



macOS Updates



20220518 - UofU



Introductions



Mike Boylan
Staff Product Engineer
@mike_boylan in MA



Weldon Dodd
SVP of Product Strategy
@Weldon in MA



Agenda

What we'll cover today

01 **Software Updates**

02 **Return-to-Service**



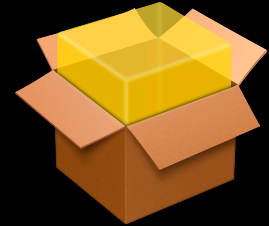
Software Updates

Return-to-Service



The past

- **softwareupdate CLI**
- **startosinstall CLI**
- **Combo updater files**
- **Various imaging techniques / NetInstall**



What's changed?



- **softwareupdate CLI**
 - Reliability issues if MDM queries
 - Must pass Volume owner user credentials*
- **Combo Updater files**
 - Not provided for macOS 11 and later
- **startosinstall CLI**
 - Must pass Volume owner user credentials*
- **Move to MDM commands**



What's today's approach?

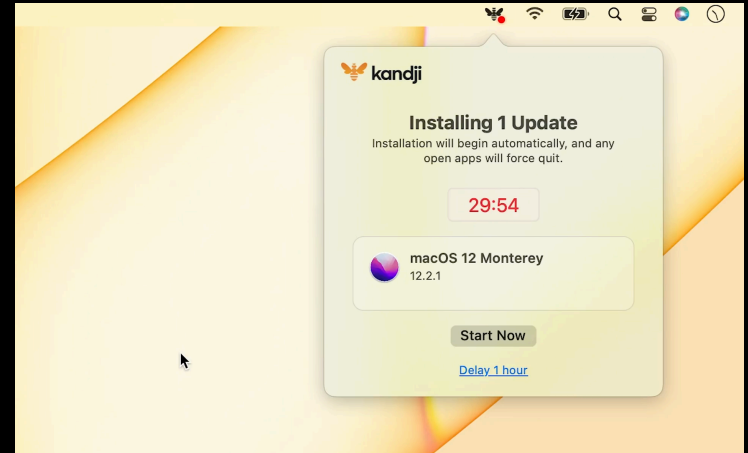
- **MDM commands**
 - **Especially on Mac computers with Apple silicon**
 - **Must have the Bootstrap Token**
- **softwareupdate & startosinstall CLI's**
 - **Same behavior on Intel**
 - **Volume owner credentials on Apple silicon**



Managed OS

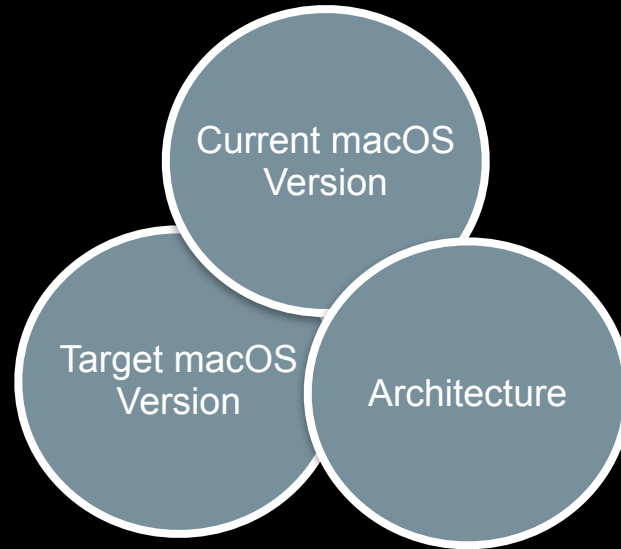
Kandji's approach to software updates

- Automation
- Focus on the outcome
- User experience
- Leverage modern technologies



Demo

Choosing the right method



How does Managed OS work?

For Mac computers with Intel

Current macOS Version	Enforced macOS Managed OS Version							
	macOS Mojave (10.14)		macOS Catalina (10.15)		macOS Big Sur (11)		macOS Monterey (12)	
	Minor Updates for 10.14.X	Major Upgrades to 10.14.X	Minor Updates for 10.15.X	Major Upgrades to 10.15.X	Minor Updates for 11.X.X	Major Upgrades to 11.X.X	Minor Updates for 12.X.X	Major Upgrades to 12.X.X
10.13-10.13.6		startosinstall		startosinstall		startosinstall		startosinstall
10.14-10.14.6	Combo Updater			startosinstall		startosinstall		startosinstall
10.15-10.15.7			Combo Updater			startosinstall		startosinstall
11.0-11.1					Incompatible			startosinstall
11.2-11.3.1					softwareupdate CLI			startosinstall
11.4-11.6.1					MDM			startosinstall
12.0.1+							MDM	



How does Managed OS work?

For Mac computers with Apple Silicon

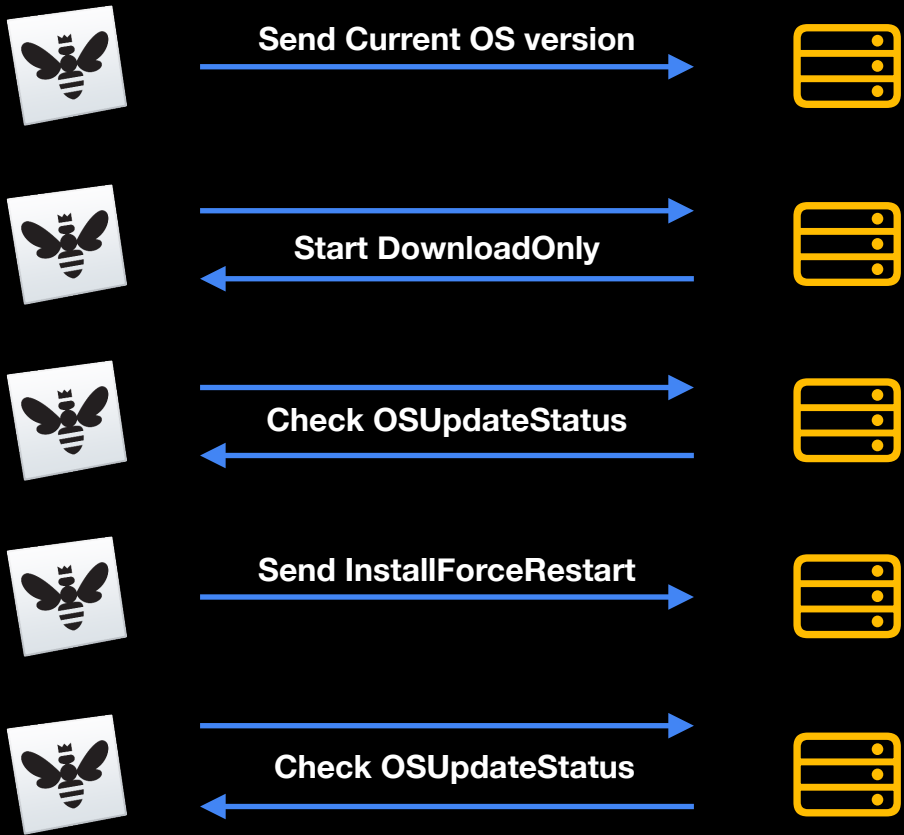
	Enforced macOS Managed OS Version			
Current macOS Version	macOS Big Sur (11)		macOS Monterey (12)	
	Minor Updates for 11.X.X	Major Upgrades to 11.X.X	Minor Updates for 12.X.X	Major Upgrades to 12.X.X
11.0-11.3.1	Incompatible			Incompatible
11.4	MDM			Incompatible
11.5-11.6.1	MDM			MDM (Cant cache)
12.0.1+			MDM	



ScheduleOSUpdate

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>Command</key>
  <dict>
    <key>RequestType</key>
    <string>ScheduleOSUpdate</string>
    <key>Updates</key>
    <array>
      <dict>
        <key>InstallAction</key>
        <string>InstallForceRestart</string>
        <key>ProductKey</key>
        <string>MSU_UPDATE_21E230_patch_12.3</string>
      </dict>
    </array>
  </dict>
  <key>CommandUUID</key>
  <string>bdeb3aa0-ba97-4d67-b36b-b24ae0f810f0</string>
</dict>
</plist>
```





How is this useful for me?

- Try applying these same ideas in your scripted workflows
- Leverage your current MDM solutions APIs for managing software updates



Software Update Return to Service



The Past

- **Imaging (stop)**
 - **ASR block copy imaging**
 - **NetRestore**
- **startosinstall (—eraseinstall)**
 - **Still works, better workflows available**

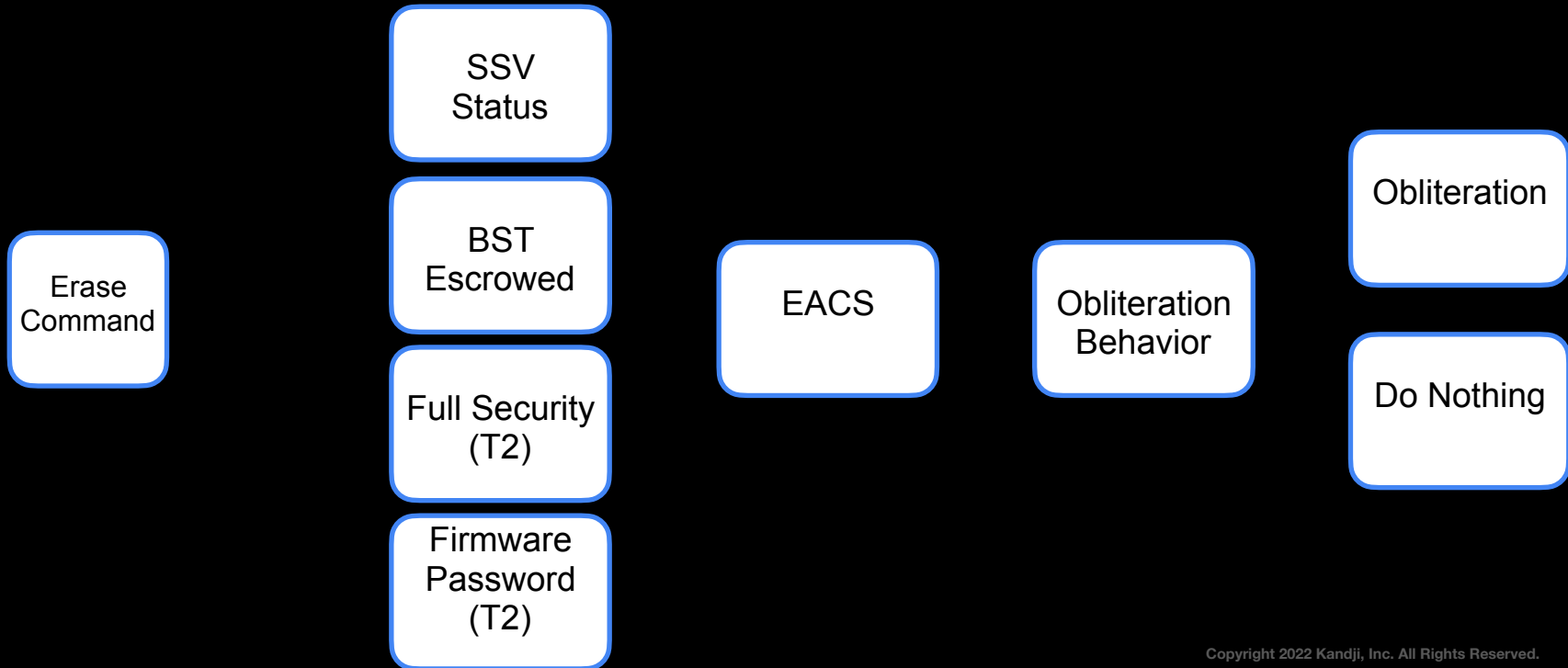


Today's Approach

- **EraseDevice MDM command**
 - **Triggers EACS (Erase All Content and Settings)**
- **EACS from the MDM is better**
 - **Sign out of iCloud isn't required (Even if Activation Lock is disabled)**
 - **Better response data from the mdmclient around errors**
 - **Obliteration fallback**
 - **Use with Auto Advance**
- **Apple Configurator**



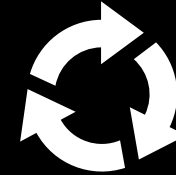
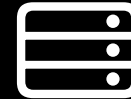
Erase Command Logic



Auto Advance

- EraseDevice & Auto Advance
- Requires ethernet
- macOS 12.1 or later
- On Apple silicon, language chooser won't be shown.

MDM



Auto Advance



Erase All Content
and Settings




Kandji automates Apple device management.

200+


pre-built, 1-click automations

Built for the future with compliance in mind.




 **Google Chrome**

Executive Team Sales Team Finance +2

 **Adobe Creative Cloud**

Design Team Marketing Team

 **Advanced password management**


MACOS 10.11+ CIS NIST STIG

Minimum length 12


Maximum failed login attempts 3

Account lockout duration


Disallow previous passwords 5

 **Enable security auditing**

MACOS 10.11+ CIS NIST


 **Manage media access**

MACOS 10.11+ STIG

 **Create User Accounts**


MACOS 10.11+ CIS NIST +2

Path to Home Folder

 **Enable FileVault 2**

MACOS 10.11+ CIS NIST +2

Show Recovery Key to user

 **Wi-Fi**

MACOS 10.11+ IOS 4.0+ +2

SSID

Security Type



