



Upgrade to macOS Big Sur using Self Service with Jamf Pro



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This guide was created using the following:

- Jamf Pro 10.27
- Jamf Admin (if your Jamf Pro is on-premise and/or you have a file share distribution point instead of a cloud distribution point)
- macOS Catalina

#### **Requirements:**

- Current macOS Big Sur installer (11.2 is the version used in this guide) placed in your /Applications folder.
  The MegaPKGr.zsh script.
- https://gist.github.com/talkingmoose/e9ed319226c6da30dd633725e48a97b0
- The macOSUpgrade.sh script. https://github.com/kc9wwh/macOSUpgrade/blob/master/macOSUpgrade.sh

#### Overview

The purpose of this document is to supply guidance and best practice solutions to facilitate the successful inplace upgrade of Mac computers to macOS Big Sur. This workflow is for organizations that have Jamf Pro and allow users to open Self Service to upgrade with one click. The workflow takes advantage of the "startosinstall" command located in the Install macOS Big Sur.app.

#### What is a silent, in-place upgrade?

A silent, in-place upgrade is a method of upgrading a Mac computer to a newer operating system with minimal user interaction with the installer app. By using the "startosinstall" command we can accomplish this using scripting tools and a solution such as Jamf Pro.

#### Additional information on the items discussed in this guide:

More information on macOS Big Sur: https://www.apple.com/macos/Big Sur/

macOS Big Sur upgrade requirements: https://support.apple.com/en-us/HT201475

How to install macOS at your organization: https://support.apple.com/en-us/HT208020

More information on the 'startosinstall' option https://www.jamf.com/blog/streamlining-your-macos-upgrade-process/



#### Flags for the startosinstall command:

Open Terminal and run the command below to see all the flags available for the startosinstall command:

/Applications/Install\ macOS\ Big\ Sur.app/Contents/Resources/startosinstall --usage

The output displays information about the options:

#### Usage: startosinstall

Arguments (Depending on OS, more or less features) --license, prints the user license agreement only.

--agreetolicense, agree to the license you printed with --license.

--rebootdelay, how long to delay the reboot at the end of preparing. This delay is in seconds and has a maximum of 300 (5 minutes).

--pidtosignal, Specify a PID to which to send SIGUSR1 upon completion of the prepare phase. To bypass "rebootdelay" send SIGUSR1 back to startosinstall.

--installpackage, the path of a package (built with productbuild(1)) to install after the OS installation is complete; this option can be specified multiple times.

--eraseinstall, (Requires APFS) Erase all volumes and install to a new one. Optionally specify the name of the new volume with --newvolumename.

--newvolumename, the name of the volume to be created with --eraseinstall.

--preservecontainer, preserves other volumes in your APFS container when using --eraseinstall.

--forcequitapps, on restart applications are forcefully quit. This is the default if no users are logged in.

--usage, prints this message.

--user, an admin user to authorize installation.

--passprompt, collect a password for authorization with an interactive prompt.

--stdinpass, collect a password from stdin without interaction.



## Section 1: Download a version of Install macOS Big Sur

This section shows you how to download either the stub installer or the full installer.

### Option A: Download the stub installer.

The Mac you're using to create the package needs to be enrolled with Jamf Pro, so you can use Jamf Pro to install the stub installer on your Mac. Directions to enroll are outside the scope of this guide.

1. Log into in to Apple Business Manager or Apple School Manager.



2. In the sidebar, select Apps & Books from the sidebar.

🖨 Business
Organization
Activity
Locations
People
Accounts
Roles
Devices
Devices
Assignment History
Content
Apps and Books



3. In the search field, enter macOS Big Sur. macOS Big Sur will appear. Select it.

Q mac	OS Big Sur	X
		26 Total
	macOS Big Sur Apple · macOS App ☆☆☆☆☆ \$0.00	

- 4. On the right side of the screen do the following:
  - A. Assign to: Select your location.
  - B. Quantity: Enter a quantity. If you're only going to use it on your Mac to download once, you can just enter 1.
  - C. Click Get.
  - D. After you click Get, the Get button changes to display the word "Processing." When the button displays the word Get again, but "Get" is unavailable to click, click your name in the upper-right corner of the browser and choose Sign Out.

MacOS Big Sur Apple · macOS App → Device Assignable View Details Ϡ			
Buy Licens	ses		
Enterp	prises		• •
Price \$0.00	Quantity	Payment Method	
Total Cost <b>\$0</b> .	00		Get



5. If necessary, log in to Jamf Pro.

🛂 jamf	PRO	
USERNAME		
ex. admin		
PASSWORD		
		$\langle \rangle$

6. Select Computers, then select Mac App Store Apps.



7. Select macOS Big Sur.

NOTE: If you just purchased macOS Big Sur it make take a few minutes for Jamf Pro to display it.

macOS Big Sur



### 8. Click Edit

- 9. Do the following:
  - A. Select the General tab.

  - B. Click the Category menu and choose a category.C. Click the Distribution Method menu and choose "Make available in Self Service"

🛂 jamf   PRO				
Computers Devices Users	Computers : Mac App Store Apps ← macOS Big Sur			
	General Scope Self Service Managed Distribution			
Search Volume Content	Display Name Display name for the app			
	macOS Big Sur			
CONTENT MANAGEMENT	Enabled			
Policies	Category Category to add the app to			
Configuration Profiles	Operating Systems			
Restricted Software	Varian Varian of the app			
Patch Management	114			
eBooks	Bundle Identifier Bundle identifier for the app			
GROUPS	com.apple.installAssistant.macOSBigSur			
Smart Computer Groups	Free App is free			
ີ Tatic Computer Groups ເດິນ Classes	Schedule Jamf Pro to automatically check the App Store for app updates Automatically update app description, Icon, and version in Jamf Pro			
ENROLLMENT	App Store Country Or Region Country or region to use when syncing app with the App Store			
Enrollment Invitations	United States 👻			
PreStage Enrollments	App Store Sync Time Time to sync with the App Store each day to automatically update app description, icon, and version in Jamf Pro			
SETTINGS	12 • • : 00 • • a.m. •			
දිූිදි Management Settings	Automatically Force App Updates Automatically force updates for this app on computers (Managed Distribution)			
	Force App Update Force update for this app on computers (Managed Distribution)			
	Force Update			
	App URL URL of the app's App Store Preview page (e.g. "https://apps.apple.com/us/app/name-of-app//d123456789?mt=8")			
	https://apps.apple.com/us/app/macos-big-sur/id1526878132?mt=12			
	L			
	Make Available in Celf Service			



- 10. Select the Scope tab
- 11. Click Add.

1

General Scope Self Service Managed	Distribution	
Targets	Limitations	Exclusions
Target Computers	Target Users	
Specific Computers	Specific Users	
Selected Deployment Targets		+ Add

- 12. With the Computers tab selected, find the Mac you're working on now. If necessary, enter your Mac computer's name in the Filter Results tab.
- 13. For the Mac you're using, click Add.
- 14. Click Done.

Add Deployment Targets	;				Done	- 14
Computers	Computer Groups	Users	User Groups	Buildings	Departments	
Q Mac min	1 - 7 of <b>7</b>					
NAME						
Mac mini					Add	- 13
's Mac Mini					Add	

- 15. Confirm that the Selected Deployment Targets section lists your Mac and your Mac only.
- 16. Select the Managed Distribution tab.

	Computers ∶ Mac App Store Apps ← macOS Big Sur		
16—	General Scope Self Service Managed Distril	oution	
	Targets	Limitations	Exclusions
	Target Computers Computers to distribute the app to	Target Users Users to distribute the app to	
	Specific Computers *	Specific Users •	
	Selected Deployment Targets		+ Add
	TARGET	ТҮРЕ	
15—	Mac mini	Computer	Remove



18. Click Save.

- 17. Do the following:
  - A. Select the checkbox for "Assign Content purchased in Volume".
  - B. In the Location menu, confirm that the appropriate location for Apps & Books is selected. C. Click Save.

General Scope Self Service Managed Distribution		
Device Assignments	VPP Codes	
Velume Cantent		
Andre Content Durchand in Values		
Assign Content purchased in volume Assign content purchased in volume to computers with macOS 10.11 or later		
Location Volume purchasing location to use to assign content		
HCS Technology Group		
FOR	IN USE	
500		

19. After the download is complete, Install macOS Big Sur automatically opens. Press Command-Q to quit Install macOS Big Sur.



### Option B: Download the full installer.

1. Download the Install macOS Big Sur.app from the App Store or the direct link below: https://itunes.apple.com/us/app/macos-big-sur/id1526878132?ls=1&mt=12



2. After the download is complete, Install macOS Big Sur automatically opens. Press Command-Q to quit Install macOS Big Sur.





# Section 2: Download the MegaPKGr.zsh script and create a package of the macOS Big Sur installer

1. In your browser, open

https://gist.github.com/talkingmoose/e9ed319226c6da30dd633725e48a97b0

2. Click Download Zip, then expand the .zip file to reveal the MegaPKGr.zsh script. Place the MegaPKGr.zsh script on your desktop.

••• <>		⊜ gist.github.com	Ċ	Ů ₽ +
<b>GitHub</b> Gist	Search All ç	ists Back to GitHub		Sign in Sign up
		Instantly share code, notes, a	and snippets.	
Last active	moose / MegaPKGr.zsh			12 Star 20 Constraints 2
<> Code	- Revisions 4 🏠 Stars 20	۶ Forks 2	Embed - <script src="htt</td> <td>ps:// 📋 🔛 Download ZIP 🗕 — 2</td>	ps:// 📋 🔛 Download ZIP 🗕 — 2
The pkg include	puild binary and Jamf Composer don't files larger than 8 GB in their bundles. JaPKGr.zsh	support adding single files of 8 GB or n This script will create a deployable PKG	nore to a package. Some apps like Ins file from apps whose bundles include	tall macOS Big Sur.app those large files.
1	#!/bin/zsh			
3	<- <about script<="" th="" this=""><th></th><th></th><th></th></about>			
4				
5				
6	Written by:William Smith			
7	Professional Services Eng	ineer		
8	Jamf			
9	bill@talkingmoose.net	0-4210225-54-2044522725-40-0740		
11	https://gist.github.com/e	9603192200008300003372364889780		
12	Originally posted: Octobe	r 15, 2020		
13	Updated: December 2, 2020	15, 2020		
14	Updated: December 11, 202	0		
15				
16	Purpose: Creates a deploy	able PKG file from an app whose app	bundle	
17	contains one or more file	s larger than the 8 GB limit support	ted by pkgbuild	
18	or Jamf Composer.			
19				
20	Instructions:			
21				

- 3. Close the browser window.
- 4. As per the prerequsites of the guide, obtain the full (~12 GB) Install macOS Big Sur.app from the App Store.
- 5. Open Terminal
- 6. Execute



7. A dialog box may appear asking you to allow Terminal to access the Desktop Folder, Click OK

C	?
"Terminal" woul files in your D	d like to access esktop folder.
Don't Allow	ОК

8. Another dialog box will appear Asking where to save the package, select the Desktop on the Sidebar and Choose.

Favorites		Save package to this	folder		
🗎 Dropbox	< > 💷 🗸 🚟 🗸	Desktop	٥	Q Search	
🙏 Applicati					
🗎 Desktop					
🗎 Downloads					
🗎 akarnebo					
🗎 Creative					
iCloud					
🖂 iCloud Dri					
Documents					
🗎 Desktop					
Locations					
🖂 adam-mbp					
🗆 mm-serv					
Wetwork	New Folder			Cancel	se

9. Wait until it is finished creating the package for you. This can take up to 10-20 minutes depending on hardware to finish.

● ● ● 🔤 akarneboge — diskimages-helpe < sudo — 80×24	
Last login: Fri Feb 5 12:14:56 on ttys000 [akarneboge@vpn62 ~ % sudo zsh ~/Desktop/MegaPKGr.zsh /Applications/Install\ macO] S\ Big\ Sur.app [Password:	3
Chosen folder is writable. Disk has enough free space to build "Install macOS Big Sur.app.pkg" Log file is located in /Library/Logs/MegaPKGr.log	
Succeeded creating temporary working directory Creating disk image (DMG) archive of "Install macOS Big Sur.app"	



10. Confirm the packaging is finished and you see the package on the Desktop.

```
🚾 akarneboge — -zsh — 80×24
Last login: Fri Feb 5 12:14:56 on ttys000
                                                                                 [akarneboge@vpn62 ~ % sudo zsh ~/Desktop/MegaPKGr.zsh /Applications/Install\ mac0]
S\ Big\ Sur.app
Password:
Chosen folder is writable.
Disk has enough free space to build "Install macOS Big Sur.app.pkg"
Log file is located in /Library/Logs/MegaPKGr.log
Succeeded creating temporary working directory
Succeeded creating DMG archive of Install macOS Big Sur.app.app"...
Succeeded creating pkgbuild ROOT directory
Succeeded creating pkgbuild Scripts directory
Succeeded creating 500 MB file chunks from archive file
Succeeded creating pkgbuild postinstall script
Succeeded creating package "Install macOS Big Sur.app.pkg" in /Users/akarneboge/
Desktop/
Succeeded removing temporary items
Packaging time: 14 minutes and 52 seconds
akarneboge@vpn62 ~ %
```





## Section 3: Download the macOSUpgrade script

1. In your browser open https:// github.com/kc9wwh/macOSUpgrade.



2. Control-click (or right-click) the macOSUpgrade.sh file then choose Download Linked File As

)	Why GitHub	?∨ Team Enterprise	e Explo	re 🗸 Marketplace	Pricing ~		Search
kc	:9wwh/m	acOSUpgrade					③ Watch
<> (	Code 🕕	Issues 17 11 Pull re	equests	4	Projects	🕮 Wiki 🕕 Sec	curity 🗠 Insights
۴	master +	₽ 2 branches 🛇 12 ta	ıgs			Go to f	ile 👱 Code -
	kc9wwh Me	rge pull request #163 from	n kc9wwh	/macOS11.0.1-versior	1 <b>Fix </b>	be on Dec 16, 2020	3 3208 commits
	helper-tools		Fix som	e			2 months ago
	imgs		Readme	updates			3 years ago
ß	.travis.yml		CI Supp	ort			2 years ago
۵	LICENSE.md		Update	year of copyright			2 years ago
ß	README.mo	I	Add sor	nething for prepare-ja	amf-policy.sh		3 months ago
ß	macOSUpg	Open Link in New Tab		nacOSUpgrade.sh			2 months ago
۵	sample-cor	Open Link in New Window		AMF copy for self se	rvice		9 months ago
REA	ADME.md	Download Linked File Download Linked File As Add Link to Bookmarks Add Link to Reading List					
r	nacO	Copy Link		grade Pr	ocess		
v	Vorkflow for	Share Show 1Password mini Show 1Password on this pa	> age				

3. In the browser dialog leave the Save As file with its default value of macOSUpgrade.sh.

Save As:	macOSUpgrade.sh	
Tags:		

- 4. Set the location to save to a convenient location. This guide uses the Downloads folder as an example.
- 5. Click Save to save the file.
- 6. You can close the browser window.



# Section 4: Upload the macOS Installer package and upgrade script to your Jamf Pro Distribution Point

1. If necessary, Log in to Jamf Pro.



2. Select the Gear icon in the upper right corner.



3. Select Computer Management



4. Select Packages.

## **Computer Management**





5. Click New.



- 6. Do the following:
  - A. Select the General tab.
  - B. Select a Category (This guide will use Operating System)
  - C. Click the Choose File button.
  - NOTE: Do not provide a Display Name. It will be auto populated once the package is chosen.

A —	General Options Limitations
	Display Name Display name for the package
	[Required]
	Category Category to add the package to
в —	Operating System 🔻
c—	Filename Filename of the package on the distribution point (e.g. "MyPackage.pkg") Choose File

7. Select Install macOS Big Sur.app.pkg then select Choose.

install macOSur.app.pkg	Install macO Installer package	S Big Sur.app.pkg - 12.22 GB		
	Information			
	Created	Today, 12:18 PM		
		(	Cancel	Choose



8. Notice the Display Name of the package is auto populated once the package was selected.

General Options Limit	ations
<b>Display Name</b> Display name for the pa	ackage
Install macOS Big Sur.app.pkg	
Category Category to add the packag	e to
Operating System	
<b>Filename</b> Filename of the package on	the distribution point (e.g. "MyPackage.pkg")

FilenameFilename of the package on the distribution point (e.g. "MyPackage.pkg")Change FileInstall macOS Big Sur.app.pkg

9. Click Save.



10. The upload process will begin. This can take up to an hour to upload due to it's large size of over 12 Gigabytes. Please be patient.

Uploading 38.1 MB of 12222.6 MB (0%)

11. Click the Back button (arrow next to Install macOS Big Sur.app.pkg).

Settings : Co	omputer Man	agement > Package	es
← Insta	ll macOS	Big Sur.app.pk	g
General	Options	Limitations	



12. Select Scripts.

Computer Management



13. Click the New button.



- 14. Do the following:
  - A. Select the General Tab.
  - B. Display Name: macOSUpgrade
  - C. Choose a Category (We will use Scripts for this guide)
  - D. Select the Script tab.

Display Name Display name for the script macOSUpgrade
macOSUpgrade •

15. Open the macOSUpgrade.sh script that you saved in section 3 of this guide.





16. Press the Command and A key on the keyboard to copy the contents of the script, then press the Command and C key on your keyboard to copy the contents of the script to the clipboard. Close the file when done.

	macOSUpgrade.sh					
#	!/bin/bash					
#####	# # # # # # # # # # # # # # # # # # #					
###########	<pre>modification, are permitted provided that the following conditions are met: * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. * Neither the name of the Jamf nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.</pre>					
*############	THIS SOFTWARE IS PROVIDED BY JAMF SOFTWARE, LLC "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL JAMF SOFTWARE, LLC BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.					
# #	* * * * * * * * * * * * * * * * * * * *					
############	This script was designed to be used in a Self Service policy to ensure specific requirements have been met before proceeding with an <u>inplace</u> upgrade of the macOS, as well as to address changes Apple has made to the ability to complete macOS upgrades silently. REQUIREMENTS: - Jamf Pro - macOS Clients running version 10.10.5 or later - macOS Installer 10.12.4 or later - eraseInstall option is ONLY supported with macOS Installer 10.13.4+ and client- - look over the USER V&RIABLES and configure as peeded.					
,,# # # # #	For more information, visit https://github.com/kc9wwh/mac0SUpgrade					
#	Written by: Joshua Roskos   Jamf					



17. Switch back to the Jamf Pro server, Press the Command and V key on your keyboard to paste the contents of the clipboard into the script contents section.

NOTE: Saving the script here, it will store the script in the Jamf Pro database. You can also upload the script which would store it on the Jamf cloud distribution point.

cript Contents					
Default Mode 🔻	Default Theme 🔹	-T	T•	~ c	ommands
1 #!/bin/ba	sh				
3 # # # # # 4 # 5 # Copyrig	######################################	Ŧ #	#		
7 # R 8 # m 9 # 10 # 11 # 12 # 13 # 14 # 15 # 16 #	<pre>edistribution and use in source and binary forms, with or without odification, are permitted provided that the following conditions are met: * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. * Neither the name of the Jamf nor the names of its contributors may be used to endorse or promote products derived from this software withou specific prior written permission.</pre>	e ut			
17 # 18 # T 19 # E 20 # W 21 # D 22 # D 23 # ( 24 # L 25 # 0	HIS SOFTWARE IS PROVIDED BY JAMF SOFTWARE, LLC "AS IS" AND ANY XPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED ARRANTIES OF MERCHANTABLIITY AND FITNESS FOR A PARTICULAR PUPROSE ARE ISCLAIMED. IN NO EVENT SHALL JAMF SOFTWARE, LLC BE LIABLE FOR ANY IRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; OSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND A MAY THEORY OF LIABLITY WHETHER IN COMMENT				
				$\otimes$	8
				Cancel	Save

18. Do the following:

- A. Select the Options tab.
- B. Set the Priority dropdown menu to Before.
- C. Enter this in Parameter 4: The path to the Install macOS Big Sur app
- D. Enter this in Parameter 5: Version of the Install macOS Big Sur app you wish to use
- E. Enter this in Parameter 6: Custom policy trigger to download macOS
- F. Click Save.

Α —	General Seript Options Limitations
в—	Priority Priority to use for running the script in relation to other actions during imaging Before
	Parameter Labels Labels to use for script parameters. Parameters 1 through 3 are predefined as mount point, computer name, and username
с—	Parameter 4     The path to the Install macOS Big Sur app
	Parameter 5
D —	Version of the Install macOS Big Sur app you wish to use
	Parameter 6
Е —	Custom policy trigger to download macOS
	Parameter 7 $\bigotimes$ $\bigotimes$ Cancel Save F



## Section 5: Create a Jamf Pro policy to download the macOS installer

- 1. Click the Computers Icon,
- 2. Click Policies in the side bar.

1 - L Computers Devices Users	Q Search
	Advanced Computer Searches
Search inventory	
Search Volume Content	NAME
💭 Licensed Software	No Advanced Computer Searches
CONTENT MANAGEMENT	
2 — Policies	
🖏 Configuration Profiles	

- 3. Do the following:
  - A. Create a new policy.
  - B. In the Display Name field enter a descriptive name such as "Download macOS Big Sur".
  - C. In the Trigger section, select the checkbox Custom.
  - D. In the Custom event field, enter a custom trigger name (without any whitespace). This guide uses download-bigsur as an example.
  - E. Click the Execution Frequency pop-up menu and choose Ongoing.

Download macOS Big Sur	——— E
Enabled	
Category to add the policy to	
Operating Systems 🔹	
rigger Event(s) to use to initiate the policy	
Startup When a computer starts up. A startup script that checks for policies must be configured in Jamf Pro for this to work	
Login When a user logs in to a computer. A login hook that checks for policies must be configured in Jamf Pro for this to work	
Logout When a user logs out of a computer. A logout hook that checks for policies must be configured in Jamf Pro for this to work	
Network State Change When a computer's network state changes (e.g., when the network connection changes, when the computer name changes, when the IP address changes)	
Enrollment Complete Immediately after a computer completes the enrollment process	
Recurring Check-in At the recurring check-in frequency configured in Jamf Pro	
Custom • At a custom event	(
Custom Event Custom event to use to initiate the policy. For an iBeacon region change event, use "beaconStateChange"	
download-bigsur	[
xecution Frequency Frequency at which to run the policy	
Ongoing +	[



4. Select Packages, then select Configure.

۶	Packages O Packages	>
(0)	Software Updates Not Configured	
Pa-	Scripts 0 Scripts	
ŧ	Printers 0 Printers	
0	Disk Encryption Not Configured	
Ţ	Dock Items 0 Dock Items	
1	Local Accounts 0 Accounts	

5. Select the Install macOS Big Sur.pkg. If necessary, select your desired Distribution point.

Packages	
Distribution Point Distribution point to download the package(s) from	
Each computer's default distribution point *	
Install macOS Catalina.pkg	
Action Action to take on computers	
Install	

6. Select Scope. In general, we recommend that you set the scope to a test group of Mac computers and validate the workflow before you set the scope to All Computers. However, this policy will be run only from a policy that you should initially scope only to a test group (or manually in the command line environment with the Jamf command and -event flag).

		Targe	ts	
Target Com	nputers			

7. Click Save.



NOTE: When the policy which you will create next runs the installation script, if the macOS Installer is not already in the Applications folder, then the installation script uses the custom trigger to call this policy. In step 3 of the next section, ensure that you specify the exact trigger name from step 2 above, otherwise the installation script will not trigger the policy that downloads the macOS Installer.



# Section 6: Create a Jamf Pro policy to upgrade to macOS Big Sur with Self Service

- 1. Do the following:
  - A. Create a new policy.
  - B. In the Display Name field enter a descriptive name such as "Upgrade to macOS Big Sur".
  - C. DO NOT select any triggers. This policy will be triggered by Self Service.
  - D. Click the Execution Frequency menu and choose Ongoing.

	Computers : Policies ← New Policy		
	Options Scope Self Service	User Interaction	
	Image: Second secon	General         Display Name       Display name for the policy         Ugrade to macOS Big Sur         ✓       Enabled         Category       Category to add the policy to         Operating Systems       ▼         Trigger       Evently to use to initiate the policy         Gategory       Category category to add the policy to         Operating Systems       ▼         Trigger       Evently to use to initiate the policy         Gatup       When a computer starts up. A startup script that checks for policies must be configured in Jamf Pro for this to work:         Uthern a user logs in to a computer. A login hook that checks for policies must be configured in Jamf Pro for this to work         Logout       When a user logs out of a computer. A login hook that checks for policies must be configured in Jamf Pro for this to work         Ubstra a computer starts state. Changes (e.g., when the network connection changes, when the computer name changes, when the IP address changes (e.g., when the network connection changes, when the computer name changes, when the IP address	—— В
с —	Management Accounts     Management Accounts     Orectory Bindings     oredays     Fir Password     Kordingued     Restart Options		D
		Cancel Save	

2. Select Scripts, then select Configure.

	Scripts 0 Scripts	>
글	Printers 0 Printers	
Ó	Disk Encryption Not Configured	
<u> </u>	Dock Items 0 Dock Items	
•	Local Accounts	



- 3. Select the macOSUpgrade.sh script.
- 4. Do the following:
  - Complete labeled parameters with the appropriate values:
    - A. Install macOS Big Sur app path: Enter the path the script should use for the installer application; if you have followed this guide enter
      - /Applications/Install macOS Big Sur.app.
    - B. macOS version supported: Enter the minimum version of the "Install macOS Big Sur" that the script will check for to determine if a download is needed. As an example, this guide uses **11.2**.
    - C. Custom Policy trigger to download macOS: Enter the custom policy trigger that you entered in the policy to download the installer app. The script triggers the custom policy only if the Mac does not already have the Install macOS Big Sur app downloaded. If you have followed this guide the trigger is **download-bigsur**.

← New Policy		
Options Scope Self Service	e User Interaction	
Packages 0 Packages	Scripts	
Software Updates Not Configured	macOSUpgrade.sh	× (+)
Scripts >	Priority Priority to use for running the script in relation to other actions Before	
Printers 0 Printers	Parameter Values Values for script parameters. Parameters 1–3 are predefined as mount point, computer name, and username The path to the Install macOS Big Sur app	
Disk Encryption Not Configured	/Applications/Install macOS Big Surapp	
Dock Items 0 Dock Items	Version of the Install macOS Big Sur app youwish to use. 11.2	
Local Accounts 0 Accounts	Custom policy trigger to download macOS	

4. Select Scope. We recommend that you set the scope to a test group of Mac computers and validate the workflow before you set the scope to All Computers.

Options	Scope	Self Service	User Interaction	
		Targe	ts	
Target Com	puters	alicy to		
All Comp	uters	oncy to		•



#### 5. Select Self Service, then do the following:

- A. Select "Make the policy available in Self Service."
- B. In the Self Service Display Name field, enter Upgrade to macOS Big Sur.
- C. In the Description field, enter a relevant description for your organization. An example follows: macOS Big Sur is a critical upgrade. The Technology Department recommends that you install this to keep your Mac on the latest version of the Mac operating system. Should you have any questions about this upgrade please contact the Technology Department directly.

\*\*\* PLEASE CLOSE ALL APPLICATIONS BEFORE UPGRADING \*\*\*

important: This process will take ~ 45 minutes, depending on network speed and your Mac needs to be connected to power.

- D. Select the checkbox for " Ensure that users view the description".
- E. Upload an icon if you have one for macOS Big Sur.
- F. Select a category to display this policy in.
- G. Click Save.

F-----

I Service Display Name Display name for the policy in Self Service (Self Service 10.0.0 or later)		
pgrade to macOS Big Sur		
ton Name Before Initiation Name for the button that users click to initiate the policy		
stall		
ton Name After Initiation Name for the button that users click to reinitiate the policy		
install		
cription Description to display for the policy in Self Service		
acOS Big Sur is a critical upgrade. The Technology Department recommends that you install this to keep you userions about this upgrade please contact the Technology Department directly. PLEASE CLOSE ALL APPLICATIONS REPORTE UPGRADING *** uportant: This process will take **45 minutes, depending on network speed and your Mac needs to be common and the specific or the specific o	r Mac on the latest version of the Mac operating system. Should you have any cted to power.	
Ensure that users view the description Force users to view the description before the policy runs		
Is too to display for the party. It is recommended that you use a file with the GF or PNG format. The recommended size upload con	is \$12-512 pines.	
PODIOS Categories in which to display or feature the noticy in Self Service		
Include the policy in the Eastured estensor		
include the pointy in the Federate decigory		
Include the policy in the Device Compliance category		
lay In	Feature In	
@_enrollment	@_enrollment	
Applications	Applications	
Branding	Branding	
Cache, Install, and Notify	Cache, Install, and Notify	
eBooks	eBooks	
Extension Attribute	Extension Attribute	



6. On an enrolled Mac, Open Self Service (you can use Spotlight, or find it in /Applications/Jamf Pro). Select the category that you put the Upgrade to macOS Big Sur in. Confirm that it's now available in Self Service for all to use.

NOTE: Please use a test Mac computer if you want to test things out to make sure all is working in your environment.





## Section 7: Test the workflow

- 1. Open Self Service.
- 2. Select the category that assigned to "Upgrade to macOS Big Sur". You will see it's now available in Self Service.



3. Click Install, and confirm that the upgrade works as expected. If the process stops for some reason, fix the issue, then in Self Service click Reinstall.

	Upgrade to macOS Big Sur
macOS Big Sur i that you install this to system.	is a critical upgrade. The Technology Department recommends o keep your Mac on the latest version of the Mac operating
Should you have Technology	e any questions about this upgrade please contact the



4. macOS Big Sur will start to download from the Jamf Pro server. You will see the message below.



This completes the guide.

If you'd like help implementing the solution in this white paper, we are ready to help; contact us at info@hcsonline.com or (866) 518-9672.

If you have corrections please send them to info@hcsonline.com.