JNUC 2022 SAN DIEGO

User Proof Onboarding:

Backup Plans for Zero-Touch for IT

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“If you spent as much time doing your work as you spend looking for shortcuts you’d have straight A’s.”

- Middle School Math Teacher

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One of the biggest compliments I’ve ever been given.

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- Based in Columbus Ohio
- ~2000 employees, 99% Mac
- Doubled in size in the last 4 years
- HIPAA & Soc2 Compliant
- >1500 devices have gone through iterations of this process.

“I passed on getting a new laptop, but [another senior systems engineer] was bragging about how smoothly their setup went and now I’m wondering how to get back on the list.”

- Senior Systems Engineer

Another of the biggest compliments I’ve ever been given.

Agenda

- Zero Touch for IT Overview
- Automating Backup Plans
- User Experience

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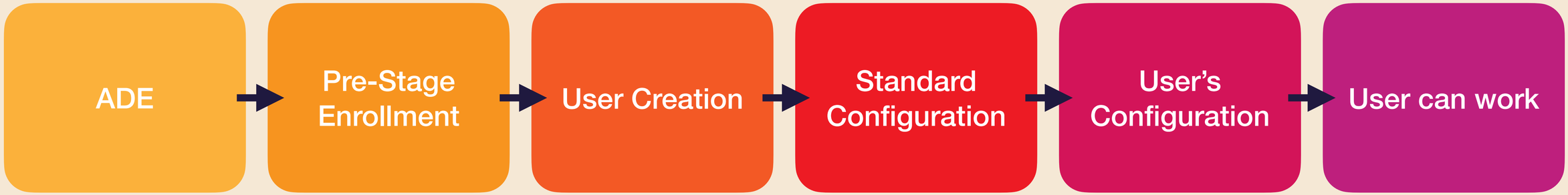

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Pre-Stage Enrollment

- Enrollment Customization
  - youtube.com/watch?v=VIDEOCODE?**autoplay=1**
- Packages
  - Jamf Connect
  - Reference Files
- Configuration Profiles

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Reference File .pkg

- Must be signed
- Post Install Script to install Rosetta2
- Custom Wallpaper and Logos for Jamf Connect
- Custom Images and Scripts for Setup process
- /Library/Application Support/COMPANYNAME

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Configuration Profiles

- In Pre-Stage enrollment & Scoped to Computers
- Jamf Connect settings & License
- Network Settings
- Notification Settings - user convenience
- PPPC Settings
- Filevault

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Enable Filevault from Jamf Connect Login Window

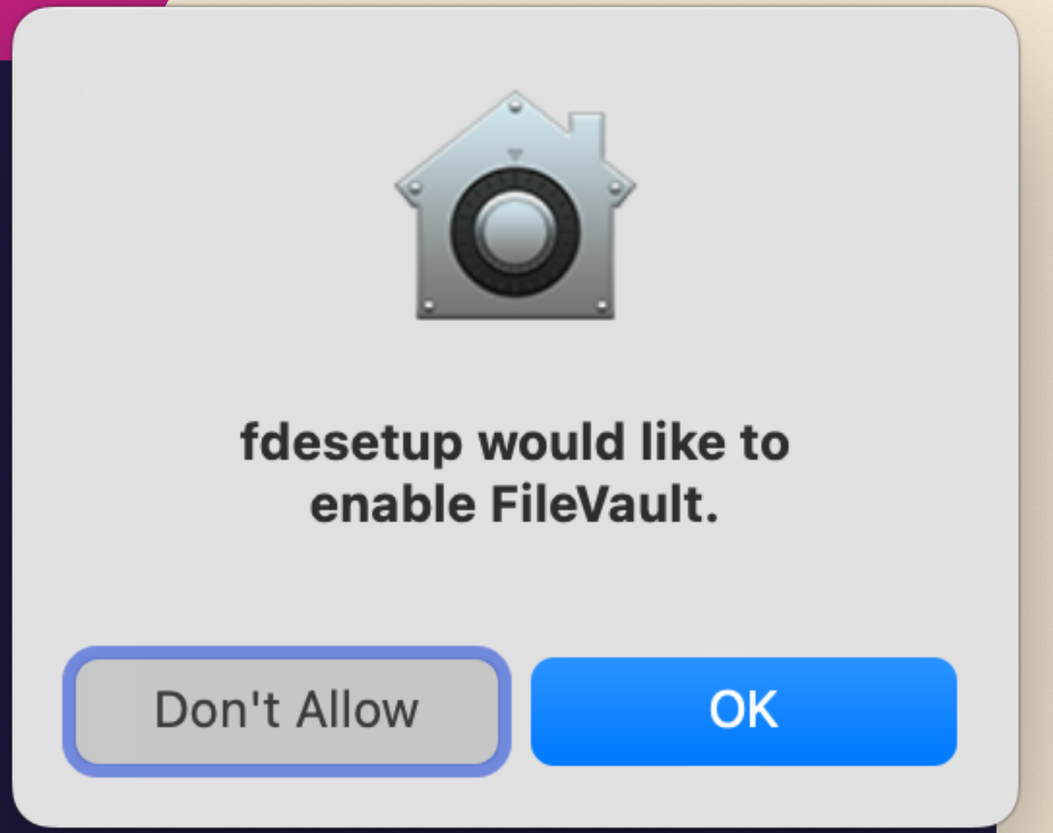
PPPC

Identifier: com.apple.authorizationhost

BundleID: Identifier

“com.apple.authorizationhost and anchor apple

SystemPolicyAllFiles - Allow



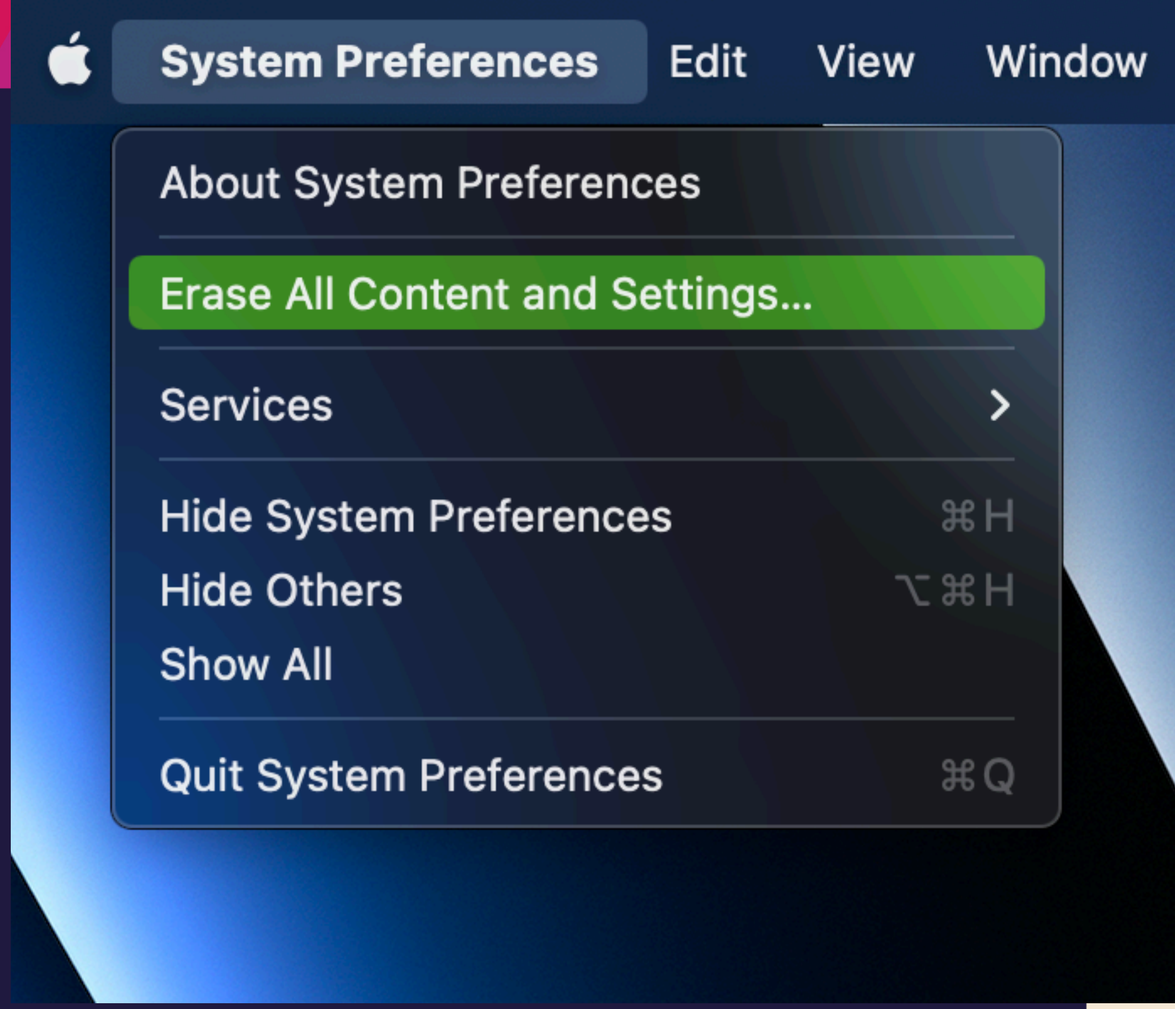
How Does Prestage Enrollment Break?

- Computer Fails to Enroll
- Packages Fail to Install

When Enrollment Fails

If User Initiated Enrollment will work for your environment create User Facing instructions on enrolling the device and beginning the automatic configuration.

Monterey created the ability to “Erase All Content and Settings…” if enrollment doesn’t happen, you can always wipe it and try again.



When Pre-Stage Packages Fail

The user will be stuck at the Mac OS login screen and unable to login.

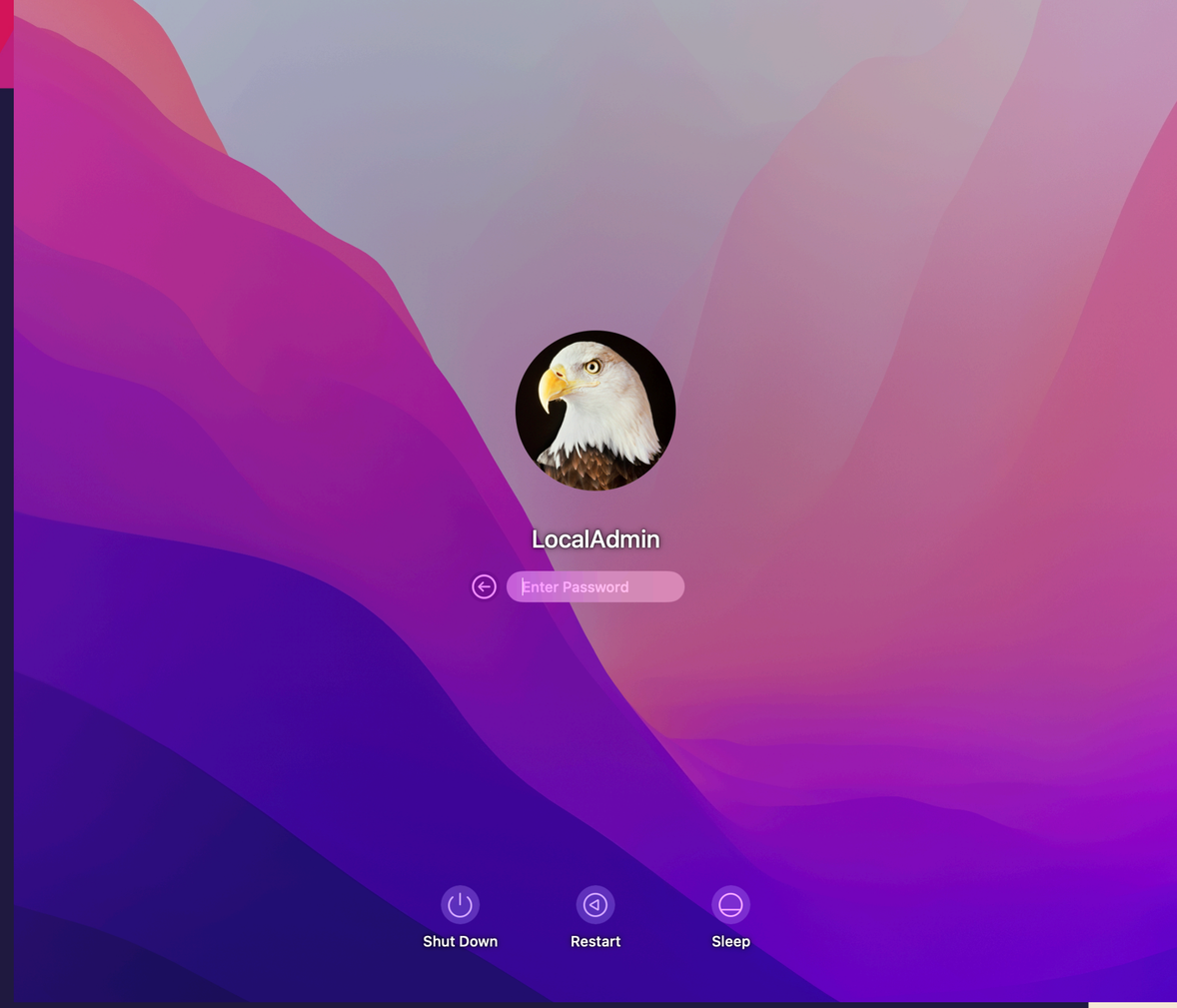
Policy: - Recurring Check In

Once Per Computer

Automatically Re-Run on Failure.

Scope to a smart group of Last Enrollment is less than 24 hours.

Run a script to check the Jamf Connect installation and fix it



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```
#!/bin/bash

if [[ ! -e "/Applications/Jamf Connect.app" ]] ; then
    echo "Jamf Connect is not installed. Starting initial Config"
    jamf policy -event jamfconnect -forceNoRecon
    sleep 5
    /usr/local/bin/authchanger -reset -JamfConnect
    killall loginwindow
    exit 1
else
    if [[ $( /usr/local/bin/authchanger -print | grep JamfConnectLogin:LoginUI ) != "" ]] ; then
        echo "Jamf connect installed an Auth changer enabled"
    else
        echo "Jamf Connect is installed, auth changer is not set"
        /usr/local/bin/authchanger -reset -JamfConnect
        killall loginwindow
    fi
    exit 0
fi
```

Check Jamf Connect Installation

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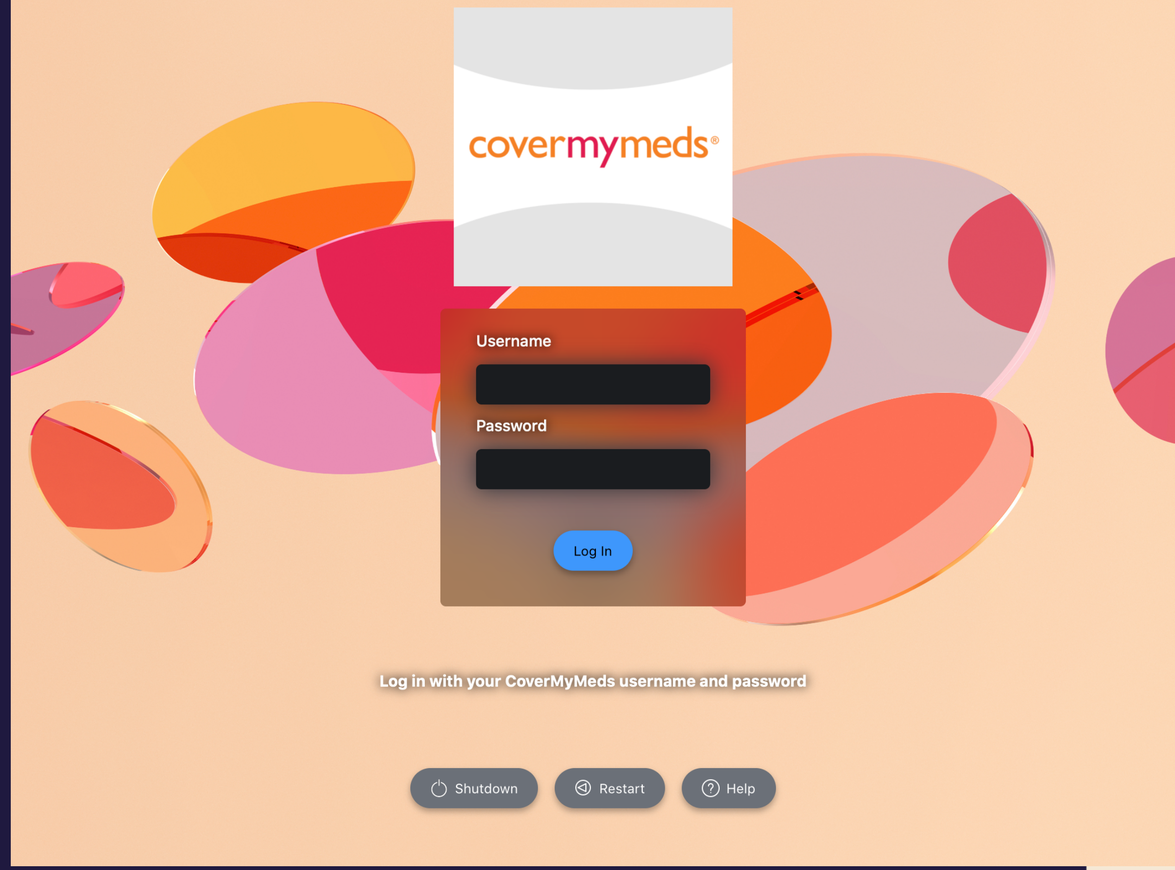
Result

While sitting at the login screen for a couple minutes, the policy will run at recurring check-in.

Jamf Connect installs.

The login window will restart and the user will be presented with the Jamf Connect login window and can login normally.



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User Creation

- Jamf Connect Configuration
- MFA Requirements can prevent user creation
- com.jamf.connect.login
  - HelpURL - tenant.idp.com
  - LocalHelpFile - /path/to/help.pdf

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Standard Configuration

- Install Core Apps
- Enforce Security Settings
- Check for and Resolve Errors
- Present User with Instructions

Jamf Enrollment Kickstart

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Runs `jamf policy -event InitialConfig`

Continues indefinitely until removed

Policies on the same trigger run alphabetically

github.com/Yohan460/JAMF-Enrollment-Kickstart

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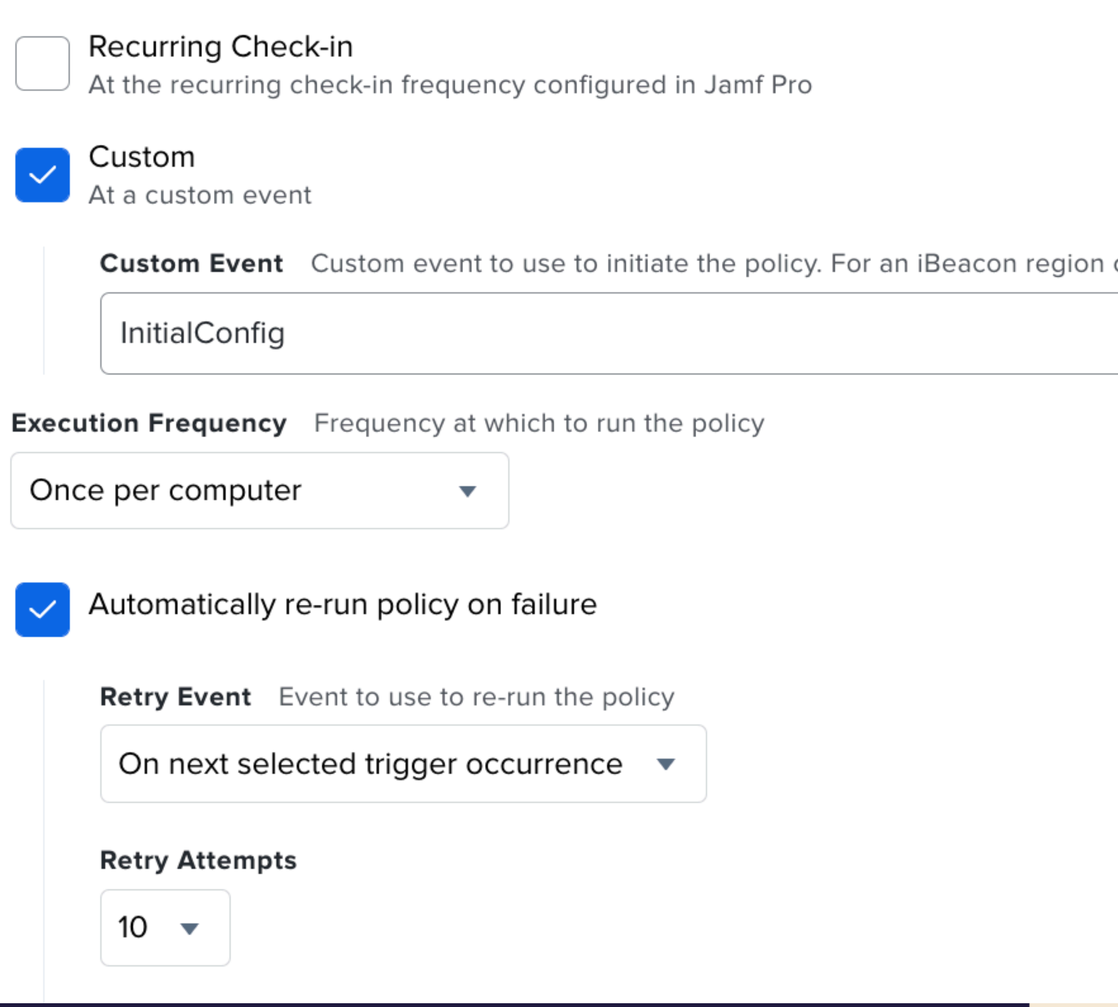
Re-run policy on failure

Each policy will try to complete 11 times until it has a successful result.

If an InitialConfig policy just runs

```
jamf policy -event installApplication
```

The InitialConfig policy will suceed regardless of the result of the `installApplication` policy.



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```
if [[ -e "/Applications/${applicationName}" ]] ; then
    echo "${applicationName} already installed"
    result=0
else
    echo "Application missing. Installing via: ${policyTrigger}"
    jamf policy -trigger "${policyTrigger}" -forceNoRecon
    result="$?"
    echo "Result of jamf policy is: ${result}"
    ## let's check to see if the app exits again
    if [[ -e "/Applications/${applicationName}" ]] ; then
        echo "${applicationName} is now installed"
    else
        echo "${applicationName} is still missing"
        result=1
    fi
fi

echo "Script result is $result"

if [[ "${result}" = 0 ]] ; then
    displaynotification "${applicationName} Installed" "Initial Configuration in progress" && exit "${result}"
else
    exit "${result}"
fi
```

Jamf Trigger with Correct Results

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User Instructions

- IBM Notifier
- DEP Notify
- Octory
- AppleScript
- Jamf Helper

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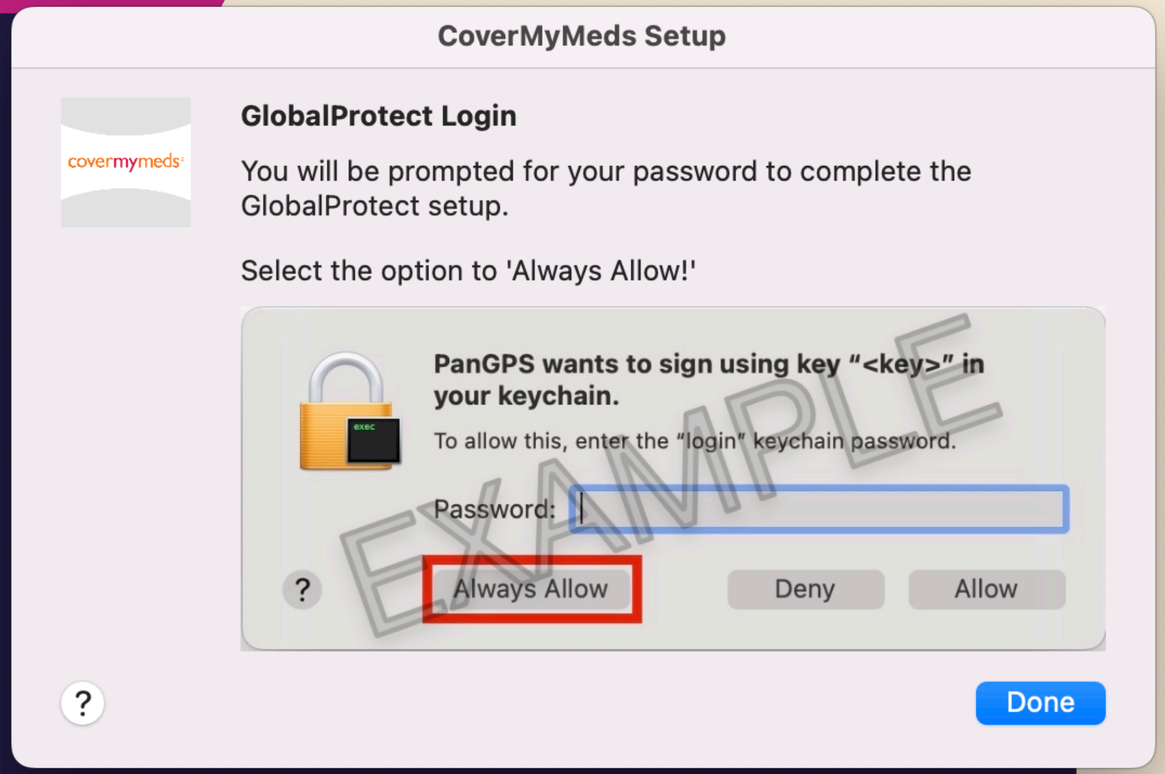
Give the User Clear Instructions

IBM Notifier:

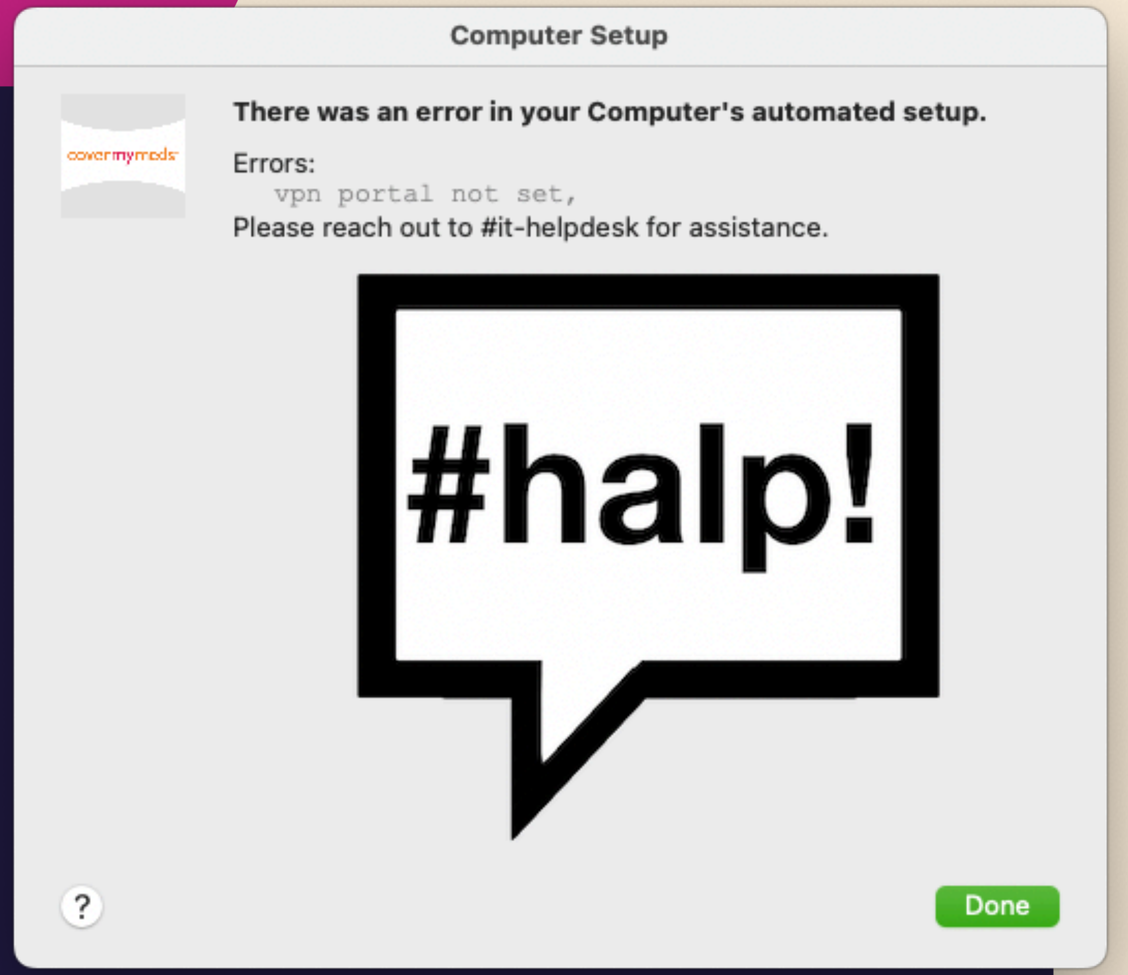
- Include images as part of a pop up
- Control where the pop up shows up
- What the user needs to do when they need to do it.



Configuration Complete Check

Each policy will run up to 11 times. At the end of each loop our Configuration Complete Check script runs to see if everything is complete.

If it has not completed then on the 11th loop through it will give the user an report with a list of Errors and instructions to reach out for assistance.

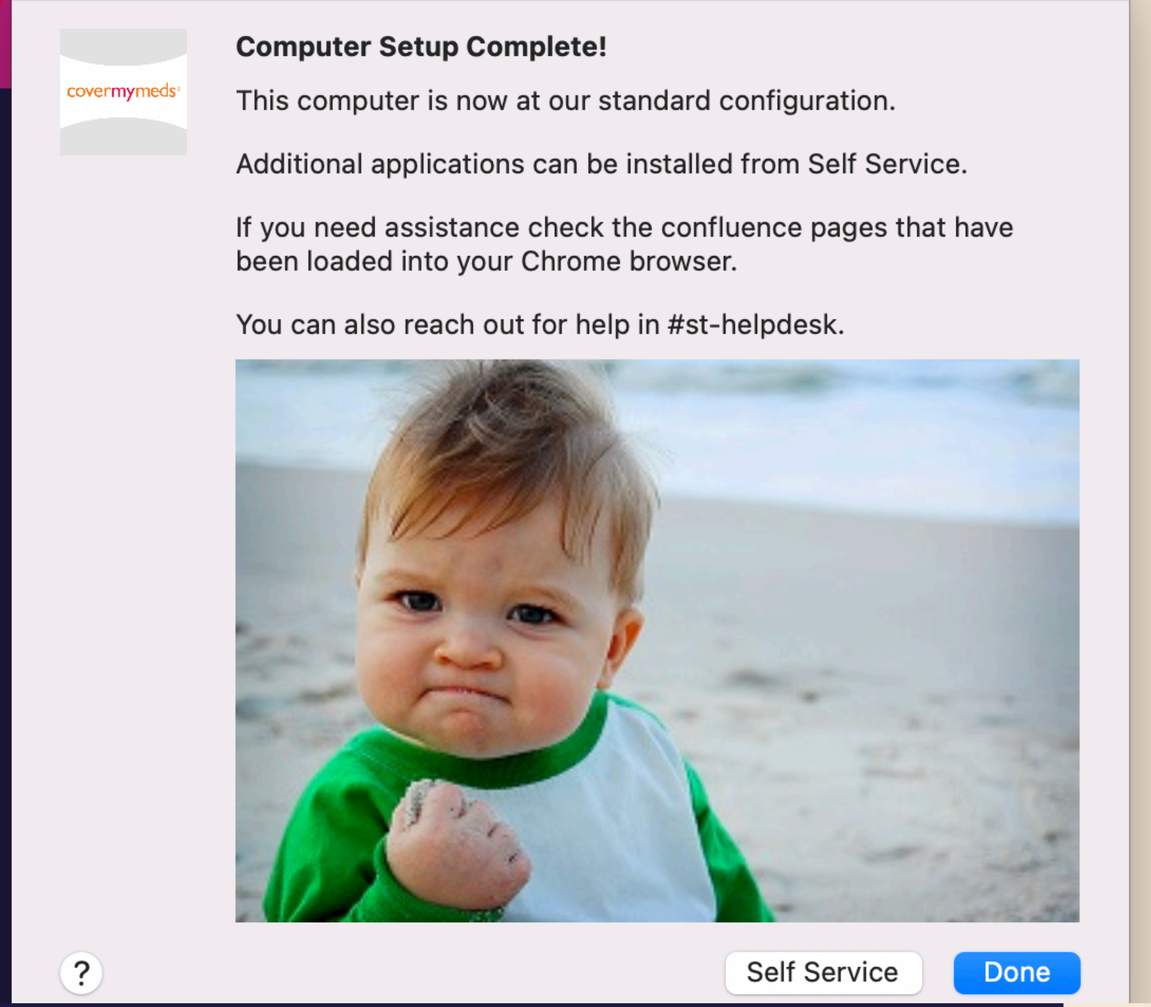


Configuration Complete Check

When configuration has successfully completed we let the user know that setup has completed, and next steps.

They can go to Self Service for additional applications.

We set their Chrome Homepage to our internal computer setup resource.



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Getting to the User's Configuration

- Give the User Next Steps
- Instructions on transferring files
- Document Common questions
  - Notes, Stickies, Text Substitutions, Outlook rules, SSH Keys, Bookmarks
- Automate what you can

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Backup/Restore browser data

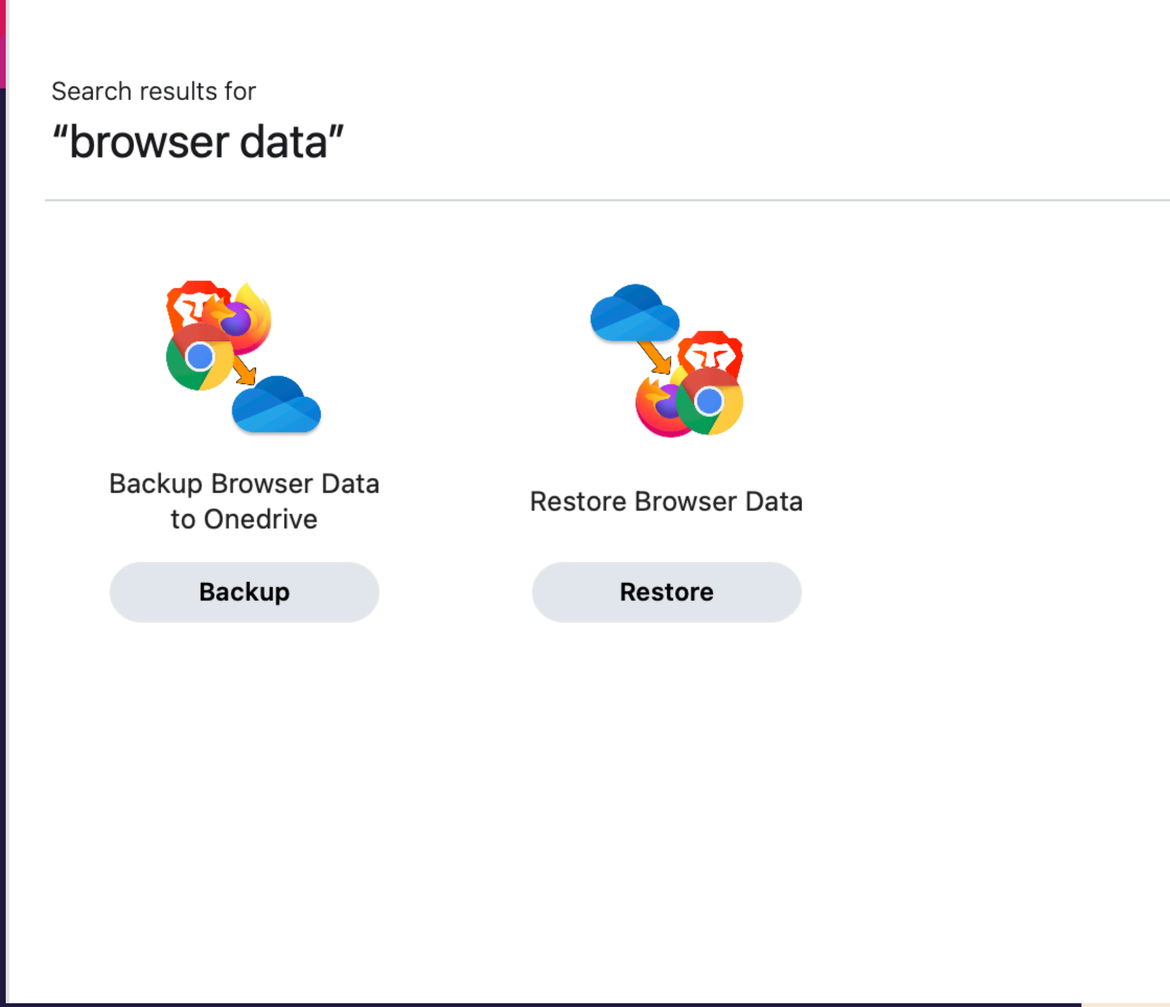
Policies that will move the users history, bookmarks, and other data from one computer to another via OneDrive.

Zips ~/Library/Application Support/AppName

Copies that into a hidden folder in OneDrive

Restore Browser Data policy moves it back.

Script on my GitHub



Iterate and Improve

- Watch a user complete the setup.
  Don’t help them
- Eliminate every click and step you can.
- Get feedback from your users
- Get feedback from your helpdesk

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Fake It Until You Make It

- Loosely “provision” computers
- “Zero Touch” User Creation and Experience
- Catches hardware and ADE errors
- Run Mac OS updates
- Soft Transition to Zero Touch for IT

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Faking It Provisioning

- Log in as your local admin account.
- Stop Initial Config - Policy 00
- Run `sudo jamf policy -event preprovision`
  - Install Core Applications
  - Create ‘setup’ account for filevault
  - Cache InitialConfig
  - Verify Jamf Connect set for Login

```
¬
¬
Δ   ##·if·logged·in·user·is·an·admin·or·rescue·then·do·the·following¬
Δ   #·Remove·Initial·Config¬
Δ   #·cache·Inital·Config¬
Δ   #·kill·jamf·and·let·the·user·proceed·as·they·would.¬
if·[[·"$loggedInUser"·=·"$admin1Name"·]]·||·[[·"$loggedInUser"·=·"$admin2Name"·]]·||·[[·"$loggedInUser"·=·"$setupName"·]]·;·then¬
Δ   echo·"logged·in·user·is·$loggedInUser.·cancelling·'initialconfig'·process"¬
Δ   launchctl·unload·/Library/LaunchDaemons/com.JAMF.InitialConfig.plist¬
Δ   rm·-f·/Library/LaunchDaemons/com.JAMF.InitialConfig.plist¬
Δ   sleep·1¬
Δ   jamf·policy·-trigger·cacheinitialconfig¬
Δ   sleep·1¬
Δ   killall·Jamf¬
Δ   killall·jamf¬
¬
Δ   exit·0¬
¬
else¬
Δ   ##·we·don't·need·to·do·anything.·Log·this·and·continue!¬
Δ   echo·"Logged·in·user·is·$loggedInUser"¬
Δ   echo·"proceed·with·InitalConfig"¬
fi¬
¬
exit·0¬
¬
```

00 - Check Logged In User

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```
WAITING_ROOM="/Library/Application Support/JAMF/Waiting Room/"

installCachedPackage () {
    PKG_NAME="${1}"
    INSTALL_PKG="$WAITING_ROOM$PKG_NAME"
    if [[ -e "${INSTALL_PKG}" ]] ; then
        cd "$WAITING_ROOM"
        /usr/sbin/installer -pkg "${INSTALL_PKG}" -target /
        rm -f "${INSTALL_PKG}"
        rm -f "${INSTALL_PKG}*"
    else
        echo "${INSTALL_PKG} not found. exiting"
        exit 1
    fi
}

if [[ "$loggedInUser" == "${adminUser1}" ]] || [[ "$loggedInUser" == "${adminUser1}" ]] || [[ "$loggedInUser" == "$setupUser" ]] ; then
    echo "$loggedInUser logged in, take no action"
    exit 1
else
    echo "$loggedInUser logged in. install cached JAMFInitialConfig.pkg"
    ## Do the thing
    installCachedPackage "JAMFInitialConfig-1.6.pkg"
    jamf recon
    exit 0
fi
```

Install Cached Launch Agent

User Experience

- User logs in to FileVault screen as “Setup”
- User logs into Jamf Connect as themselves
- InitialConfig proceeds as normal
- “Setup” account is removed during InitialConfig

Links

My Github Reference:
github.com/theadamcraig/JNUC2022
Jamf Enrollment Kickstart:
youtu.be/MhoHgC7AAUI - Johan McGwire
Jamf Connect Configuration:
youtu.be/BJDBWOVolzs - Sean Rabbitt

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Thank you for listening!

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