



Update macOS Sonoma
Using Managed Software Updates
in Jamf Pro



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Preface

You can use the managed software updates feature of Jamf Pro to update the macOS of Mac computers belonging to smart or static group membership lists, eliminating the need for inventory searches and reducing the number of screens required for deploying macOS updates.

WARNING:

This feature is in BETA, you may notice inconsistent or unexpected behavior. Enabling the (Beta) managed software updates feature will initiate a record cleanup, which includes clearing any update commands that have previously been deployed from Jamf Pro. You can re-deploy these updates with the (Beta) managed software updates feature. When this feature is enabled, mass action update commands are disabled.

Requirements:

Target computers with macOS Sonoma that require an update, supervised or enrolled via a PreStage enrollment in Jamf Pro. For best results, we recommend following this guide with a Mac computer running macOS Sonoma, version 14.2.1, which includes new features such as declarative device management for software updates.

To have the update for Mac computers with Apple silicon installed automatically without user interaction, a Bootstrap Token for target Mac computers must be escrowed in the Jamf Pro server. macOS will automatically request the Bootstrap Token from the Jamf Pro server to authorize updates that were scheduled to install.

Checking your Bootstrap Token and Volume Owner status:

There are a few ways to check the status:

- Use the commands found in this Apple support document:
<https://support.apple.com/guide/deployment/dep24dbdcf9e/>
- Download the Verified Tokens 1.0 app here:
<https://hconline.com/support/apps/verified-tokens>

This guide will use the VerifiedTokens 1.0 app as it provides all the info in one window without having to run multiple terminal commands. This app requires administrative privileges to run. Once downloaded, install the Verified Tokens 1.0.pkg. Launch the Verified Tokens 1.0 app and confirm the output in the picture below. Make sure you see YES for the Jamf Pro Bootstrap Token Status and confirm the Bootstrap Token has Volume Owner access. Confirm the same for any users on your Mac. Click Quit when done. A file named VerifiedTokens will be exported to your Desktop. You can delete this file.

A screenshot of the 'Verified Tokens 1.0' application window. The window title is 'Verified Tokens 1.0'. The main content area displays terminal-style output with green text on a black background. It shows details for three users: 'CGE' (User Name: joe, Secure Token Status: ENABLED, Volume Owner: Yes), 'M000' (User Name: root, Secure Token Status: DISABLED, Volume Owner: No), and 'EB' (User Name: mark, Secure Token Status: ENABLED, Volume Owner: Yes). Below this, it shows 'MDM Bootstrap Token Status' with 'Bootstrap Token supported on server: YES', 'Bootstrap Token escrowed to server: YES', 'Type: MDM Bootstrap Token External Key', and 'Volume Owner: Yes'. At the bottom, there is a 'Quit' button and a prompt to 'Scroll up to see more information ^^'.

Do not continue with this guide if you do NOT have a bootstrap token or secure token for a user. The steps in the guide will NOT work unless these requirements are met.

This guide will use the following:

- MacBook Air with an Apple Silicon running macOS 14.2.1.
- Jamf Pro Server version 11.2 with administrative credentials.



Section 1: Configure the Jamf Pro Server for Software Updates

What You'll Need

Learn what hardware, software, and information you'll need to complete the tutorials in this section.

Hardware and Software

Requirements for following along with this section:

- A Mac Computer running macOS Sonoma that requires an update.
- Jamf Pro Server version 11.2 with administrative credentials.

In this section we create a static computer group in Jamf Pro and configure the Software Updates section to download the latest version macOS Sonoma.

NOTE: There are five different software updates actions available:

- Download only
- Download and Install
- Download and schedule to install - Requires macOS 14
- Download, install, and allow deferral
- Download, install, and restart

We will configure the Download only install action in this section. We will cover the other four install actions in the next section.

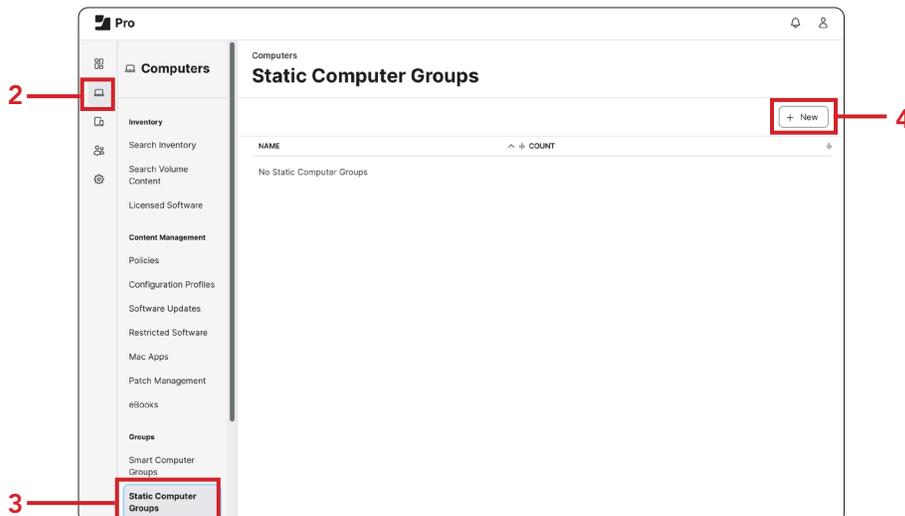
1. Log into your Jamf Pro server with administrative credentials.

A screenshot of the Jamf Pro login page. It features a 'Pro' logo at the top left. Below it are two input fields: 'Username' and 'Password', both marked as 'Required'. A blue 'Log in' button is positioned at the bottom center.

2. Click Computers.

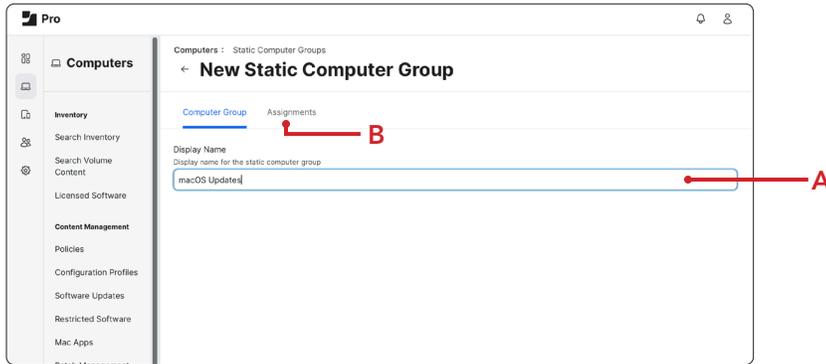
3. Click Static Computer Groups. NOTE: If you want to use a Smart Computer Group for scoping, use the guide below to create a Smart Computer Group based on the current version of macOS. <https://hcsonline.com/support/white-papers/create-a-jamf-smart-group-for-the-current-version-of-macos>

4. Click New.

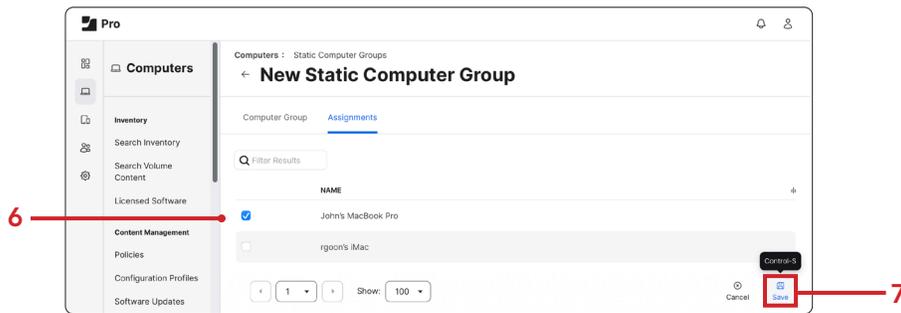




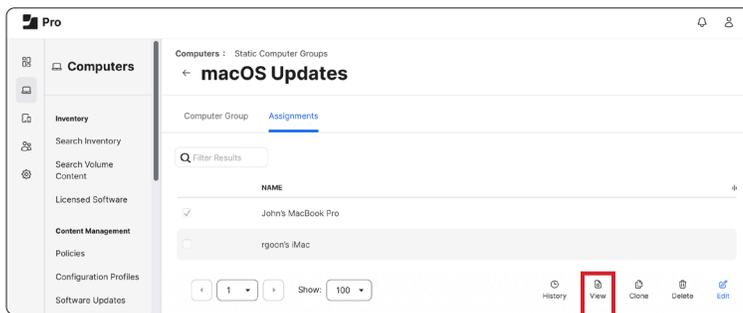
5. Configure the following:
 - A. Display Name: macOS Updates
 - B. Click Assignments



6. Select one Mac computer. We recommend using one Mac computer for testing purposes. You can add more later once your testing is successful.
7. Click Save.

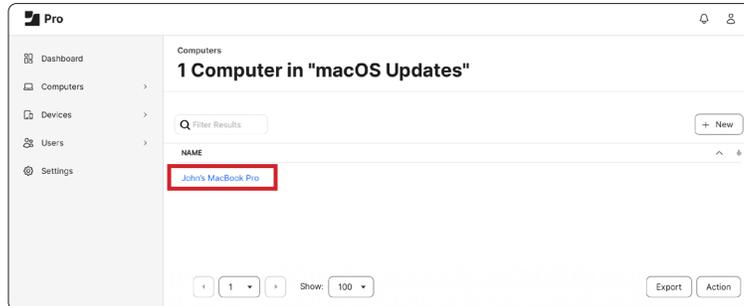


8. Click View.



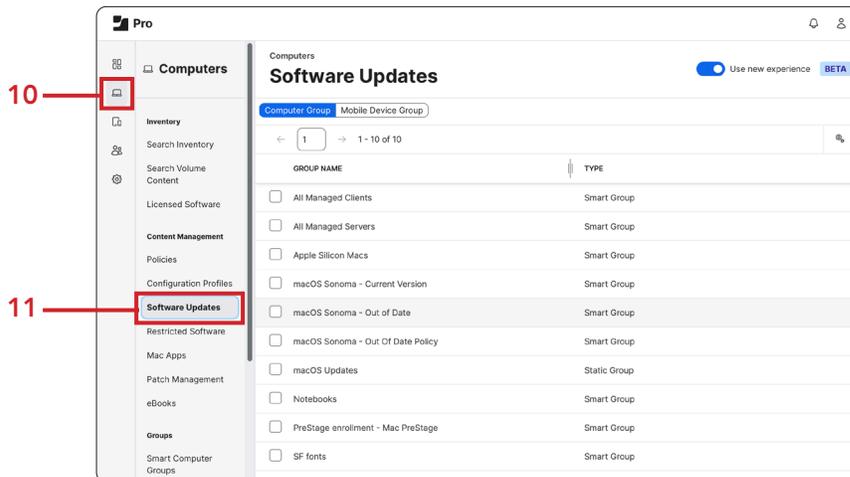


9. Confirm you can see the Mac computer that you selected in step 6.



10. Click Computers.

11. Click Software Updates. You may need to Enable the Software Updates if it's not Enabled.

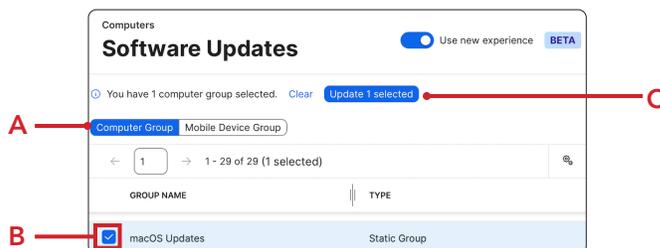


12. Configure the following:

A. Click Computer Group.

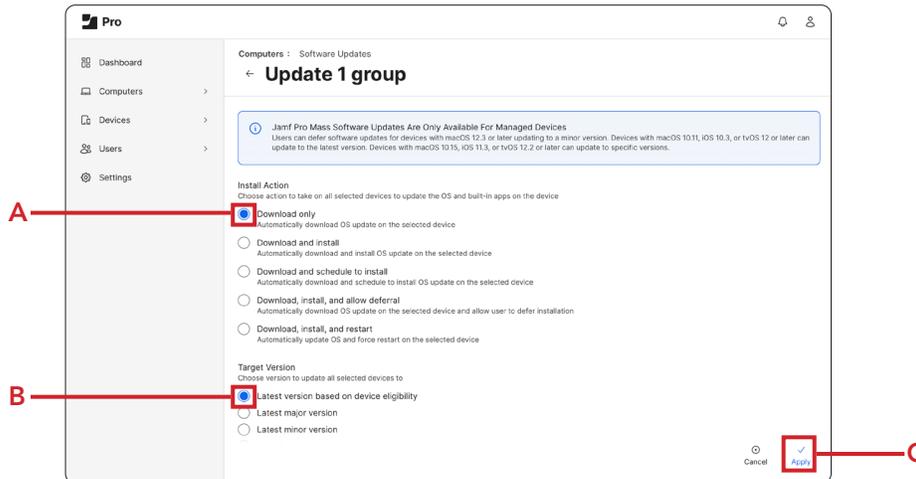
B. Select the static computer group that you created in step 5.

C. Click Update 1 Selected. This guide is using 1 Mac computer for simplicity.

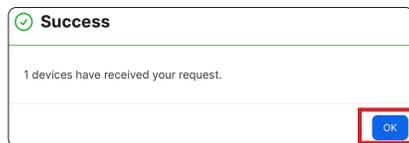




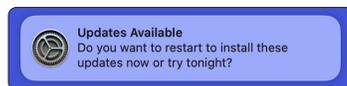
13. Configure the following:
- A. Install Action: Download only.
 - B. Target Version: Latest version based on device eligibility.
 - C. Click Apply.



14. Click OK. The Mac in the static computer group will start the download of macOS Sonoma silently in the background.

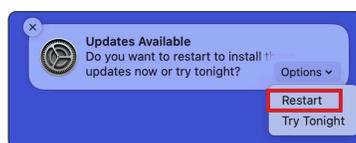


15. Log into the Mac that is in the macOS Updates static computer group. Once the macOS Sonoma download is done you will be greeted with the notification message below.
- NOTE: To see the status of the MDM command, go to the computer record in Jamf Pro and select the Management tab to view the status of the MDM command. When the command is no longer pending, you can see the download in progress in System Settings > General > Software Update.



16. You have two options:
- Restart will run the upgrade immediately.
 - Try Tonight will schedule the update to run between 2am - 4am.

This guide will choose Restart for simplicity.





17. Since the user is initiating this update, the password of the currently logged in user is required. This user **MUST** have a secure token to run the update. Click OK.



18. The Mac computer will reboot and install the macOS Sonoma update. This completes this section.

In the next section, we will discuss the additional four settings that can be used to install macOS updates.



Section 2: Configure the Four Additional Install Actions

What You'll Need

Learn what hardware, software, and information you'll need to complete the tutorials in this section.

Hardware and Software

Requirements for following along with this section:

- A Mac Computer running macOS Sonoma that requires an update.
- Jamf Pro Server version 11.2 with administrative credentials.

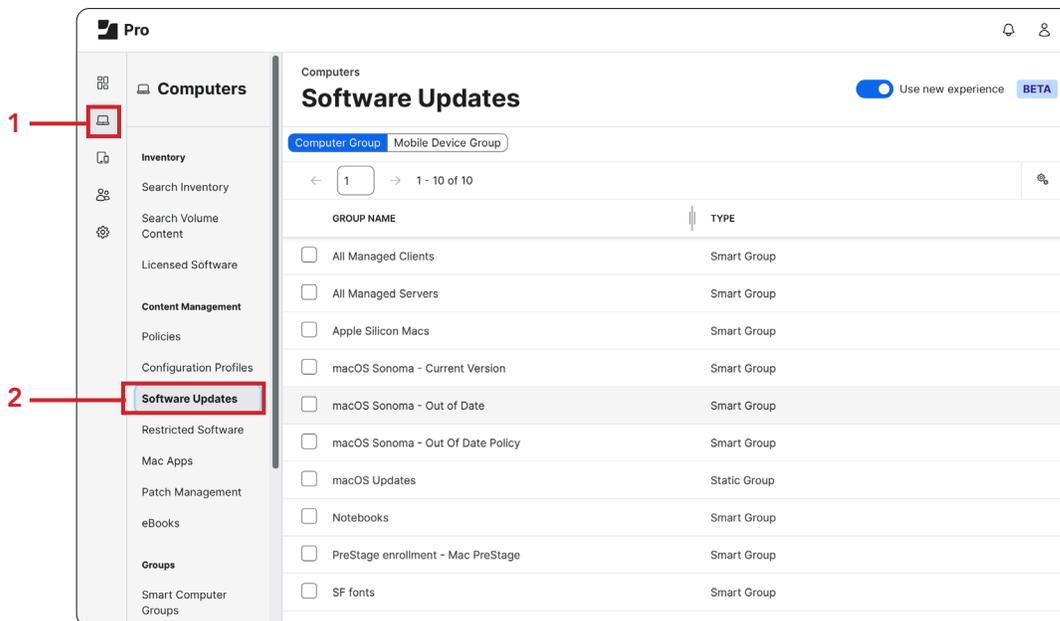
NOTE: If you want to test each of the four macOS update settings discussed in this section, It will require four Mac computers that are running an older version of the current shipping version of macOS Sonoma. You will need to add one additional Mac computer to the macOS Updates Static Computer group if you're testing all four of the install actions in this section.

In this section we are going to discuss the four remaining software update actions that can be used to keep the Mac computer up to date.

- Download and Install
- Download and schedule to install
- Download, install, and allow deferral
- Download, install, and restart

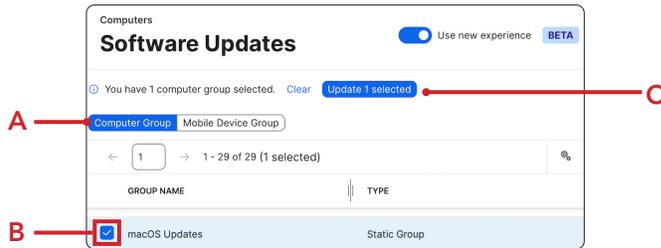
Download and Install:

1. Click Computers.
2. Click Software Updates.

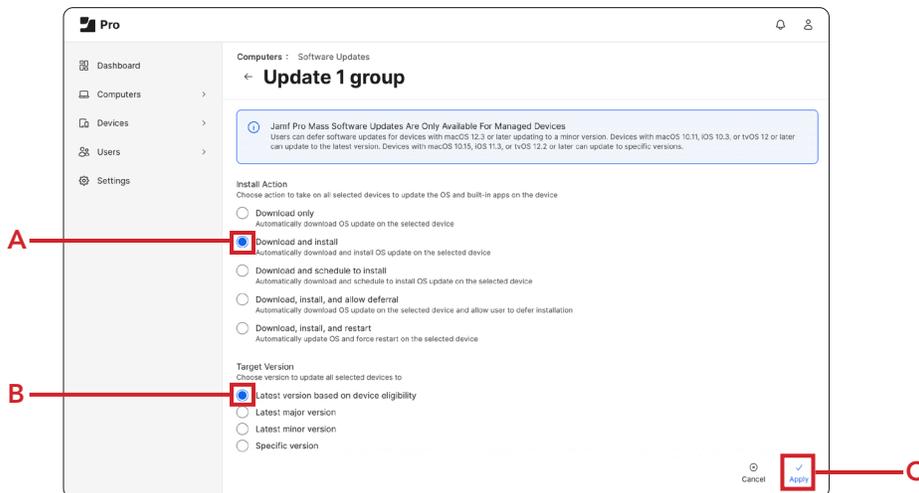




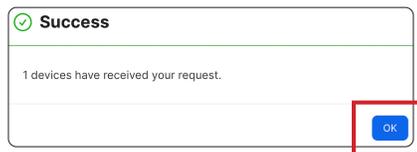
3. Configure the following:
 - A. Click Computer Group.
 - B. Select the static computer group named macOS Updates.
 - C. Click Update 1 selected. This guide is using one Mac computer for simplicity.



4. Configure the following:
 - A. Install Action: Download and Install.
 - B. Target Version: Latest version based on device eligibility.
 - C. Click Apply.



5. Click OK. The Mac that is in the static computer group will start the download of macOS Sonoma silently in the background. Depending on your ISP speed, the download can take 15 minutes or more to complete.

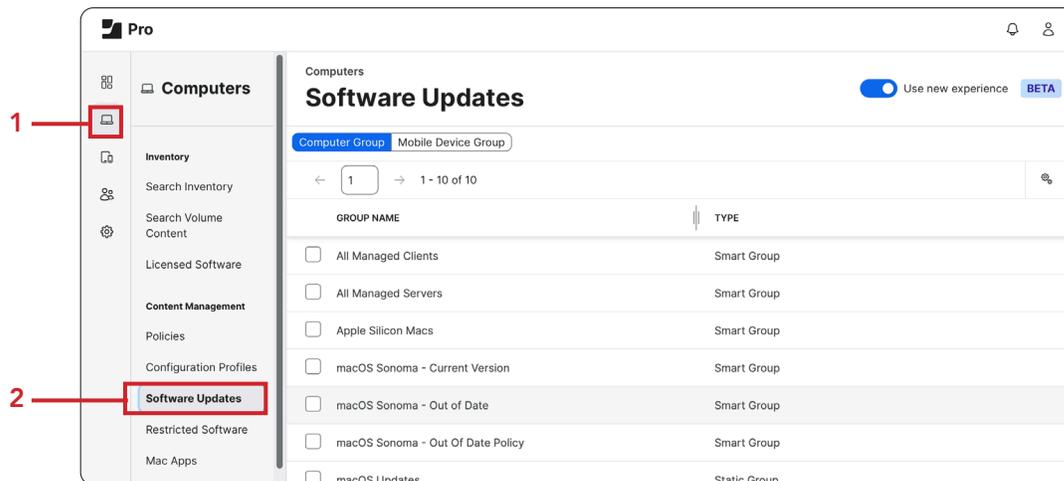




6. Log into the Mac that was in the macOS Updates static computer group. Once the macOS Sonoma download is done you will NOT receive any notification messages and the Mac computer will reboot. You will NOT be prompted for any user name or password because the user on the Mac has a secure token and the Jamf Pro server has a bootstrap token. The bootstrap token will be used to authenticate the macOS update. This completes this install action.

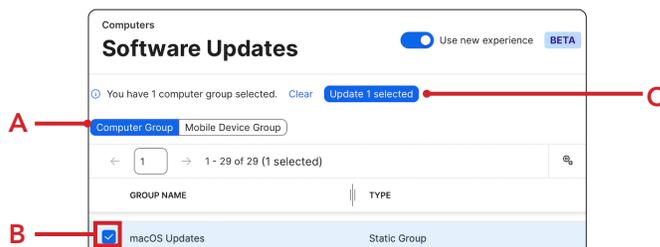
Download and schedule to Install:

1. Click Computers
2. Software Updates.



3. Configure the following:

- A. Click Computer Group.
- B. Select the static computer group named macOS Updates.
- C. Click Update 1 selected. This guide is using one Mac computer for simplicity.





4. Configure the following:

A. Install Action: Download and schedule to Install.

B. Force Install Date: Click inside the field and a calendar and clock will appear.

Computers : Software Updates
← **Update 1 group**

Jamf Pro Mass Software Updates Are Only Available For Managed Devices
Users can defer software updates for devices with macOS 12.3 or later updating to a minor version. Devices with macOS 10.11, iOS 10.2, or tvOS 12 or later can update to the latest version. Devices with macOS 10.15, iOS 11.3, or tvOS 12.2 or later can update to specific versions.

Install Action
Choose action to take on all selected devices to update the OS and built-in apps on the device

- Download only
Automatically download OS update on the selected device
- Download and install
Automatically download and install OS update on the selected device
- Download and schedule to install**
Automatically download and schedule to install OS update on the selected device

Force install date is only supported for computers with macOS 14 or later and mobile devices with iOS 17 or iPadOS 17 or later. Computers and mobile devices not meeting these criteria will not receive an update.

Force Install Date
mm/dd/yyyy 00:00 **B**

Required

- Setting a date and time prior to the present date and time will immediately enforce the software update formula.
- Download, install, and allow deferral
Automatically download OS update on the selected device and allow user to defer installation
- Download, install, and restart
Automatically update OS and force restart on the selected device

Target Version
Choose version to update all selected devices to

- Latest version based on device eligibility
- Latest major version
- Latest minor version
- Specific version

Cancel Apply

5. Select a Date and Time from the calendar and clock.

< **January 2024** >

| Mon | Tue | Wed | Thu | Fri | Sat | Sun |
|-----|-----|-----|-----|-----|-----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |

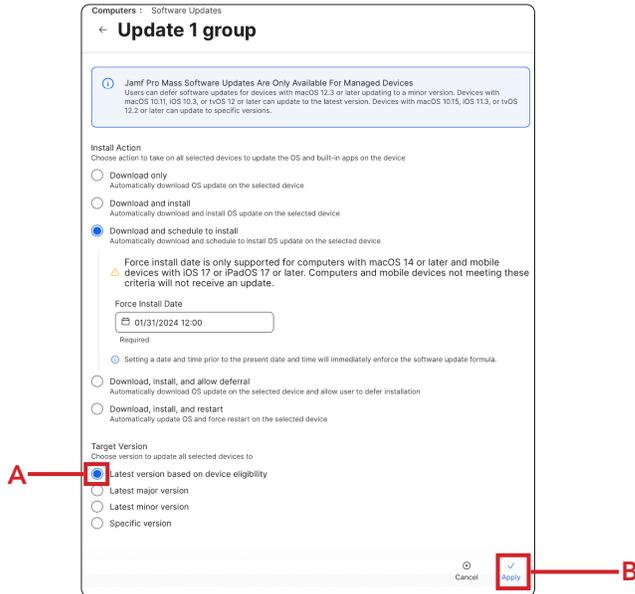
12 : 00 PM

01/31/2024 12:00

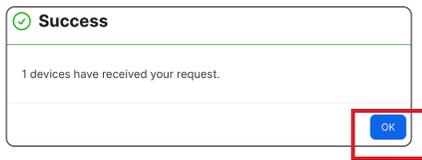
Enter a start time here: The time entered here is the client Mac local time.



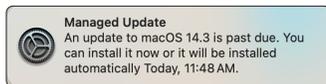
6. Configure the following:
 - A. Target Version: Latest version based on device eligibility.
 - B. Click Apply.



7. Click OK. The Mac that is in the static computer group will start the download of macOS Sonoma silently in the background. Depending on your ISP speed, the download can take 15 minutes or more to complete.



8. Log into the Mac that is in the macOS Updates static computer group. Once the macOS Sonoma download is done, the user will be presented with this notification message. Notice the time stamp in the message that will automatically run the macOS update.

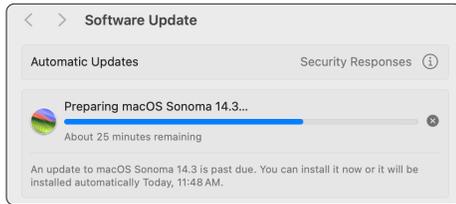


9. You will have the option to view the Details or Update. If you select Update, the Mac will run the update once it's downloaded.





10. If you select Details, System settings will open and you will see the download status of the macOS Sonoma update. NOTE: This guide did NOT choose Details or Update so we could see the scheduled update in action.



11. The user will be constantly notified with the message below until the upgrade is ready to run.

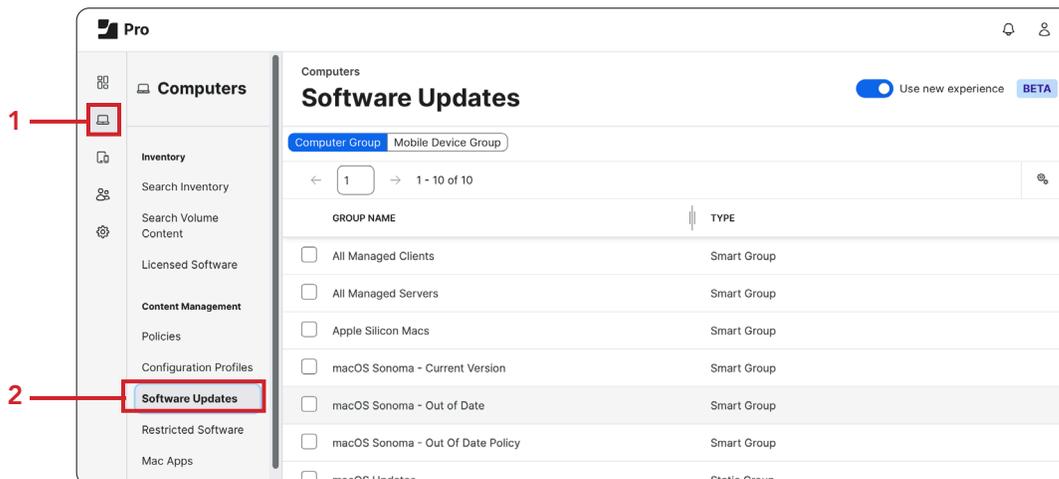


12. This guide chose to wait for the update to run at its scheduled time of 11:48 am. You will be presented with a Restarting Your Computer message letting you know the Mac will reboot in 60 seconds and begin the update. You will NOT be prompted for any user name or password because the user on the Mac has a secure token and the Jamf Pro server has a bootstrap token. The bootstrap token will be used to authenticate the macOS update. This completes this install action.



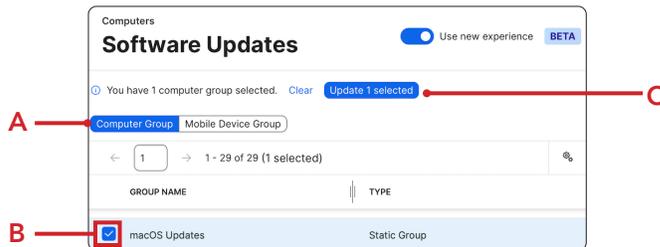
Download, Install, and allow deferral:

1. Click Computers then select Software Updates.

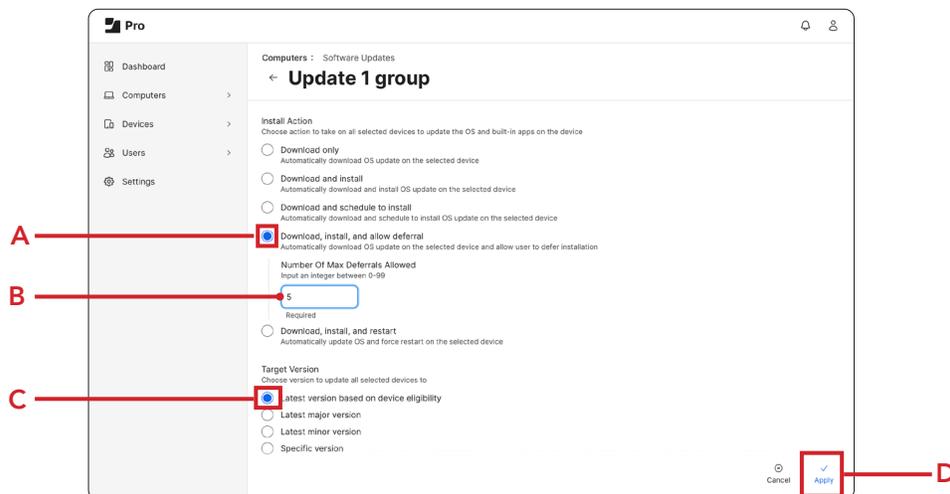




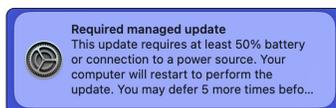
2. Configure the following:
 - A. Click Computer Group.
 - B. Select the static computer group named macOS Updates.
 - C. Click Update 1 selected. This guide is using one Mac computer for simplicity.



3. Configure the following:
 - A. Install Action: Download, install, and allow deferral.
 - B. Number Of Max Deferrals Allowed: This guide will use 5.
 - C. Target Version: Latest version based on device eligibility.
 - D. Click Apply.



4. The user will be presented with the notification message below letting them know the update requires 50% battery life or a connection to a power source. You are allowed to defer the update up to 5 times before you are forced to run the update.
NOTE: In our testing, MDM commands were more responsive when connected to a power source.





5. You have two options:

- Install: This will install the update immediately.
- Try Tonight: This will allow you to defer the update.

This guide will choose Install for simplicity. If you select Try Tonight and want to see the deferral notification message, you will need to monitor your Mac computer between the hours of 2am - 4am.

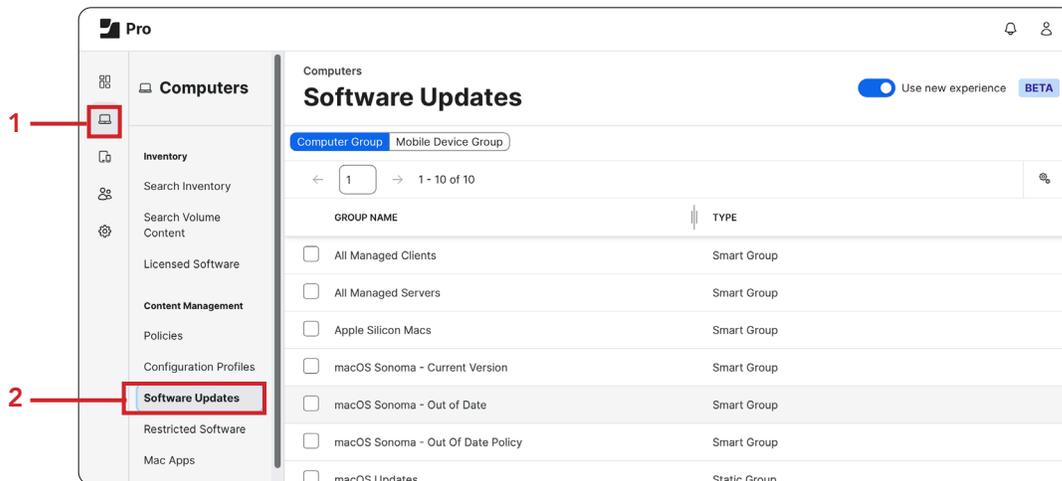
NOTE: Try tonight attempts to install the update between 2am and 4am. If the user still has deferrals remaining and they don't see the notification or they ignore it, the update isn't installed. The final notification for installation bypasses Do Not Disturb. Also, the number of possible deferrals can be updated by an MDM administrator by issuing a new command. When doing so, the deferral counter on the Mac is reset.



Download, Install, and restart

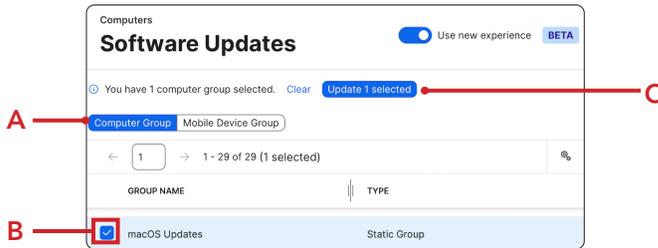
1. Click Computers.

2. Software Updates.

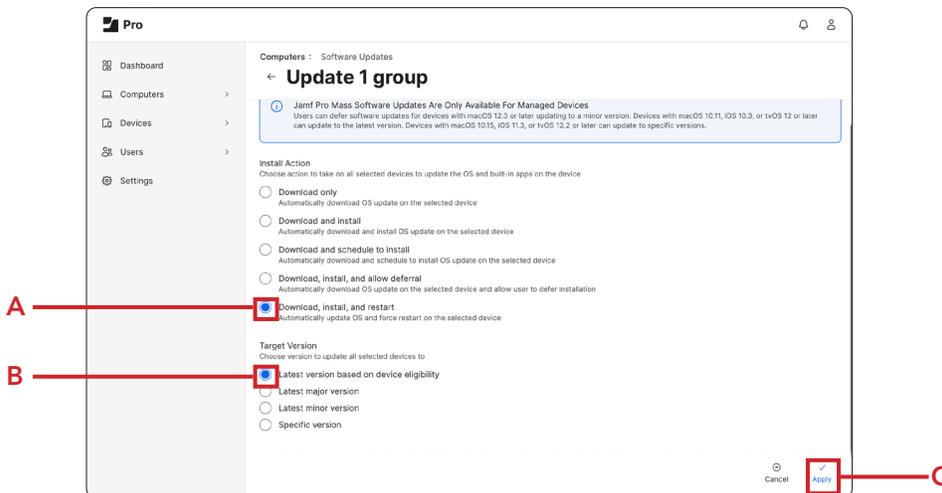




3. Configure the following:
 - A. Click Computer Group.
 - B. Select the static computer group named macOS Updates.
 - C. Click Update 1 selected. This guide is using one Mac computer for simplicity.



4. Configure the following:
 - A. Install Action: Download, install, and restart.
 - B. Target Version: Latest version based on device eligibility.
 - C. Click Apply.



5. The user will be presented with the notification message below letting them know the Mac computer will restart in 60 seconds. There are no other warning messages. This will force quit any apps that are running and the user may lose any unsaved changes if they were working in applications that don't auto save. Use this with install action with caution.



6. You will NOT be prompted for any user name or password because the user on the Mac computer has a secure token and the Jamf Pro server has a bootstrap token. The bootstrap token will be used to authenticate the macOS update.

This completes the guide.