



Manage Background Tasks with Jamf Pro

Contents

	Preface	.3
Section 1	: Prepare your Mac	.4
Section 2	: Creating a code signing certificate using Jamf Pro's CA	.7
Section 3	: Create a Configuration Profile to Manage Login and Background Items	14
Section 4	: Identifying Applications Using Login and Background Items	26
Section 5	: Managing Login and Background Item Notifications	30



Preface

To follow along with this guide you will need the following:

- A Mac running macOS 13.0 or later enrolled in your Jamf Pro server.
- Administrative access to your Jamf Pro Server version 10.42 or later
- A code signing certificate. If you don't have one, this guide will show you how to create one using your Jamf Pro server.
- iMazing Profile Editor: https://imazing.com/profile-editor
- Dropbox Installer: https://www.dropbox.com/downloading
- Zoom Installer: https://zoom.us/support/download?os=mac

What are login and background tasks and why would you want to manage them?

Launch daemons, launch agents, and startup items are helper executables that macOS starts on behalf of the user that extend the capabilities of apps or provide additional capabilities to users. For example, a LaunchDaemon can provide persistent background service for an app, a LaunchAgent can provide auxiliary UI capabilities like menu bar extras, and a Login Item can provide the ability to auto-mount remote directories or launch applications when the user logs in.

Prior to macOS 13, part of the application-design process of helper executables included scripts that installed one or more property lists into specific directories based on the type of service, such as the following locations of property lists:

- \$HOME/Library/LaunchAgents
- /Library/LaunchAgents
- /Library/LaunchDaemons

In macOS 13 and later, a new structure in the app bundle simplifies the installation of these login items and associated property lists. This new structure allows you to keep helper app resources inside the app's bundle, which reduces the need for specialized installation scripts or permission to write files into system directories. The SMAppService object is used to control helper executables that live inside an app's main bundle. It can also be used to register and control LoginItems, LaunchAgents, and LaunchDaemons as helper executables for an app and it works with any type of app regardless of how it was installed. Managing these items with a mobile device management (MDM) server allows organizations to keep login and background items enabled so users cannot disable them.



Section 1: Prepare your Mac

In this section we will prepare your Mac with the items needed to follow along with this guide. To follow along with this guide you will need the following:

- A Mac running macOS 13.0 or later enrolled in your Jamf Pro server.
- Administrative access to your Jamf Pro Server version 10.42 or later
- A code signing certificate. If you don't have one, this guide will show you how to create one using your Jamf Pro server.
- iMazing Profile Editor: https://imazing.com/profile-editor
- Dropbox Installer: https://www.dropbox.com/downloading
- Zoom Installer: https://zoom.us/support/download?os=mac

1. Install the following Applications and accept all the default prompts.

- Dropbox
- iMazing Profile Editor
- Zoom



2. You will receive notifications when installing the applications.

- A. The Managed Login Items Added notification will appear when you enroll your Mac into your Jamf Pro Server
- B. The Background Items Added notification is presented once you install Zoom.
- C. The Login Item Added notification is presented when you install Dropbox.
- D. The Background Items Added notification is presented when you install Dropbox.

NOTE: If a notification has an Options dropdown menu, you can select to snooze the notifications for a duration of one day or one week. You can stop these notifications by creating a notifications profile and disabling Notifications and Critical Alerts for the bundle ID com.apple. btmnotificationagent. This will be covered this in section 5 of this guide.

×	Managed Login Items Ad Your organization added ir in the background. You ca Login Items Settings.	ded tems that can run an view t Options ~	* Background Items Added "Zoom" added items that can run in the background. You can manage this in Login Items Settings.
	Α	Snooze for 1 day Snooze for 1 week	В
		"Dropbox" you log in. Items Setti	Added will open automatically when You can manage this in Login ings.
		Backgroun "Dropbox" backgroun Items Setti	nd Items Added added items that can run in the d. You can manage this in Login ings.



3. Open System Settings



4. Click General.

5. Click Login Items.





F

5. Confirm the following:

- A. Login Item for Dropbox was added during the installation.
- B. A background process was added for Dropbox.
- C. A background process was added for Zoom. The background processes for Dropbox and Zoom can be disabled by toggling the switch to off. This requires administrative credentials.
- D. A background process was added for Jamf Self Service. The background process for Jamf Self Service cannot be toggled off. This is being managed by the Jamf Pro server and was added automatically by Jamf during computer enrollment.
- E. The Dropbox Login item can be removed by clicking Remove (-).
- F. Close System Settings.

NOTE: All of these items can be managed by Jamf Pro with a configuration profile. This will remove the ability to disable Login and Background items by an administrative user.

• •	< Login Items	
2 Search	Open at Login These items will open automatically when you log in.	
Sign in with your Apple ID	Item Kind	
0	🙂 Dropbox Application	
ᅙ Wi-Fi		
Bluetooth	+ -	
🛞 Network		
 Notifications Sound 	Allow in the Background Applications add background items to perform tasks whe open, such as checking for software updates or syncing background item may prevent these tasks from being co	n the application isn't data. Turning off a npleted.
Focus		
Screen Time	1 item	
🕑 General	Jamf Self Service	•
Appearance	This item is managed by your organization.	
Accessibility	Zoom 1 iorra 1 iorra affanta all unarra	()
Control Center	T item: 1 item affects all users	
💟 Siri & Spotlight		?

In the next section, we will create a signing certificate using your Jamf Pro server. If you already have a signing certificate you can skip the next section.

This completes this section.



Section 2: Creating a code signing certificate using Jamf Pro's CA

This section will cover creating a code signing certificate using your Jamf Pro server. Requirements for following along with this section:

- A Mac running macOS 13.0 or later enrolled in your Jamf Pro server.
 - Administrative access to your Jamf Pro server version 10.42.

Why do we need a code signing certificate?

Signing a configuration profile ensures all the information will stay in place when uploaded to the Jamf Pro server. There are times when older versions of Jamf Pro do not understand newer payloads introduced in later versions of Jamf Pro. In Jamf Pro 10.42.0 or later, you can create a configuration profile using the com.apple.servicemanagement payload for Managed Login Items to prevent end users from disabling certain background services of apps that are installed in your environment by uploading a configuration profile. Failure to sign the profile will result in missing data on earlier versions of Jamf Pro server prior to 10.42 as the Jamf Pro server will disregard information that is does not understand. In order to sign a configuration profile you need a signing certificate.

When creating a code signing certificate using your Jamf Pro server, make sure to follow the steps in this section on a Mac that is enrolled in Jamf Pro. Failure to do so will result in a code signing certificate that is not trusted.

NOTE: As of Jamf Pro version 10.42, signing your configuration profile to manage Login and Background items is NOT required. However, to avoid any unforeseen issues when uploading the profile to your Jamf Pro server, we recommend signing the configuration profile before uploading. Jamf currently does not have a way for you to edit the configuration profile in place as of version 10.42. That feature will be included in a later version of Jamf Pro. If you have your own signing certificate, feel free to use that and skip this section of the guide.

1. Open Keychain Access located in /Applications/Utilities.



Keychain Access

2. Select Keychain Access > Certificate Assistant > Request a Certificate From a Certificate Authority.

Keychain Access	File	Edit	View	Window	Help			
About Keychain Access								
Settings		¥,						
Certificate Assistant		>	Open					
Ticket Viewer		ΣЖК	Creat	e a Certificat	e			
Services		>	Creat Creat	e a Certificat e a Certificat	e Authority e For Som	y eone Else a	as a Certificat	e Authority
Hide Keychain Acce	ss	жн	Requ	est a Certifica	ate From a	Certificate	e Authority	
Hide Others		∖сжн	Set th	ne default Ce	rtificate Au	uthority		
Show All			Evalu	ate a Certific	ate			



3. Configure the following:

- A. User Email Address: Enter your email address
- B. Common Name: Enter a name of your choosing. This guide will use HCS-JamfSign
- C. CA Email Address: Leave this blank.
- D. Request is: Select the radio button for Saved to Disk.
- E. Click Continue.

Certificate Assistant	
Certificate Information	
Enter information for the certificate you are requesting. Click Continue to request a certificate from the CA.	
User Email Address: kmitnick@hosonline.com Common Name: HCS-JamfSign CA Email Address: Request is: Emailed to the CA Saved to disk Let me specify key pair information	— A — B — C — D
Continue	—Е

4. Configure the following:

- A. Save as: CSR.txt
- B. Where: Desktop
- C. Click Save



5. Click Done.

	Conclusion
	Your certificate request has been created on disk.
Ċ	Bertificate
	Show In Finder



6. Open the CSR.txt file on your desktop with a text editor of your choice.



7. Copy the entire CSR text.



8. Log into your Jamf Pro Server.





- 9. Click Settings (③) in the upper-right corner.
- 10. Click Global.
- 11. Click PKI Certificates.



- 12. Click Management Certificate Template
- 13. Click Create Certificate from CSR.

Certificate Authorities	Management Certificate Template	JSON Web
	Built-in CA	
CA Subject Name:	CN=Keith Mich	ael Music LL
Developed CA Contractor	Create Cartificate from CSD Create C	A Rackup

- 14. Configure the following:
 - A. Paste in the CSR text that you copied in step 7.
 - B. Certificate Type: Web Server Certificate
 - C. Click Create.

Create Certificate from CSR

	Indicator recit		
	L	8CmfNjP	
	R.	njWARp	
	F	1UKPv7R <mark>e</mark>	-A
	jj k	JOALbi	
	C e	1GdZ3O	
	k F	kivNMzi	
	>	171 x164	
	é	TENO	
	xJe s	1610(9	
	END CERTIFICATE REQUEST	17	
в	Certificate Type Type of certificate to create		
-			
		Cancel Create ()



15. Click Allow.

NOTE: After downloading the file your web browser may need to be refreshed to properly display things in Jamf Pro.



16. The certificate will download to your Downloads folder. Drag the certificate to your Desktop and double-click to open the file.



17. From the Keychain menu, select login.

18. Click Add.

• • •	Add Certificates	
Certificate C=US a keyc	I want to add the certificate(s) from the file ,CN=HCS-JamfSign,E=kmitnick@hcsonline.com.pem" to hain?	
	Keychain: login	— 1
View Certificates	Cancel	— 1

19. In Keychain Access Click your login keychain, you will see the certificate on the right side. Double click on your certificate to see more settings.

•••	Keychain Access	I	Cí Q Search	
Default Keychains	All Items Passwords Secure Notes	My Certificates Keys	Certificates	
🗗 login				
Local Items System Keychains	Certificate Sudder Control Con	usic LLC JSS Built-in Ce 2022 at 7:18:11 PM East	rtificate Authority ern Daylight Time	
A System				
💼 System Roots	Name	Kind	Date Modified	E
	<pre> <key></key></pre>	public key		
	<pre></pre>	private key		
	Apple Persistent State Encryption	application password	Jun 7, 2021 at 4:27:44 PM	
	/ com.apple.scookmarksagent.xpc	application password	Jun 2, 2021 at 10:03:47 PM	-
	Com.jamfsoftwfService.privatekey	private key		
	Com.jamfsoftwIfService.publickey	public key		
	handoff own oncryption key	Handoff Encryption	Jun 4, 2021 at 8:12:10 DM	-
	HCS-JamfSign	certificate		
	1100 Jamf0ign	public key		-
	HCS-JamfSign	private key		
	· · · · ·			



20. Expand (>) Trust to view the settings.

• • •	HCS-JamfSign
Certificate ↓ rust ✓ Details	Sign eith Michael Music LLC JSS Built-in Certificate Authority sday, June 9, 2022 at 7:18:11 PM Eastern Daylight Time icate is valid
Subject Name Country or Region	US
Common Name Email Address	HCS-JamfSign kmitnick@hcsonline.com
Issuer Name	
Common Name	Keith Michael Music LLC JSS Built-in Certificate Authority
Serial Number	2609016175
Version Signature Algorithm Parameters	3 SHA-256 with RSA Encryption (1.2.840.113549.1.1.11) None
Not Valid Before Not Valid After	Tuesday, June 8, 2021 at 7:18:11 PM Eastern Daylight Time Thursday, June 9, 2022 at 7:18:11 PM Eastern Daylight Time

21. On the first item, When using this certificate section, click the menu and select Always Trust.

•••	н	CS-JamfSign						
Certificate	HCS-JamfSign Issued by: Keith Michael Music LLC JSS Built-in Certificate Authority Expires: Thursday, June 9, 2022 at 7:18:11 PM Eastern Daylight Time This certificate is valid							
✓ Trust					_			
Wh	en using this certificate:	Use System Default	s ᅌ	?				
Secu	re Sockets Layer (SSL)	no value specified	0		-			
	Secure Mail (S/MIME)	no value specified	0					
Extensib	le Authentication (EAP)	no value specified	0					
	IP Security (IPsec)	no value specified	0					
	Code Signing	no value specified	0					
	Time Stamping	no value specified	0					
	X.509 Basic Policy	no value specified	0					

22. Close the window.

••	HCS-JamfSign						
Certificate	HCS-JamfSign Issued by: Keith Michael Music LLC JSS Built-in Certificate Authority Expires: Thursday, June 9, 2022 at 7:18:11 PM Eastern Daylight Time This certificate is valid						
✓ Trust							
When using this certificate:		Always Trust	; €				
Secure Sockets Layer (SSL)		Always Trust	•				
	Secure Mail (S/MIME)	Always Trust	\bigcirc				
Extensib	le Authentication (EAP)	Always Trust	\bigcirc				
IP Security (IPsec)		Always Trust	\bigcirc				
Code Signing		Always Trust	\bigcirc				
	Time Stamping	Always Trust	\bigcirc				
	X.509 Basic Policy	Always Trust	•				



23. Enter your admin credentials and click Update Settings.

You are mak Trust Settin Enter your pas	ting chan gs. sword to al	ges to you low this.	r Certificate
User Name:	keith		
Password:			
		Cancel	Update Settings

24. Confirm the certificate shows up as trusted. Quit Keychain Access.

•••	Keychain Access		C i Q Search
Default Keychains	All Items Passwords Secure Note	es My Certificates Keys	s Certificates
🗗 login			
Local Items System Keychains System	Certificate MCS-JamfSign Issued by: Keith Michae Expires: Thursday, Jun This certificate is ma	el Music LLC JSS Built-in C e 9, 2022 at 7:18:11 PM Eas arked as trusted for this acc	ertificate Authority <u>tern Daylight Time</u> count
System Roots	Name	^ Kind	Date Modified
	<pre></pre>	public key	
	💡 <key></key>	private key	
	/ Apple Persistent State Encrypt	ion application password	Jun 7, 2021 at 4:27:44 PM
	com.apple.scookmarksagent.	xpc application password	Jun 2, 2021 at 10:03:47 PM
	com.jamfsoftwfService.private	ekey private key	
	com.jamfsoftwlfService.public	ckey public key	
	🎾 handoff-own-encryption-key	Handoff Encryption	Jun 4, 2021 at 8:12:19 PM
	🛐 HCS-JamfSign	certificate	
	P HCS-JamfSign	public key	
	HCS-JamfSign	private key	

In the next section, we will create a configuration profile to manage Login and Background items using the iMazing Profile Editor application.

This completes this section.



Section 3: Create a Configuration Profile to Manage Login and Background Items

In this section we will create a configuration profile using iMazing Profile Editor. This configuration profile will allow you to manage Login and Background items. To follow along with this guide you will need the following:

- A Mac running macOS 13.0 or later enrolled in your Jamf Pro server version 10.42 or later.
- Administrative access to your Jamf Pro Server 10.42 or later.
- A code signing certificate. If you don't have one, refer to section 2 of this guide to create one.
- iMazing Profile Editor Installed in section 1 of this guide.
- Dropbox and Zoom Installed in section 1 of this guide.
- 1. Go to your Applications folder and open iMazing Profile Editor.



- 2. Click the iMazing Profile Editor menu
- 3. Select Preferences.

iMazing Profile Editor File E About iMazing Profile Editor Check for Updates Check for Manifest Repository Up	Edit Payload
Preferences	ж,
Services	>
Hide iMazing Profile Editor Hide Others Show All	нж Нж 7
Quit iMazing Profile Editor	жQ

- 4. Enter the following:
 - A. Default organization name: Enter your organization name. This guide will use HCS Technology Group
 - B. Default identifier prefix: This will use a reverse DNS nomenclature. This guide will use com.hcs
 - C. Default signing identity: Select your signing certificate. This guide will use HCS-JamfSign
 - D. Close the window when done.
 - E. Quit the iMazing Profile Editor application and re open it. This will allow us to use the new settings.

	Defaults	
	Defaults Mainfests Maintenance	
Default organization name:	HCS Technology Group	
Default identifier prefix:	com.hcs	
Default consent message:		
Default signing identity:	HCS-JamfSign	
	Set last used values as defaults on profile save	
Behavior:	Vuset boolean properties when toggled to their known default value	
	Use Option-click to force-set a boolean default value.	



- 5. Select the General payload then enter the following:
 - A. Name: Managed Login and Background Items
 - B. Notice the Identifier and Organization are now configured with the settings we entered in step 4.
 - C. Profile Signing: Select your signing certificate. This guide will use HCS-JamfSign



- 6. Click Service Management Managed Login Items Payload
- 7. Click Add Configuration Payload.





8. Click Add (+) to add a new Rule.

• • •		Untitled	च∎ macOS	iOS tvOS C Q Search Preferences	0
• 🗮	Service Management - Ma macOS	Sei	rvice Management	- Managed Login Items	
vailable S	system Domains	Control the user expe	erience for ServiceManagemen daemons) in Login Ite	t login items (including launchd agents and ms Settings.	(macOS 13.0 *)
• •	macOS, iOS, and tvOS Domains macOS and iOS	Service Manage	ment - Managed Log	in Items	
609	Global HTTP Proxy macOS, iOS, and tvOS	Rules An array of rule dictionaries.			
	DNS Proxy macOS and IOS	Rule Type	Rule Value	Comment	
\heartsuit	Web Content Filter macOS and IOS				
	Certificate macOS, iOS, and tvOS				
	Certificate Transparency macOS, iOS, and tvOS				
S.	Passcode macOS and iOS	+ -			
((i.	Wi-Fi macOS, iOS, and tvOS	Required			
×	VPN macOS and IOS				
	AirPlay macOS and iOS				
	AirPlay Security tvOS				
	AirPrint macOS and iOS				
	Calendar macOS and iOS				

9. Confirm the following fields: Rule Type, Rule Value, Rule Comment

• • •		Untitled	=	macOS iOS tvOS	C Q Search Preferences	0	
• 🚍	Service Management - Ma macOS		Service Mana	gement – Man	aged Login Items		
Available S	System Domains	Control the u	iser experience for Service daemon	Management login items) in Login Items Settings	(including launchd agents and	(macOS 13.0 4)	
ŀ	Restrictions macOS, iOS, and tvOS	Comico Ma	nonement. Men	and Lowin House			
(5)	Domains macOS and iOS	Service Management - Managed Login Items					
609	Global HTTP Proxy macOS, iOS, and tvOS	Rules	tionaries				
	DNS Proxy macOS and IOS	Rule Type	Rule Val	90	Comment		
\bigtriangledown	Web Content Filter macOS and iOS						
	Certificate macOS, iOS, and tvOS						
	Certificate Transparency macOS, iOS, and tvOS						
C,	Passcode macOS and IOS	+ -					
¢.	Wi-Fi macOS, iOS, and tvOS	Required					



- 10. Select the Rule Type menu. There are five types of rules:
 - A. BundleIdentifier: The bundle identifier of the app to match, which must be an exact match.
 - B. BundleldentifierPrefix: The prefix of the bundle identifier of the app to match.
 - C. Label: The value of the launchd plist Label parameter to match, which must be an exact match.
 - D. LabelPrefix: The prefix of the launchd plist Label parameter to match.
 - E. TeamIdentifier: The team identifier from the code signing attributes, which must be an exact match.
- 11. Select Label from the menu.

NOTE: Only use a LabelPrefix if it's absolutely necessary as it can cause malicious software to leverage an existing LabelPrefix. For example, if you use a LabelPrefix for com.apple, anything that uses that prefix will be trusted. I.E. com.apple.maliciousSoftware.

• • •	•	Untitled		🗟 macOS iOS	tvOS 🗔	Q Search Preferences	0
• 📰	Service Management - Ma macOS	Ser	vice Mar	nagement – N	/lanage	d Login Items	
Available S	ystem Domains	Control the user expen	rience for Ser daerr	viceManagement login ions) in Login Items Se	i items (inclu ettings.	iding launchd agents and	macOS 13.0 %
+	macOS, iOS, and tvOS	Service Manager	nent - Ma	naged Login It	ome		Ē
G	Domains macOS and iOS	Bundleldentifier BundleldentifierPrefix	- IVIC	inagea Login it	ema		
50 ⁹	Global HTTP Proxy macOS, IOS, and tvOS	Label					
	DNS Proxy macOS and iOS	TeamIdentifier	Rule	Value	Com	ment	
\bigtriangledown	Web Content Filter macOS and iOS						
	Certificate macOS, iOS, and tvOS						
	Certificate Transparency macOS, IOS, and tvOS						
S	Passcode macOS and iOS	(+ -					

12. Open Terminal from /Applications/Utilities.



- 13. In order to find the information needed to set up the Rule Type and Rule Value, we can run the command below to print out a list of all currently added Login and Background items.
 - A. Run this command: sudo sfltool dumpbtm
 - B. Enter your administrative credentials.
 - C. A list of all Login and Background items with their information is printed to the screen.

• • •	🛅 keith — -zsh — 143×50	
keith@MacBook-Air ~ <mark>%</mark> s Password: Records for UID -2 : F	udo sfltool dumpbtm = FFEEEE-DDDD-CCCC-BBBB-AAAAFFFFFFE =	
ServiceManagement migr SharedFileList migrate	ated: true 1: false	
Items:		
#1:		1
UUID:	JD5C1/0A-3981-4DEA-8961-/668CDEC89FD	
Developer Name:	Jamf Solf Service	
Type:	managed curated developer (0xa0020)	
Disposition	disable allowed visible not notified (2)	
Identifier:	land Self Service	
URI :		
Generation:	2	
Embedded Item Identif	iers:	
#1: com.jamfsoftwar	e.task.Every 15 Minutes	
#2:		<u> </u>
UUID:	38EF0CE5-864A-4F58-ABDD-3B54231B1802	
Name:	Jamf.app	
Developer Name:	Jamf Self Service	
Team Identifier:	483DWKW443	
Type:	managed curated legacy daemon (0xb0010)	
Disposition:	[enabled, allowed, visible, notified] (11)	
Identifier:	com.jamf.management.daemon	
URL:	file:///Library/LaunchDaemons/com.jamf.management.daemon.plist	
Executable Path:	/Library/Application Support/JAMF/Jamf.app/Contents/MacOS/JamfDaemon.app/Contents/MacOS/JamfDaemon	
Generation:	2	
Assoc. Bundle IDs:	[com.jamfsoftware.selfservice.mac]	
Parent Identifier:	Jamf Self Service	



14. Scroll down the list until you find us.zoom.ZoomDaemon. Copy this info.

• • •	🛅 keith — -zsh — 143×50
#4:	
UUID:	7A5F398E-85FE-484F-A99E-92BE2D82CDEF
Name:	Zoom
Developer Name:	Zoom
Type:	curated developer (0x80020)
Disposition:	[disabled, allowed, visible, not notified] (2)
Identifier:	Zoom
URL:	(null)
Generation:	0
Embedded Item Identi	fiers:
#1: us.zoom.ZoomDae	emon
#5:	
UUID:	A65D8C6A-0C93-42A0-80C8-10C69D18DCCB
Name:	us.zoom.ZoomDaemon
Developer Name:	Zoom
leam Identifier:	BJ4HAAB9B3
Type:	curated legacy daemon (0x90010)
Disposition:	[enabled, allowed, visible, notified] (11)
Identifier:	us.zoom.ZoomDaemon
URL:	tile:///Library/LaunchDaemons/us.zoom.zoomDaemon.plist
Executable Path:	/Library/PrivilegedHelperloois/us.zoom.zoomDaemon
Generation:	1
Assoc. Bundle IDS:	LUS.ZOOM.XOS J
	7

- 15. Switch back to the iMazing Profile Editor and enter the following:
 - A. Rule Type: Label
 - B. Rule Value: us.zoom.ZoomDaemon (this is case sensitive so enter as shown)
 - C. Comment: Enter a description. This guide will use ZoomDaemon
 - D. Click Add (+).

NOTE: Zoom installs a daemon as a Background Item during the install. Using a Label Rule Type will allow you to manage it.

• • •	•	Untitled	-9	macOS iOS tvO	S C Q Search F	Preferences	0
• 🚍	Service Management - Ma macOS		Service Mana	gement – Ma	naged Login I	tems	
Available S	system Domains	Control the use	er experience for Service daemons	Management login iter) in Login Items Settin	ns (including launchd a	agents and macOS 13.0 4	
+	Restrictions macOS, iOS, and tvOS	• · · ·					
(*)	Domains macOS and iOS	Service Man	agement - Mana	iged Login Item	IS	_	
50 ⁹	Global HTTP Proxy macOS, iOS, and tvOS	• Rules An array of rule dictio	nares.				— A
	DNS Proxy macOS and iOS	Rule Type	Rule Valu		Comment ZoomDaemon		
\bigtriangledown	Web Content Filter macOS and IOS	Laber	V 43.25011		Zoombachon		—с —в
	Certificate macOS, iOS, and tvOS						_
6	Certificate Transparency macOS, iOS, and tvOS						
C,	Passcode macOS and iOS	+ -					
(((t)-	Wi-Fi macOS, iOS, and tvOS	Required		— D			



16. Scroll down the list until you find com.getdropbox.dropbox. Copy this info.

• • •	🛅 keith — -zsh — 143×50
URL:	(null)
Generation:	1
#0 ·	
#2:	RRD7/58E_3EF8_/887_8/76_E8E3D803/070
Name:	
Developer Name:	
Team Identifier:	G7HH3F8CAK
Type:	curated legacy agent (0x90008)
Disposition:	[enabled, allowed, visible, notified] (11)
Identifier:	com.dropbox.DropboxMacUpdate.agent
URL:	file:///Users/keith/Library/LaunchAgents/com.dropbox.DropboxMacUpdate.agent.plist
Executable Path:	/Users/keith/Library/Dropbox/DropboxMacUpdate.app/Contents/MacOS/DropboxMacUpdate
Generation:	
Assoc. Bundle IDs: Parent Identifier:	Lcom.getaroppox.aroppox
Falent Identifier.	
#3:	
UUID:	3944E130-61E5-4983-AF08-97FDBD25E41F
Name:	Dropbox
Developer Name:	(null)
Team Identifier:	G7HH3F8CAK
Type:	app (0x2)
Disposition:	[enabled, allowed, Visible, Notified] (11) identifiar mean and repeated dependent apples apply appreciated actificate 1[field 1, 2, 840, 112425, 100, 4, 2, 4] /# evictor
tuentificate le	Identifier com.getdroppox.droppox and anchor apple generic and certificate [[1edd:1.2.640.116655.100.0.2.6] /* exists afficiate leaf [[ubid:1.2.640.116655.100.0.2.6] /* exists
URI :	file:///Annications/bronbux.ann/
Generation:	
Bundle Identitier:	com.getdropbox.dropbox

17. Switch back to the iMazing Profile Editor and enter the following:

A. Rule Type: BundleIdentifier

B. Rule Value: com.getdropbox.dropbox (this is case sensitive so enter as shown)

C. Comment: Enter a description. This guide will use Dropbox-Menubar-Login-Item D. Click Add (+).

NOTE: Dropbox installs a Login Item to launch it's Menu Bar item and also adds a Background Item during the install. Using a BundleIdentifier Rule Type will allow you to manage the login item.

• • •		Untitled		macOS iOS tv0	S C Q Search	h Preferences	0	D
• 🚍	Service Management - Ma macOS		Service Man	agement – Ma	naged Logir	1 Items		
Available S	ystem Domains	Control the user	experience for Servi daemo	ceManagement login ite ns) in Login Items Settii	ms (including launch 1gs.	d agents and	macOS 13.0 *	
*	Restrictions macOS, iOS, and tvOS	Comico Man	anamant Mar	and Leavin Mar				
۲	Domains macOS and iOS	Service Mana	agement - Mai	laged Login iter	ns			
50 ⁹	Global HTTP Proxy macOS, iOS, and tvOS	• Rules An array of rule diction	aries.					- A
	DNS Proxy macOS and iOS	Rule Type	Rule V	alue	Comment ZoomDaemon			
\bigtriangledown	Web Content Filter macOS and IOS	Bundleldentifie	er com.g	etdropbox.dropbox	Dropbox-Menuba	r-Login-Item 📍		-c
	Certificate macOS, iOS, and tvOS			_				— В
â	Certificate Transparency macOS, iOS, and tvOS							
C,	Passcode macOS and iOS	+ -						
(();-	Wi-Fi macOS, iOS, and tvOS	Required		D				



18. Scroll down the list until you find Team Identifier for zoom shown below. Copy this info.

• • •	🛅 keith — -zsh — 143×50
URL:	(null)
Generation:	1
#2.	
#2:	RRD7/58E_3FE8_/887_4/C0_F8F3D8C3/D70
Name:	DroboxMacUpdate.app
Developer Name:	Dropbox
Team Identifier:	G7HH3F8CAK
Type:	curated legacy agent (0x90008)
Disposition:	[enabled, allowed, visible, notified] (11)
Identifier:	com.dropbox.DropboxMacUpdate.agent
URL:	Tile;///Users/keith/Library/Launchagents/com.dropbox.DropboxMacUpdate.agent.plist
Generation:	1
Assoc. Bundle IDs:	[com.getdropbox.dropbox]
Parent Identifier:	Dropbox
#3:	
UUID:	3944E130-61E5-4983-AF08-97FDBD25E41F
Name:	
Team Identifier	G7HH3EBCAK
Type:	
Disposition:	[enabled, allowed, visible, notified] (11)
Identifier:	identifier "com.getdropbox.dropbox" and anchor apple generic and certificate 1[field.1.2.840.113635.100.6.2.6] /* exists
/ and certificate le	af[field.1.2.840.113635.100.6.1.13] / exists */ and certificate leaf[subject.OU] = G7HH3F8CAK
URL:	<pre>tile:///Applications/Dropbox.app/ </pre>
Generation:	1 com sotdranbox dranbox
DUNULE IDENTITIET:	com. Bergroppox.groppox

- 19. Switch back to the iMazing Profile Editor and enter the following:
 - A. Rule Type: TeamIdentifier
 - B. Rule Value: G7HH3F8CAK (this is case sensitive so enter as shown)
 - C. Comment: Enter a description. This guide will use Dropbox

NOTE: Dropbox installs a Background Item during the install. Using a TeamIdentifier Rule Type will allow you to manage it.

• • •	•	Untitled		macOS iOS tvC	s 🕞	Q Search Preferences		0		
• 🚍	Service Management - Ma macOS	S	Service Manag	gement – Ma	nage	d Login Items				
Available S	system Domains	Control the user e	xperience for Servicel daemons	Management login ite) in Login Items Settir	ms (inclu gs.	ding launchd agents and	macOS 13.0 4			
	Restrictions macOS, iOS, and tvOS		romant Mana	and Login Iton						
۲	Domains macOS and iOS	Service Manag	Service management - managed Login Items -							
50 ⁹	Global HTTP Proxy macOS, iOS, and tvOS	• Rules An array of rule dictionar	ies.					A		
	DNS Proxy macOS and iOS	Rule Type	Rule Valu	e .ZoomDaemon	Comm	nent Daemon				
\bigtriangledown	Web Content Filter macOS and iOS	Bundleldentifier Teamldentifier	↓ com.get@ ↓ G7HH3F	dropbox.dropbox 8CAK	Dropt	oox-Menubar-Login-Item		—с		
8	Certificate macOS, iOS, and tvOS		L					—в		
8	Certificate Transparency macOS, iOS, and tvOS									
Q	Passcode macOS and iOS	+ -								
(i.	Wi-Fi macOS, iOS, and tvOS	Required								



20. Save the Payload.

File	Edit	Payload	View	Win
New			0	₩N
Open.			G	жo
Open	Recent	t		>
Close				₩W
Save				≭ S
Save	As		ۍ د ک	₿ S
Save	to iMaz	ing Librar	y ^s	₿S
Show Install	in Find Profile	er e on this N	1ac	

- 21. Enter the following:
 - A. Save As: Managed Login and Background Items
 - B. Where: Desktop
 - C. Sign profile with: Select your signing certificate. This guide will use HCS-JamfSign
 - D. Click Save

Save As:	Managed Login and Backg	round Ite	——A
Tags:			
Where:	🛅 Desktop	O	B
		~	
Sign profile with	HCS-JamfSign		C
	Cance	Save	D

22. Enter your password at the message below and click Always Allow.

	iMazing Profile Editor w "HCS-JamfSign" in you To allow this, enter the "logi	vants to sign u ur keychain. n″ keychain pass	using key word.
	Password:		
?	Always Allow	Deny	Allow

23. Confirm the file was saved to your Desktop.





24. Log in to your Jamf Pro server with administrative credentials.



- 25. Click Computers
- 26. Click Configuration Profiles.
- 27. Click Uplaod.

	🗖 jamf PRO	<u>£</u> 🖗 🕸	
25—	Computers Devices Users	Computers Configuration Profiles	27
	Policies	▼ Q. Filter Pr 1-32 of 32 + New	
26—	Image: Configuration Profiles Image: Configuration Profiles <td>NAME LOGS COMPLETED PENDING FAILED SCOPE</td> <td></td>	NAME LOGS COMPLETED PENDING FAILED SCOPE	

28. Click Choose File.

Upload OS X Configuration Profile



- 29. Navigate to the Desktop and select the Managed Login and Background Items configuration profile.
- 30. Click Upload.





31. Click Upload.

Upload OS X Configuration Profile

Choose File	Managed Login and Background Items.mobileconfig	
	Cancel	

- 32. Notice the profile is signed.
- 33. Select a Category of your choosing. This guide will select Managed Items.

	Scope						
ିକ୍ଟ୍ General		SIGNED PROFILE This profile is read-only because it is signed.	Remove Signature				
	Ge	eneral					
	Nar	ne Display name of the profile					
	М	anaged Login and Background Items					
	Des	icription Brief explanation of the content or purpose of the profile					
	Cat	legory Category to add the profile to					
	м	Managed Items V					
	Lev	Level Level at which to apply the profile					
	Ce	omputer Level 🔻					
			⊗ 🖺				
			Cancel Save				
4. Click Sco	ppe. d.						
Computers : ← New Options	Configuration Profiles macOS Configuration Scope	n Profile Signed					
5. Click Ad Computers : ← New Options	Configuration Profiles macOS Configuration Scope Targets	n Profile Signed	Exclusions				
5. Click Ad Computers : ← New Options	Configuration Profiles macOS Configuration Scope Targets	Profile Signed Limitations Users Users to distribute the profile to	Exclusions				



36. Add a Mac of your choosing by clicking Add.

ptions Scope					
Targ	gets	Limitat	ions	Excl	lusions
Deployment Tar	gets				Dor
l Deployment Tar	gets Computer Groups	Users	User Groups	Buildings	Dor

37. Click Save.

Targets		Limitat	ons	Excl	usions
dd Deployment Targets					Done
Computers Co	emputer Groups	Users	User Groups	Buildings	Departments
Filter Re 1-1 of 1					
ME					

38. Confirm the configuration profile was deployed successfully.

🗳 jamf PRO						L 🍾 🏟
Computers Devices Users	Computers Configuration Profiles					
INVENTORY	✓ Q Filter Pr 1-3 of 3				+ New 🟥 🛙	Jpload 📃 🔠
Search Inventory	NAME	LOGS	COMPLETED	PENDING	FAILED	SCOPE
Licensed Software	 Managed Items 					
Policies	Managed Login and Background Items	View	1	0	0	1 computer



39. Open System Settings



40. Click General

4

41. Click Login Items.

		0	
	•••	General	
	Q Search	About >	
	Sign in with your Apple ID	Software Update >	
	🛜 Wi-Fi	Storage >	
	Bluetooth	AirDrop & Handoff	
	Notifications	E Login Items	<u> </u>
	Sound	Language & Region >	
	Focus	C Date & Time	
40—	Seneral	Sharing >	
	Appearance	Time Mashine	
	C Accessibility		
	Control Center	S Transfer or Reset	
	Siri & Spotlight	Startup Dick	
	Privacy & Security		

42. Confirm the Login Item for Dropbox is now managed as well as all the Background Items. The toggle switch is greyed out and cannot be modified.

•••	< Login Items			
Q Search	Open at Login These items will open aut	tomatically when you log in.		
Sign in with your Apple ID	Item	Kind		
 ☞ Wi-Fi Bluetooth 	Dropbox	Application		
🛞 Network	+ -			
Notifications	Allow in the Backgrou Applications add backgro open, such as checking fo background item may pre	und und items to perform tasks when the application or software updates or syncing data. Turning off event these tasks from being completed.	n isn't a	Items grayed out and cannot be modified
Screen Time	Dropbox This item is mana	ged by your organization.		
General Appearance	Jamf Self Servi This item is mana	ice Iged by your organization.		
Accessibility	Zoom This item is mana	ged by your organization.		
Siri & Spotlight			?	

In the next section, we will go over some command line tools and other helpful files for viewing information related to Login and Background items.

This completes this section.



Section 4: Identifying Applications Using Login and Background Items

In this section we will discuss ways to identify applications that are using Login and Background items. To follow along with this section you will need the following:

- A Mac running macOS 13.0 or later enrolled in your Jamf Pro server version 10.42 or later.
- Administrative credentials on the Mac.

It's important to be aware of any items that use helper applications and executables that are deployed and registered with the SMAppService framework. There are command line tools that can assist with gathering pertinent information about Login and Background items.

Here are a list of helpful tools:

- Terminal
- Console
- attributions.plist
- 1. Open Terminal in /Applications/Utilities.



Termina

- 2. There are helpful Terminal commands to gather information on login and background items.
 - A. **sudo sfltool dumpbtm** Prints the current status of login and background items, including loaded servicemanagement payload UUIDs.



B. **sudo sfitool resetbtm** - Resets login and background item data. This is useful when testing managed background items. A reboot is recommended when running this command. The pictures below show their Login and Background items before and after the sudo sfltool resetbtm command was ran.

•••	< Login Items		
Q Search	Open at Login These items will open au	tomatically when you log in.	
U Focus			
Screen Time		Application	
🚫 General		, pp. 100 tott	
Appearance			
(1) Accessibility	+ -		
Control Center	Allow in the Beelerro		
Siri & Spotlight	Applications add backgro	ound items to perform tasks when the application isn	ı't
Privacy & Security	open, such as checking f background item may pre	or software updates or syncing data. Turning off a event these tasks from being completed.	
 Desktop & Dock Displays 	Dropbox 1 item	im	
🛞 Wallpaper	This item is mana	aged by your organization.	
Screen Saver	7		
Battery	1 item: 1 item affe	ects all users	Refore
•••	< Login Items		
Q Search	Open at Login These items will open aut	omatically when you log in.	
Focus	Itam	Kind	
Screen Time	item	Killa	
Seneral			
O Appearance	+ -		
(1) Accessibility	and the second s		
Control Center			? After

You can also stream the logs and get real time log information using the following command:



3. Open Console in /Applications/Utilities.





- 4. You can monitor Login and background item management activity using the Console application by searching on the following:
 - subsystem:backgroundtaskmanagement
 - category:mcx

In the search field enter backgroundtaskmanagement then press the return key. Click the filter menu and select Subsystem from the list.

	Console 0 messages	€ S % ⊗ C 8 C	ANY - backgroundtaskmanag
Pevices Reports A Crash Reports Crash Reports	All Messages Errors and Faults	Start Now Activities Clear Reload Info Share No Messages Streaming log messages will impact system performance. ③ Start streaming	 Any Date & Time Process Process Path PID Library Library Path Thread ID Message Message ID Subsystem Category Activity ID Contains Does Not Contain Equals Does Not Equal

5. In the search field after the word backgroundtaskmanagement enter mcx then press the Return key.

•••	Console 0 messages) Start	S Now	م Activities	⊗ Clear	ر Reload	() Info	1 Share	C UBSYSTEM - backgroundtaskmanag mcx)
Devices	All Messages Errors and Faults								Save	j
keith's MacBook Air										

6. Click the filter menu and select Catergory from the list.

•••	Console O messages	Start Now Action	S ⊗	උ Reload	¹ Info Sha) Q	UBSYSTEM 🗸	backgroundtaskmanag	ANY ✓ Any
Devices	All Messages Errors and Faults								Date & Time
keith's MacBook Air									Process
Penorts									Process Path
A Crash Reports									PID
A crash reports									Library
🛞 Spin Reports									Library Path
E Log Reports									Thread ID
Se Diagnostic Reports									Message
									Message Type
Mac Analytics Data			No Moss	2000					Message ID
System.log			140 141655	ayes					Subsystem
		Streaming log m	nessages will im	pact syste	m performa	ance.			Category
			 Start stre 	aming					Activity ID

7. You can save this search for future use by clicking Save.





- 8. Save the search as Background Task Management.
- 9. Click Save.

Save Search As:	Background Task Management	
	Cancel	Save

10. The item shows up in the Saved Search bar. The next time you need to perform this search, just click on it.

•••	Cons 0 mes	sole ssages) Start	S Now	ج Activities	(X) Clear	ر Reload	() Info	(¹) Share	Q	SUBSYSTEM ~	back	kgroundtaskmanag	. C.
Devices		All Messages	Errors and Faults	Background Ta	isk Mar	nagement									

11. macOS 13.0 includes a file named attributions.plist which contains a listing of helper applications and executables used by a specific application. This will help you identify what applications and executable files show up in a users login items at startup. The file contains a myriad of information like TeamIdentifier, BundleIdentifiers, and Program Arguments. The file is located at the path below.

/System/Library/PrivateFrameworks/BackgroundTaskManagement.framework/Versions/A/Resources/attributions.plist

• • • attributions.plist Edited	+ Add	Ø Edit Value	Duplicate	Delete	Binary	CT Format	∱↓ Sort	Q Find
Key			^ Туре		Value			
 containsynchq.msync.uaemon 			Dictiona	' y				
∨ com.jamf.management.agent			Dictiona	ry	4 items			
Attribution			String		Jamf Self	Service		
TeamIdentifier			String		\$ 483DWK	W443		
✓ ProgramArguments			Array		2 items			
ltem 0			String		≎ /usr/loc	al/jamf/bin/jam	f	
ltem 1			String		userLogi	nNotification		
 AssociatedBundleIdentifiers 			Array		🗘 1 item			
ltem 0			String		com.jam	fsoftware.selfse	rvice.ma	c
> com.jamf.management.daemon			Dictiona	ry	4 items			
> com.jamfsoftware.startupItem			Dictiona	ry	3 items			
> com.jamfsoftware.task.checkForTasks			Dictiona	ry	4 items			
> com.jamfsoftware.task.Every 15 Minutes			Dictiona	ry	4 items			
> com.jamfsoftware.task.Every 60 Minutes			Dictiona	ry	4 items			
> com.logi.cp-dev-mgr			Dictiona	ry	5 items			
> com.logi.ghub			Dictiona	ry	5 items			
> com.logi.ghub.updater			Dictiona	ry	4 items			



Section 5: Managing Login and Background Item Notifications

In this section we will create a configuration profile to manage Login and Background item Notifications as shown below.



To follow along with this section you will need the following:

- A Mac running macOS 13.0 or later enrolled in your Jamf Pro server version 10.42 or later.
- Administrative credentials on your Jamf Pro Server.

NOTE: This section is optional. If you have a need for your users to see these notifications you can skip this section.

1. Log in to your Jamf Pro server with administrative credentials.



- 2. Click Computers
- 3. Click Configuration Profiles.
- 4. Click New.

	🗖 jamf PRO		L 🦑 @
2	Computers Devices Users	Computers Configuration Profiles	4
~		Q Filter Pr 1 - 32 of 32	+ New
3	Configuration Profiles Restricted Software	NAME LOGS	COMPLETED PENDING FAILED SCOPE



4. Enter the following:

- A. Name: Managed Login and Background Item Notifications B. Category: Select a category of your choosing. This guide will use Managed Items.

Coi ←	mputers : Configuration Profiles - New macOS Configura	ation Profile			
(Options Scope				
©_	General	General			
P	Passcode Not configured	Managed Login and Background Item Notifications		•	——A
e)])	Network Not configured	Description Brief explanation of the content or purpose of the profile			
ß	VPN Not configured	Category Category to add the profile to			—— B
æ	DNS Settings Not configured	Level Level at which to apply the profile			J
æ	DNS Proxy Not configured	Distribution Method to use for distributing the profile			
ً	Content Caching Not configured	Install Automatically • Redistribute Profile After Amount of time after which to redistribute the profile			
<u> </u>	Certificate Not configured	Never *	(X) Cancel	E Save	

5. Click the Notifications Payload
 6. Click Add.

(Options Scope		
ē	Login Window Not configured	Notifications	Remove all + Add
	Dock Not configured	Use the switch to enable the setting conliguration (macUS IOLS or later)	
/:\	Mobility Not configured		
Q	Notifications Not configured		
¢	Printing Not configured		
Ťŧ	Parental Controls Not configured		
٢	Security and Privacy Vot configured		
\$	Privacy Preferences Policy Control		× =



- 7. Enter the following:
 - A. App Name: Managed Login and Background Items
 - B. Bundle ID: com.apple.btmnotificationagent
 - C. Turn on Critical Alerts
 - D. Click Disable
 - E. Turn on Notiifications:
 - F. Click Disable
 - G. Click Scope

	Scope		
<u>a</u>	Login Window Not configured	Notifications Involved configured	
	Dock Not configured	Managed Login and Background Items Bundle ID: com.apple.btmnotficationagent X	
/1\	Mobility Not configured	Settings configured: 2 App Name Bundle ID	-,
Ą	Notifications 1 payload configured	Managed Login and Background Items	— E
¢	Printing Not configured	Settings Include Critical Alerts Disable Enable	_ (
<i>τ</i> *	Parental Controls Not configured	Critical Alerts can ignore Do Not Disturb and ringer settings for this app Notifications Disable Enable	- 6
۲	Security and Privacy ~ Not configured	Allow notifications to be displayed for this app Banner alert type Banner alert sappear in the upper-diph correr. Temporary banners clear automatically and persistent banners	
۲	Privacy Preferences Policy Control Not configured	require the end user to take action before clearing. Temporary Image: Clearing to the	

9. Click Save.

Options Scope		
Targets	Limitations	Exclusions
Target Computers Computers to assign the profile to Specific Computers	Target Users Users to distribute the profile to • Specific Users	
elected Deployment Targets		+ Add
RGET	ТҮРЕ	
eith's MacBook Air	Computer	Remove

10. To make scoping configuration profiles for Login and Background items easier, In Jamf Proversion 10.42 or later, create a Smart Computer Group with a Profile Identifier of com.jamf. servicemanagement.backgroundapps and scope both your Managed Login Items and Notifications payloads to that Smart Computer Group. This will allow you to deploy the configuration profiles only to Mac running macOS 13.0.

This completes this guide.