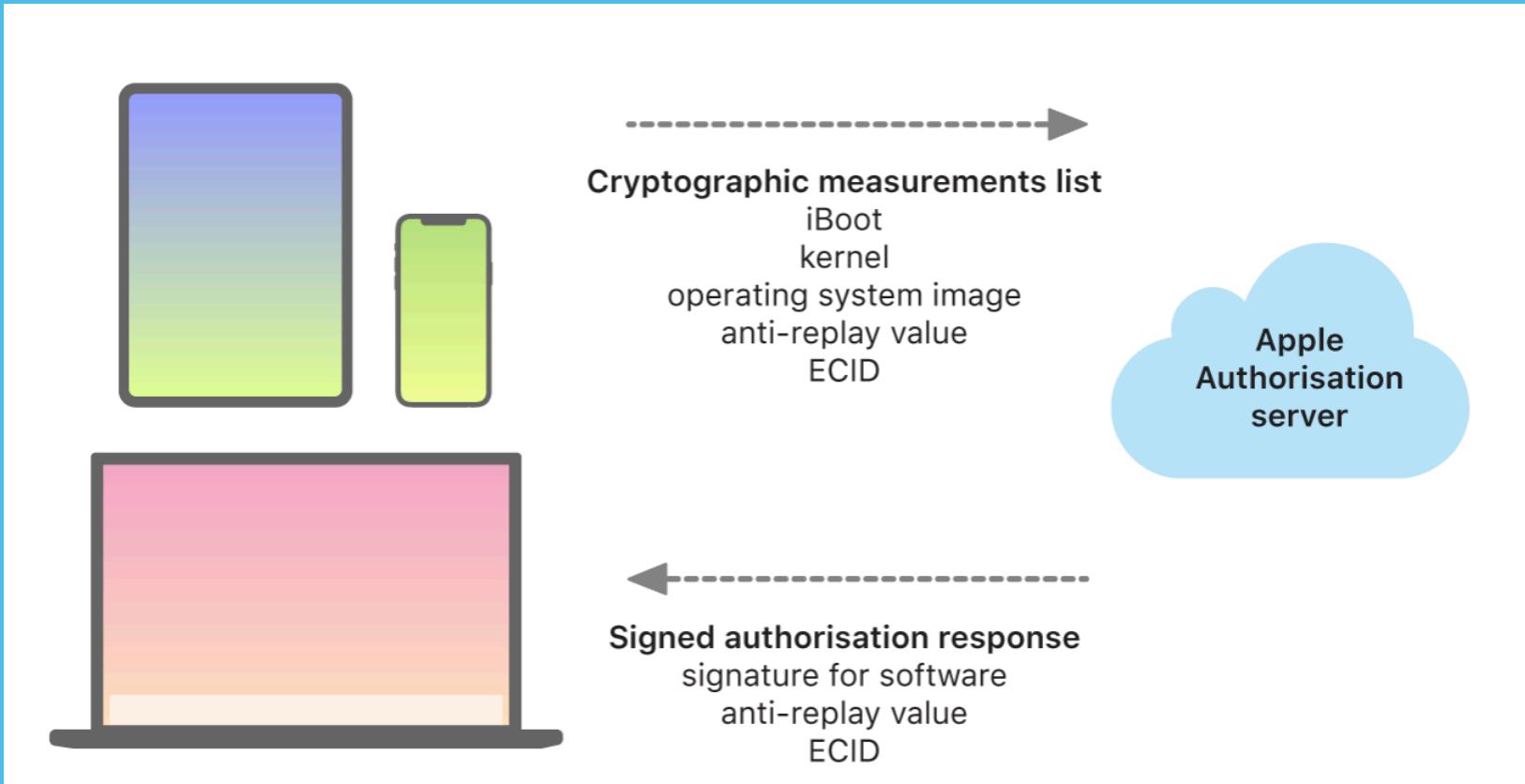
# Total Cost of Ownership



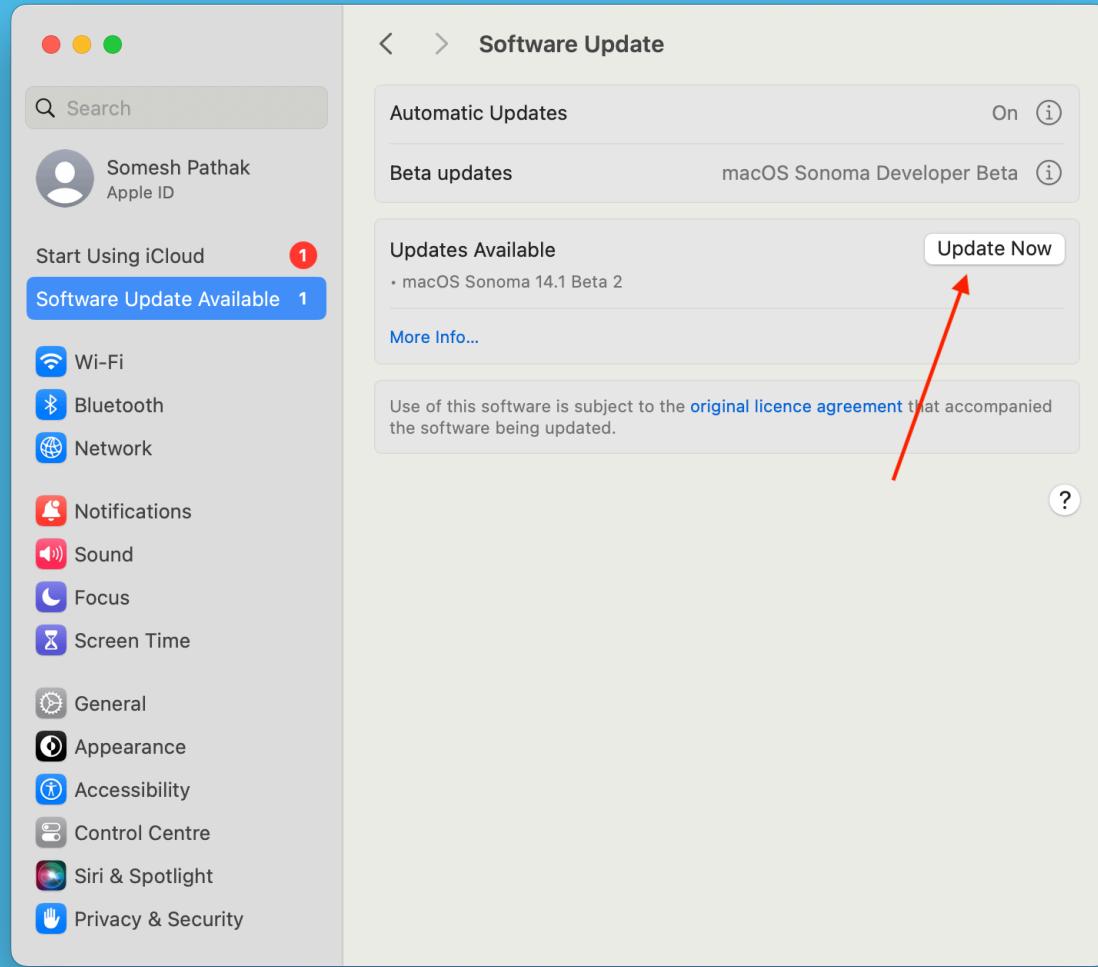
# The Mechanics of Mac Updates



# Mac Updates: How They Work?

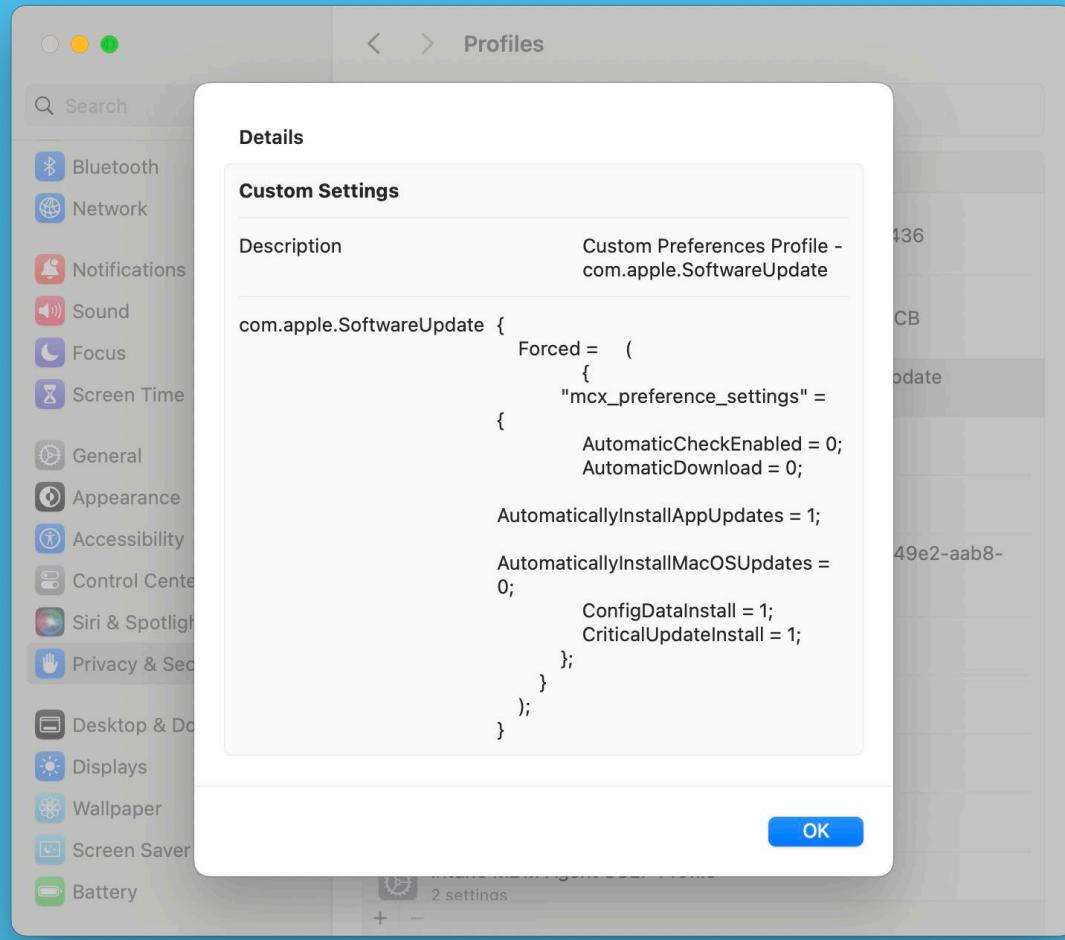


# Manual Updates



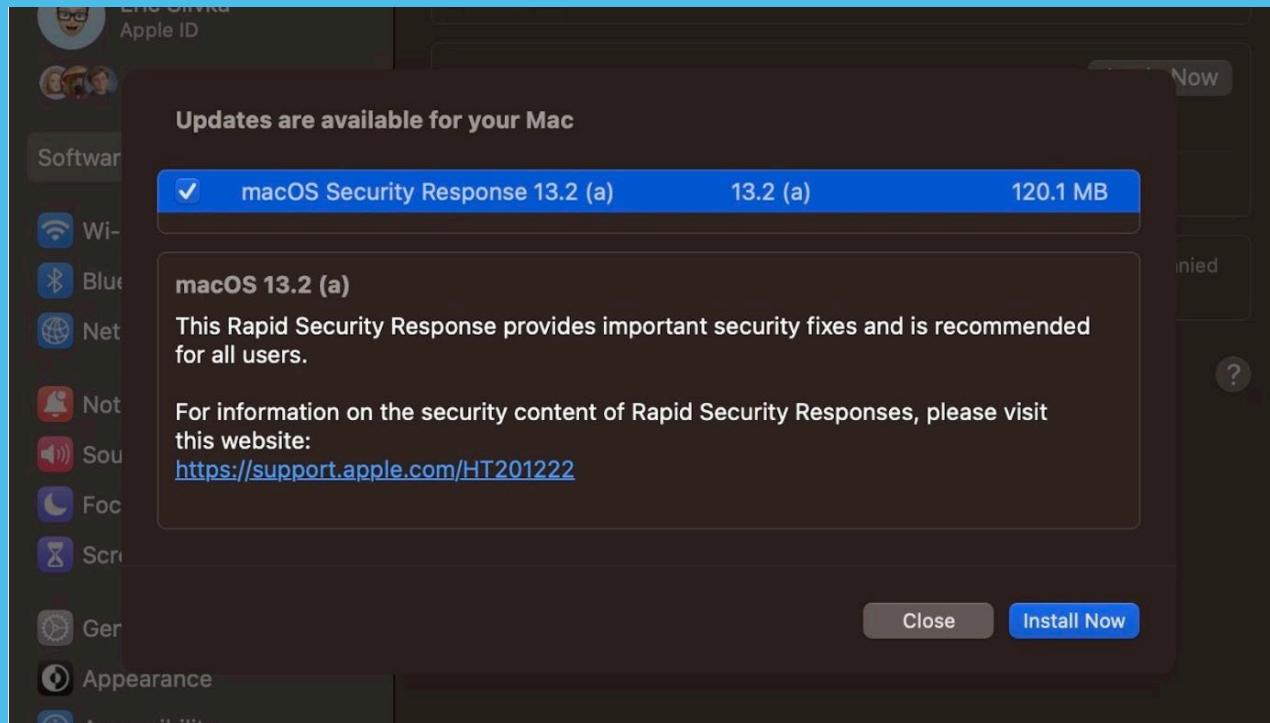
```
Last login: Tue Oct 3 20:31:47 on console  
[somespathak@Somess-MBP ~ % softwareupdate -l  
Software Update Tool  
  
Finding available software  
Software Update found the following new or updated software:  
* Label: macOS Sonoma 14.1 Beta 2-23B5056e  
    Title: macOS Sonoma 14.1 Beta 2, Version: 14.1, Size: 2122236KiB, Recommended: YES, Action: restart,  
somespathak@Somess-MBP ~ % ]
```

# Managing Updates With Intune



WORKPLACEDUDES

# Rapid Security Response



**Settings picker**  
Use commas "," among search terms to lookup settings by their keywords

rapid

Browse by category

Restrictions

---

Configure the Restrictions payload to enable or disable features on devices. These configurations can be used prevent users from accessing a specific app, service or function on enrolled devices. For example, a restriction can be added that prevents an iPhone or iPad from using AirPrint. Another restriction can be added to prevent the sharing of passwords over AirDrop on an iPhone, iPad and Mac. Certain restrictions on an iPhone may be mirrored on a paired Apple Watch.

2 results in the "Restrictions" category

Select all these settings

Setting name
<input type="checkbox"/> Allow Rapid Security Response Installation
<input type="checkbox"/> Allow Rapid Security Response Removal

# MDM To DDM – Future of Device Management

Introduced in iOS/iPadOS 15 & macOS 13, DDM enables devices to be “autonomous” and “proactive”

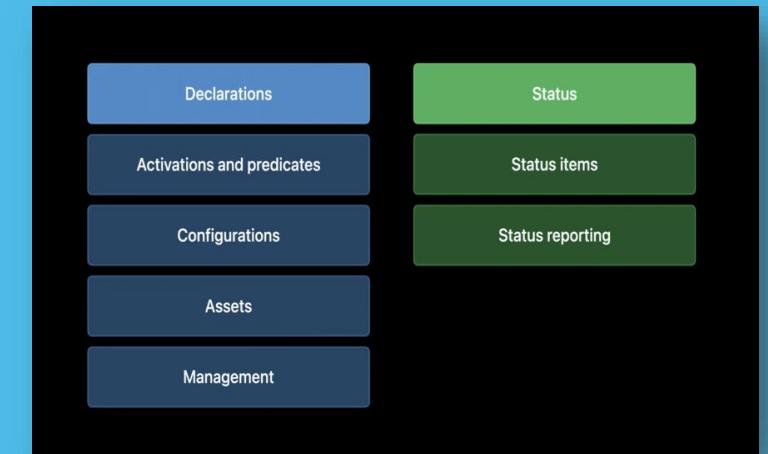
Declarative approach allows your servers to be lightweight and reactive

Status provides a quick feedback in a timely and reliable manner

Reduced enrollment time i.e., faster onboarding of devices

Reduced cycle time for activities related to device lifecycle management

Device remains in safe state even if it loses connectivity to the MDM



# Managed Updates

The screenshot shows the "Software Update" window in the System Preferences of macOS. At the top, it says "Automatic Updates" and "Updates for this Mac are managed by 'BetterBag'". Below this, there's a section for "Updates Available" with a list item: "Managed Update: macOS 14.0 (23A247)". There are two buttons: "Update Tonight" and "Update Now". A message below states: "Your organization has decided to update your device to macOS 14.0. You can choose to update now or it will update automatically on 6/5/23, 10:00 AM." with a "More Info..." link. At the bottom, it says: "Use of this software is subject to the [original license agreement](#) that accompanied the software being updated." A red star icon is overlaid in the top right corner of the window.

Eliza Block  
Apple ID

Software Update Available 1

Wi-Fi  
Bluetooth  
Network  
VPN  
Notifications  
Sound  
Focus  
Screen Time  
General

Automatic Updates  
Updates for this Mac are managed by "BetterBag". [Learn More...](#)

Security updates only ⓘ

Updates Available

Managed Update: macOS 14.0 (23A247)

Update Tonight   Update Now

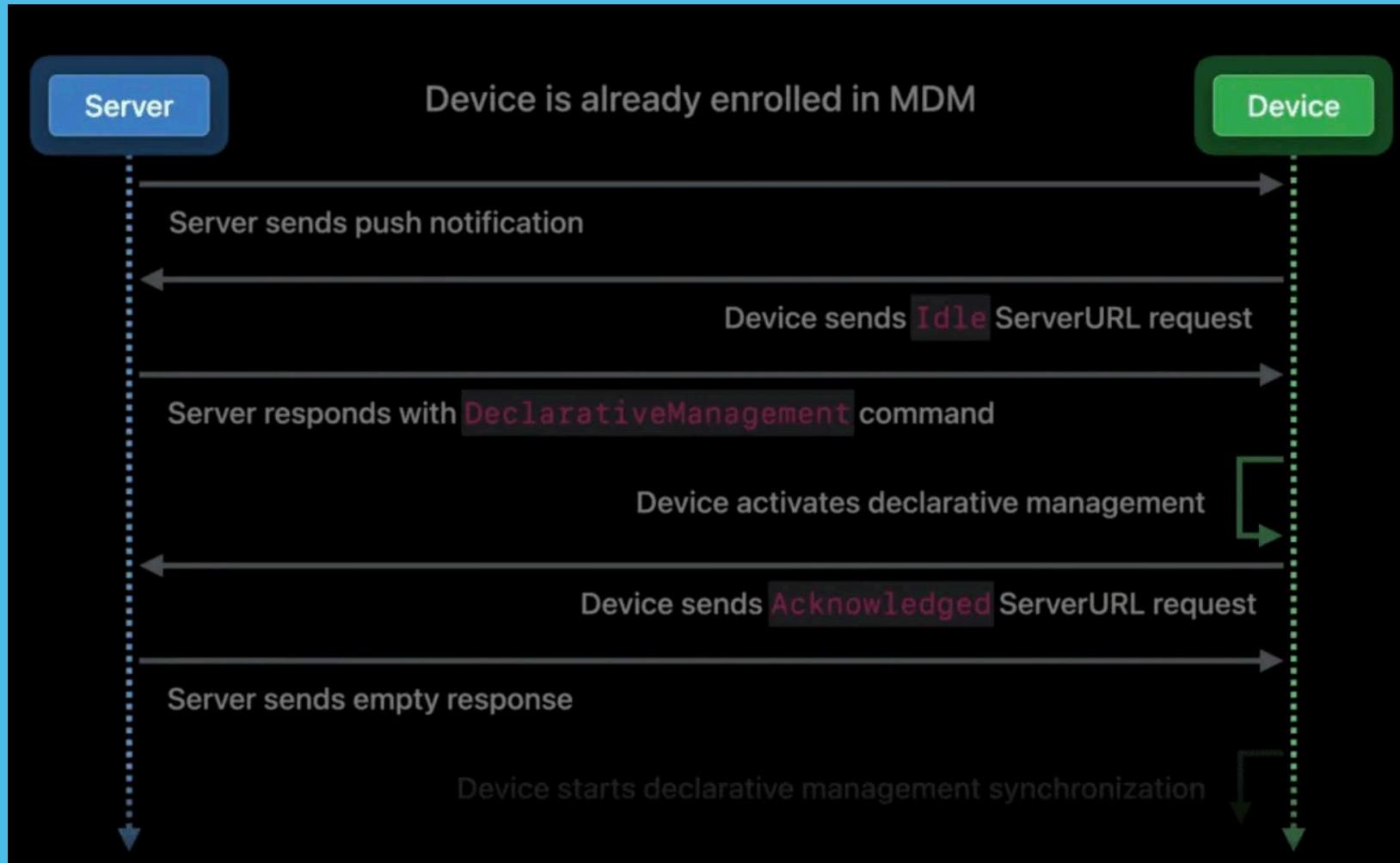
Your organization has decided to update your device to macOS 14.0. You can choose to update now or it will update automatically on 6/5/23, 10:00 AM.  
[More Info...](#)

Use of this software is subject to the [original license agreement](#) that accompanied the software being updated.

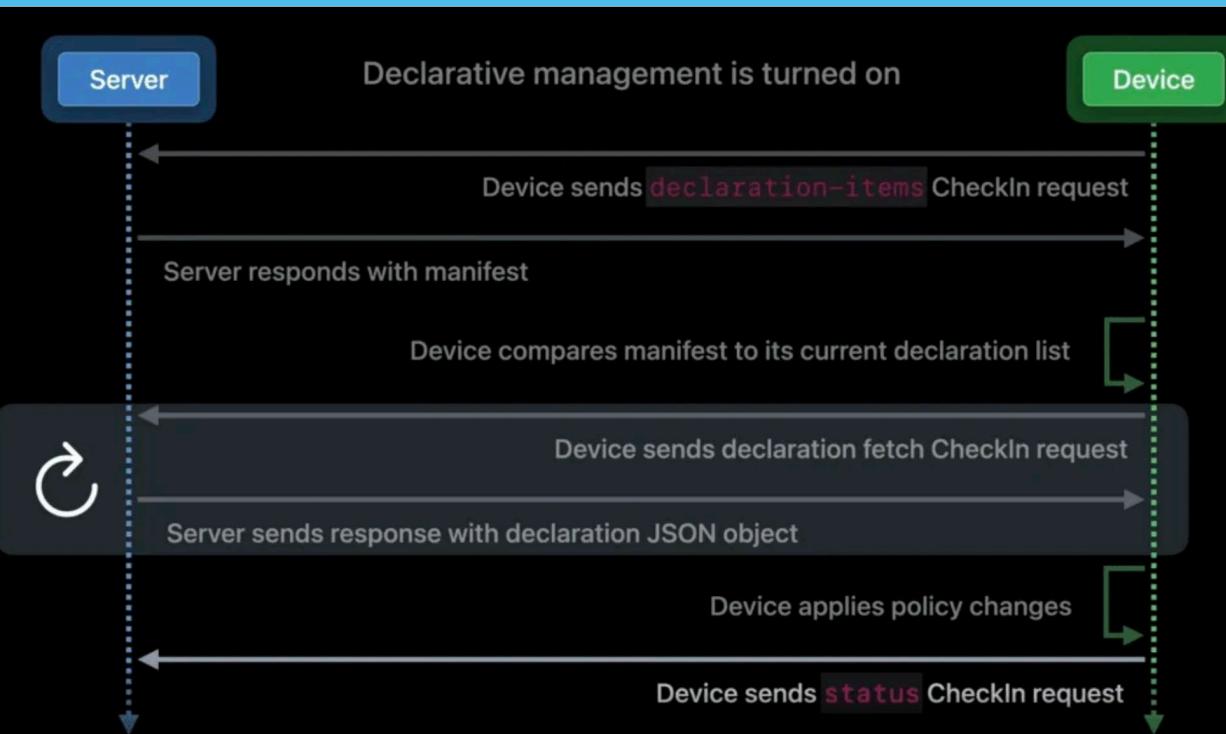


WORKPLACEDUDES

# How Does Managed Updates work?

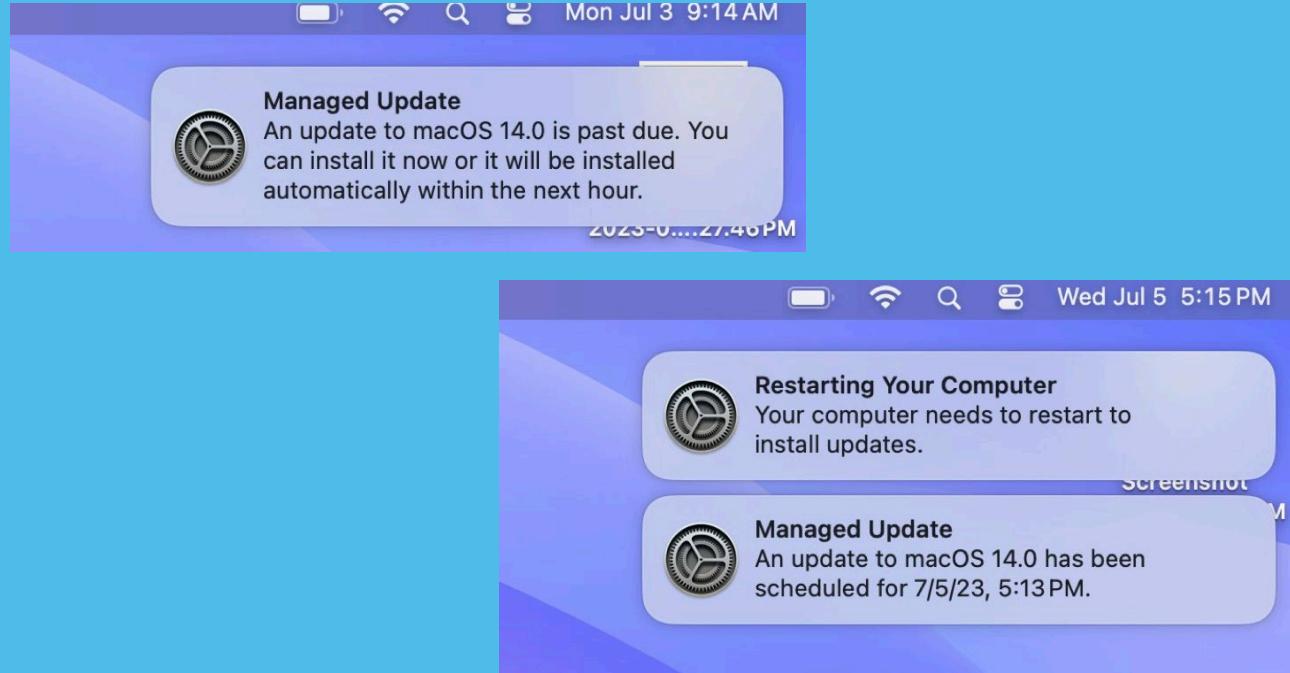


# How Does Managed Updates work?



```
{  
    "Type": "com.apple.configuration.softwareupdate.enforcement_specific",  
    "Identifier": "9DF890F2-D19D-4BB0-9167-CE8281714612",  
    "ServerToken": "26EB91D1-16C2-48D8-A88C-9687D6E8AAAE",  
    "Payload": {  
        "TargetOSVersion": "14.0",  
        "TargetBuildVersion": "23A500",  
        "TargetLocalDateTime": "2023-06-05T10:00:00"  
    }  
}
```

# Oops! I Missed The Deadline



WORKPLACEDUDES

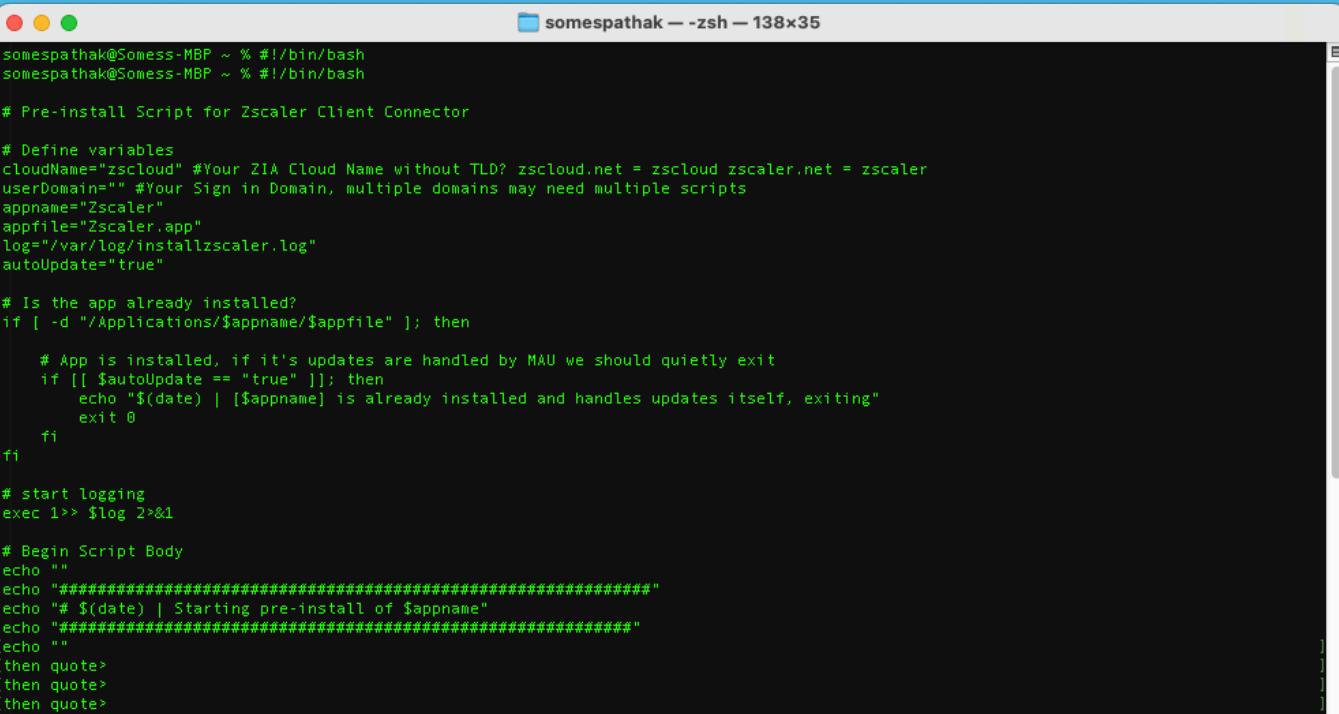
# macOS Scripting



WORKPLACEDUDES

# Why Use Shell/Bash Scripts?

- Automate Day-to-Day Operations
- Access and Managing the OS Efficiently
- Integrate with Other Tools
- Work with Data on macOS
- Centralized Script Deployment via Intune
- Support for PowerShell



A screenshot of a macOS terminal window titled "somespathak — zsh — 138x35". The window displays a shell script for a Zscaler Client Connector pre-installation. The script defines variables like cloudName, userDomain, appname, appfile, log, and autoUpdate. It checks if the app is already installed and handles updates if autoUpdate is set to true. The script then starts logging and begins the main body with a series of hashtags.

```
somespathak@Somess-MBP ~ %#!/bin/bash
somespathak@Somess-MBP ~ %#!/bin/bash

# Pre-install Script for Zscaler Client Connector

# Define variables
cloudName="zscloud" #Your ZIA Cloud Name without TLD? zscloud.net = zscloud.zscaler.net = zscaler
userDomain="" #Your Sign in Domain, multiple domains may need multiple scripts
appname="Zscaler"
appfile="Zscaler.app"
log="/var/log/installzscaler.log"
autoUpdate="true"

# Is the app already installed?
if [ -d "/Applications/$appname/$appfile" ]; then
    # App is installed, if it's updates are handled by MAU we should quietly exit
    if [[ $autoUpdate == "true" ]]; then
        echo "$(date) | [$appname] is already installed and handles updates itself, exiting"
        exit 0
    fi
fi

# start logging
exec 1>> $log 2>&1

# Begin Script Body
echo ""
echo "#####
echo "# $(date) | Starting pre-install of $appname"
echo "#####
[echo ""
[then quote]
[then quote]
[then quote]
[then quote]
```



# Shell Scripting – Use Cases

Home > Devices | Overview > macOS

## macOS | Shell scripts

... [Edit](#) [Delete](#)

« [Add](#) [Refresh](#) [Export](#) [Columns](#) ▾

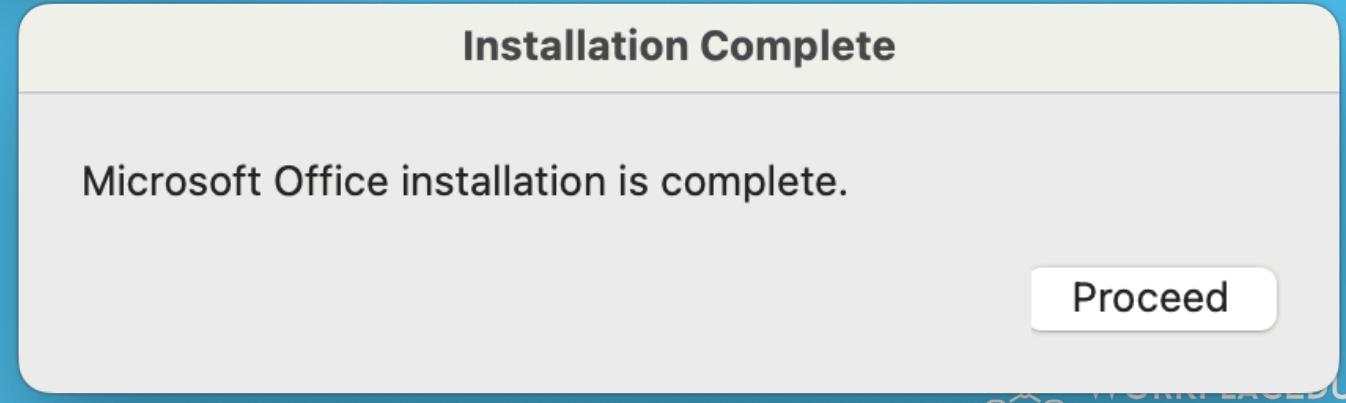
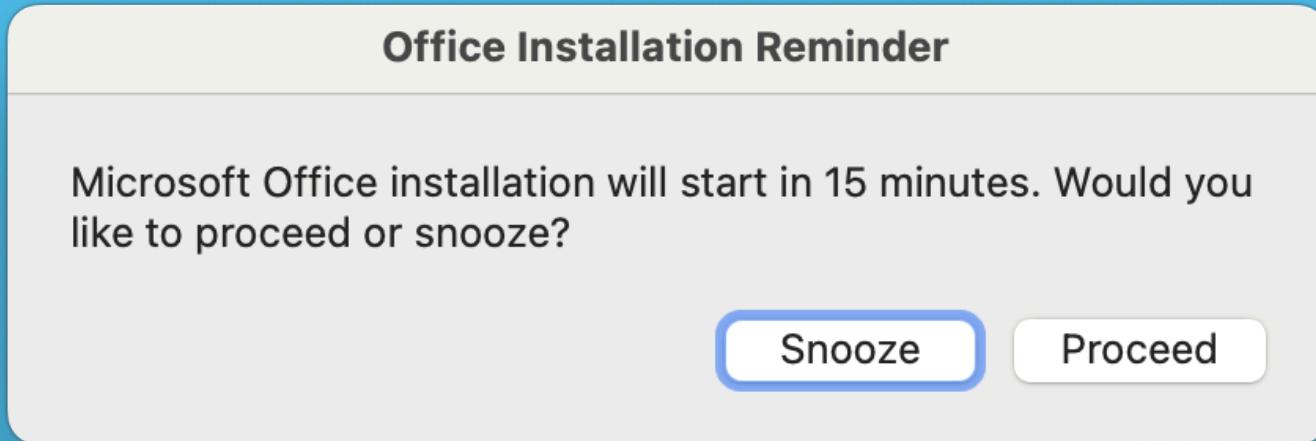
ⓘ [Add filters](#)

Script name	Platform	Assigned	Script type
IRL-macOS-Edge-Install-Script	macOS	Yes	Shell script
IRL-macOS-Device-Rename	macOS	Yes	Shell script
IRL-macOS-Sync-M365-Profile_pic	macOS	Yes	Shell script
IRL-macOS-AdobeReaderDC-Install	macOS	Yes	Shell script
IRL-macOS-Install-CompPortal	macOS	Yes	Shell script
IRL-macOS-Install-Google-Chrome	macOS	Yes	Shell script
Install-macOS-Install-Zscaler	macOS	Yes	Shell script
IRL-macOS-Install-Teams	macOS	Yes	Shell script



WORKPLACEDUDES

# Packaging & Scripting for macOS



# Automation

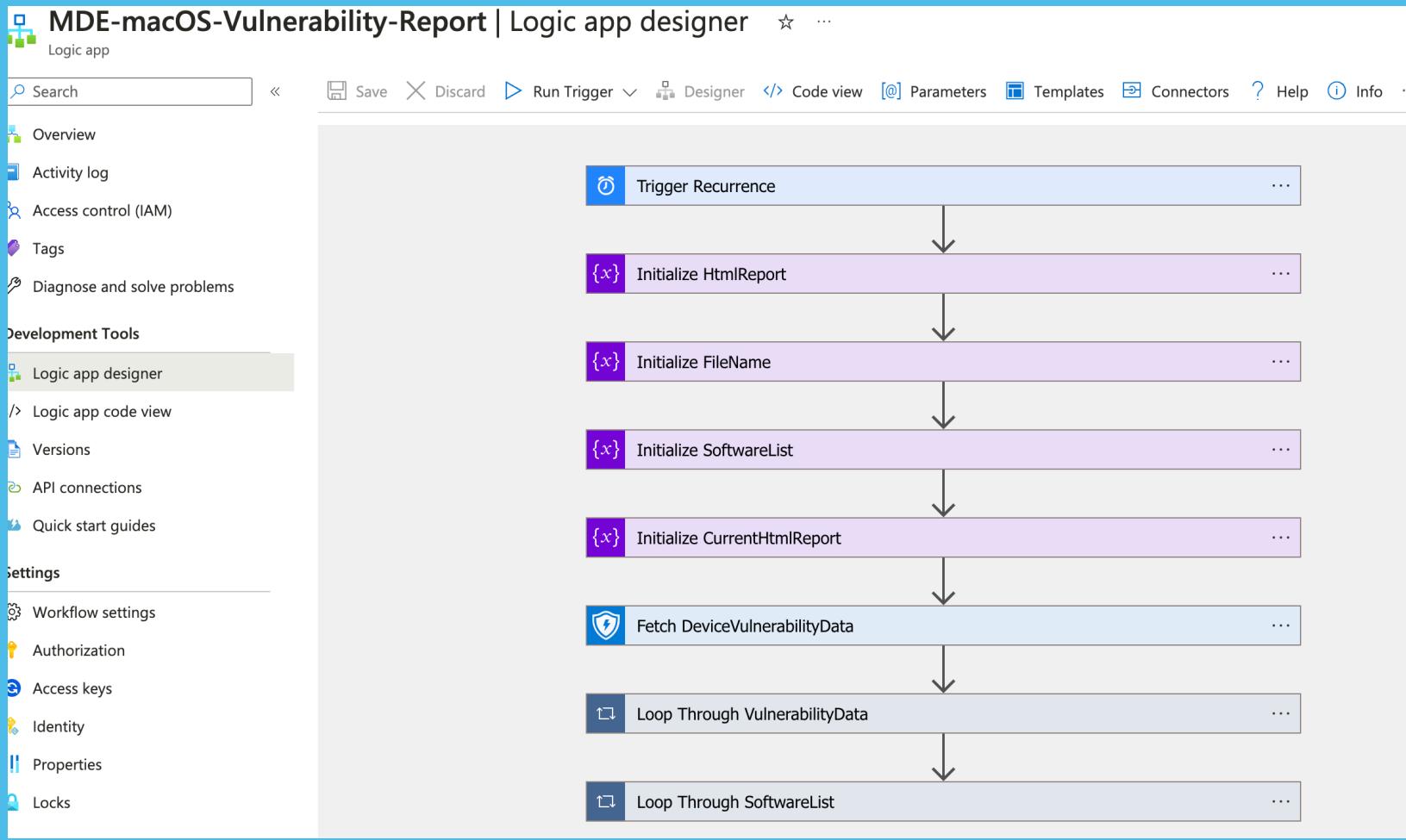


[makeameme.org](http://makeameme.org)



WORKPLACEDUDES

# Automated Reporting with Logic Apps



WORKPLACEDUDES

# macOS Vulnerability Report Using Logic Apps

## Device Vulnerabilities Report

Device ID	Device Name	Software Name	Software Version	Recommended Security Update	CveId	Timestamp
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-37205	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-37206	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-32216	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-4057	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-4058	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-4047	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	edge_chromium-based_for_mac	116.0.1938.54		CVE-2023-4431	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-4580	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2021-43541	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-37202	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-32213	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-37201	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2022-22744	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-4045	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2022-26382	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-4053	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	edge_chromium-based_for_mac	116.0.1938.54		CVE-2023-4430	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-4578	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	edge_chromium-based_for_mac	116.0.1938.54		CVE-2023-36741	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2022-1919	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2021-43539	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2022-0843	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-34416	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-32215	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-32211	2023-08-30T15:02:55Z
8a2231076f82fea03081eafa89e59f1b75747f43	admins-virtual-machine	firefox_for_mac	94.0.1.0		CVE-2023-32209	2023-08-30T15:02:55Z



WORKPLACEDUDES

# Automate Device Provisioning using Shortcuts

The screenshot shows a Mac OS X Shortcuts app window with a light gray background. At the top left is a purple icon of a computer monitor. To its right is the text "Find" and a blue button labeled "All Connected devices". On the far right is a white button with a plus sign and the text "+ Add Filter". Below this is a "Limit:" field with a small gray slider and a white input box.

The main area contains several steps:

- A purple icon of a trash can followed by the text "Erase all contents and settings on" and a blue button labeled "Connected devices".
- A purple icon of a computer monitor followed by the text "Update" and a blue button labeled "Erase All Content and Settings" (with "using specified IPSW files" in smaller text), followed by a "Show More" link.
- A purple icon of a computer monitor followed by the text "Prepare" and a blue button labeled "Update Devices" (with "using Automated Device Enrollment" in smaller text), followed by a "Show More" link.
- An orange icon with an 'x' followed by the text "Set variable" and a blue button labeled "all-UDIDs" (with "to Unique Device Identifier (UDID)" in smaller text).
- A gray icon with a circular arrow followed by the text "Repeat with each item in" and an orange button labeled "all-UDIDs".
- An orange icon with an 'x' followed by the text "Set variable" and a blue button labeled "current-UDID" (with "to Repeat Item" in smaller text).

At the bottom of the list is a yellow box containing a list icon and the word "Comment". Inside the box is the text "Match serial number to asset tag spreadsheet and update MDM records."



WORKPLACEDUDES

# Managed Client for Detailed Logging

The screenshot shows the Apple Developer website's 'Bug Reporting' section. At the top, there is a navigation bar with links for Apple Developer, News, Discover, Design, Develop, Distribute, Support, Account, and a search icon. Below the navigation bar, the 'Bug Reporting' page title is displayed, along with three tabs: Overview, Profiles and Logs (which is the active tab), and Feedback Assistant. The main content area features a large heading 'Profiles and Logs'. A descriptive paragraph explains that these profiles and logs are for developers to use in order to provide information about bugs to Apple. It details how to provide logs, reproducible test cases, and other information for investigation and diagnosis. Below this text, there is a filter section with buttons for All, iOS, macOS (which is selected), tvOS, watchOS, and Other. To the right of the filter buttons is a search bar containing the text 'mana'. At the bottom of the page, there are links for 'Managed Client for macOS', 'Instructions', and 'Profile'.

Apple Developer News Discover Design Develop Distribute Support Account

Bug Reporting Overview Profiles and Logs **Feedback Assistant**

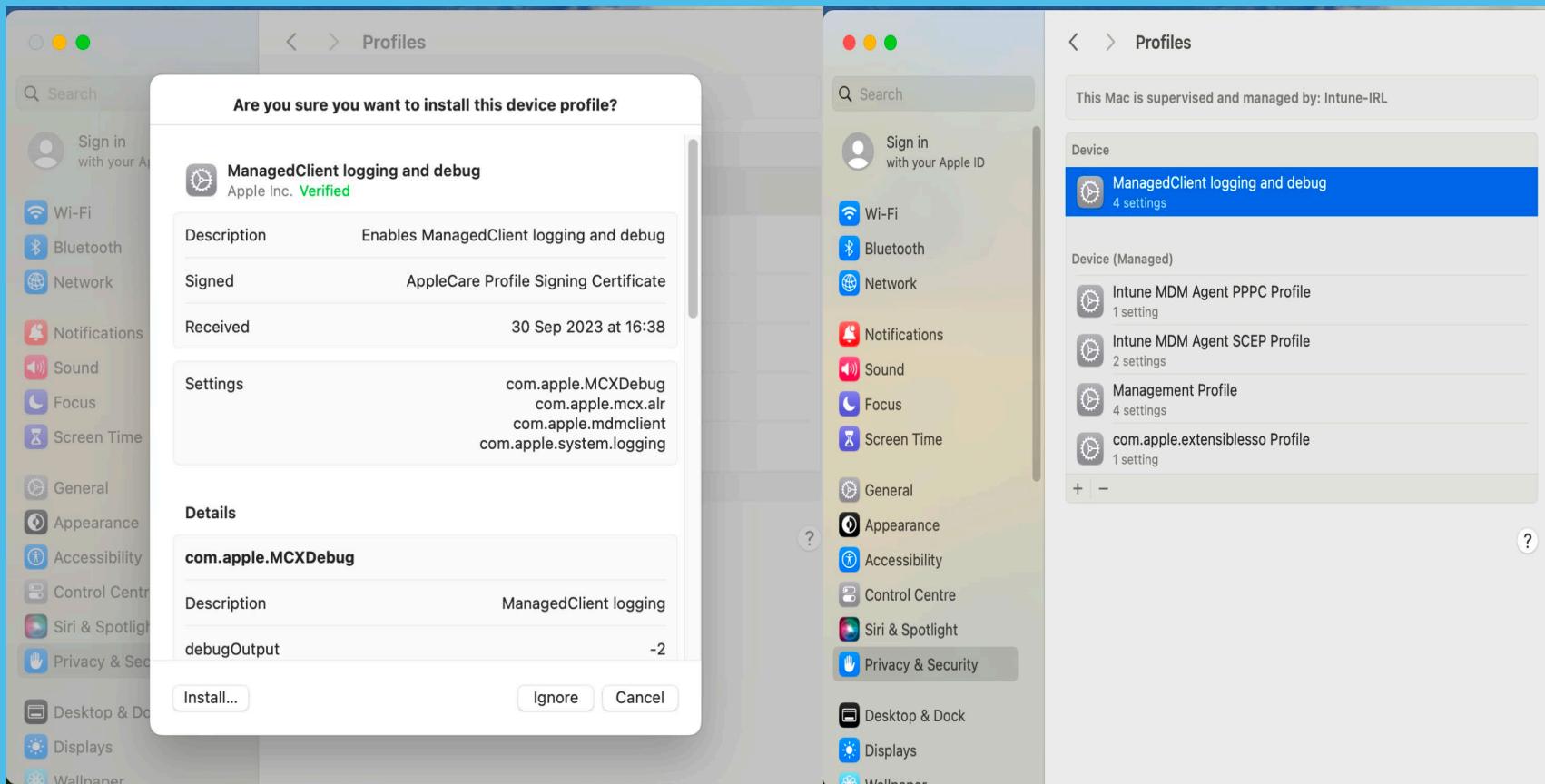
## Profiles and Logs

These profiles and logs are for developers to use in order to provide information about bugs to Apple. Get details on providing logs, reproducible test cases, and other information that will help us investigate and diagnose reported issues.

All iOS **macOS** tvOS watchOS Other

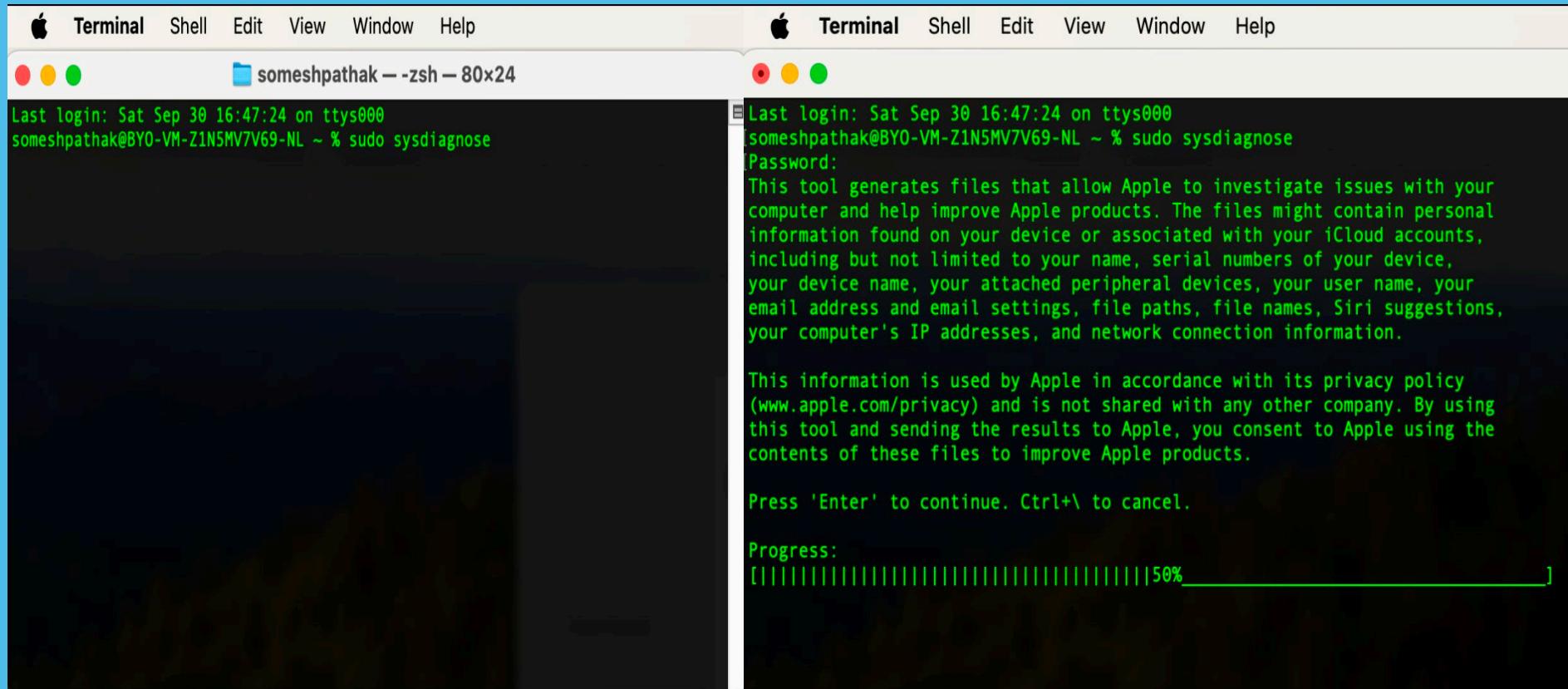
Managed Client for macOS Instructions Profile

# Profile for Logging



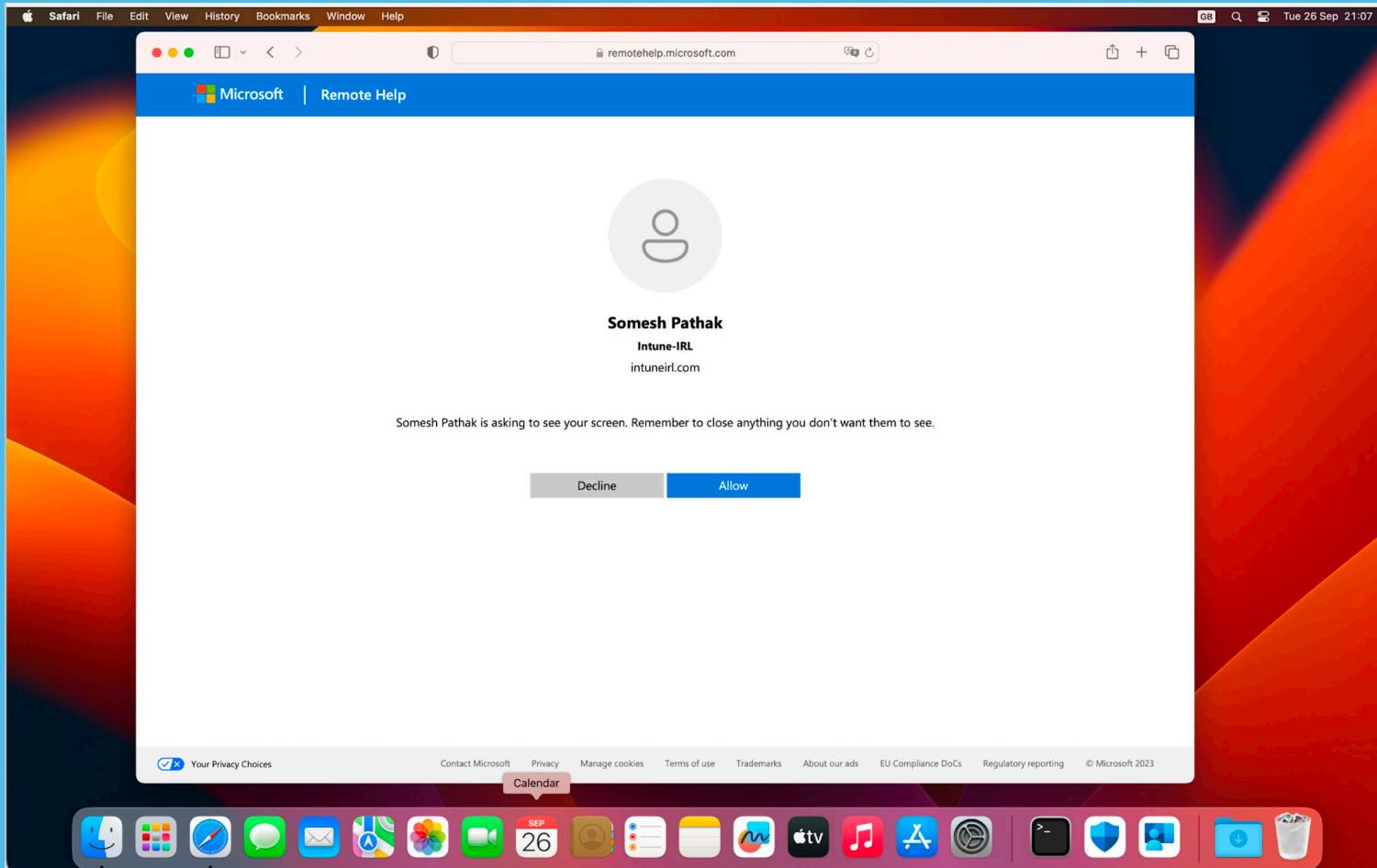
WORKPLACEDUDES

# Collecting Logs



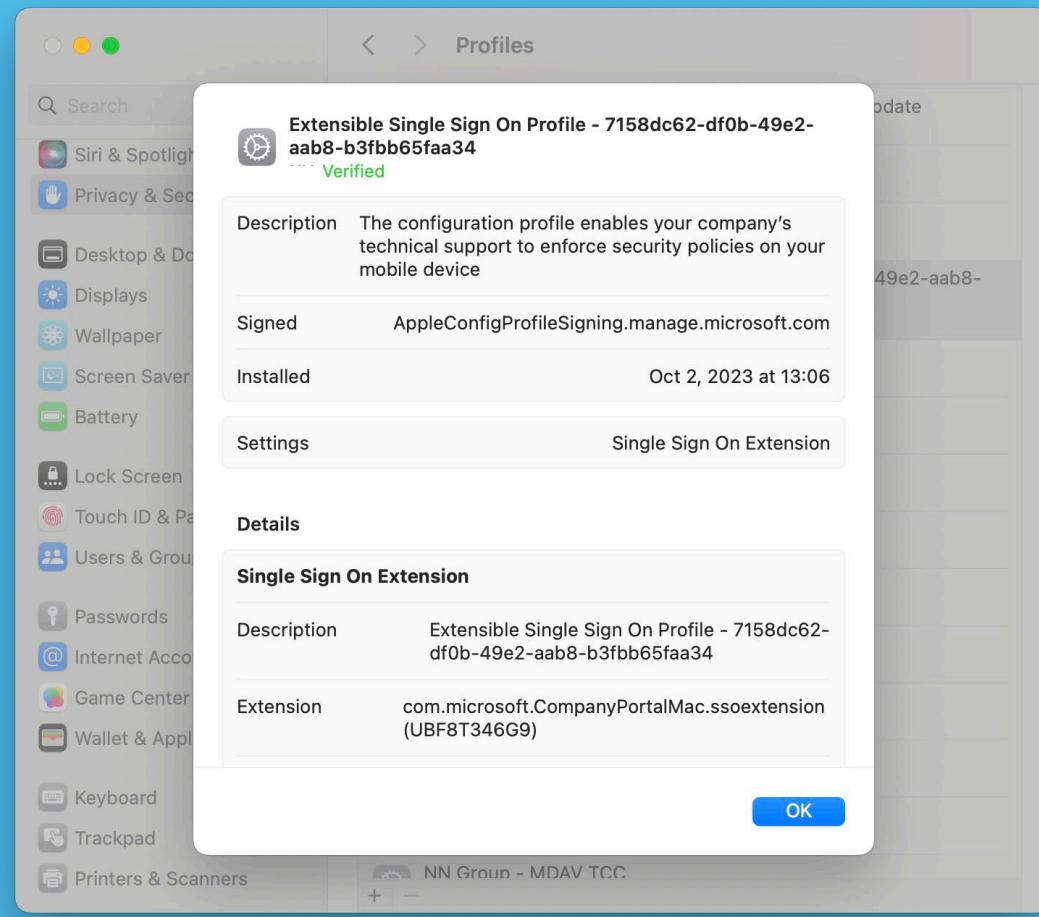
WORKPLACEDUDES

# Remote Help



WORKPLACEDUDES

# Platform SSO Extension

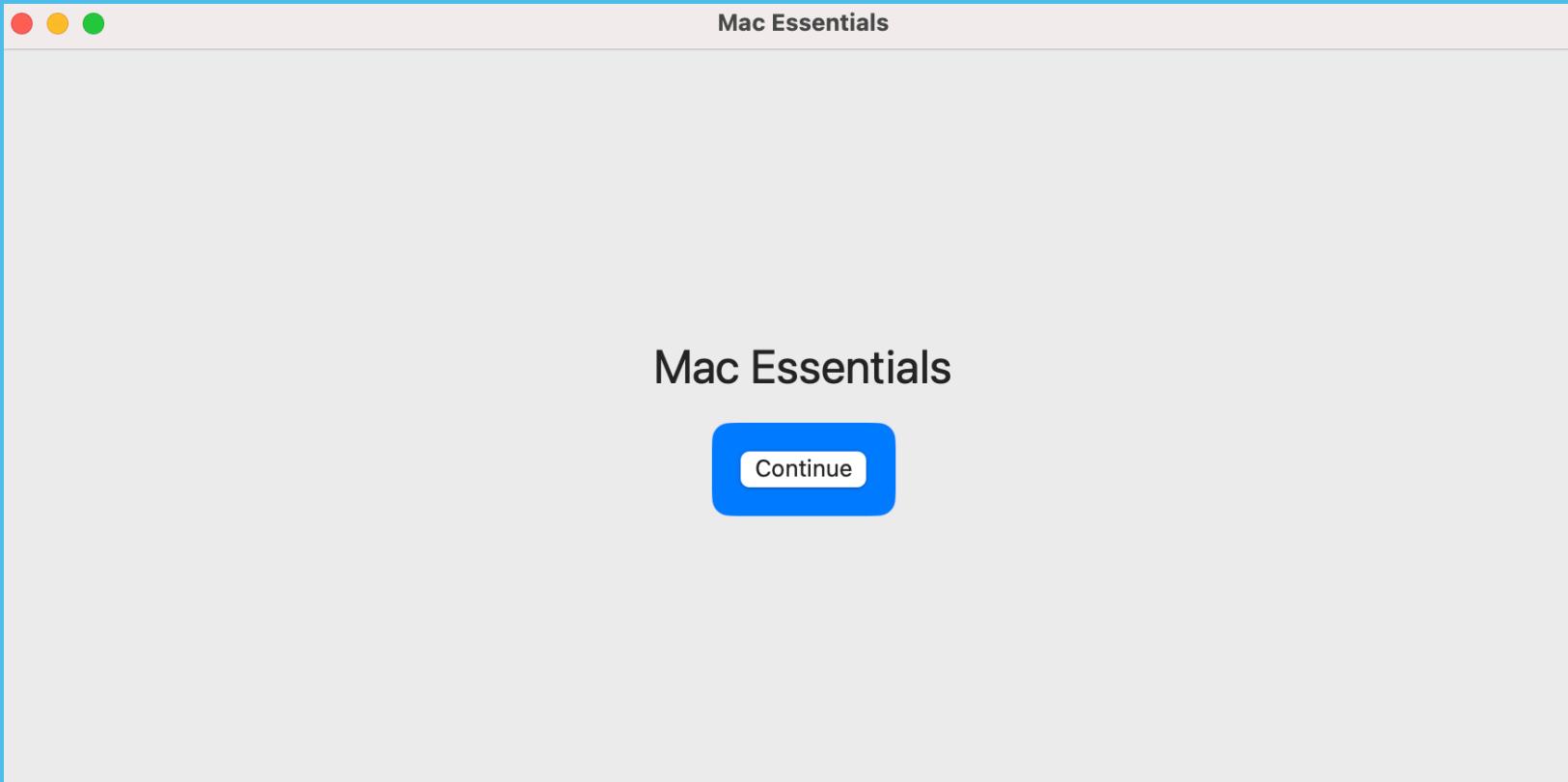


WORKPLACEDUDES

# Upcoming Features

- Platform SSO – Now in Setting's Catalog!
- Pre & Post Scripts for App Deployment
- Force Enable FileVault during Setup Assistant
- Schedule OS Updates
- Remote Help (Soon with SSO)

# Community Rocks!



# Contact Me





DANKE!  
THANK YOU!  
MERCI!  
GRAZIE!  
GRACIAS!  
DANK JE WEL!

