



# Casper Suite Administrator's Guide

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# Preface

# About This Guide

This guide contains overviews about Casper Suite features and instructions for performing administrative tasks using the Casper Suite. It does not prescribe administrative workflows or strategies but is intended to be used as a reference.

Before using the instructions in this guide, the JAMF Software Server (JSS) must be installed.

To learn about the other Casper Suite-related documentation, including documentation about installing and configuring the JSS, see the following section in this guide:

[Additional Resources](#)

# Additional Resources

For more information on Casper Suite-related topics, see the following resources:

- *Casper Suite Release Notes*

The release notes include a list of new features, bug fixes, and known issues. They also explain how to upgrade the JSS, and what you need to do to take advantage of new features. Release notes for the most recent version of the Casper Suite are available in the Casper Suite DMG, and at:  
<http://www.jamfsoftware.com/product-documentation/release-notes>
- JAMF Software Server installation and configuration guides

These guides provide information on installing and setting up the JSS on supported Mac, Linux, and Windows platforms. They also explain how to perform advanced configuration and troubleshooting tasks. They are available at:  
<http://www.jamfsoftware.com/product-documentation/installation-guides>
- *Manually Installing the JAMF Software Server*

This technical paper explains how to manually install the JSS on Linux and Windows platforms. You can download it from:  
<http://www.jamfsoftware.com/product-documentation/installation-guides>
- QuickStart Guides

The *QuickStart Guide for Managing Computers* and the *QuickStart Guide for Managing Mobile Devices* serve as a starting point for new Casper Suite administrators. They provide simplified workflows for performing basic administrative tasks, such as inventory and software distribution, and they reference related sections in the *Casper Suite Administrator's Guide*. Both QuickStart Guides are available in the Casper Suite DMG, and at:  
<http://www.jamfsoftware.com/product-documentation/quickstart-guides>
- Technical papers

JAMF Software technical papers provide best-practice, step-by-step workflows for using the Casper Suite to administer third-party software, such as Adobe Creative Suite or FileVault 2. They are available at:  
<http://www.jamfsoftware.com/technical-papers>
- JAMF Nation

The JAMF Nation community website contains several different types of resources related to the Casper Suite. It allows you communicate with other Casper Suite administrators via discussions, submit feature requests, and access the Knowledge Base. The Knowledge Base contains hundreds of articles that address frequently asked questions and common issues. You can access JAMF Nation at:  
<https://jamfnation.jamfsoftware.com>



# Overview of Technologies

# Applications and Utilities

This section provides an overview of the applications and utilities that make up the Casper Suite.

## Casper Admin

The Casper Admin application is a repository that allows you to add and manage packages, scripts, printers, and Dock items. It also allows you to create configurations (images) using these items and replicate files to distribution points.

## Casper Focus

The Casper Focus app is designed to be used by teachers in the classroom. It gives teachers control over the devices used during class time by allowing the teacher to “focus” the devices on a single app or website. Focusing a device locks it on the app or website, preventing students from accessing any other screens or content on the device.

In addition to focusing student devices, teachers can also perform the following actions in Casper Focus:

- Clear passcodes on student devices.
- Use AirPlay Mirroring to show the screen of a student device on Apple TV.
- Distribute eBooks (ePub format only) so that students can install the eBooks on their devices from Self Service.

Casper Focus is available for free from the App Store.

## Casper Imaging

The Casper Imaging application allows you to image computers by deploying configurations to them.

## Casper Remote

The Casper Remote application allows you to immediately perform remote management tasks on computers, such as installing packages, running scripts, and binding to directory services. While policies allow you to automate these tasks so that they run on a schedule, Casper Remote allows you to perform them immediately over a Secure Shell (SSH) connection.

## Composer

The Composer application allows you to build packages (PKG or DMG) of software, applications, preference files, or documents. Composer also allows you to build a DMG of an operating system.

## jamf agent

The jamf agent collects application usage data and restricts software on managed computers.

The jamf agent is installed and updated on managed computers automatically. It is installed in the following location:

```
/usr/sbin/jamfAgent
```

## jamf binary

Most tasks in the Casper Suite are executed using the “jamf” command-line application (also known as the jamf binary). Although you are free to use this application at will, it is installed, updated, and run on managed computers automatically. It is stored in the following location on managed computers:

```
/usr/sbin/jamf
```

**Note:** The jamf binary v9.4 or earlier will be installed on managed computers with OS X v10.5 or v10.6.

## JAMF Helper

The JAMF Helper displays messages to users. It is stored in the following location on managed computers:

```
/Library/Application Support/JAMF/bin/
```

**Note:** The JAMF Helper v9.4 or earlier will be installed on managed computers with OS X v10.5 or v10.6.

## JAMF Software Server

The JAMF Software Server (JSS) is a web application that functions as the administrative core of the Casper Suite. The JSS allows you to perform inventory and remote management and configuration tasks on managed computers and mobile devices. All other administrative applications in the Casper Suite communicate with the JSS.

## JDS Installers

The JDS Installer for Mac (.pkg) and the JDS Installer for Linux (.run) allow you to install JDS instances on OS X or supported Linux operating systems.

A JDS instance is a distribution point that is managed by the JSS, similar to a computer or mobile device. For more information on JDS instances, see [JAMF Distribution Server Instances](#).

To obtain the JDS Installers, log in to JAMF Nation and go to the following page:

<https://jamfnation.jamfsoftware.com/myAssets.html>

## Management Action

The Management Action application displays User Interaction messages in the OS X Notification Center. It is stored in the following location on managed computers:

```
/Library/Application Support/JAMF/bin/
```

## Recon

The Recon application allows you to enroll OS X computers. Enrollment is the process of adding computers to the JSS. When OS X computers are enrolled, inventory information for the computers is submitted to the JSS, and the computers are managed.

## Recon.exe

The Recon.exe application allows you to enroll Windows computers. Enrollment is the process of adding computers to the JSS. Enrolling Windows computers allows you to search and report on the computers as part of your inventory. Windows computers cannot be managed by the JSS.

## Self Service for OS X

The Self Service application allows users to browse and run policies, install configuration profiles, Mac App Store apps and eBooks, access webpages, and utilize plug-ins developed with the Self Service API. Users can point and click their way through Self Service using an intuitive interface similar to iTunes.

You can make any policy, configuration profile, Mac App Store app, or eBook available in Self Service and customize how it is displayed to users. You can also make two types of plug-ins available in Self Service: URL plug-ins and Self Service Plug-in bundles. URL plug-ins give users easy access to webpages right from the application. Self Service Plug-in bundles are custom plug-ins developed with the Self Service API.

**Note:** Self Service v9.4 or earlier will be installed on managed computers with OS X v10.5 or v10.6.

## Self Service for iOS

Self Service for iOS allows you to distribute configuration profiles, apps, and eBooks to iOS devices for users to install. Users tap Self Service to browse and install items using an interface similar to the App Store.

There are two kinds of Self Service for iOS devices: the Self Service Mobile app and the Self Service web clip. Self Service Mobile can be installed on devices with iOS 7 or later. By default, Self Service Mobile is installed on all managed mobile devices except Apple TV devices and personally owned devices.

Self Service Mobile for iOS is available for free from the App Store.

## Self Service Mobile for Android

Self Service Mobile for Android is used in conjunction with personal device profiles to enroll and manage personally owned Android devices. Users install Self Service Mobile for Android from Google Play during user-initiated enrollment. After enrollment, Self Service Mobile must remain installed on an enrolled Android device to keep the device managed by the JSS.

Self Service Mobile for Android is available for free from Google Play.



# Ports

The following table describes the main ports used to host communication between computers, distribution points, and the JAMF Software Server (JSS):

Port	Used for	Direction
22	The standard port for SSH (known as remote login in OS X). Default port used by Casper Remote and Recon to connect to computers.	Outbound from Casper Remote and Recon, and inbound to computers
80	The standard port for HTTP. When you use HTTP to distribute files from a file share distribution point, they are downloaded on this port.	Inbound to the distribution point, and outbound from computers
443	The standard port for HTTPS. When you use HTTPS to distribute files from a file share distribution point, they are downloaded on this port. The cloud distribution point and JDS instance also communicate on this port. In addition, this port is used for the following: <ul style="list-style-type: none"> <li>Connect the JSS to the JAMF Push Proxy.</li> <li>Required for MDM-capable computers to communicate with Apple Push Notification service (APNs).</li> <li>Connect to Apple's Device Enrollment Program and Volume Purchase Program (VPP).</li> </ul> <p><i>Note:</i> Apple could change this port without JAMF Software knowledge.</p>	Inbound to the distribution point, and outbound from computers and mobile devices
548	The standard port for Apple File Protocol (AFP). If you use an AFP share to distribute files from a file share distribution point, computers mount the AFP share on this port.	Inbound to the share, and outbound from computers
3306	The default port used by the JSS to connect to MySQL.	Outbound from the JSS, and inbound to MySQL
8443	The SSL port for the JSS. Default port used by applications and computers and mobile devices to connect to the JSS.	Inbound to the JSS, and outbound from computers and mobile devices

The following table describes other commonly used ports:

Port	Used for	Direction
25	The standard port for SMTP. The JSS connects to an SMTP server to send email notifications to JSS users.	Outbound from the JSS, and inbound to the SMTP server
139	If you use an SMB share to distribute files from a file share distribution point, computers mount the SMB share on this port.	Inbound to the share, and outbound from computers

Port	Used for	Direction
389	The standard port for LDAP. Any LDAP connections—even those coming from other applications—go through the JSS. This means that only the JSS connects to your LDAP server.	Outbound from the JSS, and inbound to the LDAP server
636	The standard port for LDAPS. Any LDAP connections—even those coming from other applications—go through the JSS. This means that only the JSS connects to your LDAP server.	Outbound from the JSS, and inbound to the LDAP server
445	If you have an SMB client, such as “DAVE”, installed on computers, they may mount the SMB share on this port.	Inbound to the share, and outbound from computers
514	The default port used by the JSS to write to Syslog servers.	Outbound from the JSS, and inbound to Syslog servers
2195	The port used to send messages from the JSS to Apple Push Notification service (APNs).	Outbound from the JSS, and inbound to the APNs server
2196	The port used by the JSS to connect to APNs for feedback.	Outbound from the JSS, and inbound to the APNs server
5223	The port used to send messages from APNs to the iOS mobile devices and computers in your network.	Outbound from computers and iOS mobile devices, and inbound to the APNs server
5228	The port used to send messages from Google Cloud Messaging (GCM) to the personally owned Android mobile devices in your network.	Outbound from Android devices, and inbound to the GCM server
8080	The HTTP port for the JSS on Linux and Windows platforms. Although it is available, applications do not connect to this port unless the defaults are overridden.	N/A
9006	The HTTP port for the JSS on the Mac platform. Although it is available, applications do not connect to this port unless the defaults are overridden.	N/A

On the Mac platform, the JSS runs on ports 8443 and 9006 by default. On Windows and Linux platforms, the JSS runs on 8443 and 8080 by default. If you decide to change these ports, you must change the port information in Tomcat’s `server.xml` file and in the Preferences window for each Casper Suite application.

You cannot change the default ports for SSH or SMB with the Casper Suite.

# Security

This section explains the primary security measures in the Casper Suite:

- Passwords
- Communication protocols
- Public key infrastructure
- Signed applications

## Passwords

The Casper Suite allows you to store individual accounts for managed computers and reset the passwords if necessary.

Passwords stored in the database are encrypted using a standard 256-bit AES encryption algorithm.

## Communication Protocols

The Casper Suite has security built into its design. Connections between the JAMF Software Server (JSS), the other applications in the Casper Suite, and mobile devices take place over Secure Sockets Layer (SSL) using Transport Layer Security (TLS). The Casper Remote application and the network scanner in the Recon application connect to computers over Secure Shell (SSH), or Remote Login.

### Secure Shell (SSH)

SSH is a network security protocol built into OS X. For more information, go to:

<http://openssh.com/>

### Transport Layer Security (TLS)

TLS is a security protocol for Internet communication. For more information, go to:

<http://tools.ietf.org/html/rfc5246>

## Public Key Infrastructure

A public key infrastructure (PKI) is the design by which digital certificates are obtained, managed, stored, and distributed to ensure a secure exchange of data over a public network.

## Certificate Authority

A certificate authority (CA) is a trusted entity that signs and issues the certificates required for certificate-based authentication. It is the central component of the PKI.

The JSS includes a preconfigured PKI that uses a built-in CA. The built-in CA is used by default to issue certificates to both computers and mobile devices.

You can also configure your own PKI if you have access to an external CA that supports SCEP. The external CA can be a CA hosted by your organization or by a trusted third-party vendor. If you integrate an external CA with the JSS, this CA will be used to issue certificates to both computers and mobile devices.

## Simple Certificate Enrollment Protocol

Simple Certificate Enrollment Protocol (SCEP) obtains certificates from the CA and distributes them to managed mobile devices, providing a simplified way of handling large-scale certificate distribution.

The CA hosted by the JSS (the “built-in CA”) supports SCEP. If you plan to use an external CA hosted by your organization or by a third-party vendor, this CA must support SCEP as well.

## Certificates

The Casper Suite uses the following certificates to ensure security:

- **SSL Certificate**—The JSS requires a valid SSL certificate to ensure that computers and mobile devices communicate with the JSS and not an imposter server. The SSL certificate that you can create from the built-in CA secures communication using a 2048-bit RSA encryption.
- **Device Certificates**—Device certificates allow the JSS to verify the identity of OS X computers and mobile devices each time they communicate with the JSS.
- **CA Certificate**—This certificate establishes trust between the CA and OS X computers, and between the CA and mobile devices.
- **Signing Certificate**—This certificate is used to sign messages passed between the JSS and OS X computers, and between the JSS and mobile devices.
- **Push Certificate**—The JSS requires a valid push certificate to communicate with Apple Push Notification service (APNs).
- **Anchor Certificate**—This certificate allows mobile devices and computers to trust the SSL certificate.

## Signed Applications

The following applications are signed by JAMF Software:

- Casper Admin
- Casper Imaging
- Casper Remote
- Composer
- jamf binary
- JAMF Helper
- JDS Installer for Mac
- Recon
- Recon.exe
- Self Service

# Requirements

This section lists requirements for the following components and functions of the Casper Suite:

- JAMF Software Server (JSS)
- Package building
- Inventory
- Imaging
- Remote management
- Self Service
- Managing mobile devices
- Casper Focus
- Self Service Mobile
- JDS Installers

## JAMF Software Server

You can host the JSS on any server that meets the following requirements:

- Java 1.6 or Java 1.7
- MySQL 5.1 or later
- Apache Tomcat 6, 7, or 8 (Tomcat 7 is recommended)

Tested operating systems include:

- OS X Server v10.7
- OS X Server v10.8
- OS X Server v10.9
- OS X Server v10.10
- Ubuntu 12.04 LTS Server
- Ubuntu 14.04 LTS Server
- Red Hat Enterprise Linux (RHEL) 6.4 or later
- Windows Server 2008 R2
- Windows Server 2012

Although you can install the JSS on any server that meets the minimum requirements, the JSS Installers for Mac, Linux, and Windows have additional requirements. For more information, see the JSS installation and configuration guide for your platform. These guides are available at:

<http://www.jamfsoftware.com/product-documentation/installation-guides>

Browser requirements for the JSS are as follows:

- Safari
- Mozilla Firefox
- Google Chrome
- Microsoft Internet Explorer 9 or later

## Package Building

Composer can run on the following operating systems:

- OS X v10.5.x (Composer v9.32 or earlier)
- OS X v10.6.x (Composer v9.32 or earlier)
- OS X v10.7.x
- OS X v10.8.x
- OS X v10.9.x
- OS X v10.10.x

Composer v9.32 or earlier is available from JAMF Nation.

## Inventory

Recon can run locally on the following operating systems:

- OS X v10.5.x (Recon v9.4 or earlier)
- OS X v10.6.x (Recon v9.4 or earlier)
- OS X v10.7.x
- OS X v10.8.x
- OS X v10.9.x
- OS X v10.10.x
- Windows 2000
- Windows XP
- Windows Server 2003
- Windows Vista
- Windows Server 2008
- Windows 7

Recon v9.4 or earlier is available from JAMF Nation.

Recon can enroll computers with the following operating systems:

- OS X v10.5.x
- OS X v10.6.x
- OS X v10.7.x
- OS X v10.8.x
- OS X v10.9.x
- OS X v10.10.x

## Imaging

Casper Imaging can image computers with the following operating systems, provided they do not have PowerPC processors:

- OS X v10.5.x (Imaging v9.4 or earlier)
- OS X v10.6.x (Imaging v9.4 or earlier)
- OS X v10.7.x
- OS X v10.8.x
- OS X v10.9.x
- OS X v10.10.x

Imaging v9.4 or earlier is available from JAMF Nation.

## Remote Management

Policies can be used to manage computers with the following operating systems:

- OS X v10.5.x
- OS X v10.6.x
- OS X v10.7.x
- OS X v10.8.x
- OS X v10.9.x
- OS X v10.10.x

Casper Remote can be used to manage computers with the following operating systems, provided they do not have PowerPC processors:

- OS X v10.5.x (Casper Remote v9.4 or earlier)
- OS X v10.6.x (Casper Remote v9.4 or earlier)
- OS X v10.7.x
- OS X v10.8.x
- OS X v10.9.x
- OS X v10.10.x

Casper Remote v9.4 or earlier is available from JAMF Nation.



## Self Service

Self Service can run on the following operating systems:

- OS X v10.5.x
- OS X v10.6.x
- OS X v10.7.x
- OS X v10.8.x
- OS X v10.9.x
- OS X v10.10.x

## Managing Mobile Devices

The Casper Suite can be used to enroll and manage institutionally owned iOS devices, and personally owned iOS and Android devices.

You can enroll and manage institutionally owned mobile devices that meet the following requirements:

- iPads with iOS 4 or later
- iPhones with iOS 4 or later
- iPod touches with iOS 4 or later
- Apple TV devices with iOS 7 or later

For information on the management capabilities available for institutionally owned mobile devices, see [Management Capabilities for Institutionally Owned Devices](#).

You can enroll and manage personally owned mobile devices that meet the following requirements:

- iPads, iPhones, or iPod touches with iOS 4 or later (iOS 7 or later is recommended)
- Smart phones or tablets with Android 4.0.3 or later

For information on the management capabilities available for personally owned mobile devices, see [Management Capabilities for Personally Owned Devices](#).

## Casper Focus

Casper Focus can run on teacher mobile devices with iOS 6 or later.

Student mobile devices that are assigned to classes in Casper Focus must have iOS 5.1.1 or later and must be managed by the Casper Suite v8.7 or later.

For information on feature-specific Casper Focus requirements for student mobile devices, see [Preparing to Use Casper Focus](#).

## Self Service Mobile

Self Service Mobile for iOS can run on mobile devices with iOS 7 or later that are managed by the Casper Suite v9.4 or later.

Self Service Mobile for Android can run on mobile devices with Android 4.0.3 or later. In addition, a JSS v9.4 or later must be installed in your environment.

## JDS Installer for Mac

The JDS Installer for Mac requires a computer with:

- An Intel processor
- 2 GB of RAM
- 100 GB of disk space available
- OS X Server v10.7 or later
- Server.app 1.4.3 or later

## JDS Installer for Linux

The JDS Installer for Linux requires a computer with:

- An Intel processor
- 2 GB of RAM
- 100 GB of disk space available
- One of the following operating systems:
  - Ubuntu 10.04 LTS Server
  - Ubuntu 12.04 LTS Server
  - Red Hat Enterprise Linux (RHEL) 6.4, 6.5, 6.6, or 7.0

To install a JDS instance on a Linux operating system that is running on a virtual machine, you need a virtualization platform that provides SMBIOS information.

# Mobile Device Management Capabilities

The Casper Suite can be used to enroll and manage institutionally owned iOS devices, and personally owned iOS and Android devices. The management capabilities available for a particular device vary depending on the device ownership type, device platform, device type, and iOS version.

For information on the requirements for managing mobile devices, see [Requirements](#).

## Management Capabilities for Institutionally Owned Devices

The following table provides an overview of the management capabilities available with the Casper Suite for institutionally owned mobile devices by device type and iOS version:

Device Type	iPad					iPhone					iPod touch					Apple TV	
iOS Version	4	5	6	7	8	4	5	6	7	8	4	5	6	7	8	7	8
<b>Enrollment</b>																	
Via user-initiated enrollment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Via an enrollment profile and Apple Configurator	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Via an enrollment profile and Apple's iPCU	✓	✓	✓			✓	✓	✓			✓	✓	✓				
Via Apple's Device Enrollment Program				✓	✓				✓	✓				✓	✓		
Via Apple Configurator enrollment				✓	✓				✓	✓				✓	✓		
<b>Inventory</b>																	
Submit inventory to the JSS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Mobile Device Groups</b>																	
Static groups	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Smart groups	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Configuration</b>																	
iOS configuration profiles	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ <sup>1</sup>	✓ <sup>1</sup>

Device Type	iPad					iPhone					iPod touch					Apple TV	
iOS Version	4	5	6	7	8	4	5	6	7	8	4	5	6	7	8	7	8
<b>Remote Commands for Mobile Devices</b>																	
Update inventory	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lock device	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Clear passcode	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Clear restrictions <sup>2</sup>					✓					✓					✓		
Wipe device <sup>3</sup>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Unmanage device	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Send blank push	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enable/disable voice or data roaming <sup>4</sup>		✓	✓	✓	✓		✓	✓	✓	✓							
<b>Self Service for iOS</b>																	
Self Service Mobile app				✓	✓				✓	✓				✓	✓		
iBeacon region monitoring <sup>5</sup>				✓	✓				✓	✓				✓	✓		
Self Service web clip	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<b>App Distribution</b>																	
Managed apps		✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓		
VPP-managed distribution				✓	✓				✓	✓				✓	✓		
In-house apps	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
App Store apps	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<b>eBook Distribution</b>																	
Managed eBooks					✓					✓					✓		
VPP-managed distribution				✓	✓				✓	✓				✓	✓		
Install ePub file	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Install iBooks file		✓	✓	✓	✓												
Install PDF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

Device Type	iPad					iPhone					iPod touch					Apple TV	
iOS Version	4	5	6	7	8	4	5	6	7	8	4	5	6	7	8	7	8
<b>Casper Focus<sup>6</sup></b>																	
Focus on app			✓	✓	✓			✓	✓	✓			✓	✓	✓		
Focus on website				✓	✓				✓	✓				✓	✓		
Clear passcodes		✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓		
Mirror device on Apple TV				✓	✓				✓	✓				✓	✓		

**Notes:**

1. Wi-Fi, Certificate, SCEP, and Global HTTP Proxy are the only iOS configuration profile payloads that work on Apple TV devices.
2. Requires supervision.
3. The Wipe Device command can be used to clear the Activation Lock for mobile devices with iOS 7.1 or later.
4. Remote commands for voice or data roaming are only available for devices with cellular capability.
5. iBeacon region monitoring requires mobile devices with Self Service Mobile for iOS installed.
6. Management capabilities available for Casper Focus apply only to student mobile devices, not teacher devices.

## Management Capabilities for Personally Owned Devices

The following table provides an overview of the management capabilities available with the Casper Suite for personally owned mobile devices by device platform:

Device Platform	iOS	Android
<b>Enrollment</b>		
Via user-initiated enrollment	✓ <sup>1</sup>	✓ <sup>1</sup>
Via an enrollment profile and Apple Configurator		
Via an enrollment profile and Apple's iPCU		
Via Apple's Device Enrollment Program		
Via Apple Configurator enrollment		
<b>Inventory</b>		
Submit inventory to the JSS	✓ <sup>2</sup>	✓ <sup>2</sup>
Extension attributes		
Simple searches	✓	✓
Advanced searches	✓	✓
Mobile device reports	✓	✓
Mass actions	✓	✓ <sup>3</sup>
<b>Mobile Device Groups</b>		
Static groups		
Smart groups		
<b>Configuration</b>		
iOS configuration profiles		
Personal device profiles	✓	✓
<b>Remote Commands</b>		
Update inventory	✓	✓
Lock device	✓	✓
Clear passcode		
Clear restrictions		
Wipe device		
Unmanage device		
Wipe institutional data	✓	✓
Send blank push	✓	✓
Enable/disable voice or data roaming		

Device Platform	iOS	Android
<b>Self Service for iOS</b>		
Self Service Mobile app		
iBeacon region monitoring <sup>4</sup>		
Self Service web clip		
<b>App Distribution</b>		
Managed apps	✓	
VPP-managed distribution	✓	
In-house apps	✓ <sup>5</sup>	
App Store apps	✓ <sup>5</sup>	
<b>eBook Distribution</b>		
Managed eBooks		
VPP-managed distribution		
Install ePub file		
Install iBooks file		
Install PDF		
<b>Casper Focus<sup>6</sup></b>		
Focus on app		
Focus on website		
Clear passcodes		
Mirror device on Apple TV		

**Notes:**

1. Enrolling a personal device using user-initiated enrollment requires an enabled personal device profile for the site that the user belongs to, or an enabled personal device profile for the full JSS. For more information, see [Personal Device Profiles](#).
2. A limited subset of inventory information is collected for personal devices. For more information, see [Viewing and Editing Inventory Information for a Mobile Device](#).
3. The Clear Passcode mass action does not apply to personally owned devices.
4. iBeacon region monitoring requires mobile devices with Self Service Mobile for iOS installed.
5. Only managed apps can be distributed to personal devices.
6. Management capabilities available for Casper Focus apply only to student mobile devices, not teacher devices.



## Before You Begin



# Setting Up the JSS

The first time you connect to the JAMF Software Server (JSS), the JSS Setup Assistant guides you through the following setup tasks:

- Accept the license agreement.
- Enter your activation code.
- Create your first JSS user account.
- Enter your JSS URL.

The JSS URL is the URL that client applications, computers, and mobile devices will connect to when communicating with the JSS.

After you complete the JSS Setup Assistant, you can click the setup tips that are displayed onscreen to start configuring commonly used settings.

You may also want to make changes to the following preconfigured settings to ensure they meet the needs of your organization. These settings are important because over time, they can significantly affect the size of your database and your levels of network traffic:

- **“Update Inventory” policy**—Determines how often computers submit inventory to the JSS.  
For more information, see [Computer Inventory Collection](#).
- **Recurring check-in frequency**—Determines the interval at which computers check in with the JSS for available policies.  
For more information, see [Recurring Check-in Frequency](#).
- **Mobile device inventory collection frequency**—Determines how often mobile devices submit inventory to the JSS.  
For more information, see [Mobile Device Inventory Collection Settings](#).

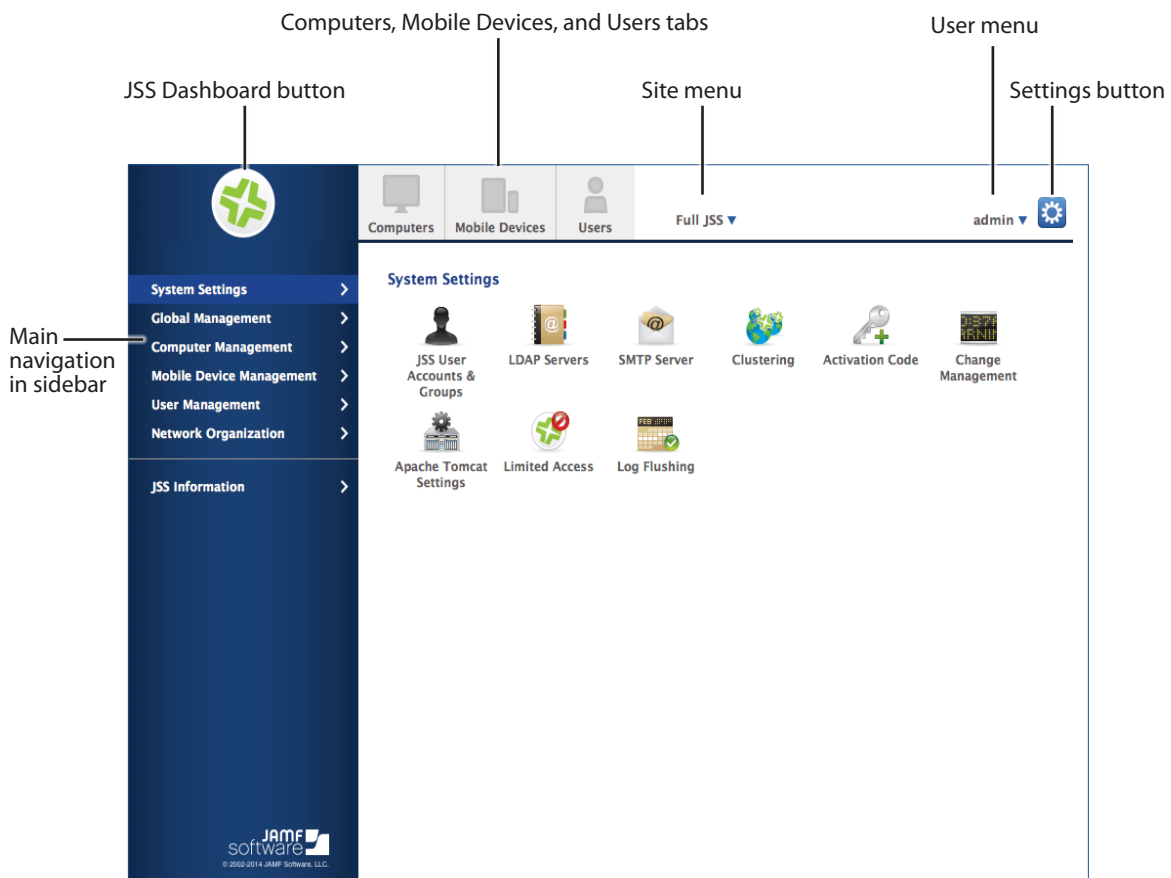
# Viewing the JSS on Different Types of Devices

The JAMF Software Server (JSS) interface automatically adjusts to the width of your web browser to provide the best possible display for the device on which it is viewed. This allows you to seamlessly transition between devices—all providing an optimal viewing experience so you can navigate the JSS with minimal scrolling and panning.

The screen shots below show examples of how navigational elements in the JSS are displayed when viewed on the following types of devices:

- Computer
- Tablet
- Smartphone or iPod touch

## Computer Display



**Note:** When viewing the JSS on a computer, navigational elements display differently if the web browser is resized.

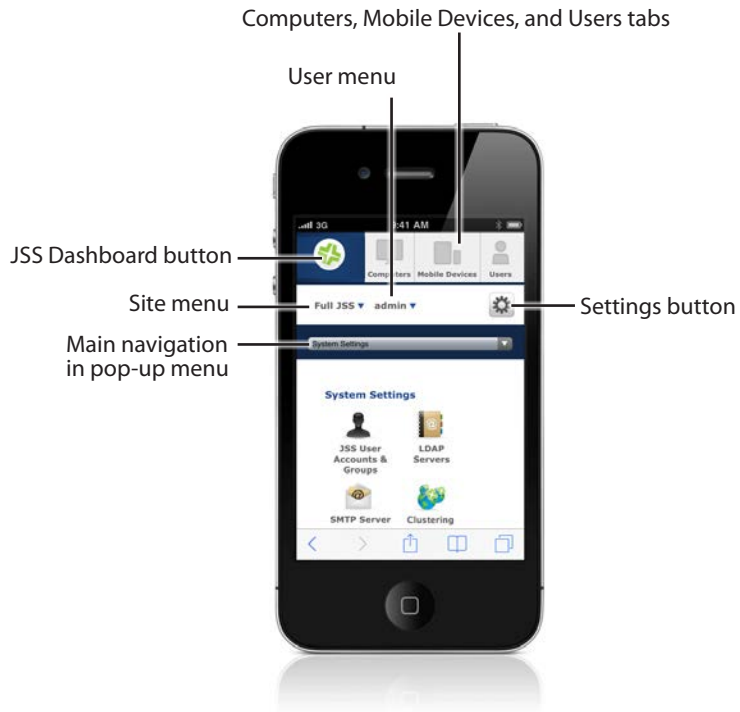
# Tablet Display

The screen shot below shows the JSS displayed on a tablet in portrait orientation. For landscape orientation, the navigational elements display the same as they do in the computer view. (For more information, see [Computer Display](#).)



## Smartphone and iPod touch Display

On a smartphone or iPod touch, the JSS navigational elements display the same for both landscape and portrait orientation.



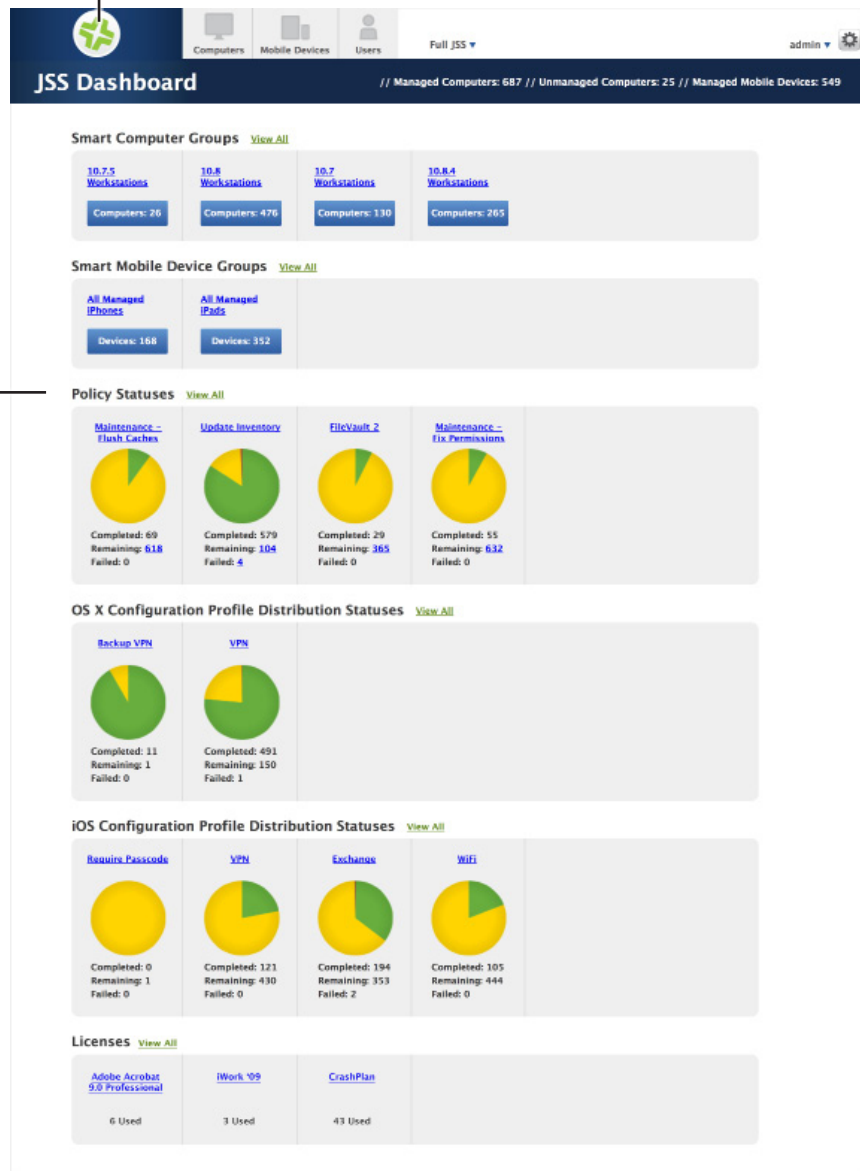
# The JSS Dashboard

The JSS Dashboard allows you to monitor the status of commonly viewed items in the JAMF Software Server (JSS), such as smart groups, policies, configuration profiles, and licensed software—all in one central location.

You can access the JSS Dashboard while using the JSS by clicking the **JSS Dashboard**  button in the top-left corner of the page.

JSS Dashboard button

JSS Dashboard



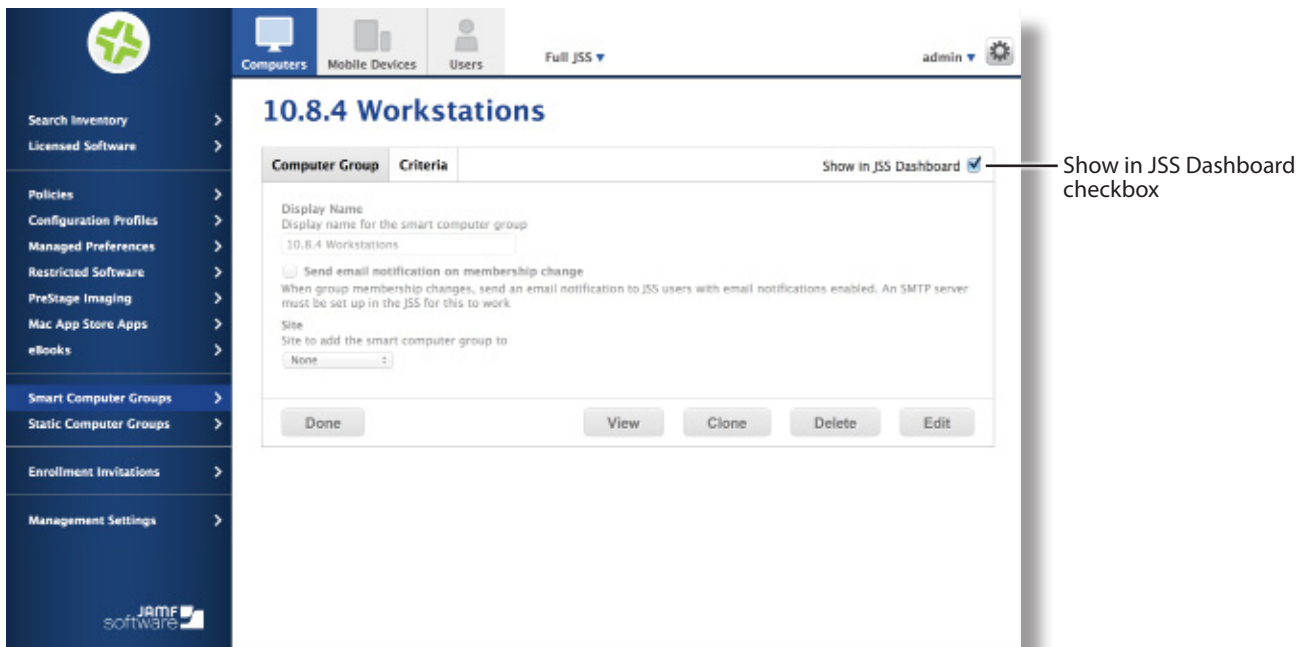
**Note:** Until you add one or more items to the JSS Dashboard, it displays setup tips that you can use to configure commonly used settings.

# Adding Items to the JSS Dashboard

You can add the following types of items to the JSS Dashboard:

- Smart computer groups
- Smart mobile device groups
- Policies
- OS X configuration profiles
- iOS configuration profiles
- Licensed software

To add an item to the JSS Dashboard, select the **Show in JSS Dashboard** checkbox in the upper-right corner of the pane when viewing the item in the JSS.



# JSS Objects

JSS objects provide the foundation for performing administrative and management tasks using the JAMF Software Server (JSS). Examples of JSS objects include policies, configuration profiles, and network segments.

For detailed information about a specific JSS object, including instructions for navigating to the JSS object, see the appropriate section in this guide. Common actions that can be taken on JSS objects are cloning, editing, deleting, and viewing history.

**Note:** Available actions are dependent on the particular JSS object. (For example, a package cannot be cloned, so the **Clone** button is not displayed for the Packages object.) In addition, an action will not be available if the required privileges have not been granted for that JSS object.

## Cloning a JSS Object

1. Log in to the JSS with a web browser.
2. Navigate to the JSS object you want to clone.
3. Click **Clone** and make changes as needed.
4. Click **Save**.

## Editing a JSS Object

1. Log in to the JSS with a web browser.
2. Navigate to the JSS object you want to edit.
3. Click **Edit** and make changes as needed.
4. Click **Save**.

## Deleting a JSS Object

1. Log in to the JSS with a web browser.
2. Navigate to the JSS object you want to delete.
3. Click **Delete**.
4. Click **Delete** again to confirm.

## Viewing the History of a JSS Object

The JSS allows you to view the history of each JSS object. The information you can view includes:

- The date/time the JSS object was created or edited
- The username of the administrator who made the change
- Notes associated with the changes

**Note:** This information is displayed for any JSS object changes made using v9.31 or later.

1. Log in to the wJSS with a web browser.
2. Navigate to the JSS object you want to view the history of.
3. Click **History**.
4. (Optional) Click **Add Note** to add a note to the history record.





# JSS System Settings

# JSS User Accounts and Groups

The JAMF Software Server (JSS) is a multi-user application. JSS user accounts and groups allow you to grant different privileges and levels of access to each user.

When configuring a JSS user account or group, you can grant access to the full JSS or to a specific site. You can grant privileges by choosing one of the following privilege sets:

- **Administrator**—Grants all privileges.
- **Auditor**—Grants all read privileges.
- **Enrollment Only**—Grants all privileges required to enroll computers and mobile devices.
- **Custom**—Requires you to grant privileges manually.

If there are multiple users that should have the same access level and privileges, you can create a group with the desired access level and privileges and add accounts to it. Members of a group inherit the access level and privileges from the group. Adding an account to multiple groups allows you to grant a user access to multiple sites.




There are two ways to create JSS user accounts and groups: you can create standard accounts or groups, or you can add them from an LDAP directory service.

**Important:** It is recommended that you have at least one account that is not from an LDAP directory service in case the connection between the JSS and the LDAP server is interrupted.

## Requirements




To add accounts or groups from an LDAP directory service, you need an LDAP server set up in the JSS. (For more information, see [Integrating with LDAP Directory Services](#).)

## Creating a JSS User Group

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **JSS User Accounts & Groups** .
5. Click **New** .
6. Do one of the following:
  - To create a standard JSS user group, select **Create Standard Group** and click **Next**.
  - To add a JSS user group from an LDAP directory service, select **Add LDAP Group** and click **Next**. Then follow the onscreen instructions to search for and add the group.

7. Use the Group pane to configure basic settings for the group.
8. If you chose “Custom” from the **Privilege Set** pop-up menu, click the **Privileges** tab and select the checkbox for each privilege that you want to grant the group.
9. Click **Save**.

## Creating a JSS User Account



1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **JSS User Accounts & Groups** .
5. Click **New** .
6. Do one of the following:
  - To create a standard JSS user account, select **Create Standard Account** and click **Next**.
  - To add a JSS user account from an LDAP directory service, select **Add LDAP Account** and click **Next**. Then follow the onscreen instructions to search for and add the account.
7. On the Account pane, enter information about the account as needed.
8. Choose an access level from the **Access Level** pop-up menu:
  - To grant full access to the JSS, choose “Full Access”.
  - To grant access to a site, choose “Site Access”.  
**Note:** The “Site Access” option is only displayed if there are sites in the JSS. For more information on adding sites to the JSS, see [Sites](#).
  - To add the account to a standard group, choose “Group Access”.  
**Note:** The “Group Access” option is only displayed if there are standard groups in the JSS. For more information on creating groups, see [Creating a JSS User Group](#).
9. Do one of the following:
  - If you granted the account full access or site access, choose a privilege set from the **Privilege Set** pop-up menu. Then, if you chose “Custom”, click the **Privileges** tab and select the checkbox for each privilege that you want to grant the account.
  - If you added the account to a group, click the **Group Membership** tab and select the group(s) you want to add the account to.
10. Click **Save**.

## Configuring Account Preferences

You can configure Language & Region and Search preferences for each JSS user account. Language & Region preferences allow you to configure settings such as date format and time zone. Search preferences allow you to configure settings for computer, mobile device, and user searches.

1. Log in to the JSS with a web browser.
2. At the top of the page, click the disclosure triangle next to your username and then click **Preferences**.
3. Click the **Language & Region** tab and use the pop-up menus to configure language and region preferences.
4. Click the **Search Preferences** tab and use the pop-up menus to configure search preferences.  
**Note:** The default search preference is “Exact Match”. For most items, the option can be changed to either “Starts with” or “Contains”.
5. Click **Save**.

## Cloning, Editing, or Deleting a JSS User Account or Group

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **JSS User Accounts & Groups** .
5. Click the JSS user account or group you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the account or group, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the account or group, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the account or group, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

[Sites](#)

Learn about sites and how to add them to the JSS.

# Integrating with LDAP Directory Services

Integrating with an LDAP directory service allows you to do the following:

- Look up and populate user information from the directory service for inventory purposes.
- Add JSS user accounts or groups from the directory service.
- Require users to log in to Self Service or the enrollment portal using their LDAP directory accounts.
- Require users to log in during mobile device setup using their LDAP directory accounts.
- Base the scope of remote management tasks on users or groups from the directory service.




To integrate with an LDAP directory service, you need to add the LDAP server to the JAMF Software Server (JSS). There are two ways to add LDAP servers to the JSS: using the LDAP Server Assistant or manually.

The LDAP Server Assistant guides you through the process of entering information about the LDAP server and ensuring that LDAP attributes are mapped properly. It allows you to integrate with the following directory services:

- Apple's Open Directory
- Microsoft's Active Directory
- Novell's eDirectory




Manually adding an LDAP server involves entering detailed information about the LDAP server and manually configure attribute mappings. This allows you to integrate with LDAP additional directory services.

## Adding an LDAP Server Using the LDAP Server Assistant

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **LDAP Servers** .
5. Click **New** .
6. Follow the onscreen instructions to add the LDAP server.

## Manually Adding an LDAP Server

Before manually adding an LDAP server, it is important that you are familiar with search bases, object classes, and attributes. If you are not familiar with these concepts, use the LDAP Server Assistant to ensure that attributes are mapped correctly.



1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **LDAP Servers** .
5. Click **New** .
6. Select **Configure Manually** and click **Next**.
7. Use the Connection pane to configure how the JSS connects to the LDAP server.
8. Use the Mappings pane to specify object class and search base data, and map attributes.
9. Click **Save**.

## Testing LDAP Attribute Mappings



You can test the following LDAP attribute mappings:

- User mappings
- User group mappings
- User group membership mappings

If the JSS returns the appropriate information, the attributes are mapped correctly.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **LDAP Servers** .
5. Click the LDAP server you want to test.
6. Click **Test**.
7. Click the appropriate tab and enter information in the field(s) provided.
8. Click **Test** again.

## Cloning, Editing, or Deleting an LDAP Server

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **LDAP Servers** .
5. Click the LDAP server you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the LDAP server, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the LDAP server, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the LDAP server, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [JSS User Accounts and Groups](#)  
Find out how to add JSS user accounts or groups from an LDAP directory service.
- [Self Service User Login Setting](#)  
Find out how to require users to log in to the Self Service application using their LDAP directory accounts.
- [Self Service Mobile](#)  
Find out how to require users to log in to the Self Service app using their LDAP directory accounts.
- [Self Service Web Clip](#)  
Find out how to require users to log in to the Self Service web clip using their LDAP directory accounts.
- [User-Initiated Enrollment for Computers](#)  
Find out how to require users to log in to the enrollment portal using their LDAP directory accounts before enrolling their computers.
- [User-Initiated Enrollment for Mobile Devices](#)  
Find out how to require users to log in to the enrollment portal using their LDAP directory accounts before enrolling their mobile devices.
- [Mobile Device PreStage Enrollments](#)  
Find out how to require users to log in during mobile device setup using their LDAP directory accounts before enrolling their mobile devices using a PreStage enrollment.
- [Scope](#)  
Learn how to configure scope based on users or groups from an LDAP directory service.

For related information, see the following Knowledge Base article:

[Configuring the JSS to Use LDAP Over SSL When Authenticating with Active Directory](#)

Find out how to configure the JSS to perform authentication with Active Directory using LDAP over SSL (LDAPS).





# Integrating with an SMTP Server

Integrating with an SMTP server allows you to do the following:

- Send email notifications to JAMF Software Server (JSS) users when certain events occur.
- Send enrollment invitations via email.
- Send mass emails to end users.



To integrate with an SMTP server, you need to configure the SMTP Server settings in the JSS.

## Configuring the SMTP Server Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **SMTP Server** .
5. Click **Edit**.
6. Configure the settings on the pane.
7. Click **Save**.

## Testing the SMTP Server Settings

Once the SMTP Server settings are configured, you can send a test email from the JSS.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **SMTP Server** .
5. Click **Test**.
6. Enter a test email address and click **Test** again.

A message displays, reporting whether or not the email was sent successfully.

## Related Information

For related information, see the following sections in this guide:

- [Email Notifications](#)  
Learn about the different email notifications that can be sent JSS users.
- [User-Initiated Enrollment for Computers](#)  
Find out how to send computer enrollment invitations via email.
- [User-Initiated Enrollment for Mobile Devices](#)  
Find out how to send mobile device enrollment invitations via email.
- [Sending a Mass Email to Computer Users](#)  
Find out how to send a mass email to computer users.
- [Sending a Mass Email to Mobile Device Users](#)  
Find out how to send a mass email to mobile device users.

# Email Notifications

Email notifications can be sent from the JAMF Software Server (JSS) to JSS users when the following events occur:

- A computer is enrolled using an Imaging PreStage.
- An error occurs during imaging.
- An error occurs while a policy is running.
- A restricted software violation occurs.  
**Note:** For this to work, email notifications must also be enabled for the individual restricted software records. (For more information, see [Restricted Software](#).)
- The license limit for a licensed software record is exceeded.  
**Note:** For this to work, email notifications must also be enabled for the individual licensed software records. (For more information, see [Licensed Software Records](#).)
- Smart computer group membership changes.
- Smart mobile device group membership changes.
- Smart user group membership changes.
- Tomcat is started or stopped.
- The database is backed up successfully.
- A database backup fails.
- The JSS fails to add a file to a JDS instance or the cloud distribution point.

Each JSS user can choose which email notifications they want to receive.

## Requirements

To enable email notifications, you need:

- An SMTP server set up in the JSS (For more information, see [Integrating with an SMTP Server](#).)
- An email address specified for the JSS user account you want to enable email notifications for (For more information, see [JSS User Accounts and Groups](#).)

## Enabling Email Notifications



1. Log in to the JSS with a web browser.
2. At the top of the page, click the disclosure triangle next to your username and then click **Email Notifications**.
3. Select the checkbox for each event that you want to receive email notifications for.
4. Click **Save**.

# Activation Code

The Activation Code settings in the JAMF Software Server (JSS) allow you to update the activation code for your license. You can also change the organization name associated with the license and view licensing information.

## Updating the Activation Code

Every time you receive a new activation code, it must be updated in the JSS.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Activation Code** .
5. Click **Edit**.
6. Enter the new activation code.
7. Click **Save**.

# Change Management

Change Management allows you to track the following information:

- Changes made to computers on the network
- Computers from which the changes were made
- Accounts that initiated the changes



The Change Management settings in the JAMF Software Server (JSS) allow you to log this information to a log file on the JSS host server and/or to a syslog server.

Logging changes to a log file stores them in a file named `jamfChangeManagement.log` on the JSS host server.

## Requirements

To log changes to a log file, the account used to run Tomcat must have write permissions for the directory where the `jamfChangeManagement.log` file is located.

## Configuring the Change Management Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Change Management** .
5. Click **Edit**.
6. Configure the settings on the pane.
7. Click **Save**.

## Related Information

For related information, see the following Knowledge Base article:

[Change Management with the Casper Suite: Mac OS X Setup Guide](#)

If you are hosting the JSS on OS X Server, learn about setting up the syslogd utility so you can log changes to a syslog server.

# SSL Certificate



The JAMF Software Server (JSS) requires a valid SSL certificate to ensure that computers and mobile devices communicate with the JSS and not an imposter server.

The Apache Tomcat settings in the JSS allow you to create an SSL certificate from the CA that is built into the JSS. You can also upload the certificate keystore for an SSL certificate that was obtained from an internal certificate authority (CA) or a trusted third-party vendor.

## Requirements

To create or upload an SSL certificate, the JSS must be installed as the “ROOT” web application, and the user running the Tomcat process must have read/write access to Tomcat’s `server.xml` file.

## Creating or Uploading an SSL Certificate

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Apache Tomcat Settings** .
5. Click **Edit**.
6. Select **Change the SSL certificate used for HTTPS** and click **Next**.
7. Follow the onscreen instructions to upload or create an SSL certificate.
8. Restart Tomcat for the changes to take effect.  
For instructions on how to restart Tomcat, see the following Knowledge Base article:  
[Starting and Stopping Tomcat](#)

## Related Information

For related information, see the following Knowledge Base article:

[Using OpenSSL to Create a Certificate Keystore for Tomcat](#)

Find out how to use OpenSSL to create a certificate keystore that you can upload to the JSS.



# Flushing Logs

Flushing logs reduces the size of the database and can speed up searches. You can flush the following types of logs:


- Application Usage logs
- Computer Usage logs
- Policy logs
- Casper Remote logs
- Screen sharing logs
- Casper Imaging logs
- Computer and mobile device management history
- JDS management history
- Computer inventory reports (computer inventory information from past inventory submissions)
- Mobile device inventory reports (mobile device inventory information from past inventory submissions)


You can schedule log flushing to take place daily, or you can manually flush logs as needed. You can also choose to flush logs that are older than a certain number of days, weeks, or months.

## Scheduling Log Flushing

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Log Flushing** .
5. Click **Edit**.
6. Use the pop-up menus to choose the number of days, weeks, or months after which each type of log should be flushed.
7. Choose a time of day from the **Time to Flush Logs Each Day** pop-up menu.
8. Click **Save**.

## Manually Flushing Logs

1. Log in to any of the JSS web applications with a web browser.
2. In the top-right corner of the page, click **Settings** .

3. Click **System Settings**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Log Flushing**  .
5. Click **Flush Manually**.
6. Select the checkbox for each type of log you want to flush.
7. From the **Flush Logs Older Than** pop-up menu, choose the number of days, weeks, or months after which logs should be flushed.
8. Click **Flush**.

A message displays, reporting the success or failure of the flush.

## Related Information

For related information, see the following sections in this guide:

- [Viewing and Flushing Policy Logs for a Computer](#)  
Find out how to view and flush policy logs for a computer.
- [Viewing and Flushing Logs for a Policy](#)  
Find out how to view and flush logs for a policy.
- [Viewing the History for a Computer](#)  
Find out how to view the logs and the management history for a computer.
- [Viewing Management History for a Mobile Device](#)  
Find out how to view the management history for a mobile device.



# JSS Summary

The JSS Summary is a custom report that allows you to view information about your JAMF Software Server (JSS). The JSS Summary can be useful for troubleshooting JSS issues, and for providing information to JAMF Software for purposes of support or license renewal.

By default, the JSS Summary includes the following information about the JSS:

- Number of managed and unmanaged computers
- Number of managed mobile devices
- Operating system on the JSS host server
- Path to the JSS web application
- Apache Tomcat version
- Information about the version of Java installed on the JSS host server
- Information about the MySQL connection and configuration

You can also add information to the JSS Summary from the following categories as needed:

- Computers
- Mobile Devices
- Users
- System Settings
- Global Management
- Computer Management
- Computer Management–Server Infrastructure
- Computer Management–Management Framework
- Mobile Device Management
- Network Organization
- Database

You can view the JSS Summary in a browser window or send the JSS Summary to JAMF Software.



## Requirements

To send the JSS Summary to JAMF Software, you need a valid JAMF Nation account.

To create a JAMF Nation account, go to:



<https://jamfnation.jamfsoftware.com/createAccount.html>

## Viewing the JSS Summary

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **JSS Information**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **JSS Summary** .

5. Select the checkboxes next to the items you want to include.
6. Click **Create**.  
The JSS Summary displays in a browser window.
7. Click the **Back** button in the web browser to return to the JSS Summary pane in the JSS.

## Sending the JSS Summary to JAMF Software

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **JSS Information**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **JSS Summary** .
5. Select the checkboxes next to the items you want to include.
6. Click **Send Summary to JAMF Software**.
7. Enter your JAMF Nation credentials, and then click **Send**.

The JSS Summary is sent to JAMF Software via JAMF Nation.

## Related Information

For information about Customer Experience Metrics (CEM), see the following Knowledge Base article:

[Customer Experience Metrics](#)

Learn about Customer Experience Metrics and how to enable the setting in your JSS environment.

For additional information about Customer Experience Metrics, visit the following webpage:

<http://www.jamfsoftware.com/products/casper-suite/customer-experience-metrics/>



# Global Management Settings

# Push Certificates

The JAMF Software Server (JSS) uses push certificates to communicate with Apple Push Notification service (APNs). The JAMF Push Proxy enables communication between the JSS and Self Service Mobile for iOS, and between the JSS and personally owned Android devices.

## Push Certificate

The JSS requires a valid push certificate to communicate with APNs. This communication is required to do the following:

- Send OS X configuration profiles and OS X remote commands to computers.
- Distribute Mac App Store apps to computers.
- Enroll and manage iOS devices.

An assistant in the JSS guides you through the following steps to create a new push certificate (.pem) and upload it to the JSS:

1. Obtain a signed certificate request (CSR) from JAMF Nation.
2. Create the push certificate in Apple's Push Certificates Portal by logging into the portal, uploading the signed CSR obtained from JAMF nation, and downloading the resulting push certificate.
3. Upload the push certificate to the JSS.

If you have a push certificate in .p12 format, you do not have to create a new one. You can simply upload the .p12 file to the JSS.

You can also use the JSS to renew your push certificate when needed.

## JAMF Push Proxy

The JSS requires a valid proxy server token to authenticate to the JAMF Push Proxy. Push notification triggers communication between the JSS and Self Service Mobile for iOS, and between the JSS and personally owned Android devices. The types of communication include sending notifications to iOS devices with Self Service Mobile installed, and requesting management check-ins from personally owned Android devices.

An assistant in the JSS guides you through the process to request a new proxy server token from the JAMF Authorization Server and upload it to the JSS.

## Requirements

To create or renew a push certificate, you need:




- A valid JAMF Nation account  
To create a JAMF Nation account, go to:  
<https://jamfnation.jamfsoftware.com/createAccount.html>
- A valid Apple ID (A corporate Apple ID is recommended.)  
If you are renewing a push certificate that was originally obtained from Apple's iOS Developer Program (iDEP), you must use the Apple ID for the iDEP Agent account used to obtain the certificate.

To request or renew a proxy server token, you need a valid JAMF Nation account.

To create a JAMF Nation account, go to:

<https://jamfnation.jamfsoftware.com/createAccount.html>


## Creating a Push Certificate



1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Push Certificates** .
5. Click **New**  and do one of the following:
  - If the server hosting the JSS has an outbound connection, select **Download signed CSR from JAMF Nation**.  
The JSS connects to JAMF Nation over port 443 and obtains the signed CSR.
  - If the server hosting the JSS does not have an outbound connection, select **Download CSR and sign later using JAMF Nation**.
6. Follow the onscreen instructions to create and upload the push certificate (.pem).

## Uploading a Push Certificate (.p12)

If you have a push certificate that's in .p12 format, you can upload it to the JSS.



**Note:** You will only have a push certificate in .p12 format if the CSR used to create the certificate was not issued by the JSS.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .

3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Push Certificates** .
5. Click **New** .
6. Select **Upload push certificate (.p12)**.
7. Follow the onscreen instructions to upload the push certificate.



## Renewing the Push Certificate

**Important:** It is recommended that you do not delete the existing push certificate from the JSS when renewing a push certificate.




1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Push Certificates** .
5. Click the push certificate and then click **Renew**.
6. Choose a method for renewing the push certificate:
  - If the server hosting the JSS has an outbound connection, select **Download signed CSR from JAMF Nation**.  
The JSS connects to JAMF Nation over port 443 and obtains the signed CSR.
  - If the server hosting the JSS does not have an outbound connection, select **Download CSR and sign later using JAMF Nation**.
  - If you have a new push certificate in .p12 format, select **Upload push certificate (.p12)**.
7. Follow the onscreen instructions to renew the push certificate.

## Deleting the Push Certificate

Deleting the push certificate from the JSS disables communication between the JSS and APNs. This prevents the JSS from sending OS X configuration profiles and OS X remote commands to computers, and managing iOS devices. In addition, without a push certificate, Mac App Store apps cannot be distributed to computers. To restore these capabilities, you must create a new push certificate, and then re-enroll your computers and mobile devices with the JSS.


1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Push Certificates** .
5. Click the push certificate and click **Delete**. Then click **Delete** again to confirm.


## Requesting and Uploading a Proxy Server Token

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Push Certificates** .
5. Click **New** .
6. Select **Get proxy server token from JAMF Authorization Server**.
7. Follow the onscreen instructions to get the proxy server token and upload it to the JSS.



## Renewing the Proxy Server Token

**Note:** The proxy server token will be renewed automatically, however, the following steps can be used for troubleshooting purposes.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click **Push Certificates** .
5. Click the push proxy and then click **Renew**.

## Deleting the Proxy Server Token

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Push Certificates** .
5. Click the push proxy and click **Delete**. Then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Security Settings](#)  
Find out how to enable certificate-based authentication and push notifications so you can send OS X configuration profiles and OS X remote commands to managed computers.
- [Public Key Infrastructure](#)  
Learn how to configure the public key infrastructure (PKI) to ensure secure communication with APNs.
- [Ports](#)  
Find out which ports the JSS uses to communicate with APNs.
- [Sending a Mass Notification to Mobile Devices with Self Service Mobile Installed](#)  
Find out how to display notifications on mobile devices that have Self Service Mobile for iOS installed.

For related information, see the following Knowledge Base article:

[JAMF Push Proxy Communication](#)

Learn about push proxy network communication and ports.



# Integrating with GSX

Integrating with Apple's Global Service Exchange (GSX) allows you to look up and populate the following purchasing information for computers and mobile devices:

- Purchase date
- Warranty expiration date
- Apple Care ID (warranty reference number)



**Note:** GSX may not always return complete purchasing information. Only the information found in GSX is returned.

To integrate with GSX, you need to configure the GSX Connection settings in the JSS.

## Requirements


To configure the GSX Connection settings, you need a GSX account with the "Manager" role and access to Web Services. (For information, see the [Integrating with Apple's Global Service Exchange \(GSX\)](#) Knowledge Base article.)


## Configuring the GSX Connection Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **GSX Connection** .
5. Click **Edit**.
6. Configure the settings on the pane.
7. Click **Save**.

## Testing the GSX Connection

Once the GSX Connection settings are configured, you can test the connection.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .

3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **GSX Connection**  .
5. Click **Test**.
6. Click **Test** again.

A message displays, reporting the success or failure of the connection.

## Related Information

For related information, see the following sections in this guide:

- [Mass Looking up and Populating Purchasing Information for Computers](#)  
Find out how to mass look up and populate purchasing information for computers from GSX.
- [Mass Looking up and Populating Purchasing Information for Mobile Devices](#)  
Find out how to mass look up and populate purchasing information for mobile devices from GSX.
- [Viewing and Editing Inventory Information for a Computer](#)  
You can look up and populate purchasing information for a single computer by editing the computer's inventory information in the JSS.
- [Viewing and Editing Inventory Information for a Mobile Device](#)  
You can look up and populate purchasing information for a single mobile device by editing the device's inventory information in the JSS.
- [Local Enrollment Using Recon](#)  
Find out how to look up and populate purchasing information when enrolling a computer by running Recon locally.
- [Remote Enrollment Using Recon](#)  
Find out how to look up and populate purchasing information when enrolling a computer by running Recon remotely.

# User-Initiated Enrollment Settings

Enrollment is the process of adding computers and mobile devices to the JAMF Software Server (JSS). This establishes a connection between the computers and mobile devices and the JSS.

User-initiated enrollment allows users to initiate the enrollment process on their own.

Users can enroll the following:

- OS X computers
- Institutionally owned mobile devices
- Personally owned iOS/Android mobile devices

The User-Initiated Enrollment settings allow you to do the following:

- Enable user-initiated enrollment for the appropriate platforms.
- Customize text displayed for each step in the enrollment process, including adding different languages.
- Restrict re-enrollment so that a user is only allowed to re-enroll a computer or mobile device if one of the following conditions is met:
  - The user is a JSS user with the “Computers” or “Mobile Devices” privilege.
  - The username of the user re-enrolling the computer or mobile device matches the Username field in the User and Location category in inventory information.
  - The Username field in the User and Location category in inventory information is blank.
- Require users to install the CA certificate (mobile devices only).
- Specify a management account (computers only).
- Ensure that SSH (Remote Login) is enabled (computers only).
- Ensure that Self Service is launched after enrollment (computers only).
- Sign the QuickAdd package used for enrollment (computers only).

Signing the QuickAdd package ensures that it appears as verified to users who install it. It also allows users to install the QuickAdd package on computers that have Apple’s Gatekeeper feature set to only allow applications downloaded from the Mac App Store and identified developers.

If you choose to sign the QuickAdd package, you need:

- An installer certificate (.p12) from Apple. For instructions on how to obtain an installer certificate, see the following Knowledge Base article:  
[Obtaining an Installer Certificate from Apple](#)
- A Certification Authority intermediate certificate from Apple in the System keychain in Keychain Access on computers. For instructions on how to obtain this certificate and import it to the System keychain, see the following Knowledge Base article:  
[Importing a Certification Authority Intermediate Certificate from Apple to the System Keychain](#)

## Customizing the User-Initiated Enrollment Experience

You can customize the text displayed in each step of the enrollment experience using Markdown. You can also add different languages.

For information about Markdown, see the following Knowledge Base article:




[Using Markdown to Format Text Displayed During User-Initiated Enrollment and in Self Service Descriptions](#)

The following table describes each step that can be customized and the platform each step is displayed on:

Enrollment Step	Description	OS X	Institutionally Owned iOS Devices	Personally Owned iOS/ Android Devices
Login Page	Customize how you want the Login page to be displayed to users.	✓	✓	✓
Device Ownership	<p>Customize the text that prompts the user to specify the device ownership type if user-initiated enrollment is enabled for both institutionally owned and personally owned devices.</p> <p><b>Note:</b> Because Android devices cannot be enrolled as institutionally owned devices, the text, button name, and management description are not displayed to users.</p> <p>You can also specify the device management description that displays to users to provide custom messaging on the IT management capabilities for each device ownership type.</p>		✓	✓
EULA	Enter text for the End User License Agreement (EULA). If the EULA is left blank, it is not displayed to users during enrollment. The EULA is not displayed for users logging in with a JSS user account.	✓	✓	✓
Sites	<p>Customize the message that prompts users to choose a site. If a user logs in with a JSS user account, they can assign an LDAP user to the computer or mobile device.</p> <p>If you have more than one site in the JSS and have entered information on the Messaging Pane in Personal Device Profiles in the JSS, this information is displayed to users when they are prompted to choose a site. (For more information, see <a href="#">Personal Device Profiles</a>.)</p>	✓	✓	✓

Enrollment Step	Description	OS X	Institutionally Owned iOS Devices	Personally Owned iOS/ Android Devices
Certificate	Customize the message that prompts users to install the CA certificate for mobile devices to trust at enrollment.		✓	iOS only
Institutional MDM Profile	Customize the message that prompts users to install the MDM profile for institutionally owned devices.		✓	
Personal MDM Profile	Customize the message that prompts users to install the MDM profile for personally owned devices.			iOS only
QuickAdd Package	Customize the message that prompts users to download and install the QuickAdd package.	✓		
App for Android	Customize the message that prompts users to install Self Service Mobile for Android from Google Play.			Android only
Complete Page	Customize the messages that are displayed to users if enrollment is successful or if it fails.	✓	✓	iOS only

## Configuring the User-Initiated Enrollment Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **User-Initiated Enrollment** .
5. Click **Edit**.
6. Use the General pane to restrict re-enrollment and to skip certificate installation.
7. Use the Messaging pane to customize the text displayed during the enrollment experience and add languages.  
**Note:** English is the default language if the computer or mobile device does not have a preferred language set on it.
  - To add a language, click **Add**  and then choose the language from the **Language** pop-up menu. You can repeat this process as needed for other languages.
  - To customize the text for a language already listed, click **Edit** or **View** depending on what's displayed. Then click **Done**.

8. Use the Platforms pane to enable user-initiated enrollment and configure the enrollment settings for each platform as needed.
9. Use the Access pane to choose the site you want to display to LDAP user groups during enrollment. Then, click **Done**.  
If an LDAP user belongs to more than one LDAP user group in the JSS, the user will have the option to select the sites you assign to each group that user belongs to.
10. Click **Save**.

## Related Information

For related information, see the following sections in this guide:

- [User-Initiated Enrollment for Computers](#)  
Find out how to allow users to enroll computers.
- [User-Initiated Enrollment for Mobile Devices](#)  
Find out how to allow users to enroll mobile devices.
- [User-Initiated Enrollment Experience for Computers](#)  
Learn about the steps users take to enroll computers.
- [User-Initiated Enrollment Experience for Mobile Devices](#)  
Learn about the steps users take to enroll mobile devices.

# Integrating with the Device Enrollment Program




The Device Enrollment Program settings allow you to integrate with Apple's Device Enrollment Program, part of Apple's Volume Services. Integrating with the program is the first step to enrolling a device with the JAMF Software Server (JSS) using a PreStage enrollment. After the JSS is integrated with the Device Enrollment Program, you can use the JSS to configure enrollment and device setup settings.

To integrate with the Device Enrollment Program, you need to upload the server token file (.p7m) you received from Apple. This process creates one instance of the program in the JSS. To meet the needs of your organization, you can repeat the process to create multiple instances of the program.

## Requirements



To configure an instance of the Device Enrollment Program, you need a server token file from Apple, which requires an account in Apple's Volume Services Portal. (For information, see the [Integrating with Apple's Device Enrollment Program](#) Knowledge Base article.)

## Configuring an Instance of the Device Enrollment Program

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Device Enrollment Program** .
5. Click **New** .
6. Enter a display name for the instance of the program.
7. Click **Upload Server Token File** to upload the server token file you downloaded from Apple. This creates one instance of the program in the JSS.  
The information contained in the server token file is displayed.
8. Click **Save**.
9. To configure another instance of the program, repeat steps 5-8.



## Refreshing Device Enrollment Program Instance Information

The JSS allows you to manually refresh information in the program instance as needed.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Device Enrollment Program** .  
A list of program instances is displayed.
5. Click the program instance you want to refresh.
6. Click **Refresh**.

If there is updated information in the Device Enrollment Program, this information is displayed in the JSS.

## Editing and Deleting an Instance of the Device Enrollment Program



1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Device Enrollment Program** .  
A list of program instances is displayed.
5. Click the program instance you want to edit or delete.
6. Do one of the following:
  - To edit the program instance, click **Edit** and make changes as needed. Then click **Save**.  
If you want to replace the server token file, click **Upload Server Token File**.  
**Note:** If you are uploading a new server token file to renew an expired program instance, it is recommended that you do not delete the expired instance from the JSS before uploading the new server token file.  
The changes are applied the next time the JSS contacts the Device Enrollment Program.
  - To delete the program instance, click **Delete** and then click **Delete** again to confirm.  
Deleting a program instance removes the instance from the JSS but does not delete the settings in the Device Enrollment Program.



# Disowning a Device from the Device Enrollment Program

You can remove a device from the Device Enrollment Program by disowning it in the JSS.

**Warning:** Disowning a device permanently removes the device from the Device Enrollment Program. A disowned device cannot be re-enrolled in the program.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Device Enrollment Program** .  
A list of program instances is displayed.
5. Click the program instance of which the device is a member.
6. Click **Devices**.
7. Click **Disown** across from the device you want to disown from the program, and then click **Yes**.

The device is permanently removed from the Device Enrollment Program and is not displayed on the Devices pane.

Disowning a device that is currently enrolled with the JSS does not remove the device from the JSS.

## Related Information

For related information, see the following sections in this guide:

- [Mobile Device PreStage Enrollments](#)  
Find out how to enroll mobile devices using a mobile device PreStage enrollment.
- [Computer PreStage Enrollments](#)  
Find out how to enroll OS X computers using a computer PreStage enrollment.



# JSS URL

The JSS URL is the URL that client applications, computers, and mobile devices connect to when communicating with the JAMF Software Server (JSS). You can view and configure the JSS URL in the JSS.

**Important:** In general, you should not change the JSS URL in a production environment with managed computers and mobile devices. If the JSS URL is incorrect or not specified, client applications, computers, and mobile devices are unable to connect to the server.

You can also view or configure the JSS URL that's used for enrolling mobile devices with an enrollment profile and Apple's iPhone Configuration Utility (iPCU).

## Viewing or Configuring the JSS URLs

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **JSS URL** .
- The JSS URLs are displayed on the pane.
5. To configure the JSS URLs:
  - a. Click **Edit**.
  - b. Enter the new URLs in the fields on the pane.
  - c. Click **Save**.

## Related Information

For related information, see the following section in this guide:

### [Enrollment Profiles](#)

Find out how to create and download enrollment profiles so you can enroll mobile devices by connecting them to a computer via USB.

# Public Key Infrastructure

To ensure secure communication with the Apple Push Notification service (APNs), the JAMF Software Server (JSS) requires a public key infrastructure (PKI) that supports certificate-based authentication. The PKI must include the following components:

- A certificate authority (CA) that supports Simple Certificate Enrollment Protocol (SCEP)
- A signing certificate
- A CA certificate

For more information on the PKI and its components, see [Security](#).

The JSS includes a preconfigured PKI that uses a built-in CA with support for SCEP. There is no configuration necessary to use the built-in CA—the signing and CA certificates are created and stored for you. The built-in CA is used by default to issue certificates to both computers and mobile devices.

You can use the PKI settings in the JSS to perform the following tasks related to the built-in CA:



- Download the CA certificate.
- View and revoke certificates issued by the built-in CA.
- Create a certificate using a Certificate Signing Request (CSR).
- Create a backup of the CA certificate.

You can also configure your own PKI if you have access to an external CA that supports SCEP. The external CA can be a CA hosted by your organization or by a trusted third-party vendor. If you integrate an external CA with the JSS, this CA will be used to issue certificates to computers and mobile devices.

## Downloading the CA Certificate

You can use the PKI settings in the JSS to download the CA certificate issued by the built-in CA.

**Note:** The CA certificate issued by the built-in CA is also stored in the System keychain in Keychain Access.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **PKI** .
5. On the Built-in CA pane, click **Download CA Certificate**.

The certificate (.pem) downloads immediately.



## Viewing or Revoking Certificates

You can view the following information for a certificate issued by the built-in CA:

- Serial number
- Subject name
- Date/time issued
- Expiration date/time
- Status
- Date/time revoked (if applicable)

You can also revoke a certificate issued by the built-in CA.

**Warning:** Revoking a certificate stops communication between the JSS and the computer or mobile device that the certificate was issued to. You will need to re-enroll the computer or device to restore communication.



1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **PKI** .
5. On the Built-in CA pane, click **Issued Certificates**.  
A list of certificates issued by the built-in CA is displayed.
6. Click the serial number of the certificate you want to view or revoke.  
Information about the certificate is displayed.
7. To revoke the certificate, click **Revoke**.  
The status of the certificate is changed to Revoked.
8. Click **Done** twice to return to the Built-in CA pane.

## Manually Creating a Certificate from a CSR

Depending on your environment, you may need to manually create a certificate from a certificate signing request (CSR). For example, you may need to do this if you have a clustered environment with Tomcat configured for working behind a load balancer. You can create this certificate using the PKI settings in the JSS.



**Note:** The certificate created from the CSR is intended solely for purposes of communication between the JSS and a managed computer or mobile device.

To create a certificate from a CSR, you need a request in Base64-encoded PEM format.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings**  .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **PKI**  .
5. On the Built-in CA pane, click **Create Certificate from CSR**.
6. In the **CSR** field, paste the CSR.  
The request must begin with  
----BEGIN CERTIFICATE REQUEST----  
and end with  
----END CERTIFICATE REQUEST----
7. Click **Create**.  
The certificate (.pem) is downloaded immediately.
8. Click **Back** to return to the Built-in CA pane.

## Creating a Backup of the CA Certificate

It is recommended that you create a password-protected backup of the CA certificate issued by the built-in CA and store it in a secure location.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings**  .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **PKI**  .
5. On the Built-in CA pane, click **Create CA Backup**.
6. Create and verify a password to secure the backup CA certificate.  
You will need to enter this password to restore the certificate backup.
7. Click **Create Backup**.  
The backup file (.p12) is downloaded immediately.
8. Click **Back** to return to the Built-in CA pane.

## Integrating with an External CA



If you are using an organizational or third-party CA that supports SCEP, you can use it to issue management certificates to computers and mobile devices.

Integrating an external CA with the JSS involves the following steps:

- Specify SCEP parameters for the external CA.
- Upload a signing certificate and CA certificate for the external CA.

**Note:** If you need to make changes to your organizational or third-party CA in the JSS, it is recommended that you contact JAMF Software Support. Changes to the PKI could lead to re-enrolling the mobile devices in your environment.

### Specifying SCEP Parameters for an External CA



1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **PKI** .
5. Click the **External CA** tab.
6. Click **Edit**.
7. Select the **Use External Certificate Authority** checkbox.
8. Use the External CA pane to specify SCEP parameters.
9. Choose the type of challenge password to use from the **Challenge Type** pop-up menu:
  - If you want all computers and mobile devices to use the same challenge password, choose “Static” and specify a challenge password.  
The challenge password will be used as the pre-shared secret for automatic enrollment.
  - If you are using a non-Microsoft CA and you want each computer and mobile device to use a unique challenge password, choose “Dynamic”.  
The Dynamic challenge type requires use of the JSS API and membership in the JAMF Software Developer Program. Before selecting this option, contact your Technical Account Manager to learn more about the JAMF Software Developer Program and the additional steps you need to take to use this option.
  - If you are using a Microsoft CA and you want each computer and mobile device to use a unique challenge password, choose “Dynamic-Microsoft CA”.
- Note:** If you choose the “Dynamic” or “Dynamic-Microsoft CA” challenge type, you must use user-initiated enrollment to enroll computers and mobile devices so that a unique challenge password is used for each device. For more information, see [User-Initiated Enrollment for Computers](#) and [User-Initiated Enrollment for Mobile Devices](#).
10. Click **Save**.

## Uploading Signing and CA Certificates for an External CA

To integrate an external CA with the JSS, you need to provide the signing and CA certificates for the external CA. This is done by uploading a signing certificate keystore (.jks or .p12) to the JSS that contains both certificates.

**Note:** By default, the JSS uses the signing and CA certificates for the JSS's built-in CA. You must replace these certificates with the ones for the external CA when you initially set up the integration.

An assistant guides you through the process of uploading the keystore that contains the signing and CA certificates.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **PKI** .
5. Click the **External CA** tab.
6. At the bottom of the External CA pane, click **Change Signing and CA Certificates**.
7. Follow the onscreen instructions to upload the signing and CA certificates for the external CA.

## Related Information

For related information, see the following section in this guide:

### [Push Certificates](#)

Learn how to create a push certificate and upload it to the JSS so the JSS can communicate with Apple Push Notification service (APNs).

For related information, see the following Knowledge Base articles:

- [Certificate-Based Authentication for OS X Computers](#)  
Learn how the JSS uses certificate-based authentication to verify the identity of OS X computers.
- [Using OpenSSL to Create a Certificate Keystore for Tomcat](#)  
Find out how to use OpenSSL to create a certificate keystore that you can upload to the JSS.

# Integrating with VPP

Integrating with Apple's Volume Purchase Program (VPP) is the first step to utilizing VPP-managed distribution. To integrate with VPP, you need to add one or more VPP accounts to the JAMF Software Server (JSS).

When you add a VPP account to the JSS, you upload the service token that you obtained from Apple, and specify the country associated with the VPP account. You can also specify other information about the account, such as the contact person and Apple ID.




For more information on VPP and VPP-managed distribution, visit one of the following websites:

- Volume Purchase Program for Business  
<https://www.apple.com/business/vpp/>
- Volume Purchase Program for Education  
<https://www.apple.com/education/volume-purchase-program/>
- Apple Deployment Programs Help  
<http://help.apple.com/deployment/programs/>

## Requirements



To add a VPP account to the JSS, you need a service token (.vpptoken) from Apple's VPP store.

## Adding a VPP Account

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **VPP Accounts** .
5. Click **New** .
6. Enter a display name for the account.
7. Click **Upload Service Token** and upload the service token (.vpptoken) for the account.  
**Note:** Each service token should only exist in one location at a time. If the service token you want to upload already exists in Apple's Profile Manager, delete the service token from Apple's Profile Manager before uploading it to the JSS.
8. Choose the country that is associated with the account.
9. (Optional) Enter additional information about the account, including the contact person and Apple ID.
10. Click **Save**.



## Editing or Deleting a VPP Account

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **VPP Accounts** .
5. Click the VPP account you want to edit or delete.
6. Do one of the following:
  - To edit the VPP account, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the VPP account, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [VPP Registration](#)  
Find out how to register users with VPP so that you can assign content to users for VPP-managed distribution.
- [VPP Assignments](#)  
Find out how to assign content to users for VPP-managed distribution.


# Categories

Categories are organizational components that allow you to group policies, packages, scripts, and printers in Casper Admin and the JAMF Software Server (JSS). You can also use categories to group policies, configuration profiles, apps, and eBooks in Self Service. This makes these items easier to locate.

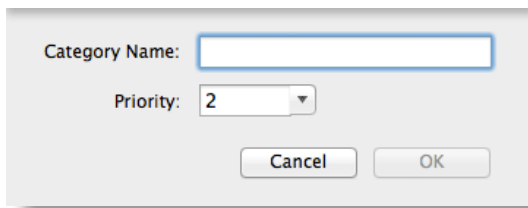
You can add categories to Casper Admin or the JSS. When you add, edit, or delete a category in Casper Admin, the changes are reflected in the JSS and vice versa.

After you add a category to Casper Admin or the JSS, you can add items to the category when configuring them in Casper Admin or the JSS.

## Adding a Category to Casper Admin




1. Open Casper Admin and authenticate to the JSS.
2. Click **New Category** .
3. Enter a display name and choose a priority for the category.

**Note:** Priority is used for displaying the category in Self Service (e.g. A category with a priority of “1” is displayed before other categories).




4. Click **OK**.



## Adding a Category to the JSS

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Categories** .
5. Click **New** .
6. Enter a display name and choose a priority for the category.  
**Note:** Priority is used for displaying the category in Self Service.
7. Click **Save**.

## Editing or Deleting a Category in Casper Admin

1. Open Casper Admin and authenticate to the JSS.
2. In the "Categories" list above the main repository, select the category you want to edit or delete.
3. Do one of the following:
  - To edit the category, double-click it and change the display name and/or priority as needed. Then click **OK**.
  - To delete the category, click **Delete**  and then click **Delete** again to confirm.

## Cloning, Editing, or Deleting a Category in the JSS

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Categories** .
5. Click the category you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the category, click **Clone** and change the display name, and then configure priority as needed. Then click **Save**.
  - To edit the category, click **Edit** and change the display name and/or priority as needed. Then click **Save**.
  - To delete the category, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Managing Packages](#)  
You can add packages to a category.
- [Managing Scripts](#)  
You can add scripts to a category.
- [Managing Printers](#)  
You can add printers to a category.
- [Managing Policies](#)  
You can add policies to a category.
- [Self Service Policies](#)  
Find out how to display or feature policies in one or more categories in Self Service.

- [Self Service Configuration Profiles](#)  
Find out how to display or feature configuration profiles in one or more categories in Self Service.
- [Mac App Store Apps](#)  
Find out how to display or feature Mac App Store apps in one or more categories in Self Service.
- [eBooks Available in the iBookstore](#)  
Find out how to display or feature eBooks that are available in the iBookstore in one or more categories in Self Service.
- [In-House eBooks](#)  
Find out how to display or feature in-house eBooks in one or more categories in Self Service.



# Server Infrastructure

# About Distribution Points

Distribution points are servers used to host files for distribution to computers and mobile devices. The following types of files can be distributed from a distribution point using the Casper Suite:

- Packages
- Scripts
- In-house apps
- In-house eBooks

The Casper Suite supports three types of distribution points:

- File share distribution points
- A cloud distribution point
- JAMF Distribution Server (JDS) instances

You can use any combination of these types of distribution points.

By default, the first distribution point you add to the JAMF Software Server (JSS) is the master distribution point. The master distribution point is used by all other distribution points as the authoritative source for all files during replication. You can change the master distribution point at any time.

When planning your distribution point infrastructure, it is important to understand the differences between each type of distribution point. The following table explains the key differences:

	<b>File Share Distribution Point</b>	<b>Cloud Distribution Point</b>	<b>JDS Instance</b>
<b>Description</b>	Standard server that is configured to be a distribution point	Distribution point that uses one of the following content delivery networks (CDNs) to host files: <ul style="list-style-type: none"><li>• Rackspace Cloud Files</li><li>• Amazon Web Services</li><li>• Akamai</li></ul>	Distribution point that is managed by the JSS, similar to a computer or mobile device
<b>Maximum Number per JSS</b>	Unlimited	One	Unlimited
<b>Server/Platform Requirements</b>	Any server with an Apple Filing Protocol (AFP) or Server Message Block (SMB) share	None	OS X or Linux
<b>Protocol</b>	AFP, SMB, HTTP, or HTTPS	HTTPS	HTTPS
<b>Ports</b>	<ul style="list-style-type: none"><li>• AFP: 548</li><li>• SMB: 139</li><li>• HTTP: 80</li><li>• HTTPS: 443</li></ul>	443	443

	File Share Distribution Point	Cloud Distribution Point	JDS Instance
<b>Authentication Options</b>	<ul style="list-style-type: none"> <li>• AFP or SMB: <ul style="list-style-type: none"> <li>• No authentication</li> <li>• Username and password</li> </ul> </li> <li>• HTTP or HTTPS: <ul style="list-style-type: none"> <li>• No authentication</li> <li>• Username and password</li> <li>• Certificate-based authentication</li> </ul> </li> </ul>	None	<ul style="list-style-type: none"> <li>• No authentication</li> <li>• Certificate-based authentication</li> </ul>
<b>Files that Can Be Hosted</b>	<ul style="list-style-type: none"> <li>• Packages</li> <li>• Scripts</li> </ul>	<ul style="list-style-type: none"> <li>• Packages</li> <li>• In-house apps</li> <li>• In-house eBooks</li> </ul> <p><i>Note:</i> If you use the cloud distribution point, scripts are stored in the jamfsoftware database.</p>	<ul style="list-style-type: none"> <li>• Packages</li> <li>• In-house apps</li> <li>• In-house eBooks</li> </ul> <p><i>Note:</i> If you use one or more JDS instances, scripts are stored in the jamfsoftware database.</p>
<b>Parent-Child Capabilities</b>	No	No	Yes
<b>File Replication Method</b>	Replication to file share distribution points must be initiated from Casper Admin.	Replication to file share distribution points must be initiated from Casper Admin.	<p>Replication to root JDS instances must be initiated from Casper Admin.</p> <p>Replication to non-root JDS instances happens automatically and immediately.</p>
<b>Selective Replication</b>	Not available when replicating to file share distribution points.	Not available when replicating to file share distribution points.	<p>Not available when replicating to root JDS instances.</p> <p>Available when replicating to non-root JDS instances.</p>

## Related Information

For related information, see the following sections in this guide:

- [File Share Distribution Points](#)  
Find out how to manage file share distribution points in the JSS.
- [Cloud Distribution Point](#)  
Find out how to manage the cloud distribution point.
- [JAMF Distribution Server Instances](#)  
Find out how to install and manage JDS instances.



# File Share Distribution Points

Any server with an AFP or SMB share can be used as a file share distribution point. Before you can use a file share distribution point with the Casper Suite, you must set up the distribution point and add it to the JAMF Software Server (JSS).




For information on setting up a file share distribution point, see the following Knowledge Base article:

[Setting Up a File Share Distribution Point](#)



When you add a file share distribution point to the JSS, you can do the following:

- Make it the master distribution point.
- Choose a failover distribution point.
- Configure HTTP downloads.

## Adding a File Share Distribution Point

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Server Infrastructure” section, click **File Share Distribution Points** .
5. Click **New** .
6. Use the General pane to configure basic settings for the distribution point.
7. Click the **File Sharing** tab and enter information about the AFP or SMB share.
8. (Optional) Click the **HTTP** tab and configure HTTP downloads.
9. Click **Save**.

## Cloning, Editing, or Deleting a File Share Distribution Point

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Server Infrastructure” section, click **File Share Distribution Points** .

5. Click the distribution point you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the distribution point, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the distribution point, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the distribution point, click **Delete** and then click **Delete** again to confirm.

## Replicating Files to a File Share Distribution Point

During replication, all files on the master distribution point are replicated to the file share distribution point that you choose.

1. Open Casper Admin and authenticate to the JSS.
2. In the sidebar, select the file share distribution point you want to replicate files to.
3. Click **Replicate**.

## Related Information

For related information, see the following section in this guide:

### [Network Segments](#)

You can use network segments to ensure that computers and mobile devices use the closest distribution point by default.

For related information, see the following Knowledge Base articles:

- [Setting Up a File Share Distribution Point on Linux Using Samba](#)  
Find out how to use Samba to set up a file share distribution point with an SMB share on a Linux server.
- [Using Apache HTTP Server to Enable HTTP Downloads on a Linux File Share Distribution Point](#)  
Find out how to use Apache HTTP Server to enable HTTP downloads on a Linux file share distribution point.
- [Using IIS to Enable HTTP Downloads on a Windows Server 2008 File Share Distribution Point](#)  
Find out how to activate Internet Information Services (IIS) and use it to enable HTTP downloads on a Windows Server 2008 file share distribution point.

# JAMF Distribution Server Instances

A JAMF Distribution Server (JDS) instance is a distribution point that is managed by the JAMF Software Server (JSS), similar to a computer or mobile device. It can be used to host packages, in-house apps, and in-house eBooks.

Before using a JDS instance, you must install it and configure it. JDS instances can be installed on OS X or Linux. When you install a JDS instance, it is enrolled with the JSS. You can install as many instances as your organization requires.

By default, the first JDS instance you install is the root. The root instance is used by other instances as the authoritative source for all files. The root instance can also be used as the master distribution point. You can make a different instance the root at any time.

You can define parent-child relationships between non-root JDS instances, making selective file replication more manageable.

When you configure a JDS instance, you can do the following:

- Make it the master distribution point.
- Choose a parent JDS instance (non-root JDS instances only).
- Enable certificate-based authentication.
- Limit the rate at which the JDS instance downloads files.
- Specify WebDAV accounts.
- Choose whether to replicate specific files or the entire contents of the parent JDS instance (non-root JDS instances only).

You can also view the progress of file replication and view inventory information for each JDS instance.

## Requirements

The JDS Installer for Mac requires a computer with:

- An Intel processor
- 2 GB of RAM
- 100 GB of disk space available
- OS X Server v10.7 or later
- Server.app 1.4.3 or later

The JDS Installer for Linux requires a computer with:

- An Intel processor
- 2 GB of RAM

- 100 GB of disk space available
- One of the following operating systems:
  - Ubuntu 10.04 LTS Server
  - Ubuntu 12.04 LTS Server
  - Red Hat Enterprise Linux (RHEL) 6.4, 6.5, 6.6, or 7.0

**Note:** To install a JDS instance on a Linux operating system that is running on a virtual machine, you need a virtualization platform that provides SMBIOS information.

To manage JDS instances in the JSS, you need a valid SSL certificate on the JSS host server. (For more information, see [SSL Certificate](#).)

**Note:** If you have upgraded from the Casper Suite v8.x, you must migrate the scripts and packages on your master distribution point before configuring JDS instances. (For more information, see the [Migrating Packages and Scripts](#) Knowledge Base article.)

## Installing a JDS Instance on OS X

There are two ways to install a JDS instance on OS X: during a fresh installation of the JSS using the JSS Installer for Mac, or at any time using the JDS Installer for Mac.

For more information on installing a JDS instance using the JSS Installer for Mac, see the “Installing the JSS” section in the *JAMF Software Server Installation and Configuration Guide for OS X*.

To install a JDS instance using the JDS Installer for Mac (`JDS_Installer.pkg`), copy the installer to the server. Then double-click the installer and follow the onscreen instructions.

**Note:** To obtain the JDS Installer for Mac, log in to JAMF Nation and go to the following page:

<https://jamfnation.jamfsoftware.com/myAssets.html>

## Installing a JDS Instance on Linux

1. Copy the JDS Installer for Linux (`JDS_Installer.run`) to the server on which you plan to install a JDS instance.

**Note:** To obtain the JDS Installer for Linux, log in to JAMF Nation and go to the following page:

<https://jamfnation.jamfsoftware.com/myAssets.html>



2. Log in to the server as a user with superuser privileges.
3. Initiate the installer by executing a command similar to the following:

```
sudo /path/to/JDS_Installer.run
```

4. When prompted, enter the JDS hostname. For example, “jds.mycompany.com”.
5. When prompted, enter the JSS URL. For example, “https://jss.mycompany.com:8443/”.

6. When prompted, enter credentials for a JSS user account with the “JDS” privilege.
7. Follow the onscreen instructions to complete the installation.

## Configuring a JDS Instance


1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Server Infrastructure” section, click **JDS Instances** .
5. Click the JDS instance you want to configure.
6. Click **Edit**.
7. Use the General pane to configure basic settings for the JDS instance.
8. Click the **Distribution Point** tab and configure distribution settings.
9. Click **Save**.



## Replicating Files to the Root JDS Instance

During replication, all files on the master distribution point are replicated to the root JDS instance. Then, files are automatically and immediately replicated to non-root JDS instances. The files that are replicated to non-root JDS instances depend on whether each instance is configured to replicate specific files or the entire contents of their parent JDS instance.

1. Open Casper Admin and authenticate to the JSS.
2. In the sidebar, select the root JDS instance.
3. Click **Replicate**.

## Viewing the Progress of File Replication

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.



4. In the “Computer Management–Server Infrastructure” section, click **JDS Instances**  .
5. Click **Grid View**  at the top of the list.

The progress of file replication for each JDS instance is displayed. If your master distribution point is a JDS instance, it is marked with two asterisks (\*\*). If your master distribution point is a different type of distribution point, the root instance is marked with a single asterisk (\*).

## Viewing Inventory Information for a JDS Instance

The JSS displays the following inventory information for each JDS instance:

- Whether or not it is the master distribution point
- Whether or not it is the root instance
- Hostname
- URL
- Reported IP address
- jamfds binary version
- Operating system
- Operating system version
- Total memory
- Available memory
- Hard drive size
- Hard drive used space

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings**  .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Server Infrastructure” section, click **JDS Instances**  .
5. Click the JDS instance you want to view inventory information for.

## Related Information

For related information, see the following section in this guide:

### [Network Segments](#)

You can use network segments to ensure that computers and mobile devices use the closest distribution point by default.

For related information, see the following Knowledge Base articles:

- [Components Installed on JDS Instances](#)  
Find out what items are installed on JDS instances.
- [Changing JDS Hierarchy](#)  
Learn about the implications of changing your JDS hierarchy.
- [Uninstalling a JDS Instance](#)  
Find out how to uninstall a JDS instance.

# Cloud Distribution Point

The cloud distribution point uses a content delivery network to host packages, in-house apps, and in-house eBooks. The JAMF Software Server (JSS) supports the following content delivery networks:

- Rackspace Cloud Files  
For more information, go to:  
<http://www.rackspace.com/cloud/files/>
- Amazon Web Services  
For more information, go to:  
<http://aws.amazon.com>
- Akamai (NetStorage and EdgeSuite)  
For more information, go to:  
<http://www.akamai.com/html/solutions/cloud-networking-solutions.html>



When you configure the cloud distribution point in the JSS, you can choose to make it the master. You can also choose whether to replicate specific files or the entire contents of the master distribution point.

## Requirements

If you plan to use Akamai for your cloud distribution point, Akamai must be configured to use File Transfer Protocol (FTP).



**Note:** If you have upgraded from the Casper Suite v8.x, you must migrate the scripts and packages on your master distribution point before configuring the cloud distribution point. (For more information, see the [Migrating Packages and Scripts](#) Knowledge Base article.)

## Configuring the Cloud Distribution Point

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Server Infrastructure” section, click **Cloud Distribution Point** .
5. Click **Edit**.
6. Choose a content delivery network from the **Content Delivery Network** pop-up menu.
7. Configure the settings on the pane.
8. Click **Save**.

## Testing the Cloud Distribution Point

Once the cloud distribution point is configured, you can test the connection to the content delivery network.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Server Infrastructure” section, click **Cloud Distribution Point** .
5. Click **Test**.
6. Click **Test** again.

A message displays, reporting the success or failure of the connection.

## Replicating Files to the Cloud Distribution Point

During replication, files on the master distribution point are replicated to the cloud distribution point. The files that are replicated depend on whether the cloud distribution point is configured to replicate specific files or the entire contents of the master.

1. Open Casper Admin and authenticate to the JSS.
2. In the sidebar, select the cloud distribution point you want to replicate files to.
3. Click **Replicate**.

## Related Information

For related information, see the following section in this guide:

### [Network Segments](#)

You can use network segments to ensure that computers and mobile devices use the closest distribution point by default.






# Software Update Servers

Adding an internal software update server to the JAMF Software Server (JSS) is the first step to running Software Update from an internal software update server using a policy or Casper Remote.



Using an internal software update server allows you to reduce the amount of bandwidth used when distributing software updates from Apple. Instead of each computer downloading updates from Apple's Software Update server, updates are only downloaded from Apple once per server.

Using an internal software update server also allows you to control and approve updates before you make them available.

## Adding a Software Update Server

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Server Infrastructure" section, click **Software Update Servers** .
5. Click **New** .
6. Configure the settings on the pane.
7. Click **Save**.

## Cloning, Editing, or Deleting a Software Update Server

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Server Infrastructure" section, click **Software Update Servers** .
5. Click the software update server you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the software update server, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the software update server, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the software update server, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

[Running Software Update](#)

Find out how to run Software Update using a policy or Casper Remote.

For related information, see the following document:




[NetBoot/SUS Server User Guide](#)

Find out how to host an internal software update server on Linux.



# NetBoot Servers

Adding a NetBoot server to the JAMF Software Server (JSS) is the first step to booting computers to a NetBoot image using a policy or Casper Remote. NetBoot images are commonly used in place of recovery partitions or external drives when imaging.

## Adding a NetBoot Server

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Server Infrastructure” section, click **NetBoot Servers** .
5. Click **New** .
6. Configure the settings on the pane.
7. Click **Save**.

## Cloning, Editing, or Deleting a NetBoot Server

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Server Infrastructure” section, click **NetBoot Servers** .
5. Click the NetBoot server you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the NetBoot server, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the NetBoot server, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the NetBoot server, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Booting Computers to NetBoot Images](#)

Find out how to boot computers to a NetBoot image using a policy or Casper Remote.

- [Network Segments](#)

You can use network segments to ensure that computers use the closest NetBoot server by default.

For related information, see the following Knowledge Base article:

[Creating a NetBoot Image and Setting Up a NetBoot Server](#)

Find out how to host a NetBoot server on OS X Server.

For related information, see the following document:

[NetBoot/SUS Server User Guide](#)

Find out how to host a NetBoot server on Linux.







# Organizing Your Network




# Buildings and Departments

Buildings and departments are organizational components that allow you to group computers and mobile devices by physical location and organizational infrastructure. You can use them to perform inventory searches, create smart groups, and configure the scope of remote management tasks.

## Adding a Building or Department

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Buildings**  or **Departments** .
5. Click **New** .
6. Enter a display name for the building or department.
7. Click **Save**.

## Cloning, Editing, or Deleting a Building or Department

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Buildings**  or **Departments** .
5. Click the building or department you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the building or department, click **Clone** and change the display name. Then click **Save**.
  - To edit the building or department, click **Edit** and change the display name. Then click **Save**.
  - To delete the building or department, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Viewing and Editing Inventory Information for a Computer](#)  
You can add a computer to a building or department by editing the computer's inventory information in the JSS.
- [Viewing and Editing Inventory Information for a Mobile Device](#)  
You can add a mobile device to a building or department by editing the mobile device's inventory information in the JSS.
- [Mass Editing the Building or Department for Computers](#)  
Find out how to use the mass edit function to add multiple computers to a building or department.
- [Mass Editing the Building and Department for Mobile Devices](#)  
Find out how to use the mass edit function to add multiple mobile devices to a building or department.
- [Network Segments](#)  
You can use a network segment to update the building or department to which computers and mobile devices belong.
- [Smart Computer Groups](#)  
You can create smart computer groups based on buildings or departments.
- [Smart Mobile Device Groups](#)  
You can create smart mobile device groups based on buildings or departments.
- [Simple Computer Searches](#)  
You can perform simple computer searches based on buildings or departments.
- [Simple Mobile Device Searches](#)  
You can perform simple mobile device searches based on buildings or departments.
- [Advanced Computer Searches](#)  
You can create advanced computer searches based on buildings or departments.
- [Advanced Mobile Device Searches](#)  
You can create advanced mobile device searches based on buildings or departments.
- [Scope](#)  
Learn how to configure scope based on buildings or departments.

# Network Segments




A network segment is a range of IP addresses that can be used to group computers and mobile devices based on their network location. Network segments can be class B or class C subnets, or any IP range therein.

Adding network segments to the JSS allows you to do the following:



- Ensure that computers and mobile devices use the closest distribution point by default.
- Ensure that computers use the closest NetBoot server by default.
- Specify a software update server for computers to use by default.
- Automatically update the building and department to which computers and mobile devices belong.
- Base the scope of remote management tasks on network segments.

If a computer belongs to multiple network segments, the JSS uses the network segment with the fewest IP addresses. If the number of IP addresses in each network segment is equal, the JSS uses the network segment with the lowest starting IP address.

## Adding a Network Segment

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Network Segments** .
5. Click **New** .
6. Configure the network segment using the settings on the pane.
7. Click **Save**.

## Cloning, Editing, or Deleting a Network Segment

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Network Segments** .



5. Click the network segment you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the network segment, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the network segment, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the network segment, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

### [Scope](#)

Learn how to configure scope based on network segments.

For related information, see the following Knowledge Base article:

### [Using the JSS Subnet Importer](#)

Find out how to use the JSS Subnet Importer to import a CSV file that contains network segment information into the JSS.

# iBeacon Regions

The JAMF Software Server (JSS) allows you to utilize Apple's iBeacon technology to monitor when computers and mobile devices enter or exit an iBeacon region. This allows you to ensure that configuration profiles and policies are only installed on a device when the device is in the specified region.

You can use iBeacon regions as the basis for the following:

- The scope of a configuration profile
- The scope of a policy (This initiates the policy the first time that a computer checks in to the JSS while in the specified region.)
- A custom trigger for a policy (The event name for initiating a policy when an iBeacon region change occurs is "beaconStateChange". This initiates the policy immediately when a computer enters the specified region.)

For more information about iBeacon devices and iBeacon regions, see Apple's documentation at:

<https://developer.apple.com/ibeacon/Getting-Started-with-iBeacon.pdf>

If you have an iBeacon device in your environment, you can add that device to the JSS as an iBeacon region. The JSS can then detect when computers and mobile devices enter or exit the region.

## Requirements

To monitor an iBeacon region for computers, you need:




- One or more iBeacon devices in your environment
- Computers that are Bluetooth Low Energy capable and have Bluetooth turned on
- The Computer Inventory Collection settings configured to monitor iBeacon regions (For more information, see [Computer Inventory Collection Settings](#).)

To monitor an iBeacon region for mobile devices, you need:



- One or more iBeacon devices in your environment
- Mobile devices with:
  - iOS 7 or later
  - Bluetooth Low Energy capability
  - Bluetooth turned on
  - Self Service Mobile for iOS installed (For more information, see [Installing Self Service](#).)
  - Location Services enabled for Self Service Mobile for iOS
- The Mobile Device Inventory Collection settings configured to monitor iBeacon regions (For more information, see [Mobile Device Inventory Collection Settings](#).)

**Note:** iBeacon region monitoring is not available for personally owned devices.

## Adding an iBeacon Region

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **iBeacons** .
5. Click **New** .
6. Enter a display name for the iBeacon region.
7. Define the iBeacon region using the settings on the pane.
8. Click **Save**.

## Cloning, Editing, or Deleting an iBeacon Region

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **iBeacons** .
5. Click the iBeacon region you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the iBeacon region, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the iBeacon region, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the iBeacon region, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Scope](#)  
Find out how to configure the scope of configuration profiles and policies based on iBeacon regions.
- [Computer Inventory Collection Settings](#)  
Find out how to configure the Computer Inventory Collection settings to monitor iBeacon regions.
- [Mobile Device Inventory Collection Settings](#)  
Find out how to configure the Mobile Device Inventory Collection settings to monitor iBeacon regions.

For related information, see the following Knowledge Base article:

[Smart Group and Advanced Search Criteria for iBeacon Regions](#)

Learn about the smart group and advanced search criteria available for iBeacon regions.

# Sites

Sites are organizational components that allow you to control which items each JSS user can manage. Implementing sites in your environment involves adding sites to the JSS, granting JSS users access to sites, and adding items to sites.

When a user logs in to the JSS with an account that has access to a site, the user sees only the items that belong to that site. If the user has access to multiple sites, a pop-up menu is displayed at the top of the page, allowing the user to switch between sites.




There are three ways to add sites to the JSS:

- Add each site manually
- Automatically create a site for each existing building
- Automatically create a site for each existing department



**Note:** You can only create sites from buildings or departments if you are adding sites for the first time and have buildings or departments set up in the JSS.

Creating sites from buildings or departments automatically adds computers and mobile devices to the site that corresponds with the building or department they belong to.

## Adding a Site

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Sites** .
5. Click **New** .
6. If prompted, choose a method for adding sites:
  - To add sites manually, select **Add sites manually** and click **Next**.
  - To create a site for each existing building, select **Create sites from buildings** and click **Next**.
  - To create a site for each existing department, select **Create sites from departments** and click **Next**.
7. If prompted, enter a display name for the site and click **Save**.

## Cloning, Editing, or Deleting a Site

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Sites** .
5. Click the site you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the site, click **Clone** and change the display name. Then click **Save**.
  - To edit the site, click **Edit** and change the display name. Then click **Save**.
  - To delete the site, click **Delete** and then click **Delete** again to confirm.

**Note:** Deleting a site automatically deletes the associated personal device profile if there is a profile assigned to the site. For more information, see [Personal Device Profiles](#).

## Adding Items to a Site

The following items can be added to a site:

- Computers
- Mobile devices
- Users
- Peripherals
- Enrollment invitations
- Enrollment profiles
- Advanced searches
- Smart groups
- Static groups
- Policies
- Configuration profiles
- Managed Preference profiles
- PreStages
- Restricted software records
- Licensed software records
- Classes
- Apps
- eBooks
- Device Enrollment Program instances
- PreStage enrollments
- VPP accounts
- Network integration instances

There are several ways to add computers to a site:

- Create sites from existing buildings and departments. This automatically adds computers to the site that corresponds with the building or department they belong to.
- Enroll computers using one of the following methods:
  - Send computer enrollment invitations. (For more information, see [User-Initiated Enrollment for Computers](#).)
  - Use a Recon QuickAdd package. (For more information, see [QuickAdd Packages Created Using Recon](#).)

- Use the network scanner. (For more information, see [Network Scanner](#).)
- Run Recon remotely on a single computer. (For more information, see [Remote Enrollment Using Recon](#).)
- Run Recon locally. (For more information, see [Local Enrollment Using Recon](#).)
- Mass edit the **Site** field for computers that are already enrolled with the JSS. (For more information, see [Mass Editing the Site for Computers](#).)
- Manually edit the **Site** field for individual computers that are already enrolled with the JSS. (For more information, see [Viewing and Editing Inventory Information for a Computer](#).)

There are several ways to add mobile devices to a site:

- Create sites from existing buildings and departments. This automatically adds mobile devices to the site that corresponds with the building or department they belong to.
- Enroll mobile devices using one of the following methods:
  - Send mobile device enrollment invitations. (For more information, see [User-Initiated Enrollment for Mobile Devices](#).)
  - Enroll mobile devices that are connected to a computer by USB. (For more information, see [Enrollment Profiles](#).)
- Mass edit the **Site** field for mobile devices that are already enrolled with the JSS. (For more information, see [Mass Editing the Site for Mobile Devices](#).)
- Manually edit the **Site** field for individual mobile devices that are already enrolled with the JSS. (For more information, see [Viewing and Editing Inventory Information for a Mobile Device](#).)

There are several ways to add users to a site:

- Add the user to a computer or mobile device that belongs to a site.
- Add a computer or mobile device with a user assigned to it to a site.
- Mass add users to a site for users in the JSS. (For more information, see [Adding Multiple Users to a Site](#).)
- Manually add users to a site for individual users in the JSS. (For more information, see [Viewing and Editing Inventory Information for a User](#).)

To add other items to a site, you choose a site from the **Site** pop-up menu when configuring the items in the JSS.

## Related Information

For related information, see the following section in this guide:

### [JSS User Accounts and Groups](#)

Find out how to grant site access to JSS user accounts and groups.

# Network Integration

The JSS can be integrated with a network access management service, such as Cisco Identity Services Engine (ISE). Network integration allows the service to communicate with the JSS to verify that the computers and mobile devices on your network are compliant with your organization's standards. With information from the JSS, the service can determine the level of network access to grant to a computer or mobile device, provide messaging to end users, and refer end users to enroll their computers and mobile devices to the JSS to become compliant.

**Note:** Enrollments that are referred to the JSS by the network access management service through network integration are performed as user-initiated enrollments.

Network integration can also allow the network access management service to send remote commands to computers and mobile devices via the JSS, including passcode lock and wipe commands.

Creating a network integration instance in the JSS prepares the JSS to integrate with a network access management service. This allows you to do the following:

- When sites are defined in the JSS, select the site to add the network integration instance to.
- Select the saved advanced computer search and advanced mobile device search to be used by the network access management service to verify computers and mobile devices that are compliant with your organization's standards. Computers and mobile devices that appear in the search results are reported as compliant to the network access management service.
- Specify compliance verification failure and compliance remediation messaging that can be displayed to end users via the network access management service.
- Configure the passcode to be used when remotely locking or wiping computers via the network access management service.
- After saving the network integration instance, view the network integration URL to be used by the network access management service to communicate with the specific JSS network integration instance.




**Important:** When using network integration on a per-site basis in the JSS, ensure that any site-specific configuration profiles and policies in the JSS do not conflict with computer and mobile device compliance verification performed through network integration.

## Requirements

For more information and requirements for configuring your network access management service to communicate with an MDM server, see your vendor's documentation.





## Adding a Network Integration Instance

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Network Integration** .
5. Click **New** .
- Note:** Only one network integration instance can be added per site in the JSS. If all sites already have a network integration instance, you will not be able to add a new one.
6. Configure the network integration instance using the settings on the pane, including the site, the advanced computer search and advanced mobile device search to be used for compliance verification, compliance messaging to be displayed to users, and the remote lock and wipe passcode setting for computers.  
**Note:** If you select the “Create Random Passcode” option for the passcode assignment method for computers, to identify the passcode used for a remote lock or wipe on a specific computer, you will need to view the management history for the computer in the JSS. (For information, see [Viewing the History for a Computer](#).)
7. Click **Save**.

After saving the network integration instance, a unique network integration URL appears at the bottom of the pane. This URL will be used by the network access management service to communicate with the specific JSS network integration instance.

## Cloning, Editing, or Deleting a Network Integration Instance

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Network Organization**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Network Integration** .
5. Click the network integration instance you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the network integration instance, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the network integration instance, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the network integration instance, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Sites](#)  
Learn about sites and how to add them to the JSS.
- [Advanced Computer Searches](#)  
Learn how to create and save an advanced computer search.
- [Advanced Mobile Device Searches](#)  
Learn how to create and save an advanced mobile device search.

# Scope

Scope gives you granular control over which computers, mobile devices, and users receive remote management tasks. For example, you can use scope to ensure that a policy to install desktop publishing software only runs on computers in the Design department, or that an eBook is only distributed to students in a particular class.

Scope can be based on the following items:

- Individual computers, mobile devices, or users
- Computer, mobile device, or user groups
- Departments
- Buildings
- LDAP or local users
- LDAP user groups
- Network segments
- Classes
- iBeacon regions

The items available vary depending on the remote management task you are configuring the scope for. For example, only eBook scope can be based on classes.

**Note:** Scope cannot be based on personally owned mobile devices.

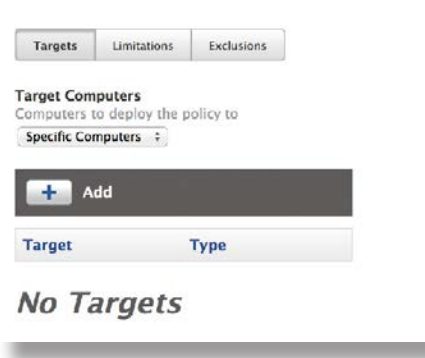
## Configuring Scope


For most remote management tasks, configuring the scope involves adding targets, limitations, and exclusions. (The process varies depending on the remote management task you are configuring the scope for.)

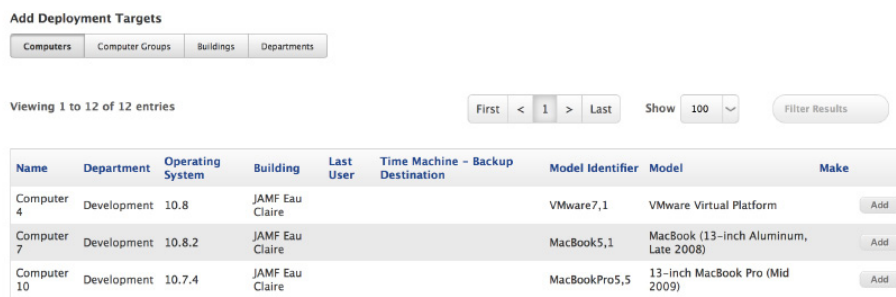
### Adding Targets

Targets make up the initial pool of computers, mobile devices, or users that receive the remote management task. You can add all computers, mobile devices, or users, or you can add a combination of specific items (e.g. computers, groups, buildings).

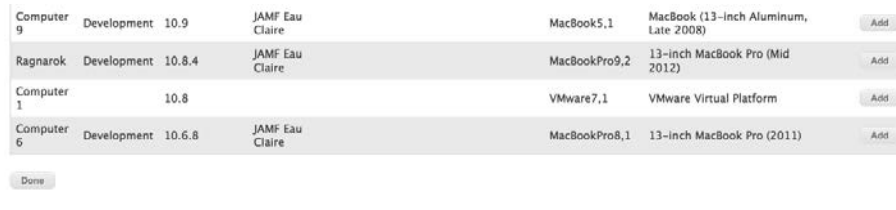
1. On the Targets pane, choose an option from the pop-up menu.



2. If you chose to add specific items:
  - a. Click **Add** .
  - b. On each tab, click **Add** for the items you want to add.



- c. Click **Done**.




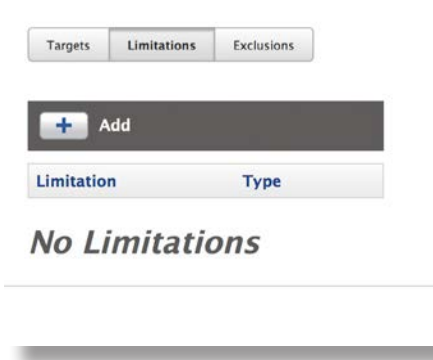
The items you added are displayed in a list on the Targets pane.

## Adding Limitations

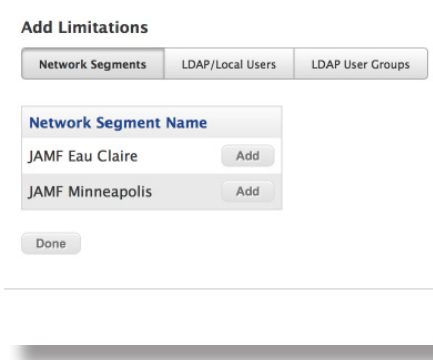
Adding limitations to the scope of a remote management task allows you to do the following:

- **Limit the task to specific users in the target.** For example, if you want a certain application to open at login for specific users regardless of the computer they use, you can use all computers as the target and add specific users as limitations.
- **Limit the task to specific network segments in the target.** For example, if you want each computer in a department to install a package but only while on the company's production network, you can use the department as the target and add a specific network segment as a limitation.
- **Limit policies and configuration profiles to devices in the target when the devices are in a specific iBeacon region.** For example, if you want to install a configuration profile on mobile devices when they are in a specific iBeacon region, you can add the iBeacon region as a limitation.

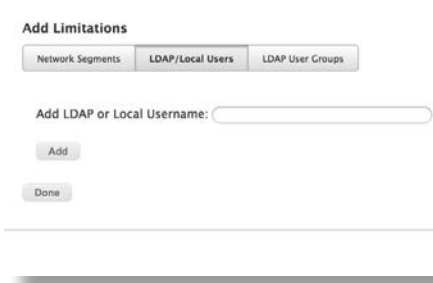
1. On the Limitations pane, click **Add**  .



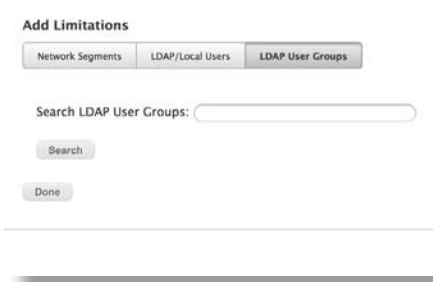
2. On each tab, add items as needed.  
To add a network segment, click the **Network Segments** tab and then click **Add** for the network segment.



To add an LDAP or local user, click the **LDAP/Local Users** tab. Then enter the username in the search field and click **Add**.



To add an LDAP user group, click the **LDAP User Groups** tab, enter the name of the group in the search field, and click **Search**. Then click **Add** for the group you want to add.




3. Click **Done**.

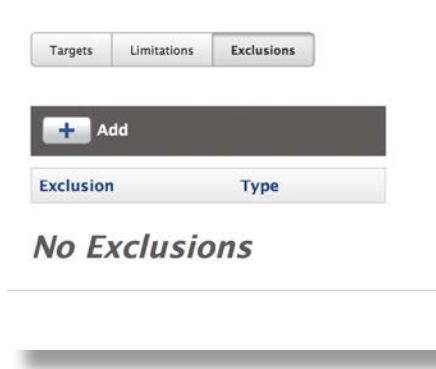
The items you added are displayed in a list on the Limitations pane.

## Adding Exclusions

Adding exclusions to the scope of a remote management task allows you to exclude specific computers or mobile devices, groups, buildings, departments, users, user groups, or network segments. For example, if you want to restrict an application for everyone except the head of the department, you can add them as an exclusion.

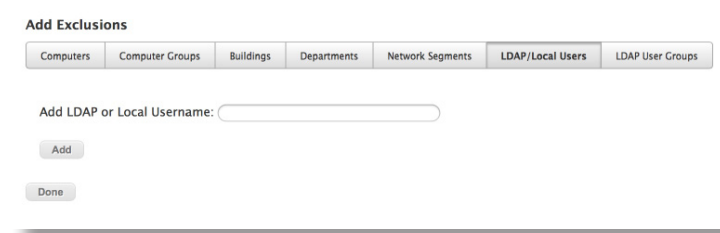
You can also add iBeacon regions as exclusions to the scope of policies and configuration profiles. For example, if you want to prevent a mobile device from having a configuration profile installed when it is in a specific iBeacon region, you can add the iBeacon region as an exclusion.

1. On the exclusions pane, click **Add**  .



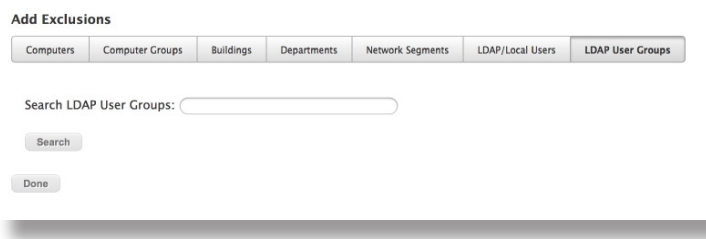
2. On each tab, add items as needed.

To add an LDAP or local user, click the **LDAP/Local Users** tab. Then enter the username in the search field and click **Add**.



To add an LDAP user group, click the **LDAP User Groups** tab, enter the name of the group in the search

field, and click **Search**. Then click **Add** for the group you want to add.



To add another type of item, click the appropriate tab and then click **Add** for the item you want to add.

3. Click **Done**.

The items you added are displayed in a list on the Exclusions pane.



# Managing Computers





# Building the Framework for Managing Computers

## Recurring Check-in Frequency

The recurring check-in frequency is the interval at which computers check in with the JSS for available policies.

By default, the recurring check-in frequency is set to “Every 15 Minutes”.

### Configuring the Recurring Check-in Frequency

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Management Framework” section, click **Check-In** .
5. Click **Edit**.
6. Configure the recurring check-in frequency using the pop-up menu on the pane.
7. Click **Save**.

Each computer checks in at the specified interval, starting at the time the setting is applied to the computer. This means that check-in times will vary across computers.

## Related Information

For related information, see the following section in this guide:

[Managing Policies](#)

You can create policies that are triggered at the recurring check-in frequency.

For related information, see the following Knowledge Base article:

[Components Installed on Managed Computers](#)



Find out where the files that control the recurring check-in frequency are stored on computers.

# Startup Script

The Startup Script settings in the JAMF Software Server (JSS) allow you to create a startup script on computers and use it to perform the following actions at startup:

- Log Computer Usage information (date/time of startup).
- Check for policies triggered at startup.
- Enable computer-level Managed Preferences.
- Ensure SSH (Remote Login) is enabled on computers.

## Configuring the Startup Script

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Management Framework” section, click **Check-In** .
5. Click the **Startup Script** tab.
6. Click **Edit**.
7. Configure the settings on the pane.
8. Click **Save**.

## Related Information

For related information, see the following sections in this guide:

- [Computer Usage](#)  
Find out how to view Computer Usage information logged at startup.
- [Managing Policies](#)  
You can create policies that are triggered at startup.
- [Managed Preferences](#)  
Learn about computer-level Managed Preferences and how to create Managed Preferences, in general.

For related information, see the following Knowledge Base article:

[Components Installed on Managed Computers](#)

Find out where the startup script is stored on computers.



# Login and Logout Hooks

The Login/Logout Hooks settings in the JAMF Software Server (JSS) allow you to create login and logout hooks on computers and use them to perform the following actions:

- Log Computer Usage information (username and date/time) at login and logout.
- Check for policies triggered at login or logout.
- Enable user-level and user-level enforced Managed Preferences at login.
- Hide the Restore partition at login.

**Warning:** Creating login and logout hooks with the Casper Suite can disable existing login and logout hooks.

## Configuring Login and Logout Hooks

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Management Framework” section, click **Check-In** .
5. Click the **Login/Logout Hooks** tab.
6. Click **Edit**.
7. Configure the settings on the pane.
8. Click **Save**.

## Related Information

For related information, see the following sections in this guide:

- [Computer Usage](#)  
Find out how to view Computer Usage information logged at login and logout.
- [Managing Policies](#)  
You can create policies that are triggered at login or logout.
- [Managed Preferences](#)  
Learn about user-level Managed Preferences and how to create Managed Preferences, in general.

For related information, see the following Knowledge Base article:

[Components Installed on Managed Computers](#)

Find out where login/logout hooks are stored on computers.

# Security Settings

The Security settings in the JAMF Software Server (JSS) allow you to do the following:



- Enable certificate-based authentication.
- Enable push notifications.
- Enable SSL certificate verification.
- Specify the condition under which the checksum will be used to validate packages.
- Specify a maximum clock skew between managed computers and the JSS host server.

When an OS X computer attempts to communicate with the JSS and the security requirements specified in the JSS are not met, communication is blocked.

## Requirements

To enable push notifications, you must have a push certificate in the JSS. (For more information, see [Push Certificates](#).)

## Configuring Security Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Management Framework" section, click **Security** .
5. Click **Edit**.
6. Configure the settings on the pane.
7. Click **Save**.

## Related Information

For related information, see the following sections in this guide:

- [Certificates](#)  
Learn about device certificates and the SSL certificate.

- [SSL Certificate](#)  
Find out how to create or upload an SSL certificate that OS X computers can use to verify the identity of the JSS.
- [Calculating a Checksum](#)  
Learn about using the checksum to validate a package and how to manually calculate the value.

For related information, see the following Knowledge Base article:

[Certificate-Based Authentication for OS X Computers](#)

Learn how the JSS uses certificate-based authentication to verify the identity of OS X computers.

# Enrollment

## About Computer Enrollment

Enrollment is the process of adding OS X or Windows computers to the JAMF Software Server (JSS). When computers are enrolled, inventory information for the computers is submitted to the JSS.

Enrolling OS X computers makes them managed by the JSS. This allows you to perform inventory tasks and remote management and configuration tasks on the computers. When you enroll OS X computers, you specify a local administrator account that you want to use to manage them (called the “management account”).

**Note:** Enrolling computers with OS X v10.9 or earlier using a PreStage enrollment allows you to search and report on the computers as part of your inventory; however, this process alone does not make the computers managed by the JSS.

Enrolling Windows computers allows you to search and report on the computers as part of your inventory. Windows computers cannot be managed by the JSS.

There are several ways to enroll OS X computers with the JSS:

- **User-initiated enrollment**—You can allow users to enroll their own OS X computers by having them log in to an enrollment portal where they follow the onscreen instructions to download and install a QuickAdd package.
- **Use a QuickAdd package created with Recon**—You can use Recon to create a QuickAdd package that enrolls OS X computers when it is installed. This type of QuickAdd package can be deployed using almost any deployment tool, such as Apple Remote Desktop or the Casper Suite. You can also give the QuickAdd package to users to install.
- **Use the network scanner**—You can remotely enroll multiple OS X computers in specified IP ranges by using the network scanner in Recon. Recon scans the specified IP ranges and enrolls any computers that it can connect to over SSH (Remote Login).
- **Run Recon remotely on a single computer**—If you know the IP address of the OS X computer that you want to enroll and SSH (Remote Login) is enabled on the computer, you can enroll the computer by running Recon remotely.
- **Run Recon locally**—If you have physical access to the OS X computer that you want to enroll, you can run Recon locally on the computer.
- **Image computers**—You can enroll OS X computers by imaging them with a configuration that is associated with a management account.

- **Use a PreStage enrollment**—A PreStage enrollment allows you to store enrollment and OS X computer setup settings in the JSS and use them to enroll new OS X computers with the JSS. In addition to reducing the amount of time and interaction it takes to prepare new OS X computers for use, this enrollment method makes the computers MDM capable. Computers with OS X v10.10 or later can also be managed automatically when using a PreStage enrollment.  
This enrollment method requires an account in Apple’s Volume Services Portal. For more information, see the [Integrating with Apple’s Device Enrollment Program](#) Knowledge Base article.

There are two ways to enroll Windows computers with the JSS:

- **Use a Recon.exe QuickAdd package**—You can use Recon.exe to create a QuickAdd package that enrolls Windows computers when it is installed. This type of QuickAdd package can be deployed using almost any deployment tool. You can also give the QuickAdd package to users to install.
- **Run Recon.exe locally**—If you have physical access to the Windows computer that you want to enroll, you can run Recon.exe locally on the computer.

## Related Information

For more information, see the following sections in this guide:

- [User-Initiated Enrollment for Computers](#)  
Find out how to allow users to enroll their own computers by having them log in to an enrollment portal.
- [QuickAdd Packages Created Using Recon](#)  
Find out how to use Recon to create a QuickAdd package that enrolls computers.
- [Network Scanner](#)  
Find out how to use the network scanner to remotely enroll multiple computers.
- [Remote Enrollment Using Recon](#)  
Find out how to enroll an OS X computer by running Recon remotely.
- [Local Enrollment Using Recon](#)  
Find out how to enroll an OS X computer by running Recon locally on the computer.
- [About Imaging](#)  
You can enroll computers by imaging them with a configuration associated with a management account. Learn about imaging and the different imaging methods.
- [Computer PreStage Enrollments](#)  
Find out how to enroll OS X computers using a PreStage enrollment.
- [QuickAdd Packages Created Using Recon.exe](#)  
Find out how to use Recon.exe to create a QuickAdd package that enrolls Windows computers.
- [Local Enrollment Using Recon.exe](#)  
Find out how to enroll a Windows computer by running Recon.exe locally on the computer.



For related information, see the following Knowledge Base articles:

- [Components Installed on Managed Computers](#)  
See a list of the components installed on managed computers.
- [Removing JAMF Software Components from Computers](#)  
Find out how to remove all Casper Suite-related components from computers that have been managed by the JSS.

# User-Initiated Enrollment for Computers

You can allow users to enroll their own computers by having them log in to an enrollment portal where they follow the onscreen instructions to download and install a QuickAdd package.

To direct users to the enrollment portal, you need to provide them with the enrollment URL. The enrollment URL is the full URL for the JAMF Software Server (JSS) followed by “/enroll”. For example:

`https://jss.mycompany.com:8443/enroll`

You can provide the enrollment URL to users by doing the following:

- **Provide the URL in the way that best fits your environment**  
Simply provide the URL to users in the way that best meets your needs. You can add a computer to a site when using this method.
- **Send an enrollment invitation to users via email**  
This allows you to create an email invitation in the JSS and send it to one or more users. It gives you more control over user access to the enrollment portal by allowing you do the following:
  - Set an expiration date for the invitation
  - Require users to log in to the portal
  - Allow multiple uses of the invitation
  - Add the computer to a site during enrollment
  - View the status of the invitation

Users can log in to the enrollment portal using an LDAP directory account or a JSS user account. When a user logs in with an LDAP directory account, user and location information is submitted to the JSS during enrollment. When a user logs in with a JSS user account, it allows an LDAP user to be assigned to the computer.

## Requirements

To allow computers to be enrolled with user-initiated enrollment, you need:

- User-initiated enrollment enabled (For more information, see [User-Initiated Enrollment Settings](#).)
- The user-initiated enrollment QuickAdd package configured in the JSS (For more information, see [User-Initiated Enrollment Settings](#).)

If the QuickAdd package is signed, target computers must have a Certification Authority (CA) intermediate certificate from Apple in the System keychain in Keychain Access. For instructions on how to obtain this certificate and import it to the System keychain, see the following Knowledge Base article:

[Importing a Certification Authority Intermediate Certificate from Apple to the System Keychain](#)


To send a computer enrollment invitation, you need an SMTP server set up in the JSS. (For more information, see [Integrating with an SMTP Server](#).)

For users to log in to the enrollment portal with an LDAP directory account, you need an LDAP server set up in the JSS. (For more information, see [Integrating with LDAP Directory Services](#).)

## Sending a Computer Enrollment Invitation

You can send an email invitation that contains the enrollment URL from the JSS. Users click the enrollment URL in the email message to access the enrollment portal.

Before you configure the invitation, make sure you have the email addresses of the users you want to send the invitation to.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Enrollment Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Follow the onscreen instructions to send the enrollment invitation.

An enrollment invitation is immediately sent to the email addresses you specified.

You can view the status of the enrollment invitation in the list of invitations.

## Viewing Computer Enrollment Invitation Usage

You can view a list of computers that were enrolled with a single enrollment invitation.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Enrollment Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the enrollment invitation you want to view usage for.
5. Click **View Enrolled Computers**.

A list of computers enrolled with the invitation is displayed.

## Deleting a Computer Enrollment Invitation

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Enrollment Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the enrollment invitation you want to delete.
5. Click **Delete**, and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

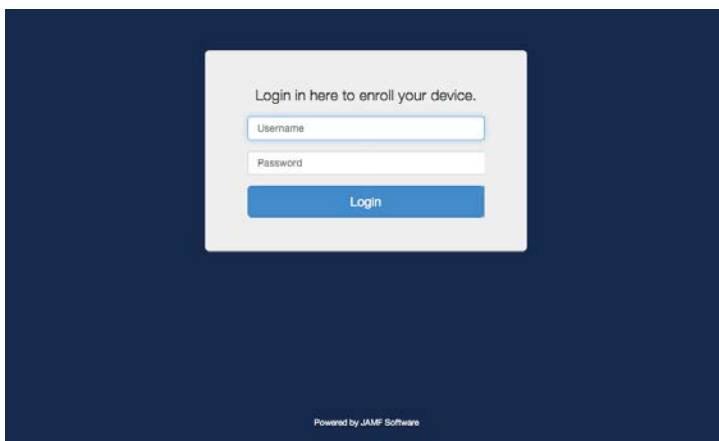
- [User-Initiated Enrollment Settings](#)  
Learn about the settings you can configure for user-initiated enrollment.
- [User-Initiated Enrollment Experience for Computers](#)  
Learn about the steps users take to enroll computers.

# User-Initiated Enrollment Experience for Computers

When a user accesses the enrollment URL from their computer, they are guided through the following steps:

1. The user is prompted to enter credentials for an LDAP directory account or a JSS user account with user-initiated enrollment privileges, and then they must tap **Login**.

The login prompt is not displayed if the enrollment portal was accessed via an enrollment invitation for which the **Require Login** option is disabled. (For more information about enrollment invitations, see [User-Initiated Enrollment for Mobile Devices](#).)

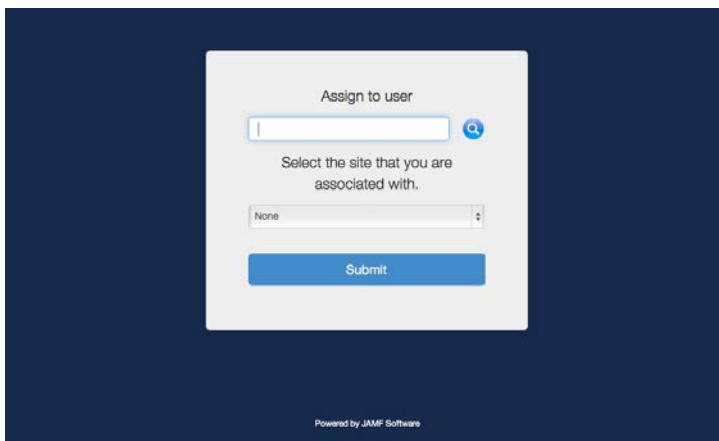


A screenshot of a login prompt on a dark blue background. The prompt is a white box with the text "Login in here to enroll your device." at the top. Below this text are two input fields: "Username" and "Password". At the bottom of the box is a blue button labeled "Login". At the very bottom of the dark blue background, there is small text that reads "Powered by JAMF Software".

2. When prompted, the user must choose the site that they are associated with.

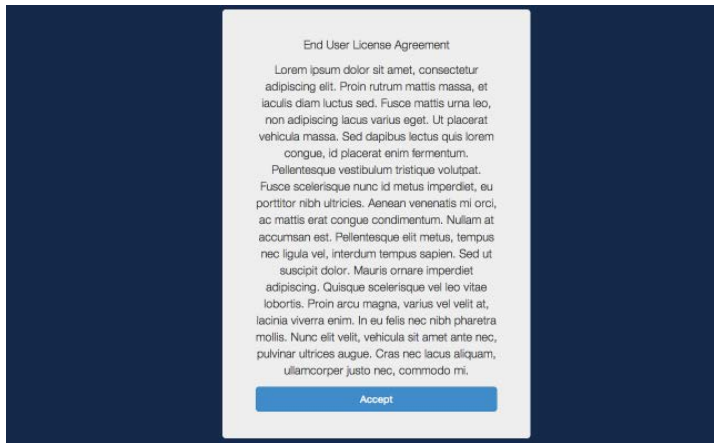
If the user is associated with multiple sites, they must select the site that will assign the appropriate settings to the device.

If the user signed in with a JSS user account, they can assign an LDAP user to the computer at this time.

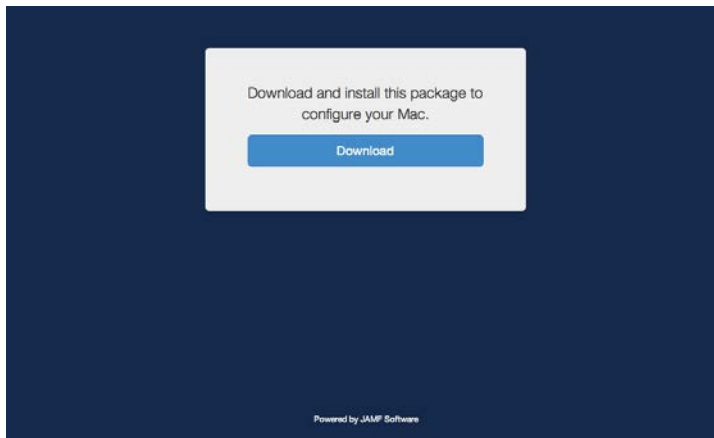


A screenshot of an "Assign to user" prompt on a dark blue background. The prompt is a white box with the text "Assign to user" at the top. Below this text is a search input field with a magnifying glass icon. Below the search field is the text "Select the site that you are associated with." followed by a dropdown menu currently showing "None". At the bottom of the box is a blue button labeled "Submit". At the very bottom of the dark blue background, there is small text that reads "Powered by JAMF Software".

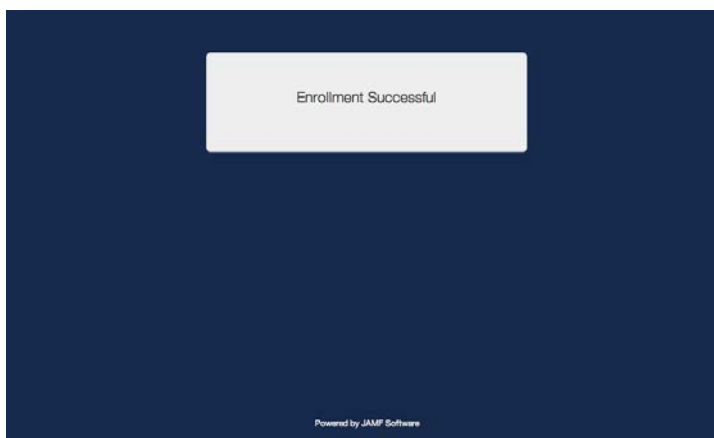
3. If the user signed in with an LDAP directory account and the text for a End User License Agreement (EULA) was entered in the JSS, the user must accept the EULA to continue.



4. When prompted, the user must download the QuickAdd package.



5. After the QuickAdd package downloads, the user must double-click the QuickAdd package installer and follow the onscreen instructions to install the package.
6. When the installation is complete, an enrollment complete message is displayed in the enrollment portal.



The computer is enrolled with the JSS.

## Related Information

For related information, see the following sections in this guide:

[User-Initiated Enrollment Settings](#)

Learn about the settings you can configure for user-initiated enrollment.

# QuickAdd Packages Created Using Recon

You can use Recon to create a QuickAdd package that enrolls OS X computers when it is installed. This type of QuickAdd package can be deployed using almost any deployment tool, such as Apple Remote Desktop or the Casper Suite. You can also give the QuickAdd package to users to install.

When you create a QuickAdd package using Recon, you can do the following:

- Ensure that SSH (Remote Login) gets enabled on computers that have it disabled.
- Ensure that computers launch Self Service after they are enrolled.
- Ensure that computers that already belong to a site will retain existing site membership.
- Sign the QuickAdd package.
- Choose a site to add computers to during enrollment.

To install a QuickAdd package, you double-click it and then follow the onscreen instructions.

## Signing a QuickAdd Package

Signing a QuickAdd package ensures that it appears as verified to users that install it. It also allows users to install the QuickAdd package on computers that have Apple's Gatekeeper feature set to only allow applications downloaded from the Mac App Store and identified developers.

There are some additional requirements for signing a QuickAdd package and installing a signed QuickAdd package. For more information, see the "Requirements" section below.

## Requirements

To sign a QuickAdd package, the computer running Recon must have:

- OS X v10.7 or later
- An installer certificate (.p12) from Apple in the System keychain in Keychain Access (For more information, see the [Obtaining an Installer Certificate from Apple](#) Knowledge Base article.)

To install a signed QuickAdd package, computers must have a Certification Authority intermediate certificate from Apple in the System keychain in Keychain Access. For instructions on how to obtain this certificate and import it to the System keychain, see the following Knowledge Base article:

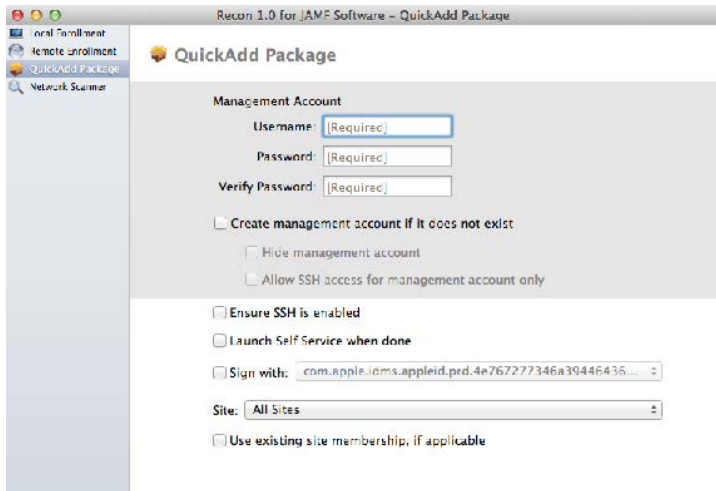
[Importing a Certification Authority Intermediate Certificate from Apple to the System Keychain](#)

## Creating a QuickAdd Package Using Recon

1. Open Recon and authenticate to the JSS.
2. Select **QuickAdd Package** in the sidebar.



3. Enter credentials for a local administrator account.  
This account is used as the management account.



4. If the management account you specified is a new account, select the **Create management account if it does not exist** checkbox and configure additional settings for the management account as needed.
5. To enable SSH on computers that have it disabled, select the **Ensure SSH is enabled** checkbox.
6. To launch Self Service on computers immediately after they are enrolled, select the **Launch Self Service when done** checkbox.
7. To sign the QuickAdd package, select the **Sign with** checkbox and choose an installer certificate from the pop-up menu.

Installer certificates that are located in the login keychain in Keychain Access are displayed in the pop-up menu.

**Note:** The pop-up menu also displays application certificates that are located in the login keychain in Keychain Access. It is important that you choose an installer certificate, not an application certificate, to sign QuickAdd packages.

8. To add the computers to a site, choose a site from the **Site** pop-up menu.
9. To ensure that computers that already belong to a site will retain their existing site membership, select the **Use existing site membership, if applicable** checkbox.
10. Click **Create** and save the package.

After creating the QuickAdd package, you can deploy it using a deployment tool or give the package to users to install. When the QuickAdd package is installed on computers, they are enrolled with the JSS.

## Related Information

For related information, see the following section in this guide:

### [Installing Packages](#)

Find out how to install a QuickAdd package using a policy or Casper Remote.

# Network Scanner

The network scanner in Recon allows you to remotely enroll multiple OS X computers. It scans specified IP ranges and enrolls any computers that it can connect to over SSH (Remote Login).

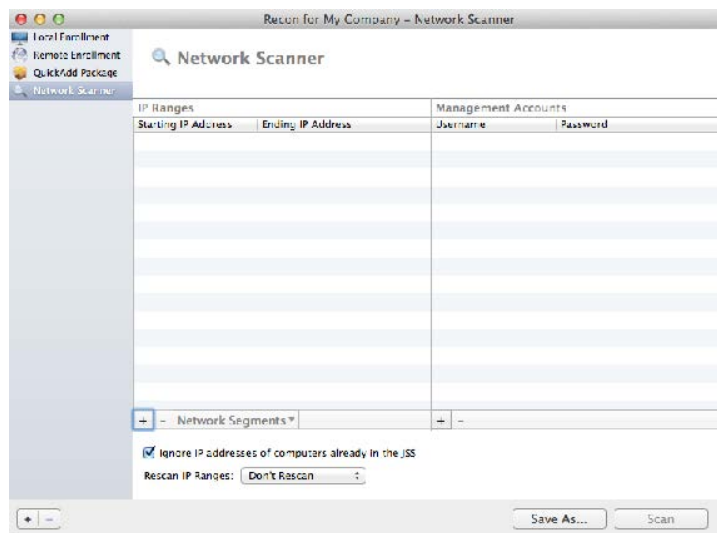
There are two ways to specify the IP ranges you want to scan: choose network segments that are set up in the JSS, or manually specify IP ranges. If you manually specify the IP ranges, you can choose a building, department, and site to add computers to during enrollment.

## Requirements

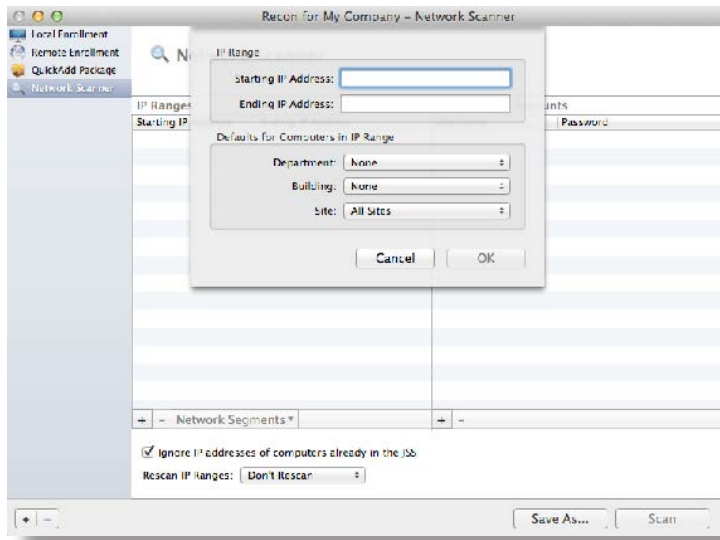
To enroll computers using the network scanner, SSH must be enabled on the computers.

## Enrolling Computers Using the Network Scanner

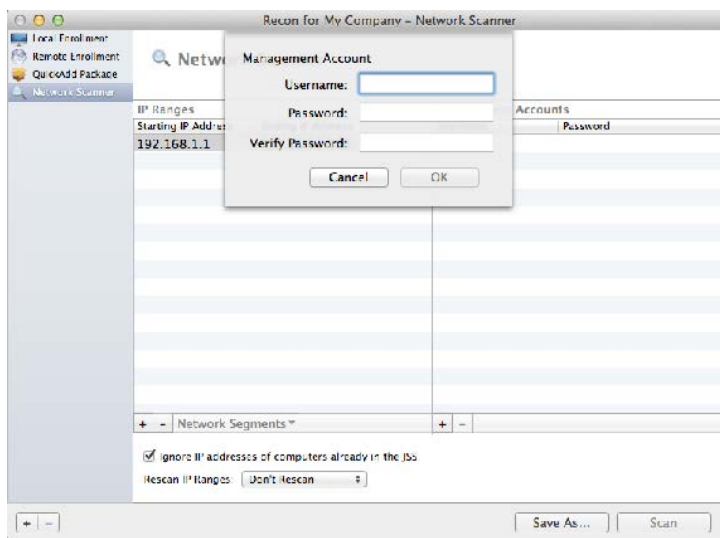
1. Open Recon and authenticate to the JSS.
2. Select **Network Scanner** in the sidebar.
3. Specify the IP ranges you want to scan:
  - To choose network segments that are set up in the JSS, click **Network Segments** below the list of IP ranges and select the network segment you want to scan. Repeat as needed.



- To specify IP ranges manually, click **Add (+)** below the list of IP ranges and specify information about the IP range you want to scan. Click **OK** and repeat as needed.



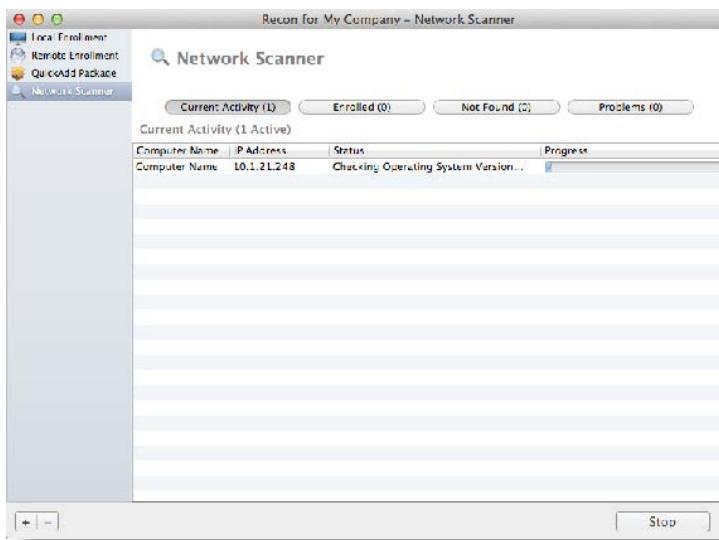
4. Specify one or more local administrator accounts that have SSH access to computers in the IP range. When the network scanner finds a computer on the network, it tries each account until it finds one that can be used to connect to the computer over SSH. The first valid account is used as the management account.
  - a. Click **Add (+)** below the list of accounts.
  - b. Enter credentials for a local administrator account that has SSH access to computers.



- c. Click **OK**.
  - d. If there is more than one administrator account in the specified IP ranges, repeat steps a through c as needed.
5. To ignore computers that are already enrolled with the JSS, select the **Ignore IP addresses of computers already in the JSS** checkbox.

6. To continuously scan for new computers, use the **Rescan IP Ranges** pop-up menu to specify how often Recon should rescan.
7. To create a .recon file that contains the network scanner settings you just configured, click **Save As**. Then specify a name and location for the file.  
Double-clicking the file opens Recon (if it is not already open) and populates the network scanner settings. You can open the file at any time to have Recon automatically configure the network scanner settings.
8. Click **Scan**.

Recon scans the specified IP ranges and enrolls any computers that it can connect to over SSH. The progress of the scan is displayed on the Current Activity pane. The results of the scan are displayed on the Enrolled, Not Found, and Problems panes.



# Remote Enrollment Using Recon

If you know the IP address of the OS X computer you want to enroll and SSH (Remote Login) is enabled on the computer, you can enroll the computer by running Recon remotely. This allows you to submit detailed inventory information for the computer. It also allows you to add computers to a site during enrollment.

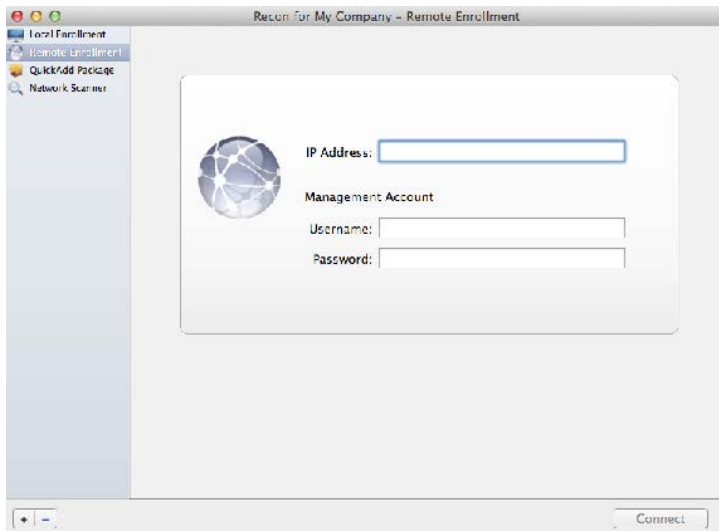
## Requirements

To enroll a computer by running Recon remotely, you need:

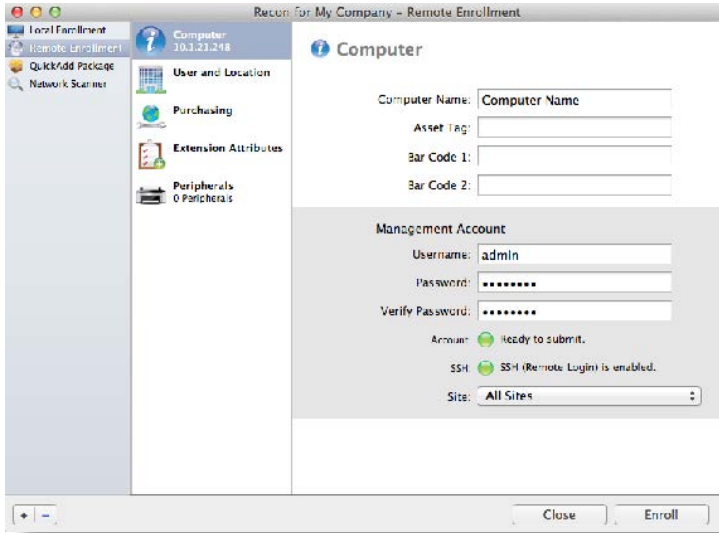
- The IP address of the computer
- SSH (Remote Login) enabled on the computer

## Enrolling a Computer by Running Recon Remotely

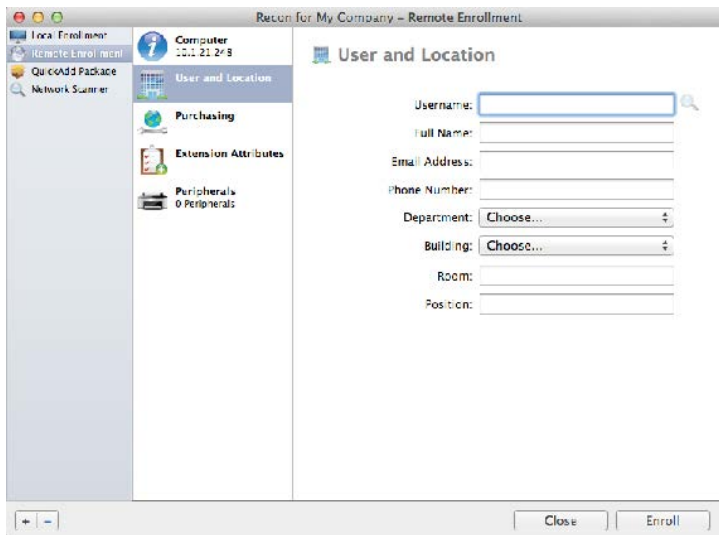
1. Open Recon and authenticate to the JSS.
2. Select **Remote Enrollment** in the sidebar.
3. Enter the IP address of the computer you want to enroll.




4. Enter credentials for a local administrator account that has SSH access. This account is used as the management account.

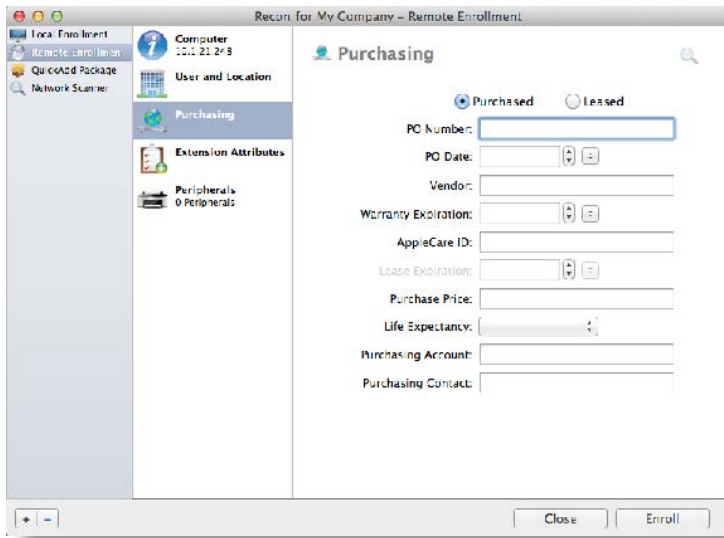


5. (Optional) Select **User and Location** and specify user and location information for the computer. If an LDAP server is set up in the JSS, click **Search** to populate information from the LDAP server. This assigns the user to the computer during enrollment. (For more information on setting up an LDAP server, see [Integrating with LDAP Directory Services](#).) If you specified a username that matches an existing username in the JSS, the user is assigned to the computer during enrollment. If you specified a username that does not match an existing username in the JSS, the user is created and assigned to the computer during enrollment.



- (Optional) Select **Purchasing** and specify purchasing information for the computer.

If a GSX connection is set up in the JSS, click **Search**  to populate information from Apple's Global Service Exchange (GSX). (For more information on setting up a GSX connection, see [Integrating with GSX.](#))



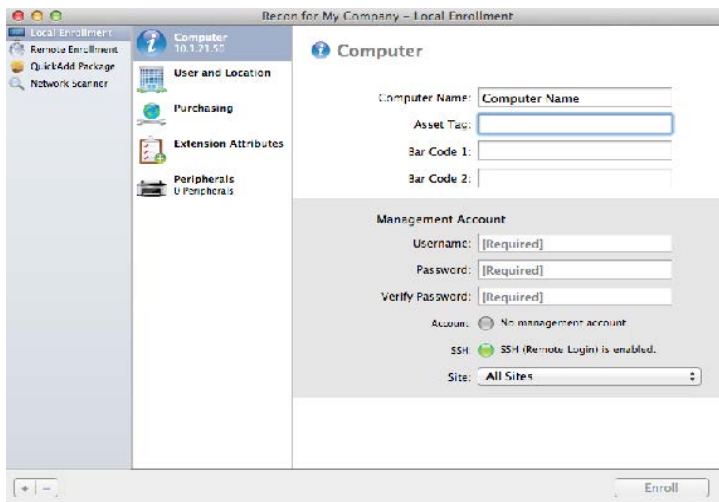
- (Optional) Select **Extension Attributes** and specify information as needed.
- (Optional) Select **Peripherals** and add peripherals as needed.
- Click **Enroll**.

# Local Enrollment Using Recon

If you have physical access to the OS X computer that you want to enroll, you can run Recon locally on the computer. This allows you to submit detailed inventory information for the computer. It also allows you to add computers to a site during enrollment.

## Enrolling a Computer by Running Recon Locally


1. On the computer you want to enroll, open Recon and authenticate to the JSS.
2. (Optional) Enter an asset tag and/or use a bar code scanner to enter bar codes. The computer name is populated by default.

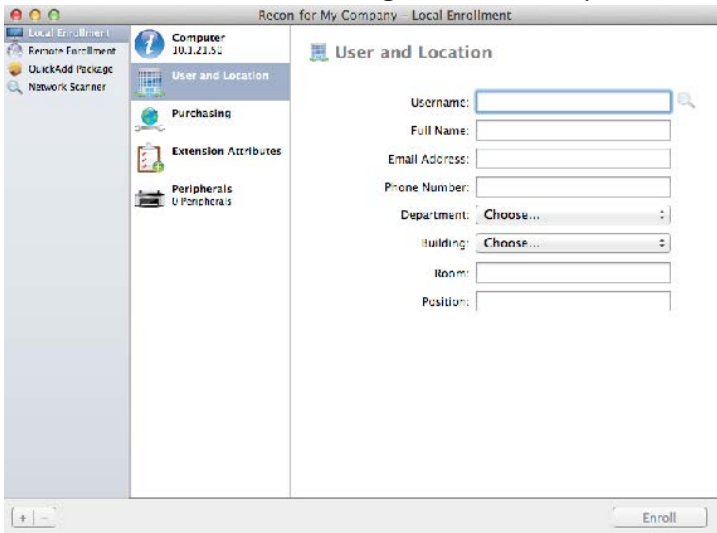



3. Enter credentials for a local administrator account that you want to use to manage computers. This can be an existing or new account. If the account does not already exist, Recon creates it.

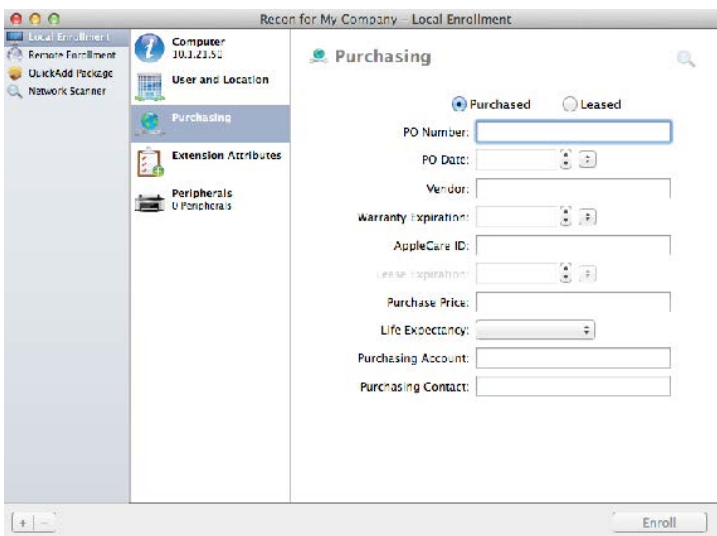
**Note:** If the account you specify does not have SSH (Remote Login) access to the computer, Recon enables SSH during enrollment.



4. (Optional) Select **User and Location** and specify user and location information for the computer.  
 If an LDAP server is set up in the JSS, click **Search**  to populate information from the LDAP server. This assigns the user to the computer during enrollment. (For more information on setting up an LDAP server, see [Integrating with LDAP Directory Services](#).)  
 If you specified a username that matches an existing username in the JSS, the user is assigned to the computer during enrollment. If you specified a username that does not match an existing username in the JSS, the user is created and assigned to the computer during enrollment.



5. (Optional) Select **Purchasing** and specify purchasing information for the computer.  
 If a GSX connection is set up in the JSS, click **Search**  to populate information from Apple's Global Service Exchange (GSX). (For more information on setting up a GSX connection, see [Integrating with GSX](#).)



6. (Optional) Select **Extension Attributes** and specify information as needed.
7. (Optional) Select **Peripherals** and add peripherals as needed.
8. Click **Enroll**.

# Computer PreStage Enrollments

A PreStage enrollment allows you to store enrollment and OS X computer setup settings in the JAMF Software Server (JSS) and use them to enroll new OS X computers with the JSS. This reduces the amount of time and interaction it takes to prepare OS X computers for use.


Before you can use a PreStage enrollment, you need to create it in the JSS. This allows you to configure the enrollment settings and specify the computers that should be enrolled using the PreStage enrollment. You can also customize the user experience of the Setup Assistant.

When computers with OS X v10.10 or later are enrolled using a PreStage enrollment, they are also automatically managed if user-initiated enrollment is enabled for OS X in the JSS. When enabled, User-Initiated Enrollment settings apply to computer PreStage enrollments, including management account and QuickAdd package settings, and whether to automatically launch Self Service. (For more information, see [User-Initiated Enrollment Settings](#) and [Installing Self Service](#).)

Computers with OS X v10.9 or earlier (and computers with OS X v10.10 or later if user-initiated enrollment is not enabled) can be managed using one of the following methods after they are enrolled with the JSS using a PreStage enrollment:

- [Remote Enrollment Using Recon](#)
- [QuickAdd Packages Created Using Recon](#)
- [User-Initiated Enrollment for Computers](#)

## Configuring a Computer PreStage Enrollment

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **PreStage Enrollments**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the General payload to configure basic settings for the PreStage enrollment and customize the user experience of the Setup Assistant.

To customize the user experience of the Setup Assistant, select which steps you want to skip in the Setup Assistant. If you choose to skip steps, the user can enable these settings after the computer is configured unless otherwise restricted.

6. (Optional) Use the User and Location payload to specify user and location information for the computers. This information is stored in the JSS for each computer enrolled using a PreStage enrollment.

**Note:** The User and Location Information payload is only displayed if the **Authentication** checkbox is not selected.

7. (Optional) Use the Purchasing payload to specify purchasing information for the computers. This information is stored in the JSS for each computer enrolled using a PreStage enrollment.
8. (Optional) Use the Attachments payload to upload attachments to store for computers. This information is stored in the JSS for each computer enrolled using a PreStage enrollment.
9. If the SSL certificate you are using is signed by an external CA (your organization's CA or a trusted third-party CA), use the Certificates payload to upload a certificate for the CA that you want computers to trust at enrollment.  
**Note:** The anchor certificate is only displayed if the SSL certificate you are using is signed by the JSS's built-in CA.
10. Click the **Scope** tab and configure the scope of the PreStage enrollment by selecting the checkbox next to each computer you want to add to the scope.  
**Note:** The computers listed on the **Scope** tab are the computers that are associated with the Device Enrollment Program via the server token file (.p7m) you downloaded from Apple's Volume Services Portal.
11. Click **Save**.

## Refreshing PreStage Enrollment Information

The JSS allows you to manually refresh information about the computers in the PreStage enrollment as needed.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **PreStage Enrollments**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the PreStage enrollment you want to refresh.
5. Click **Refresh**.

If there is updated information about the computers in the Device Enrollment Program, this information is displayed in the JSS.

## Cloning, Editing, or Deleting a PreStage Enrollment

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **PreStage Enrollments**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the PreStage enrollment you want to clone, edit, or delete.

5. Do one of the following:
  - To clone the PreStage enrollment, click **Clone** and make changes as needed. Then click **Save**.  
**Note:** Computers added to the scope of a PreStage enrollment are not cloned when cloning the PreStage enrollment.
  - To edit the PreStage enrollment, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the PreStage enrollment, click **Delete**. Then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

[Integrating with the Device Enrollment Program](#)


Find out how to configure an instance of the Device Enrollment Program.

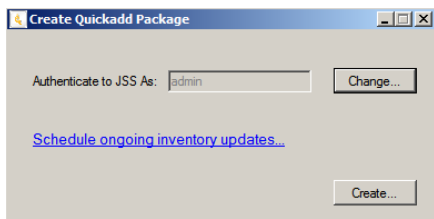
# QuickAdd Packages Created Using Recon.exe

You can use Recon.exe to create a QuickAdd package (.mist) that enrolls Windows computers when it is installed. This type of QuickAdd package can be deployed using almost any deployment tool. You can also give the QuickAdd package created using Recon.exe to users to install.

When you create a QuickAdd package using Recon.exe, you can change the account that the QuickAdd package uses to authenticate to the JSS. You can also create a schedule for collecting inventory from Windows computers enrolled using the QuickAdd package.

## Creating a QuickAdd Package Using Recon.exe

1. Open Recon.exe and authenticate to the JSS.
2. Click **QuickAdd Package** .
3. To change the account that the QuickAdd package uses to authenticate to the JSS, click **Change** and enter credentials for the account. Then click **OK**.



4. To create a schedule for collecting inventory, click **Schedule ongoing inventory updates**. Configure the schedule and click **Save**.
5. Click **Create** and save the package.

After creating the QuickAdd package, you can deploy it or give it to users to install. When the QuickAdd package is installed on computers, they are enrolled with the JSS.

# Local Enrollment Using Recon.exe

If you have physical access to the Windows computer that you want to enroll, you can run Recon.exe locally on the computer. This allows you to submit detailed inventory information for the computer.

## Enrolling a Windows Computer by Running Recon.exe Locally

1. On the computer you want to enroll, open Recon.exe and authenticate to the JSS.
2. (Optional) Enter an asset tag and/or use a barcode scanner to enter bar codes. The computer name is populated by default.

Recon 9.0 for miska - Local Computer Inventory

File Edit Window Help

QuickAdd Package

Computer Information | User and Location | Purchasing | Extension Attributes | Peripherals

Computer Name:  Asset Tag:

Bar Code 1:  Bar Code 2:

Submit

3. (Optional) Click the **User and Location** tab and specify user and location information for the computer. If an LDAP server is set up in the JSS, click **Check Name** to populate information from the LDAP server.

Recon 9.0 for miska - Local Computer Inventory

File Edit Window Help

QuickAdd Package

Computer Information | User and Location | Purchasing | Extension Attributes | Peripherals

Username:  Department:

Full Name:  Building:

Email Address:  Room:

Phone Number:  Position:

Clear Check Name

Submit

- (Optional) Click the **Purchasing** tab and specify purchasing information for the computer.

Recon 9.0 for miska - Local Computer Inventory

File Edit Window Help

QuickAdd Package

Computer Information | User and Location | **Purchasing** | Extension Attributes | Peripherals

Purchased  Leased

PO Number:  PO Date: 12 / 31 /

Vendor:  Warranty Expires: 12 / 31 /

Warranty ID:  12 / 31 /

Purchase Price:  Life Expectancy:

Purchasing Account:  Purchasing Contact:

Submit

- (Optional) Click the **Extension Attributes** tab and specify information as needed.
- (Optional) Click the **Peripherals** tab and add peripherals as needed.

Add Peripheral

Type:

Bar Code 1:  Bar Code 2:

Show Purchasing Information

Cancel OK

- Click **Submit**.

Recon 9.0 for miska - Local Computer Inventory

File Edit Window Help

QuickAdd Package

Computer Information | User and Location | Purchasing | Extension Attributes | **Peripherals**

Type	PO Info
------	---------

Submit

---

# Composer

## About Composer

Composer allows you to build packages of software, applications, preference files, or documents. A package is a self-contained group of files that can be deployed to remote computers or as part of the imaging process.

The first step to building a package is creating a package source. Depending on the files you want to package, Composer allows you to monitor the installation of your software or use files that already exist on the drive to create the package source.

After you create a package source, you can build a PKG or a DMG from the package source.

Composer also allows you to build a DMG of an operating system.

## Related Information

For related information, see the following sections in this guide:

- [Creating Package Sources](#)  
Find out how to create a package source using several different methods.
- [Building Packages from Package Sources](#)  
Find out how to build a PKG or DMG from a package source.
- [Building OS Packages](#)  
Find out how to build a DMG of an operating system.



# Creating Package Sources

A package source allows you to view and edit attributes of a package (such as files, scripts, privileges, and localizations) before it is built. Once a package source exists for a group of files, you can make modifications and build the package as many times as necessary.

There are several ways to create a package source:

- **Take snapshots**—Composer takes before and after snapshots of the file system and creates a package source based on the changes. This method allows you to monitor installations in all locations on the drive. If necessary, you can also quit Composer or log out/reboot during the installation process.
- **Monitor the file system**—Composer uses the File System Events (FSEvents) framework to monitor any changes that are made to the file system during the installation process. Next, Composer creates a package source based on the changes. This method does not allow you to quit Composer or log in/reboot during the installation process. In addition, an excess of file system activity can cause FSEvents to miss changes.
- **Use pre-installed software**—You can use software that is pre-installed on your computer to create a package source based on package manifests. This method allows you to create package sources without monitoring the installation process.
- **Use user environment settings**—Package manifests can also be used to capture settings configured on your computer, such as Dashboard, Display, and Global Preference settings.
- **Drag contents from the Finder**—A simple drag-and-drop process allows you to create a package source from files already installed on your computer.
- **Use an existing package**—Composer allows you to make modifications to an existing package or convert between the PKG and DMG package formats.

## Taking Snapshots


If the files you want to package are not already installed on the drive, Composer can take a snapshot of the file system before and after the files have been installed and create a package source based on the changes.

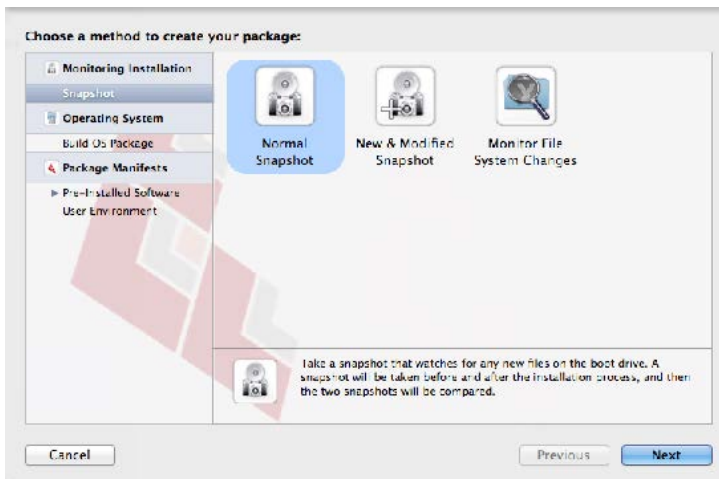
Composer can take two kinds of snapshots:

- **Normal snapshots**—These snapshots capture any new files on the drive. These snapshots can take anywhere from ten seconds to several minutes depending on your hardware and the number of files on the drive.
- **New and modified snapshots**—These snapshots capture any new files on the drive, as well as any files that have been modified. These snapshots can take longer than normal snapshots, since Composer records the modifications date of each file while performing the snapshot.

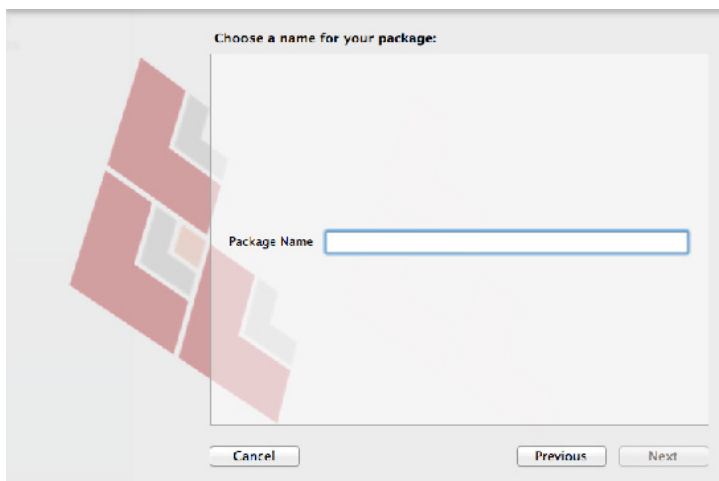
There are several benefits to using the snapshot approach:

- Composer monitors installations in all locations on the drive.
- You can quit Composer during the installation process.
- You can log out or reboot during the installation process.
- If you delete a file while making modifications to a package source, it may be possible to restore the deleted file. For more information about restoring deleted files, see [Adding Scripts to Package Sources](#).

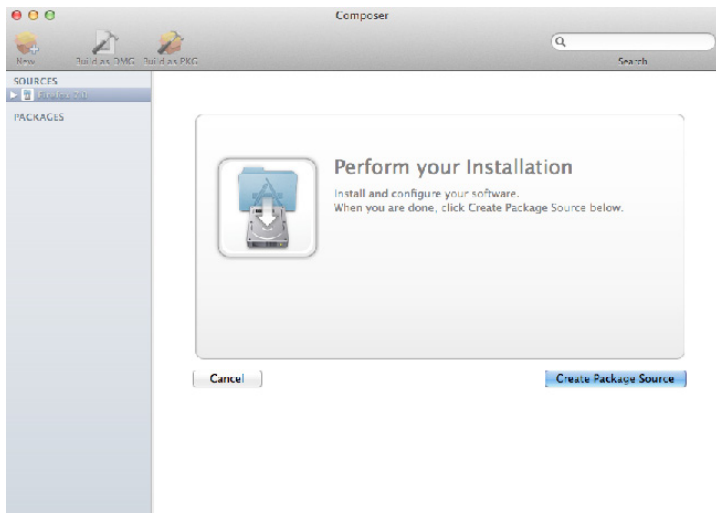
1. Open Composer and authenticate locally.
2. In the toolbar, click **New** .
3. Under the Monitor Installation heading in the sidebar, select **Snapshot**.
4. Select **Normal Snapshot** or **New & Modified Snapshot** and click **Next**.



5. Enter a name for the package and click **Next**.




6. Install and configure your software, and then click **Create Package Source** to initiate the “after” snapshot.



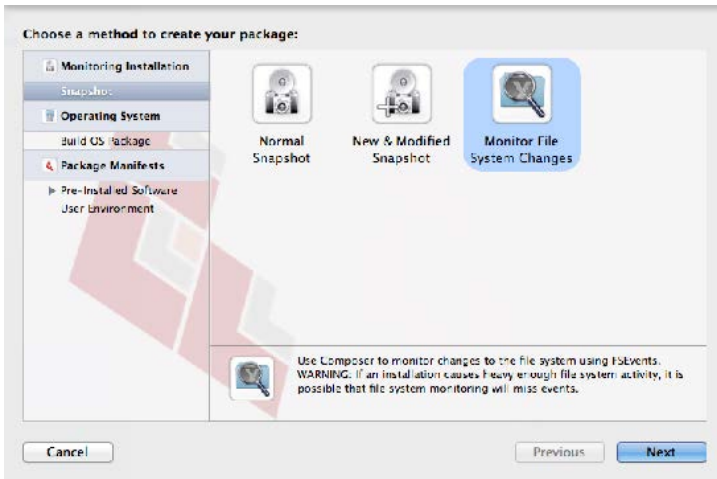
## Monitoring the File System

When creating a package source using file system monitoring, Composer uses the File System Events (FSEvents) framework that is built into OS X to monitor any changes that are made to the file system. Each time a change is made, FSEvents receives a notification. After your software is installed, Composer analyzes the changes and creates a package source based on the results.

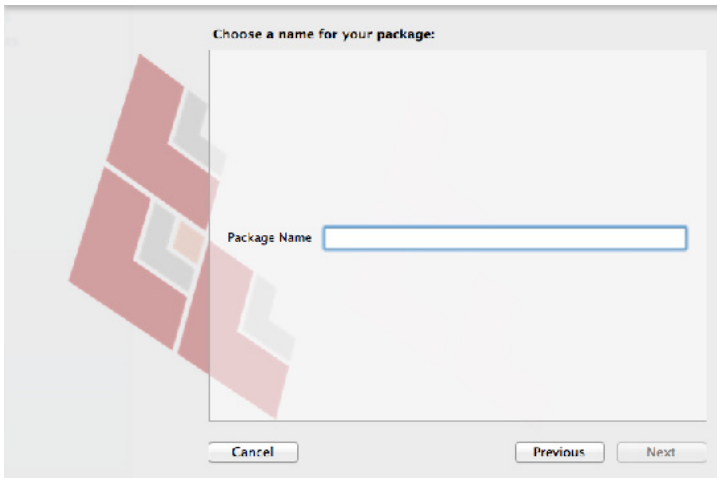
The following limitations should be taken into consideration when monitoring the file system to create a package source:

- You cannot quit Composer during the installation process.
  - You cannot log in or restart during the installation process.
  - It is possible for FSEvents to miss events if there is too much file system activity.
1. Open Composer and authenticate locally.
  2. In the toolbar, click **New** .
  3. Under the Monitor Installation heading in the sidebar, select **Snapshot**.

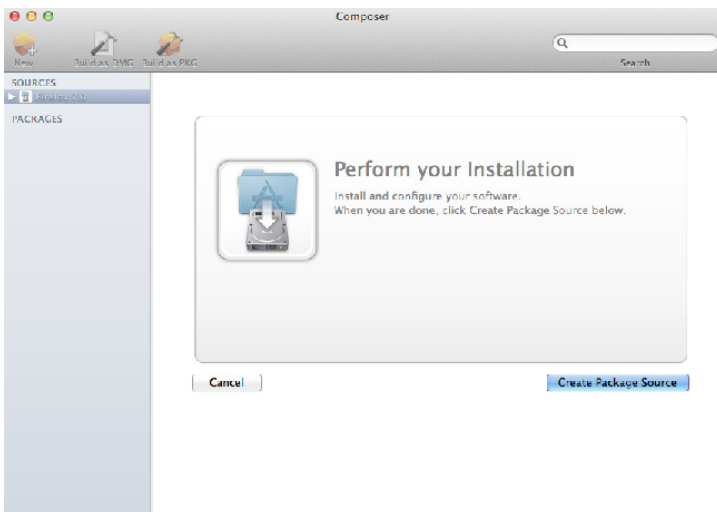
4. Select **Monitor File System Changes** and click **Next**.



5. Enter a name for the package and click **Next**.




6. Install and configure your software, and then click **Create Package Source**.



## Creating Package Sources From Pre-Installed Software

You can create a package source from software that is currently installed on your computer if Composer contains a package manifest for the software.

**Note:** If there is software you would like added to the package manifest options in Composer, email your recommendations to [diffs@jamfsoftware.com](mailto:diffs@jamfsoftware.com).

1. Open Composer and authenticate locally.
2. In the toolbar, click **New** .
3. Under the Package Manifests heading in the sidebar, select **Pre-Installed Software**.  
Composer scans the file system and displays icons for the software it can package.

**Note:** To view package manifests for software that is not installed on the computer, click the disclosure triangle next to **Pre-Installed Software** and select **Not Installed**.

4. Select the item(s) you want to create a package source from and click **Next**.




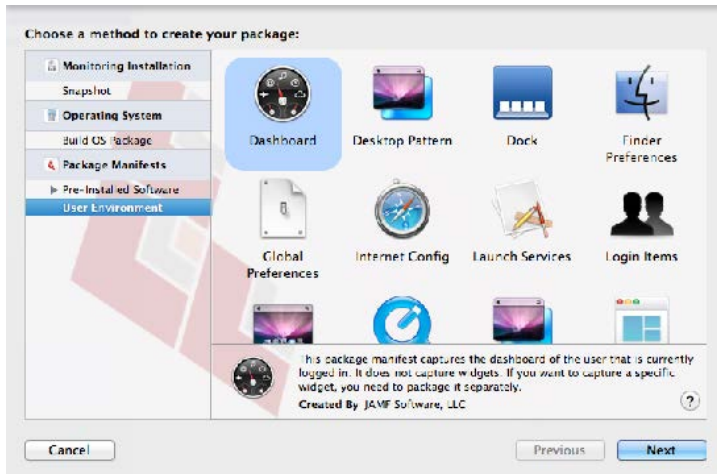
## Creating Package Sources from the User Environment Settings

You can create a package source that captures the look and feel of your computer's interface, such as Dashboard, Display, and Global Preference settings. If Composer contains a package manifest for the setting you want to capture, you can create a package source from it.

To determine which of your current settings Composer can package, select **User Environment** under the Package Manifests heading. Composer scans the file system and displays icons for the settings that it has package manifests for.

**Note:** If there is a setting you would like added to the package manifest options in Composer, email your recommendations to [diffs@jamfsoftware.com](mailto:diffs@jamfsoftware.com).

1. Open Composer and authenticate locally.
2. In the toolbar, click **New** .
3. Under the Package Manifests heading in the sidebar, select **User Environment**.
4. Select the item(s) you want to create a package source from and click **Next**.



## Creating Package Sources by Dragging Contents from the Finder

If you already know which item you want to package, you can bypass the snapshot or monitoring process by dragging items from the Finder to the Sources list in Composer.

There are a few ways Composer handles these items:

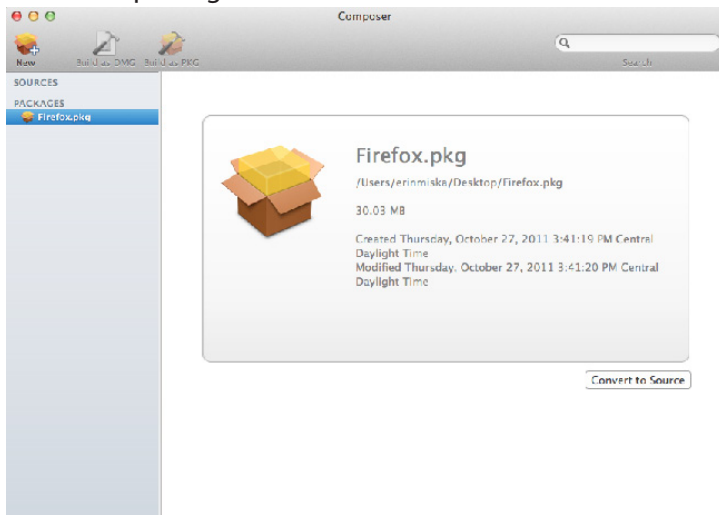
- If the item is a package (DMG, PKG, or MPKG), it is listed in the sidebar under the Packages heading.
- If the item is a folder, the root of the folder is used as the root of the package if it is one of the following directories:
  - /Applications/
  - /Developer/
  - /Library/
  - /System/
  - /Users/
  - /bin/
  - /private/
  - /sbin/
  - /usr/
- Any other items are copied to their current location.

**Note:** This is the equivalent of a PreBuilt package in earlier versions of Composer.

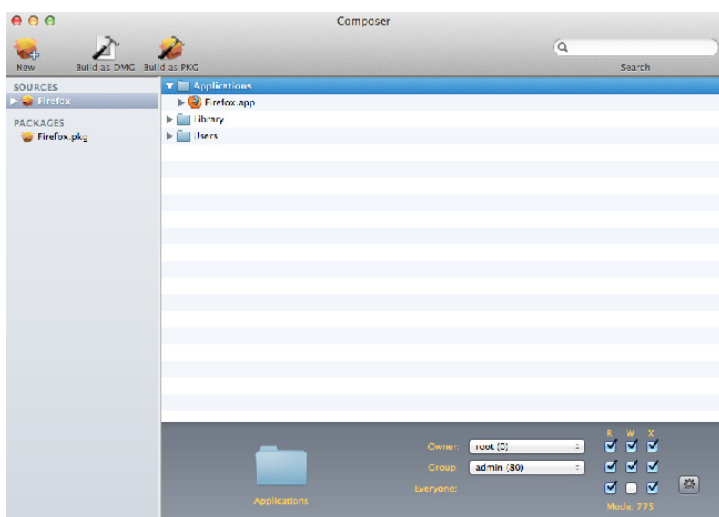
## Creating Package Sources from Existing Packages

Composer allows you to rebuild an existing package (PKG, DMG, or MPKG) by converting it to a package source. After converting it to a package source, you can make changes to its contents and save a new copy of the package.

1. Open Composer and authenticate locally.
2. Drag the package you want to convert from the Finder to the sidebar in Composer. The package appears under the Packages heading.
3. Select the package and click **Convert to Source**.



When the conversion is complete, a new package source is listed in the sidebar under the Sources heading.



## Related Information

For related information, see the following sections in this guide:

- [Package Manifests](#)  
Find out how to create package manifests, update the package manifests available, and import package manifests.
- [Building Packages from Package Sources](#)  
Find out how to build a PKG or DMG from a package source.



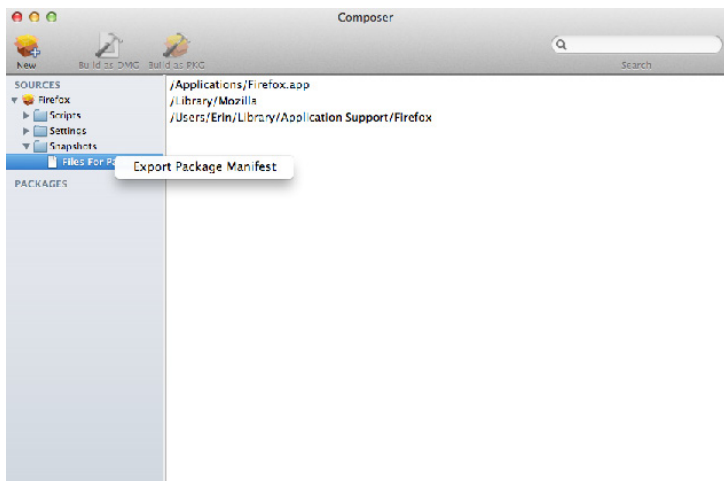
# Package Manifests

Package manifests are .composer files that can be used to create package sources from the software installed on your computer. They can also be used to capture settings configured on your computer, such as Dashboard, Display, and Global Preference settings.

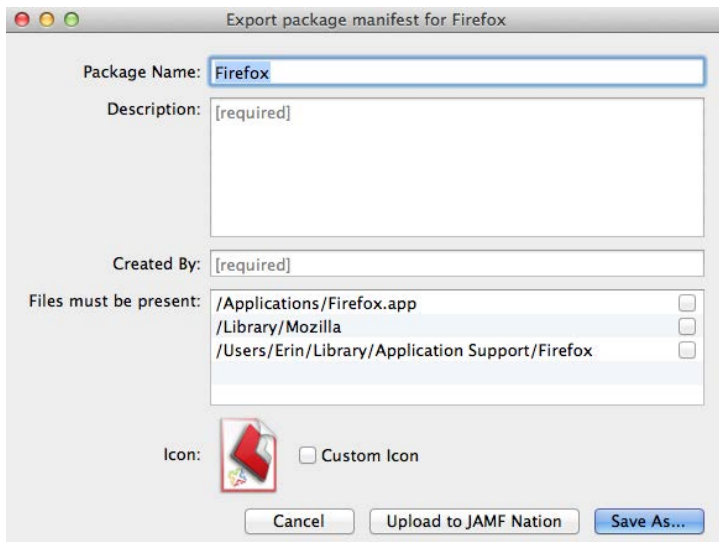
Composer comes with over 100 package manifests. You can use the update feature in Composer to add new package manifests as they become available. You can also create your own package manifests and import package manifests that are stored on your computer.

## Creating Package Manifests

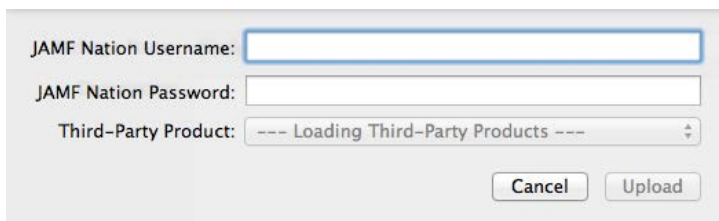
1. Open Composer and authenticate locally.
2. Click the disclosure triangle next to an existing package source.
3. Click the disclosure triangle next to **Snapshots**.
4. Control-click (or right-click) **Files For Package** and select **Export Package Manifest**.



5. Enter a name for the package manifest.



6. Enter a description of the package manifest and the name of the person who is creating it.
7. Select the checkbox next to each file that must be present on a computer for the package manifest to appear under the Pre-Installed Software heading or the User Environment heading in Composer.
8. If desired, select the **Custom Icon** checkbox and choose an icon for the package manifest. The icon is displayed when viewing the package manifest in Composer.
9. If you want to upload the package manifest to JAMF Nation:
  - a. Click **Upload to JAMF Nation**.
  - b. Enter the username and password for your JAMF Nation account.



- c. Choose a third-party product to associate the package manifest with. For example, if you are creating a package manifest for Adobe Reader 10, associate it with the "Adobe Reader" third-party product.
  - d. Click **Upload**.
10. Click **Save As**.
  11. Choose a location to save the package manifest and click **Save**.

## Updating Package Manifests

Periodically, new package manifests become available for Composer. To ensure that you have the latest package manifests, choose **File > Update Package Manifests** from the menu bar in Composer.

Composer downloads the latest package manifests from JAMF Nation and any new package manifests that JAMF Software has added to the application, and stores them in the following location:

```
/Library/Application Support/JAMF/Composer/ImportedPackageManifests/
```

## Importing Package Manifests

If you do not want to add all package manifests from JAMF Nation to Composer, you can download one or more specific package manifests from JAMF Nation and import them to Composer. You can also import package manifests that you created.

To import package manifests that are saved to your computer, choose **File > Import Package Manifests** from the menu bar in Composer and then choose the package manifest you want to import.

Composer imports the package manifests and stores them in the following location:

```
/Library/Application Support/JAMF/Composer/ImportedPackageManifests/
```

# Viewing and Editing the Contents of Package Sources

Once a package source exists for the files you want to package, Composer allows you to do the following:

- Delete files that should not be included in the package.
- Add files by dragging them into Composer from the Finder.
- Change privileges on a file or folder.
- Restore files that were deleted from the package source.

In addition to viewing files or folders through the Composer interface, you can view this information in the Finder or using Quick Look.


## Deleting Files or Folders from a Package Source

In the Package Contents pane, select the item(s) you want to delete from the package source and choose **File > Delete** from the menu bar.

## Adding Files to a Package Source

Drag the file(s) you want to add to your package source from the Finder into the Package Contents pane in Composer.

## Changing Privileges on Files or Folders in a Package Source

Select a file or folder in the Package Contents pane in Composer to display its privileges in the bottom of the window. You can change the privileges using this display. Changes are saved automatically. If the selected item is a folder, you can apply the privileges that exist on the folder to each enclosed item by clicking the **Action** button  to the right of the X-column.

## Restoring Deleted Files or Folders to a Package Source

If you delete a file or folder from the Package Contents pane, it may be possible to restore the item. When you restore a deleted file or folder, Composer copies the item from its original location on the drive.

**Note:** Deleted files and folders can only be restored if a snapshot was used to create the package source.

1. Open Composer and authenticate locally.
2. Click the disclosure triangle next to the package source in the sidebar.
3. Click the disclosure triangle next to **Snapshots**.

4. Select **Files for Package** to display a list of files, folders, and directories from the snapshot.
5. Select the item you want to restore.
6. Control-click (or right-click) the selected item and choose **Restore**.

## Viewing Files or Folders in a Package Source Using the Finder

In the Package Contents pane, select the item(s) you want to preview, and then choose **File > Reveal in Finder** from the menu bar.

## Viewing Files or Folders in a Package Source Using Quick Look

In the Package Contents pane, select the item(s) you want to preview, and then choose **File > Quick Look** from the menu bar or press the Space bar.

# Adding Scripts to Package Sources

Composer allows you to manage scripts for PKGs. The following default scripts are available in shell and perl:

- `InstallationCheck`
- `Postflight`
- `Postinstall`
- `Postupgrade`
- `Preflight`
- `Preinstall`
- `Preupgrade`
- `VolumeCheck`

**Note:** Flat PKGs support `Preinstall` and `Postinstall` scripts only. To build a PKG that contains other scripts, you can deselect the **Build Flat PKGs** option in Composer preferences, or you can disable this preference for a single package. For information on how to disable this preference for a single package, see [Building a PKG](#). For more information on flat PKGs, see [Composer Preferences](#).

These scripts read in the available parameters that are received from the installer and give descriptions for the supported exit codes.

Composer also attempts to verify that the script syntax is valid. If a script appears to have invalid syntax, a warning icon appears.

To view the error that occurred while Composer was verifying the script, Control-click (or right-click) the script and choose **Compile Script**.

**Note:** `InstallationCheck` and `VolumeCheck` scripts have warning and failure messages that can be localized according to the needs of the user. To localize these messages, the corresponding `.strings` file (`InstallationCheck.strings` or `VolumeCheck.strings`) must be created for each localization.

Adding a postflight script to a package source allows you to remove deprecated or unneeded files from computers as they install the package.

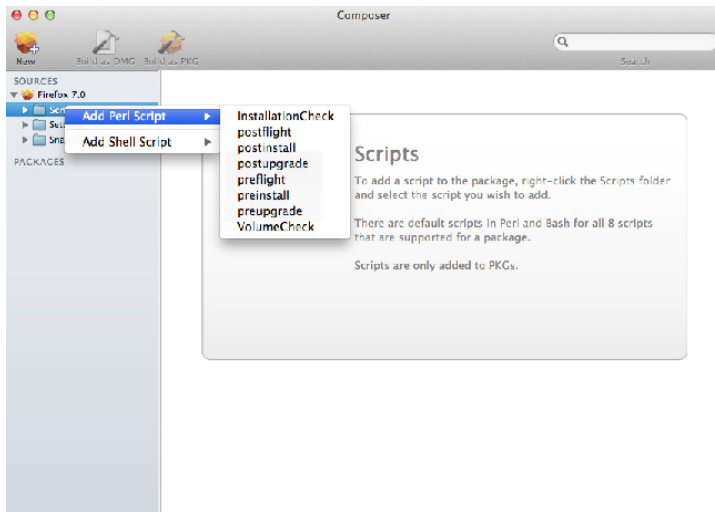
1. Open Composer and authenticate locally.
2. Click the disclosure triangle next to the package source in the sidebar.

3. Do one of the following:

- To add a postflight script that removes deleted files from computers, click the disclosure triangle next to **Snapshots**. Then Control-click (or right-click) the Deleted Files heading and choose **Add postflight Shell Script**.

**Note:** This function is only available if a snapshot was used to create the package source.

- To add another type of script, Control-click (or right-click) **Scripts** and choose the script you want to add.



The script is displayed under the Scripts heading in the sidebar.

4. (Optional) Select the script in the sidebar to view or change its contents.

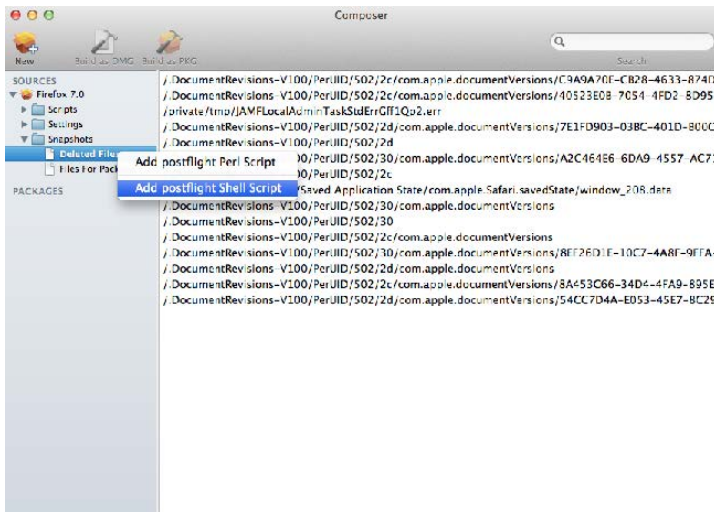
## Adding a Postflight Script that Removes Deleted Files from Computers

Adding a postflight script to a package source allows you to remove deprecated or unneeded files from computers as they install the package.

**Note:** This function is only available if a snapshot was used to create the package source.

1. Open Composer and authenticate locally.
2. Click the disclosure triangle next to the package source in the sidebar.
3. Click the disclosure triangle next to **Snapshots**.

4. Select the Deleted Files heading to view the deleted files captured by the snapshot.
5. Control-click (or right-click) the Deleted Files heading and choose **Add postflight Shell Script**.



The script is displayed under the Scripts heading in the sidebar.

6. (Optional) Select the script in the sidebar to view or change its contents.



# Localizations

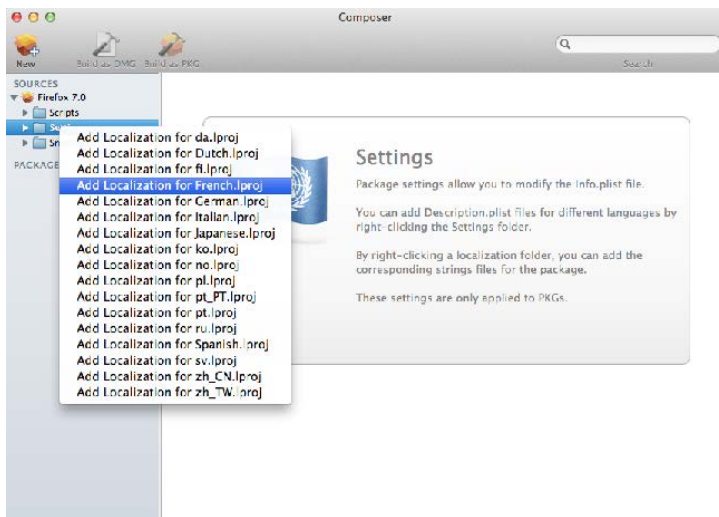
Localizations allow you to customize the language used when displaying package information to a user. By default, a package source only includes an English localization.

Composer includes defaults for the following localizations supported by the PKG format:

- da.lproj
- Dutch.lproj
- English.lproj
- Fi.lproj
- French.lproj
- German.lproj
- Italian.lproj
- Japanese.lproj
- ko.lproj
- no.lproj
- pl.lproj
- pt\_PT.lproj
- pt.lproj
- ru.lproj
- Spanish.lproj
- sv.lproj
- zh\_CN.lproj
- zh\_TW.lproj

## Adding Localizations to Package Sources

1. Open Composer and authenticate locally.
2. Click the disclosure triangle next to the package source in the sidebar.
3. Control-click (or right-click) **Settings** and choose the localization that you want to add.

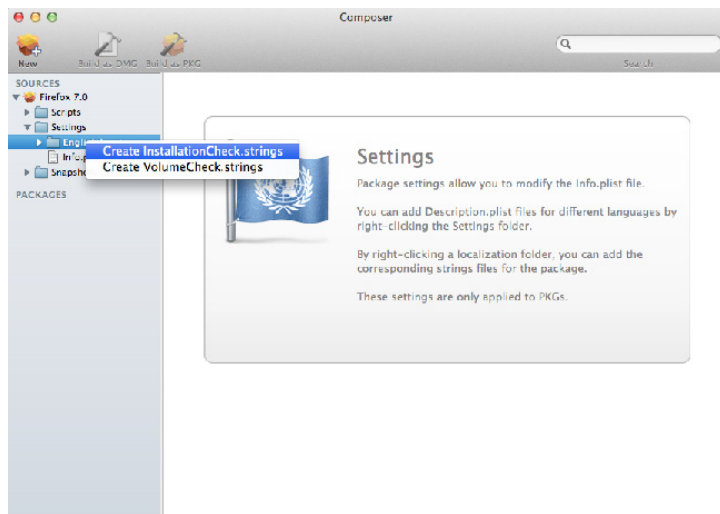


## Adding and Editing Files for a Localization

You can include two kinds of files in a localization:

- **Description.plist files**—These files display the title of a package and its description in the Installer application. Each localization contains a `description.plist` file by default. For instructions on how to edit these files, see [Editing PLIST Files in Package Sources](#).
- **Strings files**—`VolumeCheck.strings` and `InstallationCheck.strings` files are used to localize warning and error messages. These files are only effective when used in conjunction with their corresponding scripts (`VolumeCheck` and `InstallationCheck`). For instructions on how to add `VolumeCheck` and `InstallationCheck` scripts to a package source, see [Adding Scripts to Package Sources](#).

1. Open Composer and authenticate locally.
2. Click the disclosure triangle next to the package source in the sidebar.
3. Click the disclosure triangle next to **Settings**.
4. Control-click (or right-click) the language folder you want to add the `.strings` file to, and select **Create InstallationCheck.strings** or **Create VolumeCheck.strings**.



5. Click the `.strings` file to change its contents in the Package Contents pane.

# Building Packages from Package Sources

After you have verified the contents of a package source, Composer allows you to build two different kinds of packages: PKGs and DMGs. Each format has advantages depending on the intended use of the package and the tool you use to deploy it.

Once a package source exists in Composer, you can build a PKG or DMG package from the source at any time. You also have the ability to convert from one format to another after a package has been built. For more information about converting between the PKG and DMG formats, see [Creating Package Sources from Existing Packages](#).


## Building a PKG

PKGs can be deployed using almost any deployment tool, such as Apple Remote Desktop (ARD), the Casper Suite, and other client management systems.

The PKG format allows for easy installation by the user. Double-clicking the package opens the Installer application and guides the user through the installation process.

**Note:** PKGs cannot dynamically deploy files in the user's home directory to user templates when used with the Casper Suite.

By default, Composer builds flat PKGs. For more information on flat PKGs, see [Composer Preferences](#).


1. Open Composer and authenticate locally.
2. Select the package source you want to build as a PKG from the Sources list in the sidebar.
3. In the toolbar, click **Build as PKG** .

**Note:** If the **Build flat PKGs** preference is enabled and the package source contains scripts that are not supported by flat PKGs, a dialog will appear. To disable this preference for this package only, click **Build as non-flat PKG**. To build a flat PKG that ignores unsupported scripts, click **Build as flat PKG**. For more information on which scripts are supported by flat PKGs, see [Adding Scripts to Package Sources](#).

4. Select a location to save the package and click **Save**.

## Building a DMG

When used in conjunction with the Casper Suite, the DMG format allows you to dynamically deploy files and folders to each user that has an account on a computer, as well as the network home directories of currently logged-in users. There is also an option to deploy files and folders to the user template directories, ensuring that any new user receives the correct default environment.

1. Open Composer and authenticate locally.
2. Select the package source you want to build as a DMG from the Sources list in the sidebar.
3. In the toolbar, click **Build as DMG**  .
4. Select a location to save the package and click Save.

# Building OS Packages

In addition to building deployable packages of applications and other files, Composer allows you to build DMGs of preconfigured operating systems. OS packages can save you time and enhance consistency across your network.

While building an OS package with Composer is similar to building one with the Disk Utility application, Composer allows you to clean up the OS by removing unnecessary files before building the DMG.

Composer allows you to manage the following cleanup options for an OS package:

## **Compress Disk Image**

This option compresses the OS package DMG.

## **Delete Temp Files**

This option ensures the files in `/private/tmp` are deleted before building an OS package. These files are usually deleted during the startup process.

## **Delete Virtual Memory Files**

This option ensures that Virtual Memory files are deleted before building an OS package, including the potentially large `sleepfile`. These files are usually deleted and recreated during the startup process.

## **Delete Special Files**

Apple recommends deleting the following files before building an OS package:

```
/private/var/db/BootCache.playlist  
/private/var/db/volinfo.database
```

This option ensures that these files are deleted.

## **Delete Caches**

This option removes files in the `/Library/Caches` directory before building an OS package.

## **Remove System Keychain**

This option removes the System keychain from the OS to ensure that a new System keychain is created. This can prevent the “This computer already exists” error when binding a computer to a directory service.

## **Ensure Trashes are Empty**

This option empties the Trash for any user with items in the `~/Trash` folder. It also updates a user’s `com.apple.dock.plist` file to reflect that the Trash is empty.


## Installing and Configuring the OS

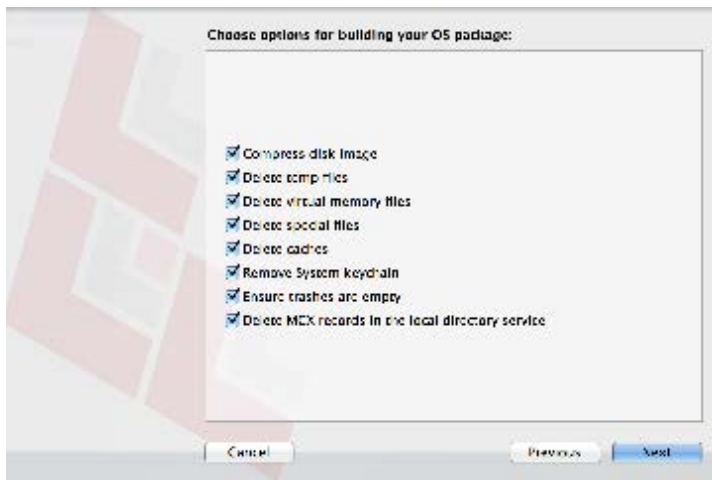
For instructions on how to install and configure the OS before building an OS package, see the following Knowledge Base article:

[Creating a Minimal Base OS Image](#)

## Packaging the OS

When you're finished configuring the OS, boot to another startup disk to build the DMG.

1. Open Composer and authenticate locally.
2. In the toolbar, click **New** .
3. Under the Operating System heading in the sidebar, select **Build OS Package**.
4. Select the drive you want to package and click **Next**.
5. Choose options for removing unnecessary files from the package and click **Next**.



6. Enter a package name and select a location to save the package, and then click **Build**.

# Composer Preferences

Composer allows you to manage the following settings:

- Toolbar preferences
- Package preferences
- Cleanup options for OS packages
- Excluded files
- Location of the work directory
- Default bundle identifier

You can access Composer preferences by choosing **Composer > Preferences** from the menu bar.

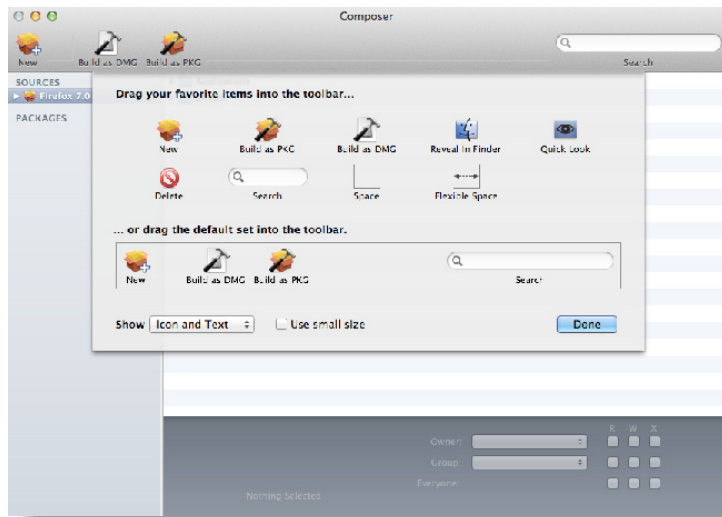
This section provides a detailed explanation of Composer preferences.

## Toolbar Preferences

Composer allows you to customize the toolbar by adding and removing items.

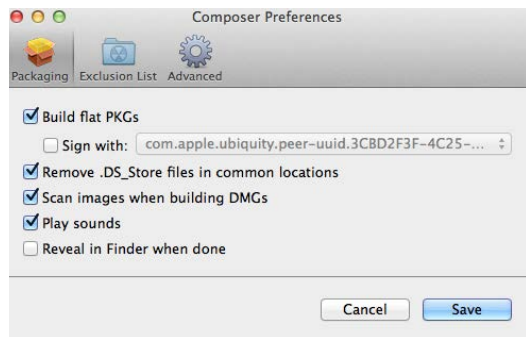
To add items to the toolbar, Control-click (or right-click) the toolbar and select **Customize toolbar**, and then drag desired items to the toolbar.

To remove an item from the toolbar, simply drag the item off of the toolbar.



# Package Preferences

Composer allows you to manage Package preferences from the pane in the screen shot below.



This pane includes the following preference settings:

## Build flat PKGs

By default, Composer builds flat PKGs. Flat PKGs consist of a single file and allow for easier and more reliable deployment than non-flat PKGs. You cannot view or change the contents of a flat PKG after it is built.

## Sign flat PKGs

This option allows you to sign flat PKGs with an installer certificate (.p12) obtained from Apple. Signing PKGs with an installer certificate makes it possible to verify that the PKG was created by an identified developer. It also allows users to install PKGs on computers that have Apple's Gatekeeper feature set to only allow applications downloaded from the Mac App Store and identified developers.

To sign flat PKGs, Composer must be running on OS X v10.7 or later.

Select the **Sign with** option and choose an installer certificate from the pop-up menu. Installer certificates that are located in the login keychain in Keychain Access are displayed in the pop-up menu.

**Note:** The pop-up menu also displays application certificates that are located in the login keychain in Keychain Access. It is important that you use an installer certificate, not an application certificate, to sign flat PKGs.

For instructions on how to obtain an installer certificate from Apple, see the following Knowledge Base article:

[Obtaining an Installer Certificate from Apple](#)

To install a signed PKG, computers must have a Certification Authority intermediate certificate from Apple in the System keychain in Keychain Access. For instructions on how to obtain this certificate and import it to the System keychain on managed computers, see the following Knowledge Base article:

[Importing a Certification Authority Intermediate Certificate from Apple to the System Keychain](#)



### **Remove .DS\_Store Files in Common Locations**

Enabling this option ensures the removal of any files that disturb the way Finder windows are presented on a user's computer. Any .DS\_Store files necessary to configure views of deployed files and folders will not be removed.

This feature removes .DS\_Store files in the following locations:

- / .DS\_Store
- /Applications/.DS\_Store
- /Applications/Utilities/.DS\_Store
- /Developer/.DS\_Store
- /Library/.DS\_Store
- /System/.DS\_Store
- /Users/.DS\_Store
- /Users/<username>/.DS\_Store
- /Users/<username>/<first\_level\_directory>/.DS\_Store

### **Scan Images When Building DMGs**

Scanning images when building a DMG calculates the checksum and stores it in the DMG.

The checksum is used to ensure proper installation of the DMG package.

### **Play Sounds**

Composer plays a sound each time a package source is created or deleted.

### **Reveal in Finder when done**

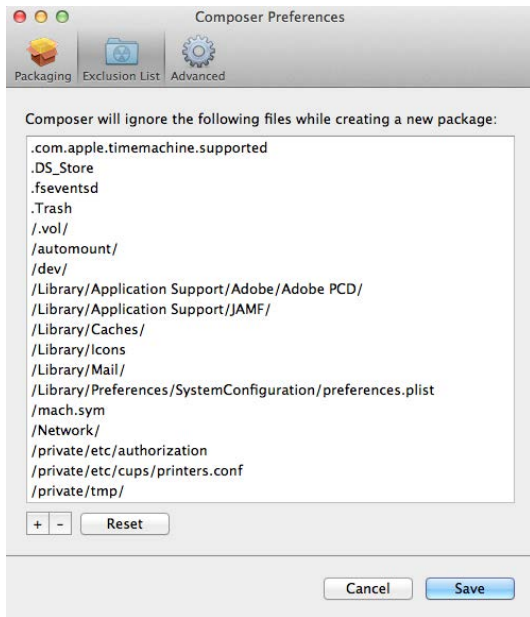
When this option is enabled, Composer reveals newly built packages in a Finder window.

## **Exclusion List**

The exclusion list allows you to specify files and folders that should be ignored when creating a package using a snapshot or file system monitoring.

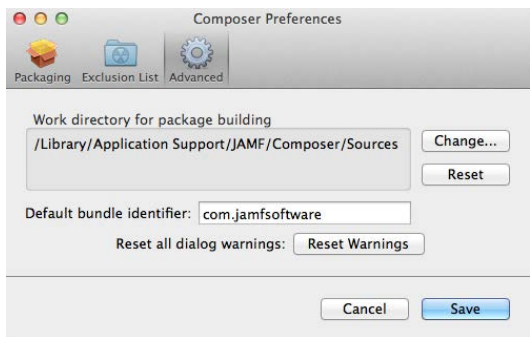
To view the exclusion list, click **Exclusion List** in the toolbar. A list of common files and folders is specified by default.

To add and remove files, use the **Add (+)** and **Delete (-)** buttons at the bottom of the list.



## Advanced Preferences

Composer allows you to manage some advanced preferences from the pane in the screen shot below.



This pane includes the following preference settings:

### Work Directory

When Composer creates a package source, it copies files to a work directory. This work directory must have privileges enabled.

To change this directory, click **Change**, or hold down the Option key when you open Composer.

### Default Bundle Identifier

The default bundle identifier is used when creating the `info.plist` file for a new package source. For example, if the default bundle identifier is "com.jamfsoftware", and you create a package source named "Composer", the bundle identifier for the package source is "com.jamfsoftware.composer".

---

# Inventory

## Computer Inventory Collection

By default, inventory is collected from computers using the “Update Inventory” policy that is created automatically when you install the JAMF Software Server (JSS). This policy collects inventory from all computers once every week.

You can make changes to the default inventory collection policy at any time. In addition, if you want more control over inventory collection, you can create additional inventory collection policies as needed.

### Related Information

For related information, see the following sections in this guide:

- [Managing Policies](#)  
Find out how to create and edit policies.
- [Policy Payload Reference](#)  
Learn about each payload in the policy interface.

# Computer Inventory Collection Settings

Computers can submit many types of inventory information to the JAMF Software Server (JSS). Basic inventory information—such as hardware, operating system, user and location information, storage, and applications—is collected automatically.

The Computer Inventory Collection settings in the JSS allow you to collect the following additional items:

- Local user accounts, with the option to include home directory sizes and/or hidden system accounts
- Printers
- Active services
- Last backup date/time for managed mobile devices that are synced to computers
- User and location from an LDAP directory service (only available if an LDAP server is set up in the JSS)
- Package receipts
- Available software updates
- Application Usage information
- Fonts
- Plug-ins

For descriptions of the information collected for each of these items, as well as information on the items that are collected automatically, see [Viewing and Editing Inventory Information for a Computer](#).

You can also use the Computer Inventory Collection settings to do the following:

- Specify custom search paths to use when collecting applications, fonts, and plug-ins.
- Monitor iBeacon regions so that computers submit information to the JSS when they enter or exit a region.

## Time and Traffic Estimates for Collecting Additional Items

Collecting additional inventory items may add reporting time and network traffic to the inventory process.

The following table provides estimates of how much time and traffic may be added when collecting user home directory sizes, available software updates, fonts, and plug-ins. These estimates are based on a MacBook Pro with approximately 300 GB of user home directories, 100 applications, 300 fonts, and 900 plug-ins.

Additional Inventory Item	Time (Seconds)	Traffic (KB)
(No additional items)	9	102
Home directory sizes	25	104
Available software updates	110	104
Fonts	10	128
Plug-ins	13	248

The following table provides estimates of how much time and traffic may be added when collecting Application Usage information. These estimates are based on a MacBook Pro with eight applications used per day, one week between inventory reports, and one computer user.

Additional Inventory Item	Time (Seconds)	Traffic (KB)
(No additional items)	16	24
Application Usage information	17	48



## Search Paths for Collecting Applications, Fonts, and Plug-ins




The following table lists the default search paths that are used when collecting applications, fonts, and plug-ins from computers on the Mac and Windows platforms.

Collected Item	Mac Platform Default Search Paths	Windows Platform Default Search Paths
Applications (and Application Usage information, if collecting)	/Applications/	C:\Program Files\
Fonts	/Library/Fonts/ /System/Library/Fonts/ /Library/Application Support/ Adobe/Fonts/ ~/Library/Fonts/ (collected at the user level for each account)	C:\Windows\Fonts\
Plug-ins	/Library/Internet Plug-Ins/	--

If you store these items in locations not listed in the table, you can use the Computer Inventory Collection settings to specify custom search paths for those locations.

## Configuring the Computer Inventory Collection Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Management Framework" section, click **Inventory Collection** .
5. Click **Edit**.
6. On the General pane, select the checkbox for each inventory item you want to collect.

7. To collect Application Usage information or add custom paths in which to search for applications, do the following:
  - a. Click the **Software** tab, and then click **Applications**.
  - b. To collect Application Usage information, select the **Collect Application Usage Information** checkbox.
  - c. To add a custom search path, click **Add** . Then enter the full path for the location you want to search and the platform to which it applies.
  - d. Repeat step c to specify additional custom search paths as needed.
8. To collect fonts and add custom paths in which to search for fonts, do the following:
  - a. Click the **Software** tab, and then click **Fonts**.
  - b. Select the **Collect Fonts** checkbox.
  - c. To add a custom search path, click **Add** . Then enter the full path for the location you want to search and the platform to which it applies.
  - d. Repeat step c to specify additional custom search paths as needed.
9. To collect plug-ins and add custom paths in which to search for plug-ins, do the following:
  - a. Click the **Software** tab, and then click **Plug-ins**.
  - b. Select the **Collect Plug-ins** checkbox.
  - c. To add a custom search path, click **Add** . Then enter the full path for the location you want to search and the platform to which it applies.
  - d. Repeat step c to specify additional custom search paths as needed.
10. Click **Save**.

## Related Information

For related information, see the following sections in this guide:

- [Extension Attributes](#)  
Find out how to create extension attributes that allow you to collect almost any type of data from computers.
- [Simple Computer Searches](#)  
Learn how to quickly search the items in your inventory for a general range of results.
- [Advanced Computer Searches](#)  
Learn how to create and save an advanced computer search.
- [Viewing and Editing Inventory Information for a Computer](#)  
Find out how to view and edit inventory information for a computer.
- [Viewing Application Usage Logs for a Computer](#)  
Find out how to view Application Usage logs for a computer.
- [iBeacon Regions](#)  
Learn what iBeacon regions can be used for and how you can add them to the JSS.

# Computer Extension Attributes

Computer extension attributes are custom fields that you can create to collect almost any type of data from a computer. For example, you can create an extension attribute to collect the host name of a computer or collect data about the activity of the company's antivirus software.

There are several ways to create a computer extension attribute in the JAMF Software Server (JSS). You can manually create the extension attribute, use an extension attribute template available in the JSS, or upload an extension attribute template obtained from JAMF Nation.

When you create a computer extension attribute, you specify the following information:

- Type of data being collected, such as string, integer, or date
- Inventory category in which to display the extension attribute in the JSS, such as Hardware or Operating System
- Input type, which determines how the extension attribute is populated with data
- Pane on which to display the extension attribute in Recon (text field and pop-up menu input types only)
- Script to use to collect data from computers (script input type only)

Extension attributes can add time and network traffic to the inventory process depending on the type of data you choose to collect and the input type used to collect it.

## Computer Extension Attribute Input Types

You can choose to populate the value of a computer extension attribute using any of the following input types:

- **Text field**—This displays a text field in Recon and in computer inventory information. You can enter a value in the field when enrolling a computer using Recon, or at any time using the JSS. Only extension attributes created manually can be populated using a text field.
- **Pop-up menu**—This displays a pop-up menu in Recon and in computer inventory information. You can choose a value from the pop-up menu when enrolling a computer using Recon, or at any time using the JSS. Only extension attributes created manually can be populated using a pop-up menu.
- **Script**—This allows you to run a script that populates the extension attribute each time a computer submits inventory to the JSS. Extension attributes created manually can be populated by a script. Extension attributes created from a template are always populated by a script.
- **LDAP Attribute Mapping**—This populates the extension attribute with the value for an LDAP attribute. It also generates a variable that can be used to populate configuration profile settings with values for the LDAP attribute. The variable is `$EXTENSIONATTRIBUTE_<#>`, where `<#>` is the extension attribute ID. For more information on payload variables for configuration profiles, see [OS X Configuration Profiles](#).

## Computer Extension Attributes Populated by a Script

When an extension attribute is populated by a script, the text between the `<result></result>` tag is stored in the JSS.

For OS X computers, scripts can be written in any language that has an interpreter installed. The most common interpreters are:

```
/bin/bash
/bin/sh
/usr/bin/perl
/usr/bin/python
```

All scripts must start with a shebang (`#!`) followed by the absolute path to the interpreter. For example, the script for an extension attribute that collects the host name from OS X computers looks like this:

```
#!/bin/sh
echo "<result>`hostname 2>&1`</result>"
```

For Windows computers, scripts can be written in VBScript, Batch file, and PowerShell.




**Note:** PowerShell scripts only run on computers that have the components necessary to run the script.

## Requirements

To create a computer extension attribute with the “LDAP Attribute Mapping” input type, you need:

- An LDAP server set up in the JSS (For more information, see [Integrating with LDAP Directory Services.](#))
- The Computer Inventory Collection settings configured to collect user and location information from LDAP (For more information, see [Computer Inventory Collection Settings.](#))

## Manually Creating a Computer Extension Attribute




1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Management Framework” section, click **Extension Attributes** .
5. Click **New** .
6. Configure the settings on the pane.
7. Click **Save**.

If the extension attribute has the “LDAP Attribute Mapping” input type, the LDAP attribute variable is displayed on the pane.



## Creating a Computer Extension Attribute From a Template




The JSS has built-in templates for many commonly used extension attributes.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Management Framework" section, click **Extension Attributes** .
5. Click **New From Template** .
6. Click the extension attribute template you want to use.
7. Make changes to the settings as needed.
8. Click **Save**.


## Uploading a Template for Computer Extension Attribute

You can create an extension attribute by uploading an extension attribute template obtained from JAMF Nation. Extension attribute templates are available in JAMF Nation at:

<https://jamfnation.jamfsoftware.com/extensionAttributes.html>

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Management Framework" section, click **Extension Attributes** .
5. Click **Upload**  and upload the extension attribute template.
6. Make changes to the settings as needed.
7. Click **Save**.

## Cloning, Editing, or Deleting a Computer Extension Attribute

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .

3. Click **Computer Management**.

On a smartphone or iPod touch, this option is in the pop-up menu.

4. In the "Computer Management–Management Framework" section, click **Extension Attributes** .

5. Click the extension attribute you want to clone, edit, or delete.

6. Do one of the following:

- To clone the extension attribute, click **Clone** and make changes as needed. Then click **Save**.
- To edit the extension attribute, click **Edit** and make changes as needed. Then click **Save**.
- To delete the extension attribute, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Computer Inventory Display Settings](#)

You can display extension attributes in the results of a simple computer search.

- [Viewing and Editing Inventory Information for a Computer](#)

You can view the extension attributes collected from a computer and edit non-script extension attribute values for that computer.



- [Smart Computer Groups](#)

You can create smart computer groups based on extension attributes.

# Computer Inventory Display Settings

The Computer Inventory Display settings allow each JSS user to choose which attribute fields to display in the results of a simple computer search.

## Configuring the Computer Inventory Display Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Management Framework” section, click **Inventory Display** .
5. On each pane, select or deselect the checkbox for each attribute field you want to display or remove.
6. Click **Save**.

## Related Information

For related information, see the following section in this guide:

[Simple Computer Searches](#)

Find out how to quickly search the items in your inventory for a general range of results.

# Peripherals





Peripherals are miscellaneous items, such as keyboards or scanners, for which you can store information in the JAMF Software Server (JSS).

The first step to storing peripheral information is to create one or more peripheral types. You can add custom text fields and pop-up menus to each peripheral type, allowing you to customize the information that is stored. For example, if you plan to store the serial numbers of keyboards, you can create a peripheral type called “Keyboard” and add a “Serial Number” text field. Peripheral types also serve as categories that allow you to group peripherals in inventory.


After creating one or more peripheral types, you can add peripherals to the JSS. When you add a peripheral, you specify the type of peripheral you are adding. Then you can do the following:

- Assign the peripheral to a computer and populate information about the user assigned to the computer
- Assign a user to the peripheral and populate information about the user. (For information on assigning a user to a peripheral or removing a user assignment, see [User Assignments](#).)
- Enter purchasing information
- Attach files



## Creating a Peripheral Type

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management - Management Framework” section, click **Peripheral Types** .
5. Click **New** .
6. Enter a display name for the peripheral type.
7. Add one or more custom fields:
  - a. Click **Add** .
  - b. Enter a label for the field.
  - c. Choose “Text” or “Menu” from the **Type** pop-up menu.  
If you chose “Menu”, click **Edit Menu** and configure pop-up menu options as needed.
  - d. Choose a position number from the **Order** pop-up menu.  
A field with a position number of “1” is displayed first when adding or viewing a peripheral.
  - e. Repeat steps a through d as needed.
8. Click **Save**.

## Adding a Peripheral

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Choose “Peripherals” from the **Search** pop-up menu and press the Enter key.
5. Click **New**  .
6. Choose a peripheral type and click **Next**.
7. Use the General payload to specify basic information about the peripheral.
8. (Optional) Use the User and Location payload to assign the peripheral to a computer or assign a user to the peripheral by specifying user and location information. (For information on assigning a user to a peripheral or removing a user assignment, see [User Assignments](#).)  
This information is stored in the JSS for each peripheral.
9. (Optional) Use the Purchasing payload to specify purchasing information for the peripheral.  
This information is stored in the JSS for each peripheral.
10. (Optional) Use the Attachments payload to upload attachments to store for the peripheral.  
Attachments are stored in the JSS for each peripheral.
11. Click **Save**.

## Cloning, Editing, or Deleting a Peripheral Type

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings**  .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management - Management Framework” section, click **Peripheral Types**  .
5. Click the peripheral type you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the peripheral type, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the peripheral type, click **Edit** and make changes as needed. Then click **Save**.
  - To delete peripheral type, click **Delete** and then click **Delete** again to confirm.

## Cloning, Editing, or Deleting a Peripheral

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Choose "Peripherals" from the **Search** pop-up menu.
5. Enter one or more search terms in the field provided.  
You can base peripheral searches on peripheral type, customizable peripheral fields, or bar code. For information on the syntax to use to refine your search, see [Search Syntax](#).
6. Press the Enter key.  
The list of search results is displayed.
7. Click the peripheral you want to clone, edit, or delete.  
**Note:** Peripherals assigned to a computer automatically receive user and location information from the computer they are assigned to. To make changes to user and location information for a peripheral assigned to a computer, you must make changes to the computer's user and location information.
8. Do one of the following:
  - To clone the peripheral, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the peripheral, click **Edit** and make changes as needed. Then click **Save**.
  - To delete peripheral, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

- [Simple Computer Searches](#)  
Learn how to quickly search the peripherals in your inventory for a general range of results.
- [Viewing and Editing Inventory Information for a Computer](#)  
You can view the peripherals associated with a computer.
- [User Assignments](#)  
Learn how to assign users to peripherals and remove user assignments from peripherals.

# Simple Computer Searches

A simple computer search functions like a search engine, allowing you to quickly search the items in your inventory for a general range of results.

The following table shows the items that you can search by and the attributes on which you can base each search:

Inventory Item	Searchable Attributes
Computers (This includes both managed and unmanaged computers.)	Computer name MAC address Bar code IP address Asset tag Serial number Username Full name Email address Phone number Position Department Building Room
Peripherals	Peripheral type Customizable peripheral fields Bar code
Applications	Application name
Local User Accounts	Username
Application Usage	Application name
Fonts	Font name
Package Receipts	Package receipt name
Plug-ins	Plug-in name
Printers	Printer name
Services	Service name
Software Updates	Software update name Software update version

**Note:** Computers, peripherals, and applications are searchable by default. The other items are searchable if the JSS is configured to collect them as inventory. For more information, see [Computer Inventory Collection Settings](#).

## Search Syntax

This section explains the syntax to use for the following search functions:

- Wildcard searches
- Including multiple search terms
- Excluding a search term
- Returning all results

In general, searches are not case-sensitive.

**Note:** The default search preference is “Exact Match”. For most items, the option can be changed to either “Starts with” or “Contains”. (For more information, see [Configuring Account Preferences.](#))

### Wildcard Searches

Asterisks (\*) function as wildcard characters in simple searches. The following table explains the different ways asterisks can be used to refine a search:

Usage	Example
Use an asterisk after a search term to return all results with attributes that begin with that term.	Perform an application search for “Adobe*” to return all applications that begin with “Adobe”.
Use an asterisk before a search term to return all results with attributes that end with that term.	Perform a computer search for “*@mycompany.com” to return all computers with email addresses that end with “@mycompany.com”.
Use an asterisk before and after a search term to return all results that include that term.	Perform an application search for “*Word*” to return all applications that include “Word”.
Use an asterisk without any other terms to return all results for the item you are searching.	Perform a peripheral search for “*” to return all peripherals.

### Including Multiple Search Terms

Use multiple search terms separated by a comma (,) to return all results that include those search terms.

For example, perform an application search for “Adobe\*, \*.app” to return all applications that begin with “Adobe” and end with “.app”.

### Excluding a Search Term

Use a hyphen (-) before a search term to exclude results that include the term.

For example, perform a printer search for “abc\*, -\*West” to return all printers that begin with “abc” except for those that end with “West”.

### Returning All Results


There are two ways to return all results: use an asterisk (\*) without any other characters or terms, or perform a blank search.



## Performing a Simple Computer Search

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Choose an item from the **Search** pop-up menu.
5. Enter one or more search terms in the field(s) provided.  
For information on the syntax to use to refine your search, see [Search Syntax](#).
6. Press the Enter key.

The list of search results is displayed.

If you searched for an item other than computers or peripherals, you can view the computers associated with a result by clicking **Expand**  next to the result. You can also change the item on which the results are based by choosing an item from the pop-up menu at the top of the page.

## Related Information

For related information, see the following sections in this guide:




- [Viewing and Editing Inventory Information for a Computer](#)  
Find out how to view and edit inventory information for a computer.
- [Computer Reports](#)  
Find out how to export the data in your search results to different file formats.
- [Performing Mass Actions for Computers](#)  
Find out how to perform actions on the results of a computer search.
- [Advanced Computer Searches](#)  
Find out how to create and save an advanced computer search.
- [Computer Inventory Display Settings](#)  
Find out how to change the attribute fields displayed in the results of a simple computer search.

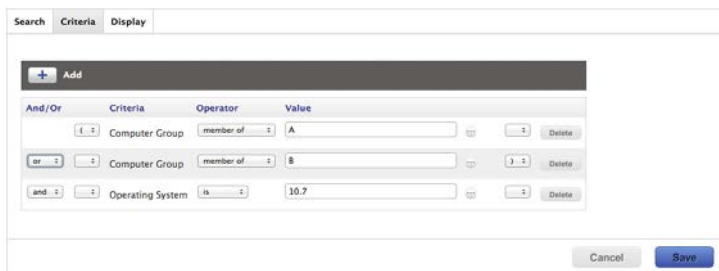
# Advanced Computer Searches

Advanced computer searches allow you to use detailed search criteria to search the managed and unmanaged computers in the JAMF Software Server (JSS). These types of searches give you more control over your search by allowing you to do the following:

- Generate specific search results.
- Specify which attribute fields to display in the search results.
- Save the search.

## Creating an Advanced Computer Search

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the Search pane to configure basic settings for the search.  
To save the search, select the **Save this Search** checkbox.
6. Click the **Criteria** tab and add criteria for the search:
  - a. Click **Add** .
  - b. Click **Choose** for the criteria you want to add.  
To display additional criteria, click **Choose** for "Other Criteria".
  - c. Choose an operator from the **Operator** pop-up menu.
  - d. Enter a value in the **Value** field or browse for a value by clicking **Browse** .
  - e. Repeat steps a through d to add criteria as needed.
7. Choose an operator from the **And/Or** pop-up menu(s) to specify the relationships between criteria.
8. To group criteria and join multiple operations, choose parentheses from the pop-up menus around the criteria you want to group.



9. Click the **Display** tab and select the attribute fields you want to display in your search results.
10. Click **Save**.

Operations in the search take place in the order they are listed (top to bottom).

The results of a saved search are updated each time computers check in with the JSS and meet or fail to meet the specified search criteria.

To view the search results, click **View**.

## Cloning, Editing, or Deleting a Saved Advanced Computer Search

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the advanced computer search you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the search, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the search, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the search, click **Delete**. Then click **Delete** again to confirm.

## Viewing Advanced Computer Search Results

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the advanced computer search you want to view the results for.
5. Click **View**.

The list of search results is displayed.

## Related Information

For related information, see the following sections in this guide:

- [Computer Reports](#)  
Find out how to export the data in your search results to different file formats.
- [Performing Mass Actions for Computers](#)  
Find out how to perform actions on the results of a computer search.
- [Viewing and Editing Inventory Information for a Computer](#)  
Find out how to view and edit inventory information for a computer.
- [Simple Computer Searches](#)  
Learn how to quickly search the items in your inventory for a general range of results.

# Computer Reports

The data displayed in smart or static group membership lists, computer search results, or lists of license usage matches can be exported from the JAMF Software Server (JSS) to the following file formats:

- Comma-separated values file (.csv)
- Tab delimited text file (.txt)
- XML file

You can change the way the data is organized by basing the export on any of the following inventory items:

- Computers
- Applications
- Fonts
- Plug-ins
- Packages installed by the Casper Suite
- Packages installed by Installer.app/Software Update
- Cached packages
- Local user accounts
- Mapped printers
- Available software updates
- Running services
- Computer groups
- Licensed software

The data is displayed in alphanumeric order by the selected inventory item.

## Creating Computer Reports

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Do one of the following:
  - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
  - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)  
**Note:** You can only create a report from a simple computer search if you searched by computers.
  - View license usage matches. (For more information, see [Viewing License Usage](#).)
4. At the bottom of the list, click **Export**.
5. Follow the onscreen instructions to export the data.

The report downloads immediately.

# Performing Mass Actions for Computers

Mass actions allow you to perform potentially tedious tasks for multiple computers at the same time. You can use the JSS to perform the following mass actions:

- Edit the building or department.
- Edit the site.
- Edit the management account.
- Look up and populate purchasing information from Apple's Global Service Exchange (GSX).
- Send a mass email to users.
- Edit Autorun data.
- Delete Autorun data.
- Delete the computers from the JSS.
- Send remote commands.

Mass actions can be performed on smart or static group membership lists, computer search results, or lists of license usage matches.

## Mass Editing the Building or Department for Computers

Mass editing the building or department for computers allows you to add the computers to a building or department or change the building or department they belong to.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Do one of the following:
  - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
  - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)  
**Note:** You can only perform mass actions from a simple computer search if you searched by computers.
  - View license usage matches. (For more information, see [Viewing License Usage](#).)
4. At the bottom of the list, click **Action**.
5. Select **Edit the Building and Department**.  
This option is only displayed if there are one or more buildings or departments in the JSS. (For more information, see [Buildings and Departments](#).)
6. Follow the onscreen instructions to edit the building or department.

## Mass Editing the Site for Computers

Mass editing the site for computers allows you to add the computers to a site or change the site they belong to.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Do one of the following:
  - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
  - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)  
**Note:** You can only perform mass actions from a simple computer search if you searched by computers.
  - View license usage matches. (For more information, see [Viewing License Usage](#).)
4. At the bottom of the list, click **Action**.
5. Select **Edit the Site**.  
This option is only displayed if there are one or more sites in the JSS. (For more information, see [Sites](#).)
6. Follow the onscreen instructions to edit the site.  
**Note:** When computers are added to a site, any users assigned to those computers are also added to that site.

## Mass Editing the Management Account for Computers

Mass editing the management account for computers allows you to change the username and password for the computers' management accounts. This can be useful when the management account is from a directory service and has been changed.

Mass editing the management account updates the username and password in the JSS, not on the computers.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Do one of the following:
  - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
  - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)  
**Note:** You can only perform mass actions from a simple computer search if you searched by computers.
  - View license usage matches. (For more information, see [Viewing License Usage](#).)

4. At the bottom of the list, click **Action**.
5. Select **Edit the Management Account Information**.
6. Follow the onscreen instructions to edit the management account.

## Mass Looking up and Populating Purchasing Information for Computers

You can mass look up purchasing information from Apple's Global Service Exchange (GSX) and populate the information in the JSS if desired.

This requires a GSX connection set up in the JSS. (For more information, see [Integrating with GSX](#).)

**Note:** You can only perform mass actions from a simple computer search if you searched by computers.

1. Log in to the JSS with a web browser.
  2. Click **Computers** at the top of the page.
  3. Do one of the following:
    - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
    - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)
- Note:** You can only perform mass actions from a simple computer search if you searched by computers.
- View license usage matches. (For more information, see [Viewing License Usage](#).)

4. At the bottom of the list, click **Action**.
5. Select **Look up Purchasing Information from GSX**.  
This option is only displayed if there is a GSX connection set up in the JSS.
6. Follow the onscreen instructions to look up and populate the purchasing information.

## Sending a Mass Email to Computer Users

You can send a mass email to users associated with the computers in the JSS. The email is sent to the email address associated with each computer.

This requires an SMTP server set up in the JSS. (For more information, see [Integrating with an SMTP Server](#).)

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.



3. Do one of the following:
  - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
  - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)  
**Note:** You can only perform mass actions from a simple computer search if you searched by computers.
  - View license usage matches. (For more information, see [Viewing License Usage](#).)
4. At the bottom of the list, click **Action**.
5. Select **Send Email**.  
This option is only displayed if there is an SMTP server set up in the JSS.
6. Follow the onscreen instructions to create and send the email.

## Mass Editing Autorun Data

You can mass edit Autorun data for computers.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Do one of the following:
  - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
  - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)  
**Note:** You can only perform mass actions from a simple computer search if you searched by computers.
  - View license usage matches. (For more information, see [Viewing License Usage](#).)
4. At the bottom of the list, click **Action**.
5. Select **Edit Autorun Data**.
6. Follow the onscreen instructions to edit the Autorun data.

## Mass Deleting Autorun Data

You can mass delete Autorun data for computers.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.

3. Do one of the following:
  - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
  - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)  
**Note:** You can only perform mass actions from a simple computer search if you searched by computers.
  - View license usage matches. (For more information, see [Viewing License Usage](#).)
4. At the bottom of the list, click **Action**.
5. Select **Delete Autorun Data**.  
This option is only displayed if there is Autorun data in the JSS.
6. Follow the onscreen instructions to delete the Autorun data.

## Mass Deleting Computers

You can mass delete computers from the JSS.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Do one of the following:
  - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
  - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)  
**Note:** You can only perform mass actions from a simple computer search if you searched by computers.
  - View license usage matches. (For more information, see [Viewing License Usage](#).)
4. At the bottom of the list, click **Action**.
5. Select **Delete Computers**.
6. Follow the onscreen instructions to delete the computers.

## Mass Sending Remote Commands to Computers

You can mass send the Lock Device remote command to computers.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.

3. Do one of the following:
  - View computer group memberships. (For more information, see [Smart Computer Groups](#) or [Static Computer Groups](#).)
  - View simple or advanced computer search results. (For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).)  
**Note:** You can only perform mass actions from a simple computer search if you searched by computers.
  - View license usage matches. (For more information, see [Viewing License Usage](#).)
4. At the bottom of the list, click **Action**.
5. Select **Send Commands**.
6. Select the remote command to send to computers.
7. Follow the onscreen instructions to send the remote command.

## Related Information

For related information, see the following sections in this guide:

- [Viewing and Editing Inventory Information for a Computer](#)  
Find out how to edit the building, department, site, purchasing information, or management account for a single computer.
- [Autorun Imaging](#)  
Find out how to create, edit, or delete Autorun data for a single computer.

For related information, see the following Knowledge Base article:

### [Removing JAMF Software Components from Computers](#)

Find out how to remove all Casper Suite-related components from computers that have been deleted from the JSS.

# Viewing and Editing Inventory Information for a Computer

The JAMF Software Server (JSS) stores detailed inventory information for each computer. You can view and edit this information from the JSS.

The following table lists the information that you can view and edit for each computer.

**Note:** Extension attributes are displayed in computer inventory information in the category in which they are configured to display.

Field	Editable	Notes
<b>General Category</b>		
Computer Name	✓	
Site	✓	
Last Inventory Update		
Last Check-in		
IP Address	✓	
Reported IP Address		
jamf binary Version		
Managed		
Enrollment Method		
Last Enrollment		
MDM Capability		
JSS Computer ID		
Asset Tag	✓	
Bar Code 1	✓	
Bar Code 2	✓	
Bluetooth Low Energy Capability		
Logged in to iTunes Store		This value will be reported as "Active" when a user-level configuration profile is installed from Self Service using MDM-enabled credentials
Management Account Username	✓	
Management Account Password	✓	

Field	Editable	Notes
<b>Hardware Category</b>		
Make		
Model		
Model Identifier		
UDID	✓	
Serial Number		
Processor Speed		
Number of Processors		
Processor Type		
Architecture Type		
Bus Speed		
Cache Size		
Primary MAC Address	✓	
Secondary MAC Address	✓	
Total RAM		
Available RAM Slots		
Battery Capacity		
SMC Version		
NIC Speed		
Optical Drive		
Boot ROM		
<b>Operating System Category</b>		
Operating System		
Operating System Version		
Operating System Build		
Active Directory Status		
Master Password Set		
FileVault Users		
Service Pack		

Field	Editable	Notes
<b>User and Location Category</b>		
Username	✓	
Full Name	Assign a user to the computer and populate user information from the <b>Users</b> tab. (For more information, see <a href="#">User Assignments</a> .)	
Email Address		
Phone Number		
Position		
Department		
Building		
Room		
<b>Purchasing Category</b>		
Purchased or Leased	✓	
PO Number	Look up and populate purchasing information from Apple's Global Service Exchange (GSX). (This requires a GSX connection set up in the JSS. For more information, see <a href="#">Integrating with GSX</a> .)	
PO Date		
Vendor		
Warranty Expiration		
AppleCare ID		
Lease Expiration		
Purchase Price		
Life Expectancy		
Purchasing Account		
Purchasing Contact		
<b>Extension Attributes Category</b>		
	✓ Non-script extension attributes only	Displays a list of custom data fields collected using extension attributes
<b>Storage Category</b>		
Model		
Revision		
Serial Number		
Drive Capacity		
S.M.A.R.T. Status		
Number of Partitions		
Name		Displays the name of the partition
Size		Displays the size of the partition


Field	Editable	Notes
<b>Storage Category (continued)</b>		
% Used		Displays the % used of the partition
FileVault 2 State		<p>Displays the FileVault 2 State of the partition</p> <p>This value will be reported as "Unknown" when:</p> <ul style="list-style-type: none"> <li>▪ Inventory has not been updated since the last JSS upgrade</li> <li>▪ The JSS is unable to detect encryption status due to an error</li> </ul>
Core Storage Partition Scheme		Displays the core storage partition scheme of the partition
<b>Disk Encryption Category</b>		
Last Inventory Update		
FileVault 2 Partition Encryption State		<p>This value will be reported as "Unknown" when:</p> <ul style="list-style-type: none"> <li>▪ Inventory has not been updated since the last JSS upgrade</li> <li>▪ The JSS is unable to detect encryption status due to an error</li> </ul>
Individual Recovery Key Validation		<p>Displays whether the individual recovery key on a computer matches the individual recovery key stored for that computer in the JSS</p> <p>This value will be reported as "Unknown" when:</p> <ul style="list-style-type: none"> <li>▪ OS X version is 10.8 or earlier</li> <li>▪ No recovery key in the JSS to validate against</li> <li>▪ Inventory has not been updated since the last JSS upgrade</li> </ul>

Field	Editable	Notes
<b>Disk Encryption Category (continued)</b>		
Institutional Recovery Key		
Disk Encryption Configuration		
FileVault 2 Enabled Users		Displays the usernames of FileVault 2-enabled users on the computer
<b>Peripherals Category</b>		
		Displays a list of peripherals associated with the computer
<b>Licensed Software Category</b>		
		Displays a list of licensed software titles installed on the computer
<b>Applications Category</b>		
		Displays a list of applications installed on the computer
<b>Fonts Category</b>		
		Displays a list of fonts installed on the computer
<b>Plug-ins Category</b>		
		Displays a list of plug-ins installed on the computer
<b>Profiles Category</b>		
		Displays a list of profiles installed on the computer
<b>Certificates Category</b>		
		Displays a list of certificates installed on the computer
<b>Package Receipts Category</b>		
		Displays a list of packages installed by Installer.app or Software Update, and a list of packages installed or cached by the Casper Suite





Field	Editable	Notes
<b>Software Updates Category</b>		
		Displays a list of software updates available for the computer
<b>Local User Accounts Category</b>		
		Displays a list of local user accounts and information about them
<b>Printers Category</b>		
		Displays a list of printers mapped to the computer and information about those printers
<b>Services Category</b>		
		Displays a list of active services
<b>Attachments Category</b>		
		Displays a list of files attached to the inventory record Upload and delete attachments

## Viewing Inventory Information for a Computer

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view information for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.  
The computer's inventory information is displayed.
5. Use the categories to view information for the computer.

## Editing Inventory Information for a Computer

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to edit information for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item name to view the computers related to that item.  
The computer's inventory information is displayed.
5. Select the category that contains the information you want to edit and click **Edit**.
6. Make changes as needed.  
If you are editing purchasing information, you can click Search  to look up and populate information from Apple's Global Service Exchange (GSX).  
**Note:** This button is only displayed if you have a GSX connection set up in the JSS.  
If you are editing user and location information, the changes are applied in the **Users** tab. This specified information is also applied in the inventory information for mobile devices, peripherals, and other computers that the user is assigned to. (For information on assigning a user to a computer or removing a user assignment, see [User Assignments](#).)
7. Click **Save**.

# Viewing Management Information for a Computer

The JAMF Software Server (JSS) allows you to view the following management information for each computer:

- Pending management commands
- Policies
- eBooks
- Mac App Store apps
- OS X configuration profiles
- Managed Preferences
- Restricted software
- FileVault 2 recovery key(s)
- Group memberships


## Requirements

To view pending management commands for a computer, the computer and the JSS must meet the requirements for sending an OS X remote command or installing an OS X configuration profile. (For more information, see [OS X Remote Commands](#) or [OS X Configuration Profiles](#).)

## Viewing the Pending Management Commands for a Computer

When viewing management information for a computer, you can view a list of pending management commands for the computer. The list includes all pending actions related to sending an OS X remote command and installing or removing an OS X configuration profile.

You can also cancel a pending management command.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view pending management commands for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.

5. Click the **Management** tab.


A list of pending management commands for the computer is displayed.

**Note:** You cannot view pending management commands if the MDM profile has been removed from the computer.

6. To cancel a pending management command, click **Cancel** for the command.


## Viewing Policies for a Computer

When viewing management information for a computer, you can view a list of policies that have the computer in the scope. You can also view a list of policies for a specific user on that computer.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view policies for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **Management** tab, and then click the **Policies** category.  
A list of policies for the computer is displayed.
6. To view policies for a specific user, enter the username in the **Username** field and click **Update**.  
A list of policies for the user is displayed.

## Viewing eBooks for a Computer


When viewing management information for a computer, you can view a list of eBooks that have the computer in the scope. You can also view a list of eBooks for a specific user on that computer.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view eBooks for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **Management** tab, and then click the **eBooks** category.  
A list of eBooks for the computer is displayed.

6. To view eBooks for a specific user, enter the username in the **Username** field and click **Update**.  
A list of eBooks for the user is displayed.


## Viewing Mac App Store Apps for a Computer

When viewing management information for a computer, you can view a list of Mac App Store apps that have the computer in the scope. You can also view a list of Mac App Store apps for a specific user on that computer.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view apps for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **Management** tab, and then click the **Mac App Store Apps** category.  
A list of apps for the computer is displayed.
6. To view apps for a specific user, enter the username in the **Username** field and click **Update**.  
A list of apps for the user is displayed.


## Viewing Configuration Profiles for a Computer

When viewing management information for a computer, you can view a list of OS X configuration profiles that have the computer in the scope. You can also view a list of configuration profiles for a specific user on that computer.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view configuration profiles for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **Management** tab, and then click the **Configuration Profiles** category.  
A list of configuration profiles for the computer is displayed.
6. To view configuration profiles for a specific user, enter the username in the **Username** field and click **Update**.  
A list of configuration profiles for the user is displayed.


## Viewing Managed Preferences for a Computer

When viewing management information for a computer, you can view a list of Managed Preference profiles that have the computer in the scope. You can also view a list of profiles for a specific user on that computer.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view Managed Preferences for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **Management** tab, and then click the **Managed Preferences** category.  
A list of Managed Preference profiles for the computer is displayed.
6. To view a list of Managed Preference profiles for a specific user, enter the username in the **Username** field and click **Update**.  
A list of Managed Preference profiles for the user is displayed.


## Viewing Restricted Software for a Computer

When viewing management information for a computer, you can view a list of restricted software that has the computer in the scope. You can also view a list of restricted software for a specific user on that computer.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view restricted software for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **Management** tab, and then click the **Restricted Software** category.  
A list of restricted software for the computer is displayed.
6. To view restricted software for a specific user, enter the username in the **Username** field and click **Update**.  
A list of restricted software for the user is displayed.


## Viewing the FileVault 2 Recovery Key for a Computer

When viewing management information for a computer, you can view the File Vault 2 recovery key for the computer if FileVault 2 disk encryption has been activated using the Casper Suite. (For information on creating and deploying disk encryption configurations, see [Managing Disk Encryption Configurations](#) and [Deploying Disk Encryption Configurations](#).)

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view the FileVault 2 recovery key for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **Management** tab, and then click the **FileVault 2** category.
6. Click **Get FileVault 2 Recovery Key**.
  - If the key is an institutional recovery key, a **Download** link is displayed. Click the link to download the recovery key.
  - If the key is an individual recovery key, the recovery key is displayed on the pane.

## Viewing Group Memberships for a Computer

When viewing management information for a computer, you can view the smart and static group memberships for the computer.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view group memberships for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **Management** tab, and then click the **Computer Groups** category.  
A list of smart computer group memberships is displayed.
6. To view the static computer group memberships, click **Static Groups**.  
A list of static computer group memberships is displayed.

## Related Information

For related information, see the following sections in this guide:

- [Viewing Smart Computer Group Memberships](#)  
Find out how to view all group memberships for a smart group.
- [Viewing Static Computer Group Memberships](#)  
Find out how to view all group memberships for a static group.



# Viewing the History for a Computer

The JAMF Software Server (JSS) allows you to view the history for each computer. The information you can view includes:


- Application Usage logs
- Computer Usage logs
- Policy logs
- Casper Remote logs
- Screen sharing logs
- Casper Imaging logs
- Management history (completed, pending, and failed management commands)
- Hardware/software history
- User and location history
- Completed, pending, and failed Mac App Store app installations

You can also flush policy logs for a computer.

## Viewing Application Usage Logs for a Computer

The Application Usage logs for a computer allow you to view a pie chart that shows the amount of time each application was in the foreground during a specified date range.

**Note:** You can only view Application Usage logs for a computer if the Computer Inventory Collection settings are configured to collect Application Usage information. For more information, see [Computer Inventory Collection Settings](#).


1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view Application Usage logs for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab.  
Application Usage logs for the computer are displayed.
6. To view Application Usage logs for a different date range, specify the starting and ending dates using the **Date Range** pop-up menus. Then click **Update**.

## Viewing Computer Usage Logs for a Computer

The Computer Usage logs for a computer allow you to view the following information:

- Startup dates/times
- Login and logout dates/times
- Usernames used to log in and out of the computer


**Note:** You can only view Computer Usage logs for a computer if a startup script or login/logout hooks are configured to log Computer Usage information. (For more information, see [Startup Script](#) and [Login and Logout Hooks](#).)

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view Computer Usage logs for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click the **Computer Usage Logs** category.  
Computer Usage logs for the computer are displayed.

## Viewing and Flushing Policy Logs for a Computer

The policy logs for a computer include a list of the policies that have run on the computer and the following information for each policy:

- The date/time that the policy ran on the computer
- The status of the policy
- The actions logged for the policy


1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view policy logs for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click the **Policy Logs** category.  
Policy logs for the computer are displayed.

6. To view the actions logged for a policy, click **Show** for the policy.  
To hide the information when you are done viewing it, click **Hide**.
7. To flush a policy log, click **Flush** for the policy.
8. To flush all policies for the computer, click **Flush All** at the top of the pane.

## Viewing Casper Remote Logs for a Computer

The Casper Remote logs for a computer allow you to view the following information:

- The date/time that the Casper Remote event took place on the computer
- The status of the Casper Remote event
- The actions logged for the Casper Remote event


1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view Casper Remote logs for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click the **Casper Remote Logs** category.  
Casper Remote logs for the computer are displayed.
6. To view the actions logged for a Casper Remote event, click **Show** for the event.  
To hide the information when you are done viewing it, click **Hide**.

## Viewing Screen Sharing Logs for a Computer

The screen sharing logs for a computer allow you to view the following information:


- The date/time that the screen sharing session took place
- The status of the screen sharing session
- Details of the screen sharing session

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).

4. Click the computer you want to view screen sharing logs for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click the **Screen Sharing Logs** category.  
Screen sharing logs for the computer are displayed.

## Viewing Casper Imaging Logs for a Computer

The Casper Imaging logs for a computer allow you to view the following information:


- The date/time that the computer was imaged
  - The status of the imaging event
  - The actions that took place during the imaging event
1. Log in to the JSS with a web browser.
  2. Click **Computers** at the top of the page.
  3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
  4. Click the computer you want to view screen sharing logs for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
  5. Click the **History** tab, and then click the **Casper Imaging Logs** category.  
Casper Imaging logs for the computer are displayed.
  6. To view the actions logged for a Casper Imaging event, click **Show** for the event.  
To hide the information when you are done viewing it, click **Hide**.

## Viewing Management History for a Computer

The management history for a computer allows you to view lists of completed, pending, and failed management commands for the computer. The lists include all actions related to sending an OS X remote command and installing or removing an OS X configuration profile.

You can also cancel a pending management command.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).


4. Click the computer you want to view group memberships for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click the **Management History** category.  
A list of completed management commands for the computer is displayed.
6. To view pending management commands, click **Pending Commands**.  
You can cancel a pending management command by clicking **Cancel** for the command.
7. To view failed management commands, click **Failed Commands**.

## Viewing Hardware/Software History for a Computer

The hardware/software history for a computer allows you to view a list of inventory reports submitted for the computer during a specified date range. Each inventory report includes hardware information for the computer, such as the operating system, make, model, and serial number, and information about any software changes that occurred since the previous inventory report.


Inventory report listings that show a change in a computer's hardware are displayed in red.

**Note:** You can only view software history for a computer if the Computer Inventory Collection settings are configured to collect applications, fonts, or plug-ins. For more information, see [Computer Inventory Collection Settings](#).

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view hardware/software history for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click the **Hardware/Software History** category.  
The hardware/software history for the computer is displayed.
6. To view hardware/software history for a different date range, specify the starting and ending dates using the **Date Range** pop-up menus on the pane. Then click **Update**.


## Viewing User and Location History for a Computer

The user and location history for a computer allows you to view a list of the user and location information associated with the computer over time. A record of the current information is added to the list whenever changes are made to the User and Location category in the computer's inventory information.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view user and location history for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click the **User and Location History** category.  
The user and location history for the computer is displayed.

## Viewing Mac App Store App Installations for a Computer

You can view the completed, pending, and failed Mac App Store app installations for a computer. You can also cancel pending Mac App Store app installations.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view app installation information for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click the **Mac App Store Apps** category.  
A list of apps installed on the computer is displayed.
6. To view a list of apps that are pending installation, click **Pending Apps**.  
You can cancel a pending installation by clicking **Cancel** for the app.
7. To view a list of apps that failed to install, click **Failed Apps**.

## Related Information

For related information, see the following section in this guide:


[Flushing Logs](#)

Find out how to schedule automatic log flushing or manually flush logs.

# Deleting a Computer from the JSS

You can remove a computer from your inventory by deleting it from the JAMF Software Server (JSS).

The files and folders installed during enrollment are not removed from the computer when it is deleted from the JSS. For instructions on how to remove these components, see the [Removing JAMF Software Components from Computers](#) Knowledge Base article.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
5. Click the computer you want to delete.  
If you performed a simple search for an item other than computers, such as computer applications, you must click **Expand**  next to an item name to view the computers related to that item.
6. Click **Delete**, and then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

[Mass Deleting Computers](#)

Find out how to mass delete computers from the JSS.



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# Computer Groups

## About Computer Groups

Computer groups allow you to organize computers that share similar attributes. You can use these groups as a basis for performing advanced inventory searches, configuring the scope of remote management tasks, and viewing Application Usage logs.

There are two kinds of computer groups: smart computer groups and static computer groups. Smart computer groups are based on criteria and have dynamic memberships. Static computer groups have fixed memberships that you manually assign.

### Related Information

For related information, see the following sections in this guide:

- [Smart Computer Groups](#)  
Learn how to create computer groups that are based on criteria and have dynamic memberships.
- [Static Computer Groups](#)  
Learn how to create computer groups that have fixed memberships.




# Smart Computer Groups

Smart computer groups give you a way to organize managed computers based on one or more attributes, such as building, model, and operating system. These groups have dynamic memberships that are updated each time computers check in with the JAMF Software Server (JSS).

If there is an SMTP server set up in the JSS, you can enable email notifications for the group. This allows email notifications to be sent to JSS users each time the group membership changes. (For information on setting up an SMTP server and enabling email notifications for JSS user accounts, see [Integrating with an SMTP Server](#) and [Email Notifications](#).)

After creating a smart computer group, you can view its memberships.

## Creating a Smart Computer Group

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Smart Computer Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the Computer Group pane to configure basic settings for the group.  
To enable email notifications, select the **Send email notification on membership change** checkbox.
6. Click the **Criteria** tab and add criteria to the group:
  - a. Click **Add** .
  - b. Click **Choose** for the criteria you want to add.  
To display additional criteria, click **Choose** for "Other Criteria".
  - c. Choose an operator from the **Operator** pop-up menu.
  - d. Enter a value in the **Value** field or browse for a value by clicking **Browse** .
  - e. Repeat steps a through d to add criteria as needed.
7. Choose an operator from the **And/Or** pop-up menu(s) to specify the relationships between criteria.

- To group criteria and join multiple operations, choose parentheses from the pop-up menus around the criteria you want to group.

And/Or	Criteria	Operator	Value	
( )	Computer Group	member of	A	Delete
or	Computer Group	member of	B	Delete
and	Operating System	is	10.7	Delete

- Click **Save**.

Operations in the group take place in the order they are listed (top to bottom).

Group memberships are updated each time computers check in with the JSS and meet or fail to meet the specified criteria.

To view the group memberships, click **View**.

## Cloning, Editing, or Deleting a Smart Computer Group

- Log in to the JSS with a web browser.
- Click **Computers** at the top of the page.
- Click **Smart Computer Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
- Click the smart computer group you want to clone, edit, or delete.
- Do one of the following:
  - To clone the group, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the group, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the group, click **Delete**. Then click **Delete** again to confirm.

The clone, edit, or delete action is applied to computers the next time they check in with the JSS.

## Viewing Smart Computer Group Memberships

- Log in to the JSS with a web browser.
- Click **Computers** at the top of the page.
- Click **Smart Computer Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the smart computer group you want to view memberships for.
5. Click **View**.

A list of group memberships is displayed.

## Related Information

For related information, see the following sections in this guide:


- [Computer Reports](#)  
Find out how to export the data in group membership lists to different file formats.
- [Performing Mass Actions for Computers](#)  
Find out how to perform mass actions on group memberships.
- [Scope](#)  
Learn how to configure scope based on computer groups.

# Static Computer Groups

Static computer groups give you a way to organize computers by assigning them to a group. These groups have fixed memberships that must be changed manually.

After creating a static computer group, you can view its memberships.

## Creating a Static Computer Group

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Static Computer Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the Computer Group pane to configure basic settings for the group.
6. Click the **Assignments** tab and select the checkbox for each computer you want to add.
7. Click **Save**.

Computers become members of the group the next time they check in with the JSS.

To view the group memberships, click **View**.

## Cloning, Editing, or Deleting a Static Computer Group

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Static Computer Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the group you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the group, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the group, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the group, click **Delete**. Then click **Delete** again to confirm.

The clone, edit, or delete action is applied to computers the next time they check in with the JSS.

## Viewing Static Computer Group Memberships

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Static Computer Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the computer group you want to view memberships for.
5. Click **View**.

A list of group memberships is displayed.

## Related Information

For related information, see the following sections in this guide:

- [Computer Reports](#)  
Find out how to export the data in group membership lists to different file formats.
- [Performing Mass Actions for Computers](#)  
Find out how to perform mass actions on group memberships.
- [Scope](#)  
Learn how to configure scope based on computer groups.

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# Policies

## About Policies

Policies allow you to remotely perform common management tasks on managed computers. For example, you can run scripts, manage accounts, and distribute software using a policy.

While Casper Remote allows you to perform management tasks immediately, policies allow you to automate these tasks so that they run on a schedule. When you create a policy, you specify the tasks you want to automate, when the policy should run (called “trigger”), how often it should run (called “execution frequency”), and the users and computers for which it should run (called “scope”).

You can also make policies available in Self Service for users to run on their computers.

## Related Information

For related information, see the following sections in this guide:

- [Managing Policies](#)  
Find out how to create policies, view the plan and status for a policy, and view and flush policy logs.
- [Policy Payload Reference](#)  
Learn about each payload in the policy interface.
- [Self Service Policies](#)  
Find out how to make policies available in the Self Service.


# Managing Policies

When you create a policy, you use a payload-based interface to configure settings for the policy and add tasks to it. For more information on the settings you can configure, see the following section in this guide:

[Policy Payload Reference](#)

After you create a policy, you can view the plan, status, and logs for the policy. You can also flush policy logs.

## Creating a Policy

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Use the rest of the payloads to configure the tasks you want to perform.  
For an overview of each payload, see [Policy Payload Reference](#).
7. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
8. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service Policies](#).
9. (Optional) Click the **User Interaction** tab and enter messages to display to users or allow users to defer the policy.  
For more information, see [User Interaction](#).
10. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.




## Cloning, Editing, or Deleting a Policy

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the policy you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the policy, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the policy, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the policy, click **Delete** and then click **Delete** again to confirm.

The clone, edit, or delete action is applied to computers in the scope the next time they check in with the JSS.


## Viewing the Plan for a Policy

The plan for a policy includes the following information:

- An indicator light that shows whether the policy is enabled
  - The execution frequency for the policy
  - The trigger(s) for the policy
  - The scope of the policy
  - The site that the policy belongs to
  - A list of actions for the policy
1. Log in to the JSS with a web browser.
  2. Click **Computers** at the top of the page.
  3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.  
A list of policies and their plans are displayed.
  4. To view the actions for a policy, click **Expand**  for the policy.

## Viewing the Status of a Policy

For each policy, you can view a pie chart that shows the number of computers for which the policy has completed, failed, and is still remaining.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Grid View**  at the top of the list.

## Viewing and Flushing Logs for a Policy

The logs for a policy include a list of computers that have run the policy and the following information for each computer:

- The date/time that the policy ran on the computer
- The status of the policy
- The actions logged for the policy

Flushing logs for a policy with an execution frequency of “Once per computer” or “Once per user”

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the policy you want to view logs for.
5. Click **Logs**.
6. To view the actions logged for a computer, click **Show** for the computer.  
To hide the information when you are done viewing it, click **Hide**.
7. To flush a policy log for a single computer, click **Flush** for the computer.
8. To flush all logs for the policy, click **Flush All** at the top of the pane.

## Related Information

For related information, see the following sections in this guide:

- [Viewing and Flushing Policy Logs for a Computer](#)  
Find out how to view and flush policy logs for a single computer.
- [Flushing Logs](#)  
Find out how to flush all policy logs.

# Policy Payload Reference

When creating or editing a policy, you use a payload-based interface to configure settings for the policy and add tasks to it. This section provides an overview of each payload.

## General Payload

This payload allows you to do the following:

- Enable or disable the policy. (For example, if you need to take the policy out of production temporarily, you may want to disable it.)
- Add the policy to a site. (For more information, see [Sites](#).)
- Add the policy to a category. (For more information, see [Categories](#).)
- Choose one or more events to use to initiate the policy (called "trigger").
- Choose how often the policy should run (called "execution frequency").
- Make the policy available offline. (This only works with the "Ongoing" execution frequency.)
- Specify the drive on which to run the policy.
- Specify server-side and client-side limitations for the policy. (For example, you can specify an expiration date/time for the policy, or ensure that the policy does not run on weekends.)

## Packages Payload

This payload allows you to perform the following software distribution tasks:

- Install packages.
- Cache packages.
- Install cached packages.  
**Note:** To install all cached packages, use the Maintenance payload. For more information, see the following section in this guide:  
[Maintenance Payload](#)
- Uninstall packages.

This payload also allows you to do the following when installing packages:

- Specify the distribution point computers should download the packages from.
- Add the packages to the Autorun data of each computer in the scope.

For complete instructions on creating a policy to perform software distribution tasks, see one of the following sections in this guide:

- [Installing Packages](#)
- [Caching Packages](#)
- [Installing Cached Packages](#)
- [Uninstalling Packages](#)

## Software Updates Payload

This payload allows you to run Apple's Software Update and choose the software update server that you want computers to install updates from.

For complete instructions on creating a policy to run Software Update, see the following section in this guide:

[Running Software Update](#)

## Scripts Payload

This payload allows you to run scripts and choose when they run in relation to other tasks in the policy. You can also enter values for script parameters.

For complete instructions on running scripts using a policy, see the following section in this guide:

[Running Scripts](#)

## Printers Payload

This payload allows you to map and unmap printers. You can also make a printer the default.

For complete instructions on administering printers using a policy, see the following section in this guide:

[Administering Printers](#)

## Disk Encryption Payload

This payload allows you to enable FileVault 2 on computers with OS X v10.8 or later by distributing disk encryption configurations.

For complete instructions on enabling FileVault 2, see the following section in this guide:

[Deploying Disk Encryption Configurations](#)

This payload also allows you to issue a new FileVault 2 recovery key for computers with OS X v10.9 or later.

For complete instructions on issuing a new recovery key, see the following section in this guide:

[Issuing a New FileVault 2 Recovery Key](#)

## Dock Items Payload

This payload allows you to add and remove Dock items. When you add Dock items, you can also choose to add them to the beginning or end of the Dock.

For complete instructions on administering Dock items, see the following section in this guide:

[Administering Dock Items](#)

## Local Accounts Payload

This payload allows you to create and delete local accounts, and reset local account passwords. When you create an account, you can do the following:

- Specify a location for the home directory.
- Configure the account picture.
- Allow the user to administer the computer.
- Enable the account for FileVault 2 on computers with OS X v10.9 or later.

This payload also allows you to disable an existing local account for FileVault 2 on computers with OS X v10.9 or later.

For complete instructions on administering local accounts, see the following section in this guide:

[Administering Local Accounts](#)

## Management Account Payload

This payload allows you to reset the management account password. You can choose to specify the new password or randomly generate it.

This payload also allows you to enable or disable the management account for FileVault 2 on computers with OS X v10.9 or later.

For complete instructions on administering the management account, see the following section in this guide:

[Administering the Management Account](#)

## Directory Bindings Payload

This payload allows you to bind computers to a directory service.

For complete instructions on binding to a directory service, see the following section in this guide:

[Binding to Directory Services](#)

## EFI Password Payload

This payload allows you to set or remove an Open Firmware or EFI password.

For complete instructions on administering Open Firmware and EFI passwords, see the following section in this guide:

[Administering Open Firmware/EFI Passwords](#)

## Restart Options Payload

This payload allows you to restart computers after the policy runs. It also allows you to do the following:

- Specify the disk to restart computers from, such as a NetBoot image.
- Specify criteria for the restart depending on whether or not a user is logged in.
- Configure a restart delay.
- Perform an authenticated restart on computers with OS X v10.8.2 or later that are FileVault 2 enabled.  
**Note:** For this to work on computers with FileVault 2 activated, the enabled FileVault 2 user must log in after the policy runs for the first time and the computer has restarted.

You can also display a message to users before a policy restarts computers. For more information, see the following section in this guide:

[User Interaction](#)

For complete instructions on booting computers to a NetBoot image, see the following section in this guide:

[Booting Computers to NetBoot Images](#)

For more information on authenticated restart, see the following Apple Knowledge Base article:

<http://support.apple.com/en-us/HT202918>

## Maintenance Payload

This payload allows you to perform the following maintenance tasks:

- Update inventory.
- Reset computer names.
- Install all cached packages.
- Fix disk permissions.
- Fix ByHost files.
- Flush caches.
- Verify the startup disk.

For complete instructions on installing all cached packages, see the following section in this guide:

[Installing Cached Packages](#)

## Files and Processes Payload

This payload allows you to search computers for specific files and processes, and use policy logs to log when they are found. You can kill processes that are found and delete files that are found when searching by path.

This payload also allows you to execute commands.

# User Interaction

User Interaction allows you to display custom messages to users about the policies that run on their computers. You can also use it to allow users to defer policies.

## Messages

You can display User Interaction messages to users at the following times:

- Before a policy runs
- After a policy runs
- Before a policy restarts computers

This allows you to communicate with users about the policies that run on their computers. For example, you can let users know that software is about to be installed or that a new printer is available.

In OS X v10.8 and later, most User Interaction messages are displayed in the OS X Notification Center in a category called “Management”. Otherwise, messages are displayed using the JAMF Helper utility.

## Deferral

You can allow users to defer a policy, and you can specify a date and time at which to prohibit further deferral (called the “deferral limit”). This allows you to give users more control over when the policy runs while ensuring that the policy eventually runs.

Before a policy runs on a computer, the user is prompted to choose to have the policy run immediately or to defer the policy for one of the following amounts of time:

- 1 hour
- 2 hours
- 4 hours
- 1 day
- The amount of time until the deferral limit is reached

If the user chooses to defer the policy, they are prompted with the same message after the chosen amount of time. When the deferral limit is reached, a message is displayed to notify the user, and the policy runs immediately.



## Configuring User Interaction for a Policy

1. Log in to the JSS with a web browser.
2. Create or edit a policy.  
For more information, see [Managing Policies](#).
3. Click the **User Interaction** tab.
4. Configure the settings on the pane.
5. When you are done configuring the policy, click **Save**.

---

# Self Service

## About Self Service

The Self Service application allows users to browse and run policies, install configuration profiles, Mac App Store apps and eBooks, access webpages, and utilize plug-ins developed with the Self Service API. Users can point and click their way through Self Service using an intuitive interface similar to iTunes.

The JAMF Software Server (JSS) allows you to manage every aspect of Self Service, including its installation, user authentication, and the items available to users. In addition, you can configure notifications to be displayed to users as new items are added to Self Service.

You can make any policy, configuration profile, Mac App Store app, or eBook available in Self Service and customize how it is displayed to users. This includes displaying an icon and description, featuring the item on the main page, displaying it in relevant categories, and displaying item-specific notifications. You can also specify which computers display the item in Self Service and which users can access it.

In addition, you can make plug-ins available in Self Service to extend the functionality of the application. There are two types of plug-ins you can make available: URL plug-ins and Self Service Plug-in bundles. URL plug-ins give users easy access to webpages right from the application. Self Service Plug-in bundles are custom plug-ins developed with the Self Service API.

## Related Information

For related information, see the following sections in this guide:



- [Installing Self Service](#)  
Find out how to install Self Service on managed computers.
- [Self Service User Login Setting](#)  
Find out how to require users to log in to Self Service using their LDAP directory accounts.
- [Self Service Notifications Setting](#)  
Find out how to display notifications to users when new items are added to Self Service.
- [Self Service Policies](#)  
Find out how to make policies available in Self Service.
- [Self Service Configuration Profiles](#)  
Find out how to make OS X configuration profiles available in Self Service.

- [Self Service Plug-ins](#)  
Find out how to add plug-ins to Self Service.
- [Self Service User Experience](#)  
Learn how users log in to Self Service, run policies, install configuration profiles, Mac App Store apps, and eBooks, use plug-ins, and view notifications.
- [Mac App Store Apps](#)  
Find out how to distribute Mac App Store apps.
- [eBooks Available in the iBookstore](#)  
Find out how to make iBookstore eBooks available in Self Service.
- [In-House eBooks](#)  
Find out how to distribute in-house eBooks.

# Installing Self Service

There are two ways to install Self Service on managed computers. You can install Self Service automatically on all managed computers using the Self Service settings in the JAMF Software Server (JSS), or you can install Self Service using a policy. Installing Self Service using a policy gives you more control over the installation.

## Installing Self Service Automatically

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Self Service** .
5. Click **Edit**.
6. Select the **Install Automatically** checkbox.
7. (Optional) Configure the installation location for Self Service.
8. Click **Save**.

Self Service is installed on all managed computers the next time they check in with the JSS. It is also installed on computers as they are newly enrolled.

## Installing Self Service Using a Policy

This method involves the following steps:

1. Download a copy of Self Service from the JSS.
2. Package Self Service using Composer or a third-party package building tool.
3. Deploy Self Service using a policy.

For complete instructions on installing Self Service using this method, see the following Knowledge Base article:

[Installing Self Service Using a Policy](#)



# Self Service User Login Setting

The User Login setting for Self Service allows you to configure the method for logging in to Self Service.

## Requirements

To require or allow users to log in to Self Service, you need an LDAP server set up in the JSS. (For more information, see [Integrating with LDAP Directory Services](#).)

## Configuring the User Login Setting for Self Service

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Management Framework" section, click **Self Service** .
5. Click **Edit**.
6. Click the **Login** tab.
7. Configure the User Login setting.
8. Click **Save**.

The change is applied the next time computers check in with the JSS.

# Self Service Notifications Setting

The Self Service Notifications setting allows you to configure whether or not users receive notifications when new items are added to Self Service.

When Self Service notifications are enabled:

- A “Notifications” page is available in Self Service that allows the user to view a list of notifications for items that have been added to Self Service. The user can click to install any item in the list.
- When the Self Service icon is in the Dock, the icon displays a red badge with a number to indicate how many new items have been added to Self Service since the user last viewed the “Notifications” page.
- Optional, item-specific notification settings are available in the JSS when adding or editing items that are made available in Self Service. These settings allow you to add a notification for the item to Notification Center in OS X (including in banners or alerts), and to specify subject and/or message text to display in Self Service and Notification Center.



For more information, see [Self Service User Experience](#).

## Requirements

To use Self Service notifications, you need:

- To display badges on the Self Service icon in the Dock, computers with OS X v10.6 or later
- To display notifications in Notification Center, computers with OS X v10.8 or later

## Configuring the Notifications Setting for Self Service

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management–Management Framework” section, click **Self Service** .
5. Click **Edit**.
6. Click the **Notifications** tab.
7. Configure the Notifications setting.
8. Click **Save**.

The change is applied the next time computers check in with the JSS.

# Self Service Policies


You can make any policy available in Self Service, but it is up to you to determine which policies are appropriate.

When you make a policy available in Self Service, you can specify which computers display it in Self Service and which users can access it (called “scope”).

You can also customize how Self Service policies are displayed to users by doing the following:

- Entering a description
- Uploading an icon
- Featuring the policy on the main page
- Displaying or featuring the policy in one or more categories

## Creating a Self Service Policy

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#)
6. Use the rest of the payloads to configure the tasks you want to perform.  
For an overview of each payload, see [Policy Payload Reference](#).
7. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
8. Click the **Self Service** tab.
9. Select **Make the policy available in Self Service**.
10. Configure how the policy is displayed in Self Service using the settings on the pane. You can customize the text displayed in the description for the policy in Self Service by using Markdown in the Description field.  
For information about Markdown, see the following Knowledge Base article:  
[Using Markdown to Format Text Displayed During User-Initiated Enrollment and in Self Service Descriptions](#)

11. (Optional) Click the **User Interaction** tab and configure messaging and deferral options. For more information, see [User Interaction](#).
12. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

## Related Information

For related information, see the following sections in this guide:

- [Running Policies from Self Service](#)  
Learn how users run the policies available in Self Service.
- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create policies, view the plan and status for a policy, and view and flush policy logs.



# Self Service Configuration Profiles

You can make any OS X configuration profile available in Self Service, but it is up to you to determine which profiles are appropriate.

When you make a configuration profile available in Self Service, you can specify which computers display it in Self Service and which users can access it (called “scope”).



You can also customize how Self Service configuration profiles are displayed to users by doing the following:

- Entering a description
- Uploading an icon
- Featuring the configuration profile on the main page
- Displaying or featuring the configuration profile in one or more categories

## Creating a Self Service Configuration Profile

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Configuration Profiles**.

On a smartphone or iPod touch, this option is in the pop-up menu.

4. Do one of the following:
  - To use the JSS to manually create a new configuration profile, click **New** .
  - To upload a configuration profile (.mobileconfig) that was created using Apple’s Profile Manager, click **Upload** .

For more information about configuration profiles, see [OS X Configuration Profiles](#).

5. Use the General payload to set the distribution method to “Make Available in Self Service” and to configure basic settings.
6. Use the rest of the payloads to configure the settings you want to apply.
7. Click the **Scope** tab and configure the scope of the configuration profile.  
For more information, see [Scope](#).
8. Click the **Self Service** tab and configure how the configuration profile is displayed in Self Service using the settings on the pane. You can customize the text displayed in the description for the configuration profile in Self Service by using Markdown in the Description field.

For information about Markdown, see the following Knowledge Base article:

[Using Markdown to Format Text Displayed During User-Initiated Enrollment and in Self Service Descriptions](#)

9. Click **Save**.

Computer-level and user-level profile settings are applied when the user installs the profile from Self Service.

## Related Information

For related information, see the following sections in this guide:

- [Self Service User Experience](#)  
Learn how users log in to Self Service, run policies, install configuration profiles, Mac App Store apps, and eBooks, use plug-ins, and view notifications.
- [OS X Configuration Profiles](#)  
Learn about OS X configuration profiles, including requirements, payload variables, and how to manually create and upload a configuration profile.




# Self Service Plug-ins

There are two types of plug-ins that you can make available in Self Service: URL plug-ins and Self Service Plug-in bundles. URL plug-ins give users easy access to webpages right from the application. Self Service Plug-in bundles are custom plug-ins developed with the Self Service API.

When you make a URL plug-in available in Self Service, you can customize how the plug-in is displayed to users. This includes uploading an icon for the plug-in, and specifying whether the plug-in opens in Self Service or in a web browser.



By default, Self Service plug-ins are available on all managed computers and to all users.

## Adding a Self Service Plug-in

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management - Management Framework" section, click **Self Service Plug-ins** .
5. Click **New** .
6. Enter a display name and description, and choose a priority for the plug-in.
7. Choose "Self Service Plug-in Bundle" or "URL Plug-in" from the **Plug-in Type** pop-up menu.
8. Configure the plug-in using the options on the pane.
9. Click **Save**.

The plug-in is available in Self Service the next time computers check in with the JSS.

## Cloning, Editing, or Deleting a Self Service Plug-in

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Management Framework" section, click **Self Service Plug-ins** .
5. Click the plug-in you want to clone, edit, or delete.

6. Do one of the following:
  - To clone the plug-in, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the plug-in, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the plug-in, click **Delete** and then click **Delete** again to confirm.

The changes are applied the next time computers check in with the JSS.

## Related Information

For more information on the Self Service API, download the Casper Suite SDK from:

<http://www.jamfsoftware.com/developer-resources/>

For related information, see the following section in this guide:

[Using Self Service Plug-ins](#)

Learn how users use the plug-ins available in Self Service.

For related information, see the following Knowledge Base article:

[Scope of Self Service Plug-ins](#)

Find out how to distribute a Self Service plug-in using a policy so you can control which users have access to the plug-in.

# Self Service User Experience

This section provides an overview about what users do to log in to Self Service, run policies, install configuration profiles, Mac App Store apps, and eBooks, use plug-ins, and view notifications in Self Service.

## Logging in to Self Service

After opening Self Service, users may need to log in using their LDAP directory accounts. The login pane is only displayed if the User Login setting for Self Service is configured to require or allow login. (For more information, see [Self Service User Login Setting](#).)



## Running Policies from Self Service

Users can browse policies from the "Featured" section or the list of categories in Self Service. Policies are only displayed in the "Featured" page if you configured the policy to do so. (For more information, see [Self Service Policies](#).)

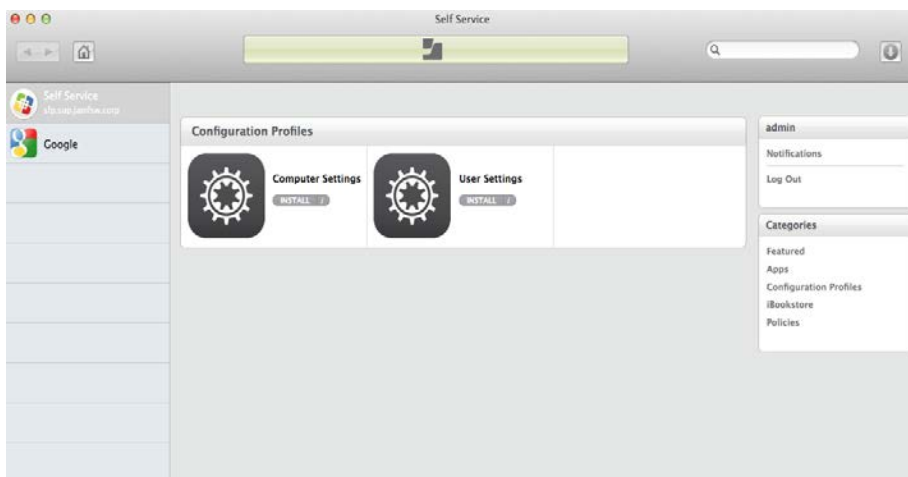
To run a policy, users click the button next to it. Users can view the status of the policy installation in the status area at the top of Self Service.



## Installing Configuration Profiles from Self Service

Users can browse and install computer-level and user-level configuration profiles from the “Featured” page or list of categories in Self Service. Users can view configuration profile installation status in the status area at the top of Self Service.

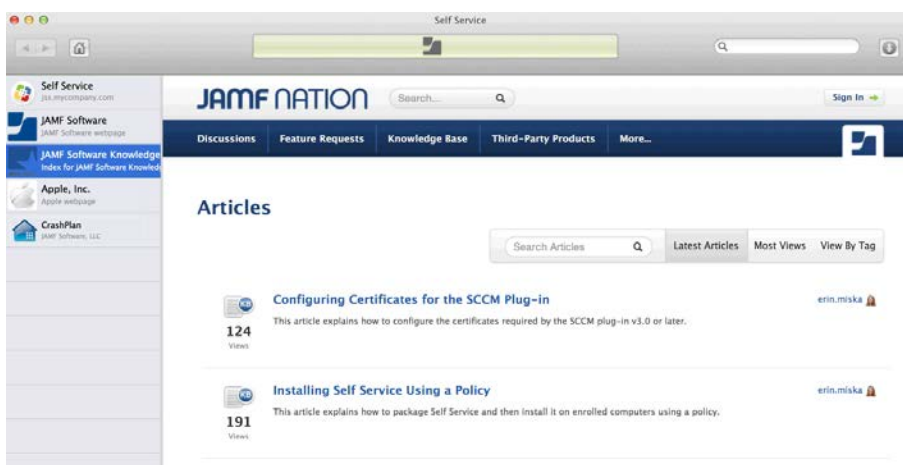
**Note:** Self Service must be configured to require or allow user log in, and users must be logged in to Self Service to see user-level configuration profiles.



If you have configured a configuration profile to allow it, users can also remove a configuration profile using Self Service. (For more information, see [Self Service Configuration Profiles](#).)

## Using Self Service Plug-ins

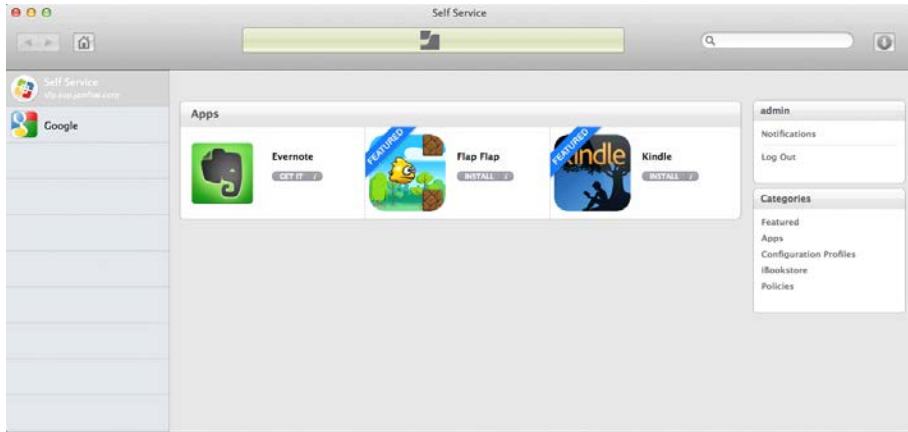
Self Service plug-ins are displayed in the sidebar. Users click a plug-in to access a webpage or utilize a plug-in developed with the Self Service API. (For more information, see [Self Service Plug-ins](#).)



## Installing Mac App Store Apps from Self Service

Users can browse and install Mac App Store apps from the “Featured” page or list of categories on the main page. (For more information, see [Mac App Store Apps](#).)

To install an app, users click the button next to it. Users can view the status of the app installation in the status area at the top of Self Service.

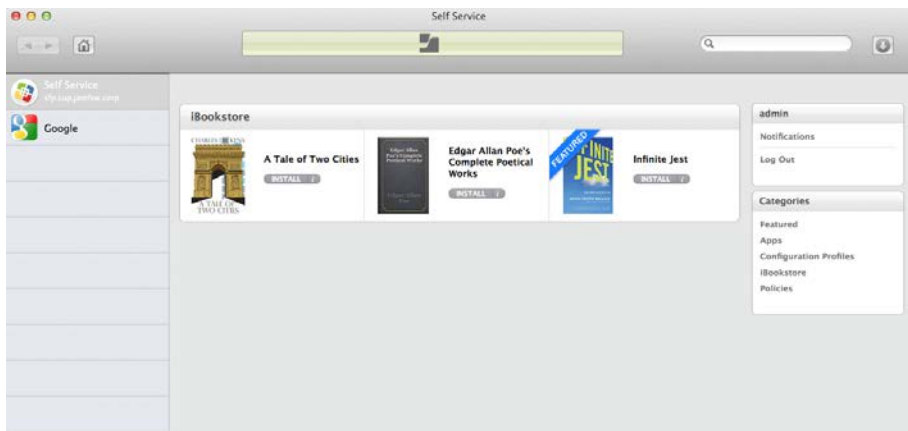


**Note:** Mac App Store apps installed from Self Service are not managed by the JSS. Users can update apps using the Mac App Store or uninstall apps from their computers.

## Installing eBooks from Self Service

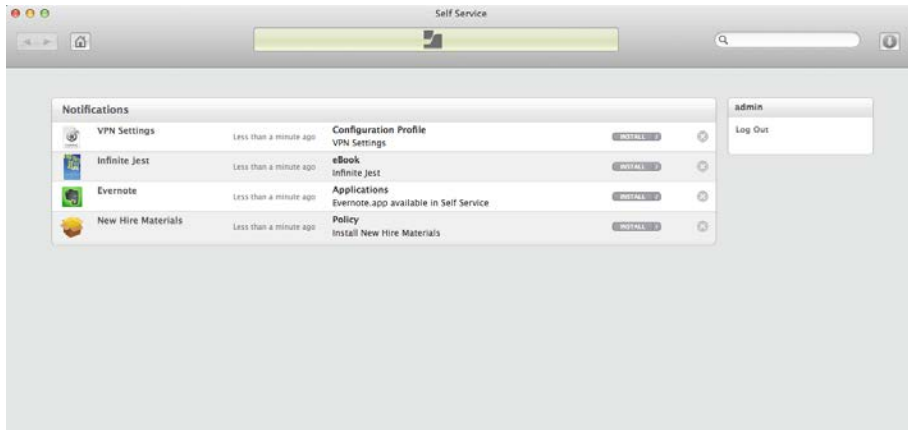
Users can browse in-house eBooks and eBooks available from the iBookstore in the “Featured” section or the list of categories on the main page. eBooks are only displayed in the “Featured” section if you configured the eBook to do so. (For more information, see [eBooks Available in the iBookstore](#) or [In-House eBooks](#).)

To install an eBook, users click the button next to it. Users can see the status of the eBook installation in the status area at the top of Self Service.



## Viewing Self Service Notifications

If enabled in the JAMF Software Server (JSS), notifications are displayed to users when new items are added to Self Service. (For more information, see [Self Service Notifications Setting](#).)



Self Service notifications are displayed to the user in the following ways:

- A “Notifications” page allows the user to view a list of notifications for new items added to Self Service. The user can click to install any item in the list.
- When the Self Service icon is in the Dock, the icon displays a red badge with a number to indicate how many new items have been added to Self Service since the user last viewed the “Notifications” page.
- (Optional) When configured in the JSS for an item, notifications also display in Notification Center and as banners or alerts in OS X (requires OS X v10.8 or later). Users can click any notification to go to the item in Self Service.
- (Optional) When configured in the JSS for an item, notification subject and/or message text for the item is displayed in the “Notifications” page of Self Service, in Notification Center, and in banners or alerts in OS X. If subject and message text is not specified, the item name is displayed in the notification by default.



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# Software Distribution

## Mac App Store Apps

The JAMF Software Server (JSS) provides two Mac App Store app distribution methods: make the app available in Self Service, or install the app automatically/prompt users to install the app.

When you distribute a Mac App Store app, you add it to the JSS and configure settings for the app, including the distribution method. Then, you specify the computers and users that should receive it (called “scope”).

**Note:** Mac App Store apps distributed to computers are not managed by the JSS. Users can update apps using the Mac App Store or uninstall apps from their computers.

## VPP Codes

When you distribute a Mac App Store app, you can also associate Volume Purchase Program (VPP) codes with the app and track their redemption.

**Note:** The JSS also supports VPP-managed distribution, which involves VPP assignments instead of VPP codes. For more information, see [VPP Assignments](#).

For more information on VPP, visit one of the following websites:

- Volume Purchase Program for Business  
<https://www.apple.com/business/vpp/>
- Volume Purchase Program for Education  
<https://www.apple.com/education/volume-purchase-program/>
- Apple Deployment Programs Help  
<http://help.apple.com/deployment/programs/>

## Requirements


To allow users to install Mac App Store apps from Self Service via MDM, or to allow Mac App Store apps to be installed automatically you need:

- A push certificate in the JSS (For information, see [Push Certificates](#).)
- The **Enable certificate-based authentication** and **Enable push notifications** settings configured in the JSS (For information, see [Security Settings](#).)
- Computers that are bound to a directory service or local user accounts that have been MDM-enabled (For information, see [Binding to Directory Services](#) and the [Enabling MDM for Local User Accounts Using Self Service](#) Knowledge Base article.)  
**Note:** If a Mac App Store app is configured to be installed automatically and the user has a local user account that is not MDM-enabled (and there are no other MDM-enabled local user accounts on the computer), the user is prompted to enter local administrator credentials to enable MDM for their account. After the account becomes MDM-enabled, the app is installed and subsequent apps can be installed automatically.
- Computers with OS X v10.9 or later  
**Note:** If a computer does not have OS X v10.9 or later and the “Install Automatically/Prompt Users to Install” distribution method is selected, the app will instead be made available in Self Service.
- Users must have Mac App Store apps assigned to them via VPP-managed distribution (For information, see [VPP Assignments](#).)  
**Note:** If the scope for a Mac App Store app is configured to include a computer and the user is not assigned to that computer in the JSS, the app will instead be made available in Self Service.
- Users must be logged in to iTunes or the Mac App Store with the Apple ID used during VPP registration

To allow users to install apps from the Mac App Store (linked from Self Service), you need:

- Computers with OS X v10.7 or later
- Computers that are bound to a directory service or local user accounts that have been MDM-enabled (For information, see [Binding to Directory Services](#) and the [Enabling MDM for Local User Accounts Using Self Service](#) Knowledge Base article.)
- To associate VPP codes with a Mac App Store app, you need an Excel spreadsheet (.xls) that contains VPP codes for the app
- Users may be prompted to enter an Apple ID

## Distributing a Mac App Store App

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Mac App Store Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .

5. Do one of the following:
  - To add the app by browsing the App Store, enter the name of the app, choose an App Store country, and click **Next**. Then click **Add** for the app you want to add.
  - To add the app by uploading a VPP code spreadsheet, click **Choose File** and upload the Excel spreadsheet (.xls) that contains VPP codes for the app.
  - To add the app by manually entering information about it, click **Enter Manually**.
6. Use the **General** pane to configure settings for the app, including the distribution method.
7. Click the **Scope** tab and configure the scope of the app.  
For more information, see [Scope](#).
8. (Optional) Click the **Self Service** tab and configure the way the app is displayed in Self Service. You can customize the text displayed in the description for the app in Self Service by using Markdown in the Description field.  
For information about Markdown, see the following Knowledge Base article:  
[Using Markdown to Format Text Displayed During User-Initiated Enrollment and in Self Service Descriptions](#)
9. (Optional) If you want to upload a VPP code spreadsheet, click the **VPP Codes** tab and upload the Excel spreadsheet (.xls) that contains VPP codes for the app.  
**Note:** The **VPP Codes** tab is only displayed if the **Free** checkbox is not selected.
10. Click **Save**.

## Editing or Deleting a Mac App Store App

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Mac App Store Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the app you want to edit or delete.
5. Do one of the following:
  - To edit the app, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the app from Self Service and the JSS, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

- [Viewing and Editing Inventory Information for a Computer](#)  
Find out how to view and edit inventory information for a computer.
- [Viewing Mac App Store Apps for a Computer](#)  
Find out how to view the Mac App Store apps in the scope of a computer.
- [Viewing the History for a Computer](#)  
Find out how to view and cancel pending Mac App Store app installations for a computer.
- [Self Service User Experience](#)  
Learn how users log in to Self Service and install Mac App Store apps made available in Self Service.

# Managing Packages

Packages in the following formats can be administered using the Casper Suite:

- DMG
- PKG
- MPKG

**Note:** There are special instructions for managing OS X Installers, and Adobe Updaters and Installers for CS3 or CS4. For more information, see [Managing OS X Installers](#) or [Administering Adobe CS3 and CS4](#).

Before you can deploy a package, it must exist on the distribution point you plan to deploy it from and in the JAMF Software Server (JSS). There are three ways to achieve this:

- **Add the package to Casper Admin**—This method adds the package to the master distribution point and the JSS. You can then add the package to other distribution points via replication.
- **Upload the package directly to the JSS**—This method is only available if your master distribution point is the cloud distribution point or a JDS instance. It adds the package to the master distribution point and the JSS. You can then add the package to other distribution points via replication.
- **Manually**—This method is only available if your master distribution point is a file share distribution point. It involves manually copying the package to the distribution point and then entering information about the package in the JSS.

Each of these methods also involves configuring settings for the package. When you configure settings for a package, you can do the following:

- Add the package to a category. (For more information, see [Categories](#).)
- Choose a priority for deploying or uninstalling the package.
- Fill user templates with the contents of the home directory in the package's Users folder.
- Fill existing user home directories with the contents of the home directory in the package's Users folder.
- Allow the package to be uninstalled.
- Specify whether computers must be restarted after installing the package.
- Choose whether the package must be installed on the boot drive after imaging.
- Specify operating system and architecture type requirements for deploying the package.
- Only allow the package to be installed if it is available in Software Update.

You can also index packages. Indexing creates a log of all the files contained within a package. This allows you to uninstall the package and view the contents of the package from the JSS. Packages can only be indexed using Casper Admin.

In addition, you can validate packages using the checksum. (For more information, see [Calculating a Checksum](#).)

When you add, edit, or delete a package in Casper Admin, the changes are reflected in the JSS and vice versa.

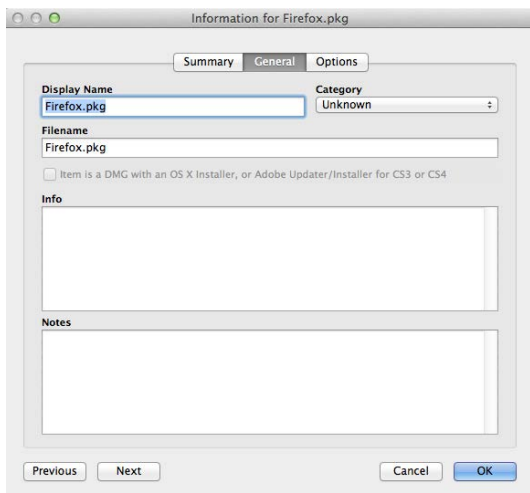
# Requirements

To manage packages, you need a distribution point set up in the JSS. (For more information, see [About Distribution Points.](#))

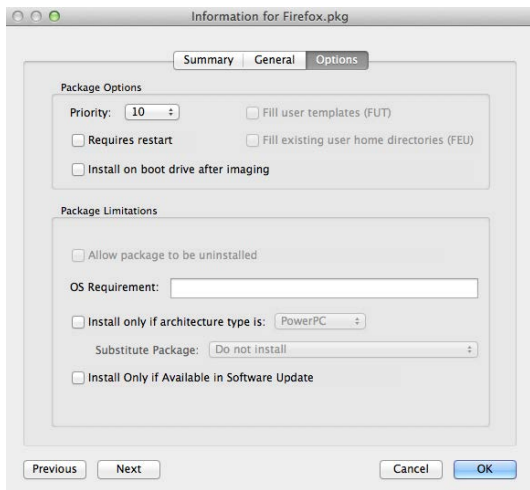
## Adding a Package to Casper Admin

Adding a package to Casper Admin adds the package to the master distribution point and the JSS.

1. Open Casper Admin and authenticate to the JSS.
2. Drag the package to the main repository in Casper Admin.  
The package is displayed in blue text in the Unknown category until you add it to a category.
3. Double-click the package in the main repository.
4. Click the **General** tab and configure basic settings for the package, including the display name and category.






5. Click the **Options** tab and configure additional settings for the package, including the priority, and operating system and architecture type requirements.



6. Click **OK**.




## Uploading a Package to the JSS

If your master distribution point is the cloud distribution or a JDS instance, you can upload the package directly to the JSS. This adds the package to the master distribution point and the JSS.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Packages** .
5. Click **New** .
6. Use the General pane to configure basic settings for the package, including the display name and category.  
**Note:** If you do not add the package to a category, Casper Admin displays the package in blue text in the Unknown category.
7. Click **Upload Package** and upload the package.
8. Click the **Options** tab and configure additional settings for the package, including the priority.
9. (Optional) Click the **Limitations** tab and configure limitations for the package, including operating system and architecture type requirements.
10. Click **Save**.


## Manually Adding a Package to a Distribution Point and the JSS

If your master distribution point is a file share distribution point, you can manually copy a package to the distribution point and then enter information about the package in the JSS.

1. Copy the package to the Packages folder at the root of the file share on the distribution point.
2. Log in to the JSS with a web browser.
3. In the top-right corner of the page, click **Settings** .
4. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
5. In the “Computer Management” section, click **Packages** .
6. Click **New** .
7. Use the General pane to configure basic settings for the package, including the display name, category, and filename.  
**Note:** If you do not add the package to a category, Casper Admin displays the package in blue text in the Unknown category.



8. Click the **Options** tab and additional settings for the package, including the priority.
9. (Optional) Click the **Limitations** tab and configure limitations for the package, including operating system and architecture type requirements.
10. Click **Save**.

## Editing or Deleting a Package Using Casper Admin

1. Open Casper Admin and authenticate to the JSS.
2. In the main repository, select the package you want to edit or delete.
3. Do one of the following:
  - To edit the package, double-click it and make changes as needed. Then click **OK**.
  - To delete the package, click **Delete**  and then click **Delete** again to confirm.

The edit or delete action is applied immediately on the master distribution point. The action is applied to your other distribution points when replication occurs.

## Editing or Deleting a Package Using the JSS

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Packages** .
5. Click the package you want to edit or delete.
6. Do one of the following:
  - To edit the package, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the package, click **Delete** and then click **Delete** again to confirm.

The edit or delete action is applied immediately on the master distribution point. The action is applied to your other distribution points when replication occurs.



## Indexing a Package



Indexing a package creates a log of all the files contained within the package. This allows you to uninstall the package and view the contents of the package from the JSS.

Packages can be indexed using Casper Admin only. The time it takes to index a package depends on the amount of data in the package.

1. Open Casper Admin and authenticate to the JSS.
2. In the main repository, select the package you want to index and click **Index** at the bottom of the pane.
3. If prompted, authenticate locally.

When the indexing process is complete, Casper Admin defaults back to the main repository.

## Viewing the Contents of an Indexed Package

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Packages** .
5. Click the package you want to view the contents of.
6. Click **Contents**.

A table that contains the package contents is displayed.

## Calculating a Checksum

The checksum is calculated when a package is uploaded to the JSS. The checksum ensures authenticity when the package is downloaded.

The checksum can also be calculated manually using Casper Admin:

1. Open Casper Admin and authenticate to the JSS.
2. In the main repository, select the package you want to calculate checksum for.
3. Control-click (or right-click) and select **Calculate Selected Package Checksum(s)**.

## Related Information

For related information, see the following sections in this guide:

- [Installing Packages](#)  
Find out how to install packages using a policy or Casper Remote.
- [Caching Packages](#)  
Find out how to cache packages using a policy or Casper Remote.
- [Installing Cached Packages](#)  
Find out how to install packages that were cached using the Casper Suite.
- [Uninstalling Packages](#)  
Find out how to uninstall packages that were installed using the Casper Suite.

# Managing OS X Installers

Adding an OS X Installer to Casper Admin is the first step to installing a clean copy of OS X on computers.

If the OS X Installer is for OS X v10.6 or earlier, you can also create a custom OS X installation from the installer. This allows you to change the default software and language settings in OS X.

## Requirements

To manage OS X Installers, you need a distribution point set up in the JAMF Software Server (JSS). (For more information, see [About Distribution Points](#).)

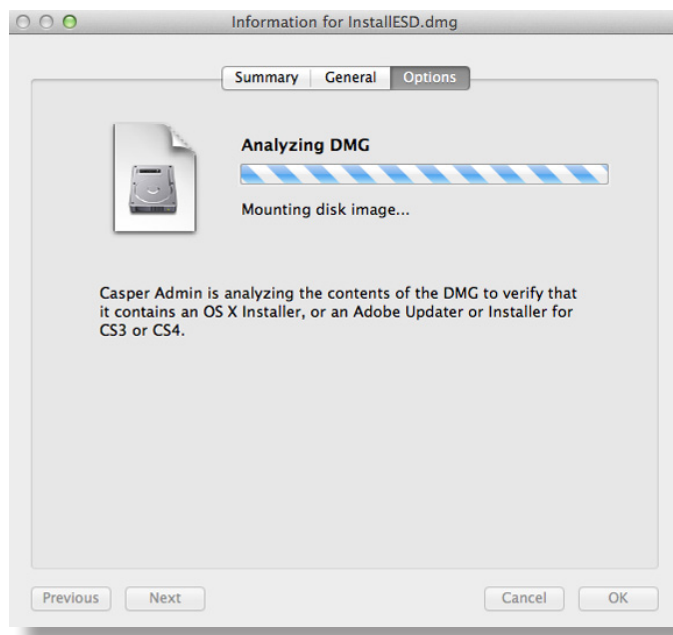
To add an OS X Installer to Casper Admin, the OS X Installer must be a .app file from the Mac App Store or a DMG.

## Adding a .app File for OS X to Casper Admin

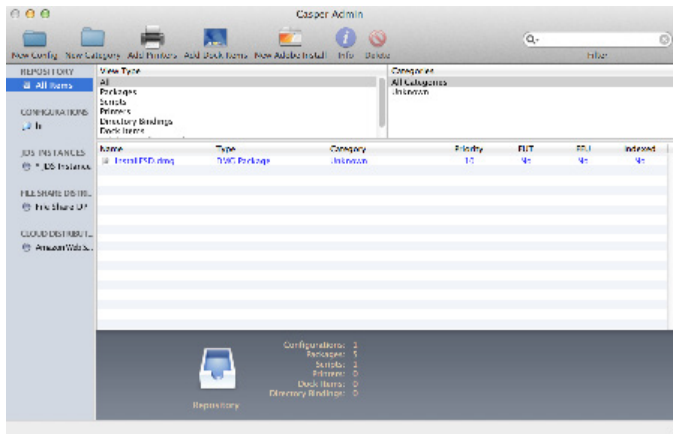
Adding a .app file for OS X to Casper Admin adds it to the master distribution point and the JSS.

1. Open Casper Admin and authenticate to the JSS.
2. Drag the .app file to the main repository in Casper Admin.

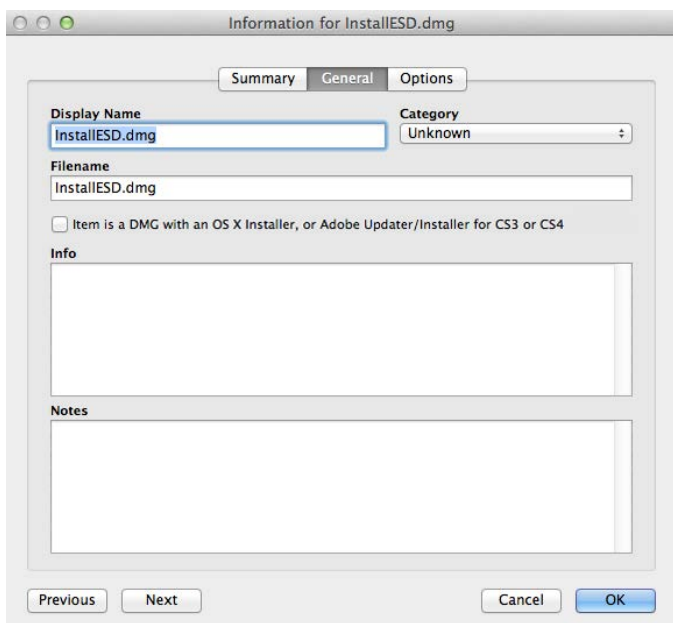
Casper Admin extracts the `InstallESD.dmg` file from the .app file and then analyzes the contents of the `InstallESD.dmg` file.



The InstallESD.dmg file is displayed in blue text in the Unknown category until you add it to a category.



3. Double-click the package in the main repository.
4. Click the **General** tab and choose a category for the package.

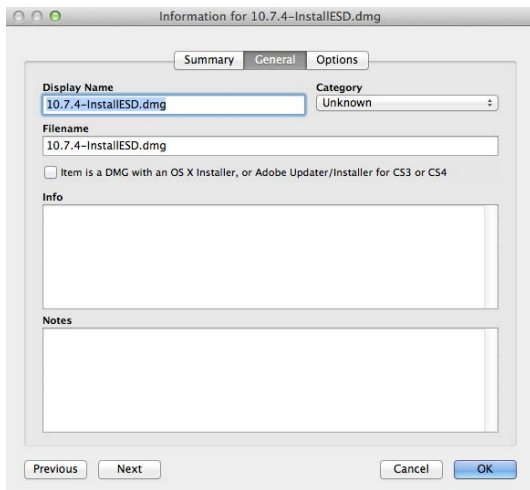


5. Click **OK**.

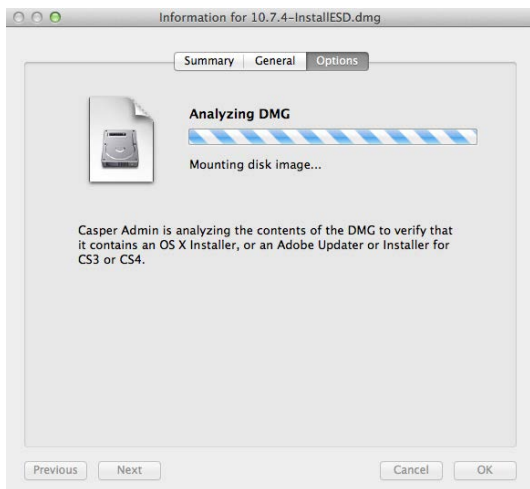
## Adding a DMG of an OS X Installer to Casper Admin

Adding a DMG of an OS X Installer to Casper Admin adds it to the master distribution point and the JSS.

1. Open Casper Admin and authenticate to the JSS.
2. Drag the DMG to the main repository in Casper Admin.  
The DMG is displayed in blue text in the Unknown category until you add it to a category.
3. Double-click the DMG in the main repository.
4. Click the **General** tab and configure basic settings for the DMG, including the display name and category.  
Be sure to select the **Item is a DMG with an OS X Installer, or Adobe Updater/Installer for CS3 or CS4** checkbox.



5. When prompted, click **OK** to continue.  
Casper Admin analyzes the contents of the DMG.



- When the Options pane appears, choose a default language for the installation from the **Language** pop-up menu.



- Click **OK**.

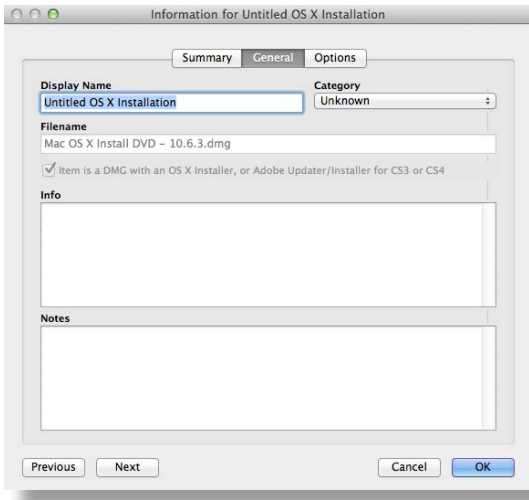
## Creating a Custom OS X Installation

If the DMG is for OS X v10.6 or earlier, you can create a custom OS X installation from the DMG. This allows you to change the default software and language settings in OS X.

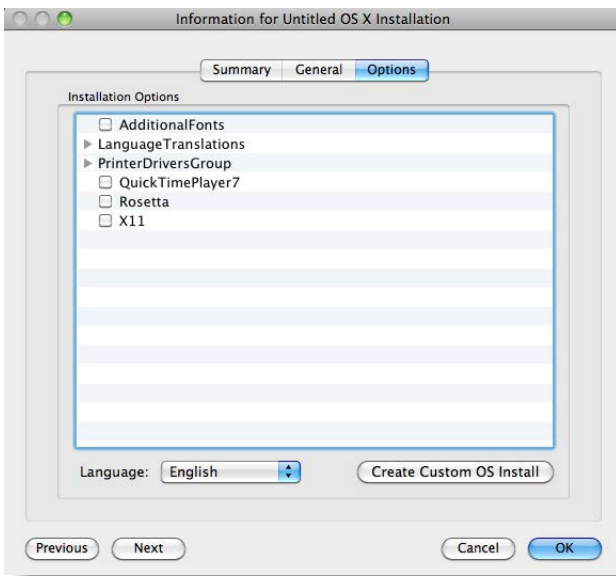
- Open Casper Admin and authenticate to the JSS.
- Double-click the DMG of the OS X Installer that you want to base your custom installation on.
- Click the **Options** tab and click **Create Custom OS Install**.



4. On the General pane, configure basic settings for the installation, including the display name and category.



5. Click the **Options** tab and configure additional settings for the installation.



6. Click **OK**.

## Related Information

For related information, see the following technical paper:

[Deploying OS X v10.7 or Later with the Casper Suite](#)

Get step-by-step instructions for deploying OS X v10.7 or later.

# Administering Adobe CS3 and CS4

Deploying Adobe CS3 or CS4 involves the following steps:

1. Use Disk Utility to create a DMG of the installer DVD.
2. Add the DMG to Casper Admin.  
For more information, see [Adding a DMG of an Adobe CS3/CS4 Updater or Installer to Casper Admin](#).
3. Create an Adobe installation from the DMG.  
For more information, see [Creating a CS3/CS4 Adobe Installation](#).
4. Install the Adobe installation using a policy or Casper Remote.  
For more information, see [Installing Packages](#).

Updating Adobe CS3 or CS4 involves the following steps:

1. Obtain or create a DMG of the appropriate Adobe Updater.  
The Adobe Updater must support silent installation.  
**Note:** Most Adobe updates are available in the DMG format at Adobe's website.
2. Add the DMG to Casper Admin.  
For more information, see [Adding a DMG of an Adobe CS3/CS4 Updater or Installer to Casper Admin](#).
3. Install the DMG using a policy or Casper Remote.  
For more information, see [Installing Packages](#).

## Requirements

To manage Adobe CS3/CS4 Updaters or Installers using Casper Admin, you need a distribution point set up in the JSS. (For more information, see [About Distribution Points](#).)

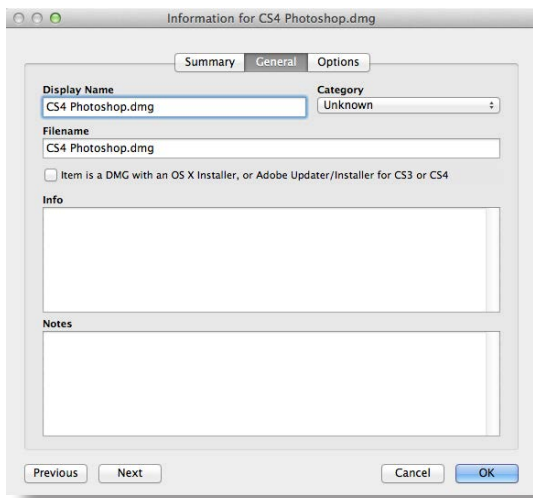
## Adding a DMG of an Adobe CS3/CS4 Updater or Installer to Casper Admin

Adding a package to Casper Admin adds the package to the master distribution point and the JSS.

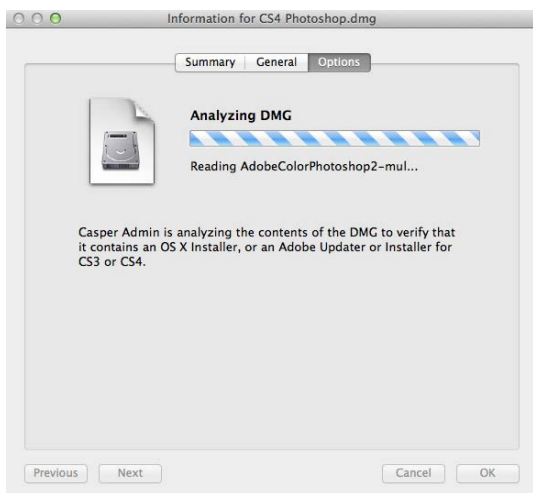
1. Open Casper Admin and authenticate to the JSS.
2. Drag the DMG to the main repository in Casper Admin.  
The DMG is displayed in blue text in the Unknown category until you add it to a category.
3. Double-click the DMG in the main repository.



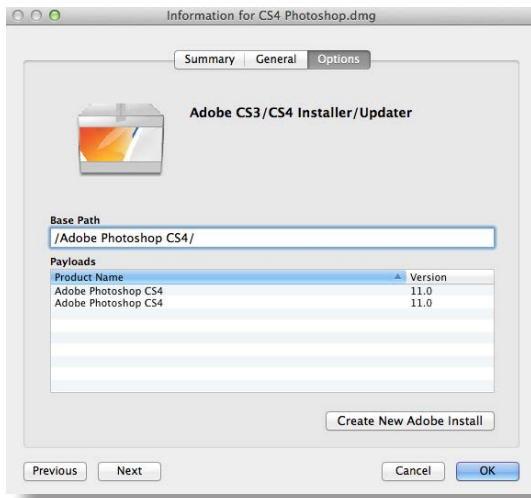
4. Click the **General** tab and configure basic settings for the DMG, including the display name and category. Be sure to select the **Item is a DMG with an OS X Installer, or Adobe Updater/Installer for CS3 or CS4** checkbox.



5. When prompted, click **OK** to continue. Casper Admin analyzes the contents of the DMG.




6. When the Options pane appears, click **OK**.



## Creating a CS3/CS4 Adobe Installation

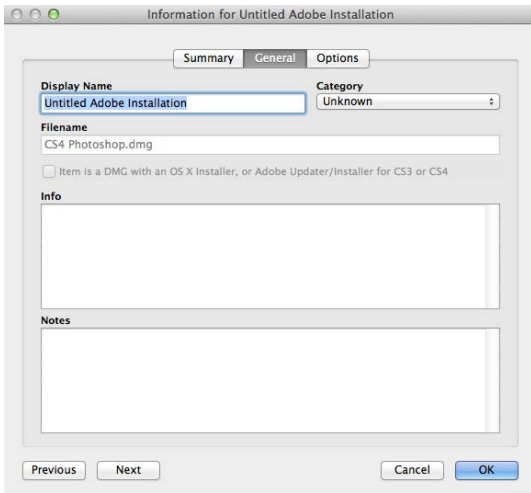
After you add a DMG of an Adobe Installer to Casper Admin, you can create one or more Adobe installations. This allows you to do the following:

- Choose a priority for the deploying or uninstalling CS3/CS4 during imaging.
- Specify an installation language.
- Enter a serial number for the installation.
- Suppress the Dock item during installation.
- Ignore conflicting processes.
- Suppress the EULA, registration, and updates.
- Allow the package to be uninstalled.

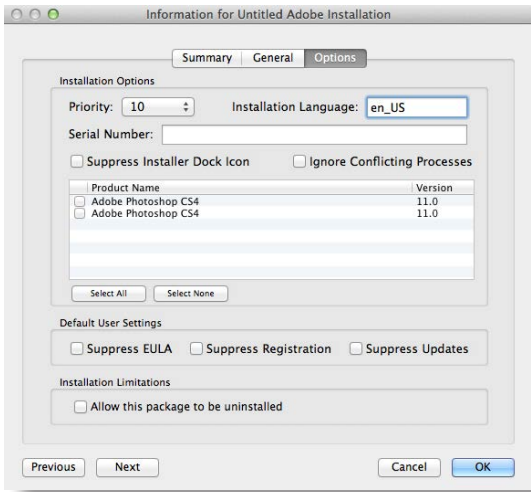
1. Open Casper Admin and authenticate to the JSS.
2. Click **New Adobe Install** .
3. If you have more than one DMG of Adobe Installers, choose the one on which you want to base your installation from the **Installer/Updater** pop-up menu.



4. On the General pane, configure basic settings for the installation, including the display name and category.



5. Click the **Options** tab and configure additional settings for the installation, including the priority and installation language.



6. Click **OK**.

# Installing Packages

When you install a package, you can do the following:

- Fill user templates.
- Fill existing user home directories.
- Add the package to Autorun data.
- Specify a distribution point for computers to download the package from.


There are two ways to install a package on computers: using a policy or using Casper Remote.

**Note:** You can also install packages during imaging. For more information, see [Configurations](#).

## Requirements

To install a package on computers, the package must exist on the distribution point you plan to deploy it from and in the JSS. (For more information, see [Managing Packages](#).)


## Installing a Package Using a Policy

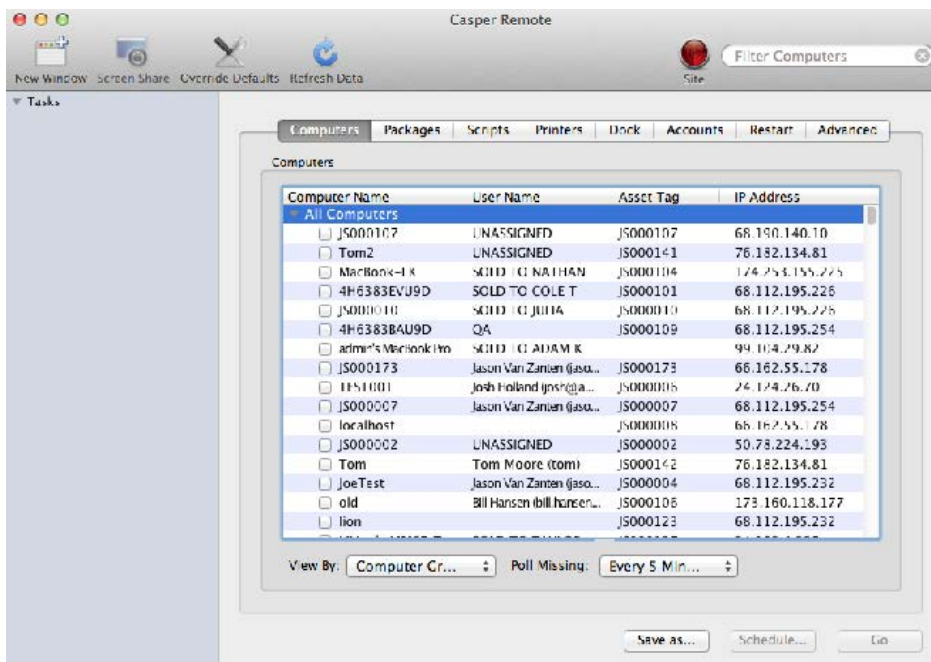
1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Packages payload and click **Configure**.
7. Click **Add** for the package you want to install.
8. Choose "Install" from the **Action** pop-up menu.
9. Configure the settings for the package.  
To add the package to each computer's Autorun data, select the **Update Autorun data** checkbox. For more information, see [Autorun Imaging](#).
10. Specify a distribution point for computers to download the package from.
11. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).

12. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
13. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
14. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
15. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

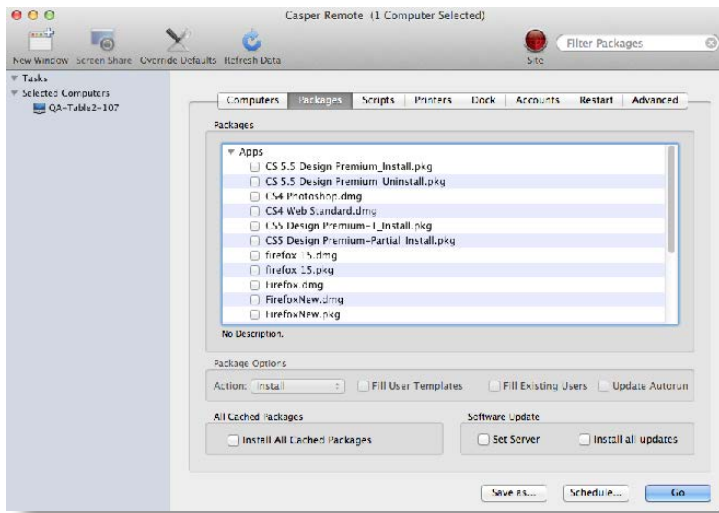
## Installing a Package Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer on which you want to install the package.

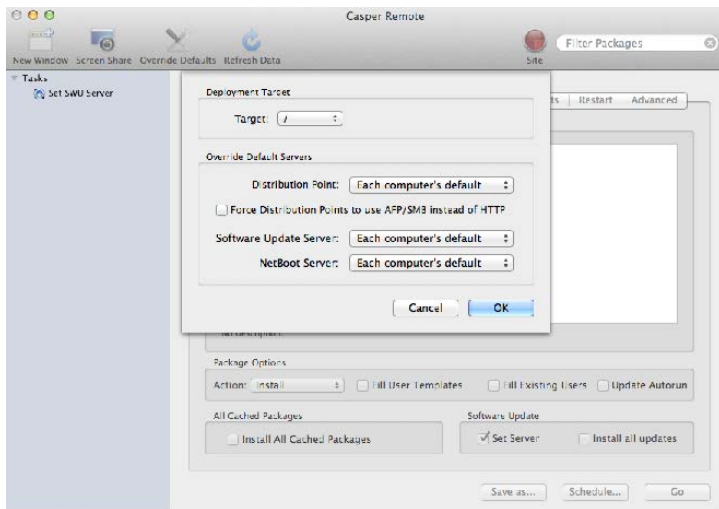


4. Click the **Packages** tab.

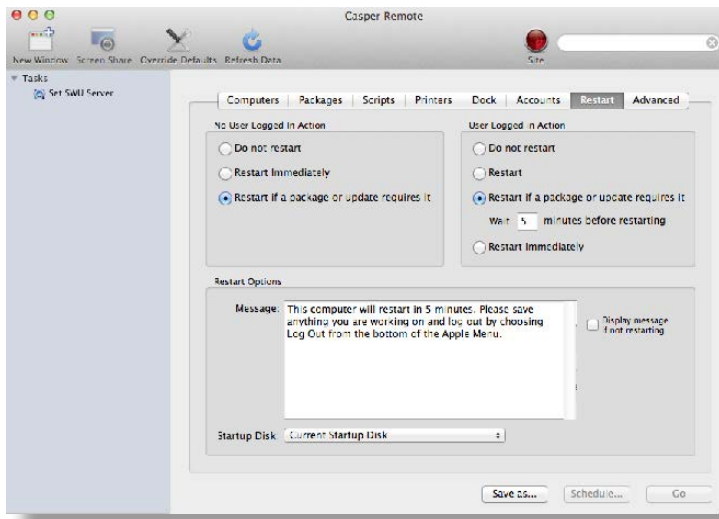
- In the list of packages, select the checkbox for the package you want to install.



- Choose "Install" from the **Action** pop-up menu.
- Configure the settings for the package.  
To add the package to each computer's Autorun data, select the **Update Autorun data** checkbox. For more information, see [Autorun Imaging](#).
- If you want to change the distribution point that computers download packages from, click **Override Defaults** and choose a distribution point.



9. Click the **Restart** tab and configure settings for restarting computers.



10. Do one of the following:
- To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create policies, view the plan and status for a policy, and view and flush policy logs.

# Caching Packages

Caching packages allows you to download them on computers without installing them right away.


When you cache a package, you can specify a distribution point for computers to download the package from.

There are two ways to cache packages on computers: using a policy or using Casper Remote.

## Requirements

To cache a package on computers, the package must exist on the distribution point you plan to deploy it from and in the JSS. (For more information, see [Managing Packages](#).)

## Caching a Package Using a Policy


1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Packages payload and click **Configure**.
7. Click **Add** for the package you want to cache.
8. Choose "Cache" from the **Action** pop-up menu.
9. Configure the settings for the package.  
To add the package to each computer's Autorun data, select the **Add to Autorun data** checkbox. For more information, see [Autorun Imaging](#).
10. Specify a server for computers to download the package from.
11. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
12. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).

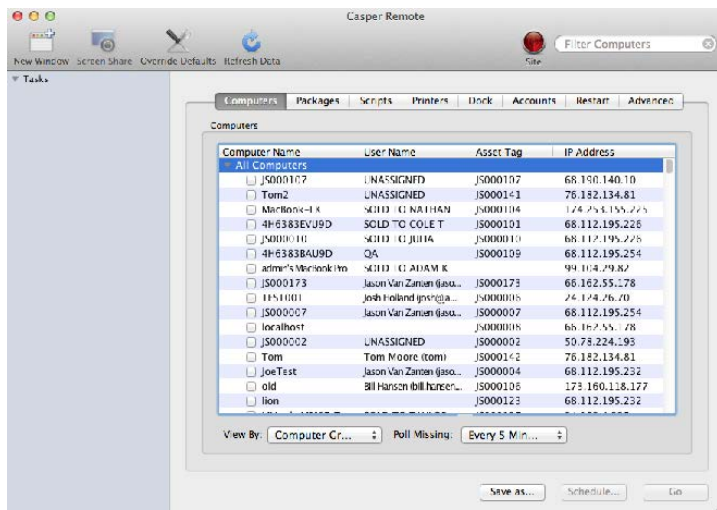


13. (Optional) Click the **Self Service** tab and make the policy available in Self Service. For more information, see [Self Service for OS X Policies](#).
14. (Optional) Click the **User Interaction** tab and configure messaging and deferral options. For more information, see [User Interaction](#).
15. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

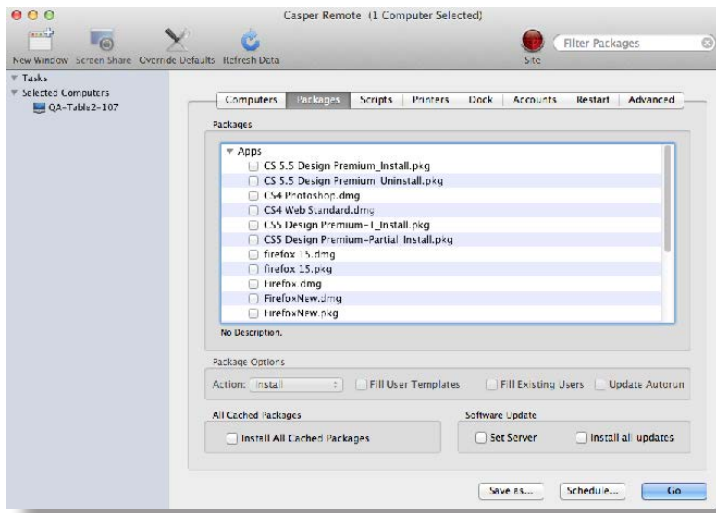
## Caching a Package Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site. This determines which items are available in Casper Remote. **Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer on which you want to cache the package.

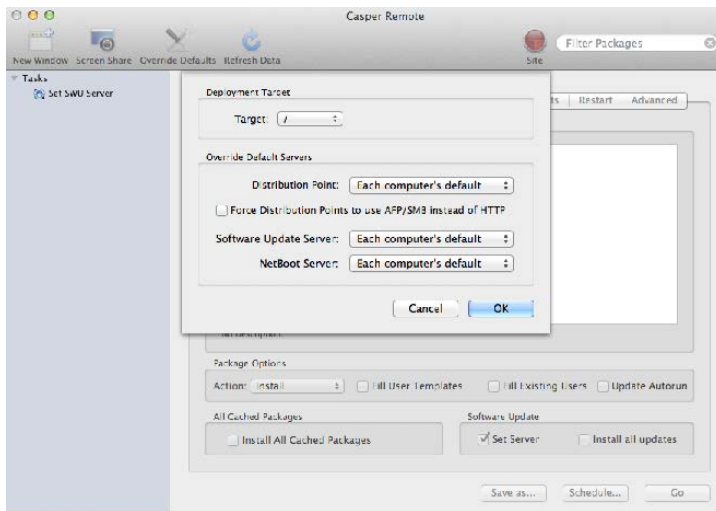


4. Click the **Packages** tab.

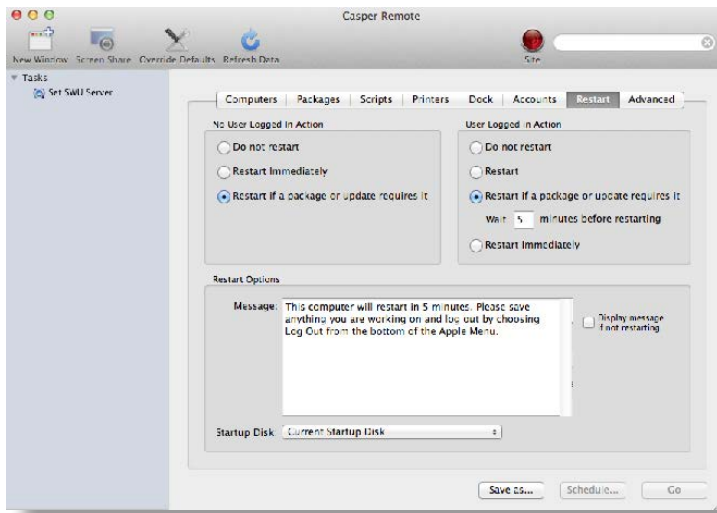
- In the list of packages, select the checkbox for the package you want to cache.



- Choose "Cache" from the **Action** pop-up menu.
- Configure the settings for the package.  
To add the package to each computer's Autorun data, select the **Update Autorun data** checkbox. For more information, see [Autorun Imaging](#).
- If you want to change the distribution point that computers download packages from, click **Override Defaults** and choose a distribution point.



- Click the **Restart** tab and configure settings for restarting computers.



- Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [Smart Computer Groups](#)  
You can create smart computer groups based on cached packages.
- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create policies, view the plan and status for a policy, and view and flush policy logs.
- [Installing Cached Packages](#)  
Find out how to install a cached package using a policy or Casper Remote.

# Installing Cached Packages

You can choose to install one or more specific cached packages, or all cached packages.

When you install one or more specific cached packages, you can do the following:


- Fill user templates.
- Fill existing user home directories.
- Add the package to Autorun data.

There are two ways to install packages that were cached using the Casper Suite: using a policy or using Casper Remote.

## Requirements

To install a specific cached package, the package must exist on the distribution point you plan to deploy it from and in the JSS. (For more information, see [Managing Packages](#).)


## Installing a Cached Package Using a Policy

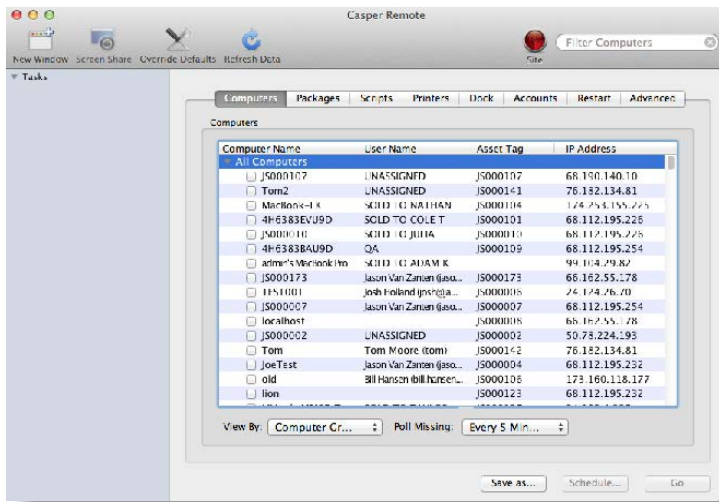
1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Packages payload.
7. Click **Configure**.
8. Click **Add** for the cached package you want to install.
9. Choose "Install Cached" from the **Action** pop-up menu.
10. Configure the settings for the package.  
To add the package to each computer's Autorun data, select the **Update Autorun data** checkbox. For more information on Autorun data and Autorun Imaging, see [Autorun Imaging](#).
11. (Optional) Use the Restart Options payload to change the settings for restarting computers.  
For more information, see [Restart Options Payload](#).

12. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
13. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
14. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
15. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

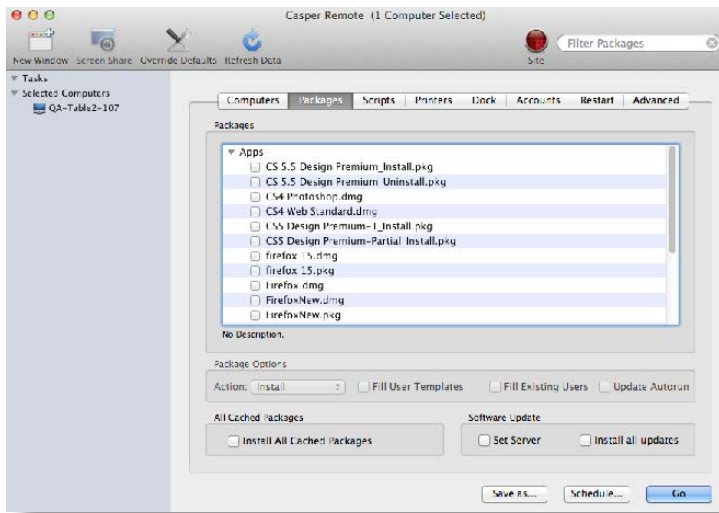
## Installing a Cached Package Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer on which you want to install the cached package.

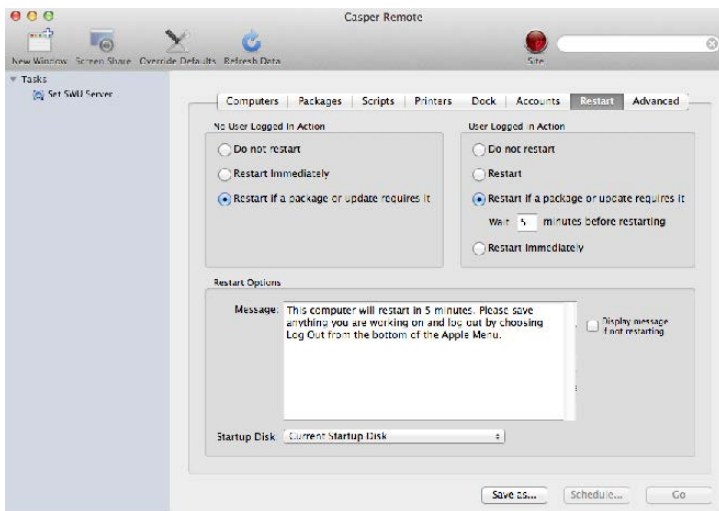


4. Click the **Packages** tab.

- In the list of packages, select the checkbox for the cached package you want to install.




- Choose "Install Cached" from the **Action** pop-up menu.
- Configure the settings for the package.  
To add the package to each computer's Autorun data, select the **Update Autorun data** checkbox. For more information, see [Autorun Imaging](#).
- Click the **Restart** tab and configure settings for restarting computers.




- Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Installing All Cached Packages Using a Policy

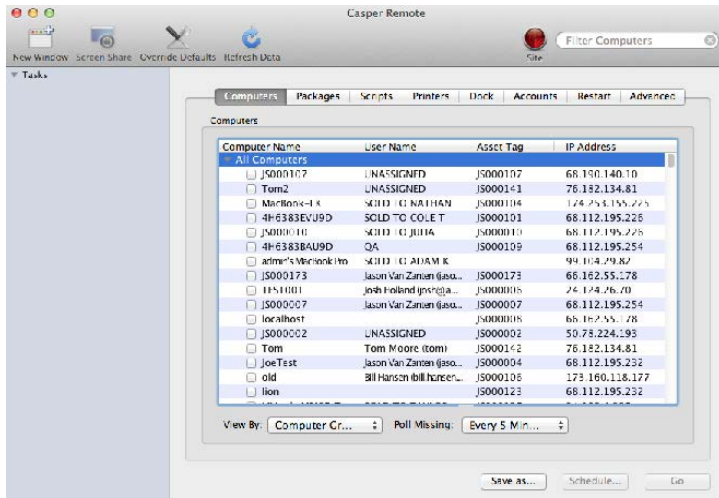
1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Maintenance payload and click **Configure**.
7. Select **Install Cached Packages**.
8. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
9. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
10. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
11. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
12. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

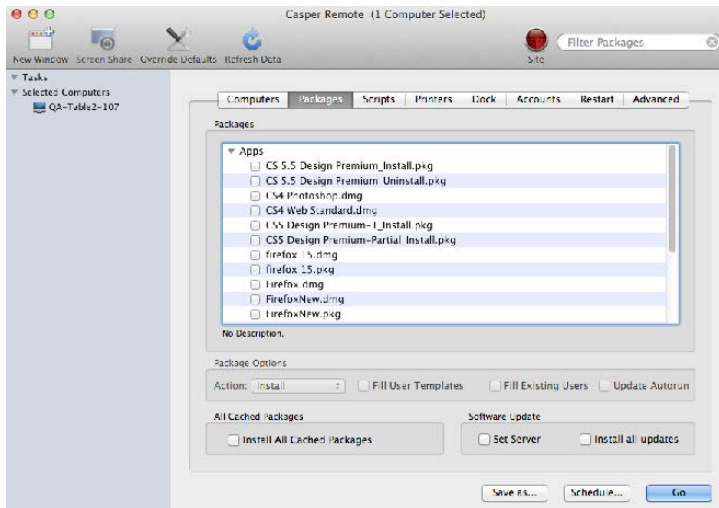
## Installing All Cached Packages Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.

- In the list of computers, select the checkbox for each computer on which you want to install all cached packages.

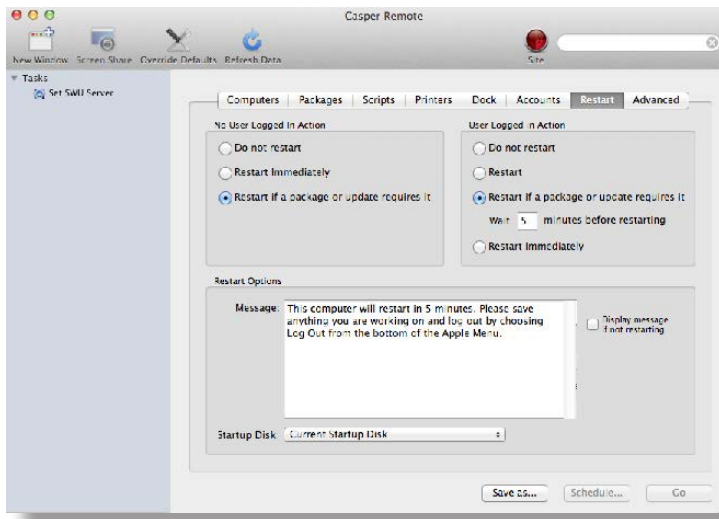


- Click the Packages tab.
- Select the Install All Cached Packages checkbox.





6. Click the **Restart** tab and configure settings for restarting computers.



7. Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create policies, view the plan and status for a policy, and view and flush policy logs.

# Uninstalling Packages

There are two ways to uninstall packages that were installed using the Casper Suite: using a policy or using Casper Remote.

When you uninstall a package, you can remove the package from Autorun data.


## Requirements

To uninstall a package from computers, you need:

- The package indexed in Casper Admin (For more information, see [Managing Packages.](#))
- The package configured so that it can be uninstalled (For more information, see [Managing Packages.](#))

**Note:** If the package is an Adobe CS3/CS4 installation, it does not need to be indexed or configured so that it can be uninstalled.


## Uninstalling a Package Using a Policy

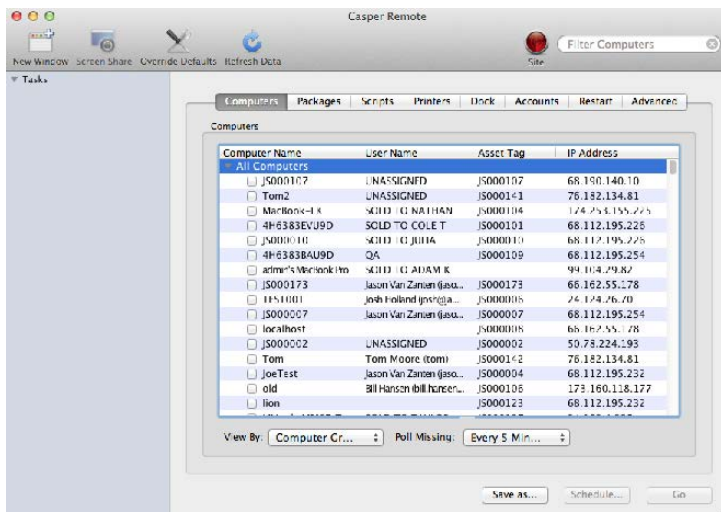
1. Log in to the JSS with a web browser.
2. Click the **Computers** tab at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Packages payload and click **Configure**.
7. Click **Add** for the package you want to uninstall.
8. Choose “Uninstall” from the **Action** pop-up menu.
9. Configure the settings for the package.  
To remove the package from each computer's Autorun data, select the **Update Autorun data** checkbox.  
For more information on Autorun data and Autorun Imaging, see [Autorun Imaging](#).
10. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
11. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).

12. (Optional) Click the **Self Service** tab and make the policy available in Self Service. For more information, see [Self Service for OS X Policies](#).
13. (Optional) Click the **User Interaction** tab and configure messaging and deferral options. For more information, see [User Interaction](#).
14. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

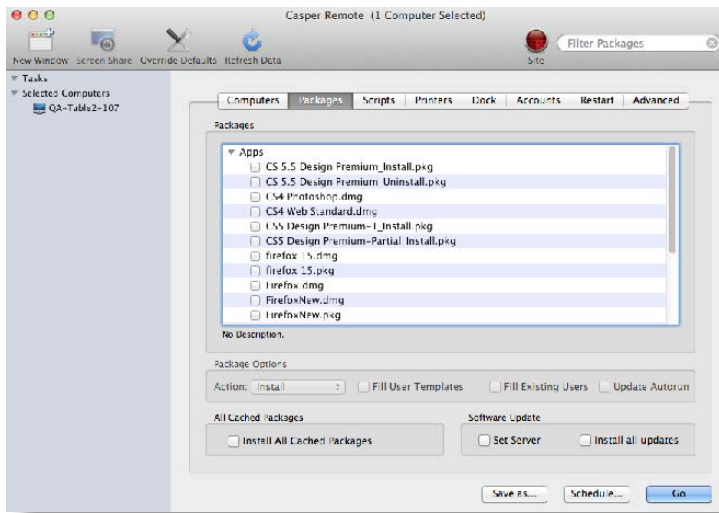
## Uninstalling a Package Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site. This determines which items are available in Casper Remote. **Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer from which you want to uninstall the package.

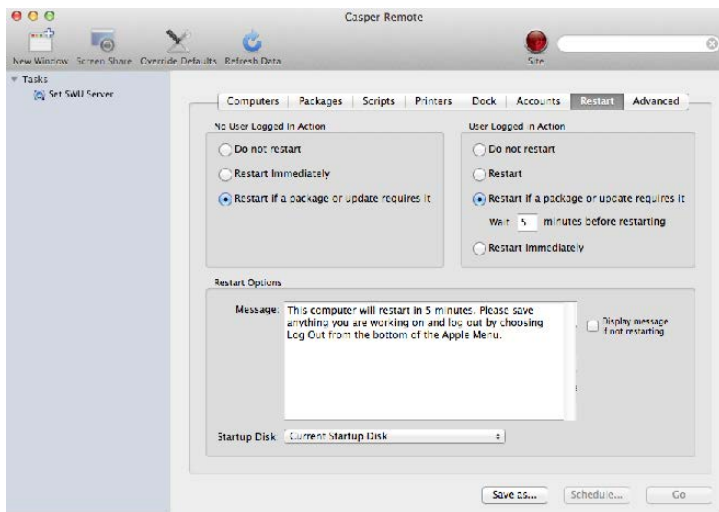


4. Click the **Packages** tab.

- In the list of packages, select the checkbox for the package you want to uninstall.



- Choose "Uninstall" from the **Action** pop-up menu.
- Configure the settings for the package.
- Click the **Restart** tab and configure settings for restarting computers.



- Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create policies, view the plan and status for a policy, and view and flush policy logs.

# Patch Management

## Running Software Update


When you run Software Update on computers, you can choose whether updates are installed from Apple's Software Update server or an internal software update server.

There are two ways to run Software Update on computers: using a policy or using Casper Remote.

### Requirements

To have computers install updates from an internal software update server, the software update server must be in the JSS. (For more information, see [Software Update Servers](#).)


## Running Software Update Using a Policy

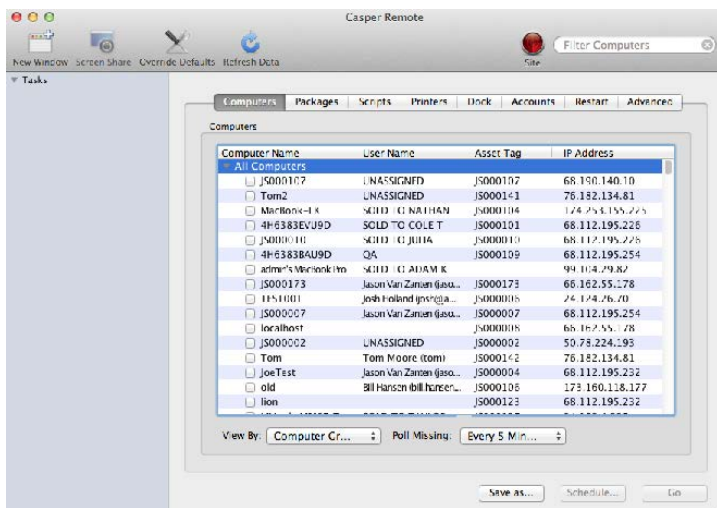
1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Software Updates payload and click **Configure**.
7. Specify a server for computers to install software updates from.
8. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).

9. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
10. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
11. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
12. Click **Save**.

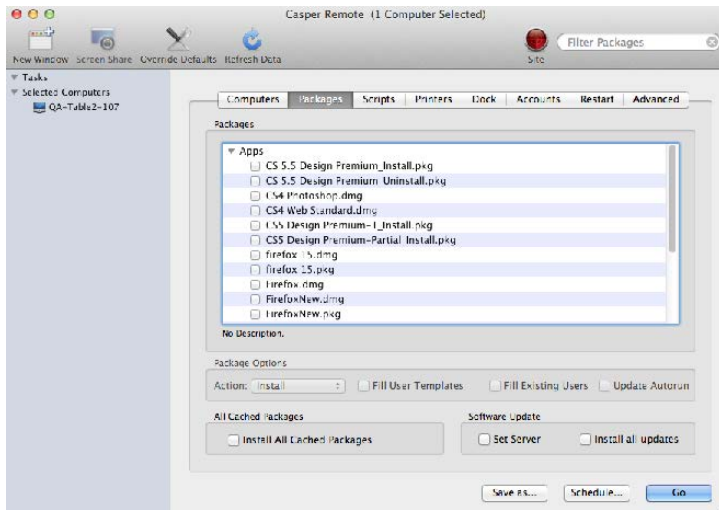
The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

## Running Software Update Using Casper Remote

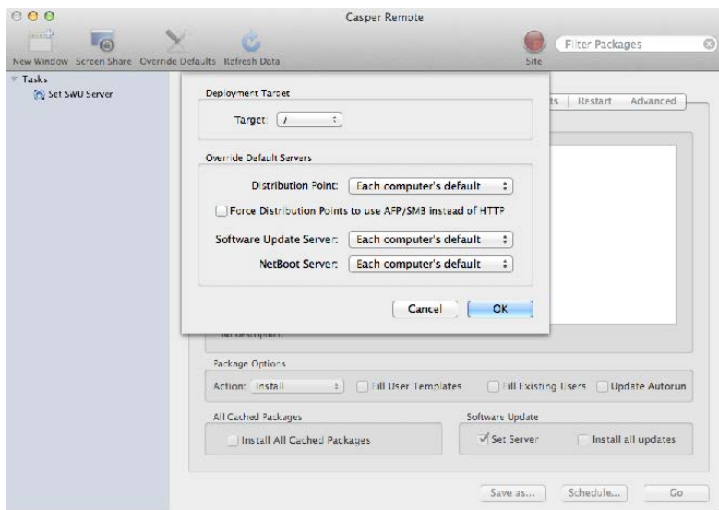
1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer on which you want to run Software Update.



4. Click the **Packages** tab.
5. Select the **Install all updates** checkbox.

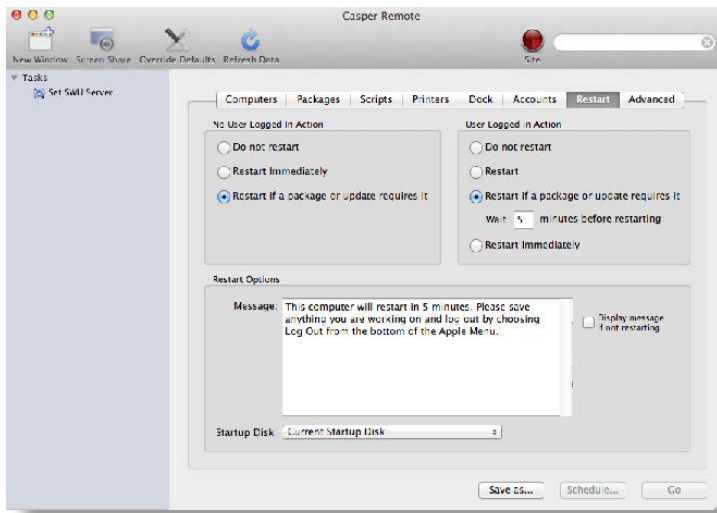


6. If you want to change the software update server that computers download software updates from, click **Override Defaults** and choose a software update server.





7. Click the **Restart** tab and configure settings for restarting computers.



8. Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create policies, view the plan and status for a policy, and view and flush policy logs.

# Remote Control

## Screen Sharing

Screen sharing allows you to remotely view and control the screen of another computer. You can allow the end user to see the screen sharing session, or you can hide the screen sharing session so that the user is not interrupted.

### How Screen Sharing Works

When a screen sharing session is initiated from Casper Remote, the following steps are performed to start the screen sharing session:

1. Casper Remote creates an SSH connection to the target computer.
2. Casper Remote checks the target computer for the most current version of the jamf binary. If the jamf binary is out of date or missing, Casper Remote installs the most current version over SCP or HTTP, depending on the way the Casper Remote preferences are configured.
3. Casper Remote checks the target computer for the following file and verifies that it contains the correct information:  
`/Library/Preferences/com.jamfsoftware.jss.plist`  
If the file does not exist or contains incorrect information, Casper Remote automatically creates or overwrites the file.
4. The jamf binary checks if the JSS user who initiated the screen sharing session has the "Screen Share with Remote Computers" and "Screen Share with Remote Computers without Asking" privilege.
5. If the JSS user does not have the "Screen Share with Remote Computers without Asking" privilege, the end user is prompted to allow the screen sharing session to take place.
6. The JSS logs the connection.
7. On the target computer, Casper Remote starts the Screen Sharing service that is built into OS X.
8. On the target computer, Casper Remote creates a temporary account with limited privileges and uses it for the screen sharing session.

When the Screen Sharing window is closed, Casper Remote deletes the temporary account, stops the Screen Sharing service, and logs out of the SSH connection. If the SSH connection is terminated unexpectedly, a launch daemon deletes the temporary account and stops the Screen Sharing service within 60 seconds of the SSH connection being terminated.

## Requirements

To share the screen of another computer, SSH (Remote Login) must be enabled on the target computer. In addition, if the target computer has OS X v10.10 or later, Screen Sharing must also be enabled on the computer.

## Sharing the Screen of Another Computer

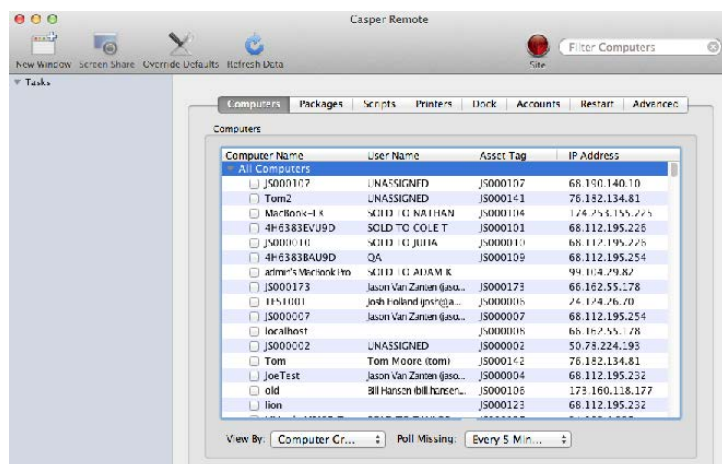
1. Open Casper Remote and authenticate to the JSS.

2. Click **Site**  and choose a site.

This determines which items are available in Casper Remote.

**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.

3. In the list of computers, select the computer that you want to screen share with.



4. Click **Screen Share** .

5. When prompted, choose a screen sharing option:

- To allow the end user to see the screen sharing session, choose "Share Display" (OS X v10.8 or later) or "Ask to share the display" (OS X v10.7).
- To hide the screen sharing session, choose "Log In" (OS X v10.8 or later) or "Connect to a virtual display" (OS X v10.7).

If you do not have the "Screen Share Remote Computers Without Asking" privilege, the end user is prompted to allow the screen sharing session to take place.

# Settings and Security Management

## Managed Preferences

Managed Preferences are manifest files that define preferences for computers and users. You can use the JAMF Software Server (JSS) to create Managed Preference profiles, which contain groups of Managed Preferences. You can also specify the users and computers for which a profile should be applied (called “scope”).

The JSS comes with manifest files for many common Managed Preferences so that you can easily add them to profiles. You can also add custom Managed Preferences by creating them manually or uploading a manifest file.

## Levels for Managed Preferences

When you add a Managed Preference to a profile, you must specify a level at which to apply the preference. The level determines how and when the preference is applied. The levels available for each Managed Preference depend on the application or utility for which you are defining the preference.

If you have applied Managed Preferences using Apple’s Workgroup Manager, the level names in the JSS may be unfamiliar to you. The following table shows each level, its Workgroup Manager equivalent, when and how it is applied, and whether it is available for some or all Managed Preferences.

JSS Levels	Workgroup Manager Levels	Applied at	Available for
User-level enforced	Always	Login with a login hook	Some Managed Preferences
User-level at every login	Often	Login with a login hook	All Managed Preferences
User-level at next login only	Once	Login with a login hook	All Managed Preferences

JSS Levels	Workgroup Manager Levels	Applied at	Available for
Computer-level enforced	Always (Applied to a computer object)	Reboot with a startup script	Some Managed Preferences
Unmanaged	Unset	Login or reboot	All Managed Preferences

## Compatibility with Third-Party Providers

In OS X v10.6 and v10.7, you can use more than one provider to apply Managed Preferences. In some cases, Managed Preferences applied using the JSS can interfere with or be interfered with by Managed Preferences from a third-party provider.

The following table shows the compatibility of Managed Preferences applied using the JSS and tested third-party providers.




Third-Party Provider	Local Home Directory	Network Home Directory	Mobile Home Directory
OS X Directory Utility–Active Directory	Compatible	Compatible	Compatible
OS X Directory Utility–Open Directory	Compatible	Compatible	Compatible
PowerBroker Identity Services (formerly called “Likewise”)	Compatible	N/A	Incompatible
ADmitMac	Compatible	Compatible	Incompatible
Centrify	Compatible	N/A	Incompatible

## Requirements

To apply user-level Managed Preferences, they must be enabled in the Login/Logout Hooks settings in the JSS. (For more information, see [Login and Logout Hooks](#).)

To apply computer-level Managed Preferences, they must be enabled in the Startup Script settings in the JSS. (For more information, see [Startup Script](#).)

## Creating a Managed Preference Profile

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Managed Preferences**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the profile.
6. Use the rest of the payloads to configure the Managed Preferences you want to apply.
7. (Optional) Manually create a custom Managed Preference:
  - a. Select the Custom payload.
  - b. Click **Add**  for **Manual Setting**.
  - c. Configure the Managed Preference using the options on the pane.
8. (Optional) Upload a manifest file:
  - a. Select the Custom payload.
  - b. Click **Add**  for **Upload Manifest**.
  - c. Upload the manifest file.
9. Click the **Scope** tab and configure the scope of the profile.  
For more information, see [Scope](#).
10. Click **Save**.

The profile is applied the next time computers in the scope check in with the JSS.

## Cloning, Editing, or Deleting a Managed Preference Profile

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Managed Preferences**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the Managed Preference profile you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the profile, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the profile, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the profile, click **Delete** and then click **Delete** again to confirm.

The clone, edit, or delete action is applied to computers in the scope the next time they check in with the JSS.

## Related Information

For related information, see the following section in this guide.

[Viewing Managed Preferences for a Computer](#)

Find out how to view managed preferences for a computer or user.

# OS X Configuration Profiles

OS X configuration profiles are XML files (.mobileconfig) that provide an easy way to define settings and restrictions for computers and users.

You can use the JAMF Software Server (JSS) to manually create an OS X configuration profile or upload a configuration profile that was created using Apple's Profile Manager.

Before creating a configuration profile, you should have basic knowledge of configuration profile payloads and settings, and how they affect computers. For detailed information about each payload and setting, see Apple's Profile Manager documentation at:

<https://help.apple.com/profilemanager/mac>

Some configuration profile settings are unique to the JSS. For more information on these settings, see the following Knowledge Base article:

[Configuration Profiles Reference](#)

When you create an OS X configuration profile, you must specify the level at which to apply the profile—computer level or user level. Each level has a unique set of payloads and a few that are common to both. There are two different ways to distribute an OS X configuration profile: install it automatically (requires no interaction from the user) or make it available in Self Service. You can also specify the computers and users to which the profile should be applied (called “scope”).

## Payload Variables for OS X Configuration Profiles

There are several payload variables that you can use to populate settings in an OS X configuration profile with attribute values stored in the JSS. This allows you to create payloads containing information about each computer and user to which you are distributing the profile.

To use a payload variable, enter the variable into any text field when creating a configuration profile in the JSS. When the profile is installed on a computer, the variable is replaced with the value of the corresponding attribute in the JSS.

Variable	Computer Information
\$COMPUTERNAME	Computer Name
\$UDID	UDID
\$SERIALNUMBER	Serial Number
\$USERNAME	Username associated with the computer in the JSS (computer-level profiles only) Username of the user logging in to the computer (user-level profiles only)
\$FULLNAME or \$REALNAME	Full Name



Variable	Computer Information
\$EMAIL	Email Address
\$PHONE	Phone Number
\$ROOM	Room
\$POSITION	Position
\$MACADDRESS	MAC Address
\$EXTENSIONATTRIBUTE_<#>	Value for any LDAP attribute


**Note:** An \$EXTENSIONATTRIBUTE\_<#> variable is generated each time you create an extension attribute with the “LDAP Attribute Mapping” input type. For more information, see [Computer Extension Attribute Input Types](#).

## Requirements

To install an OS X configuration profile, you need:

- A push certificate in the JSS (For more information, see [Push Certificates](#).)
- The **Enable certificate-based authentication** and **Enable push notifications** settings configured in the JSS (For more information, see [Security Settings](#).)
- Computers with OS X v10.7 or later
- (User-level profiles only) Computers that are bound to a directory service or local user accounts that have been MDM-enabled (For information, see [Binding to Directory Services](#) and the [Enabling MDM for Local User Accounts Using Self Service](#) Knowledge Base article.)
- (User-level profiles only) Login hooks configured in your environment (For information on creating login hooks with the Casper Suite, see [Login and Logout Hooks](#).)

## Manually Creating an OS X Configuration Profile

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Configuration Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings, including the level at which to apply the profile and the distribution method.  
Only payloads and settings that apply to the selected level are displayed for the profile.
6. Use the rest of the payloads to configure the settings you want to apply.
7. Click the **Scope** tab and configure the scope of the profile.  
For more information, see [Scope](#).

8. (Optional) If you chose to distribute the profile in Self Service, click the **Self Service** tab to configure Self Service settings for the profile.  
For more information, see [Self Service Configuration Profiles](#).

9. Click **Save**.


For configuration profiles set to the “Install Automatically” distribution method, computer-level profiles are installed the next time computers in the scope check in with the JSS. User-level profiles are installed the next time users in the scope log in to their computers.

For configuration profiles set to the “Make Available in Self Service” distribution method, computer-level and user-level profile settings are applied when the user installs the profile from Self Service.

## Uploading an OS X Configuration Profile

You can create an OS X configuration profile by uploading a profile that was created using Apple’s Profile Manager.

**Note:** Some payloads and settings configured with Profile Manager are not displayed in the JSS. Although you cannot view or edit these payloads, they are still applied to computers and users.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Configuration Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Upload**  and upload the configuration profile (.mobileconfig).
5. Use the General payload to change or configure basic settings for the profile, including a distribution method.
6. Use the rest of the payloads to configure or edit settings as needed.
7. Click the **Scope** tab and configure the scope of the profile.  
For more information, see [Scope](#).
8. (Optional) If you chose to distribute the profile in Self Service, click the **Self Service** tab to configure Self Service settings for the profile.  
For more information, see [Self Service Configuration Profiles](#).
9. Click **Save**.

For configuration profiles set to the “Install Automatically” distribution method, computer-level profiles are installed the next time computers in the scope check in with the JSS. User-level profiles are installed the next time users in the scope log in to their computers.

For configuration profiles set to the “Make Available in Self Service” distribution method, computer-level and user-level profile settings are applied when the user installs the profile from Self Service.

## Cloning, Editing, or Deleting an OS X Configuration Profile

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Configuration Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the configuration profile you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the profile, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the profile, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the profile, click **Delete** and then click **Delete** again to confirm.

For computer-level profiles, the clone, edit, or delete action is applied to computers in the scope the next time they check in with the JSS. For user-level profiles, the clone, edit, or delete action is applied the next time users in the scope log in to their computers.

## Downloading an OS X Configuration Profile

If you want to view the contents of an OS X configuration profile for troubleshooting purposes, you can download the profile (.mobileconfig) from the JSS.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Configuration Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the configuration profile you want to download.
5. Click **Download**.

The profile downloads immediately.

## Related Information

For related information, see the following sections in this guide:

- [Viewing the Pending Management Commands for a Computer](#)  
Find out how to view and cancel pending OS X configuration profile installations and removals for a computer.
- [Viewing Management History for a Computer](#)  
Find out how to view all completed, pending, and failed OS X configuration profile installations and removals for a computer.
- [Viewing Configuration Profiles for a Computer](#)  
Find out how to view the OS X configuration profiles in the scope for a computer.
- [Self Service Configuration Profiles](#)  
Find out how to make OS X configuration profiles available in Self Service.

# OS X Remote Commands

The OS X remote commands available in the JAMF Software Server (JSS) allow you to remotely perform the following tasks on a computer:

- Lock a computer.
- Remove the MDM profile.
- Wipe a computer.
- Send a blank push notification.

You can send an OS X remote command to a single computer.

The following table describes the OS X remote commands that you can send from the JSS.


OS X Remote Command	Description
<b>Lock Computer</b>	Logs the user out of the computer, restarts the computer, and then locks the computer To unlock the computer, the user must enter the passcode that you specified when you sent the Lock Computer command.
<b>Remove MDM Profile</b>	Removes the MDM profile from the computer, along with any configuration profiles that were distributed with the Casper Suite If the MDM profile is removed, you can no longer send remote commands or distribute configuration profiles to the computer. <b>Note:</b> Removing the MDM profile from a computer does not remove the computer from the JSS or change its inventory information.
<b>Wipe Computer</b>	Permanently erases all data on the computer <b>Note:</b> Wiping a computer does not remove the computer from the JSS or change its inventory information. To restore the computer to the original factory settings, the user must enter the passcode that you specified when you sent the Wipe Computer command, and then reinstall the operating system. For detailed information on OS X Recovery, see the following Apple Knowledge Base article: <a href="https://support.apple.com/kb/HT4718">https://support.apple.com/kb/HT4718</a>
<b>Send Blank Push</b>	Sends a blank push notification, prompting the computer to check in with Apple Push Notification service (APNs)

## Requirements

To manage OS X remote commands, you need:


- Computers with OS X v10.7 or later and a Recovery Partition
- A push certificate in the JSS (For more information, see [Push Certificates](#).)
- The **Enable certificate-based authentication** and **Enable push notifications** settings configured in the JSS (For more information, see [Security Settings](#).)

## Sending an OS X Remote Command


1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to send the OS X remote command to.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **Management** tab, and then click the button for the remote command that you want to send.
  - If you are sending a Lock Computer command, type a password that the user must enter to unlock the computer.
  - If you are sending a Wipe Computer command, type a password that the user must enter to restore the computer.

The remote command runs on the computer the next time the computer checks in with the JSS.

## Viewing the Status of OS X Remote Commands

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view OS X remote commands for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab.
6. Use the Management History pane to view completed, pending, or failed commands.

## Canceling an OS X Remote Command

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer for which you want to cancel an OS X remote command.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click **Pending Commands**.
6. Find the command you want to cancel, and click **Cancel** across from it.

# Managing Scripts

The way you manage scripts depends on the way scripts are stored in your environment. There are two ways scripts can be stored:

- **As data in the jamfsoftware database**—Before you can run a script in this type of environment, the script must exist in the database. There are two ways to achieve this:
  - Add the script to Casper Admin
  - Add the script to the JSS using the script editor
- **As files on your distribution point(s)**—Before you can run a script in this type of environment, the script must exist on the distribution point you plan to deploy it from and in the JSS. You can add the script to the master distribution point by adding it to Casper Admin. Then you can add the script to other distribution points via replication.

**Note:** For more information on migrating the scripts on your master distribution point, see the following Knowledge Base article:

[Migrating Packages and Scripts](#)

Each of these methods also involves configuring settings for the script. When you configure settings for a script, you can do the following:

- Add the script to a category. (For more information, see [Categories](#).)
- Choose a priority for running the script during imaging.
- Enter parameter labels.
- Specify operating system requirements for running the script.

When you add, edit, or delete a script in Casper Admin, the changes are reflected in the JSS and vice versa.

## Requirements

To add a script to Casper Admin, the script file must be non-compiled and in one of the following formats:

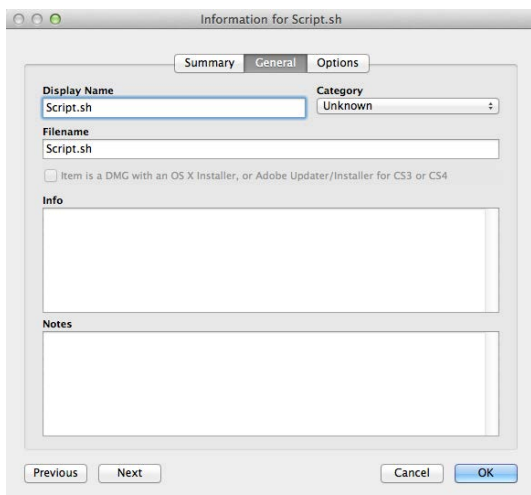
- Perl (.pl)
- Bash (.sh)
- Shell (.sh)
- Non-compiled AppleScript (.applescript)
- C Shell (.csh)
- Zsh (.zsh)
- Korn Shell (.ksh)
- Tool Command Language (.tcl)
- Hypertext Preprocessor (.php)
- Ruby (.rb)
- Python (.py)



## Adding a Script to Casper Admin

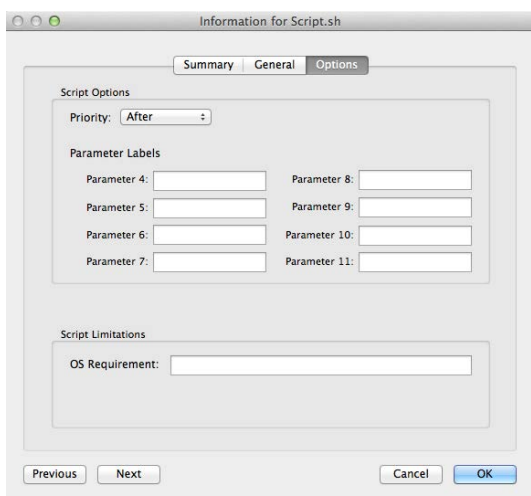
Adding a script to Casper Admin adds the script to the jamfsoftware database or the master distribution point, and to the JSS.

1. Open Casper Admin and authenticate to the JSS.
2. Drag the script to the main repository in Casper Admin.  
The script is displayed in blue text in the Unknown category until you add it to a category.
3. Double-click the script in the main repository.
4. Click the **General** tab and configure basic settings for the script, including the display name and category.



The screenshot shows the 'Information for Script.sh' dialog box with the 'General' tab selected. The 'Display Name' field contains 'Script.sh' and the 'Category' dropdown is set to 'Unknown'. The 'Filename' field also contains 'Script.sh'. There is a checkbox for 'Item is a DMG with an OS X Installer, or Adobe Updater/Installer for CS3 or CS4' which is currently unchecked. Below these are empty text areas for 'Info' and 'Notes'. At the bottom are 'Previous', 'Next', 'Cancel', and 'OK' buttons.

5. Click the **Options** tab and configure additional settings for the script, including the priority and parameter labels.






The screenshot shows the 'Information for Script.sh' dialog box with the 'Options' tab selected. The 'Script Options' section has a 'Priority' dropdown set to 'After'. The 'Parameter Labels' section contains ten input fields labeled 'Parameter 4' through 'Parameter 11'. The 'Script Limitations' section has an 'OS Requirement' input field. At the bottom are 'Previous', 'Next', 'Cancel', and 'OK' buttons.


6. Click **OK**.

## Adding a Script to the JSS

If your environment is one in which scripts are stored in the jamfsoftware database, you can add a script to the JSS using the script editor.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Scripts** .
5. Click **New** .
6. Use the General pane to configure basic settings for the script, including the display name and category.  
**Note:** If you do not add the script to a category, Casper Admin displays the script in blue text in the Unknown category.
7. Click the **Script** tab and enter the script contents in the script editor.
8. Click the **Options** tab and configure additional settings for the script, including the priority.
9. (Optional) Click the **Limitations** tab and configure operating system requirements for the script.
10. Click **Save**.



## Editing or Deleting a Script Using Casper Admin

1. Open Casper Admin and authenticate to the JSS.
2. In the main repository, select the script you want to edit or delete.
3. Do one of the following:
  - To edit the script, double-click it and make changes as needed. Then click **OK**.
  - To delete the script, click **Delete**  and then click **Delete** again to confirm.

If the script is stored in the jamfsoftware database, the edit or delete action is applied immediately.

If the script is stored on your distribution point(s), the edit or delete action is applied immediately on the master distribution point. The action is applied to your other distribution points when replication occurs.

## Cloning, Editing, Deleting a Script Using the JSS

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings**  .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Scripts**  .
5. Click the script you want to edit or delete.
6. Do one of the following:
  - To clone the script, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the script, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the script, click **Delete** and then click **Delete** again to confirm.

If the script is stored in the jamfsoftware database, the clone, edit, or delete action is applied immediately.

If the script is stored on your distribution point(s), the clone, edit, or delete action is applied immediately on the master distribution point. The action is applied to your other distribution points when replication occurs.

## Related Information

For related information, see the following section in this guide:

### [Running Scripts](#)

Find out how to run scripts using a policy or Casper Remote.

# Running Scripts


When you run a script, you can choose a priority for running the script. You can also enter parameter values for the script.

There are two ways to run scripts on computers: using a policy or using Casper Remote.

## Requirements

To run a script on computers, the script must exist on the distribution point you plan to deploy it from and in the JSS, or in the jamfsoftware database. (For more information, see [Managing Scripts](#).)

## Running a Script Using a Policy

1. Log in to the JSS with a web browser.
2. Click the **Computers** tab at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Scripts payload and click **Configure**.
7. Click **Add** for the script you want to run.
8. Configure the settings for the script.
9. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
10. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
11. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
12. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
13. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

## Running a Script Using Casper Remote

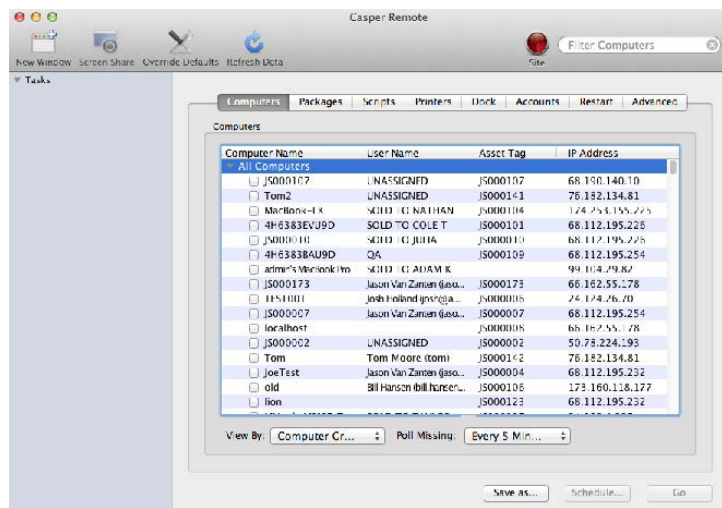
1. Open Casper Remote and authenticate to the JSS.

2. Click **Site**  and choose a site.

This determines which items are available in Casper Remote.

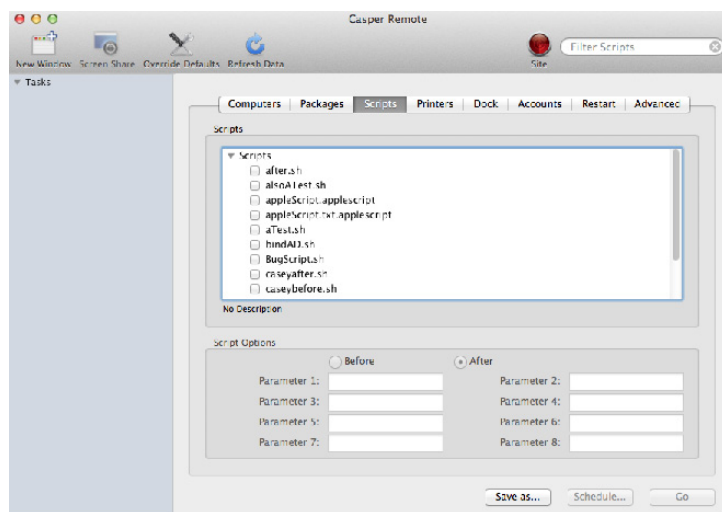
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.

3. In the list of computers, select the checkbox for each computer on which you want to run the script.



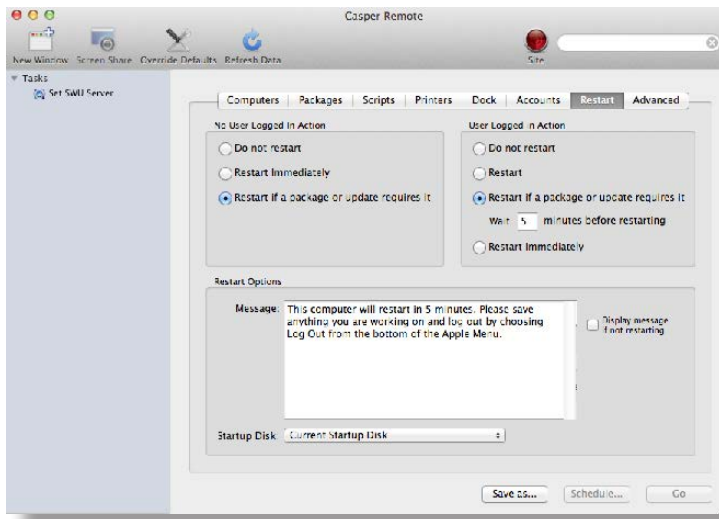
4. Click the **Scripts** tab.

5. In the list of scripts, select the checkbox for the script you want to run.



6. Configure the settings for the script.

7. Click the **Restart** tab and configure settings for restarting computers.



8. Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create policies, view the plan and status for a policy, and view and flush policy logs.

# Managing Printers

Adding printers to Casper Admin or the JAMF Software Server (JSS) is the first step to administering printers on computers.

When you add a printer to Casper Admin, you choose from a list of printers that are on the computer running Casper Admin. When you add a printer to the JSS, you manually specify information about the printer, such as the CUPS name and device URI.


When you add, edit, or delete a printer in Casper Admin, the changes are reflected in the JSS and vice versa.

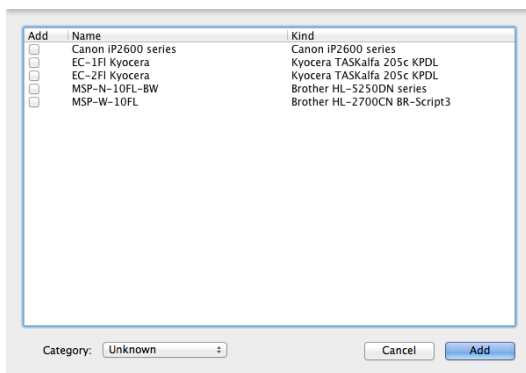
When you configure a printer, you can do the following:

- Add the printer to a category.
- Choose whether or not the printer is set as the default when mapped during imaging.
- Specify an operating system requirement for mapping the printer.

## Adding a Printer to Casper Admin

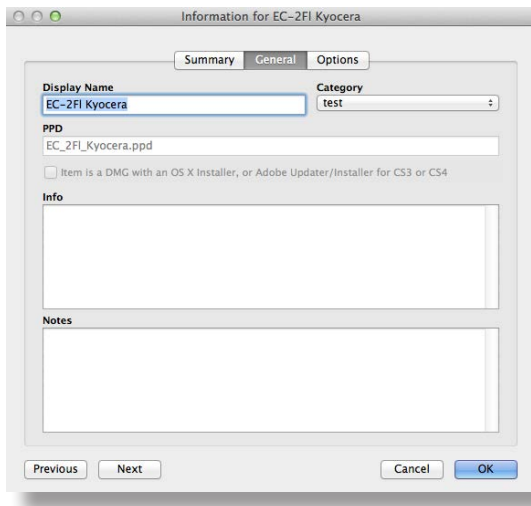
Several settings in Casper Admin have tool tips. To read more about a specific setting, hover your mouse over it until a tool tip is displayed.

1. Open Casper Admin and authenticate to the JSS.
2. Click **Add Printers** .
3. If prompted, authenticate locally.
4. Select the checkbox next to each printer you want to add.

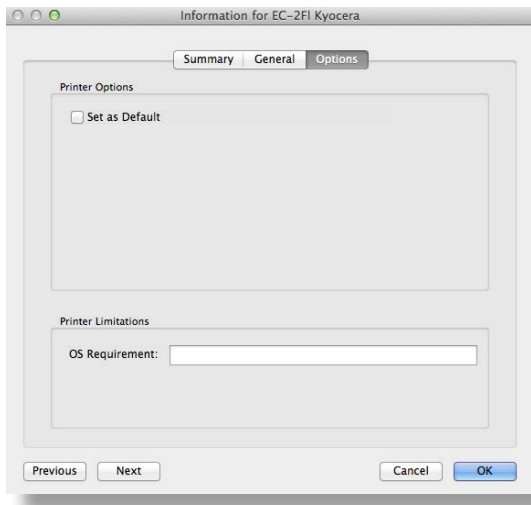


5. (Optional) Choose a category to add printer(s) to.
6. Click **Add**.
7. Select the printer in the main repository and double-click it.

- Click the **General** tab and configure basic settings for the printer, including the display name and category.





- Click the **Options** tab.
- Choose whether or not the printer is set as the default when mapped during imaging, and configure the operating system requirement.




- Click **OK**.

## Adding a Printer to the JSS


- Log in to the JSS with a web browser.
- In the top-right corner of the page, click **Settings** .
- Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
- In the "Computer Management" section, click **Printers** .





5. Click **New** .
6. Use the General pane to configure basic settings for the printer, including the display name and category.
7. Click the **Definition** tab and specify information about the printer, including the CUPS name and device URI.
8. (Optional) Click the **Limitations** tab and specify an operating system requirement.
9. Click **Save**.

## Editing or Deleting a Printer in Casper Admin

Several settings in Casper Admin have tool tips. To read more about a specific setting, hover your mouse over it until a tool tip is displayed.

1. Open Casper Admin and authenticate to the JSS.
2. In the main repository, select the printer you want to edit or delete.
3. Do one of the following:
  - To edit the printer, double-click it and make changes as needed. Then click **OK**.
  - To delete the printer, click **Delete**  and then click **Delete** again to confirm.

## Cloning, Editing, or Deleting a Printer in the JSS

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Printers** .
5. Click the printer you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the printer, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the printer, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the printer, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

[Administering Printers](#)

Find out how to map and unmap printers using a policy or Casper Remote.

# Administering Printers

There are two ways to map or unmap printers on computers: using a policy or using Casper Remote.


**Note:** You can also map printers during imaging. For more information, see [Configurations](#).

When you map a printer, you can choose whether or not to make the printer the default.

## Requirements

To map or unmap a printer, the printer must be added to Casper Admin or the JSS. (For more information, see [Managing Printers](#).)


## Mapping or Unmapping a Printer Using a Policy

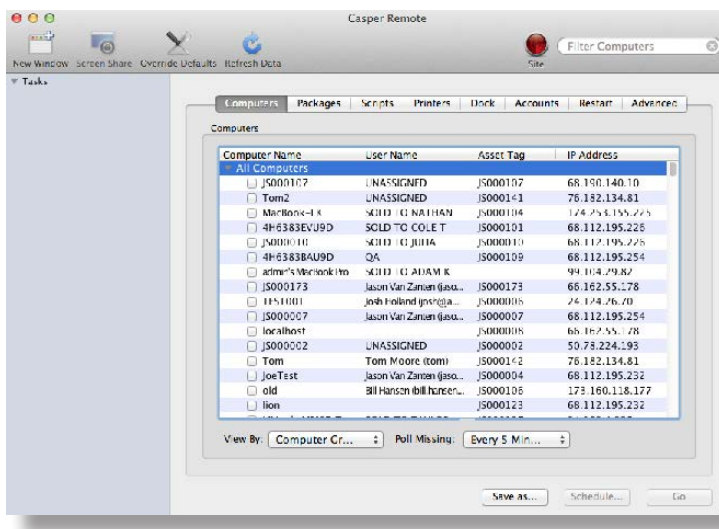
1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Printers payload and click **Configure**.
7. Click **Add** across from the printer you want to map or unmap.
8. Choose "Map" or "Unmap" from the **Action** pop-up menu.
9. (Optional) If you are mapping the printer, make it the default printer by selecting the **Set as Default** checkbox.
10. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
11. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
12. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).

- (Optional) Click the **User Interaction** tab and configure messaging and deferral options. For more information, see [User Interaction](#).
- Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

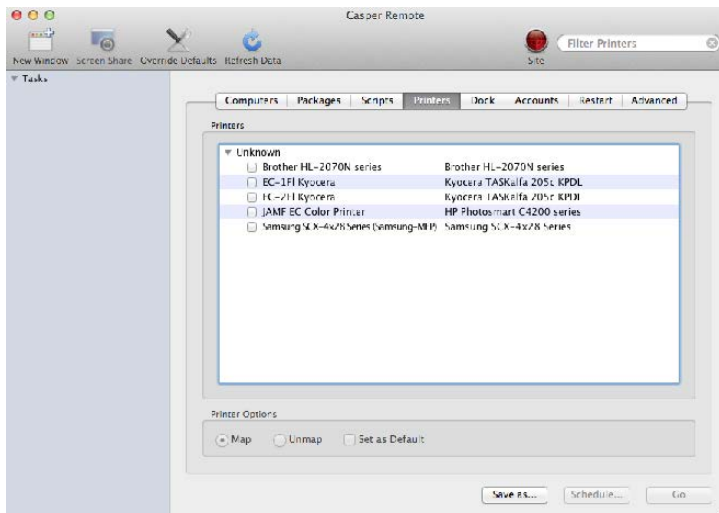
## Mapping or Unmapping a Printer Using Casper Remote

- Open Casper Remote and authenticate to the JSS.
- Click **Site**  and choose a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
- In the list of computers, select the checkbox for each computer on which you want to map or unmap the printer.

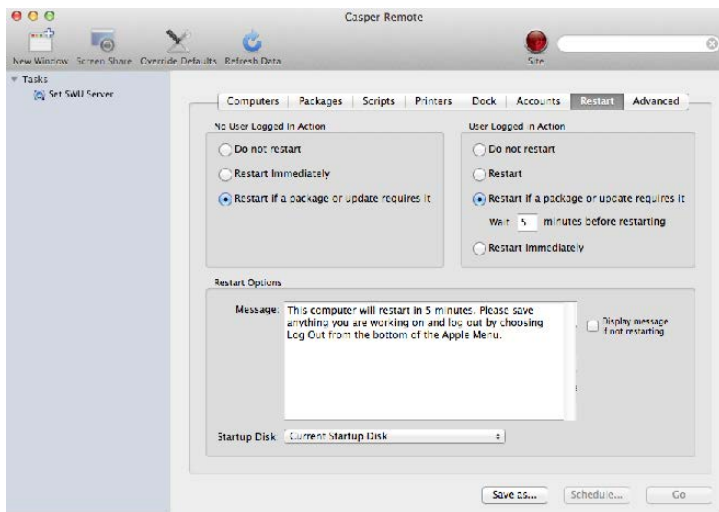


- Click the **Printers** tab.

- In the list of printers, select the checkbox for the printer you want to map or unmap.



- Select the **Map** or **Unmap** option.
- (Optional) Make the printer the default by selecting the **Set as Default** checkbox.
- Click the **Restart** tab and configure settings for restarting computers.



- Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [Smart Computer Groups](#)  
You can create smart computer groups based on mapped printers.
- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create policies, view the plan and status of a policy, and view and flush policy logs.


# Managing Dock Items

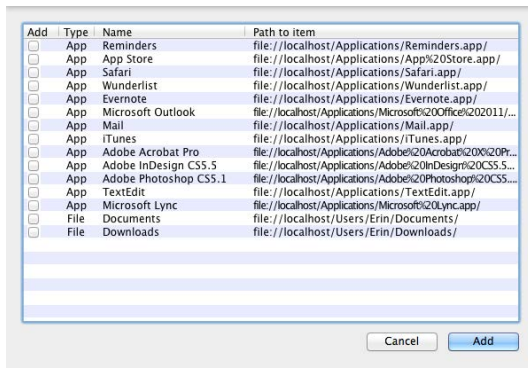
Adding Dock items to Casper Admin or the JAMF Software Server (JSS) is the first step to administering Dock items on computers.

When you add a Dock item to Casper Admin, you choose from a list of Dock items that are on the computer running Casper Admin. When you add a Dock item to the JSS, you manually specify information about the Dock item.

When you add, edit, or delete a Dock item in Casper Admin, the changes are reflected in the JSS and vice versa.



## Adding a Dock Item to Casper Admin


1. Open Casper Admin and authenticate to the JSS.
2. Click **Add Dock Items** .
3. Select the checkbox next to each Dock item you want to add.




4. Click **Add**.

## Adding a Dock Item to the JSS



1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management" section, click **Dock Items** .

5. Click **New** .
6. Configure the Dock item using the settings on the pane.
7. Click **Save**.

## Deleting a Dock Item in Casper Admin

1. Open Casper Admin and authenticate to the JSS.
2. In the main repository, select the Dock item you want to delete.
3. Click **Delete**  and then click **Delete** again to confirm.

## Cloning, Editing, or Deleting a Dock Item in the JSS

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Dock Items** .
5. Click the Dock item you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the Dock item, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the Dock item, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the Dock item, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

[Administering Dock Items](#)

Find out how to add and remove Dock items using a policy or Casper Remote.

# Administering Dock Items


There are two ways to add or remove Dock items on computers: using a policy or using Casper Remote.

When you add a Dock item on computers, you can choose whether to add it to the beginning or the end of the Dock.

## Requirements

To add or remove a Dock item on computers, the Dock item must be added to Casper Admin or the JSS. (For more information, see [Managing Dock Items](#).)

## Adding or Removing a Dock Item Using a Policy


1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Dock Items payload and click **Configure**.
7. Click **Add** for the Dock item you want to add or remove.
8. Choose "Add to Beginning of Dock", "Add to End of Dock", or "Remove from Dock" from the **Action** pop-up menu.
9. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
10. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
11. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
12. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).



13. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

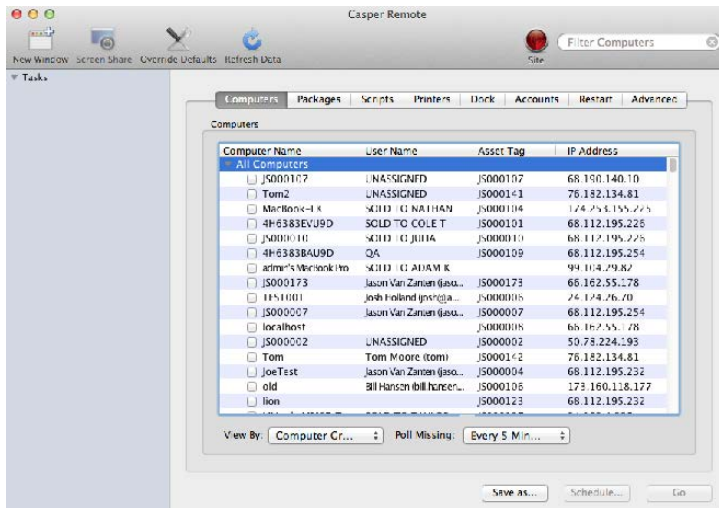
## Adding or Removing a Dock Item Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site.

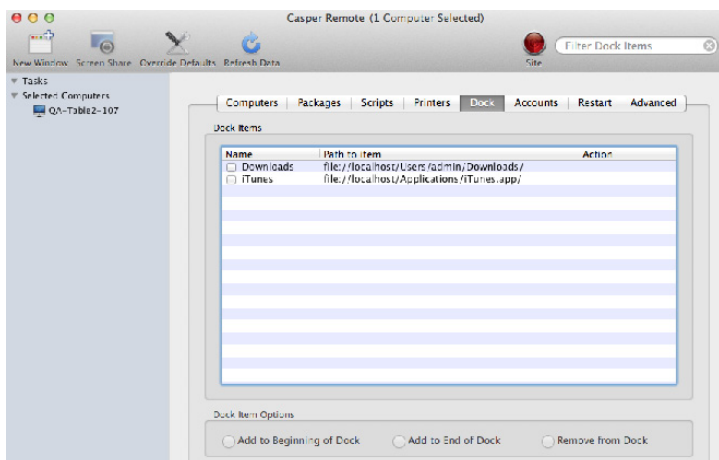
This determines which items are available in Casper Remote.

**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.

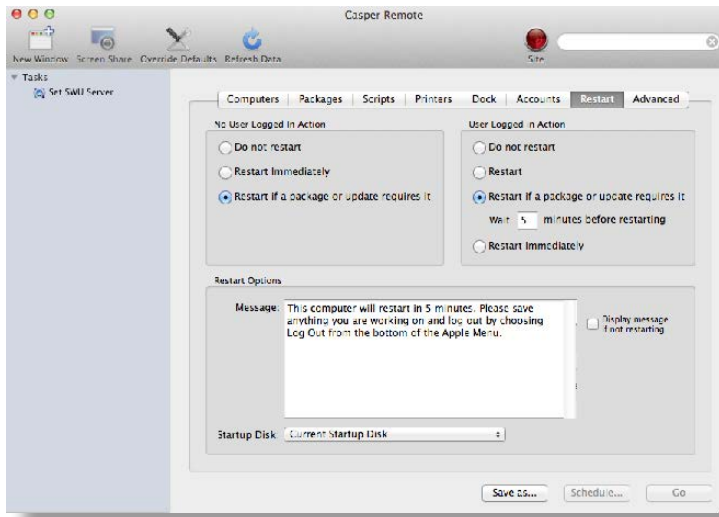
3. In the list of computers, select the checkbox for each computer on which you want to add or remove the Dock item.



4. Click the **Dock** tab.
5. In the list of Dock items, select the checkbox for the Dock item you want to add or remove.



6. Select the **Add to Beginning of Dock**, **Add to End of Dock**, or **Remove from Dock** option.
7. Click the **Restart** tab and configure settings for restarting computers.



8. Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create policies, view the plan and status of a policy, and view and flush policy logs.

# Administering Local Accounts

You can perform the following local account administration tasks using a policy or Casper Remote:

- Create a new account.
- Delete an existing account.
- Reset the password for an existing account.
- (Policy only) Disable an existing account for FileVault 2 on computers with OS X v10.9 or later.

When you create a new account, you can do the following:

- Specify the password and password hint.
- Specify a location for the home directory.
- Configure the account picture.
- Give the user administrator privileges to the computer.
- (Policy only) Enable the account for FileVault 2 on computers with OS X v10.9 or later.


When you delete an existing account, you can permanently delete the home directory or specify an archive location.

## Requirements

To enable a new account for FileVault 2, the computer must have OS X v10.9 or later and have an existing, valid individual recovery key that matches the recovery key stored in the JSS.

To disable an existing account for FileVault 2, the computer must have OS X v10.9 or later.


## Administering Local Accounts Using a Policy

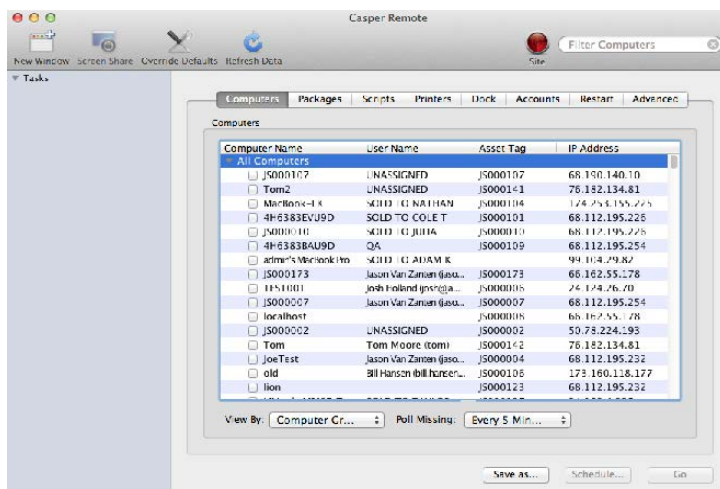
1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Local Accounts payload and click **Configure**.
7. Choose an action from the **Action** pop-up menu.

8. Configure the action using the options on the pane.
9. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
10. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
11. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
12. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
13. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

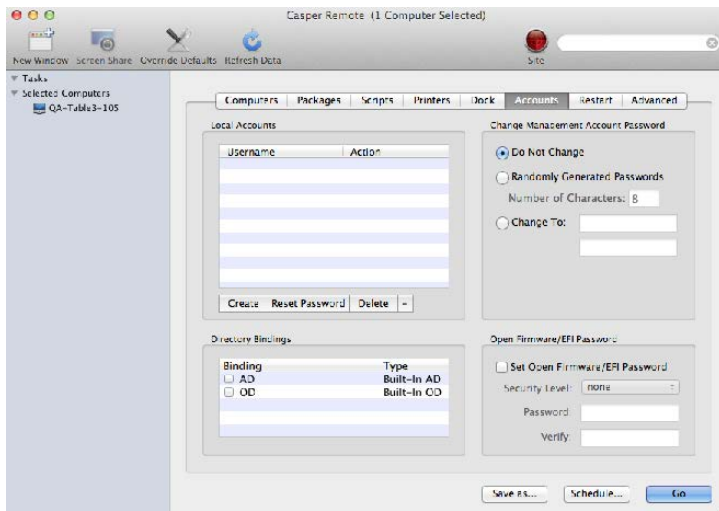
## Administering Local Accounts Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer on which you want to administer local accounts.

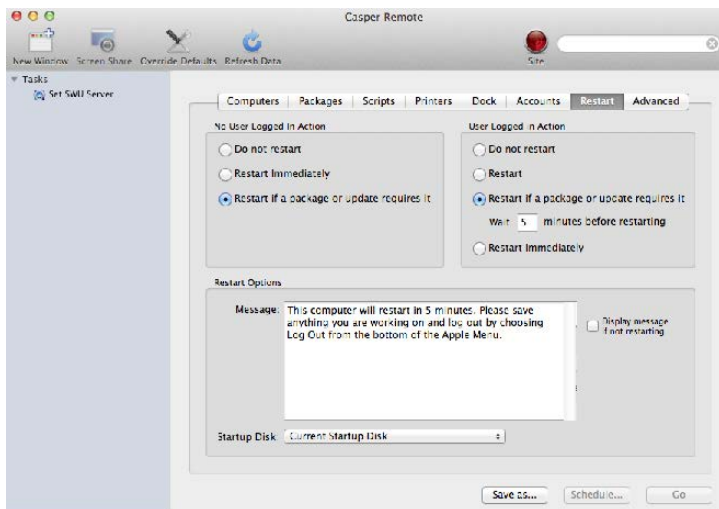


4. Click the **Accounts** tab.

5. Click **Create**, **Reset Password**, or **Delete**.



6. Configure the action using the options in the window that appears.
7. Click the **Restart** tab and configure settings for restarting computers.



8. Do one of the following:
- To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [Smart Computer Groups](#)  
You can create smart computer groups based on local user accounts.
- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create a policy, view the plan and status of a policy, and view and flush policy logs.
- [Administering the Management Account](#)  
Find out how to reset the management account password, and enable or disable the management account for FileVault 2.

# Administering the Management Account


You can reset the management account password using a policy or Casper Remote. You can also enable or disable the management account for FileVault 2 using a policy.

## Requirements

To enable the management account for FileVault 2, the computer must have OS X v10.9 or later and have an existing, valid individual recovery key that matches the recovery key stored in the JSS.

To disable the management account for FileVault 2, the computer must have OS X v10.9 or later.

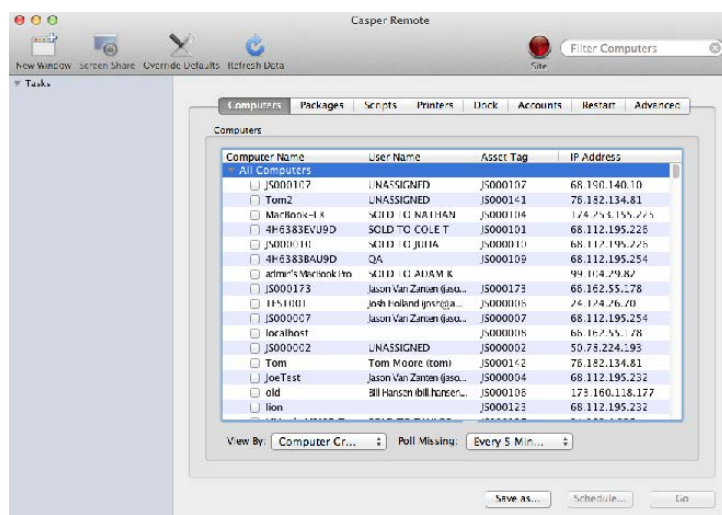
## Resetting the Management Account Password Using a Policy

1. Log in to the JSS with a web browser.
2. Click the **Computers** tab at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Management Account payload and click **Configure**.
7. Choose "Specify new password" or "Randomly generate new passwords" from the **Action** pop-up menu.
8. Configure the action using the options on the pane.
9. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
10. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
11. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
12. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
13. Click **Save**.

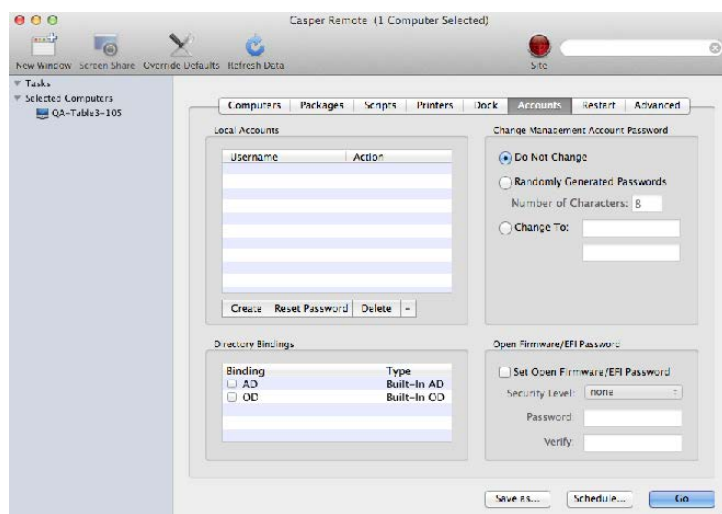
The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

# Resetting the Management Account Password Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site** and select a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer on which you want to administer local accounts.

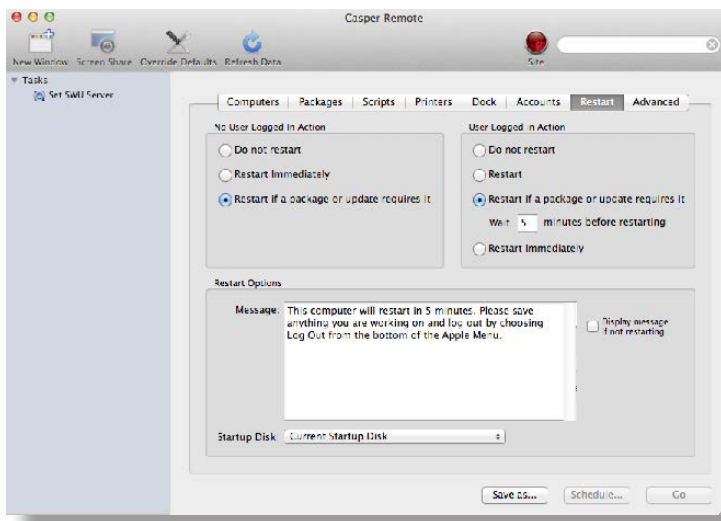


4. Click the **Accounts** tab.
5. Do one of the following:
  - To randomly generate new passwords, select **Randomly Generated Passwords** and enter the number of characters required.
  - To specify a new password, select **Change To** and enter the new password.






6. Click the **Restart** tab and configure settings for restarting computers.



7. Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Enabling or Disabling the Management Account for FileVault 2

You can enable or disable the management account for FileVault 2 on computers with OS X v10.9 or later. To enable the account for FileVault 2, the computer must have an individual recovery key.

1. Log in to the JSS with a web browser.
2. Click the **Computers** tab at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Management Account payload and click **Configure**.
7. Choose "Enable User for FileVault 2" or "Disable User for FileVault 2" from the **Action** pop-up menu.
8. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
9. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).

10. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
11. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
12. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

## Related Information

For related information, see the following sections in this guide:

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create a policy, view the plan and status of a policy, and view and flush policy logs.




# Managing Directory Bindings

Adding a directory binding to the JAMF Software Server (JSS) is the first step to binding computers to a directory service.



You can add the following types of directory bindings to the JSS:

- OS X Directory Utility–Active Directory
- OS X Directory Utility–Open Directory
- PowerBroker Identity Services (formerly called “Likewise”)
- ADmitMac
- Centrify

## Adding a Directory Binding

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Directory Bindings** .
5. Click **New** .
6. Choose the type of directory binding you want to add and click **Next**.
7. Configure the directory binding using the tabs and options provided.  
The tabs and options provided match the ones in the third-party directory service software.
8. Click **Save**.

## Cloning, Editing, or Deleting a Directory Binding

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Directory Bindings** .
5. Click the directory binding you want to clone, edit, or delete.

6. Do one of the following:
  - To clone the directory binding, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the directory binding, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the directory binding, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

[Binding to Directory Services](#)

Find out how to bind computers to a directory service using a policy or Casper Remote.

# Binding to Directory Services


You can bind computers to a directory service using a policy or Casper Remote.

**Note:** You can also bind to directory services during imaging. For more information, see [Configurations](#).

## Requirements


To bind computers to a directory service, you need a directory binding in the JSS. (For more information, see [Managing Directory Bindings](#).)

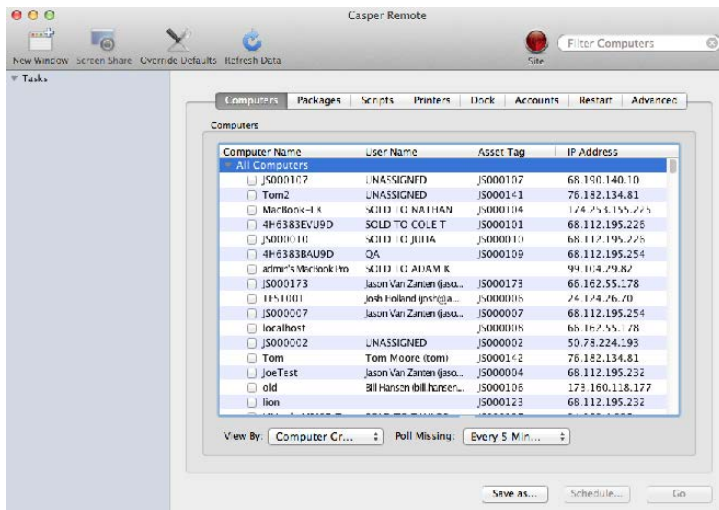
## Binding to a Directory Service Using a Policy

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Directory Bindings payload and click **Configure**.
7. Click **Add** for the directory service you want to bind to.
8. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
9. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
10. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
11. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
12. Click **Save**.

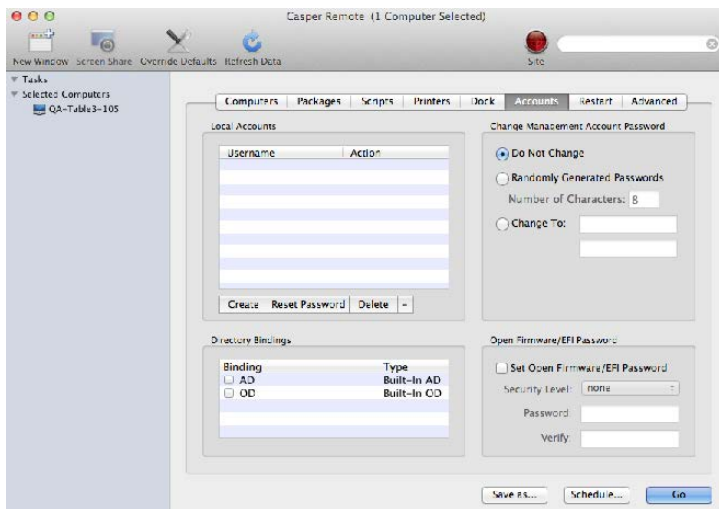
The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

## Binding to a Directory Service Using Casper Remote

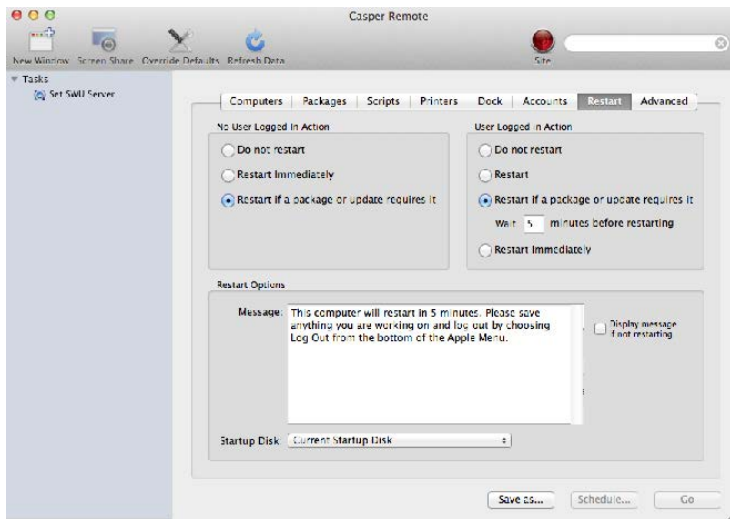
1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer you want to bind to the directory service.



4. Click the **Accounts** tab.
5. In the list of directory bindings, select the checkbox for the directory service that you want to bind to.



6. Click the **Restart** tab and configure settings for restarting computers.



7. Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide.

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create a policy, view the plan and status of a policy, and view and flush policy logs.

# Managing Disk Encryption Configurations

Creating a disk encryption configuration in the JAMF Software Server (JSS) is the first step to activating FileVault 2 on computers with OS X v10.8 or later.

When you create a disk encryption configuration, you specify the following information:



- The type of recovery key to use for recovering encrypted data. There are three recovery key options you can choose from:
  - **Individual** (also known as “Personal”)—Uses a unique alphanumeric recovery key for each computer. The individual recovery key is generated on the computer and sent back to the JSS for storage when the encryption takes place.
  - **Institutional**—Uses a shared recovery key. This requires you to create the recovery key with Keychain Access and upload it to the JSS for storage.
  - **Individual and Institutional**—Uses both types of recovery keys.
- The user for which to enable FileVault 2
  - **Management Account**—Makes the management account on the computer the enabled FileVault 2 user.
  - **Current or Next User**—Makes the user that is logged in to the computer when the encryption takes place the enabled FileVault 2 user. If no user is logged in, the next user to log in becomes the enabled FileVault 2 user.

**Note:** If you make the management account the enabled FileVault 2 user on computers with OS X v10.9 or later, you will be able to issue a new recovery key to those computers later if necessary. (For more information, see [Issuing a New FileVault 2 Recovery Key](#).)


## Requirements

To use either the “Institutional” recovery key or the “Individual and Institutional” recovery key options in the disk encryption configuration, you must first create and export a recovery key using Keychain Access. (For more information, see the [Creating and Exporting an Institutional Recovery Key](#) Knowledge Base article.)



## Creating a Disk Encryption Configuration

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Disk Encryption Configurations** .



5. Click **New** .
6. Configure the disk encryption configuration using the fields and options on the pane.
7. Click **Save**.

## Cloning, Editing, or Deleting a Disk Encryption Configuration

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Disk Encryption Configurations** .
5. Click the disk encryption configuration you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the configuration, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the configuration, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the configuration, click **Delete**, and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

### [Deploying Disk Encryption Configurations](#)

Find out how to activate FileVault 2 by deploying a disk encryption configuration using a policy or Casper Remote.

# Deploying Disk Encryption Configurations


Deploying disk encryption configurations allows you to activate FileVault 2 on computers with OS X v10.8 or later. There are two ways to deploy a disk encryption configuration: using a policy or using Casper Remote.

The event that activates FileVault 2 depends on the enabled FileVault 2 user specified in the disk encryption configuration. If the enabled user is "Management Account", FileVault 2 is activated on a computer the next time the computer restarts. If the enabled user is "Current or Next User", FileVault 2 is activated on a computer the next time the current user logs out or the computer restarts. In addition, if you are deploying a disk encryption configuration using a policy, you can configure the policy to defer FileVault 2 enablement until after multiple user logins have occurred.

## Requirements


To activate FileVault 2 on a computer, the computer must be running OS X v10.8 or later and have a "Recovery HD" partition.

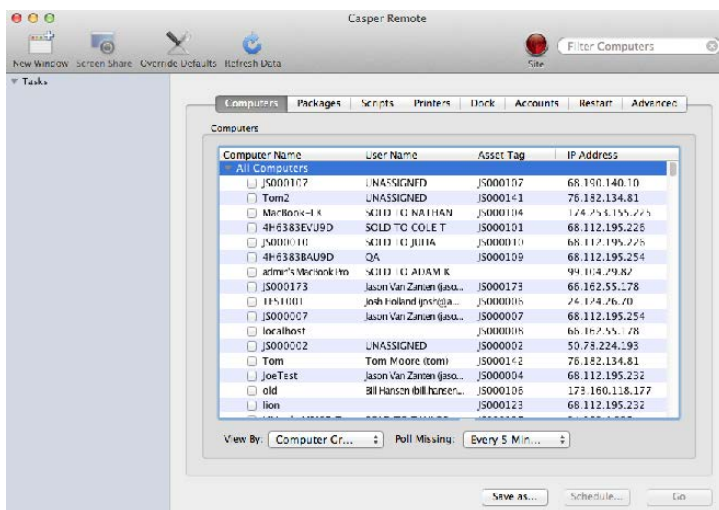
## Deploying a Disk Encryption Configuration Using a Policy

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Disk Encryption payload and click **Configure**.
7. Choose "Apply Disk Encryption Configuration" from the **Action** pop-up menu.
8. Choose the disk encryption configuration you want to deploy from the **Disk Encryption Configuration** pop-up menu.  
**Note:** Options are only displayed in the **Disk Encryption Configuration** pop-up menu if one or more configurations are configured in the JSS. For more information, see [Managing Disk Encryption Configurations](#).
9. Choose an event from the **Require FileVault 2** pop-up menu to specify when users must enable disk encryption.

10. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
11. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
12. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
13. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
14. Click **Save**.

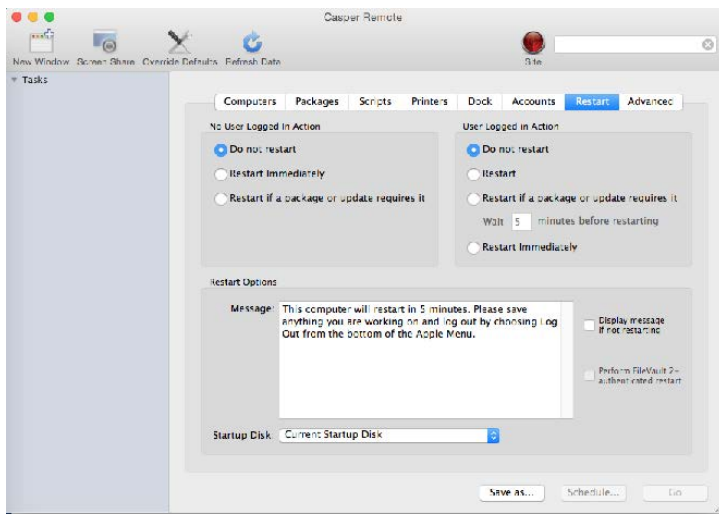
## Deploying a Disk Encryption Configuration Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer to which you want to deploy the disk encryption configuration.



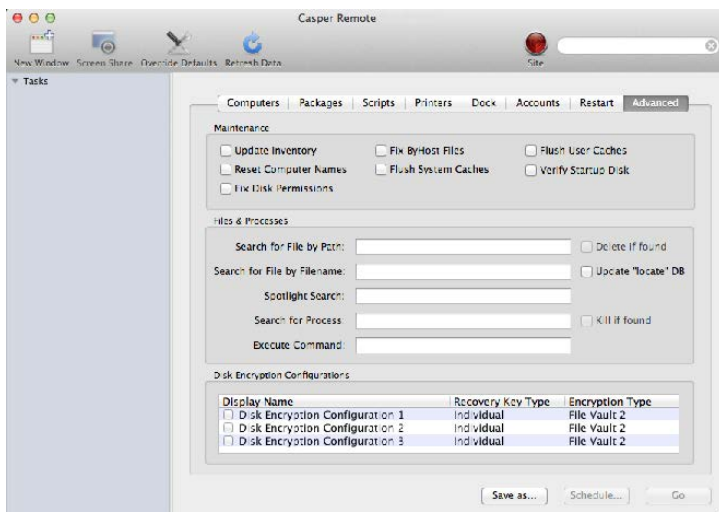
4. Click the **Restart** tab and configure settings for restarting computers.

If you want to perform an authenticated restart on computers enabled with FileVault 2, select **Perform FileVault 2-authenticated restart**. This is applicable to computers with OS X v10.8.2 or later.



5. Click the **Advanced** tab.
6. In the list of disk encryption configurations, select the checkbox next to the configuration you want to deploy.

**Note:** Disk encryption configurations are only displayed in the list if one or more disk encryption configurations are configured in the JSS. For more information, see [Managing Disk Encryption Configurations](#).



7. Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [Viewing the FileVault 2 Recovery Key for a Computer](#)  
Find out how to view the FileVault 2 recovery key(s) for a computer.
- [Smart Computer Groups](#)  
You can create smart computer groups based on criteria for FileVault 2.
- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create a policy, view the plan and status of a policy, and view and flush policy logs.

For related information, see the following Knowledge Base article:

[Smart Group and Advanced Search Criteria for FileVault 2 and Legacy FileVault](#)

Learn about the smart computer group and advanced computer search criteria available for FileVault 2.

For related information, see the following Apple Knowledge Base article:

<http://support.apple.com/en-us/HT202918>

Find out how OS X computers can be used with authenticated restart.

# Issuing a New FileVault 2 Recovery Key

You can issue a new FileVault 2 recovery key to computers with OS X v10.9 or later that have FileVault 2 activated. This allows you to do the following:

- Update the recovery key on computers on a regular schedule, without needing to decrypt and then re-encrypt the computers.
- Replace an individual recovery key that has been reported as invalid and does not match the recovery key stored in the JAMF Software Server (JSS).

**Note:** You can create a smart group to verify the recovery key on computers on a regular basis. For information on FileVault 2 smart group criteria, see the following Knowledge Base article:

[Smart Group and Advanced Search Criteria for FileVault 2 and Legacy File Vault](#)

You can issue a new FileVault 2 recovery key to computers using a policy.

## Requirements


To issue a new individual recovery key to a computer, the computer must have:

- OS X v10.9 or later
- A "Recovery HD" partition
- FileVault 2 activated
- One of the following two conditions met:
  - The management account configured as the enabled FileVault 2 user
  - An existing, valid individual recovery key that matches the key stored in the JSS

To issue a new institutional recovery key to a computer, the computer must have:

- OS X v10.9 or later
- A "Recovery HD" partition
- FileVault 2 activated
- The management account configured as the enabled FileVault 2 user

## Issuing a New FileVault 2 Recovery Key

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .

5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Disk Encryption payload and click **Configure**.
7. Choose "Issue New Recovery Key" from the **Action** pop-up menu.
8. Select the type of recovery key you want to issue:
  - **Individual**—A new individual recovery key is generated on each computer and then submitted to the JSS for storage.
  - **Institutional**—A new institutional recovery key is deployed to computers and stored in the JSS.  
To issue a new institutional recovery key, you must choose the disk encryption configuration that contains the institutional recovery key you want to use.
  - **Individual and Institutional**—Issues both types of recovery keys to computers.
9. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
10. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
11. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
12. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
13. Click **Save**.

## Related Information

For related information, see the following sections in this guide:

- [Viewing the FileVault 2 Recovery Key for a Computer](#)  
Find out how to view the FileVault 2 recovery key(s) for a computer.
- [Smart Computer Groups](#)  
You can create smart computer groups based on criteria for FileVault 2.
- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create a policy, view the plan and status of a policy, and view and flush policy logs.

For related information, see the following Knowledge Base article:

[Smart Group and Advanced Search Criteria for FileVault 2 and Legacy FileVault](#)

Learn about the smart computer group and advanced computer search criteria available for FileVault 2.

# Administering Open Firmware/EFI Passwords


You can administer Open Firmware or EFI passwords to ensure the security of managed computers.

There are two ways to set and remove an Open Firmware/EFI password: using a policy or using Casper Remote.

## Requirements

If you are setting or removing an Open Firmware/EFI password on models "Late 2010" or later, the "setregproptool" must be present on the volume(s) used to set firmware. (For more information, see the [Setting EFI Passwords on Mac Computers \(Models Late 2010 or Later\)](#) Knowledge Base article.)

## Setting or Removing an Open Firmware/EFI Password Using a Policy


1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the EFI Password payload and click **Configure**.
7. Do one of the following:
  - To set an Open Firmware/EFI password, choose "Command" from the pop-up menu and enter and verify the password.
  - To remove an Open Firmware/EFI password, choose "None" from the pop-up menu.
8. Use the Restart Options payload to configure settings for restarting computers.  
For more information, see [Restart Options Payload](#).
9. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).

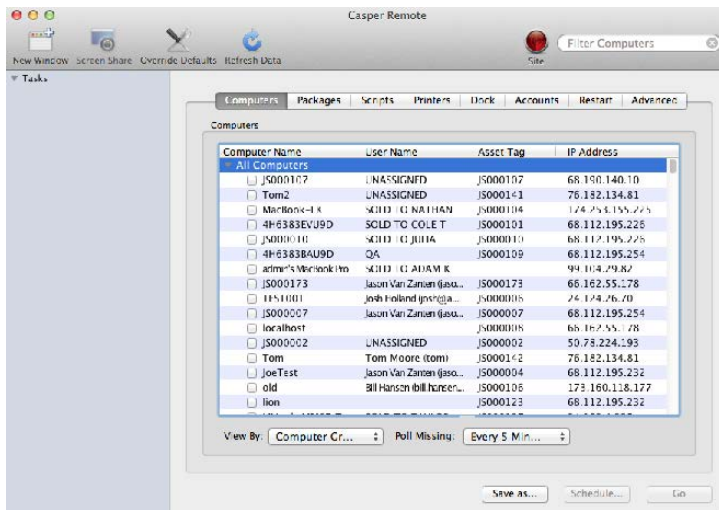


10. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
11. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
12. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

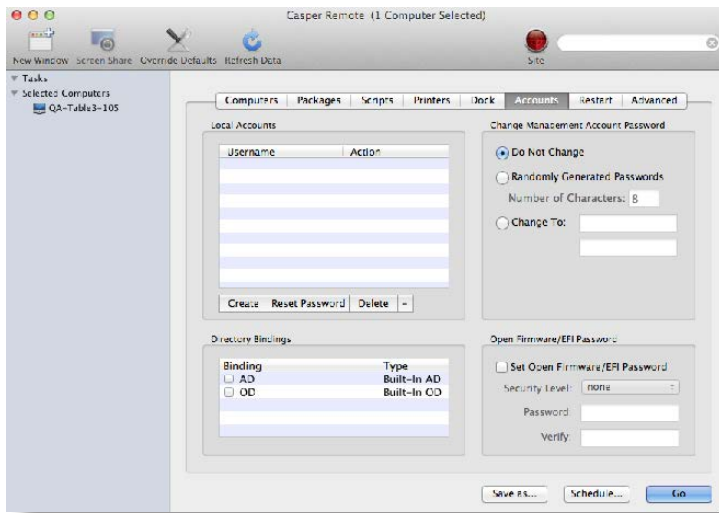
## Setting or Removing an Open Firmware/EFI Password Using Casper Remote

1. Open Casper Remote and authenticate to the JSS.
2. Click **Site**  and choose a site.  
This determines which items are available in Casper Remote.  
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.
3. In the list of computers, select the checkbox for each computer on which you want to set or remove an Open Firmware/EFI password.



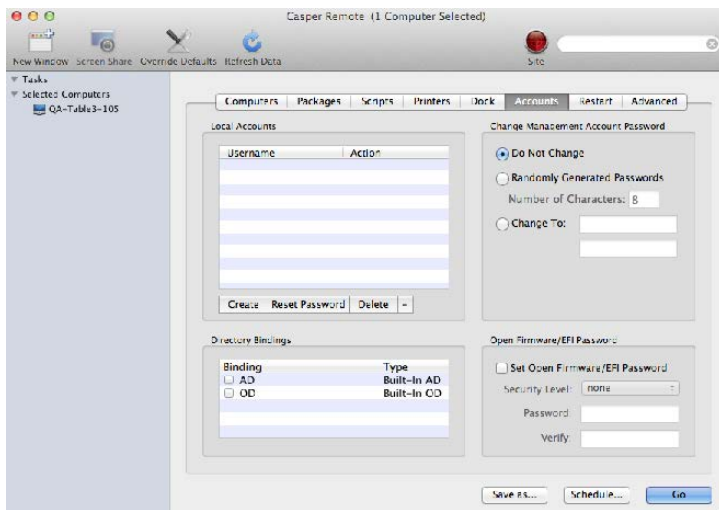
4. Click the **Accounts** tab.

5. Select the **Set Open Firmware/EFI Password** checkbox.

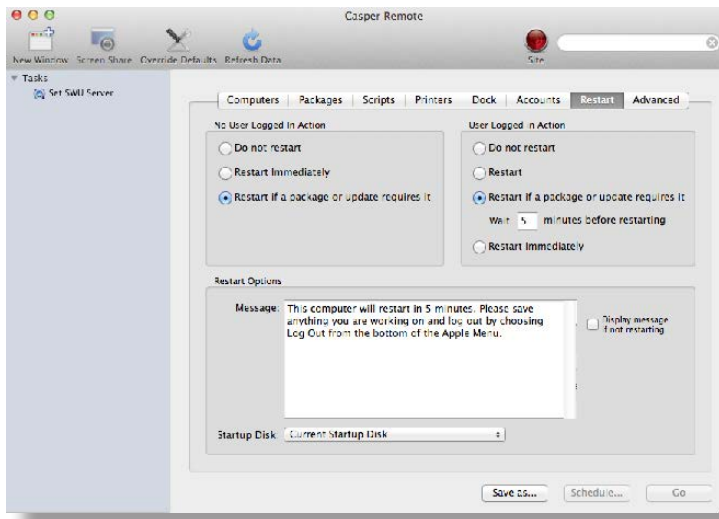


6. Do one of the following:

- To set the password, choose "command" from the **Security Level** pop-up menu and enter and verify the password.
- To remove the password, choose "none" from the **Security Level** pop-up menu.



7. Click the **Restart** tab and configure settings for restarting computers.



8. Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create a policy, view the plan and status of a policy, and view and flush policy logs.

---

# Imaging

## About Imaging

Imaging computers with the Casper Suite involves booting computers to a startup disk other than the target drive and then using the Casper Imaging application to deploy a configuration.

Some common startup disks used for imaging are USB or FireWire drives, Restore partitions, and NetBoot images.

There are four imaging methods:

- **Standard imaging**—Standard imaging allows you to configure the imaging settings for a computer at imaging time.
- **Autorun imaging**—Autorun imaging allows you to store imaging settings in the JAMF Software Server (JSS), so they don't have to be configured at imaging time. In addition, Autorun imaging can be completely automated to run on a schedule.
- **PreStage imaging**—PreStage imaging allows you to store imaging settings in the JSS and use them to image new computers as you add them to the network. This reduces the amount of time and interaction it takes to prepare new computers for use.
- **Target Mode Imaging (TMI)**—TMI allows you to image multiple computers subsequently by connecting them to a host computer using a Firewire or Thunderbolt cable. This can be ideal when using a network connection is not optimal, such as when imaging MacBook Airs that do not have built-in ethernet.

## Related Information

For more information, see the following sections in this guide:

- [Configurations](#)  
Learn about configurations and find out how to create them.
- [Standard Imaging](#)  
Find out how to image computers using standard imaging.

- [Autorun Imaging](#)  
Find out how to image computers using Autorun imaging.
- [PreStage Imaging](#)  
Find out how to image computers using PreStage imaging.
- [Target Mode Imaging](#)  
Find out how to image computers using TMI.

For related information, see the following Knowledge Base article:

[Creating a NetBoot Image and Setting Up a NetBoot Server](#)

# Configurations

Configurations are modular images that allow you to quickly specify what needs to be installed and configured on computers during imaging. Unlike standard images, you can easily make changes to configurations without rebuilding them.

You can include the following items in a configuration:

- Packages
- Scripts
- Printers
- Directory bindings
- Management account settings
- A homepage
- Partitions

You can manage configurations using Casper Admin or the JSS. When you create, edit, or delete a configuration in Casper Admin, the changes are reflected in the JSS, and vice versa.

## Standard and Smart Configurations

There are two types of configurations: standard configurations and smart configurations.

Smart configurations inherit settings from another configuration (called a “parent configuration”). Making changes to the parent configuration automatically updates the smart configuration to reflect the changes. If there are settings in the parent configuration that you want to override, you can customize the packages, scripts, printers, or directory bindings in the smart configuration as needed.

## Compiled Configurations

You can compile both standard and smart configurations. Compiling a configuration builds a single DMG, allowing you to block-copy the entire configuration during imaging and speed up the process. You can choose to make the DMG a compressed or uncompressed file.

Configurations can only be compiled using Casper Admin. You can only compile configurations if your master distribution point is a file share distribution point.

Configurations that include an OS X Installer must be compiled on a computer with the same version of OS X as the OS X Installer.

## Configurations with Partitions

There are three ways to configure a partition in a configuration:


- Image the partition using another configuration
- Install a Winclone image on the partition
- Make the partition a Restore partition

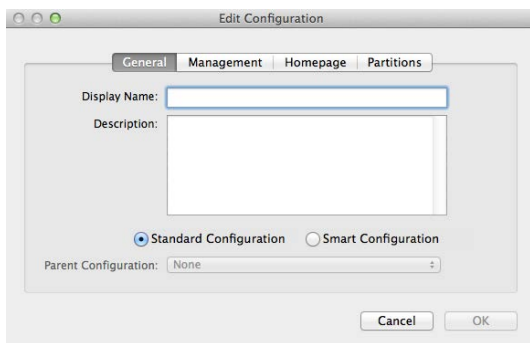
Restore partitions are hidden partitions that have only an OS package and Casper Imaging installed. They allow you to re-image computers without using NetBoot or an external drive.

**Note:** As a safety mechanism, drives that already have visible partitions cannot be re-partitioned using the Casper Suite.

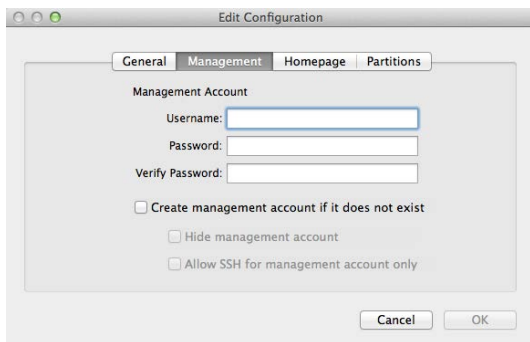
## Creating a Configuration Using Casper Admin

Several settings in Casper Admin have tool tips. To read more about a specific setting, hover your mouse over it until a tool tip is displayed.

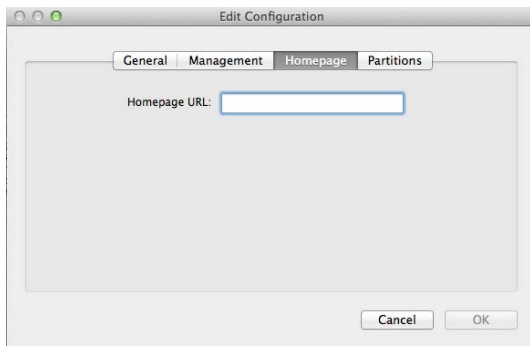
1. Open Casper Admin and authenticate to the JSS.
2. Click **New Config** .
3. Use the General pane to configure basic settings for the configuration.  
To create a smart configuration, select the **Smart Configuration** option and choose a parent configuration.



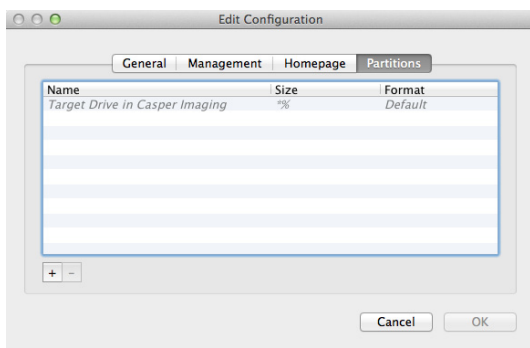
4. (Optional) Click the **Management** tab and set or create a management account.  
This ensures that computers imaged with the configuration are managed.



- (Optional) Click the **Homepage** tab and enter a homepage URL.






- (Optional) Click the **Partitions** tab and click **Add (+)** to set up a partition.



- Click **OK**.  
The configuration is added to the list of configurations in the sidebar.
- Add packages, scripts, printers, and directory bindings by dragging them from the main repository to the configuration in the sidebar.

## Creating a Configuration Using the JSS

- Log in to the JSS with a web browser.
- In the top-right corner of the page, click **Settings** .
- Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
- In the "Computer Management" section, click **Configurations** .
- Click **New** .
- Use the General payload to configure basic settings for the configuration.  
To create a smart configuration, choose "Smart" from the **Type** pop-up menu and choose a parent configuration.
- Use the Packages, Scripts, Printers, and Directory Bindings payloads to add items to the configuration.



8. (Optional) Use the Management payload to set or create a management account. This ensures that computers imaged with the configuration are managed.
9. (Optional) Use the Homepage payload to set the homepage.
10. (Optional) Use the Partitions payload to set up partitions.
11. Click **Save**.

## Compiling a Configuration

The time it takes to compile a configuration depends on the amount of data in the configuration. For fastest results, use a wired connection.

Configurations that include an OS X Installer must be compiled on a computer with the same version of OS X as the OS X Installer.


You may be prompted to authenticate several times during the compilation process.

**Note:** If you compile a configuration that includes a package with an architecture type requirement and a substitute package, the package substitution will not work.



1. Open Casper Admin and authenticate to the JSS.
2. In the sidebar, select the configuration and click **Compile**.
3. Choose to create a compressed or an uncompressed DMG.
4. Enter credentials for a local administrator account.
5. Click **OK**.

## Editing or Deleting a Configuration Using Casper Admin

Several settings in Casper Admin have tool tips. To read more about a specific setting, hover your mouse over it until a tool tip is displayed.

1. Open Casper Admin and authenticate to the JSS.
2. In the sidebar, select the configuration you want to edit or delete.
3. Do one of the following:
  - To edit the configuration, double-click it and make changes as needed. Then click **OK**.
  - To delete the configuration, click **Delete**  and then click **Delete** again to confirm.

# Cloning, Editing, or Deleting a Configuration Using the JSS

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings**  .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the “Computer Management” section, click **Configurations**  .
5. Click the configuration you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the configuration, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the configuration, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the configuration, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Standard Imaging](#)  
Find out how to image computers using a configuration and standard imaging.
- [Autorun Imaging](#)  
Find out how to image computers using a configuration and Autorun imaging.
- [PreStage Imaging](#)  
Find out how to image computers using a configuration and Imaging PreStage.
- [Target Mode Imaging](#)  
Find out how to image computers using a configuration and Target Mode Imaging.

For related information, see the following Knowledge Base article:

[Creating Images with Winclone for Deployment with Casper Imaging](#)

Find out how to create a Winclone image that you can install on a partition during imaging.

# Booting Computers to NetBoot Images


When you boot computers to a NetBoot image, you can choose which NetBoot server computers should use.

There are two ways to boot computers to a NetBoot image: using a policy or using Casper Remote.

## Requirements

To boot computers to a NetBoot image, you need a NetBoot server in the JSS. (For more information, see [NetBoot Servers](#).)

## Booting Computers to a NetBoot Image Using a Policy

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Policies**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the policy, including the trigger and execution frequency.  
For an overview of the settings in the General payload, see [General Payload](#).
6. Select the Restart Options payload.
7. Choose "NetBoot" from the **Startup Disk** pop-up menu.
8. Choose the server that hosts the NetBoot image you want to boot computers to.
9. Configure the rest of the settings for restarting computers.
10. Click the **Scope** tab and configure the scope of the policy.  
For more information, see [Scope](#).
11. (Optional) Click the **Self Service** tab and make the policy available in Self Service.  
For more information, see [Self Service for OS X Policies](#).
12. (Optional) Click the **User Interaction** tab and configure messaging and deferral options.  
For more information, see [User Interaction](#).
13. Click **Save**.

The policy runs on computers in the scope the next time they check in with the JSS and meet the criteria in the General payload.

# Boot Computers to a NetBoot Image Using Casper Remote

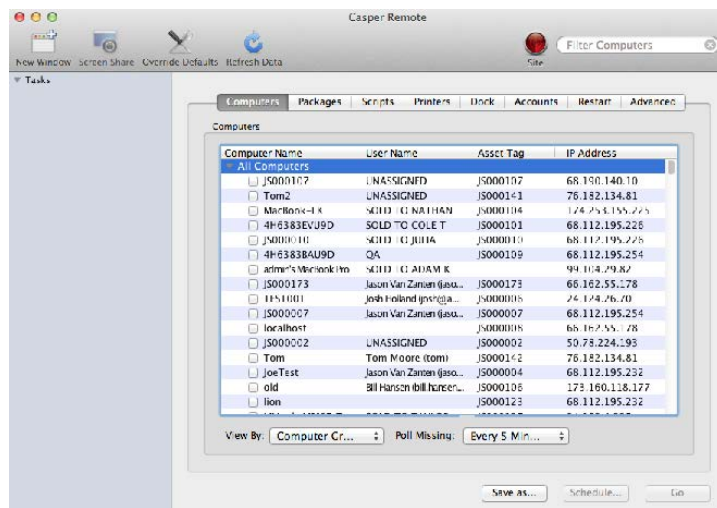
1. Open Casper Remote and authenticate to the JSS.

2. Click **Site** and choose a site.

This determines which items are available in Casper Remote.

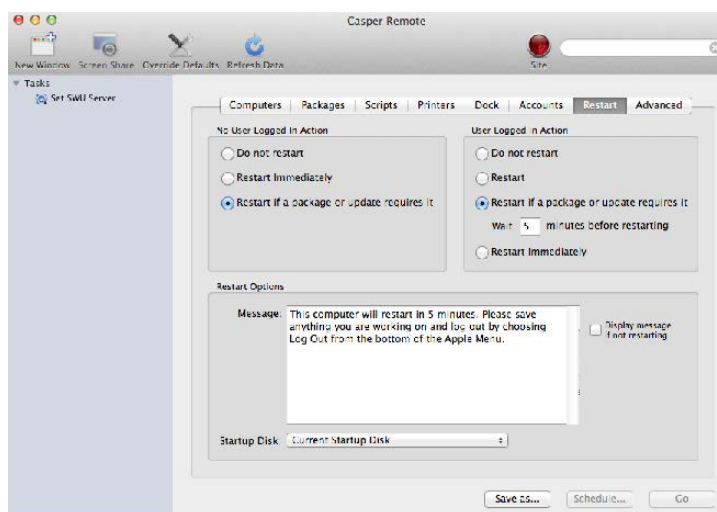
**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.


3. In the list of computers, select the checkbox for each computer that you want to boot to the NetBoot image.

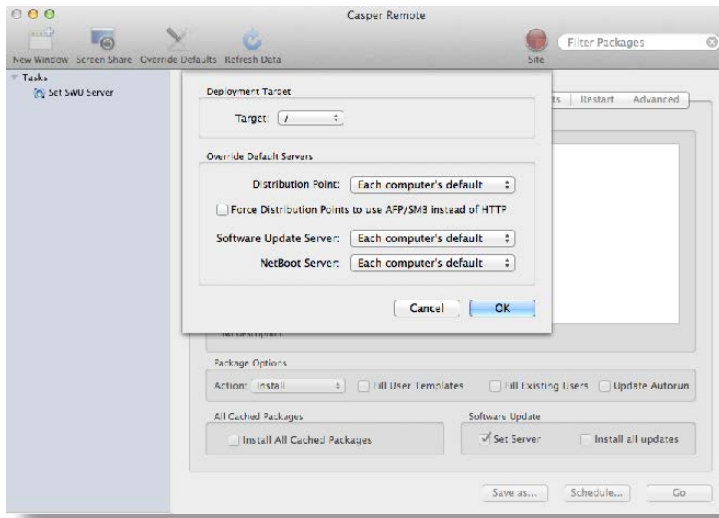


4. Click the **Restart** tab.

5. Choose "NetBoot" from the **Startup Disk** pop-up menu.



6. If you want to change the NetBoot server that computers use, click **Override Defaults**  and choose a NetBoot server.



7. Configure the rest of the settings for restarting computers.
8. Do one of the following:
  - To immediately perform the tasks on the specified computers, click **Go**.
  - To schedule the tasks to take place at a specific day and time, click **Schedule** and choose a day and time. Then click **Schedule** again.

## Related Information

For related information, see the following sections in this guide:

- [About Policies](#)  
Learn the basics about policies.
- [Managing Policies](#)  
Find out how to create a policy, view the plan and status of a policy, and view and flush policy logs.

# Standard Imaging

Standard imaging allows you to configure the imaging settings for a computer at imaging time. These settings include:


- The target drive
- The configuration to image with
- The distribution point to download files from

## Requirements

To use standard imaging, you need:

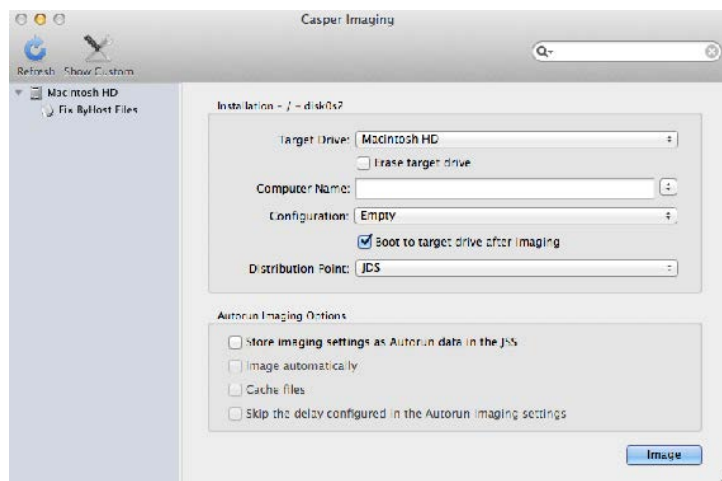
- A configuration (For more information, see [Configurations](#).)
- A distribution point (For more information, see [About Distribution Points](#).)  
Alternatively, you can use an external drive that is prepared for offline imaging. For more information, see the [Offline Imaging](#) Knowledge Base article.
- A startup disk other than the target drive that has Casper Imaging installed (For more information, see [About Imaging](#).)


## Using Standard Imaging

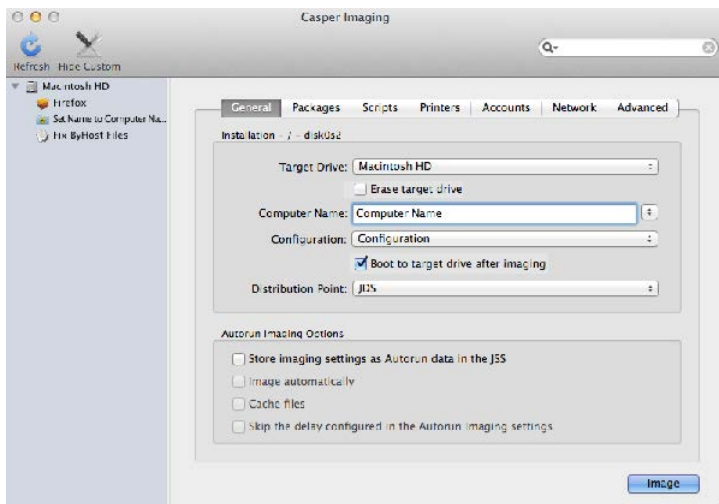
1. On the target computer, boot to a startup disk other than the target drive.
2. Open Casper Imaging and authenticate locally.
3. Authenticate to the JSS when prompted.
4. To add the computer to a site, click **Site**  and choose a site.

**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.

5. Choose a drive to image from the **Target Drive** pop-up menu.



6. To erase the target drive when the imaging process begins, select the **Erase target drive** checkbox.
7. Assign a name to the computer by entering a name in the **Computer Name** field.  
Alternatively, use the arrows to choose "Computer Name", "MAC Address", or "Serial Number". The value for the option you choose populates in the field.
8. Choose a configuration from the **Configuration** pop-up menu.
9. To boot the computer to the target drive after imaging, select the **Boot to target drive after imaging** checkbox.
10. Choose a distribution point from the **Distribution Point** pop-up menu.
11. (Optional) Use the options in the Autorun Imaging Options group box to configure Autorun imaging options for the computer.  
For more information on Autorun imaging, see [Autorun Imaging](#).
12. (Optional) Click **Show Custom**  and use the tabs and options to customize the imaging process.  
For an overview of each pane, see [Customizing the Imaging Process](#).



13. Click **Image**.

## Related Information

For related information, see the following section in this guide:

[Viewing Casper Imaging Logs for a Computer](#)

Find out how to view Casper Imaging logs for a computer.

# PreStage Imaging

PreStage imaging allows you to store imaging settings in the JAMF Software Server (JSS) and use them to image new computers as you add them to the network. This reduces the amount of time and interaction it takes to prepare new computers for use. PreStage imaging also enrolls computers with the JSS.

To use PreStage imaging, you need to create an Imaging PreStage in the JSS and then run Casper Imaging on target computers to image them. Creating an Imaging PreStage allows you to configure the imaging settings and specify the computers that should be imaged with the Imaging PreStage (called “scope”). When you open Casper Imaging on a computer in the scope, Casper Imaging is populated with the settings in the Imaging PreStage.

You can configure an Imaging PreStage to start the imaging process automatically the first time Casper Imaging is opened on a computer. Otherwise, you need to start the imaging process manually by clicking the **Image** button in Casper Imaging.

You can also bypass PreStage imaging to prevent Casper Imaging from being populated with the settings in the Imaging PreStage.


## Requirements

To create an Imaging PreStage, you need:

- A configuration (For more information, see [Configurations](#).)
- A distribution point (For more information, see [About Distribution Points](#).)

To image a computer using an Imaging PreStage, you need a startup disk other than the target drive that has Casper Imaging installed. (For more information, see [About Imaging](#).)

## Creating an Imaging PreStage

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **PreStage Imaging**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the Imaging PreStage, including the activation and expiration date/time.

To start the imaging process automatically when Casper Imaging is opened on a computer in the scope, select the **Image Automatically** checkbox.



6. Select the Computer Names payload and choose a method for assigning names to computers. Computer names are assigned as computers in the scope are imaged.
7. (Optional) Use the Purchasing Information payload to specify purchasing information for computers. This information is stored in the JSS for each computer imaged using the Imaging PreStage.
8. (Optional) Use the Attachments payload to upload attachments to store for computers. Attachments are stored in the JSS for each computer imaged using the Imaging PreStage.
9. Select the Install payload and configure the basic imaging settings, including the target drive, the configuration to image with, and the distribution point to download files from.
10. Enter credentials for a local account to bypass the prompt when Casper Imaging is opened on the computer.
11. To store the imaging settings as Autorun data for each computer, select the **Store PreStage settings as Autorun data** checkbox. Then configure additional options for Autorun imaging as needed. For more information on Autorun imaging, see [Autorun Imaging](#).
12. (Optional) Use the rest of the payloads to customize the imaging process. For an overview of each payload, see [Customizing the Imaging Process](#).
13. Click the **Scope** tab and configure the scope of the Imaging PreStage.
14. Click **Save**.

## Cloning, Editing, or Deleting an Imaging PreStage

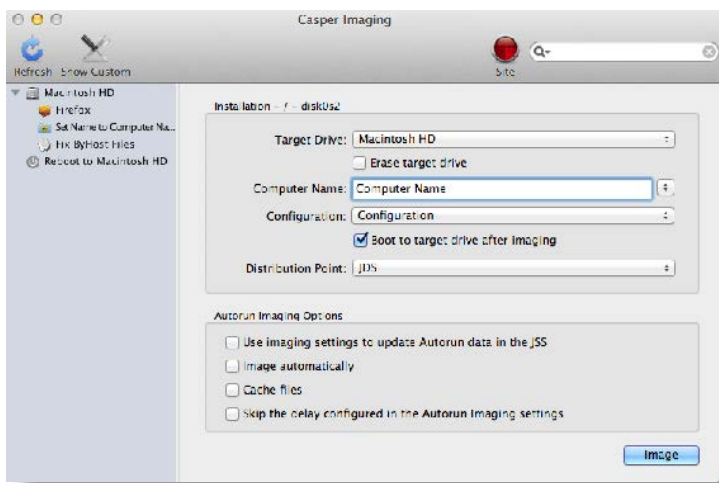
1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **PreStage Imaging**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the Imaging PreStage you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the Imaging PreStage, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the Imaging PreStage, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the Imaging PreStage, click **Delete** and then click **Delete** again to confirm.

## Imaging a Computer Using an Imaging PreStage

If you configured the Imaging PreStage to start the imaging process automatically, simply boot the target computer to a startup disk other than the target drive and open Casper Imaging.


If you did not configure the Imaging PreStage to start the imaging process automatically, complete the following instructions:

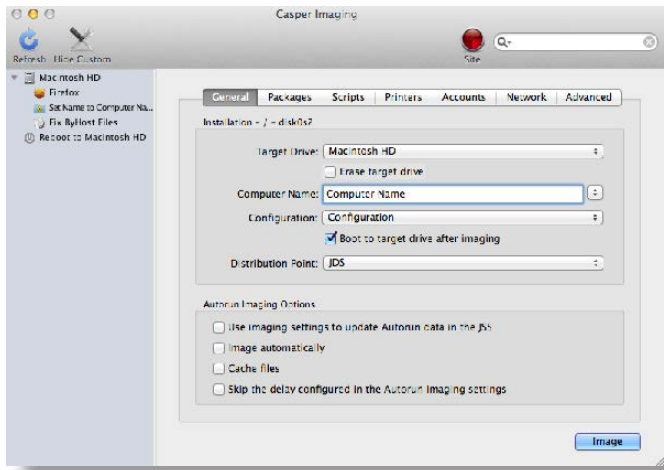
1. On a computer that is in the scope of the Imaging PreStage, boot to a startup disk other than the target drive and open Casper Imaging.
2. If prompted, authenticate locally.
3. (Optional) Make changes to the basic imaging settings as needed, including the target drive, the configuration to image with, and the distribution point to download files from.



4. (Optional) Use the options in the Autorun Imaging Options group box to configure Autorun imaging options for the computer.

For more information on Autorun imaging, see [Autorun Imaging](#).

- (Optional) Click **Show Custom**  and use the tabs and options to customize the imaging process. For an overview of each pane, see [Customizing the Imaging Process](#).



- Click **Image**.

## Bypassing PreStage Imaging

To bypass PreStage imaging, hold down the Shift key when opening Casper Imaging.

## Viewing Imaging PreStage Logs

Each Imaging PreStage log includes a list of computers that were imaged using the Imaging PreStage and a list of the following information for each computer:

- The date/time that the computer was imaged
- The status of the imaging event
- The actions that took place during the imaging event



- Log in to the JSS with a web browser.
- Click **Computers** at the top of the page.
- Click **PreStage Imaging**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
- Click the Imaging PreStage you want to view logs for.
- Click **Logs**.  
A list of computers imaged using the Imaging PreStage is displayed.
- To view the list of actions that were performed when a computer was imaged, click **Show** for the computer.

# Autorun Imaging Settings

The Autorun imaging settings in the JAMF Software Server (JSS) allow you to configure the following settings for Autorun imaging:

- The delay before the imaging process starts automatically  
This only applies if a computer's Autorun data is configured to start the imaging process automatically. During the delay, a pane is displayed that allows you to cancel the imaging process.
- The amount of space to leave available when caching files
- The attribute to use for comparing cached files to files on a distribution point  
This ensures that the most up-to-date files are cached on the computer.

## Configuring the Autorun Imaging Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Management Framework" section, click **Autorun Imaging** .
5. Click **Edit**.
6. Configure the settings on the pane.
7. Click **Save**.

## Related Information

For related information, see the following section in this guide:

[Autorun Imaging](#)

Find out how to image computers using Autorun imaging.

# Autorun Imaging

Autorun imaging allows you to store imaging settings in the JAMF Software Server (JSS) so you don't have to configure them at imaging time. It also allows you to fully automate the imaging process. (For more information, see the [Automating the Imaging Process](#) Knowledge Base article.)

To use Autorun imaging, you need to create Autorun data for each target computer and then run Casper Imaging on the computers to image them. Creating Autorun data allows you to configure and store the imaging settings you want to use to image each computer. When you open Casper Imaging on a target computer, Casper Imaging is populated with the Autorun data.

You can configure Autorun data to start the imaging process automatically each time Casper Imaging is opened on a computer. Otherwise, you need to start the imaging process manually by clicking the **Image** button in Casper Imaging.

You can also bypass Autorun imaging to prevent Casper Imaging from being populated with the Autorun data.

There are three ways to create Autorun data for a computer:

- Create the Autorun data using the JSS
- Store Autorun data using Casper Imaging
- Store Autorun data using an Imaging PreStage (For more information, see [PreStage Imaging](#).)

## Requirements

To create and manage Autorun data using the JSS, you need:

- A configuration (For more information, see [Configurations](#).)
- A distribution point (For more information, see [About Distribution Points](#).)

To store Autorun data using Casper Imaging, you need:


- A configuration (For more information, see [Configurations](#).)
- A distribution point (For more information, see [About Distribution Points](#).)

Alternatively, you can use an external drive that is configured for offline imaging. (For more information, see the [Offline Imaging](#) Knowledge Base article.)

- A startup disk other than the target drive that has Casper Imaging installed (For more information, see [About Imaging](#).)

To image a computer using Autorun data, you need a startup disk other than the target drive that has Casper Imaging installed. (For more information, see [About Imaging](#).)

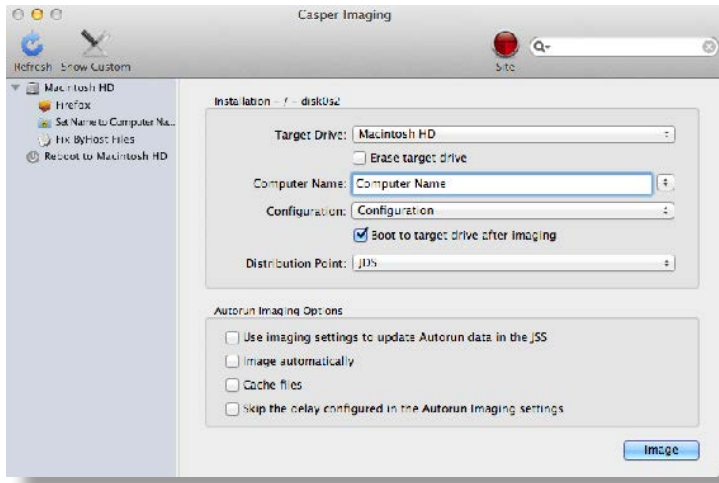
## Creating Autorun Data Using the JSS


1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Perform a simple or advanced computer search.  
For instructions, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
5. Click the computer you want to create Autorun data for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item name to view the computers related to that item.
6. Click **Autorun Data**.
7. Use the Install payload to configure basic imaging settings for the computer, including the target drive, the configuration to image with, and the distribution point to download files from.
8. Enter credentials for a local account to bypass the prompt when Casper Imaging is opened on the computer.  
This is required if you plan to fully automate the imaging process.
9. To cache a copy of each file used for imaging, select the **Cache Files** checkbox.
10. To skip the delay that occurs before the imaging process starts automatically, select the **Skip the delay that occurs before imaging automatically** checkbox.  
You can change this delay by using the Autorun Imaging settings. For more information, see [Autorun Imaging Settings](#).
11. (Optional) Use the rest of the payloads to customize the imaging process.  
For an overview of each payload, see [Customizing the Imaging Process](#).
12. Click **Save**.

## Storing or Editing Autorun Data Using Casper Imaging

1. On the target computer, boot to a startup disk other than the target drive and open Casper Imaging.
2. If prompted, authenticate locally.

- (Optional) Configure or make changes to the basic imaging settings as needed, including the target drive, the configuration to image with, and the distribution point to download files from.




- In the Autorun Imaging Options group box, select the **Store imaging settings as Autorun data** checkbox.
- To start the imaging process automatically each time Casper Imaging is opened on the computer, select the **Image Automatically** checkbox.
- To cache a copy of each file used for imaging, select the **Cache Files** checkbox.
- To skip the delay that occurs before the imaging process starts automatically, select the **Skip the delay that occurs before imaging automatically** checkbox.  
You can change this delay by using the Autorun Imaging settings in the JSS. For more information, see [Autorun Imaging Settings](#).
- (Optional) Click **Show Custom**  and use the tabs and options to customize the imaging process. For an overview of each pane, see [Customizing the Imaging Process](#).
- Click **Image**.

The Autorun data is stored in the JSS when the imaging process is complete.

## Editing or Deleting Autorun Data Using the JSS

- Log in to the JSS with a web browser.
- Click **Computers** at the top of the page.
- Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
- Perform a simple or advanced computer search.  
For instructions, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).

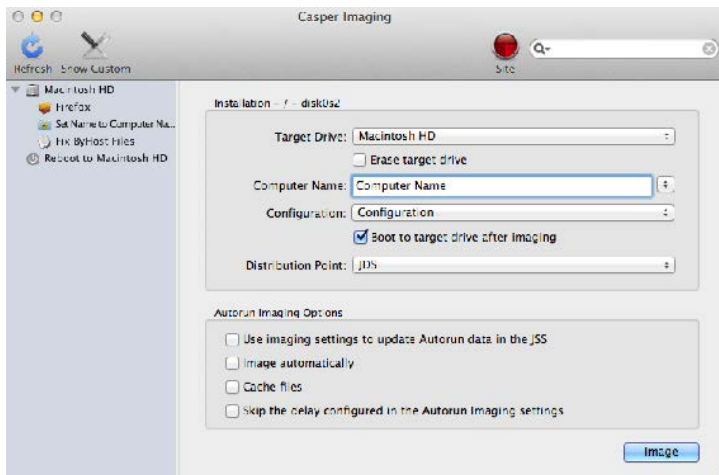
5. Click the computer you want to edit or delete Autorun data for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item name to view the computers related to that item.
6. Click **Autorun Data**.
7. Do one of the following:
  - To edit the Autorun data, make changes as needed. Then click **Save**.
  - To delete the Autorun data, click **Delete** and then click **Delete** again to confirm.

## Imaging a Computer Using Autorun Imaging


If you configured the Autorun data to start the imaging process automatically, simply boot the target computer to a startup disk other than the target drive and open Casper Imaging. The imaging process begins after the specified delay.

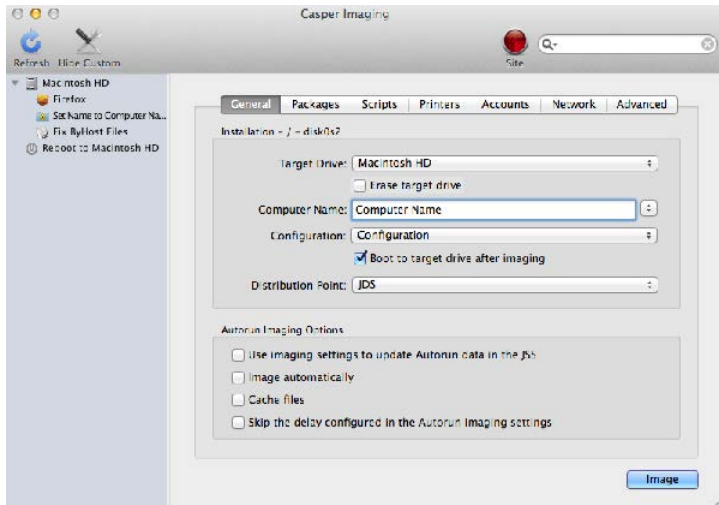
If you did not configure the Autorun data to start the imaging process automatically, complete the following instructions:

1. On the target computer, boot to a startup disk other than the target drive and open Casper Imaging.
2. If prompted, authenticate locally.
3. (Optional) Make changes to the basic imaging settings as needed, including the target drive, the configuration to image with, and the distribution point to download files from.





- (Optional) Use the options in the Autorun Imaging Options group box to change Autorun imaging options for the computer.
- (Optional) Click **Show Custom**  and use the tabs and options to customize the imaging process. For an overview of each pane, see [Customizing the Imaging Process](#).



- Click **Image**.

## Bypassing Autorun Imaging


To bypass Autorun imaging when imaging a computer, hold down the Shift key when you open Casper Imaging.

## Viewing Autorun Logs

The Autorun logs for each computer allow you to view the following information for each imaging event:

- The date/time that the computer was imaged
- The status of the imaging event
- The actions that took place during the imaging event

- Log in to the JSS with a web browser.
- Click **Computers** at the top of the page.
- Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
- Perform a simple or advanced computer search.  
For instructions, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).

5. Click the computer you want to view Autorun logs for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item name to view the computers related to that item.
6. Click **Autorun Data**.
7. Click **Logs**.  
A list of imaging events is displayed.
8. To view the actions that took place during an imaging event, click **Show** for the event.

## Related Information

For related information, see the following sections in this guide:

- [Autorun Imaging Settings](#)  
Find out to configure the settings for Autorun imaging.
- [Installing Packages](#)  
Find out how to add packages to a computer's Autorun data when installing packages.
- [Caching Packages](#)  
Find out how to add packages to a computer's Autorun data when caching packages.
- [Installing Cached Packages](#)  
Find out how to add packages to a computer's Autorun data when installing a cached package.
- [Performing Mass Actions for Computers](#)  
Find out how to mass edit or delete Autorun data for computers.

# Target Mode Imaging

Target Mode Imaging (TMI) allows you to image multiple computers subsequently by connecting them to a host computer using a Firewire or Thunderbolt cable. This can be ideal when using a network connection is not optimal, such as when imaging MacBook Airs that do not have built-in ethernet.

To use TMI, you run Casper Imaging on a host computer instead of a NetBoot image or an external drive. Then you boot target computers to target disk mode and connect them to the host computer.


## Requirements

To use TMI, you need:

- Target computers that support target disk mode
- A host computer with Casper Imaging installed and a FireWire or Thunderbolt port
- A configuration (For more information, see [Configurations](#).)
- A distribution point (For more information, see [About Distribution Points](#).)

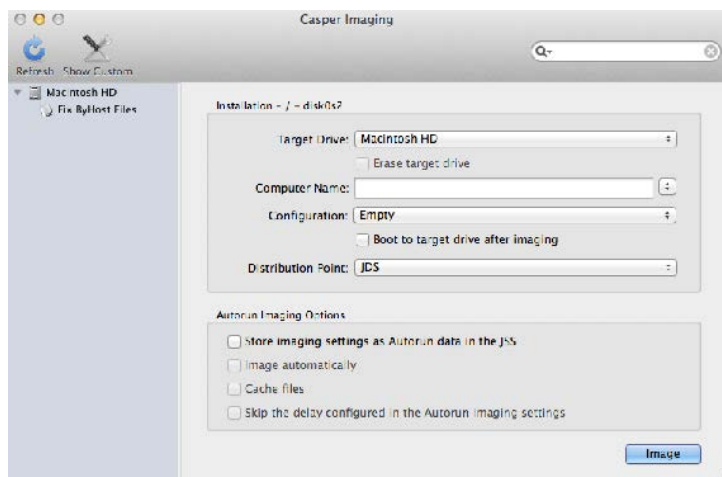
Alternatively, you can use an external drive that is prepared for offline imaging. For more information, see the [Offline Imaging](#) Knowledge Base article.

## Using TMI

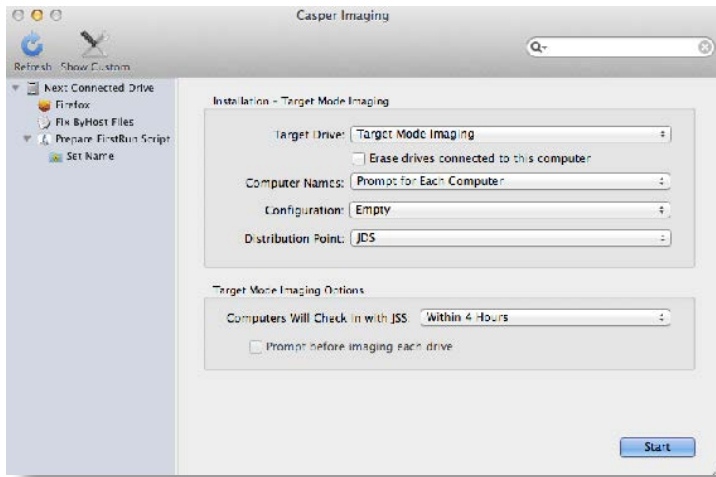
1. On the host computer, open Casper Imaging and authenticate locally.
2. Authenticate to the JSS when prompted.
3. To add the computer to a site, click **Site**  and choose a site.

**Note:** This button is only displayed if you have a site configured in the JSS and are logged in with a JSS user account that has full access or access to multiple sites.


4. Choose "Target Mode Imaging" from the **Target Drive** pop-up menu.

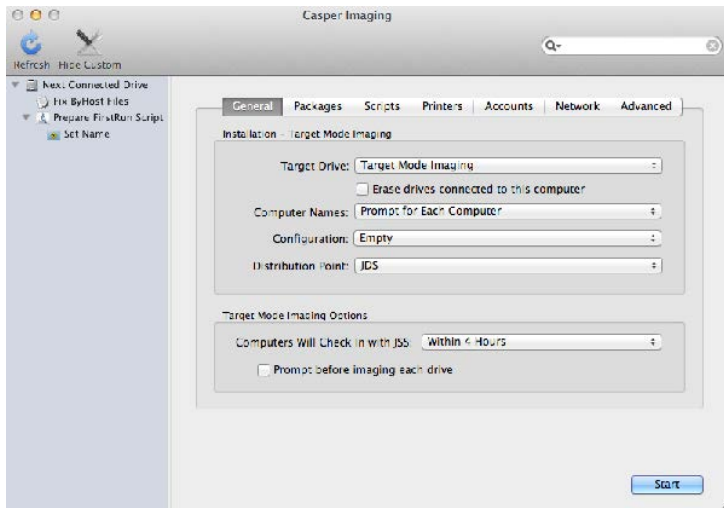


- To erase each target drive before it is imaged, select the **Erase drives connected to this computer** checkbox.



- From the **Computer Names** pop-up menu, choose how to assign names to target computers:
  - To be prompted to manually enter a name for each computer, choose "Prompt for Each Computer".
  - To automatically generate names in numerical order, choose "Use Numerical Order". Then enter a starting number, and a prefix and suffix as needed, and click **OK**.
  - To use each computer's MAC Address as the name, choose "Use MAC Address". Then enter a prefix and suffix for the MAC Address as needed and click **OK**.
  - To use each computer's serial number as the name, choose "Use Serial Number". Then enter a prefix and suffix for the serial number as needed and click **OK**.
  - To assign names based on the contents of a CSV file, choose "Upload CSV File" and upload the file. For more information on using a CSV file to assign computer names, see the [Creating a CSV File to Assign Computer Names During Target Mode Imaging](#) Knowledge Base article.
- Choose a configuration from the **Configuration** pop-up menu.
- Choose a distribution point from the **Distribution Point** pop-up menu.
- From **Computers Will Check In with JSS** pop-up menu, choose the approximate amount of time until computers will check in with the JSS.  
**Important:** Computers that do not check in within the specified amount of time will not be enrolled with the JSS.
- To bypass the prompt displayed before imaging each computer, deselect the **Prompt before imaging each drive** checkbox.

11. (Optional) Click **Show Custom**  and use the tabs and options to customize the imaging process. For an overview of each pane, see [Customizing the Imaging Process](#).



12. Click **Start**.
13. Boot a target computer to target disk mode.  
To do this, turn on the computer and immediately press and hold down the T key.
14. Use a FireWire or Thunderbolt cable to connect the target computer to the host computer, and then click **OK** if prompted.  
The imaging process starts immediately.
15. When the imaging process is complete, disconnect the target computer.
16. Repeat steps 13–15 for each target computer.

## Related Information

For related information, see the following section in this guide:

[Viewing Casper Imaging Logs for a Computer](#)

Find out how to view Casper Imaging logs for a computer.

# Customizing the Imaging Process

Although configurations let you specify most of the items you want to install and configure during imaging, you can further customize the imaging process by using Casper Imaging or using the JSS to configure an Imaging PreStage or Autorun data.

The items that you can add when customizing the imaging process are:

- Packages
- Scripts
- Printers
- Local accounts
- Directory bindings
- Open Firmware/ EFI password
- Network settings
- Values for Apple Remote Desktop Info fields
- Post-imaging options, such as maintenance tasks and showing the OS X Setup Assistant after restart

When using Casper Imaging to customize the imaging process, you can also remove items that are in the selected configuration or items configured with an Imaging PreStage or Autorun data for the computer.

The interface you use to customize the imaging process depends on whether you are using Casper Imaging or the JSS. This section provides an overview of each pane displayed in Casper Imaging, but the information also applies to the payload-based interface in the JSS.

## Packages


This pane allows you to specify which packages you want to install as part of the imaging process. To add or remove a package, select or deselect the checkbox for the package.

**Note:** In Casper Imaging, packages that do not exist on the selected distribution point are displayed in red.

## Scripts

This pane allows you to specify which scripts you want to run as part of the imaging process.

To add or remove a script from the imaging process using Casper Imaging, select or deselect the checkbox for the script. Then specify parameter values as needed and choose a priority.

To add a script to the imaging process using the JSS, click **Add** for the script you want to add and then choose a priority and specify parameter values as needed. To remove a script, locate the script on the pane and click **Remove** .

## Printers

This pane allows you to specify which printers you want to map as part of the imaging process. To add or remove a printer, select or deselect the checkbox for the printer.

**Note:** In Casper Imaging, printers that do not exist on the selected distribution point are displayed in red.

## Accounts


This pane allows you to do the following as part of the imaging process:

- Create local accounts
- Bind computers to a directory service
- Set the Open Firmware/EFI password

**Note:** In the JSS, these are displayed in three separate payloads called Local Accounts, Directory Bindings, and EFI Password.

### Local Accounts

To add a local account to the imaging process using Casper Imaging, click **Add (+)** and specify information about the account using the tabs and options provided. Then click **OK**. To remove a local account, select an account and click **Remove (-)**.

To add a local account to the imaging process using the JSS, specify information about the account using the options provided. To remove an account, locate the account on the pane and click **Remove** .

### Directory Bindings

To add or remove a directory binding from the imaging process, select or deselect the checkbox for the directory binding.

### Open Firmware/EFI Password

To add an Open Firmware/EFI password to the imaging process using Casper Imaging, select the **Set Open Firmware/EFI Password** checkbox and choose "Command" from the **Security Level** pop-up menu. Then enter a password and type the password again to verify it. To remove an Open Firmware/EFI password, choose "None" from the **Security Level** pop-up menu.

To add an Open Firmware/EFI password to the imaging process using the JSS, choose "Command" from the **Security Level** pop-up menu. Then enter a password and type the password again to verify it. To remove the password, select "None" from the **Security Level** pop-up menu.

## Network

This pane allows you to configure network settings as part of the imaging process.

To configure network settings, the network configuration (IPv4 connection method) must match the one built into the OS package you're installing or the one in System Preferences on the computer.

To add or remove network settings from the imaging process, configure the options on the pane.

If the network configuration in your OS package is different than the one you want to set on the computer, you must take two additional steps to ensure that the network configuration is set. For more information, see the following Knowledge Base article:

[Computer-Specific Network Settings](#)

## Advanced

This pane allows you to configure the following items as part of the imaging process:

- Values for Apple Remote Desktop Info fields
- Post-imaging tasks, including:
  - Fix ByHost files
  - Fix disk permissions
  - Show OS X Setup Assistant after restart

### Apple Remote Desktop Info Fields

To add or remove values for the Apple Remote Desktop Info fields, enter or remove values from the fields displayed.

In Casper Imaging, you can populate these fields with the values on the computer by clicking **Get Existing**.

### Post-imaging Tasks




To add or remove a post-imaging task, select or deselect the checkbox for the task.





# Removable MAC Addresses

Adding removable MAC addresses to the JAMF Software Server (JSS) ensures that the JSS ignores certain MAC addresses. For example, MAC addresses of USB Ethernet dongles are commonly added as removable MAC addresses to prevent the JSS from using them as identifiers for computers.

## Adding a Removable MAC Address

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Management Framework" section, click **Removable MAC Addresses** .
5. Click **New** .
6. Enter the MAC address that you want the JSS to ignore.
7. Click **Save**.

## Cloning, Editing, or Deleting a Removable MAC Address

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Computer Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. In the "Computer Management–Management Framework" section, click **Removable MAC Addresses** .
5. Click the removable MAC address you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the removable MAC address, click **Clone** and change the MAC address. Then click **Save**.
  - To edit the removable MAC address, click **Edit** and change the MAC address. Then click **Save**.
  - To delete the removable MAC address, click **Delete** and then click **Delete** again to confirm.

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# License Management

## About Licensed Software

Licensed software allows you to store and track licenses for the software in your environment so you can easily access license and purchasing information and monitor license compliance.

For each software product that you want to track licenses for, you must create a licensed software record in the JAMF Software Server (JSS). These records allow you to store information about the licenses owned and the software titles that count toward each license (called “software definitions”).

Each time a computer submits inventory to the JSS, the software on the computer is compared to the software definitions in the licensed software records. If they match, the computer counts toward the number of licenses in use.

After creating licensed software records, you can use the JSS to evaluate and monitor license compliance, view and report on the licenses in use, and view Application Usage information for the software you’re tracking licenses for.

## Related Information

For related information, see the following sections in this guide:

- [Licensed Software Records](#)  
Find out how to create licensed software records to store and track license information.
- [License Compliance](#)  
Find out how to evaluate license compliance by viewing the licensed software records in the JSS.
- [Viewing License Usage](#)  
Find out how to view the computers on which licenses are in use.
- [Application Usage for Licensed Software](#)  
Find out how frequently the licensed software in your environment is being used.

# Licensed Software Records

For each software application you want to track licenses for, you must create a licensed software record in the JAMF Software Server (JSS). These records allow you to store the number of licenses owned and the software titles that count toward each license (called “software definitions”). They also allow you to store detailed license and purchasing information in the JSS.

Each time a computer submits inventory to the JSS, the software titles on the computer are compared to the software definitions in each record. If they match, the computer counts toward the number of licenses in use.

To monitor license compliance on an ongoing basis, you can enable email notifications for a licensed software record. This allows email notifications to be sent to JSS users when the number of licenses in use exceeds the number of licenses owned. (For information on setting up an SMTP server from which to send email notifications and enabling email notifications for a JSS user account, see [Integrating with an SMTP Server](#) and [Email Notifications](#).)

Licensed software records also allow you to determine whether a license supersedes or is superseded by another license in the JSS. For example, you may have licenses for Adobe Illustrator and Adobe CS 5.5 Design Standard, both of which contain Adobe Illustrator. The licenses for Adobe Illustrator will not be counted toward the licenses for CS 5.5 Design Standard even though CS 5.5 Design Standard contains Adobe Illustrator. Viewing the licensed software record for Adobe Illustrator would show that the licenses are superseded by CS 5.5 Design Standard. Alternatively, viewing the record for CS 5.5 Design Standard would show that the licenses supersede Adobe Illustrator.

There are several ways to create a licensed software record in the JSS. You can manually create the record, use a licensed software template available in the JSS, or upload a licensed software template obtained from JAMF Nation. All licensed software templates have predefined software definitions.

Software definitions can be based on one of two items: the name and version number of each application, font, and plug-in, or the software identification (SWID) tags associated with each software title. For more information on SWID tags and how they are useful for tracking licensed software with the Casper Suite, see the following Knowledge Base article:






[Software Identification Tags and Tracking Licensed Software](#)

## Requirements




To create a licensed software record based on SWID tags, the software you want to track must have a SWID tag associated with it and the SWID tag must be in the JSS database.

**Note:** The JSS collects SWID tags from a computer each time the computer submits inventory. SWID tags are not listed in a computer’s inventory information in JSS, but they are stored in the JSS database for use with licensed software.

## Manually Creating a Licensed Software Record

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Licensed Software**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General pane to configure basic settings for the licensed software record.  
To enable email notifications, select the **Send email notification on violation** checkbox.
6. Click the **Licenses** tab and add license and purchasing information:
  - a. Click **Add**  .
  - b. Specify information about the license, including the license type and license count.
  - c. (Optional) Click the **Purchasing Information** tab and enter purchasing information.
  - d. (Optional) Click the **Attachments** tab and click **Upload**  to upload an attachment.
  - e. Click **Save**.
  - f. Repeat steps a through e to add more license and purchasing information as needed.
7. Click the **Software Definitions** tab.
8. To specify software definitions based on applications, fonts, and plug-ins, do the following:
  - a. Choose "Applications, Fonts, and Plug-ins" from the **Software Definitions Type** pop-up menu.
  - b. Click **Add**  for the item you want to add.
  - c. Specify a name, connector ("is" or "like"), and version number using the fields and pop-up menu provided.
  - d. Click **Save**.
  - e. Repeat steps a through d to specify additional software definitions as needed.  
The items you added are displayed in a list.
9. To specify software definitions based on SWID tags, do the following:
  - a. Choose "Software ID Tags" from the **Software Definitions Type** pop-up menu.
  - b. Browse for and choose a reg ID.
  - c. Add a SWID tag by clicking **Add**  . Then browse for and choose the SWID tag you want to add.
  - d. Select the activation statuses you want to include in the software definitions.
10. Click **Save**.


## Creating a Licensed Software Record From a Template



1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Licensed Software**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New From Template**  .
5. Click the licensed software template you want to use.
6. Use the General pane to change or configure basic settings for the licensed software record.  
To enable email notifications, select the **Send email notification on violation** checkbox.
7. Click the **Licenses** tab and add license and purchasing information:
  - a. Click **Add**  .
  - b. Enter information about the license, including the license type and license count.
  - c. (Optional) Click the **Purchasing Information** tab and enter purchasing information.
  - d. (Optional) Click the **Attachments** tab and click **Upload**  to upload an attachment.
  - e. Click **Save**.
  - f. Repeat steps a through e to add more license and purchasing information as needed.
8. To view or edit software definitions, click the **Software Definitions** tab and make changes as needed.
9. Click **Save**.

## Uploading a Licensed Software Template

You can create a licensed software record by uploading a licensed software template obtained from JAMF Nation. Licensed software templates are available in JAMF Nation at:

<https://jamfnation.jamfsoftware.com/licensedSoftwareTemplates.html>

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Licensed Software**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Upload**  and upload the licensed software template.
5. Use the General pane to change or configure basic settings for the licensed software record.  
To enable email notifications, select the **Send email notification on violation** checkbox.

6. Click the **Licenses** tab and add license and purchasing information:
  - a. Click **Add** .
  - b. Enter information about the license, including the license type and license count.
  - c. (Optional) Click the **Purchasing Information** tab and enter purchasing information.
  - d. (Optional) Click the **Attachments** tab and click **Upload**  to upload an attachment.
  - e. Click **Save**.
  - f. Repeat steps a through e to add more license and purchasing information as needed.
7. To view or edit software definitions, click the **Software Definitions** tab and make changes as needed.
8. Click **Save**.

## Cloning, Editing, or Deleting a Licensed Software Record

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Licensed Software**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the licensed software record you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the licensed software record, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the licensed software record, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the licensed software record, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [License Compliance](#)  
Find out how to evaluate license compliance by viewing the licensed software records in the JSS.
- [Viewing License Usage](#)  
Find out how to view the computers on which licenses are in use.
- [Application Usage for Licensed Software](#)  
Find out how frequently the licensed software in your environment is being used.
- [Smart Computer Groups](#)  
You can create smart computer groups based on licensed software.

# License Compliance

You can evaluate license compliance by viewing the licensed software records in the JSS and comparing the number of licenses in use to the number of licenses owned.

You can also monitor software compliance by allowing email notifications to be sent to JSS users each time a license limit is exceeded. (For more information see, [Licensed Software Records](#).)

## Evaluating License Compliance

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Licensed Software**.

On a smartphone or iPod touch, this option is in the pop-up menu.

A list of licensed software records is displayed along with the number of licenses in use and the number of licenses owned for each record.

# Viewing License Usage

If you are using licensed software records to track software licenses, you can view a list of computers with the licenses in use (called “license usage matches”).

## Viewing License Usage Matches

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Licensed Software**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the licensed software record you want to view license usage matches for.
5. Click **View Matches**.

**Note:** This button is only displayed if the licenses associated with the record are in use on managed computers.

A list license usage matches is displayed.

## Related Information

For related information, see the following sections in this guide:

- [Computer Reports](#)  
Find out how to export the data in a list of license usage matches to different file formats.
- [Performing Mass Actions for Computers](#)  
Find out how to perform mass actions for a list of license usage matches.
- [Viewing and Editing Inventory Information for a Computer](#)  
You can view the licensed software in use on a computer by viewing the computer’s inventory information in the JSS.



# Application Usage for Licensed Software

You can find out how frequently licensed software is being used by viewing the Application Usage logs for a licensed software record. This allows you to view the amount of time that the software was open in the foreground on computers.

## Requirements

To view Application Usage logs for a licensed software record, the Computer Inventory Collection settings must be configured to collect Application Usage information. (For more information, see [Computer Inventory Collection Settings](#).)

## Viewing Application Usage Logs for a Licensed Software Record

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Licensed Software**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the licensed software record you want to view Application Usage logs for.
5. Click **View Logs**.

**Note:** This button is only displayed if the licenses associated with the record are in use on managed computers.

Application Usage logs for the record are displayed.

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# Usage Management

## Application Usage

Application Usage logs allow you to monitor how frequently applications are used on computers and track usage behaviors. You can view the Application Usage logs for a computer or licensed software record.


Computers submit Application Usage information to the JAMF Software Server (JSS) each time they submit inventory.

### Requirements

To view Application Usage logs, the Computer Inventory Collection settings must be configured to collect Application Usage information. (For more information, see [Computer Inventory Collection Settings](#).)

### Viewing Application Usage Logs for a Computer

The Application Usage logs for a computer consist of a pie chart that shows the amount of time each application was in the foreground on the computer during a specified date range.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view Application Usage logs for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab.  
Application Usage logs for the computer are displayed.
6. To view Application Usage logs for a different date range, specify the starting and ending dates using the **Date Range** pop-up menus. Then click **Update**.

# Viewing Application Usage Logs for a Licensed Software Record

The Application Usage logs for a licensed software record allow you to view the amount of time that the software was open in the foreground on computers.

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Licensed Software**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the licensed software record you want to view Application Usage logs for.
5. Click **View Logs**.

**Note:** This button is only displayed if the licenses associated with the record are in use on managed computers.

Application Usage logs for the record are displayed.

## Related Information

For related information, see the following sections in this guide:

- [Flushing Logs](#)  
Find out how to schedule automatic log flushing or manually flush logs.
- [Simple Computer Searches](#)  
You can quickly search the Application Usage information in the JSS for a general range of results.

# Computer Usage


Computer Usage logs allow you to monitor how frequently each computer is used and track usage behaviors. The following information is included in Computer Usage logs:

- Startup dates/times
- Login and logout dates/times
- Usernames used to log in and out of the computer

## Requirements

To view Computer Usage logs, a startup script or login/logout hooks must be configured to log Computer Usage information. (For more information, see [Startup Script](#) and [Login and Logout Hooks](#).)

## Viewing Computer Usage Logs for a Computer

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Perform a simple or advanced computer search.  
For more information, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).
4. Click the computer you want to view Computer Usage logs for.  
If you performed a simple search for an item other than computers, you must click **Expand**  next to an item to view the computers related to that item.
5. Click the **History** tab, and then click the **Computer Usage Logs** category.  
Computer Usage logs for the computer are displayed.

## Related Information

For related information, see the following section in this guide:

### [Flushing Logs](#)

Find out how to schedule automatic log flushing or manually flush logs.


# Restricted Software

Restricted software allows you to prevent users or groups of users from accessing certain applications. For instance, you might want to prevent all users from accessing a peer-to-peer file sharing application or restrict everyone except the IT staff from accessing common administrative utilities.

For each application that you want to restrict, you must create a restricted software record. This allows you to specify the users to which the restriction applies and control what happens when the application is opened by those users. For instance, you can kill the restricted process, delete the application, and even display a message to the user.

If there is an SMTP server set up in the JSS, you can enable email notifications for the restricted software record. This allows email notifications to be sent to JSS users each time a violation occurs. (For information on setting up an SMTP server and enabling email notifications for JSS user accounts, see [Integrating with an SMTP Server](#) and [Email Notifications](#).)

## Creating a Restricted Software Record

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Restricted Software**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Configure the restricted software record using the fields and options on the pane.  
To enable email notifications, select the **Send email notification on violation** checkbox.
6. Click the **Scope** tab and configure the scope of the restricted software record.  
For more information, see [Scope](#).
7. Click **Save**.

The restriction is applied to computers in the scope the next time they check in with the JSS.

## Cloning, Editing, or Deleting a Restricted Software Record

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Restricted Software**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the restricted software record you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the restricted software record, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the restricted software record, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the restricted software record, click **Delete** and then click **Delete** again to confirm.

The clone, edit, or delete action is applied to computers in the scope the next time they check in with the JSS.

## Related Information

For related information, see the following section in this guide:

[Viewing Restricted Software for a Computer](#)

Find out how to view the restricted software for a computer.

For related information, see the following Knowledge Base article:

[Finding the Name of Processes When Configuring Restricted Software](#)

Learn how to find the exact name of the process you want create restricted software for.



# Managing Mobile Devices

# Enrollment

## About Mobile Device Enrollment

Enrollment is the process of adding mobile devices to the JAMF Software Server (JSS) to establish a connection between the devices and the JSS. This allows you to perform inventory, configuration, security management, and distribution tasks on the devices.

When mobile devices are enrolled, inventory information for the devices is submitted to the JSS.

There are several ways to enroll mobile devices with the JSS:

- **User-initiated enrollment**—You can allow users to enroll mobile devices by having them log in to an enrollment portal where they follow the onscreen instructions to install the necessary profile and certificates. You can provide this URL by sending it in an email or SMS invitation from the JSS, or through any other means that fit your environment.

Personally owned devices can only be enrolled via user-initiated enrollment, and require an enabled personal device profile assigned to the site that the user has access to (or to the full JSS if sites have not been added to the JSS). For more information, see [Personal Device Profiles](#).

- **Enroll connected mobile devices**—You can create an enrollment profile using the JSS and install it on mobile devices by connecting them to a computer via USB. This enrollment method requires Apple Configurator or Apple's iPhone Configuration Utility (iPCU).

Apple TV devices can only be enrolled by connecting them to a computer via USB and installing an enrollment profile using Apple Configurator.

- **Enroll mobile devices using a PreStage enrollment**—A PreStage enrollment allows you to store enrollment and mobile device setup settings in the JSS and use them to enroll new mobile devices with the JSS. This reduces the amount of time and interaction it takes to prepare new mobile devices for use.

This enrollment method requires an account in Apple's Volume Services Portal. For more information, see the [Integrating with Apple's Device Enrollment Program](#) Knowledge Base article.

- **Apple Configurator enrollment**—You can enroll mobile devices with the JSS by connecting them to a computer via USB and using Apple Configurator, an enrollment URL, and an anchor certificate that you download from the JSS.



## Related Information

For more information, see the following sections in this guide:

- [User-Initiated Enrollment for Mobile Devices](#)  
Find out how to allow users to enroll mobile devices by having them log in to an enrollment portal.
- [Enrollment Profiles](#)  
Find out how to create and download enrollment profiles so you can enroll mobile devices by connecting them to a computer via USB.
- [Mobile Device PreStage Enrollments](#)  
Find out how to enroll mobile devices using a PreStage enrollment.
- [Apple Configurator Enrollment Settings](#)  
Find out how to enable Apple Configurator enrollment so you can enroll mobile devices using Apple Configurator and an enrollment URL.
- [Components Installed on Mobile Devices](#)  
Learn about the components installed on mobile devices during enrollment.

# Components Installed on Mobile Devices

The following components are installed on mobile devices during enrollment:

- **MDM Profile**—This profile includes a SCEP enrollment request and an MDM enrollment request.
- **Trust Profile**—This profile contains the CA certificate. The CA certificate establishes trust between the certificate authority (CA) and mobile devices.

If you enrolled mobile devices using a PreStage enrollment, or using Apple Configurator and an enrollment URL, the Trust Profile is not a separate profile and it is contained within the MDM Profile.

- **Device certificate**—This certificate verifies the identity of managed mobile devices each time they communicate with the JAMF Software Server (JSS).
- **Self Service Mobile**—Self Service Mobile for iOS allows you to distribute iOS configuration profiles, apps, and eBooks to mobile devices for users to install. Users tap the app to browse and then install items using an interface similar to the App Store.

**Note:** If you have upgraded from the Casper Suite v9.3x, the Self Service web clip is installed on all managed mobile devices except Apple TV devices by default.

You can prevent Self Service Mobile from being installed on mobile devices if necessary. (For more information, see [Installing Self Service](#).)

**Note:** Self Service Mobile for iOS is not installed on Apple TV devices or personally owned devices.

# User-Initiated Enrollment for Mobile Devices

You can allow users to enroll mobile devices by having them log in to an enrollment portal where they are prompted to install the necessary profile and certificates.

To direct users to the enrollment portal, you need to provide them with the enrollment URL. The enrollment URL is the full URL for the JAMF Software Server (JSS) followed by “/enroll”. For example:

`https://jss.mycompany.com:8443/enroll`

You can provide the enrollment URL to users by doing the following:

- **Provide the URL in the way that best fits your environment**

Simply provide the URL to users in the way that best fits your needs. You can add a mobile device to a site when using this method.

- **Send an enrollment invitation to users via email or SMS**

This allows you create an email or SMS invitation in the JSS and send it to one or more users. It gives you more control over user access to the enrollment portal by allowing you do the following:

- Set an expiration date for the invitation
- Require users to log in to the portal
- Allow multiple uses of the invitation
- Add the mobile device to a site during enrollment
- View the status of the invitation

**Note:** Mobile device enrollment invitations cannot be sent to personally owned devices. You must provide the enrollment URL to those users by some other means.

Users can log in to the enrollment portal using an LDAP directory account or a JSS user account. When a user logs in with an LDAP directory account, user and location information is submitted to the JSS during enrollment. When a user logs in with a JSS user account, it allows an LDAP user to be assigned to the mobile device.

## Requirements

To allow mobile devices to be enrolled with user-initiated enrollment, you need:

- A push certificate in the JSS (For more information, see [Push Certificates](#).)
- User-initiated enrollment enabled (For more information, see [User-Initiated Enrollment Settings](#).)


To send a mobile device enrollment invitation via email, you need an SMTP server set up in the JSS. (For more information, see [Integrating with an SMTP Server](#).)

For users to log in to the enrollment portal with an LDAP directory account, you need an LDAP server set up in the JSS. (For more information, see [Integrating with LDAP Directory Services](#).)

## Sending a Mobile Device Enrollment Invitation

You can send an email or SMS invitation that contains the enrollment URL from the JSS. Users click the enrollment URL in the email or SMS message to access the enrollment portal.

Before you configure the invitation, make sure you have the email addresses or phone numbers of the users you want to send the invitation to.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Enrollment Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Follow the onscreen instructions to send the enrollment invitation.

An enrollment invitation is immediately sent to the email addresses or phone numbers you specified.

You can view the status of the enrollment invitation in the list of invitations.

## Viewing Mobile Device Enrollment Invitation Usage

You can view a list of mobile devices that were enrolled with a specific enrollment invitation.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Enrollment Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the enrollment invitation you want to view usage for.
5. Click **View Enrolled Mobile Devices**.

A list of mobile devices enrolled with the invitation is displayed.

## Deleting a Mobile Device Enrollment Invitation

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Enrollment Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the enrollment invitation you want to delete.
5. Click **Delete**, and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [User-Initiated Enrollment Settings](#)  
Learn about the settings you can configure for user-initiated enrollment.
- [User-Initiated Enrollment Experience for Mobile Devices](#)  
Learn about the steps users take to enroll mobile devices.
- [Enrollment Profiles](#)  
Find out how to create and download enrollment profiles so you can enroll mobile devices by connecting them to a computer via USB.
- [Mobile Device PreStage Enrollments](#)  
Find out how to enroll mobile devices using a PreStage enrollment.
- [Apple Configurator Enrollment Settings](#)  
Find out how to enable Apple Configurator enrollment so you can enroll mobile devices using Apple Configurator and an enrollment URL.
- [Components Installed on Mobile Devices](#)  
Learn about the components installed on the mobile devices during enrollment.

# User-Initiated Enrollment Experience for Mobile Devices

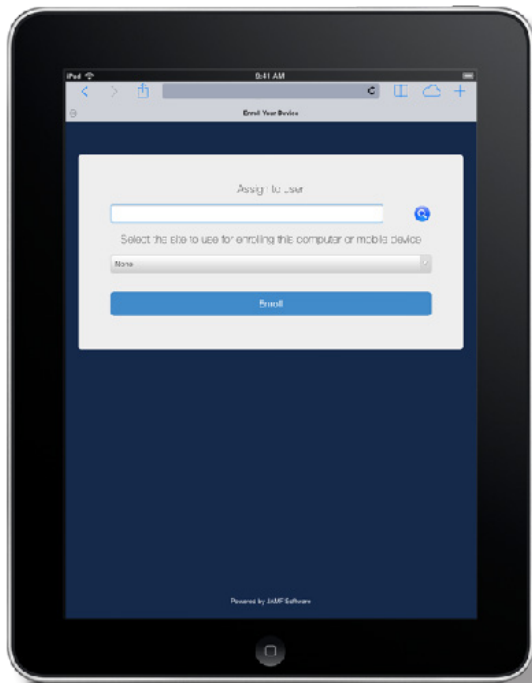
When a user accesses the enrollment URL from a mobile device, they are guided through a series of steps to enroll the device. The steps vary depending on the platform of the device being enrolled—iOS or Android.

## User-Initiated Enrollment Experience for iOS Devices

iOS devices can be enrolled as institutionally owned or personally owned devices.

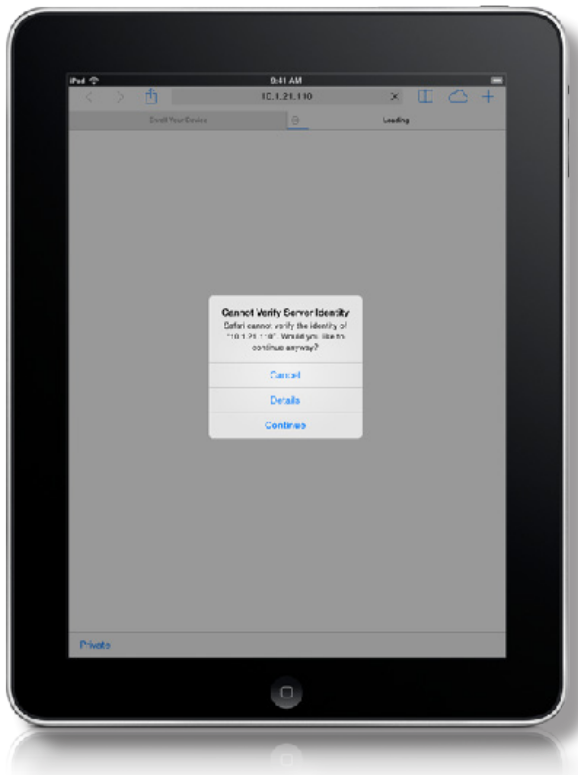
1. The user is prompted to enter credentials for an LDAP directory account or a JSS user account with user-initiated enrollment privileges, and then they must tap **Log in**.

The login prompt is not displayed if the enrollment portal was accessed via an enrollment invitation for which the **Require Login** option is disabled. (For more information about enrollment invitations, see [User-Initiated Enrollment for Mobile Devices](#).)

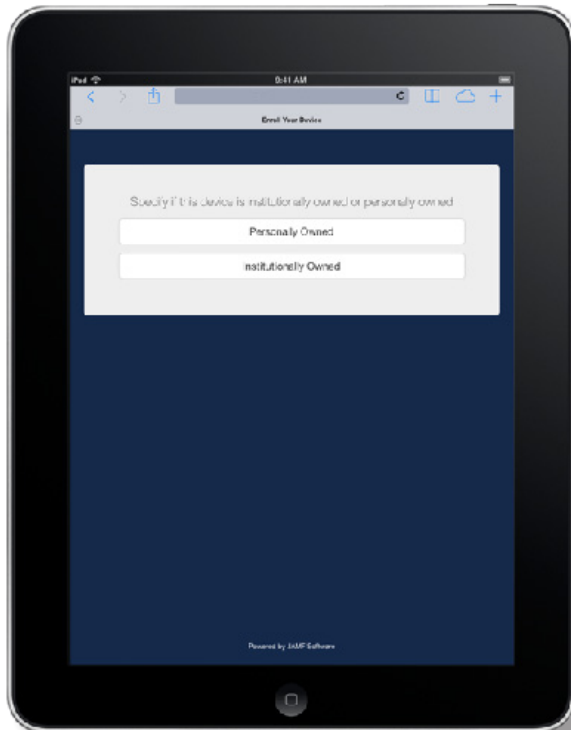


If notified that the device cannot verify the identity of the JSS, the user must tap **Continue** to log in to the enrollment portal.

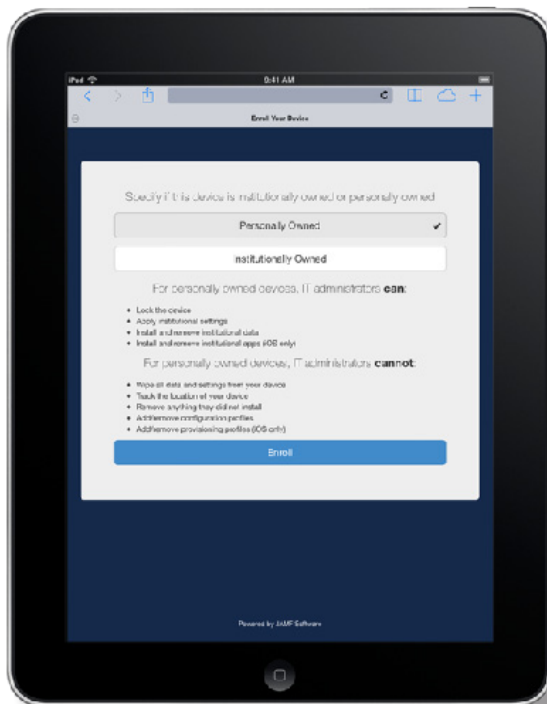
This notification only appears if the SSL certificate is not natively trusted by the device.



2. The user is prompted to enroll the device as a personally owned device or an institutionally owned device. This is only displayed if both institutionally owned device enrollment and personally owned device enrollment are enabled in the JSS.

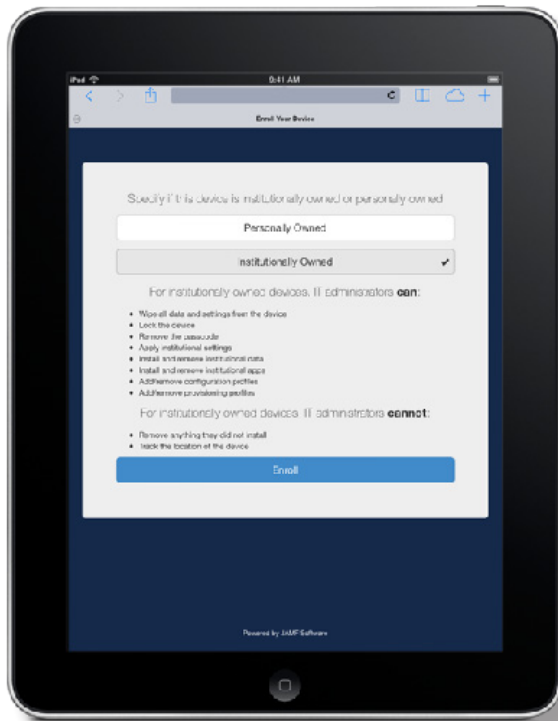


You can display a description to users who enroll a personally owned device. (For more information, see [User-Initiated Enrollment Settings](#).)





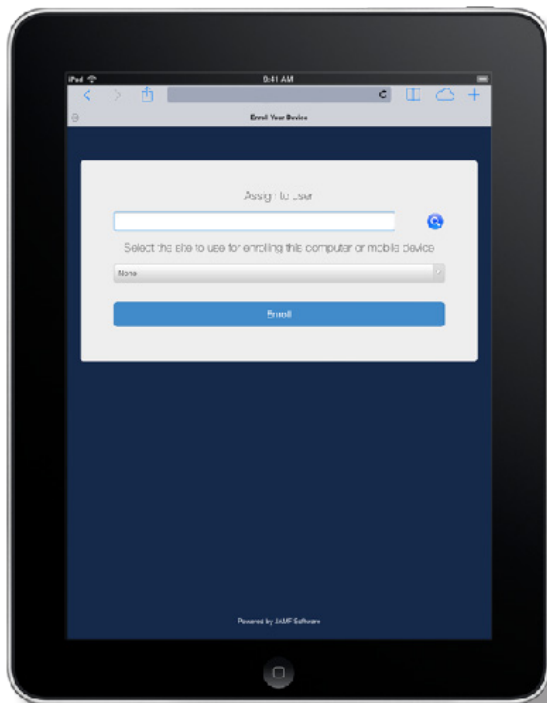
You can display a description to users who enroll an institutionally owned device.



3. When prompted, the user must choose the site that they are associated with.

If the user is associated with multiple sites, they must select the site that will assign the appropriate settings to the device.

If the user signed in with a JSS user account, they can assign an LDAP user to the computer at this time.



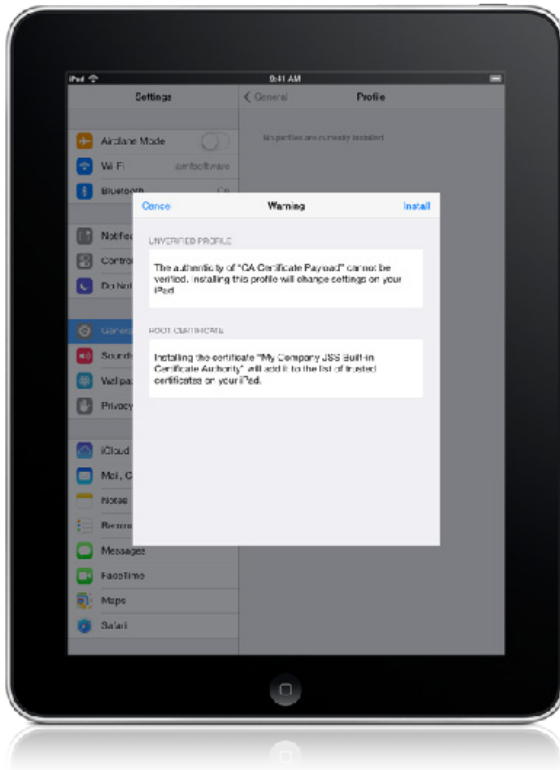
- The user is prompted to continue to the CA certificate installation.



- The user must tap **Install** to continue.



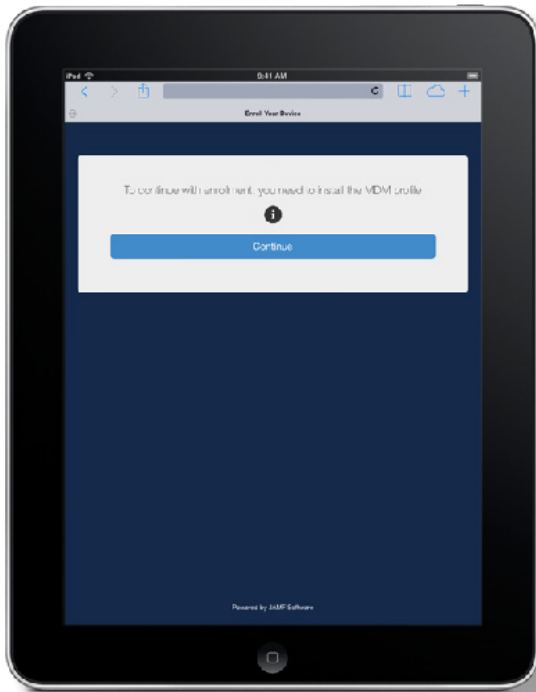
- When notified that the profile will change settings on the device, the user must tap **Install**. If the device has a passcode, the user must enter the passcode.



- To complete the installation, the user must tap **Done**.



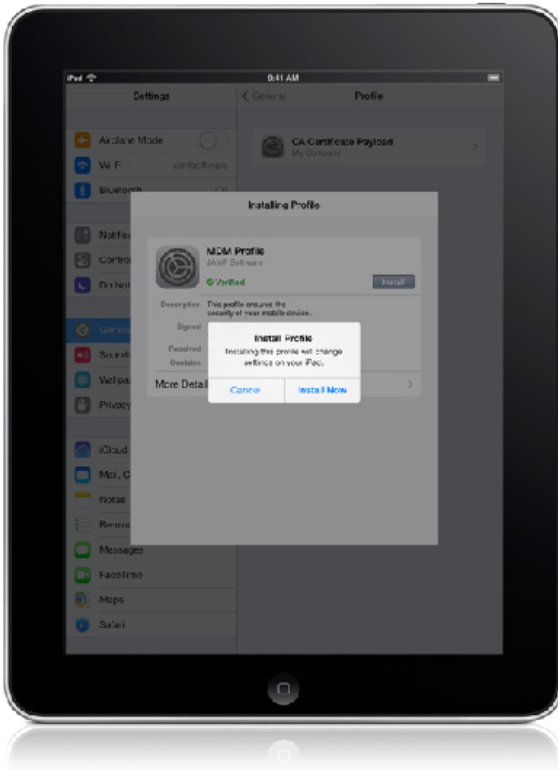
8. The user is prompted to continue to the MDM profile installation. Information about enrollment can be accessed by tapping the **Information** icon.



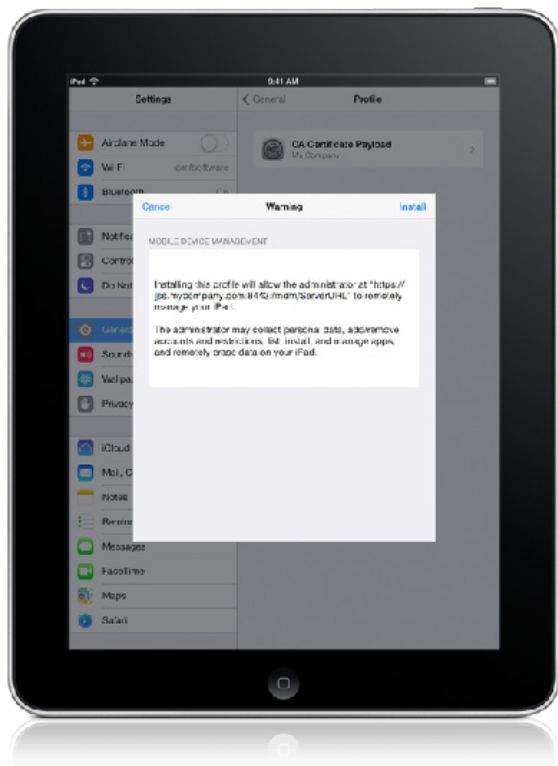
9. The user must tap **Install** to continue.



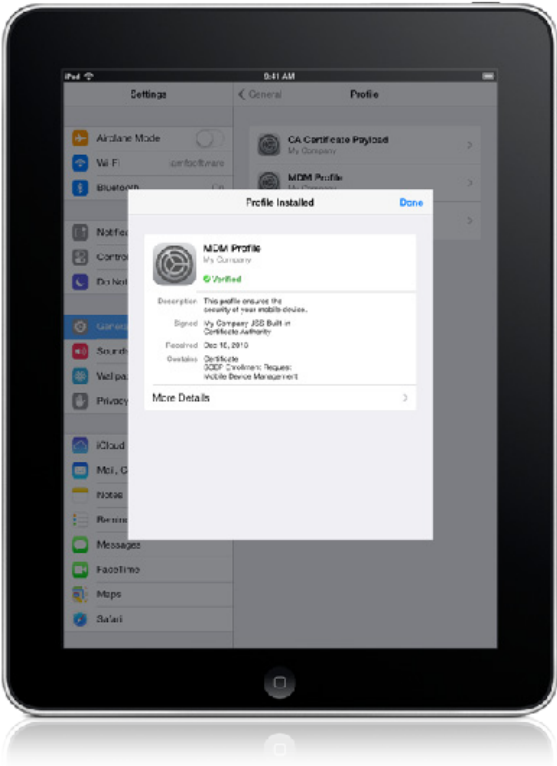
10. When notified that installing the profile will change settings on the device, the user must tap **Install Now**. If the device has a passcode, the user must enter the passcode.



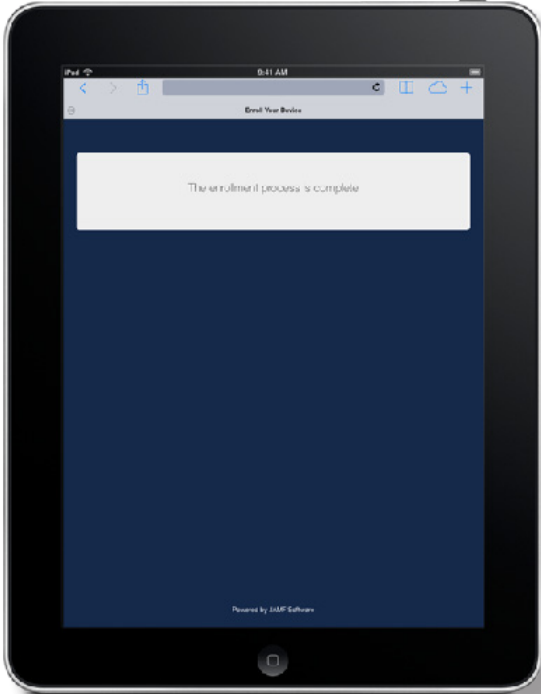
11. When notified that installing the profile will allow an administrator to remotely manage the device, the user must tap **Install**.



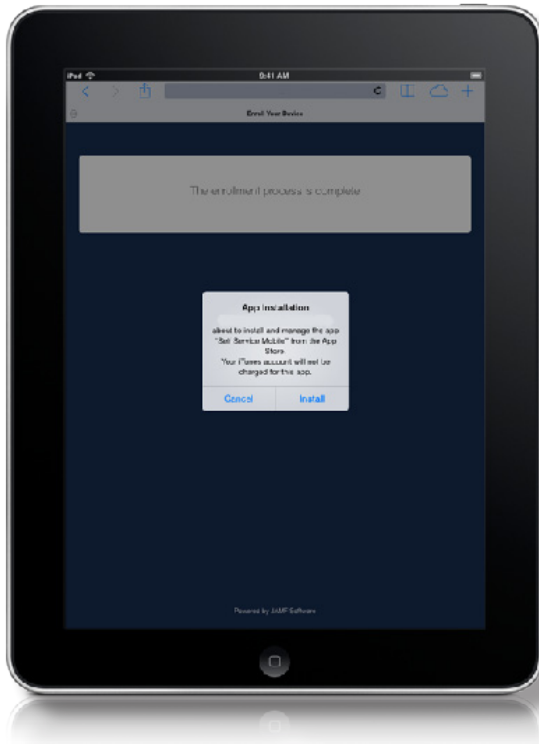
12. To complete the enrollment process, the user must tap **Done**.



When the enrollment is complete, the device is enrolled with the JSS.



If you chose to install Self Service Mobile, users are prompted to install the app from the App Store. (For more information, see [Self Service Mobile](#).)



## User-Initiated Enrollment Experience for Android Devices

Android devices can only be enrolled as personally owned devices.

During user-initiated enrollment of an Android device, the user is required to install Self Service Mobile from Google Play. Self Service Mobile must remain installed on an enrolled Android device to keep the device managed by the JSS.

1. The user is prompted to enter credentials for an LDAP directory account or a JSS user account with user-initiated enrollment privileges, and then they must tap **Log In**.

2. If prompted, the user must choose the site that they are associated with.  
If the user is associated with multiple sites, they must select the site that will assign the appropriate settings to the device.



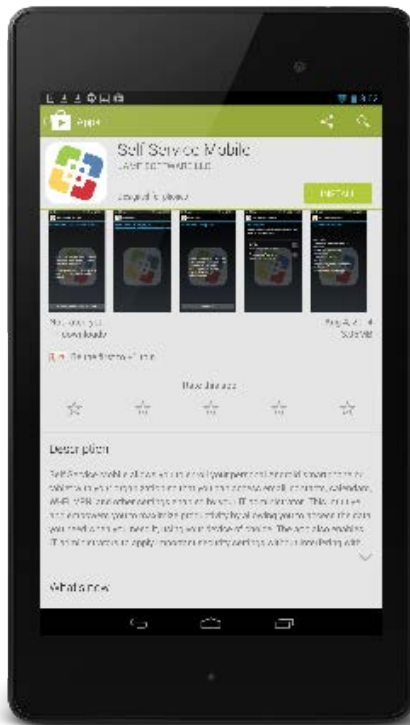
3. The user is prompted to go to Google Play to install Self Service Mobile, and then return to the enrollment portal.

**Note:** If the user already has Self Service Mobile installed, they can skip the app installation step.

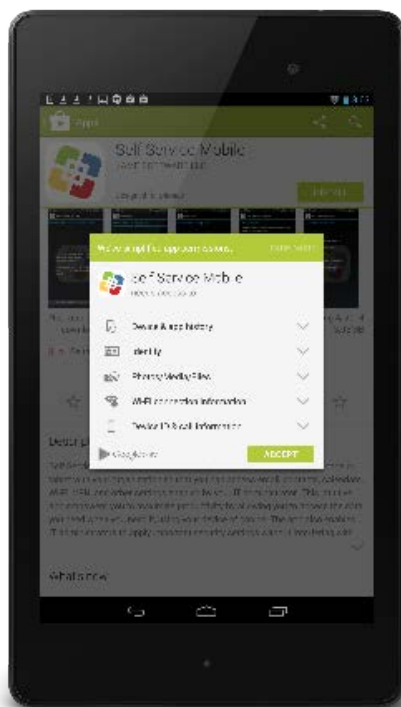




4. If the user goes to Google Play to install Self Service Mobile, they must tap **Install** to start the app installation process.



5. The user must then tap **Accept** to install Self Service Mobile.



6. When the Self Service Mobile installation is complete, the user must return to the enrollment portal in their web browser.

**Note:** If the user taps **Open** in Google Play to open Self Service Mobile, a welcome page directs the user to return to their web browser to continue enrollment. If the user knows the JSS URL to use for enrollment, they can tap **Manually Enroll Using JSS URL** and complete enrollment in Self Service Mobile.

7. The user is prompted to continue to the MDM profile installation.

The user can access information about enrollment by tapping the **Information** icon.

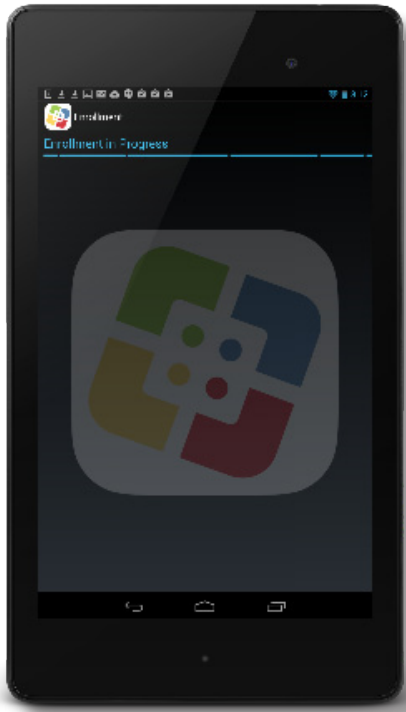


If notified that the device cannot verify the server's identity, the user must tap **Yes** to log in to the enrollment portal.

This notification only appears if the SSL certificate is not natively trusted by the device.



The Self Service Mobile enrollment progress page is displayed.



8. When prompted to activate Self Service Mobile as a device administrator, the user must tap **Activate**.

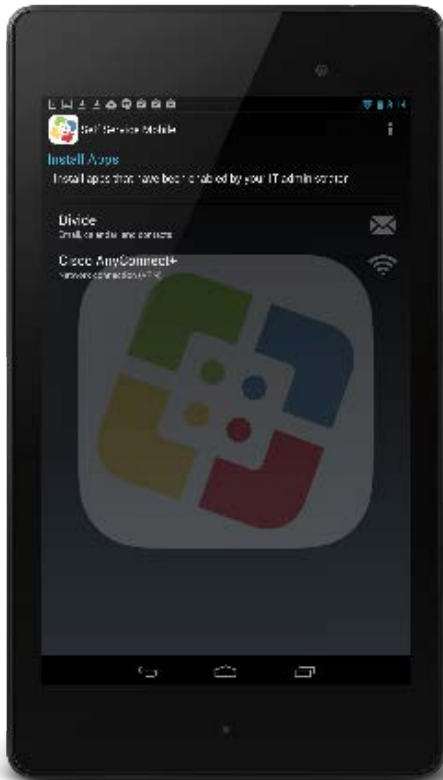


When enrollment is complete, the device is enrolled with the JSS.

9. (Optional) The user can tap **Continue** to install third-party apps if appropriate for their environment.



The user can then install apps for configuring email, calendar, and contacts, and for configuring a VPN connection.



# Apple Configurator Enrollment Settings

The Apple Configurator Enrollment settings allow you to enroll mobile devices with the JAMF Software Server (JSS) using Apple Configurator and an enrollment URL. This involves enabling enrollment in the JSS, downloading the anchor certificate, and then connecting devices to a computer via USB to enroll them using Apple Configurator and an enrollment URL.

When you enable the Apple Configurator Enrollment settings, you do the following:

- Allow devices to be enrolled with the JSS using Apple Configurator and an enrollment URL:  
`https://jss.mycompany.com:8443/configuratorenroll`

- Download the anchor certificate that is needed to connect Apple Configurator to the JSS.



**Note:** The anchor certificate is only displayed if the SSL certificate you are using is signed with the JSS's built-in CA. If the SSL certificate you are using is signed by an external CA (your organization's CA or a trusted third-party CA), the anchor certificate is not displayed in the JSS.

## Requirements

Apple Configurator enrollment only applies to mobile devices with iOS 7 or later. In addition, you need Apple Configurator 1.5 or later.

## Enabling Apple Configurator Enrollment

Before you can enroll mobile devices using Apple Configurator and an enrollment URL, you must enable Apple Configurator enrollment in the JSS.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Mobile Device Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Apple Configurator Enrollment** .
5. Click **Edit**.
6. Select the **Allow Apple Configurator enrollment** checkbox.
7. If you are using the JSS's built-in CA, click **Download** next to the certificate to download the anchor certificate. This certificate is needed to connect Apple Configurator to the JSS.  
The anchor certificate (.pem) downloads immediately.
8. Click **Save**.

When the anchor certificate is imported to Apple Configurator, it displays in the Anchor Certificates list with a name that identifies it as the CA certificate profile.

## Related Information

For related information, see the following sections in this guide:

- [User-Initiated Enrollment for Mobile Devices](#)  
Find out how to allow users to enroll mobile devices by having them log in to an enrollment portal.
- [Enrollment Profiles](#)  
Find out how to create and download enrollment profiles so you can enroll mobile devices by connecting them to a computer via USB.
- [Mobile Device PreStage Enrollments](#)  
Find out how to enroll mobile devices using a PreStage enrollment.
- [Components Installed on Mobile Devices](#)  
Learn about the components installed on mobile devices during enrollment.

# Enrollment Profiles

Enrollment profiles are .mobileconfig files that allow you to enroll mobile devices with the JAMF Software Server (JSS). This involves creating an enrollment profile, connecting the devices to a computer via USB, and installing the enrollment profile using Apple Configurator or Apple's iPhone Configuration Utility (iPCU).

You can use the JSS to create and download enrollment profiles. When you create an enrollment profile, you can specify user and location information, purchasing information, and a site for mobile devices enrolled using the profile.

**Important:** You cannot distribute an updated MDM profile via the Self Service web clip to mobile devices enrolled using an enrollment profile. For information on updating an MDM profile, see the following Knowledge Base article:

[Distributing Updated MDM Profiles](#)

## Tools for Installing Enrollment Profiles

Before creating an enrollment profile, you need to decide which tool you will use to install the profile on mobile devices. The tool you use to install enrollment profiles affects the way you manage the profiles in the JSS.

The following tools can be used to install enrollment profiles:

- **Apple Configurator**—By default, when you create an enrollment profile in the JSS, it is created for use with Apple Configurator. Before you can use Apple Configurator to enroll mobile devices, you need to download both the enrollment profile and its Trust Profile from the JSS so you can import these profiles to Apple Configurator.
- **iPCU**—You should only create an enrollment profile for use with iPCU if you plan to install the profile on mobile devices with iOS 6 or earlier. Before you can use iPCU to enroll mobile devices, you need to download the enrollment profile from the JSS so you can import it to iPCU.

**Note:** Enrollment profiles created using the JSS v9.0 or earlier cannot be used to enroll mobile devices with iOS 7 or later. If you plan to enroll mobile devices with iOS 7 or later, you need to create a new enrollment profile following the instructions in the [Creating an Enrollment Profile for Use with Apple Configurator](#) section.


For information on how to install enrollment profiles using Apple Configurator or iPCU, see the following Knowledge Base article:

[Installing Enrollment Profiles Using Apple Configurator or iPCU](#)


## Creating an Enrollment Profile for Use with Apple Configurator

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.



3. Click **Enrollment Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General pane to configure basic settings for the enrollment profile.  
Ensure that the **Create profile for use with iPCU** checkbox is not selected.
6. (Optional) Click the **User and Location Information** tab and specify user and location information for the devices.
7. (Optional) Click the **Purchasing Information** tab and specify purchasing information for the devices.
8. (Optional) Click the **Attachments** tab and click **Upload** to upload an attachment.
9. Click **Save**.

## Creating an Enrollment Profile for Use with iPCU

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Enrollment Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General pane to configure basic settings for the enrollment profile.  
Select the **Create profile for use with iPCU** checkbox and choose a target iOS version.  
The target iOS must match the iOS on the devices that you plan to enroll.
6. (Optional) Click the **User and Location Information** tab and specify user and location information for the devices.
7. (Optional) Click the **Purchasing Information** tab and specify purchasing information for the devices.
8. (Optional) Click the **Attachments** tab and click **Upload** to upload an attachment.
9. Click **Save**.

## Cloning, Editing, or Deleting an Enrollment Profile

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Enrollment Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the enrollment profile you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the profile, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the profile, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the profile, click **Delete**. Then click **Delete** again to confirm.

## Downloading an Enrollment Profile

You need to download the enrollment profile (.mobileconfig) from the JSS before using it to enroll mobile devices using Apple Configurator or iPCU.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Enrollment Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the enrollment profile you want to download.
5. Click **Download**.  
On OS X v10.7 or later, you may be prompted to install the profile. Click **Cancel** to decline.

The enrollment profile downloads immediately as a .mobileconfig file.

## Downloading a Trust Profile

The Trust Profile contains the CA certificate that establishes trust between the certificate authority (CA) and mobile devices.

When you create an enrollment profile for use with Apple Configurator, the JSS automatically creates an associated Trust Profile. You need to download the Trust Profile (Trust Profile.mobileconfig) from the JSS so that you can import it to Apple Configurator along with the enrollment profile.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Enrollment Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the enrollment profile for which you want to download a Trust Profile.
5. Click **Trust Profile**.

On OS X v10.7 or later, you may be prompted to install the profile. Click **Cancel** to decline.

The Trust Profile downloads immediately with the filename `Trust Profile.mobileconfig`.

When the Trust Profile is imported to Apple Configurator, it displays in the Profiles list with a name that identifies it as the CA certificate profile.

## Related Information

For related information, see the following sections in this guide:

- [User-Initiated Enrollment for Mobile Devices](#)  
Find out how to allow users to enroll mobile devices by having them log in to an enrollment portal.
- [Mobile Device PreStage Enrollments](#)  
Find out how to enroll mobile devices using a PreStage enrollment.
- [Apple Configurator Enrollment Settings](#)  
Find out how to enable Apple Configurator enrollment so you can enroll mobile devices using Apple Configurator and an enrollment URL.
- [Components Installed on Mobile Devices](#)  
Learn about the components installed during mobile device enrollment.

# Mobile Device PreStage Enrollments

A PreStage enrollment allows you to store enrollment and mobile device setup settings in the JAMF Software Server (JSS) and use them to enroll new mobile devices with the JSS. This reduces the amount of time and interaction it takes to prepare mobile devices for use.


Before you can use a PreStage enrollment, you need to create it in the JSS. This allows you to configure the enrollment settings and specify the mobile devices that should be enrolled using the PreStage enrollment. You can also customize the user experience of the Setup Assistant.

You can require users to authenticate during mobile device setup using an LDAP directory account or a JSS user account. If users authenticate with an LDAP directory account, user and location information is submitted during enrollment.

## Requirements

For users to authenticate with their LDAP directory account during mobile device setup, you need an LDAP server set up in the JSS. (For more information, see [Integrating with LDAP Directory Services](#).) In addition, authentication requires mobile devices with iOS 7.1 or later.

## Configuring a Mobile Device PreStage Enrollment

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **PreStage Enrollments**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the General payload to configure basic settings for the PreStage enrollment and customize the user experience of the Setup Assistant.  
To customize the user experience of the Setup Assistant, select which steps you want to skip in the Setup Assistant. If you choose to skip steps, the user can enable these settings after the device is configured unless otherwise restricted.
6. (Optional) Use the Mobile Device Names payload to choose a method for assigning names to mobile devices.

This information is stored in the JSS for each mobile device enrolled using a PreStage enrollment. The Mobile Device Names payload is only displayed if the **Supervise Devices** checkbox is selected. The List of Names naming method requires mobile devices with iOS 8 or later.

7. (Optional) Use the User and Location payload to specify user and location information for the mobile devices.  
This information is stored in the JSS for each mobile device enrolled using a PreStage enrollment.  
The User and Location Information payload is only displayed if the **Require Authentication** checkbox is not selected.
8. (Optional) Use the Purchasing payload to specify purchasing information for the mobile devices.  
This information is stored in the JSS for each mobile device enrolled using a PreStage enrollment.
9. (Optional) Use the Attachments payload to upload attachments to store for mobile devices.  
This information is stored in the JSS for each mobile device enrolled using a PreStage enrollment.
10. If the SSL certificate you are using is signed by an external CA (your organization's CA or a trusted third-party CA), use the Certificates payload to upload a certificate for the CA that you want mobile devices to trust at enrollment.  
The anchor certificate is only displayed if the SSL certificate you are using is signed by the JSS's built-in CA.
11. Click the **Scope** tab and configure the scope of the PreStage enrollment by selecting the checkbox next to each mobile device you want to add to the scope.  
The mobile devices listed on the **Scope** tab are the mobile devices that are associated with the Device Enrollment Program via the server token file (.p7m) you downloaded from Apple's Volume Services Portal.
12. Click **Save**.

## Refreshing PreStage Enrollment Information

The JSS allows you to manually refresh information about the mobile devices in the PreStage enrollment as needed.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **PreStage Enrollments**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the PreStage enrollment you want to refresh.
5. Click **Refresh**.

If there is updated information about the mobile devices in the Device Enrollment Program, this information is displayed in the JSS.

## Cloning, Editing, or Deleting a PreStage Enrollment

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.

3. Click **PreStage Enrollments**.

On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the PreStage enrollment you want to clone, edit, or delete.

5. Do one of the following:

- To clone the PreStage enrollment, click **Clone** and make changes as needed. Then click **Save**.

**Note:** Mobile devices added to the scope of a PreStage enrollment are not cloned when cloning the PreStage enrollment.

- To edit the PreStage enrollment, click **Edit** and make changes as needed. Then click **Save**.

- To delete the PreStage enrollment, click **Delete**. Then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Integrating with the Device Enrollment Program](#)

Find out how to configure an instance of the Device Enrollment Program.

- [User-Initiated Enrollment for Mobile Devices](#)

Find out how to allow users to enroll mobile devices by having them log in to an enrollment portal.

- [Enrollment Profiles](#)

Find out how to create and download enrollment profiles so you can enroll mobile devices by connecting them to a computer via USB.

- [Apple Configurator Enrollment Settings](#)

Find out how to enable Apple Configurator enrollment so you can enroll mobile devices using Apple Configurator and an enrollment URL.

- [Components Installed on Mobile Devices](#)

Learn about the components installed on mobile devices during enrollment.

# Inventory



## Mobile Device Inventory Collection Settings

The Mobile Device Inventory Collection settings allow you to do the following:

- Configure the frequency at which inventory is collected from mobile devices.
- Collect unmanaged apps (does not apply to personally owned devices).
- Collect user and location from an LDAP directory service (only available if an LDAP server is set up in the JSS).
- Monitor iBeacon regions so that mobile devices with Self Service Mobile for iOS installed submit information to the JSS when they enter or exit a region.

By default, mobile devices submit inventory to the JAMF Software Server (JSS) once every day.

## Configuring the Mobile Device Inventory Collection Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Mobile Device Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Inventory Collection** .
5. Click **Edit**.
6. Configure the settings on the pane.
7. Click **Save**.

## Related Information

For related information, see the following sections in this guide:

- [Simple Mobile Device Searches](#)  
Learn how to quickly search the items in your inventory for a general range of results.
- [Advanced Mobile Device Searches](#)  
Learn how to create and save an advanced mobile device search.
- [Viewing and Editing Inventory Information for a Mobile Device](#)  
Find out how to view and edit inventory information for a mobile device.
- [iBeacon Regions](#)  
Learn what iBeacon regions can be used for and how you can add them to the JSS.



# Mobile Device Extension Attributes

Mobile device extension attributes are custom fields that you can create to collect almost any type of data from a mobile device.

**Note:** Mobile device extension attributes do not apply to personally owned mobile devices.

When you create a mobile device extension attribute, you specify the following information:

- Type of data being collected, such as string, integer, or date
- Inventory category in which to display the extension attribute in the JSS, such as Hardware or Purchasing
- Input type, which determines how the extension attribute is populated with data

Extension attributes can add time and network traffic to the inventory process depending on the type of data you choose to collect and the input type used to collect it.

## Mobile Device Extension Attribute Input Types

You can choose to populate the value of a mobile device extension attribute using any of the following input types:




- **Text field**—This displays a text field in mobile device inventory information that you can enter a value into. Only extension attributes created manually can be populated using a text field.
- **Pop-up menu**—This displays a pop-up menu in mobile device inventory information from which you can choose a value. Only extension attributes created manually can be populated using a pop-up menu.
- **LDAP Attribute Mapping**—This populates the extension attribute with the value for an LDAP attribute. It also generates a variable that can be used to populate configuration profile settings with values for the LDAP attribute. The variable is `$EXTENSIONATTRIBUTE_<#>`, where `<#>` is the extension attribute ID. For more information on payload variables for configuration profiles, see [iOS Configuration Profiles](#).

## Requirements

To create a mobile device extension attribute with the “LDAP Attribute Mapping” input type, you need:



- An LDAP server set up in the JSS (For more information, see [Integrating with LDAP Directory Services](#).)
- The Mobile Device Inventory Collection settings configured to collect user and location information from LDAP (For more information, see [Mobile Device Inventory Collection Settings](#).)

## Creating a Mobile Device Extension Attribute

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Mobile Device Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Extension Attributes** .
5. Click **New** .
6. Configure the settings on the pane.
7. Click **Save**.

If the extension attribute has the “LDAP Attribute Mapping” input type, the LDAP attribute variable is displayed on the pane.

## Cloning, Editing, or Deleting a Mobile Device Extension Attribute

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Mobile Device Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Extension Attributes** .
5. Click the extension attribute you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the extension attribute, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the extension attribute, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the extension attribute, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Mobile Device Inventory Display Settings](#)

You can display extension attributes in the results of a simple mobile device search.

- [Viewing and Editing Inventory Information for a Mobile Device](#)

You can view the extension attributes collected from a mobile device and edit extension attribute values for that mobile device.



- [Smart Mobile Device Groups](#)

You can create smart mobile device groups based on extension attributes.

# Mobile Device Inventory Display Settings

The Mobile Device Inventory Display settings allow each JSS user to choose which attribute fields to display in the results of a simple mobile device search.

## Configuring the Mobile Device Inventory Display Settings

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Mobile Device Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Inventory Display** .
5. On each pane, select the checkbox for each attribute field you want to display.
6. Click **Save**.

## Related Information

For related information, see the following section in this guide:

[Simple Mobile Device Searches](#)

Learn how to quickly search the items in your inventory for a general range of results.

# Simple Mobile Device Searches

A simple mobile device search functions like a search engine, allowing you to quickly search the items in your inventory for a general range of results.

The following table shows the items that you can search by and the attributes on which you can base each search:

Inventory Item	Searchable Attributes
Mobile devices	Mobile device name Wi-Fi MAC address Bluetooth MAC address UDID Serial number Username Full name Email address Phone number Position Department Building Room
Mobile device apps	Application name

## Search Syntax

This section explains the syntax to use for the following search functions:

- Wildcard searches
- Including multiple search terms
- Excluding a search term
- Returning all results

In general, searches are not case-sensitive.

**Note:** The default search preference is “Exact Match”. For most items, the option can be changed to either “Starts with” or “Contains”. (For more information, see [Configuring Account Preferences](#).)

## Wildcard Searches

Asterisks (\*) function as wildcard characters in simple searches. The following table explains the different ways asterisks can be used to refine a search:

Usage	Example
Use an asterisk after a search term to return all results with attributes that begin with that term.	Perform an app search for "Adobe*" to return all apps that begin with "Adobe".
Use an asterisk before a search term to return all results with attributes that end with that term.	Perform a mobile device search for "*@mycompany.com" to return all mobile devices with email addresses that end with "@mycompany.com".
Use an asterisk before and after a search term to return all results that include that term.	Perform an app search for "*pro*" to return all apps that include "pro".
Use an asterisk without any other terms to return all results for the item you are searching.	Perform a mobile device search for "*" to return all mobile devices.

## Including Multiple Search Terms

Use multiple search terms separated by a comma (,) to return all results that include those search terms.

For example, perform an app search for "news\*, \*pro" to return all applications that begin with "news" and end with "pro".

## Excluding a Search Term

Use a hyphen (-) before a search term to exclude results that include the term.

For example, perform a mobile device search for "\*@mycompany.com, -555\*" to return all mobile devices with email addresses that end with "@mycompany.com" except for those with phone numbers that begin with "555".

## Returning All Results

There are two ways to return all results: use an asterisk (\*) without any other characters or terms, or perform a blank search.


## Performing a Simple Mobile Device Search

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Search Inventory**.

On a smartphone or iPod touch, this option is in the pop-up menu.

4. Choose an item from the **Search** pop-up menu.
5. Enter one or more search terms in the field(s) provided.  
For information on the syntax to use to refine your search, see [Search Syntax](#).
6. Press the Enter key.

The list of search results is displayed.

If you searched for an item other than mobile devices, you can view the devices associated with a result by clicking **Expand**  next to the result. You can also change the item on which the results are based by choosing an item from the pop-up menu at the top of the page.

## Related Information

For related information, see the following sections in this guide:




- [Viewing and Editing Inventory Information for a Mobile Device](#)  
Find out how to view and edit inventory information for a mobile device.
- [Mobile Device Reports](#)  
Find out how to export the data in your search results to different file formats.
- [Performing Mass Actions for Mobile Devices](#)  
Find out how to perform mass actions on the results of a mobile device search.
- [Advanced Mobile Device Searches](#)  
Find out how to create and save an advanced mobile device search.
- [Mobile Device Inventory Display Settings](#)  
Find out how to change the attribute fields displayed in the results of a simple mobile device search.

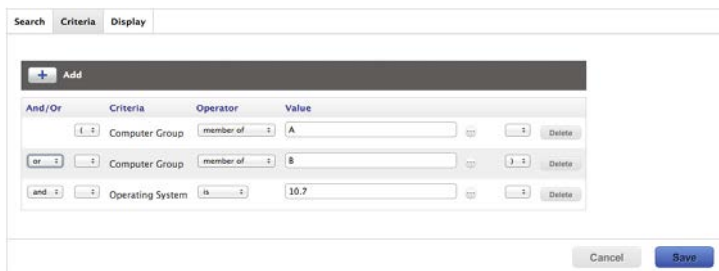
# Advanced Mobile Device Searches

Advanced mobile device searches allow you to use detailed search criteria to search for devices in the JAMF Software Server (JSS). These types of searches give you more control over your search by allowing you to do the following:

- Generate specific search results.
- Specify which attribute fields to display in the search results.
- Save the search.

## Creating an Advanced Mobile Device Search

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the Search pane to configure basic settings for the search.  
To save the search, select the **Save this Search** checkbox.
6. Click the **Criteria** tab and add criteria for the search:
  - a. Click **Add** .
  - b. Click **Choose** for the criteria you want to add.  
To display additional criteria, click **Choose** for "Other Criteria".
  - c. Choose an operator from the **Operator** pop-up menu.
  - d. Enter a value in the **Value** field or browse for a value by clicking **Browse** .
  - e. Repeat steps a through d to add criteria as needed.
7. Choose an operator from the **And/Or** pop-up menu(s) to specify relationships between criteria.
8. To group criteria and join multiple operations, choose parentheses from the pop-up menus around the criteria you want to group.





9. Click the **Display** tab and select the attribute fields you want to display in your search results.
10. Click **Save**.

Operations in the search take place in the order they are listed (top to bottom).

The results of a saved search are updated each time mobile devices contact the JSS and meet or fail to meet the specified search criteria.

To view search results, click **View**.

## Cloning, Editing, or Deleting a Saved Advanced Mobile Device Search

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the advanced mobile device search you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the search, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the search, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the search, click **Delete**. Then click **Delete** again to confirm.

## Viewing Advanced Mobile Device Search Results

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu..
4. Click the advanced mobile device search you want to view the results for.
5. Click **View**.

The list of search results is displayed.

## Related Information

For related information, see the following sections in this guide:

- [Mobile Device Reports](#)  
Find out how to export the data in your search results to different file formats.
- [Performing Mass Actions for Mobile Devices](#)  
Find out how to perform mass actions on the results of a mobile device search.
- [Viewing and Editing Inventory Information for a Mobile Device](#)  
Find out how to view and edit inventory information for a mobile device.
- [Simple Mobile Device Searches](#)  
Learn how to quickly search the items in your inventory for a general range of results.

# Mobile Device Reports

The data displayed in smart or static group membership lists or mobile device search results can be exported from the JAMF Software Server (JSS) to the following file formats:

- Comma-separated values file (.csv)
- Tab delimited text file (.txt)
- XML file

You can change the way the data is organized by basing the export on any of the following inventory items:

- Mobile devices
- Mobile device groups
- Apps
- Configuration profiles
- Certificates
- Provisioning profiles

The data is displayed in alphanumeric order by the selected inventory item.

## Creating Mobile Device Reports

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Do one of the following:
  - View mobile device group memberships. (For more information, see [Smart Mobile Device Groups](#) or [Static Mobile Device Groups](#).)
  - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).)

**Note:** You can only create a report from a simple mobile device search if you searched by devices.
4. At the bottom of the list, click **Export**.
5. Follow the onscreen instructions to export the data.

The report downloads immediately.

# Performing Mass Actions for Mobile Devices

Mass actions allow you to perform potentially tedious tasks for multiple mobile devices at the same time. You can use the JSS to perform the following mass actions:

- Edit the building or department.
- Edit the site.
- Look up and populate purchasing information from Apple's Global Service Exchange (GSX).
- Send a mass email to users.
- Send a mass notification to mobile devices with Self Service Mobile for iOS installed.
- Delete the mobile devices from the JSS.
- Send remote commands.

Mass actions can be performed on static or smart group membership lists or mobile device search results.

## Mass Editing the Building and Department for Mobile Devices

Mass editing the building or department for mobile devices allows you to add the mobile devices to a building or department or change the building or department they belong to.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Do one of the following:
  - View mobile device group memberships. (For more information, see [Smart Mobile Device Groups](#) or [Static Mobile Device Groups](#).)
  - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).)

**Note:** You can only perform mass actions from a simple mobile device search if you searched by devices.
4. At the bottom of the list, click **Action**.
5. Select **Edit the Building and Department**.

This option is only displayed if there are one or more buildings or departments in the JSS. (For more information, see [Buildings and Departments](#).)
6. Follow the onscreen instructions to edit the building and department.

## Mass Editing the Site for Mobile Devices

Mass editing the site for mobile devices allows you to add the devices to a site or change the site they belong to.

**Note:** Changing the site that personally owned devices belong to automatically changes the personal device profile that is used to perform management tasks on those devices. For more information, see [Personal Device Profiles](#).

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Do one of the following:
  - View mobile device group memberships. (For more information, see [Smart Mobile Device Groups](#) or [Static Mobile Device Groups](#).)
  - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).)  
**Note:** You can only perform mass actions from a simple mobile device search if you searched by devices.
4. At the bottom of the list, click **Action**.
5. Select **Edit the Site**.  
This option is only displayed if there are one or more sites in the JSS. (For more information, see [Sites](#).)
6. Follow the onscreen instructions to edit the site.  
**Note:** When mobile devices are added to a site, any users assigned to those mobile devices are also added to that site.

## Mass Looking up and Populating Purchasing Information for Mobile Devices

You can mass look up purchasing information from Apple's Global Service Exchange (GSX) and populate the information in the JSS if desired.

This requires a GSX connection set up in the JSS. (For more information, see [Integrating with GSX](#).)

**Note:** GSX may not always return complete purchasing information. Only the information found in GSX is returned.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.

3. Do one of the following:
  - View mobile device group memberships. (For more information, see [Smart Mobile Device Groups](#) or [Static Mobile Device Groups](#).)
  - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).)  
**Note:** You can only perform mass actions from a simple mobile device search if you searched by devices.
4. At the bottom of the list, click **Action**.
5. Select **Look up Purchasing Information from GSX**.  
This option is only displayed if there is a GSX connection set up in the JSS.
6. Follow the onscreen instructions to look up and populate the purchasing information.

## Sending a Mass Email to Mobile Device Users

You can send a mass email to users associated with the mobile devices in the JSS. The email is sent to the email address associated with each device.

This requires an SMTP server set up in the JSS. (For more information, see [Integrating with an SMTP Server](#).)

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Do one of the following:
  - View mobile device group memberships. (For more information, see [Smart Mobile Device Groups](#) or [Static Mobile Device Groups](#).)
  - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).)  
**Note:** You can only perform mass actions from a simple mobile device search if you searched by devices.
4. At the bottom of the list, click **Action**.
5. Select **Send Email**.  
This option is only displayed if there is an SMTP server set up in the JSS.
6. Follow the onscreen instructions to create and send the email.

## Sending a Mass Notification to Mobile Devices with Self Service Mobile Installed

You can send a mass notification to mobile devices that have Self Service Mobile for iOS installed. (For more information, see [Installing Self Service](#).)

**Note:** This feature only applies to mobile devices with iOS 7 or later that have Self Service Mobile installed. (For more information, see [Self Service Mobile](#).)

Notifications are displayed to users in the following ways:

- The Self Service Mobile icon displays a badge with the number of notifications that have not been viewed by the user.
- In Self Service Mobile, the **Notifications** browse button displays a badge with the number of notifications that have not been viewed by the user. Items are listed in the “Notifications” area of the app as they are added.
- (Optional) Each notification can be configured to also display an alert and appear in Notification Center. (For more information, see [Push Certificates](#).)

For more information about how notifications are displayed, see [Self Service User Experience](#).

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Do one of the following:
  - View mobile device group memberships. (For more information, see [Smart Mobile Device Groups](#) or [Static Mobile Device Groups](#).)
  - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).)

**Note:** You can only perform mass actions from a simple mobile device search if you searched by devices.
4. At the bottom of the list, click **Action**.
5. Select **Send a Notification to Mobile Devices with Self Service Mobile Installed**.
6. Follow the onscreen instructions to send the notification.

## Mass Deleting Mobile Devices

You can mass delete mobile devices from the JSS.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.

3. Do one of the following:
  - View mobile device group memberships. (For more information, see [Smart Mobile Device Groups](#) or [Static Mobile Device Groups](#).)
  - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).)  
**Note:** You can only perform mass actions from a simple mobile device search if you searched by devices.
4. At the bottom of the list, click **Action**.
5. Select **Delete Mobile Devices**.
6. Follow the onscreen instructions to delete the mobile devices.

## Mass Sending Remote Commands to Mobile Devices

You can mass send the following remote commands to mobile devices:

- Clear passcode.
- Lock device.
- Update inventory.

**Note:** The Clear Passcode command does not apply to personally owned devices.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Do one of the following:
  - View mobile device group memberships. (For more information, see [Smart Mobile Device Groups](#) or [Static Mobile Device Groups](#).)
  - View simple or advanced mobile device search results. (For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).)  
**Note:** You can only perform mass actions from a simple mobile device search if you searched by devices.
4. At the bottom of the list, click **Action**.
5. Select **Send Commands**.
6. Select the remote command to send to mobile devices.
7. Follow the onscreen instructions to send the remote command.

## Related Information

For related information, see the following section in this guide:

[Viewing and Editing Inventory Information for a Mobile Device](#)

Find out how to view and edit inventory information for a single mobile device.



# Viewing and Editing Inventory Information for a Mobile Device

The JAMF Software Server (JSS) stores detailed inventory information for each managed mobile device. You can view and edit this information from the JSS.

**Note:** The inventory information displayed for a particular device varies depending on the device ownership type, device platform, device type, and iOS version. For more information, see [Mobile Device Management Capabilities](#).

The following table lists the information that you can view and edit for each mobile device.

**Note:** Extension attributes are displayed in mobile device inventory information in the category in which they are configured to display.

Field	Editable	Notes	Personally Owned Device Support	
General Category			iOS	Android
Mobile Device Name	✓ Editable for supervised devices with iOS 8 or later only when Enforce Mobile Device Name is configured		✓	✓
Asset Tag	✓			
Site	✓		✓	✓
Last Inventory Update			✓	✓
iOS Version			✓	
Android Version Name				✓
Android Version				✓
Android API Level				✓
IP Address			✓	✓
Managed			✓	✓
Supervised				
Device Ownership Type			✓	✓
Enrollment Method			✓	
Last Enrollment			✓	✓
Device Locator Service Enabled				
Do Not Disturb Enabled				

Field	Editable	Notes	Personally Owned Device Support	
<b>General Category (continued)</b>			iOS	Android
iCloud Backup				
Last iCloud Backup				
Bluetooth Low Energy Capability		To detect Bluetooth Low Energy capability, the device must have Self Service Mobile for iOS installed. If Self Service Mobile has never been launched on the device, this value will be reported as "Not Capable/Unknown".	✓	
Location Services For Self Service Mobile		Displays whether Location Services has been enabled on the device for the Self Service Mobile app  To detect if Location Services has been enabled for Self Service Mobile, the device must have Self Service Mobile for iOS installed. If Self Service Mobile has never been launched on the device, or if Self Service Mobile has not been launched since the initial iBeacon region was added to the JSS, this value will be reported as "Not Enabled/Unknown".	✓	
Logged in to iTunes Store			✓	
AirPlay Password	✓	Apple TV only		
Locales		Apple TV only		
Languages		Apple TV only		
<b>Hardware Category</b>			iOS	Android
Capacity			✓	
Available Space			✓	
Used Space			✓	
Internal Capacity				✓
Internal Available Space				✓
Internal Used Space				✓


Field	Editable	Notes	Personally Owned Device Support	
<b>Hardware Category (continued)</b>			iOS	Android
External Capacity				✓
External Available Space				✓
External Used Space				✓
Battery Level			✓	✓
Serial Number			✓	✓
UDID			✓	✓
Wi-Fi MAC Address			✓	✓
Bluetooth MAC Address			✓	✓
Modem Firmware Version			✓	✓
Model			✓	✓
Model Identifier			✓	
Model Number			✓	
Manufacturer				✓
<b>User and Location Category</b>			iOS	Android
Username	✓		✓	✓
Full Name	Assign a user to the mobile device and populate user information from the <b>Users</b> tab. (For more information, see <a href="#">User Assignments</a> .)			
Email Address				
Phone Number				
Position				
Department				
Building				
Room				
<b>Purchasing Category</b>			iOS	Android
Purchased or Leased	✓			
PO Number	Look up and populate purchasing information from Apple's Global Service Exchange (GSX). (This requires a GSX connection set up in the JSS. For more information, see <a href="#">Integrating with GSX</a> .)			
PO Date				
Vendor				
Warranty Expiration				
AppleCare ID				
Lease Expiration				
Purchase Price				
Life Expectancy				
Purchasing Account				
Purchasing Contact				

Field	Editable	Notes	Personally Owned Device Support	
<b>Extension Attributes Category</b>			iOS	Android
	✓	Displays a list of custom data fields collected using extension attributes		
<b>Security Category</b>			iOS	Android
Data Protection			✓	✓
Hardware Encryption			✓	
Passcode Status			✓	
Block Encryption Capability			✓	✓
File Encryption Capability			✓	✓
Passcode Compliance			✓	✓
Passcode Compliance with Config Profile			✓	✓
Activation Lock			✓	
<b>Security Category</b>			iOS	Android
Jailbreak Detected		To detect jailbreak status, the device must have Self Service Mobile for iOS installed. The JSS will receive an updated Jailbreak Detected value each time Self Service Mobile is launched. If Self Service Mobile has never been launched on the device, this value will be reported as "Not Reported".	✓	
Personal Device Profile Status		Displays whether the most up-to-date profile has been installed on the device	✓	✓
<b>Apps Category</b>			iOS	Android
		Displays a list of apps installed on the mobile device	✓ <i>Note:</i> Only managed apps are collected.	



Field	Editable	Notes	Personally Owned Device Support	
<b>Managed eBooks Category</b>				
		Displays a list of managed eBooks installed on the mobile device		
<b>Network Category</b>			iOS	Android
Home Carrier Network				
Current Carrier Network				
Carrier Settings Version				
Cellular Technology				
Phone Number				
IMEI				
MEID				
ICCID				
Current Mobile Country Code				
Current Mobile Network Code				
Home Mobile Country Code				
Home Mobile Network Code				
Voice Roaming				
Data Roaming Status				
Roaming Status				
<b>Certificates Category</b>			iOS	Android
		Displays a list of certificates installed on the mobile device	✓	
<b>Profiles Category</b>			iOS	Android
		Displays a list of profiles installed on the mobile device		
<b>Provisioning Profiles Category</b>			iOS	Android
		Displays a list of provisioning profiles installed on the mobile device	✓	

Field	Editable	Notes	Personally Owned Device Support	
Attachments Category			iOS	Android
		Displays a list of files attached to the inventory record Upload and delete attachments		

## Viewing Inventory Information for a Mobile Device

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view information for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the devices related to that item.  
The mobile device's inventory information is displayed.
5. Use the categories to view information for the mobile device.

## Editing Inventory Information for a Mobile Device

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to edit information for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the devices related to that item.  
The mobile device's inventory information is displayed.
5. Select the category that contains the information you want to edit and click **Edit**.
6. Make changes as needed.  
If you are editing purchasing information, you can click Search  to look up and populate information from Apple's Global Service Exchange (GSX).  
**Note:** This button is only displayed if you have a GSX connection set up in the JSS.

If you are editing user and location information, the changes are applied in the **Users** tab. This specified information is also applied in the inventory information for computers, peripherals, and other mobile devices that the user is assigned to. For information on assigning a user to a mobile device or removing a user assignment, see [User Assignments](#).)

7. Click **Save**.

# Viewing Management Information for a Mobile Device

The JAMF Software Server (JSS) allows you to view the following management information for each mobile device:

- Pending management commands
- iOS configuration profiles
- Activation Lock bypass code
- Apps
- eBooks
- Group memberships

**Note:** The management information available for a particular device varies depending on the device ownership type, device platform, device type, and iOS version. For more information, see [Mobile Device Management Capabilities](#).

## Viewing the Pending Management Commands for a Mobile Device


When viewing management information for a mobile device, you can view a list of pending management commands for the mobile device. The list includes all pending actions related to the following:

- Sending remote commands
- Installing or removing iOS configuration profiles
- Installing or removing apps
- Installing or removing managed eBooks
- Installing or removing provisioning profiles
- Updating inventory

You can also cancel a pending management command.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).

4. Click the mobile device you want to view pending management commands for.


If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.



5. Click the **Management** tab.  
A list of pending management commands for the mobile device is displayed.
6. To cancel a pending management command, click **Cancel** for the command.

## Viewing Configuration Profiles for a Mobile Device


When viewing management information for a mobile device, you can view a list of iOS configuration profiles that have the mobile device in the scope.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view configuration profiles for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.
5. Click the **Management** tab, and then click the **Configuration Profiles** category.  
A list of configuration profiles for the mobile device is displayed.

## Viewing the Activation Lock Bypass Code for a Mobile Device


When viewing management information for a mobile device, you can view the Activation Lock bypass code for the mobile device.

For information about what the Activation Lock bypass code can be used for, see the [Leveraging Apple's Activation Lock Feature with the Casper Suite](#) Knowledge Base article.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view the Activation Lock bypass code for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.
5. Click the **Management** tab, and then click the **Activation Lock** category.
6. Click **Get Activation Lock Bypass Code**.  
The Activation Lock bypass code is displayed on the pane.


## Viewing Apps for a Mobile Device

When viewing management information for a mobile device, you can view a list of apps that have the mobile device in the scope.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view apps for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.
5. Click the **Management** tab, and then click the **Apps** category.  
A list of apps for the mobile device is displayed.

## Viewing eBooks for a Mobile Device


When viewing management information for a mobile device, you can view a list of eBooks that have the mobile device in the scope.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view eBooks for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.
5. Click the **Management** tab, and then click the **eBooks** category.  
A list of eBooks for the mobile device is displayed.

## Viewing Group Memberships for a Mobile Device

When viewing management information for a mobile device, you can view the smart and static group memberships for the device.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.

3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view group memberships for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.
5. Click the **Management** tab, and then click the **Mobile Device Groups** category.  
A list of smart mobile device group memberships is displayed.
6. To view the static mobile device group memberships, click **Static Groups**.  
A list of static mobile device group memberships is displayed.

## Related Information

For related information, see the following sections in this guide:

- [Viewing Smart Mobile Device Group Memberships](#)  
Find out how to view all group memberships for a smart group.
- [Viewing Static Mobile Device Group Memberships](#)  
Find out how to view all group memberships for a static group.

# Viewing the History for a Mobile Device

The JAMF Software Server (JSS) allows you to view the history for each mobile device. The information you can view includes:

- Management history (completed, pending, and failed management commands)
- User and location history
- Completed, pending, and failed app installations
- Completed, pending, and failed managed eBook installations


**Note:** The management history available for a particular device varies depending on the device ownership type, device platform, device type, and iOS version. For more information, see [Mobile Device Management Capabilities](#).

## Viewing Management History for a Mobile Device

The management history for a mobile device allows you to view lists of completed, pending, and failed management commands for the mobile device. The lists include all actions related to the following:


- Sending iOS remote commands
- Installing or removing iOS configuration profiles
- Installing or removing apps
- Installing or removing managed eBooks
- Installing or removing provisioning profiles
- Updating inventory

You can also cancel a pending management command.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view management history for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.
5. Click the **History** tab.  
A list of completed management commands for the mobile device is displayed.
6. To view a list of pending management commands, click **Pending Commands**.  
You can cancel a pending management command by clicking **Cancel** for the command.
7. To view a list of failed management commands, click **Failed Commands**.

## Viewing User and Location History for a Mobile Device


The user and location history for a mobile device allows you to view a list of the user and location information associated with the mobile device over time. A record of the current information is added to the list whenever changes are made to the User and Location category in the mobile device's inventory information.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view user and location history for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.
5. Click the **History** tab, and then click the **User and Location History** category.  
User and location history for the mobile device is displayed.

## Viewing App Installations for a Mobile Device


You can view the completed, pending, and failed app installations for a mobile device. You can also cancel pending app installations.

**Note:** For a personally owned iOS device, you can only view managed app installations.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view app installation information for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.
5. Click the **History** tab, and then click the **Apps** category.  
A list of apps installed on the mobile device is displayed.
6. To view a list of apps that are pending installation, click **Pending Apps**.  
You can cancel a pending installation by clicking **Cancel** for the app.
7. To view a list of apps that failed to install, click **Failed Apps**.

## Viewing Managed eBook Installations for a Mobile Device


You can view the completed, pending, and failed managed eBook installations for a mobile device. You can also cancel pending managed eBook installations.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view managed eBook installation information for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the mobile devices related to that item.
5. Click the **History** tab, and then click the **Managed eBooks** category.  
A list of managed eBooks installed on the mobile device is displayed.
6. To view a list of managed eBooks that are pending installation, click **Pending eBooks**.  
You can cancel a pending installation by clicking **Cancel** for the eBook.
7. To view a list of managed eBooks that failed to install, click **Failed eBooks**.  
You can cancel a failed installation by clicking **Cancel** for the eBook.

# Deleting a Mobile Device from the JSS

You can remove a mobile device from your inventory by deleting it from the JAMF Software Server (JSS).

The components installed during enrollment are not removed from the mobile device when it is deleted from the JSS. It is recommended that you unmanage the device before deleting it. (For more information on unmanaging a mobile device, see [Remote Commands for Mobile Devices](#).)

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
5. Click the mobile device you want to delete.  
If you performed a simple search for mobile device applications, you must click **Expand**  next to an item name to view the mobile devices related to that item.
6. Click **Delete**, and then click **Delete** again to confirm.

## Related Information

For related information, see the following section in this guide:

[Mass Deleting Mobile Devices](#)

Find out how to mass delete mobile devices from the JSS.

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# Mobile Device Groups

## About Mobile Device Groups

Mobile device groups allow you to organize mobile devices that share similar attributes. You can use these groups as a basis for performing advanced inventory searches and configuring the scope of remote management tasks.

There are two kinds of mobile device groups: smart mobile device groups and static mobile device groups. Smart mobile device groups are based on criteria and have dynamic memberships. Static mobile device groups have fixed memberships that you manually assign.

**Note:** Personally owned mobile devices cannot be included in mobile device group memberships.

## Related Information

For related information, see the following sections in this guide:

- [Smart Mobile Device Groups](#)  
Learn how to create mobile device groups that are based on criteria and have dynamic memberships.
- [Static Mobile Device Groups](#)  
Learn how to create mobile device groups that have fixed memberships.






# Smart Mobile Device Groups

Smart mobile device groups give you a way to organize mobile devices based on one or more attributes, such as last inventory update, model, and username. These groups have dynamic memberships that are updated each time mobile devices contact the JAMF Software Server (JSS).

If there is an SMTP server set up in the JSS, you can enable email notifications for the group. This allows email notifications to be sent to JSS users each time the group membership changes. (For information on setting up an SMTP server and enabling email notifications for JSS user accounts, see [Integrating with an SMTP Server](#) and [Email Notifications](#).)

After creating a smart mobile device group, you can view its memberships.

## Creating a Smart Mobile Device Group

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Smart Mobile Device Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the Mobile Device Group pane to configure basic settings for the group.  
To enable email notifications, select the **Send email notification on membership change** checkbox.
6. Click the **Criteria** tab and add criteria to the group:
  - a. Click **Add** .
  - b. Click **Choose** for the criteria you want to add.  
To display additional criteria, click **Choose** for "Other Criteria".
  - c. Choose an operator from the **Operator** pop-up menu.
  - d. Enter a value in the **Value** field or browse for a value by clicking **Browse** .
  - e. Repeat steps a through d to add criteria as needed.
7. Choose an operator from the **And/Or** pop-up menu(s) to specify the relationships between criteria.

- To group criteria and join multiple operations, choose parentheses from the pop-up menus around the criteria you want to group.

And/Or	Criteria	Operator	Value	
( )	Computer Group	member of	A	Delete
or	Computer Group	member of	B	Delete
and	Operating System	is	10.7	Delete

- Click **Save**.

Operations in the group take place in the order they are listed (top to bottom).

Group memberships are updated each time mobile devices contact the JSS and meet or fail to meet the specified criteria.

To view the group memberships, click **View**.

## Cloning, Editing, or Deleting a Smart Mobile Device Group

- Log in to the JSS with a web browser.
- Click **Mobile Devices** at the top of the page.
- Click **Smart Mobile Device Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
- Click the smart mobile device group you want to clone, edit, or delete.
- Do one of the following:
  - To clone the group, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the group, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the group, click **Delete**. Then click **Delete** again to confirm.

The clone, edit, or delete action is applied to mobile devices the next time they contact the JSS.

## Viewing Smart Mobile Device Group Memberships

- Log in to the JSS with a web browser.
- Click **Mobile Devices** at the top of the page.
- Click **Smart Mobile Device Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the mobile device group you want to view memberships for.
5. Click **View**.

A list of group memberships is displayed.

## Related Information

For related information, see the following sections in this guide:


- [Mobile Device Reports](#)  
Find out how to export the data in group membership lists to different file formats.
- [Performing Mass Actions for Mobile Devices](#)  
Find out how to perform mass actions on group memberships.
- [Scope](#)  
Learn how to configure scope based on mobile device groups.

# Static Mobile Device Groups

Static mobile device groups give you a way to organize mobile devices by assigning them to a group. These groups have fixed memberships that must be changed manually.

After creating a static mobile device group, you can view its memberships.

## Creating a Static Mobile Device Group

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Static Mobile Device Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the Mobile Device Group pane to configure basic settings for the group.
6. Click the **Assignments** tab and select the checkbox for each device you want to add.
7. Click **Save**.

Mobile devices become members of the group the next time they contact the JSS.

To view the group memberships, click **View**.

## Cloning, Editing, or Deleting a Static Mobile Device Group

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Static Mobile Device Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the group you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the group, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the group, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the group, click **Delete**. Then click **Delete** again to confirm.

The clone, edit, or delete action is applied to mobile devices the next time they contact the JSS.

## Viewing Static Mobile Device Group Memberships

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Static Mobile Device Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the mobile device group you want to view memberships for.
5. Click **View**.

A list of group memberships is displayed.

## Related Information

For related information, see the following sections in this guide:

- [Mobile Device Reports](#)  
Find out how to export the data in group membership lists to different file formats.
- [Performing Mass Actions for Mobile Devices](#)  
Find out how to perform mass actions on group memberships.
- [Scope](#)  
Learn how to configure scope based on mobile device groups.

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# Configuration

## iOS Configuration Profiles

iOS configuration profiles are XML files (.mobileconfig) that provide an easy way to define settings and restrictions for mobile devices.

You can use the JAMF Software Server (JSS) to manually create an iOS configuration profile or upload a configuration profile that was created using Apple's tools.

Before creating a configuration profile, you should have basic knowledge of configuration profile payloads and settings, and how they affect mobile devices. For detailed information about each payload and setting, see Apple's Profile Manager documentation at:

<https://help.apple.com/profilemanager/mac>

Some configuration profile settings are unique to the JSS. For more information on these settings, see the following Knowledge Base article:

[Configuration Profiles Reference](#)

There are two different ways to distribute an iOS configuration profile—install it automatically (requires no interaction from the user) or make it available in Self Service. You can also specify the mobile devices and users to which the profile should be applied (called “scope”).

**Note:** iOS configuration profiles cannot be distributed to personally owned mobile devices.

## Payload Variables for iOS Configuration Profiles


There are several payload variables that you can use to populate settings in an iOS configuration profile with attribute values stored in the JSS. This allows you to create payloads containing information about each mobile device and user to which you are distributing the profile.

To use a payload variable, enter the variable into any text field when creating a profile in the JSS. When the profile is installed on a mobile device, the variable is replaced with the value of the corresponding attribute in the JSS.

Variable	Mobile Device Information
\$DEVICENAME	Mobile Device Name
\$SERIALNUMBER	Serial Number
\$UDID	UDID
\$USERNAME	Username
\$FULLNAME or \$REALNAME	Full Name
\$EMAIL	Email Address
\$PHONE	Phone Number
\$ROOM	Room
\$POSITION	Position
\$MACADDRESS	MAC Address
\$EXTENSIONATTRIBUTE_<#>	Value for any LDAP attribute

**Note:** An \$EXTENSIONATTRIBUTE\_<#> variable is generated each time you create an extension attribute with the "LDAP Attribute Mapping" input type. For more information, see [Mobile Device Extension Attribute Input Types](#).

## Manually Creating an iOS Configuration Profile

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Configuration Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the General payload to configure basic settings for the profile, including a distribution method.
6. If you chose to make the profile available in Self Service, do the following:
  - a. Choose a **Security** setting.
  - b. Click the **Self Service** tab, and specify an icon to display in Self Service.
  - c. Click the **Options** tab to continue configuring the profile.
7. Use the rest of the payloads to configure the settings you want to apply.

8. Click the **Scope** tab and configure the scope of the profile.

For more information, see [Scope](#).

**Note:** For limitations or exclusions to be based on LDAP users or LDAP user groups, the Username field must be populated in the mobile device's inventory.


9. Click **Save**.

The profile is distributed to mobile devices in the scope the next time they contact the JSS.

## Uploading an iOS Configuration Profile

You can create an iOS configuration profile by uploading a profile that was created using Apple's tools.

**Note:** Some payloads and settings configured with Apple's tools are not displayed in the JSS. Although you cannot view or edit these payloads, they are still applied to mobile devices.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Configuration Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Upload**  and upload the configuration profile (.mobileconfig).
5. Use the General payload to configure basic settings for the profile, including a distribution method.
6. If you chose to make the profile available in Self Service, do the following:
  - a. Choose a **Security** setting.
  - b. Click the **Self Service** tab, and specify an icon to display in Self Service.
  - c. Click the **Options** tab to continue configuring the profile.

7. Use the rest of the payloads to configure or edit settings as needed.

8. Click the **Scope** tab and configure the scope of the profile.

For more information, see [Scope](#).

**Note:** For limitations or exclusions to be based on LDAP users or LDAP user groups, the Username field must be populated in the mobile device's inventory.

9. Click **Save**.

The profile is distributed to mobile devices in the scope the next time they contact the JSS.

## Cloning, Editing, or Deleting an iOS Configuration Profile

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.



3. Click **Configuration Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the configuration profile you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the profile, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the profile, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the profile, click **Delete** and then click **Delete** again to confirm.

The clone, edit, or delete action is applied to mobile devices in the scope the next time they contact the JSS.

## Downloading an iOS Configuration Profile

If you want to view the contents of an iOS configuration profile for troubleshooting purposes, you can download the profile (.mobileconfig) from the JSS.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Configuration Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the configuration profile you want to download.
5. Click **Download**.

The profile downloads immediately.

## Related Information

For related information, see the following sections in this guide:

- [Payload Capabilities for iOS Configuration Profiles](#)  
Learn about the payload capabilities of each iOS version.
- [Viewing the Pending Management Commands for a Mobile Device](#)  
Find out how to view and cancel pending iOS configuration profile installations and removals for a mobile device.
- [Viewing Configuration Profiles for a Mobile Device](#)  
Find out how to view the iOS configuration profiles in the scope for a mobile device.
- [Viewing Management History for a Mobile Device](#)  
Find out how to view all completed, pending, and failed iOS configuration profile installations and removals for a mobile device.

For related information, see the following Knowledge Base article:

[Distributing Apps to Mobile Devices with App Store Restrictions After Upgrading to the JSS v9.5 or Later](#)

Learn about the steps necessary to redistribute iOS configuration profiles that contain App Store restrictions so that you can distribute apps to mobile devices with restrictions after upgrading from the JSS v9.4 or earlier.

# Payload Capabilities for iOS Configuration Profiles

The Casper Suite can be used to deploy iOS configuration profiles to the following types of mobile devices:

- iPads with iOS 4 or later
- iPhones with iOS 4 or later
- iPod touches with iOS 4 or later
- Apple TV devices with iOS 7 or later

The following table provides an overview of the payload capabilities by iOS version:

Payload	iOS 4	iOS 5	iOS 6	iOS 7	iOS 8
General	✓	✓	✓	✓	✓
Passcode	✓	✓	✓	✓	✓
Restrictions <sup>1</sup>	✓	✓	✓	✓	✓
Wi-Fi <sup>1</sup>	✓	✓	✓	✓	✓
VPN <sup>1</sup>	✓	✓	✓	✓	✓
Mail	✓	✓	✓	✓	✓
Exchange ActiveSync	✓	✓	✓	✓	✓
LDAP	✓	✓	✓	✓	✓
Calendar	✓	✓	✓	✓	✓
Contacts	✓	✓	✓	✓	✓
Subscribed Calendars	✓	✓	✓	✓	✓
Web Clips	✓	✓	✓	✓	✓
Certificate	✓	✓	✓	✓	✓
SCEP	✓	✓	✓	✓	✓
APN		✓	✓		
Cellular				✓	✓
Single App Mode			✓	✓	✓
Global HTTP Proxy				✓	✓
Single Sign-On				✓	✓
AirPlay				✓	✓
AirPrint				✓	✓
Font				✓	✓
Web Content Filter				✓	✓

**Notes:**

1. The Restrictions, Wi-Fi, and VPN payloads have additional settings that are specific to iOS 7. For more information on these payloads, see Apple's [Configuration Profile Key Reference](#).

## Related Information

For related information, see the following section in this guide:

[iOS Configuration Profiles](#)

Learn about iOS configuration profiles and how to create them.

# Personal Device Profiles

Personal device profiles are used to enroll personally owned iOS and Android devices with the JAMF Software Server (JSS) via user-initiated enrollment. Personal device profiles are also used to perform management tasks on personally owned devices, including defining settings and distributing managed apps to personal iOS devices.

You can create one personal device profile for each site in the JSS, and one profile for the full JSS. A personal device profile is only used to enroll and manage devices if the profile is enabled in the General payload.

The personal device profile used to enroll and manage a device is based on the site that the mobile device user has access to. Site access is determined by the LDAP directory account or JSS user account credentials entered during user-initiated enrollment. (For information on specifying the sites that LDAP user groups have access to during enrollment, see [User-Initiated Enrollment Settings](#).)

If a profile has been enabled for the site, that profile is used to enroll the device and add the device to the site. If a profile has not been enabled for the site, or if sites have not been added to the JSS, the profile for the full JSS is used if it is enabled.

**Note:** Changing the site that a personal device belongs to automatically changes the profile that is used to perform management tasks on the device. If a profile has not been enabled for the new site, the device will continue to be managed by the JSS, but all settings and apps that were previously defined by the old profile are removed.

## Personal Device Profile Payloads

The payloads and settings that you can configure using a personal device profile represent a subset of the iOS configuration profile payloads and settings available for institutionally owned mobile devices.

Before creating a personal device profile, you should have basic knowledge of configuration profile payloads and settings, and how they affect mobile devices. For detailed information about each payload and setting, see Apple's Profile Manager documentation at:

<https://help.apple.com/profilemanager/mac>

Some personal device profile settings are unique to the JSS. For more information on these settings, see the following Knowledge Base article:

[Personal Device Profile Settings Reference](#)

## Managed App Distribution to Personal iOS Devices

When creating or editing a personal device profile, you can specify managed in-house apps and App Store apps to distribute to personal iOS devices. Available apps include all managed apps that have been added to the site that the profile is assigned to, and all managed apps that have been added to the full JSS.

When a managed app is distributed to personal iOS devices, the personal device profile automatically applies settings to do the following:

- Distribute the app using the Install Automatically/Prompt Users to Install distribution method
- Remove the app when the MDM profile is removed
- Prevent backup of app data
- Prevent opening documents from managed apps in unmanaged apps

When selecting managed apps to distribute, you have the option to clone an unmanaged app and make it managed. This adds a managed version of the app to the JSS and leaves the original app unmanaged.

**Note:** Not all apps can be managed by the JSS. For information on the factors that determine whether an app can be managed, see [Understanding Managed Apps](#).

## Requirements

To create personal device profiles, the User-Initiated Enrollment settings must be configured to allow user-initiated enrollment for personally owned devices on the iOS or Android platform. (For more information, see [User-Initiated Enrollment Settings](#).)

To enroll and manage personal iOS devices, you need:

- Mobile devices with iOS 4 or later (iOS 7 or later is recommended)
- A push certificate in the JSS (For more information, see [Push Certificates](#).)

**Note:** To distribute managed apps to personal iOS devices, the devices must have iOS 5 or later and an MDM profile that supports managed apps. (For more information, see [Managed App Requirements](#).)

To enroll and manage personal Android devices, you need:

- Mobile devices with Android 4.0.3 or later
- A proxy server token in the JSS (For more information, see [JAMF Push Proxy](#).)

In addition, as part of user-initiated enrollment for personal Android devices, users need to install the Self Service Mobile app from Google Play. After enrollment, Self Service Mobile must remain installed on an enrolled Android device to keep the device managed by the JSS. (For more information, see [User-Initiated Enrollment Experience for Mobile Devices](#).)

**Note:** Although not required, it is recommended that you configure the Mobile Device Inventory Collection settings to collect user and location information from LDAP. This is recommended because the mobile device name displayed in inventory for an Android device is often cryptic, making it difficult to identify a specific device. By collecting user and location information, you can search for and identify a specific Android device based on the Username field in the mobile device's inventory information.

## Creating a Personal Device Profile

You can only create a personal device profile if there is an available site (or the full JSS) that does not have a profile assigned to it.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Personal Device Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click **New**  .

**Note:** Only one personal device profile can be created per site in the JSS. If all sites (or the full JSS) already have an assigned personal device profile, you will not be able to create a new one.

5. Use the General payload to configure basic settings for the profile, including the display name and the site to assign the profile to.

**Note:** If you have site access only, the profile is assigned to the applicable site automatically and the **Site** pop-up menu is not displayed.


To enable this personal device profile, select the **Enable personal device profile** checkbox.

6. (Optional) Use the Passcode payload to configure passcode policies.

**Note:** On Android devices, the user is allowed to cancel when prompted to change their passcode to meet the configured settings. If the device passcode does not meet the configured Passcode payload settings, the **Passcode Compliance** status will be reported as Not Compliant in inventory information for the device.

7. (Optional) Use the Wi-Fi payload to configure how devices connect to your wireless network, including the necessary authentication information.
8. (Optional) Use the VPN payload to configure how devices connect to your wireless network via VPN, including the necessary authentication information.
9. (Optional) Use the Exchange ActiveSync (iOS only) payload to define settings for connecting to your Exchange server.
10. (Optional) Use the Mail (iOS only) payload to define settings for connecting to POP or IMAP accounts.
11. (Optional) Use the Calendar (iOS only) payload to define settings for configuration access to CalDAV servers.
12. (Optional) Use the Contacts (iOS only) payload to define settings for configuration access to CardDAV servers.
13. (Optional) Use the Subscribed Calendars (iOS only) payload to define settings for calendar subscriptions.
14. (Optional) Use the Certificate payload to specify the X.509 certificates (.cer, .p12, etc.) you want to install on devices to authenticate the device access to your network.
15. (Optional) Use the Security (Android only) payload to require encryption on Android devices.

**Warning:** Android encryption is irreversible on most devices, and a factory reset must be performed to remove encryption from a device. In addition, failure to follow all onscreen instructions during the encryption process could lead to permanent loss of data.

16. (Optional) Select the Apps (iOS only) payload and then do any of the following:
  - To distribute a managed app to personal iOS devices added to the site (or the full JSS) that the profile is assigned to, click **Install** next to the app name. (To distribute all managed apps, click **Install All**.)
  - To remove a previously distributed managed app from devices, click **Remove** next to the app name. (To remove all managed apps previously distributed with this profile, click **Remove All**.)
  - To clone an unmanaged app to add a managed version of the app to the JSS, click the unmanaged app name and then click **Clone App and Make Managed**. A managed version of the app is added to the JSS and is made available for installation.
17. (Optional) To add messaging that displays during user-initiated enrollment if the user belongs to multiple LDAP user groups with access to multiple sites, do the following:
  - a. Click the **Messaging** tab, and then click **Add** .
  - b. Choose a language from the **Language** pop-up menu.
  - c. Use the settings on the pane to specify the site/profile display name, as well as the text to describe the settings included with the profile. In the description for iOS devices, you can also list any managed apps that will be included with the profile.
  - d. Click **Done**.
  - e. Repeat this process as needed for other languages.
18. Click **Save**.

If the profile is enabled in the General payload, it will be used to enroll personal devices with the JSS when users enter credentials for an LDAP directory account or a JSS user account that has access to the site (or to the full JSS).

## Cloning, Editing, or Deleting a Personal Device Profile

Consider the following when cloning, editing, or deleting a personal device profile:

- **Cloning**—You can only clone a personal device profile if there is an available site (or the full JSS) that does not have a profile assigned to it.
  - **Editing**—When a personal device profile is edited and saved, it is automatically redistributed to personal devices belonging to the site (or the full JSS) that the profile is assigned to.  
When editing an enabled profile, if you deselect the **Enable personal device profile** checkbox in the profile's General payload, all personal devices belonging to the site that the profile is assigned to will continue to be managed by the JSS, but all settings and apps that were previously defined by the profile are removed.
  - **Deleting**—When a personal device profile is deleted, all personal devices belonging to the site that the profile is assigned to will automatically be changed to use the profile assigned to the full JSS if a profile for the full JSS is enabled. If an enabled profile for the full JSS does not exist, or if you are deleting the profile assigned to the full JSS, then the applicable devices will continue to be managed by the JSS, but all settings and apps that were previously defined by the profile are removed.
- Note:** A personal device profile is automatically deleted if the site it is assigned to is deleted from the JSS.



1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Personal Device Profiles**.

On a smartphone or iPod touch, this option is in the pop-up menu.

- If you have full access to the JSS, a list of personal device profiles for all sites is displayed. Click the profile you want to clone, edit, or delete.
  - If you have site access only, the personal device profile for your site is displayed.
4. Do one of the following:
    - To clone the profile, click **Clone** and make changes as needed. Then click **Save**.
    - To edit the profile, click **Edit** and make changes as needed. Then click **Save**.
    - To delete the profile, click **Delete** and then click **Delete** again to confirm.

The result of the clone, edit, or delete action is applied to personally owned devices belonging to the site (or the full JSS) that the profile is assigned to the next time the devices contact the JSS.

## Related Information

For related information, see the following sections in this guide:

- [Sites](#)  
Learn about sites and how to add them to the JSS.
- [User-Initiated Enrollment Settings](#)  
Learn about the settings you can configure for user-initiated enrollment.
- [User-Initiated Enrollment for Mobile Devices](#)  
Find out how to allow users to enroll mobile devices by having them log in to an enrollment portal.
- [User-Initiated Enrollment Experience for Mobile Devices](#)  
Learn about the steps users take to enroll mobile devices.
- [Mobile Device Management Capabilities](#)  
Learn about the management capabilities available for personally owned mobile devices.

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# Security Management

## Remote Commands for Mobile Devices

The remote commands available in the JAMF Software Server (JSS) allow you to remotely perform the following tasks on a mobile device:

- Update inventory.
- Lock a device.
- Clear the passcode on a device.
- Clear the restrictions on a device (only for supervised devices with iOS 8 or later).
- Unmanage a device.
- Wipe a device.  
**Note:** You also have the option to clear the Activation Lock on a device when wiping the device.
- Send a blank push notification.
- Manage settings for voice or data roaming (only for devices with cellular capability).
- For a personally owned device, wipe institutional data and unmanage the device.

You can send a remote command to a single mobile device.


**Note:** The remote commands available for a particular device vary depending on the device ownership type, device platform, device type, and iOS version. For more information, see [Mobile Device Management Capabilities](#).

The following table describes the remote commands that you can send from the JSS:

Remote Command	Description	Personally Owned Device Support
<b>Update Inventory</b>	Prompts the mobile device to contact the JSS and update its inventory	iOS and Android
<b>Lock Device</b>	<p>Locks the mobile device</p> <p>If the mobile device has a passcode, the user must enter it to unlock the device.</p> <p>(Optional) Displays a message on the mobile device when it locks. This message is only sent if the mobile device has a passcode.</p> <p>(Optional) Displays a phone number on the mobile device when it locks. The phone number is only displayed if the mobile device has a passcode.</p>	<p>iOS and Android</p> <p><b>Note:</b> The lock message and phone number display options are not available on Android devices.</p>
<b>Clear Passcode</b>	<p>Removes the passcode from the mobile device</p> <p>If a configuration profile with a Passcode payload is installed on the device, the user is prompted to create a new passcode.</p>	--
<b>Clear Restrictions</b>	Removes restrictions and the restrictions passcode from a supervised mobile device	iOS
<b>Unmanage Device</b>	<p>Stops communication between the mobile device and the JSS, which means you can no longer perform management tasks on the device</p> <p>When you unmanage a device, the following items are removed from the device:</p> <ul style="list-style-type: none"> <li>▪ MDM profile</li> <li>▪ Device certificate</li> <li>▪ Self Service</li> <li>▪ Any configuration profiles that were distributed with the Casper Suite</li> <li>▪ Any managed apps that were distributed with the <b>Remove app when MDM profile is removed</b> checkbox selected</li> </ul> <p><b>Note:</b> Although an unmanaged device will no longer submit inventory, its inventory record remains in the JSS.</p>	--


Remote Command	Description	Personally Owned Device Support
<b>Wipe Device</b>	<p>Permanently erases all data on the device and deactivates the device</p> <p>(Optional) Clears Activation Lock on the device</p> <p><b>Note:</b> Wiping a device does not remove the device from the JSS or change its inventory information.</p> <p>To restore the device to the original factory settings, you must manually reactivate the device.</p>	--
<b>Send Blank Push</b>	Sends a blank push notification, prompting the device to check in with Apple Push Notification service (APNs)	iOS and Android <b>Note:</b> On Android, the device checks in with Google Cloud Messaging.
<b>Enable/Disable Voice Roaming</b> <b>Enable/Disable Data Roaming</b>	<p>Enables/disables voice or data roaming on the device</p> <p><b>Note:</b> Disabling voice roaming automatically disables data roaming.</p>	--
<b>Personally Owned Devices Only</b>		
<b>Wipe Institutional Data</b>	<p>Permanently erases institutional data and settings on the device</p> <p>On a personal iOS device, the following items are removed:</p> <ul style="list-style-type: none"> <li>▪ MDM profile</li> <li>▪ Personal device profile, including any institutional settings and managed apps</li> <li>▪ Device certificate</li> </ul> <p>On a personal Android device, the following items are removed:</p> <ul style="list-style-type: none"> <li>▪ MDM profile</li> <li>▪ Personal device profile, including any institutional settings</li> </ul> <p><b>Note:</b> On an Android device, the Self Service Mobile app is also deactivated as a device administrator.</p> <p>On personal iOS and Android devices, the Wipe Institutional Data command makes the device unmanaged. This stops communication between the device and the JSS, which means you can no longer perform management tasks on the device.</p> <p><b>Note:</b> Although an unmanaged device will no longer submit inventory, its inventory record remains in the JSS.</p>	iOS and Android

## Sending a Remote Command

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to send the remote command to.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the devices related to that item.
5. Click the **Management** tab, and then click the button for the remote command that you want to send.  
If you are sending a Lock Device command, enter a lock message and phone number if desired, and then click **Lock Mobile Device**.  
If you are sending a Wipe Device command, you can choose to clear the Activation Lock on the device.


The remote command runs on the mobile device the next time the device contacts the JSS.

## Viewing the Status of Remote Commands

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the mobile device you want to view remote commands for.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the devices related to that item.
5. Click the **History** tab.
6. Use the Management History pane to view completed, pending, or failed commands.

## Canceling a Remote Command

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Perform a simple or advanced mobile device search.  
For more information, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).

4. Click the mobile device for which you want to cancel a remote command.  
If you performed a simple search for an item other than mobile devices, you must click **Expand**  next to an item to view the devices related to that item.
5. Click the **History** tab, and then click **Pending Commands**.
6. Find the command you want to cancel, and click **Cancel** across from it.

# Self Service

## About Self Service

Self Service allows users to browse and install iOS configuration profiles, apps, and eBooks on managed mobile devices. Users can point and tap their way through Self Service using an interface similar to the App Store.

The JAMF Software Server (JSS) allows you to manage every aspect of Self Service, including its installation, authentication, and the items available to users.

There are two kinds of Self Service for mobile devices:

- **Self Service Mobile for iOS**—You can use the JSS to group configuration profiles, apps, and eBooks in categories, which makes those items easier to locate in Self Service Mobile. (For more information, see [Categories](#).) You can also send notifications to mobile devices with Self Service Mobile installed.  
By default, Self Service Mobile is installed on all managed mobile devices with iOS 7 or later except Apple TV devices and personally owned devices.  
Self Service Mobile is available for free from the App Store.
- **Self Service web clip**—In addition to configuration profiles, apps, and eBooks, you can use the Self Service web clip to distribute updated MDM profiles to mobile devices for users to install.

**Note:** If you have upgraded from the Casper Suite v9.3x or earlier, the Self Service web clip remains installed on all managed mobile devices.

## Related Information

For related information, see the following sections in this guide:

- [Self Service Mobile](#)  
Learn about Self Service Mobile for iOS.
- [Self Service Web Clip](#)  
Learn about the Self Service web clip.
- [Installing Self Service](#)  
Find out how to install Self Service on managed mobile devices.
- [Sending a Mass Notification to Mobile Devices with Self Service Mobile Installed](#)  
Find out how to display notifications on mobile devices that have Self Service Mobile for iOS installed.

- [Self Service Configuration Profiles](#)  
Find out how to make iOS configuration profiles available in Self Service.
- [Self Service User Experience](#)  
Learn how users log in and view notifications, as well as install configuration profiles, apps, and eBooks in Self Service.
- [App Store Apps](#)  
Find out how to make App Store apps available in Self Service.
- [In-House Apps](#)  
Find out how to make in-house apps available in Self Service.
- [eBooks Available in the iBookstore](#)  
Find out how to make iBookstore eBooks available in Self Service.
- [In-House eBooks](#)  
Find out how to make in-house eBooks available in Self Service.

For related information, see the following Knowledge Base article:

[Creating a Link to Content in Self Service Mobile for iOS](#)

Find out how to create a link to an app, eBook, or configuration profile in Self Service Mobile.





# Installing Self Service

You can install Self Service Mobile for iOS or the Self Service web clip automatically on all managed mobile devices using the Self Service settings in the JAMF Software Server (JSS).

By default, Self Service Mobile is installed on all managed mobile devices with iOS 7 or later except Apple TV devices and personally owned devices.

**Note:** If you have upgraded from the Casper Suite v9.3x or earlier, the Self Service web clip remains installed on all managed mobile devices.

## Installing Self Service

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Mobile Device Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Self Service** .
5. Click **Edit**.
6. Choose an option from the **Install Automatically** pop-up menu:
  - To install the app, choose “Self Service Mobile app”.  
**Note:** Self Service Mobile requires mobile devices with iOS 7 or later. For earlier iOS versions, the web clip is installed by default.
  - To install the web clip, choose “Self Service web clip”.
  - If you do not want to automatically install Self Service on all managed mobile devices, choose “Neither (manual installation)”.  
For more information, see [Manually Deploying Self Service Mobile for iOS](#) and [Customizing the Self Service Web Clip Icon](#).
7. Configure the settings on the pane.
8. Click **Save**.

Self Service is installed on mobile devices the next time they check in with the JSS.

If you choose to install Self Service Mobile, users are prompted to install the app from the App Store. Users are also prompted to install the app from the App Store on mobile devices as they are newly enrolled.

## Related Information

For related information, see the following sections in this guide:

- [Self Service Mobile](#)  
Learn about Self Service Mobile for iOS.
- [Self Service Web Clip](#)  
Learn about the Self Service web clip.

# Self Service Mobile

Self Service Mobile for iOS allows you to distribute configuration profiles, apps, and eBooks to mobile devices for users to install. You can use the JAMF Software Server (JSS) to group configuration profiles, apps, and eBooks in categories, which makes those items easier to locate in Self Service Mobile. Users tap Self Service Mobile to browse and install items using an interface similar to the App Store.

In addition, you can send notifications to mobile devices with Self Service Mobile installed. (For more information, see [Sending a Mass Notification to Mobile Devices with Self Service Mobile Installed](#). Also, see the [Creating a Link to Content in Self Service Mobile for iOS](#) Knowledge Base article.)

If iBeacon monitoring is enabled in your environment, Self Service Mobile is the component that detects when a mobile device enters or exits an iBeacon region.

## Requirements



Self Service Mobile requires mobile devices with iOS 7 or later.

To require or allow users to log in to Self Service, you need an LDAP server set up in the JSS. (For more information, see [Integrating with LDAP Directory Services](#).)

## Configuring the Self Service Mobile Settings

The Self Service settings in the JSS allow you to do the following:

- Install or uninstall Self Service Mobile on managed mobile devices.
- Require or allow users to log in to Self Service Mobile with an LDAP directory account.
- Display in-house app updates in Self Service Mobile.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Mobile Device Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Self Service** .
5. Click **Edit**.
6. Select “Self Service Mobile app” from the **Install Automatically** pop-up menu and configure the settings on the pane.  
**Note:** The Self Service web clip will be installed on mobile devices with iOS 6 or earlier. (For more information, see [Self Service Web Clip](#).)
7. (Optional) Click the **App Options** tab and configure the User Login setting.

8. Click **Save**.

The changes are applied the next time mobile devices contact the JSS.

## Related Information

For related information, see the following Knowledge Base article:

- [Manually Deploying Self Service Mobile for iOS](#)  
Find out how to distribute Self Service Mobile to mobile devices in the scope.
- [iBeacon Regions](#)  
Learn what iBeacon regions can be used for and how you can add them to the JSS.

# Self Service Web Clip

The Self Service web clip allows you to distribute iOS configuration profiles, apps, eBooks, and updated MDM profiles to mobile devices for users to install. Users tap the web clip to browse and install items using an interface similar to the App Store.

If you have upgraded from the Casper Suite v9.3x or earlier, the Self Service web clip remains installed on all managed mobile devices.

**Note:** By default, Self Service Mobile is installed on all managed mobile devices with iOS 7 or later except Apple TV devices and personally owned devices. (For more information, see [Self Service Mobile](#).)



## Requirements

To require or allow users to log in to Self Service, you need an LDAP server set up in the JSS. (For more information, see [Integrating with LDAP Directory Services](#).)

## Configuring the Self Service Web Clip Settings

The Self Service settings in the JSS allow you to do the following:

- Install or uninstall the Self Service web clip on managed mobile devices.
- Require users to log in to the Self Service web clip with an LDAP directory account.
- Display or hide the **Install All** button for in-house apps.
- Display the following updates in the Self Service web clip:
  - MDM profile updates
  - App Store app updates
  - In-house app updates

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Mobile Device Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Self Service** .
5. Click **Edit**.
6. Select “Self Service web clip” from the **Install Automatically** pop-up menu and configure the settings on the pane.
7. (Optional) Click the **Web Clip Options** tab and configure the settings on the pane.
8. Click **Save**.

The changes are applied the next time mobile devices contact the JSS.

## Related Information

For related information, see the following Knowledge Base articles:

- [Customizing the Self Service Web Clip Icon](#)  
Find out how to display a custom icon for the Self Service web clip.
- [Distributing Updated MDM Profiles](#)  
Find out why you may want to make updated MDM profiles available in the Self Service web clip and how to do so.

# Self Service Configuration Profiles

You can make any iOS configuration profile available in Self Service, but it is up to you to determine which profiles are appropriate.

When you make a configuration profile available in Self Service, you can specify which mobile devices display it in Self Service and which users can access it (called “scope”).



You can also customize how Self Service configuration profiles are displayed to users by doing the following:

- Entering a description
- Uploading an icon
- Featuring the configuration profile
- Displaying the configuration profile in one or more categories

## Creating a Self Service Configuration Profile

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Configuration Profiles**.

On a smartphone or iPod touch, this option is in the pop-up menu.

4. Do one of the following:
  - To use the JSS to manually create a new configuration profile, click **New** .
  - To upload a configuration profile (.mobileconfig) that was created using Apple’s Profile Manager, click **Upload** .

For more information about configuration profiles, see [iOS Configuration Profiles](#).

5. On the General pane, select “Make Available in Self Service” from the **Distribution Method** pop-up menu and configure the rest of the settings as needed. You can customize the text displayed in the description for the profile in Self Service by using Markdown in the Description field.

For information about Markdown, see the following Knowledge Base article:

[Using Markdown to Format Text Displayed During User-Initiated Enrollment and in Self Service Descriptions](#)

6. Use the rest of the payloads to configure the settings you want to apply.
7. Click the **Scope** tab and configure the scope of the configuration profile.  
For more information, see [Scope](#).
8. Click the **Self Service** tab and configure how the configuration profile is displayed in Self Service using the settings on the pane.

9. Click **Save**.

The configuration profile is displayed in Self Service on mobile devices in the scope the next time they check in with the JSS and meet the criteria in the General payload.

## Related Information

For related information, see the following sections in this guide:

[Installing Configuration Profiles from Self Service](#)

Learn how users install the configuration profiles available in Self Service.



# Self Service User Experience

This section provides an overview of the Self Service login and notification experiences. It also describes what users do to install iOS configuration profiles, apps, and eBooks available in Self Service.

## Logging in to Self Service

After opening Self Service Mobile for iOS, users may need to log in using their LDAP directory accounts. The login pane is only displayed if the User Login setting for Self Service is configured to require or allow login.

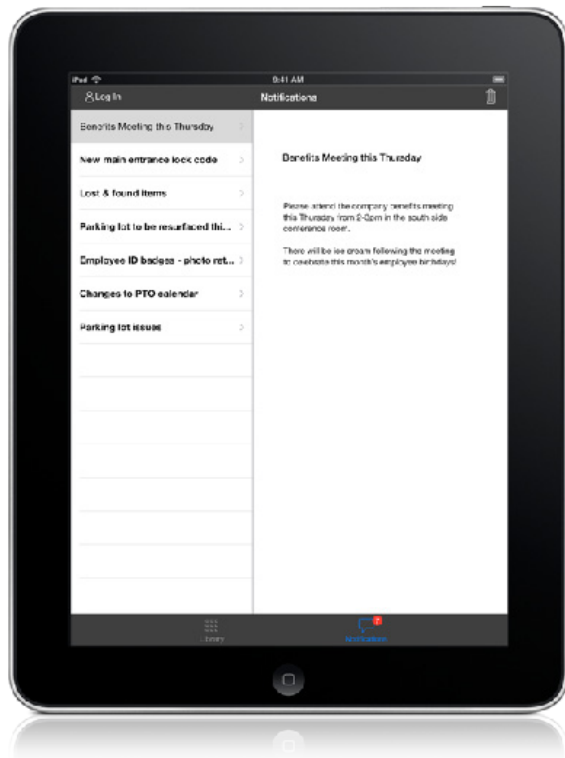
**Note:** This feature is also available in the Self Service web clip.



## Viewing Notifications in Self Service

You can send notifications to mobile devices that have Self Service Mobile for iOS installed. (For more information, see [Sending a Mass Notification to Mobile Devices with Self Service Mobile Installed](#). In addition, see the [Creating a Link to Content in Self Service Mobile for iOS](#) Knowledge Base article.)

**Note:** This feature is only supported on mobile devices with iOS 7 or later that have Self Service Mobile installed.



Notifications are displayed to users in the following ways:

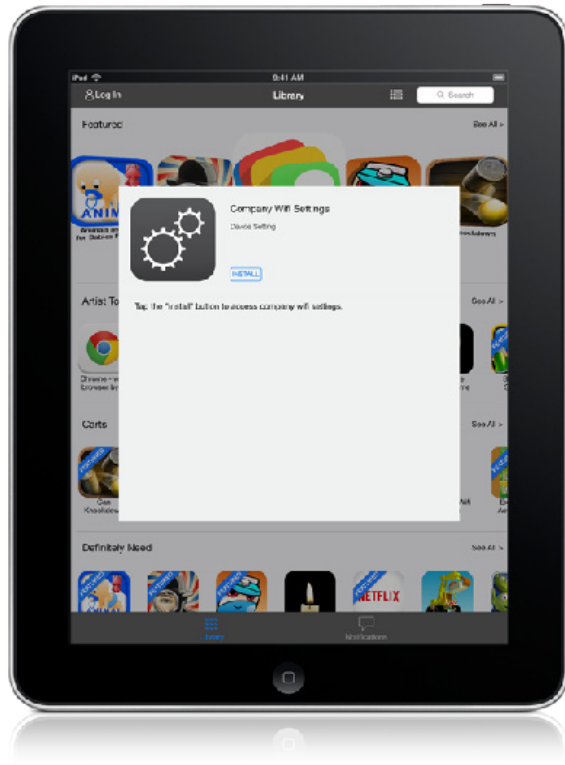
- The Self Service Mobile icon displays a badge with the number of notifications that have not been viewed by the user.
- In Self Service Mobile, the **Notifications** browse button displays a badge with the number of notifications that have not been viewed by the user. Items are listed in the “Notifications” area of the app as they are added. Users can tap any item in “Notifications” to view the item.
- (Optional) Each notification can be configured to also display an alert and appear in Notification Center. Users can tap any notification to go directly to the item in Self Service Mobile.

## Installing Configuration Profiles from Self Service

Users can browse configuration profiles from the “Featured” section or the list of categories in Self Service Mobile for iOS. A configuration profile is only displayed in the “Featured” section if you configured the profile to do so. (For more information, see [Self Service Configuration Profiles](#).)

**Note:** This feature is also available in the Self Service web clip.

To install a configuration profile, users tap the button next to it.



## Installing Apps from Self Service

Users can browse apps available from the App Store and in-house apps from the “Featured” section or the list of categories in Self Service Mobile for iOS. An app is only displayed in the “Featured” section if you configured the app to do so. (For more information, see [App Store Apps](#) and [In-House Apps](#).)

**Note:** This feature is also available in the Self Service web clip.

To install an app, users tap the button next to it.

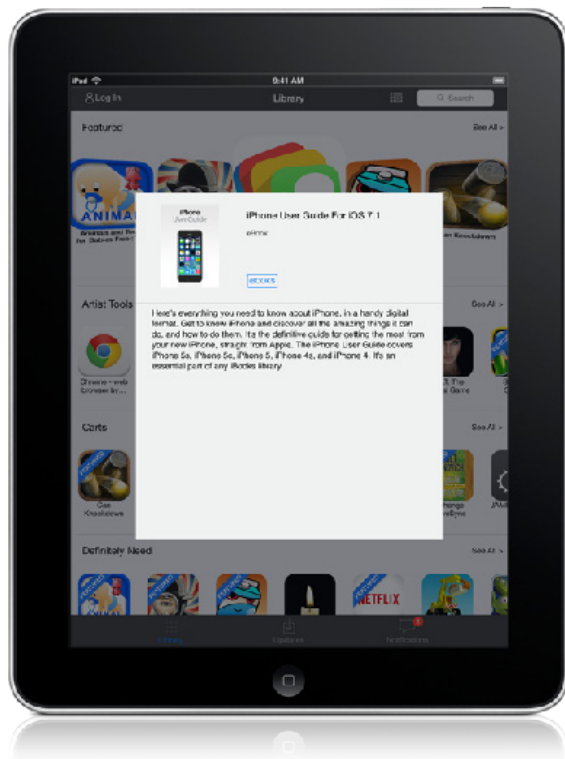


## Installing eBooks from Self Service

Users can browse eBooks available from the iBookstore and in-house eBooks from the “Featured” section or the list of categories in Self Service Mobile for iOS. An eBook is only displayed in the “Featured” section if you configured the eBook to do so. (For more information, see [eBooks Available in the iBookstore](#) and [In-House eBooks](#).)

**Note:** This feature is also available in the Self Service web clip.

To install an eBook, users tap the button next to it.



## Related Information

For related information, see the following sections in this guide:

- [Self Service Mobile](#)  
Learn about Self Service Mobile for iOS.
- [Self Service Web Clip](#)  
Learn about the Self Service web clip.

# App Distribution

## Understanding Managed Apps

When an app is managed by the JAMF Software Server (JSS), you have more control over distribution and removal of the app, as well as the backup of app data. The following table provides more detail:

	Unmanaged apps	Managed apps
<b>Distribution Methods</b>		
Make available in Self Service	✓	✓
Prompt users to install		✓
<b>Removal Options</b>		
Remove from Self Service	✓	✓
Remove from mobile devices		✓
Remove when MDM profile is removed		✓
<b>Backup of App Data</b>		
Prevent backup of app data		✓

## Managed App Requirements

There are two factors that determine whether an app can be managed by the JSS:

- Whether users have to pay for the app

The app must be free or paid for by the organization using Apple's Volume Purchase Program (VPP). For more information on VPP, visit one of the following websites:

- Volume Purchase Program for Business  
<https://www.apple.com/business/vpp/>
- Volume Purchase Program for Education  
<https://www.apple.com/education/volume-purchase-program/>
- Apple Deployment Programs Help  
<http://help.apple.com/deployment/programs/>

- The mobile devices to which you distribute the app  
Mobile devices must have iOS 5 or later and an MDM profile that supports managed apps.  
Mobile devices that have iOS 5 or later when they are enrolled with the JSS automatically obtain an MDM profile that supports managed apps. Managed iOS 4 devices that are upgraded to iOS 5 or later do not obtain this profile. For instructions on distributing an updated MDM profile that supports managed apps, see the following Knowledge Base article:  
[Distributing Updated MDM Profiles](#)

If you try to make an app managed but these requirements are not met, the app behaves as unmanaged.

# Understanding App Distribution Methods

The JAMF Software Server (JSS) provides two app distribution methods: install the app automatically/prompt users to install the app, or make the app available in Self Service.

## Install Automatically/Prompt Users to Install

When you distribute an app using this method, it is managed by the JSS when possible. (For more information, see [Managed App Requirements](#).)

To distribute an app using this method, the app must be free or paid for by the organization using Apple's Volume Purchase Program (VPP).

The app is installed automatically if the following conditions are met:

- The device has iOS 7 or later.
- The device is supervised.  
**Note:** For more information on supervision, see Apple's documentation at: <http://help.apple.com/configurator/mac/1.0/#cadee170260>
- The user is signed in to the iTunes Store on the device.
- The App Store has not been disabled on the device.
- The device is not configured to require an Apple ID password for all purchases.
- If the app wasn't assigned to the user for VPP-managed distribution, the user has recently authorized an iTunes Store purchase on the device, or the user's Apple ID has previously been used to install the app.

If these conditions are not met, users are prompted to install the app.

## Make Available in Self Service

When you distribute an app using this method, you can choose whether or not to make the app managed when possible. (For more information, see [Managed App Requirements](#).)

## Related Information

For related information, see the following sections in this guide:

- [In-House Apps](#)  
Find out how to distribute in-house apps.
- [App Store Apps](#)  
Find out how to distribute App Store apps.
- [Understanding Managed Apps](#)  
Learn about managed apps and their requirements.



For related information, see the following Knowledge Base article:

[Distributing Apps to Mobile Devices with App Store Restrictions After Upgrading to the JSS v9.5 or Later](#)


Learn about the steps necessary to redistribute iOS configuration profiles that contain App Store restrictions so that you can distribute apps to mobile devices with restrictions after upgrading from the JSS v9.4 or earlier.

# Provisioning Profiles

Provisioning profiles (.mobileprovision) authorize the use of in-house apps. For an in-house app to work, the provisioning profile that authorizes it must be installed on mobile devices.

If the provisioning profile that authorizes an in-house app is not bundled in the app archive (.ipa) file, you must upload the profile to the JAMF Software Server (JSS) before distributing the app.

## Uploading a Provisioning Profile

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Provisioning Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Upload**  and upload the provisioning profile.
5. Enter a display name for the profile.
6. Click **Save**.

## Editing or Deleting a Provisioning Profile

If a provisioning profile expires, you can edit the provisioning profile record in the JSS and replace the existing profile with the new version.

Deleting a provisioning profile removes it from mobile devices that have it installed.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Provisioning Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the provisioning profile you want to edit or delete.
5. Do one of the following:
  - To edit the profile, click **Edit** and upload the new profile. Then click **Save**.
  - To delete the profile, click **Delete** and then click **Delete** again to confirm.

The edit or delete action is applied to mobile devices with the profile installed the next time they contact the JSS.

## Downloading a Provisioning Profile

If you no longer have access to the original .mobileprovision file for a provisioning profile in the JSS, you can download it from the JSS.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Provisioning Profiles**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the provisioning profile you want to download.
5. Click **Download**.

The profile is downloaded immediately.

## Related Information

For related information, see the following sections in this guide:

- [In-House Apps](#)  
Find out how to distribute an in-house app and its provisioning profile.
- [Viewing and Editing Inventory Information for a Mobile Device](#)  
You can view the provisioning profiles installed on a mobile device by viewing the device's inventory information in the JSS.
- [Viewing the Pending Management Commands for a Mobile Device](#)  
Find out how to view and cancel pending provisioning profile installations and removals for a mobile device.
- [Viewing Management History for a Mobile Device](#)  
Find out how to view the completed, pending, and failed provisioning profile installations and removals for a mobile device.

# In-House Apps

In-house apps are enterprise apps developed through Apple's iOS Developer Enterprise Program. The JAMF Software Server (JSS) allows you to distribute in-house apps to mobile devices. After an app has been distributed, you can also use the JSS to distribute an update or remove the app from mobile devices.

For more information on Apple's iOS Developer Enterprise Program or to register, visit the following website:

<https://developer.apple.com/programs/ios/enterprise/>

Before you distribute an in-house app, it is important to consider where the app will be hosted. There are three hosting locations you can use for in-house apps:

- **Distribution points**—If your master distribution point is a JDS instance or the cloud distribution point, you can use the JSS to upload the app to the master distribution point.  
**Note:** Apps cannot be replicated to file share distribution points.
- **jamfsoftware database**—If your master distribution point is a file share distribution point, you can use the JSS to upload the app and host it in the jamfsoftware database.
- **Web server**—To use this location, the app must be hosted on a web server before you distribute it. Then, when you distribute the app, you specify the URL where it is hosted.  
If your master distribution point is a file share distribution point, it is recommended that you host large apps on a web server.

When you distribute an in-house app, you configure settings for the app, such as the hosting location, distribution method, and whether to make the app managed. (For more information, see [Understanding App Distribution Methods](#) and [Understanding Managed Apps](#).) Then, you specify the users and mobile devices that should receive it (called "scope").

**Note:** To specify managed in-house apps to distribute to or remove from personally owned iOS devices, you must use the Apps (iOS only) payload of the personal device profile that is used to perform management tasks on the devices. For more information, see [Personal Device Profiles](#).

## Managed App Configuration

You can configure preferences and settings in the JSS for a managed app before distributing it to mobile devices.

There are also several variables that you can use to populate settings in a managed app with attribute values stored in the JSS. This allows you to create preferences containing information about each mobile device and user to which you are distributing the app.

When the app is installed on a mobile device, the variable is replaced with the value of the corresponding attribute in the JSS.

Variable	Mobile Device Information
\$DEVICENAME	Mobile Device Name
\$SERIALNUMBER	Serial Number
\$UDID	UDID
\$USERNAME	Username
\$FULLNAME or \$REALNAME	Full Name
\$EMAIL	Email Address
\$PHONE	Phone Number
\$ROOM	Room
\$POSITION	Position
\$MACADDRESS	MAC Address
\$JSSID	JSS ID

## Requirements


To distribute an in-house app, you need:

- The bundle identifier for the app (located in the PLIST file for the app)
- The archived app file (.ipa) or the URL where the app is hosted on a web server
  - Note:** If you are hosting the app from a web server, the MIME type for the archived app file must be "/application/octet-stream".
- The provisioning profile (.mobileprovision) uploaded to the JSS or bundled in the archived app file (For more information, see [Provisioning Profiles](#).)

Managed App Configuration only applies to mobile devices with iOS 7 or later.

Per-App VPN connections are only applied to mobile devices with iOS 7 or later.

## Distributing an In-House App

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Select **In-house app** and click **Next**.

6. Use the General pane to configure settings for the app, including the distribution method and hosting location.  
If you choose "Distribution Points" or "jamfsoftware database" from the **Hosting Location** pop-up menu, be sure to upload the archived app file.
7. Click the **Scope** tab and configure the scope of the app.  
For more information, see [Scope](#).
8. (Optional) Click the **Self Service** tab and configure the way the app is displayed in Self Service. You can customize the text displayed in the description for the app in Self Service by using Markdown in the Description field.  
For information about Markdown, see the following Knowledge Base article:  
[Using Markdown to Format Text Displayed During User-Initiated Enrollment and in Self Service Descriptions](#)  
**Note:** The **Self Service** tab is only displayed if "Make Available in Self Service" is chosen in the **Distribution Method** pop-up menu.
9. (Optional) Click the **App Configuration** tab and configure the preferences as needed.  
**Note:** The **App Configuration** tab is only displayed if the **Manage app when possible** checkbox is selected.
10. Click **Save**.

The app is distributed the next time mobile devices in the scope contact the JSS.

## Cloning, Editing, or Deleting an In-House App

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the app you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the app, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the app, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the app, click **Delete** and then click **Delete** again to confirm.

The clone, edit, or delete action is applied to mobile devices in the scope the next time they contact the JSS.

## Distributing an In-House App Update

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the app you want to update.
5. Do one of the following:
  - To distribute an update for an in-house app that is hosted on a web server, upload the new archived app file to the web server and update app URL.
  - To distribute an update for an in-house app that is hosted on distribution points or in the jamfsoftware database, upload the new archived app file using the JSS.
6. Enter the new version number for the app.  
**Important:** Do not change the bundle identifier. The JSS uses the existing bundle identifier to distribute the update.
7. Click **Save**.

The update is distributed the next time mobile devices in the scope contact the JSS.

## Removing an In-House App from Mobile Devices

To remove an in-house app from one or more devices, you remove the mobile device(s) from the scope.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the app you want to remove.
5. Click the **Scope** tab and remove mobile devices from the scope as needed.  
For more information, see [Scope](#).
6. Click **Save**.

The app is removed the next time the mobile devices contact the JSS.

## Related Information

For related information, see the following sections in this guide:

- [App Store Apps](#)  
Find out how to distribute, update, and remove App Store apps.
- [Viewing Apps for a Mobile Device](#)  
Find out how to view the apps in the scope of a mobile device.
- [Viewing the Pending Management Commands for a Mobile Device](#)  
Find out how to view and cancel pending app installations and removals for a mobile device.
- [Viewing App Installations for a Mobile Device](#)  
Find out how to view the completed, pending, and failed app installations for a mobile device. Also, find out how to cancel pending app installations.
- [iOS Configuration Profiles](#)  
You can create an iOS configuration profile with a Per-App VPN connection.

For related information, see the following Knowledge Base article:

[Hosting In-House eBooks and Apps on a Tomcat Instance](#)

Find out how to hosting in-house apps on the Tomcat instance that hosts the JSS.



# App Store Apps

The JAMF Software Server (JSS) allows you to distribute App Store apps to mobile devices. After an app has been distributed, you can also use the JSS to distribute an update or remove the app from mobile devices.

When you distribute an App Store app, you add it to the JSS and configure settings for the app, such as the distribution method and whether to make the app managed. (For more information, see [Understanding App Distribution Methods](#) and [Understanding Managed Apps](#).) Then, you specify the users and mobile devices that should receive it (called “scope”).

**Note:** To specify managed App Store apps to distribute to or remove from personally owned iOS devices, you must use the Apps (iOS only) payload of the personal device profile that is used to perform management tasks on the devices. For more information, see [Personal Device Profiles](#).

## VPP Codes

When you distribute an App Store app, you can also associate Volume Purchase Program (VPP) codes with the app and track their redemption.

**Note:** The JSS also supports VPP-managed distribution, which involves VPP assignments instead of VPP codes. For more information, see [VPP Assignments](#).

For more information on VPP, visit one of the following websites:

- Volume Purchase Program for Business  
<https://www.apple.com/business/vpp/>
- Volume Purchase Program for Education  
<https://www.apple.com/education/volume-purchase-program/>
- Apple Deployment Programs Help  
<http://help.apple.com/deployment/programs/>

## Managed App Configuration

You can configure preferences and settings in the JSS for a managed app before distributing it to mobile devices.

There are also several variables that you can use to populate settings in a managed app with attribute values stored in the JSS. This allows you to create preferences containing information about each mobile device and user to which you are distributing the app.

When the app is installed on a mobile device, the variable is replaced with the value of the corresponding attribute in the JSS.

Variable	Mobile Device Information
\$DEVICENAME	Mobile Device Name
\$SERIALNUMBER	Serial Number
\$UDID	UDID
\$USERNAME	Username
\$FULLNAME or \$REALNAME	Full Name
\$EMAIL	Email Address
\$PHONE	Phone Number
\$ROOM	Room
\$POSITION	Position
\$MACADDRESS	MAC Address
\$JSSID	JSS ID

## Requirements


To install an App Store app or update, users may be prompted to enter an Apple ID.

To associate VPP codes with an App Store app, you need an Excel spreadsheet (.xls) that contains VPP codes for the app.

Managed App Configuration only applies to mobile devices with iOS 7 or later.

Per-App VPN connections are only applied to mobile devices with iOS 7 or later.

## Distributing an App Store App

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Select **App Store app** and click **Next**.

6. Do one of the following:
  - To add the app by browsing the App Store, enter the name of the app, choose an App Store country, and click **Next**. Then click **Add** for the app you want to add.
  - To add the app by uploading a VPP code spreadsheet, click **Choose File** and upload the Excel spreadsheet (.xls) that contains VPP codes for the app.
  - To add the app by manually entering information about it, click **Enter Manually**.
7. Use the General pane to configure settings for the app, including the distribution method and whether to make the app managed.
8. Click the **Scope** tab and configure the scope of the app.  
For more information, see [Scope](#).
9. (Optional) Click the **Self Service** tab and configure the way the app is displayed in Self Service. You can customize the text displayed in the description for the app in Self Service by using Markdown in the Description field.  
For information about Markdown, see the following Knowledge Base article:  
[Using Markdown to Format Text Displayed During User-Initiated Enrollment and in Self Service Descriptions](#)  
**Note:** The **Self Service** tab is only displayed if "Make Available in Self Service" is chosen in the **Distribution Method** pop-up menu.
10. (Optional) If you have not already uploaded a VPP code spreadsheet, click the **VPP Codes** tab and upload the Excel spreadsheet (.xls) that contains VPP codes for the app.  
**Note:** The **VPP Codes** tab is only displayed if the **Free** checkbox is not selected.
11. (Optional) Click the **App Configuration** tab and configure the preferences as needed.  
**Note:** The **App Configuration** tab is only displayed if the **Manage app when possible** checkbox is selected.
12. Click **Save**.

The app is distributed the next time mobile devices in the scope contact the JSS.

## Cloning, Editing, or Deleting an App Store App

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the app you want to clone, edit, or delete.

5. Do one of the following:
  - To clone the app, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the app, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the app, click **Delete** and then click **Delete** again to confirm.

The clone, edit, or delete action is applied to mobile devices in the scope the next time they contact the JSS.

## Distributing an App Store App Update

To distribute an update for an App Store app, you update the version number and URL for the app in the JSS.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the app you want to update.
5. Enter the new version number and URL.  
**Important:** Do not change the bundle identifier. The JSS uses the existing bundle identifier to distribute the update.
6. Click **Save**.

The update is distributed the next time mobile devices in the scope contact the JSS.

## Removing an App Store App from Mobile Devices

To remove an App Store app from one or more devices, you remove the mobile device(s) from the scope.

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Apps**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the app you want to remove.
5. Click the **Scope** tab and remove mobile devices from the scope as needed.  
For more information, see [Scope](#).
6. Click **Save**.

The app is removed the next time the mobile devices contact the JSS.

## Related Information

For related information, see the following sections in this guide:

- [In-House Apps](#)  
Find out how to distribute, update, and remove in-house apps.
- [Viewing and Editing Inventory Information for a Mobile Device](#)  
You can view the apps installed on a mobile device by viewing the device's inventory information in the JSS.
- [Viewing Apps for a Mobile Device](#)  
Find out how to view the apps in the scope of a mobile device.
- [Viewing the Pending Management Commands for a Mobile Device](#)  
Find out how to view and cancel pending app installations and removals for a mobile device.
- [Viewing App Installations for a Mobile Device](#)  
Find out how to view the completed, pending, and failed app installations for a mobile device. Also, find out how to cancel pending app installations.
- [iOS Configuration Profiles](#)  
You can create an iOS configuration profile with a Per-App VPN connection.

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# Casper Focus

## About Casper Focus

Casper Focus is designed to be used by teachers in the classroom. It gives teachers control over the devices used during class time by allowing the teacher to “focus” the devices on a single app or website. Focusing a device locks it on the app or website, preventing students from accessing any other screens or content on the device.

In addition to focusing student devices, teachers can also perform the following actions in Casper Focus:

- Clear passcodes on student devices.
- Use AirPlay Mirroring to show the screen of a student device on Apple TV.
- Distribute eBooks (ePub format only) so that students can install the eBooks on their devices from Self Service.

Casper Focus is available for free from the App Store.

## Related Information

For related information, see the following sections in this guide:

- [Preparing to Use Casper Focus](#)  
Learn how to prepare Casper Focus for teachers to use in the classroom.
- [Classes](#)  
Learn how to create classes in the JSS so teachers can control student devices using Casper Focus.

For instructions on how to use Casper Focus in the classroom, see the *Casper Focus User Guide*. This guide is available at:

<http://www.jamfsoftware.com/product-documentation/administrators-guides>

# Preparing to Use Casper Focus

Before teachers can use Casper Focus, you need to prepare it for use in the classroom.

## Device Requirements

You must ensure that teacher and student mobile devices meet the minimum requirements for use, as well as the feature-specific device requirements for each Casper Focus feature that teachers plan to use.

### Minimum Device Requirements

Teacher device:

- iPad, iPhone, or iPod touch with iOS 6 or later

Student device:

- iPad, iPhone, or iPod touch with iOS 5.1.1 or later
- Managed by the Casper Suite v8.7 or later

### Feature-Specific Device Requirements

The following table shows the feature-specific device requirements that must be met to perform Casper Focus actions on student mobile devices. These requirements are in addition to the minimum device requirements.

	Student Device Requirements	Other Requirements
<b>Focus on App</b>	<ul style="list-style-type: none"><li>• iOS 6 or later</li><li>• Supervised by Apple Configurator</li></ul>	--
<b>Focus on Website</b>	<ul style="list-style-type: none"><li>• iOS 7 or later</li><li>• Supervised by Apple Configurator</li><li>• Managed by the Casper Suite v9.3 or later</li></ul>	--
<b>Clear Passcodes</b>	(Minimum requirements only)	--
<b>Mirror Device on Apple TV</b>	<ul style="list-style-type: none"><li>• iOS 7 or later</li><li>• Supervised by Apple Configurator</li><li>• Managed by the Casper Suite v9.1 or later</li></ul>	Apple TV with iOS 7 or later, managed by the Casper Suite v9.1 or later
<b>Distribute eBooks</b>	<ul style="list-style-type: none"><li>• Managed by the Casper Suite v9.1 or later</li><li>• Self Service installed</li><li>• For students to install an eBook (ePub format only) that was distributed using Casper Focus, the student device must have iBooks 1.0 or later</li></ul>	--

For more information on Casper Focus features, see the *Casper Focus User Guide*. This guide is available at: <http://www.jamfsoftware.com/product-documentation/administrators-guides>

## Before Using Casper Focus

In addition to ensuring that mobile devices meet the requirements for using Casper Focus, you also need to perform the following tasks to allow teachers to use Casper Focus:

- **Create classes in the JSS**—The classes you create in the JAMF Software Server (JSS) allow teachers to use Casper Focus to control student devices during class time. (For more information, see [Classes](#).)
- **Preconfigure the connection to the JSS**—Casper Focus must be able to connect to the JSS to work. To do this, the JSS URL setting in Casper Focus must be populated with the JSS URL. With this setting preconfigured, teachers can log in and use Casper Focus without having to manually configure the JSS URL themselves.

For more information on preconfiguring the JSS URL, see the following Knowledge Base article:

[Configuring Server Settings for Casper Focus](#)

- **(Optional) Add an LDAP server to the JSS**—Integrating with an LDAP directory service allows teachers to log in to Casper Focus using the username and password for their LDAP directory account. (For more information, see [Integrating with LDAP Directory Services](#).)

If you do not have an LDAP server set up in the JSS, teachers can log in to Casper Focus with a JSS user account.

- **Check Web Content Filter payload settings**—If you currently use the Web Content Filter payload in an iOS configuration profile to limit student devices to specific websites only, you need to ensure that the payload's Specific Websites list includes the URLs of any websites that teachers will focus student devices on.
- **Specify AirPlay passwords for Apple TV devices**—If teachers will be mirroring student devices on Apple TV using Casper Focus and the Apple TV devices are configured with AirPlay passwords, you will need to specify the AirPlay password for each Apple TV by editing its inventory information in the JSS. (For more information, see [Viewing and Editing Inventory Information for a Mobile Device](#).)



# Classes


For a teacher to control student devices using Casper Focus, a class that specifies the teacher(s), student devices, and meeting times of the class (optional) must exist in the JSS.

When you create a class, you specify the following information:

- A display name for the class
- The username for each teacher  
Teacher usernames can be usernames for JSS user accounts or, if you have an LDAP server set up in the JSS, LDAP directory accounts. (For more information on setting up an LDAP server, see [Integrating with LDAP Directory Services](#).)
- The method to use to assign student devices to the class  
You can use the username associated with each student's mobile device, or a smart or static mobile device group that contains the devices used in the class.
- The student devices to assign to the class
- (Optional) Meeting times for the class (times/days that the class takes place)  
Specifying meeting times allows teachers to access the class in Casper Focus during the scheduled meeting times only.
- (Optional) Apple TV devices to assign to the class  
With one or more Apple TV devices assigned to a class, the teacher can use AirPlay Mirroring to show the screen of a student device on Apple TV.

After you create a class in the JSS, the teacher assigned to the class can log in to Casper Focus and control the student devices in that class.

## Creating a Class

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Classes**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the General pane to configure settings for the class, such as the teacher usernames, method, and student devices.
6. (Optional) Click the **Meeting Times** tab and specify the times and days the class meets.
7. (Optional) Click the **Apple TV** tab and add targets to assign Apple TV devices to the class.
8. Click **Save**.

## Cloning, Editing, or Deleting a Class

1. Log in to the JSS with a web browser.
2. Click **Mobile Devices** at the top of the page.
3. Click **Classes**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the class you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the class, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the class, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the class, click **Delete**. Then click **Delete** again to confirm.

The clone, edit, or delete action is applied to Casper Focus the next time the app is opened or the Classes are refreshed in the sidebar.

## Related Information

For related information, see the following section in this guide:

[Preparing to Use Casper Focus](#)

Learn how to prepare Casper Focus for teachers to use in the classroom.



## Managing Users

# Inventory

## User Assignments

The JAMF Software Server (JSS) allows you to assign users to computers, mobile devices, and peripherals.

There are two ways to assign a user to a computer or mobile device:

- Manually (Requires the computer or mobile device to be enrolled with the JSS)
- During user-initiated enrollment

Users must be assigned to peripherals manually.

**Note:** You can only assign a user to a peripheral if you have completed the Migration Assistant and the peripheral is not already assigned to a computer. (For more information, see the [Migrating Users](#) Knowledge Base article.)

This section explains how to do the following:


- Manually assign a user to a computer, mobile device, or peripheral. (For information on assigning users to computers and mobile device during user-initiated enrollment, see [User-Initiated Enrollment Settings](#).)
- Remove the user assignment from a computer, mobile device, or peripheral.

## Manually Assigning a User to a Computer or Mobile Device


1. Log in to the JSS with a web browser.
2. Click **Computers** or **Mobile Devices** at the top of the page.
3. Perform a simple or advanced search.

For more information on computer searches, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).

For more information on mobile device searches, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).

4. Click the computer or mobile device you want to assign a user to.
5. Select the **User and Location** category and click **Edit**.
6. Do one of the following:
  - To assign an existing user, enter the user's partial or full username in the **Username** field and click the **Search**  icon. Click **Choose** across from the user you want to assign, and then click **Save**.  
The **Full Name**, **Email Address**, **Phone Number**, and **Position** fields are populated automatically.
  - To assign and create a new user, enter information about the user and click **Save**.

## Assigning a User to a Peripheral

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Choose "Peripherals" from the **Search** pop-up menu.
5. Enter one or more search terms in the field provided.  
You can base peripheral searches on peripheral type, customizable peripheral fields, or bar code.  
For information on the syntax to use to refine your search, see [Search Syntax](#).
6. Press the Enter key.  
The list of search results is displayed.
7. Click the peripheral you want to assign a user to.
8. Select the **User and Location** category and click **Edit**.
9. Do one of the following:
  - To assign an existing user, enter the user's partial or full username in the **Username** field and click the **Search**  icon. Click **Choose** across from the user you want to assign, and then click **Save**.  
The **Full Name**, **Email Address**, **Phone Number**, and **Position** fields are populated automatically.
  - To assign and create a new user, enter information about the user and click **Save**.  
**Note:** You can only assign a user to a peripheral if you have completed the Migration Assistant and the peripheral is not already assigned to a computer. (For more information, see the [Migrating Users](#) Knowledge Base article.)  
If you specified user and location information, the information is applied in the **Users** tab and the user is assigned to the peripheral. This specified information is also applied in the inventory information for computers, mobile devices, and other peripherals that the user is assigned to.

## Removing a User Assignment from a Computer or Mobile Device

1. Log in to the JSS with a web browser.
2. Click **Computers** or **Mobile Devices** at the top of the page.
3. Perform a simple or advanced search.  
For more information on computer searches, see [Simple Computer Searches](#) or [Advanced Computer Searches](#).  
For more information on mobile device searches, see [Simple Mobile Device Searches](#) or [Advanced Mobile Device Searches](#).
4. Click the computer or mobile device you want to remove a user assignment from.
5. Select the **User and Location** category and click **Edit**.
6. Remove the username from the **Username** field and click **Save**.  
The information in the **Full Name**, **Email Address**, **Phone Number**, and **Position** fields is removed automatically.

## Removing a User Assignment from a Peripheral

1. Log in to the JSS with a web browser.
2. Click **Computers** at the top of the page.
3. Click **Search Inventory**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Choose "Peripherals" from the **Search** pop-up menu.
5. Enter one or more search terms in the field provided.  
You can base peripheral searches on peripheral type, customizable peripheral fields, or bar code.  
For information on the syntax to use to refine your search, see [Search Syntax](#).
6. Press the Enter key.
7. The list of search results is displayed.
8. Click the peripheral you want to remove a user assignment from.
9. Select the **User and Location** category and click **Edit**.
10. Remove the username from the **Username** field and click **Save**.  
The information in the **Full Name**, **Email Address**, **Phone Number**, and **Position** fields is removed automatically.

# User Extension Attributes

User extension attributes are custom fields that you can create to collect almost any type of data about a user.

When you create a user extension attribute, you specify the following information:

- Type of data being collected, such as string, integer, or date
- Input type, which determines how the extension attribute is populated with data

**Note:** Extension attributes are displayed in the General category of user inventory information.




Extension attributes can add time and network traffic to the inventory process depending on the type of data you choose to collect and the input type used to collect it.

## User Extension Attribute Input Types


You can choose to populate the value of a user extension attribute using any of the following input types:


- **Text field**—This displays a text field in user inventory information. You can enter a value in the field at any time using the JSS.
- **Pop-up menu**—This displays a pop-up menu in user inventory information. You can enter a value in the field at any time using the JSS.

## Creating a User Extension Attribute

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **User Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Extension Attributes** .
5. Click **New** .
6. Configure the settings on the pane.
7. Click **Save**.

## Cloning, Editing, or Deleting a User Extension Attribute

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .

3. Click **User Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **Extension Attributes** .
5. Click the extension attribute you want to clone, edit, or delete.
6. Do one of the following:
  - To clone the extension attribute, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the extension attribute, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the extension attribute, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [Viewing and Editing Inventory Information for a User](#)  
You can view the extension attributes collected from a user and edit extension attribute values for that user.
- [Smart User Groups](#)  
You can create smart user groups based on extension attributes.



# Simple User Searches

A simple user search functions like a search engine, allowing you to quickly search the users in your inventory for a general range of results.

You can base searches on any of the following attributes:

- Username
- Full name
- Email address

## Search Syntax

This section explains the syntax to use for the following search functions:

- Wildcard searches
- Including multiple search terms
- Excluding a search term
- Returning all users

In general, searches are not case-sensitive.

**Note:** The default search preference is “Exact Match”. For most items, the option can be changed to either “Starts with” or “Contains”. (For more information, see [Configuring Account Preferences](#).)

## Wildcard Searches

Asterisks (\*) function as wildcard characters in simple searches. The following table explains the different ways asterisks can be used to refine a search:

Usage	Example
Use an asterisk after a search term to return all results with attributes that begin with that term.	Perform a search for “John*” to return all users with full names that begin with “John”.
Use an asterisk before a search term to return all results with attributes that end with that term.	Perform a search for “*@mycompany.com” to return all users with email addresses that end with “@mycompany.com”.
Use an asterisk before and after a search term to return all results that include that term.	Perform a search for “*Jane*” to return all users that include “Jane”.
Use an asterisk without any other terms to return all results for the item you are searching.	Perform a search for “*” to return all users.

## Including Multiple Search Terms

Use multiple search terms separated by a comma (,) to return all results that include those search terms.

For example, perform a search for “John\*, \*Doe” to return all users that begin with “John” and end with “Doe”.

## Excluding a Search Term

Use a hyphen (-) before a search term to exclude results that include the term.

For example, perform a search for “Jane\*, -\*@mycompany.com” to return all users with full names that begin with “Jane” except for those with email addresses that end with “@mycompany.com”.

## Returning All Users

There are two ways to return all users: use an asterisk (\*) without any other characters or terms, or perform a blank search.

## Performing a Simple User Search

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Search Users**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Enter one or more search terms in the field provided.  
For information on the syntax to use to refine your search, see [Search Syntax](#).
5. Press the Enter key.

The list of search results is displayed.

## Related Information

For related information, see the following section in this guide:

[Viewing and Editing Inventory Information for a User](#)

Find out how to view and edit inventory information for a user.

[Advanced User Searches](#)




Find out how to create and save an advanced user search.

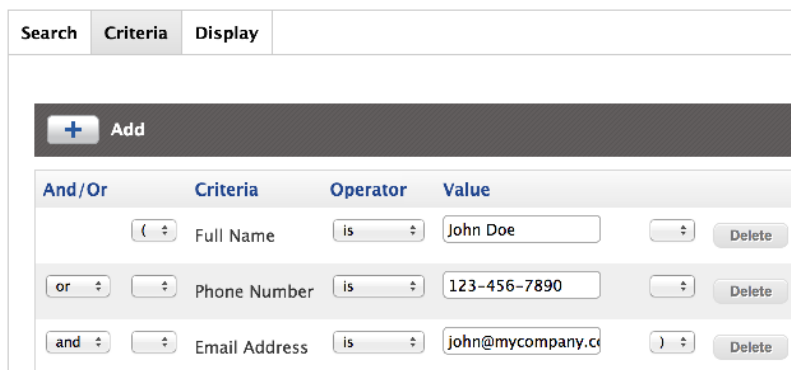
# Advanced User Searches

Advanced user searches allow you to use detailed search criteria to search for users in the JAMF Software Server (JSS). These types of searches give you more control over your search by allowing you to do the following:

- Generate specific search results.
- Specify which attribute fields to display in the search results.
- Save the search.

## Creating an Advanced User Search

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.  
If the migration assistant is displayed on the pane, you must migrate your users before you proceed. (For more information and complete instructions, see the [Migrating Users](#) Knowledge Base article.)
3. Click **Search Users**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the Search pane to configure basic settings for the search.  
To save the search, select the **Save this Search** checkbox.
6. Click the **Criteria** tab and add criteria for the search:
  - a. Click **Add** .
  - b. Click **Choose** for the criteria you want to add.
  - c. Choose an operator from the **Operator** pop-up menu.
  - d. Enter a value in the **Value** field or browse for a value by clicking **Browse** .
  - e. Repeat steps a through d to add criteria as needed.
7. Choose an operator from the **And/Or** pop-up menu(s) to specify the relationships between criteria.
8. To group criteria and join multiple operations, choose parentheses from the pop-up menus around the criteria you want to group.



And/Or	Criteria	Operator	Value	
(	Full Name	is	John Doe	Delete
or	Phone Number	is	123-456-7890	Delete
and	Email Address	is	john@mycompany.c	Delete

9. Click the **Display** tab and select the attribute fields you want to display in your search results.
10. Click **Save**.

Operations in the search take place in the order they are listed (top to bottom).

The results of a saved search are updated each time user information is modified and users meet or fail to meet the specified search criteria.

To view the search results, click **View**.

## Cloning, Editing, or Deleting a Saved Advanced User Search

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Search Users**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the advanced user search you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the search, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the search, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the search, click **Delete**. Then click **Delete** again to confirm.

## Viewing Advanced User Search Results

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Search Users**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the advanced user search you want to view the results for.
5. Click **View**.

The list of search results is displayed.

## Related Information

For related information, see the following sections in this guide:

- [Viewing and Editing Inventory Information for a User](#)  
Find out how to view and edit inventory information for a user.
- [Simple User Searches](#)  
Learn how to quickly search users in the JSS for a general range of results.

# User Reports

The data displayed in smart or static group membership lists or user search results can be exported from the JAMF Software Server (JSS) to the following file formats:

- Comma-separated values file (.csv)
- Tab delimited text file (.txt)
- XML file

## Creating User Reports

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Do one of the following:
  - View user group memberships. (For more information, see [Smart User Groups](#) or [Static User Groups](#).)
  - View simple or advanced user search results. (For more information, see [Simple User Searches](#) or [Advanced User Searches](#).)
4. At the bottom of the list, click **Export**.
5. Follow the onscreen instructions to export the data.

The report downloads immediately.

# Mass Adding Users to a Site

You can use the JSS to add multiple users to a site from static or smart group membership lists or user search results. When you add multiple users to a site, those users retain previous site memberships.

## Adding Multiple Users to a Site

You can only add multiple users to a site if there are one or more sites in the JSS. (For more information, see [Sites](#).)

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Do one of the following:
  - View user group memberships. (For more information, see [Smart User Groups](#) or [Static User Groups](#).)
  - View simple or advanced user search results. (For more information, see [Simple User Searches](#) or [Advanced User Searches](#).)
4. At the bottom of the list, click **Action**.
5. Select **Add Users to a Site**.
6. Follow the onscreen instructions to add users to a site.

## Related Information

For related information, see the following section in this guide:

[Viewing and Editing Inventory Information for a User](#)

Find out how to edit the site for a single user.

# Simple Content Searches

A simple content search functions like a search engine, allowing you to quickly search the mobile device apps, Mac App Store apps, and eBooks in your inventory for a general range of results.

Content searches are based on the name of the application or eBook you are searching for.

## Search Syntax

This section explains the syntax to use for the following search functions:

- Wildcard searches
- Including multiple search terms
- Excluding a search term
- Returning all content

In general, searches are not case-sensitive.

**Note:** The default search preference is “Exact Match”. For most items, the option can be changed to either “Starts with” or “Contains”. (For more information, see [Configuring Account Preferences.](#))

## Wildcard Searches

Asterisks (\*) function as wildcard characters in simple searches. The following table explains the different ways asterisks can be used to refine a search:

Usage	Example
Use an asterisk after a search term to return all results with attributes that begin with that term.	Perform a search for “key*” to return all content with names that begin with “key”.
Use an asterisk before a search term to return all results with attributes that end with that term.	Perform a search for “*note” to return all content with names that end with “note”.
Use an asterisk before and after a search term to return all results that include that term.	Perform a search for “*ABC*” to return all content that includes “ABC”.
Use an asterisk without any other terms to return all results for the item you are searching.	Perform a search for “*” to return all content.

## Including Multiple Search Terms

Use multiple search terms separated by a comma (,) to return all results that include those search terms.

For example, perform a user search for “key\*, \*note” to return all content that begins with “key” and ends with “note”.



## Excluding a Search Term

Use a hyphen (-) before a search term to exclude results that include the term.

For example, perform a user search for “ABC\*, -\*note” to return all content with names that begin with “ABC” except for those that end with “note”.

## Returning All Content

There are two ways to return all content: use an asterisk (\*) without any other characters or terms, or perform a blank search.

## Performing a Simple Content Search

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.  
If the migration assistant is displayed on the pane, you must migrate your users before you proceed. (For more information and complete instructions, see the [Migrating Users](#) Knowledge Base article.)
3. Click **Search Content**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Enter one or more search terms in the field provided.  
For information on the syntax to use to refine your search, see [Search Syntax](#).
5. Press the Enter key.

The list of search results is displayed.

## Related Information

For related information, see the following section in this guide:

### [Advanced Content Searches](#)




Find out how to create and save an advanced content search.

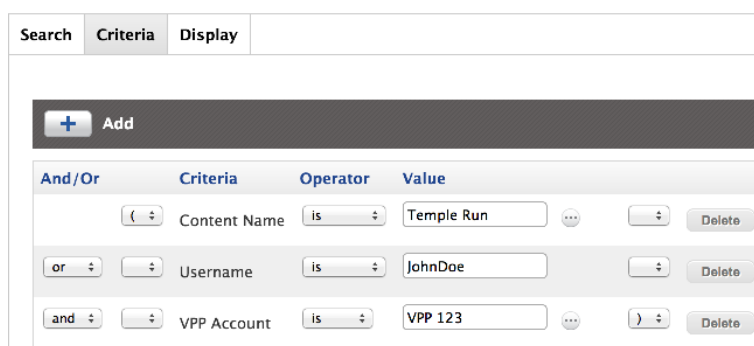
# Advanced Content Searches

Advanced content searches allow you to use detailed search criteria to search mobile device apps, Mac App Store apps, and eBooks in the JAMF Software Server (JSS). These types of searches give you more control over your search by allowing you to do the following:

- Generate specific search results.
- Specify which attribute fields to display in the search results.
- Save the search.

## Creating an Advanced Content Search

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.  
If the migration assistant is displayed on the pane, you must migrate your users before you proceed. (For more information and complete instructions, see the [Migrating Users](#) Knowledge Base article.)
3. Click **Search Content**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the Search pane to configure basic settings for the search.  
To save the search, select the **Save this Search** checkbox.
6. Click the **Criteria** tab and add criteria for the search:
  - a. Click **Add** .
  - b. Click **Choose** for the criteria you want to add.
  - c. Choose an operator from the **Operator** pop-up menu.
  - d. Enter a value in the **Value** field or browse for a value by clicking **Browse** .
  - e. Repeat steps a through d to add criteria as needed.
7. Choose an operator from the **And/Or** pop-up menu(s) to specify the relationships between criteria.
8. To group criteria and join multiple operations, choose parentheses from the pop-up menus around the criteria you want to group.



9. Click the **Display** tab and select the attribute fields you want to display in your search results.
10. Click **Save**.

Operations in the search take place in the order they are listed (top to bottom).

The results of a saved search are updated each time content is modified and meets or fails to meet the specified search criteria.

To view the search results, click **View**.

## Cloning, Editing, or Deleting a Saved Advanced Content Search

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Search Content**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the advanced content search you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the search, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the search, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the search, click **Delete**. Then click **Delete** again to confirm.

## Viewing Advanced Content Search Results

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Search Content**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the advanced content search you want to view the results for.
5. Click **View**.

The list of search results is displayed.

## Related Information

For related information, see the following sections in this guide:

- [Simple Content Searches](#)  
Learn how to quickly search content for a general range of results.
- [Content Reports](#)  
Find out how to export the data in your search results to different file formats.

# Content Reports

The data displayed in content search results can be exported from the JAMF Software Server (JSS) to the following file formats:

- Comma-separated values file (.csv)
- Tab delimited text file (.txt)
- XML file

## Creating Content Reports

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Search Content**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. View simple or advanced content search results. (For more information, see [Simple Content Searches](#) or [Advanced Content Searches](#).)  
**Note:** You can only create a report from a simple content search if you searched by all content.
5. At the bottom of the list, click **Export**.
6. Follow the onscreen instructions to export the data.

The report downloads immediately.

# Viewing and Editing Inventory Information for a User

The JAMF Software Server (JSS) stores detailed inventory information for each user. You can view and edit this information from the JSS.

The following table lists the information that you can view and edit for each user.

**Note:** Extension attributes are displayed in the General category of user inventory information.

Field	Editable	Notes
<b>General Category</b>		
Username	✓	
Full Name	✓	
Email Address	✓	
Phone Number	✓	
Position	✓	
Extension Attributes	✓	
Site	✓	
<b>Mobile Devices Category</b>		
		Displays a list of mobile devices that the user is assigned to
<b>Computers Category</b>		
		Displays a list of computers that the user is assigned to
<b>eBooks Category</b>		
		Displays a list of eBooks distributed to the user
<b>Peripherals Category</b>		
		Displays a list of peripherals that the user is assigned to, and peripherals assigned to computers that the user is assigned to

Field	Editable	Notes
<b>VPP Assignments Category</b>		
		Displays a list of content assigned to the user via VPP assignments
<b>VPP Codes Category</b>		
		Displays a list of VPP codes redeemed by the user

## Viewing Inventory Information from the Users Tab

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.  
If the migration assistant is displayed on the pane, you must migrate your users before you proceed. (For more information and complete instructions, see the [Migrating Users](#) Knowledge Base article.)
3. Perform a simple or advanced user search.  
For more information, see [Simple User Searches](#) or [Advanced User Searches](#).
4. Click the user you want to view information for.  
The user's inventory information is displayed.
5. Use the categories to view information for the user.

## Editing Inventory Information from the Users Tab

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Perform a simple or advanced user search.  
For more information, see [Simple User Searches](#) or [Advanced User Searches](#).
4. Click the user you want to edit information for.  
The user's inventory information is displayed.
5. Click **Edit**.
6. Make changes as needed.  
**Note:** You cannot make changes to user and location information for peripherals that are assigned to a computer.

7. Click **Save**.

Changes to a user's site are only applied in the Users tab. All other changes to a user's inventory information are applied in the **Users** tab and also in the inventory information for computers, mobile devices, and peripherals that the user is assigned to. (For more information on making changes to a user's site, see [Sites](#).)

**Note:** Removing a user from a site will remove the user assignment from all computers and mobile devices that belong to that site.

## Related Information


For related information, see the following sections in this guide:

- [Viewing and Editing Inventory Information for a Computer](#)  
Find out how to view and edit user inventory information from the inventory information for a computer that the user is assigned to.
- [Viewing and Editing Inventory Information for a Mobile Device](#)  
Find out how to view and edit user inventory information from the inventory information for a mobile device that the user is assigned to.



# Manually Adding a User to the JSS

You can manually add a user to the JAMF Software Server (JSS).

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Search Users**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Leave the search field blank and press the Enter key.
5. Click **New**  .
6. Enter information about the user.
7. Click **Save**.

## Related Information

For related information, see the following section in this guide:

[User Assignments](#)

Find out how to assign a user to a computer or mobile device in inventory.

# Deleting a User from the JSS

You can remove a user from your inventory by deleting it from the JAMF Software Server (JSS).

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Search Users**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Perform a search for the user you want to delete.  
For more information, see [Simple User Searches](#).
5. Click the user.
6. Click **Delete**, and then click **Delete** again to confirm.

---

# User Groups

## About User Groups

User groups allow you to organize users that share similar attributes. You can use these groups as a basis for configuring the scope of remote management tasks.

There are two kinds of user groups: smart user groups and static user groups. Smart user groups are based on criteria and have dynamic memberships. Static user groups have fixed memberships that you manually assign.

## Related Information

For related information, see the following sections in this guide:

- [Smart User Groups](#)  
Find out how to create user groups that are based on criteria and have dynamic memberships.
- [Static User Groups](#)  
Find out how to create user groups that have fixed memberships.




# Smart User Groups

Smart user groups give you a way to organize users based on one or more attributes, such as username, full name, and email address. These groups have dynamic memberships that are updated whenever user information is edited.

If there is an SMTP server set up in the JSS, you can enable email notifications for the group. This allows email notifications to be sent to JSS users each time the group membership changes. (For information on setting up an SMTP server and enabling email notifications for JSS user accounts, see [Integrating with an SMTP Server](#) and [Email Notifications](#).)

After creating a smart user group, you can view its memberships.

## Creating a Smart User Group

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Smart User Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the User Group pane to configure basic settings for the group.  
To enable email notifications, select the **Send email notification on membership change** checkbox.
6. Click the **Criteria** tab and add criteria to the group:
  - a. Click **Add** .
  - b. Click **Choose** for the criteria you want to add.  
To display additional criteria, click **Choose** for "Other Criteria".
  - c. Choose an operator from the **Operator** pop-up menu.
  - d. Enter a value in the **Value** field or browse for a value by clicking **Browse** .
  - e. Repeat steps a through d to add criteria as needed.
7. Choose an operator from the **And/Or** pop-up menu(s) to specify the relationships between criteria.

- To group criteria and join multiple operations, choose parentheses from the pop-up menus around the criteria you want to group.

The screenshot shows a 'Smart Group' configuration window with a 'Criteria' tab. At the top left is a '+ Add' button. Below it is a table with columns: 'And/Or', 'Criteria', 'Operator', 'Value', and 'Delete'. The table contains three rows of criteria:

And/Or	Criteria	Operator	Value	Delete
(	Email Address	like	John@mycompany.cc	Delete
or	Full Name	is	John Smith	Delete
and	Position	is	Sales Representative	Delete

At the bottom right of the window are 'Cancel' and 'Save' buttons.

- Click **Save**.

Operations in the group take place in the order they are listed (top to bottom).

Group memberships are updated each time user information is edited.

To view the group memberships, click **View**.

## Cloning, Editing, or Deleting a Smart User Group

- Log in to the JSS with a web browser.
- Click **Users** at the top of the page.
- Click **Smart User Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
- Click the smart user group you want to clone, edit, or delete.
- Do one of the following:
  - To clone the group, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the group, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the group, click **Delete**. Then click **Delete** again to confirm.

## Viewing Smart User Group Memberships

- Log in to the JSS with a web browser.
- Click **Users** at the top of the page.

3. Click **Smart User Groups**.

On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click the smart user group you want to view memberships for.
5. Click **View**.

A list of group memberships is displayed.

## Related Information

For related information, see the following section in this guide:

[Scope](#)


Find out how to configure scope based on smart user groups.

# Static User Groups

Static user groups give you a way to organize users by assigning them to a group. These groups have fixed memberships that must be changed manually.

After creating a static user group, you can view its memberships.

## Creating a Static User Group

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Static User Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Use the User Group pane to configure basic settings for the group.
6. Click the **Assignments** tab and select the checkbox for each user you want to add.
7. Click **Save**.

To view the group memberships, click **View**.

## Cloning, Editing, or Deleting a Static User Group

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Static User Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the group you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the group, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the group, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the group, click **Delete**. Then click **Delete** again to confirm.

## Viewing Static User Group Memberships

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **Static User Groups**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the user group you want to view memberships for.
5. Click **View**.

A list of group memberships is displayed.

## Related Information

For related information, see the following section in this guide:

[Scope](#)

Find out how to configure scope based on static user groups.



# VPP-Managed Distribution

## VPP Registration

Before you can assign content purchased through Apple's Volume Purchase Program (VPP) to users for VPP-managed distribution, users must be registered with VPP.

You can allow users to register by sending them a VPP invitation. There are two methods for sending a VPP invitation: prompt users by displaying the invitation as a message on the computers and mobile devices that the user is assigned to, or send the invitation via email. Prompting a user displays the invitation on any computers and mobile devices that the user is assigned to and that meet the registration requirements explained below. Once a VPP invitation is sent, users can also view and accept that VPP invitation using Self Service on their mobile devices or computers. For more information, see [VPP Registration Experience](#).

## Requirements

To register users with VPP, you need a VPP account set up in the JSS. (For more information, see [Integrating with VPP](#).)


To send a VPP invitation via email, you need an SMTP server set up in the JSS. (For more information, see [Integrating with an SMTP Server](#).)

If you send a VPP invitation via email and require users to log in, users must log in to a registration page with an LDAP directory account or a JSS user account. For users to log in with their LDAP directory account, you need an LDAP server set up in the JSS. (For more information, see [Integrating with LDAP Directory Services](#).)

To send a VPP invitation by prompting users, you need:

- Computers with OS X v10.9 or later that are bound to a directory service and/or mobile devices with iOS 7.0.4 or later (For more information, see [Binding to Directory Services](#).)
- A push certificate in the JSS (For more information, see [Push Certificates](#).)

## Sending a VPP Invitation

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.  
If the migration assistant is displayed on the pane, you must migrate your users before you proceed. (For more information and complete instructions, see the [Migrating Users](#) Knowledge Base article.)
3. Click **VPP Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New** .
5. Use the General pane to configure basic settings for the invitation, including the VPP account and the method to use for sending the invitation.  
**Note:** The invitation is automatically added to the site that the VPP account belongs to.
6. Click the **Scope** tab and configure the scope of the invitation.  
**Note:** If the site of the VPP account is changed at any point, users that do not belong to that VPP account's site are removed from the scope of the invitation. For more information, see [Scope](#).
7. Click **Save**.

A VPP invitation is immediately sent to the users you specified. You can view the status of the invitation in the list of invitations.

**Note:** Users can also view and accept VPP invitations in Self Service. For more information, see [VPP Registration Experience](#).

## Viewing VPP Invitation Usage

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **VPP Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the invitation you want to view usage for.
5. Click **Usage**.
6. Basic invitation usage information is displayed, such as the status and last action.
7. To view additional details such as the date sent and the invitation ID, click the username for that item.

## Resending a VPP Invitation

The JSS allows you to resend VPP invitations to users that have not yet registered with VPP.

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **VPP Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the invitation you want to resend.
5. Click **Resend**.

A VPP invitation is immediately sent to users in the scope that have not yet registered with VPP.

**Note:** Users can also view and accept VPP invitations in Self Service. For more information, see [VPP Registration Experience](#).

## Cloning, Editing, or Deleting a VPP Invitation

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **VPP Invitations**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the invitation you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the invitation, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the invitation, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the invitation, click **Delete** and then click **Delete** again to confirm.

## Related Information

For related information, see the following sections in this guide:

- [VPP Registration Experience](#)  
Learn about the steps users take to register with VPP.
- [VPP Assignments](#)  
Find out how to assign content to users for VPP-managed distribution.

# VPP Registration Experience

After sending a VPP invitation, users receive an email with a registration URL, or they are prompted on their mobile devices. They are then guided through the VPP registration process.

If the VPP invitation was sent via email, users must click the URL in the invitation and, if prompted, enter credentials for an LDAP directory account or a JSS user account. Then the user must click **Connect to App Store** to be brought to the App Store.

If the VPP invitation was configured to prompt users on their mobile devices, users must click **Continue** and are automatically brought to the App Store.

**Note:** Users only need to accept the VPP invitation on one device, even if the prompt is available on multiple devices. Users can dismiss prompts by clicking **Cancel** when the prompt appears on their device.

When the App Store opens, users are prompted to sign in using their Apple ID. Then they are prompted to agree to Apple's terms and conditions, and privacy policy.

Users can also accept VPP invitations using Self Service. In Self Service for OS X and the Self Service web clip for iOS, users click **VPP Invitations** to view and accept VPP invitations. Self Service Mobile for iOS automatically prompts users to accept VPP invitations every time the user opens the app. In addition, if a user has not yet accepted the VPP invitation and they attempt to install an app or eBook assigned to them through VPP, Self Service prompts the user to accept the VPP invitation before the app or eBook is installed.

Once users have completed this process, they are registered with VPP.

# VPP Assignments

The JAMF Software Server (JSS) allows you to assign content purchased through Apple's Volume Purchase Program (VPP) to users for VPP-managed distribution.

The JSS allows you to assign the following types of content to users:

- iOS apps
- Mac apps
- eBooks

After apps have been assigned to users, you can also use the JSS to revoke them from users. eBooks cannot be revoked.

When you create a VPP assignment in the JSS, you choose a VPP account, and all content purchased for VPP-managed distribution using the account is automatically available. Then you specify the content that you want to assign, and the users you want to assign it to (called "scope").

For more information on VPP and VPP-managed distribution, visit one of the following websites:

- Volume Purchase Program for Business  
<https://www.apple.com/business/vpp/>
- Volume Purchase Program for Education  
<https://www.apple.com/education/volume-purchase-program/>
- Apple Deployment Programs Help  
<http://help.apple.com/deployment/programs/>

## Requirements

VPP assignments only apply to mobile devices with iOS 7 or later and computers with OS X v10.9 or later.

To assign VPP content to users, you need:

- A VPP account set up in the JSS (For more information, see [Integrating with VPP](#).)
- Users that are registered with VPP (For more information, see [VPP Registration](#).)


## Creating a VPP Assignment

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.

If the migration assistant is displayed on the pane, you must migrate your users before you proceed. (For more information and complete instructions, see the [Migrating Users](#) Knowledge Base article.)

3. Click **VPP Assignments**.

On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click **New**  .
5. Use the General payload to configure basic settings for the VPP assignment, including the VPP account.  
**Note:** The assignment is automatically added to the site that the VPP account belongs to.
6. Select the Apps payload and then select the checkbox for each app you want to assign.
7. Select the eBooks payload and then select the checkbox for each eBook you want to assign.
8. Click the **Scope** tab and configure the scope of the assignment.  
**Note:** If the site of the VPP account is changed at any point, users that do not belong to that VPP account's site are removed from the scope of the invitation. For more information, see [Scope](#).
9. Click **Save**.

## Cloning, Editing, or Deleting a VPP Assignment

1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **VPP Assignments**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the assignment you want to clone, edit, or delete.
5. Do one of the following:
  - To clone the assignment, click **Clone** and make changes as needed. Then click **Save**.
  - To edit the assignment, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the assignment, click **Delete** and then click **Delete** again to confirm.

## Revoking Apps from Users

To revoke specific apps from all users in the scope of a VPP assignment, you remove the apps from the VPP assignment.

To revoke all the apps in a VPP assignment from specific users, you remove the users from the scope.



1. Log in to the JSS with a web browser.
2. Click **Users** at the top of the page.
3. Click **VPP Assignments**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the VPP assignment you want to revoke.
5. Select the Apps payload and remove apps from the assignment as needed.

6. Click the **Scope** tab and remove users from the scope as needed.  
For more information, see [Scope](#).
7. Click **Save**.

Users are notified that the apps are no longer assigned to them.

## Revoking All Apps from Users

For each VPP account, you can revoke all apps that have been assigned to users.

1. Log in to the JSS with a web browser.
2. In the top-right corner of the page, click **Settings** .
3. Click **Global Management**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **VPP Accounts** .
5. Click the VPP account for which you want to revoke all apps.
6. Click **Revoke All** and then click **OK** to confirm.

Users are notified that the apps are no longer assigned to them.

## Related Information

For related information, see the following sections in this guide:

- [App Store Apps](#)  
Find out how to distribute App Store apps.
- [Mac App Store Apps](#)  
Find out how to distribute Mac App Store apps.
- [eBooks Available in the iBookstore](#)  
Find out how to distribute eBooks available in the iBookstore.

# eBook Distribution

## Understanding Managed eBooks

The JAMF Software Server (JSS) can manage in-house eBooks that are distributed to iOS devices. When an eBook is managed by the JSS, you have more control over distribution and removal of the eBook. The following table provides more detail:

	Unmanaged eBooks (iOS and OS X)	Managed eBooks (iOS only)
<b>Distribution Methods</b>		
Make available in Self Service	✓	✓
Install automatically/prompt users to install		✓
<b>Removal Options</b>		
Remove from Self Service	✓	✓
Remove from mobile devices		✓
Remove from computers		
Remove when MDM profile is removed		✓

## Managed eBook Requirements

The following requirements determine whether an eBook can be managed by the JSS:

- The device has iOS 8 or later
- The eBook is an in-house eBook

If you try to make an eBook managed and these requirements are not met, the eBook behaves as unmanaged.



# Understanding eBook Distribution Methods

The JAMF Software Server (JSS) provides two eBook distribution methods: install the eBook automatically/prompt users to install the eBook (iOS only), or make the eBook available in Self Service.

## Install Automatically/Prompt Users to Install

When managed eBook requirements are met, the eBook is installed on iOS devices and users can view it with Apple's iBooks app. If managed eBook requirements are not met, the eBook will be made available in Self Service for users to install. (For more information, see [Managed eBook Requirements](#).)

**Note:** If a user is in the scope for an eBook, the eBook will be installed automatically on all iOS devices that the user is assigned to in the JSS if managed eBook requirements are met. On other iOS devices or computers assigned to the same user, the eBook will be made available in Self Service.

## Make Available in Self Service

When you distribute an eBook using this method, it is made available in Self Service for users to install. You can choose whether or not to make the eBook managed when possible. (For more information, see [Managed eBook Requirements](#).)

## Related Information

For related information, see the following sections in this guide:

- [Understanding Managed eBooks](#)  
Learn about managed eBooks and their requirements.
- [In-House eBooks](#)  
Find out how to distribute in-house eBooks.
- [eBooks Available in the iBookstore](#)  
Find out how to make iBookstore eBooks available in Self Service.

# In-House eBooks

In-house eBooks are eBooks that are not available from the iBookstore. The JAMF Software Server (JSS) allows you to distribute in-house eBooks to computers, mobile devices, and users. The JSS provides two distribution methods for in-house eBooks: install the eBook automatically/prompt users to install the eBook (iOS only), or make the eBook available in Self Service. After an eBook is installed, users can view it with Apple's iBooks app.

Before you distribute an in-house eBook, it is important to consider where the eBook will be hosted. There are two hosting locations that you can use for in-house eBooks:

- **Distribution points**—This hosting location is only available if your master distribution point is a JDS instance or the cloud distribution point. To use this hosting location, you upload the eBook to the master distribution point when configuring settings for the eBook in the JSS.  
**Note:** eBooks cannot be replicated to file share distribution points.
- **Web server**—This hosting location is always available, regardless of what type of distribution point the master is. To use this hosting location, the eBook must be hosted on a web server before you distribute it. Then, when you distribute the eBook, you specify the URL where it is hosted.

When you distribute an in-house eBook, you configure settings for the eBook. Then, you specify the computers, mobile devices, and users that should receive it (called “scope”).

**Note:** In-house eBooks cannot be distributed to personally owned mobile devices.

## Requirements

To distribute an in-house eBook, the eBook must be one of the following types of files:

- ePub file (.epub)
- iBooks file (.ibooks)
- PDF


To install an ePub file, you need:

- A mobile device with iOS 4 or later and iBooks 1.0 or later
- A computer with OS X v10.6 or later and an application to view eBooks

To install an iBooks file, you need:

- An iPad with iOS 5 or later and iBooks 2.0 or later
- A computer with OS X v10.9 or later and iBooks 1.0 or later

## Distributing an In-House eBook

1. Log in to the JSS with a web browser.
2. Click **Computers, Mobile Devices, or Users** at the top of the page.  
**Note:** If you have not migrated users yet, click **Mobile Devices** at the top of the page.
3. Click **eBooks**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click New  .
5. Select **In-house eBook** and click **Next**.
6. Use the General pane to configure settings for the eBook, including the display name and distribution method.  
If your master distribution point is a JDS instance or the cloud distribution point and you choose "Distribution Points" from the **Hosting Location** pop-up menu, be sure to upload the eBook file.
7. Click the **Scope** tab and configure the scope of the eBook.  
If you have migrated users, you can add computers, mobile devices, and users as targets to the scope. If you have not migrated users yet, you can only add mobile devices as targets to the scope.  
For more information, see [Scope](#).
8. (Optional) Click the **Self Service** tab and configure the way the eBook is displayed in Self Service. You can customize the text displayed in the description for the eBook in Self Service by using Markdown in the Description field.  
For information about Markdown, see the following Knowledge Base article:  
[Using Markdown to Format Text Displayed During User-Initiated Enrollment and in Self Service Descriptions](#)  
**Note:** The **Self Service** tab is only displayed if "Make Available in Self Service" is chosen in the **Distribution Method** pop-up menu.
9. Click **Save**.  
For eBooks set to the "Install Automatically" distribution method, eBooks are installed the next time mobile devices in the scope check in with the JSS. Users can view installed eBooks with Apple's iBooks app.  
For eBooks set to the "Make Available in Self Service" distribution method and eBooks that cannot be installed automatically, eBooks are available in Self Service for users to install the next time Self Service is launched.

## Editing or Deleting an In-House eBook

1. Log in to the JSS with a web browser.
2. Click **Computers, Mobile Devices, or Users** at the top of the page.  
**Note:** If you have not migrated users yet, click **Mobile Devices** at the top of the page.
3. Click **eBooks**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the eBook you want to edit or delete.
5. Do one of the following:
  - To edit the eBook, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the eBook, click **Delete** and then click **Delete** again to confirm.

For eBooks set to the "Install Automatically" distribution method, the edit action is applied to mobile devices in the scope the next time they check in with the JSS.

For eBooks set to the "Make Available in Self Service" distribution method, the edit or delete action is applied the next time Self Service is launched.

## Removing a Managed In-House eBook from Mobile Devices

To remove a managed in-house eBook from one or more devices, you remove the mobile device(s) from the scope.

1. Log in to the JSS with a web browser.
2. Click **Computers, Mobile Devices, or Users** at the top of the page.  
**Note:** If you have not migrated users yet, click **Mobile Devices** at the top of the page.
3. Click **eBooks**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the eBook you want to remove.
5. Click the **Scope** tab and remove mobile devices from the scope as needed.  
For more information, see [Scope](#).
6. Click **Save**.

The eBook is removed the next time the mobile devices check in with the JSS.

## Related Information

For related information, see the following sections in this guide:

- [eBooks Available in the iBookstore](#)  
Find out how to distribute iBookstore eBooks.
- [Viewing eBooks for a Computer](#)  
Find out how to view the eBooks in the scope of a computer.
- [Viewing eBooks for a Mobile Device](#)  
Find out how to view the eBooks in the scope of a mobile device.
- [Viewing the Pending Management Commands for a Mobile Device](#)  
Find out how to view and cancel pending eBook installations and removals for a mobile device.

For related information, see the following Knowledge Base article:

[Hosting In-House eBooks and Apps on a Tomcat Instance](#)

Find out how to host in-house eBooks on the Tomcat instance that hosts the JSS.

# eBooks Available in the iBookstore

The JAMF Software Server (JSS) allows you to distribute eBooks that are available in the iBookstore to computers, mobile devices, and users. Distributing an eBook displays it in Self Service for users to install. After users install an eBook, they can view it using Apple's iBooks app.

When you distribute an eBook available in the iBookstore, you add it to the JSS and configure settings for the eBook. Then, you specify the computers, mobile devices, and users that should receive it (called "scope").

**Note:** Teachers can also distribute eBooks (ePub format only) to classes using Casper Focus v9.1 or later. This automatically adds the eBook to the JSS and distributes the eBook to the student mobile devices in the class(es) that the teacher specifies. For more information on Casper Focus features, see the Casper Focus User Guide. This guide is available at:

<http://www.jamfsoftware.com/product-documentation/administrators-guides>

**Note:** eBooks available in the iBookstore cannot be distributed to personally owned mobile devices.

## VPP Codes

When you distribute an eBook available in the iBookstore, you can also associate Volume Purchase Program (VPP) codes with the eBook and track their redemption.

**Note:** The JSS also supports VPP-managed distribution, which involves VPP assignments instead of VPP codes. For more information, see [VPP Assignments](#).

For more information on VPP, visit one of the following websites:

- Volume Purchase Program for Business  
<https://www.apple.com/business/vpp/>
- Volume Purchase Program for Education  
<https://www.apple.com/education/volume-purchase-program/>
- Apple Deployment Programs Help  
<http://help.apple.com/deployment/programs/>

## Requirements

To distribute an eBook available in the iBookstore, the eBook must be an ePub file (.epub) or iBooks file (.ibooks).


To install an ePub file, you need:

- A mobile device with iOS 4 or later and iBooks 1.0 or later
- A computer with OS X v10.9 or later and an application to view eBooks

To install an iBooks file, you need:

- An iPad with iOS 5 or later and iBooks 2.0 or later
- A computer with OS X v10.9 or later and iBooks 1.0 or later

## Distributing an eBook Available in the iBookstore

1. Log in to the JSS with a web browser.
2. Click **Computers, Mobile Devices, or Users** at the top of the page.  
**Note:** If you have not migrated users yet, click **Mobile Devices** at the top of the page.
3. Click **eBooks**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click **New**  .
5. Select **eBook available in the iBookstore** and click **Next**.
6. Do one of the following:
  - To add the eBook by browsing the iBookstore, enter the name of the eBook, choose an iBookstore country, and click **Next**. Then click **Add** for the eBook you want to add.
  - To add the eBook by uploading a VPP code spreadsheet, click **Choose File** and upload the Excel spreadsheet (.xls) that contains VPP codes for the eBook.
  - To add the eBook by manually entering information about it, click **Enter Manually**.**Note:** iBooks files (.ibooks) may need to be added manually.
7. Use the General pane to configure settings for the eBook, including the display name.
8. Click the **Scope** tab and configure the scope of the eBook.  
If you have migrated users, you can add computers, mobile devices, and users as targets to the scope. If you have not migrated users yet, you can only add mobile devices as targets to the scope.  
For more information, see [Scope](#).
9. Click the **Self Service** tab and configure the way the eBook is displayed in Self Service. You can customize the text displayed in the description for the eBook in Self Service by using Markdown in the Description field.  
For information about Markdown, see the following Knowledge Base article:  
[Using Markdown to Format Text Displayed During User-Initiated Enrollment and in Self Service Descriptions](#)
10. (Optional) If you have not already uploaded a VPP code spreadsheet, click the **VPP Codes** tab and upload the Excel spreadsheet (.xls) that contains VPP codes for the eBook.  
**Note:** The **VPP Codes** tab is only displayed if the **Free** checkbox is not selected.
11. Click **Save**.

The eBook is available for users to install the next time Self Service is launched.

## Editing or Deleting an eBook Available in the iBookstore

1. Log in to the JSS with a web browser.
2. Click **Computers, Mobile Devices, or Users** at the top of the page.  
**Note:** If you have not migrated users yet, click **Mobile Devices** at the top of the page.
3. Click **eBooks**.  
On a smartphone or iPod touch, this option is in the pop-up menu.
4. Click the eBook you want to edit or delete.
5. Do one of the following:
  - To edit the eBook, click **Edit** and make changes as needed. Then click **Save**.
  - To delete the eBook, click **Delete** and then click **Delete** again to confirm.

The edit or delete action is applied to the eBook the next time Self Service is launched.

## Related Information

For related information, see the following sections in this guide:

- [In-House eBooks](#)  
Find out how to distribute in-house eBooks.
- [Viewing eBooks for a Computer](#)  
Find out how to view the eBooks in the scope of a computer.
- [Viewing eBooks for a Mobile Device](#)  
Find out how to view the eBooks in the scope of a mobile device.