

## JAMF Software Server Installation and Configuration Guide for OS X

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## Contents

#### 5 Preface

- 5 About This Guide
- 6 Additional Resources

#### 7 Overview of Technologies

- 7 Applications and Utilities
- 9 Ports
- 11 Installed Files and Folders
- 13 Requirements

#### 15 Installation

- 15 Installing the JSS
- 17 Upgrading the JSS

#### 18 Setup

- 18 Setting Up the JSS
- 19 JSS User Accounts and Groups
- 22 Activation Code
- 23 Integrating with an SMTP Server
- 25 Change Management
- 26 Integrating with GSX
- 28 JSS Summary

#### 30 Server Infrastructure

- 30 About Distribution Points
- 33 File Share Distribution Points
- 35 Cloud Distribution Point
- 37 JAMF Distribution Server Instances

#### 41 Advanced Configuration

- 41 SSL Certificate
- 43 Configuring Tomcat to Work with a Load Balancer
- 44 Tomcat Thread Pool Settings
- 45 JSS Web Application Memory
- 47 Tomcat PermGen Size
- 48 Viewing the Status of Database Tables
- 49 Clustering
- 51 Limited Access Settings
- 52 Backing Up the Database

- 55 Restoring Database Backups
- 56 Flushing Logs
- 58 Migrating to Another Server

# Preface

# **About This Guide**

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.

This guide provides step-by-step instructions for installing and setting up the JSS on the Mac platform. It also explains how to perform advanced configuration tasks.

# **Additional Resources**

For information about setting up and managing the JSS after it is installed, see the *Casper Suite Administrator's Guide*, available at:

http://www.jamfsoftware.com/product-documentation/administrators-guides

# **Overview of Technologies**

# **Applications and Utilities**

This section provides an overview of the applications and utilities that you need to install and maintain the JAMF Software Server (JSS), and JAMF Distribution Server (JDS) instances.

#### **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 remote 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.

#### **JSS Installer for Mac**

The JSS Installer for Mac is a standard .pkg installation package that allows you to install and upgrade the JSS on OS X Server. It is signed by JAMF Software.

The JSS Installer for Mac also allows you to create your initial JDS instance during a fresh installation. For more information on JDS instances, see <u>JAMF Distribution Server Instances</u>.

## **JSS Database Utility**

The JSS Database Utility allows you to back up and restore the jamfsoftware database. It also allows you to restart Apache Tomcat and MySQL and change their settings.

The JSS Database Utility is installed automatically when you run the JSS Installer. It is located in:

/Library/JSS/bin/JSSDatabaseUtil.jar

## **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 <u>JAMF Distribution Server Instances</u>.

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

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

## Ports

The following table describes the main ports used to host communication among client 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<br>and Recon, and inbound to<br>computers             |
| 80   | The standard port for HTTP. When you use HTTP to deploy files, 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 deploy files, they are downloaded on this port.                                    | 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 deploy files, 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 deploy files, computers mount the SMB share on this port.   | Inbound to the share, and outbound from computers     |
| 389  | The standard port for LDAP. Any LDAP connections—<br>even those coming from other applications—go<br>through the JSS. This means that only the JSS connects<br>to your LDAP server.  | Outbound from the JSS, and inbound to the LDAP server |
| 636  | The standard port for LDAPS. Any LDAP connections—<br>even those coming from other applications—go<br>through the JSS. This means that only the JSS connects<br>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  |

| Port | Used for   | Direction  |
|------|--|--|
| 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 mobile devices and computers in your network.  | Outbound from computers and mobile devices, and inbound to the APNs 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.<br>Although it is available, applications do not connect to<br>this port unless the defaults are overridden.      | N/A  |

On the Mac platform, the JSS runs on ports 8443 and 9006 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.

# **Installed Files and Folders**

The following files and folders are installed when you run the JSS Installer:

#### JSS web application

The files that make up the JSS web application are stored in the following location:

/Library/JSS/Tomcat/webapps/ROOT/

#### Apache Tomcat

Tomcat is the web application server that runs the JSS web application. A directory named Tomcat is installed in the following location:

/Library/JSS/

#### server.xml

The JSS Installer installs a modified copy of Tomcat's server.xml file. This file enables SSL, ensures that the JSS appears in the root context, and enables database connection pooling. It is installed in the following location:

/Library/JSS/Tomcat/conf/

#### com.jamfsoftware.tomcat.plist

This is the launchd item that controls Tomcat. It is installed and loaded in the following location:

/Library/LaunchDaemons/

#### keystore

Tomcat requires a .keystore file to provide connections over SSL. The JSS Installer creates a default .keystore file and stores it in the following location:

/Library/JSS/Tomcat/

#### JSS Database Utility

The JSS Database Utility (JSSDatabaseUtil.jar) is installed in the following location:

/Library/JSS/bin/

#### Database backup location

By default, the JSS Database Utility stores database backups in the following location:

/Library/JSS/Backups/Database/

#### Logs

Logs for the installation and for the JSS are stored in the following location:

/Library/JSS/Logs/

#### JDS Instance

This is the distribution point created by default for a fresh installation. Most JDS components are installed in the following location:

/Library/JDS/

*Note:* For a complete list of JDS components and their locations, see the following Knowledge Base article:

**Components Installed on JDS Instances** 

# Requirements

This section lists the requirements for the applications and utilities you need to install and maintain the JAMF Software Server (JSS), and JAMF Distribution Server (JDS) instances.

#### **JAMF Software Server**

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

- Java 1.6 or later
- MySQL 5.1 or later
- Apache Tomcat 6.0 or later

Tested Mac operating systems include:

- OS X Server v10.7
- OS X Server v10.8
- OS X Server v10.9

Although you can install the JSS on any server that meets the minimum requirements, the JSS Installer for Mac has additional requirements. (For more information, see the next section.)

Browser requirements for the JSS are as follows:

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

#### **JSS Installer for Mac**

The JSS Installer for Mac requires a Mac computer with:

- A 64-bit capable Intel processor
- 2 GB of RAM
- 400 MB of disk space available
- OS X Server v10.7 or later
- Server.app (recommended)
- Java 1.6 or later
- Java Cryptography Extension (JCE) Unlimited Strength Jurisdiction Policy Files 1.6 or later (must be the same version as Java)

You can download the latest JCE from:

http://www.oracle.com/technetwork/java/javase/downloads/jce-7-download-432124.html

- MySQL Enterprise Edition 5.5 or later (recommended), or MySQL Community Server 5.5 or later, available at: https://www.mysgl.com/downloads/
- Ports 8443 and 9006 available

## **JSS Database Utility**

The JSS Database Utility requires a server with MySQL 5.1 or later installed.

## **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 or later

*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.

# Installation

# **Installing the JSS**

Installing the JAMF Software Server (JSS) involves the following steps:

- 1. Install the required software (if you haven't already).
- 2. Create the jamfsoftware database.
- 3. Run the JSS Installer.

Before you begin, make sure your server meets the JSS Installer requirements. (For more information, see <u>Requirements</u>.)

#### Step 1: Install the Required Software

Java and MySQL must be installed on the server before you can create the jamfsoftware database and run the JSS Installer. For instructions on how to install and configure Java and MySQL, see the following Knowledge Base article:

Installing Java and MySQL

#### Step 2: Create the jamfsoftware Database

Create a MySQL database in which the JSS can store its data and a MySQL user can access it. Name the database "jamfsoftware" and give the MySQL user the following credentials:

- Username: jamfsoftware
- Password: jamfsw03

*Note:* If you customize the database name, username, or password, you will be prompted to enter the custom settings when you run the JSS Installer.

1. Open Terminal and access the MySQL command line as "root" by typing:

mysql -u root -p

If MySQL is not in the path or it is installed in a custom location, access the MySQL command line by updating the path or by typing:

/path/to/mysql -u root -p

*Note:* The default path for MySQL is /usr/local/mysql/bin/.

- 2. When prompted, enter the password for the MySQL "root" user. If you did not create a root password, press the Return key.
- 3. Create a database named "jamfsoftware" by executing:

CREATE DATABASE jamfsoftware;

4. Grant privileges to a MySQL user named "jamfsoftware" so that it can access the new database:

GRANT ALL ON jamfsoftware.\* TO 'jamfsoftware'@localhost IDENTIFIED BY 'jamfsw03';

*Note:* If you choose to enter a username other than "jamfsoftware," it is recommended that you do not use "root".

#### Step 3: Run the JSS Installer

The JSS Installer for Mac (JSS Installer.mpkg) installs Apache Tomcat and the JSS web application. By default, it also installs a JDS instance.

For a complete list of files and folders that are installed, see Installed Files and Folders.

To run the JSS Installer for Mac, copy it to the server. Then open the installer and follow the onscreen instructions.

# **Upgrading the JSS**

This section explains how to upgrade the JAMF Software Server (JSS).

- Back up the current database using the JSS Database Utility. For more information, see <u>Backing Up the Database</u>.
- 2. Copy the most current version of the JSS Installer for Mac (JSS Installer.pkg) to the server.
- 3. Double-click the installer and follow the onscreen instructions to complete the upgrade.

# Setup

# **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 pre-configured 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" in the Casper Suite Administrator's Guide.
- 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" in the Casper Suite Administrator's Guide.

 Mobile device inventory collection frequency—Determines how often mobile devices submit inventory to the JSS.

For more information, see "Mobile Device Inventory Collection Settings" in the *Casper Suite* Administrator's Guide.

# **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 Servers" in the *Casper Suite Administrator's Guide*.)

## **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" in the *Casper Suite Administrator's Guide*.

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 <u>Creating a JSS User Group</u>.

- 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.

## 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 🗱 .
- 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 the Casper Suite Administrator's Guide:

"Sites"

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

# **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.

# **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. (For more information, see "Email Notifications" in the Casper Suite Administrator's Guide.)
- 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 🇱 .
- 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 the Casper Suite Administrator's 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 send a mass email to mobile device users.

# **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 🛣 .
- 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.

# 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 <u>Integrating with Apple's Global Service Exchange (GSX)</u> 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 옾 .
- 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 the Casper Suite Administrator's Guide:

- "Mass Looking up and Populating Purchasing Information for Computers"
   Find out how to mass look up and populate purchasing information from GSX.
- "Mass Looking up and Populating Purchasing Information for Mobile Devices"
   Find out how to mass look up and populate purchasing information from GSX.
- "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.
- "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.

- "Enrolling Computers by Running Recon Locally"
   Find out how to look up and populate purchasing information when enrolling a computer by running Recon locally.
- "Enrolling Computers by Running Recon Remotely"
   Find out how to look up and populate purchasing information when enrolling a computer by running Recon remotely.

# 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
- System Settings
- Global Management
- Computer Management

Computer Management–Management FrameworkMobile Device Management

Computer Management–Server Infrastructure

- 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.
- 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.

# 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:

|                           | File Share Distribution<br>Point                                    | Cloud Distribution Point  | JDS Instance   |
|---------------------------|---|---|--|
| Description               | Standard server that<br>is configured to be a<br>distribution point | <ul> <li>Distribution point that uses<br/>one of the following cloud<br/>services to host files:</li> <li>Rackspace Cloud Files</li> <li>Amazon Web Services<br/>(S3 and CloudFront)</li> <li>Akamai</li> </ul> | Distribution point that<br>is managed by the JSS,<br>similar to a computer or<br>mobile device |
| Maximum<br>Number per JSS | Unlimited   | One   | Unlimited  |

|                                 | File Share Distribution<br>Point  | Cloud Distribution Point   | JDS Instance   |
|---------------------------------|---|--|--|
| Server/Platform<br>Requirements | Any server with an Apple<br>Filing Protocol (AFP) or<br>Server Message Block<br>(SMB) share | None   | Mac or Linux   |
| Protocol                        | AFP, SMB, HTTP, or HTTPS  | HTTPS  | HTTPS  |
| Ports                           | • AFP: 548  | 443  | 443  |
|                                 | • SMB: 139  |  |  |
|                                 | • HTTP: 80  |  |  |
|                                 | • HTTPS: 443  |  |  |
| Authentication                  | AFP or SMB:   | None   | No authentication  |
| Options                         | <ul> <li>No authentication</li> </ul>   |  | Certificate-based  |
|                                 | <ul> <li>Username and<br/>password</li> </ul>   |  | authentication   |
|                                 | HTTP or HTTPS:  |  |  |
|                                 | No authentication   |  |  |
|                                 | <ul> <li>Username and<br/>password</li> </ul>   |  |  |
|                                 | <ul> <li>Certificate-based<br/>authentication</li> </ul>                                    |  |  |
| Files that Can Be               | Packages  | Packages   | Packages   |
| Hosted                          | Scripts   | <ul> <li>In-house apps</li> </ul>  | <ul> <li>In-house apps</li> </ul>  |
|                                 |   | In-house eBooks  | In-house eBooks  |
|                                 |   | <i>Note:</i> If you use the cloud distribution point, scripts are stored in the jamfsoftware database. | <i>Note:</i> If you use one or<br>more JDS instances,<br>scripts are stored in the<br>jamfsoftware database. |
| File Replication<br>Method      | Replication to file share<br>distribution points must<br>be initiated from Casper<br>Admin. | Replication to file share<br>distribution points must<br>be initiated from Casper<br>Admin.            | Replication to root<br>JDS instances must be<br>initiated from Casper<br>Admin.                              |
|                                 |   |  | Replication to non-root<br>JDS instances happens<br>automatically and<br>immediately.                        |
| Selective<br>Replication        | Not available when<br>replicating to file share<br>distribution points.                     | Not available when<br>replicating to file share<br>distribution points.                                | Not available when replicating to root JDS instances.  |
|                                 |   |  | Available when replicating to non-root JDS instances.  |

## **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.
- <u>Cloud Distribution Point</u>
   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 🗱 .
- 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 the Casper Suite Administrator's 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.

- <u>Using Apache HTTP Server to Enable HTTP Downloads on a Linux File Share Distribution Point</u>
   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.

# **Cloud Distribution Point**

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

Rackspace Cloud Files

For more information on this service, go to <u>http://www.rackspace.com/cloud/public/files/</u>.

- Amazon Web Services (S3 and CloudFront)
   For more information on these services, go to <a href="http://aws.amazon.com">http://aws.amazon.com</a>.
- Akamai cloud services
   For more information on Akamai cloud services, go to <u>http://www.akamai.com</u>.

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 <u>Migrating Packages and Scripts</u> 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 service from the **Cloud Service** 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 cloud service.

- 1. Log in to the JSS with a web browser.
- 2. 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.
- 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 the Casper Suite Administrator's Guide:

"Network Segments"

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

### **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 or later

*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 <u>SSL Certificate</u>.)

*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 <u>Migrating Packages and Scripts</u> 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 Installing the JSS.

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

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

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.

### Installing a JDS Instance on Linux

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

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

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

- 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 the Casper Suite Administrator's 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:

- <u>Components Installed on JDS Instances</u>
   Find out what items are installed on JDS instances.
- <u>Changing JDS Hierarchy</u>
   Learn about the implications of changing your JDS hierarchy.
- <u>Uninstalling a JDS Instance</u>
   Find out how to uninstall a JDS instance.

# **Advanced Configuration**

### **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.

- 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.
- Restart Tomcat for the changes to take effect.
   For instructions on how to restart Tomcat, see the following Knowledge Base article: <u>Starting and Stopping Tomcat</u>

### **Related Information**

For related information, see the following Knowledge Base article:

<u>Using OpenSSL to Create a Certificate Keystore for Tomcat</u> Find out how to use OpenSSL to create a certificate keystore that you can upload to the JSS.

### **Configuring Tomcat to Work with a Load** Balancer

When the JAMF Software Server (JSS) is behind a load balancer, you must configure the remote IP valve, proxy port, and scheme in Tomcat's server.xml file. The Load Balancing settings in the JSS allow you to configure these settings without having to edit the server.xml file manually.

### Requirements

To configure Load Balancing settings using the JSS, 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.

### **Configuring Load Balancing 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.

- 4. Click Apache Tomcat Settings 🚠 .
- 5. Click Edit.
- 6. Select Configure Tomcat for working behind a load balancer and click Next.
- 7. Follow the onscreen instructions to configure the Load Balancing settings.
- Restart Tomcat for the changes to take effect.
   For instructions on how to restart Tomcat, see the following Knowledge Base article: <u>Starting and Stopping Tomcat</u>

# **Tomcat Thread Pool Settings**

Configuring the Tomcat Thread Pool settings using the JAMF Software Server (JSS) allows you to make modifications to Tomcat's server.xml file without having to edit it manually.

### Requirements

To configure Tomcat Thread Pool settings using the JSS, 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.

### **Configuring Tomcat Thread Pool 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.

- 4. Click Apache Tomcat Settings 🟯 .
- 5. Click Edit.
- 6. Select Update the settings for Tomcat's thread pool and click Next.
- 7. Follow the onscreen instructions to configure the Thread Pool settings.
- Restart Tomcat for the changes to take effect.
   For instructions on how to restart Tomcat, see the following Knowledge Base article: <u>Starting and Stopping Tomcat</u>

# **JSS Web Application Memory**

The JAMF Software Server (JSS) allows you to view the amount of memory being used by the web application. If you need to change the amount of memory allocated to the web application, you can use the JSS Database Utility to do so.

### **Viewing Memory Usage**

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

A pie chart of used and available memory is displayed.

### **Configuring Web Application Memory**

- Open the JSS Database Utility on the JSS host server. The JSS Database Utility is located in: /Library/JSS/bin/JSSDatabaseUtil.jar
- 2. Enter the username and password for an administrator account to the server, and then click **OK**.
- 3. If the JSS Database Utility is unable to locate the MySQL binary, you are prompted to enter the path. Click **Continue** and enter the full path to the binary.
- 4. From the menu bar, choose **Utilities** > **Change Tomcat settings**.

5. Use the Maximum Memory and Minimum Memory sliders to configure the amount of memory allocated to the web application.

| O O Tor               | ncat Settings         |
|-----------------------|-----------------------|
| Tomcat Settings       |                       |
| Minimum Memory:       | 1024 MB               |
| Maximum Memory:       | 4096 MB               |
| Minimum PermGen Size: | 256 MB                |
| Maximum PermGen Size: | 512 MB                |
|                       | Cancel Apply Settings |

- 6. Click Apply Settings.
- 7. When prompted to restart Tomcat, click Yes.

### **Tomcat PermGen Size**

You can use the JSS Database Utility to configure the minimum and maximum PermGen sizes for Tomcat.

### **Configuring Tomcat PermGen Size**

- Open the JSS Database Utility on the JSS host server. The JSS Database Utility is located in: /Library/JSS/bin/JSSDatabaseUtil.jar
- 2. Enter the username and password for an administrator account to the server, and then click **OK**.
- 3. If the JSS Database Utility is unable to locate the MySQL binary, you are prompted to enter the path. Click **Continue** and enter the full path to the binary.
- 4. From the menu bar, choose **Utilities** > **Change Tomcat settings**.
- 5. Use the PermGen Size sliders to configure the minimum and maximum PermGen sizes as needed.

| O O Tor               | mcat Settings         |
|-----------------------|-----------------------|
| Tomcat Settings       |                       |
| Minimum Memory:       | 1024 MB               |
| Maximum Memory:       | 4096 MB               |
| Minimum PermGen Size: | 256 MB                |
| Maximum PermGen Size: | 512 MB                |
|                       | Cancel Apply Settings |

- 6. Click Apply Settings.
- 7. When prompted to restart Tomcat, click Yes.

# Viewing the Status of Database Tables

MySQL database tables can become corrupt if the database was not shut down properly or if the JAMF Software Server (JSS) host server is too slow to manage the number of computers in your organization. You can view the status of database tables right 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 JSS Information.

On a smartphone or iPod touch, this option is in the pop-up menu.

4. Click Database Table Status 🐜.

# Clustering

A clustered environment is one that has multiple instances of the JAMF Software Server (JSS) web application pointing to the same database. Clustering is useful in large environments that require multiple web applications, or environments with a web application in the DMZ.

When setting up a clustered environment, it is recommended that you configure the Clustering settings in the JSS using the web application that you plan to make the master, and then install other JSS web applications that point to the same database. However, if you already have multiple JSS web applications installed and pointed to the same database, you can configure the Clustering settings in the JSS after the fact. (For more information on setting up a clustered environment, contact your JAMF Software Representative.)

The Clustering settings in the JSS allow you to configure the frequency at which clustered web applications are synced with the database, and specify which web application should function as the master.

The master web application handles tasks such as upgrading the database schema and flushing logs from the database.

The JSS also allows you to view a list of web applications that are pointed to the same database and information about them.

### Requirements

To cluster web applications that are not in the DMZ, you need a load balancer with the address of the JSS. For example:

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

The load balancer should route traffic to the servers running the web application.

### **Configuring Clustering Settings**

- 1. Log in to the JSS web application with a web browser.
- 2. In the top-right corner of the page, click Settings 🏙 .
- 3. Click System Settings.

- 4. Click **Clustering** 👹.
- 5. Click Edit.

6. Configure the settings on the pane.

To specify which web application should function as the master, select the **Master** option for the web application.

- 7. Click Save.
- 8. If you already have multiple JSS web applications pointed to the same database, restart Tomcat on any of the web applications 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:

Installing a JSS Web Application in the DMZ

Find out how to install a web application in the DMZ, and learn when in the process you should configure the Clustering settings in the JSS.

# **Limited Access Settings**

If you have a clustered environment, the Limited Access settings in the JAMF Software Server (JSS) allow you to do disable the JSS interface and limit the types of devices that can communicate with the JSS. This is most commonly used if you have a web application in the DMZ.

For each JSS web application, you can choose one of the following Limited Access settings:

- Full Access
- Computer Access Only
- Mobile Device Access Only
- Computer and Mobile Device Access

Choosing anything other than "Full Access" disables the JSS interface.

### **Configuring the Limited Access Settings**

- 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.

- 4. Click Limited Access 🥙.
- 5. Select a setting for each JSS web application as needed.
- 6. Click Save.

### **Backing Up the Database**

You can create database backups as needed, or you can schedule database backups to be created automatically on a schedule. The time it takes to create a backup depends on the size of the database.

When you schedule database backups, you can also automate the deletion of scheduled backups that are older than a certain number of days.

#### **Creating a Database Backup**

- 1. Open the JSS Database Utility.
- 2. Enter the username and password for an administrator account to the server, and click OK.
- 3. If the JSS Database Utility is unable to locate the MySQL binary, you are prompted to enter the path. Click **Continue** and enter the full path to the binary.
- 4. If the Database Connection Setup pane appears, configure the settings to match your database configuration and click **Apply Settings**.
- 5. Click Save Backup Now.

| Save  | a backup of your JSS database.                     | Save Backup Now    |
|-------|--|--------------------|
| Resto | ore an existing backup of your JSS database.       | Restore Backup Now |
|       |  |                    |
| a du  | la Packunc   |                    |
| nedu  | Ie Backups Schedule automatic backups for Midnight | \$                 |
| nedu  |  | ÷)                 |
| nedu  | Schedule automatic backups for Midnight            | ¢<br>Change        |

6. Select the location where you want to save the backup and click **Choose**.

The JSS Database Utility creates the backup and saves it as a .sql.gz file.

### **Scheduling Database Backups**

- 1. Open the JSS Database Utility.
- 2. Enter the username and password for an administrator account to the server, and click OK.

- 3. If the JSS Database Utility is unable to locate the MySQL binary, you are prompted to specify the path. Click **Continue** and enter the full path to the binary.
- 4. If the Database Connection Setup pane appears, configure the settings to match your database configuration and click **Apply Settings**.
- 5. Select the **Schedule automatic backups for** checkbox and choose the hour of the day that you want backups to occur.
- 6. To save the backups in a custom location, click **Change** and select a new location.

| ave a backup of your   | JSS database.              | Save Backup Now    |
|------------------------|----------------------------|--------------------|
| Restore an existing ba | ckup of your JSS database. | Restore Backup Now |
|                        |                            |                    |
| edule Backups          |                            |                    |
| Schedule automa        |                            | ÷)                 |
| Save backups to:       |                            | ¢<br>Change        |

7. To automate the deletion of scheduled backups, select the **Delete backups older than** checkbox and choose the number of days after which backups should be deleted.

The JSS Database Utility creates daily backups at the hour you specified. It also deletes scheduled backups older than the number of days you specified.

### **Stopping Scheduled Database Backups**

- 1. Open the JSS Database Utility.
- 2. Enter the username and password for an administrator account to the server, and click OK.
- 3. If the JSS Database Utility is unable to locate the MySQL binary, you are prompted to enter the path. Click **Continue** and enter the full path to the binary.
- 4. If the Database Connection Setup pane appears, configure the settings to match your database configuration and click **Apply Settings**.

5. Deselect the Schedule automatic backups for checkbox.

| ve a    | backup of your JSS database.                                      | Save Backup Now    |
|---------|---|--------------------|
| Restore | an existing backup of your JSS database.                          | Restore Backup Now |
|         |   |                    |
| hedule  | e Backups   |                    |
|         | e Backups chedule automatic backups for Midnight Save backups to: | ¢                  |
|         | chedule automatic backups for Midnight                            | ¢)<br>Change       |

The JSS Database Utility stops creating scheduled backups immediately.

### **Related Information**

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

<u>Restoring Database Backups</u> Find out how to restore a database backup.

## **Restoring Database Backups**

If you need to revert to an earlier version of your database, you can restore a database backup.

- 1. Open the JSS Database Utility.
- 2. Enter the username and password for an administrator account to the server, and click OK.
- 3. If the JSS Database Utility is unable to locate the MySQL binary, you are prompted to enter the path. Click **Continue** and enter the location of the binary.
- 4. If the Database Connection Setup pane appears, edit the settings to match your database configuration and click **Apply Settings**.
- 5. Click Restore Backup Now.

| iave a l | ackup of your JSS databas | e.              | Save Backup Now    |
|----------|---------------------------|-----------------|--------------------|
| Restore  | an existing backup of you | r JSS database. | Restore Backup Now |
|          | Backups                   | for Midnight    | •                  |
|          | -                         |                 | ¢                  |

- 6. Select the backup that you want to restore (.sql or .sql.gz) and click **Choose**.
- 7. When prompted to restart Tomcat, click Yes.

The JSS Database Utility restarts Tomcat and replaces the current database with the one that you restored.

# **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 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 the Casper Suite Administrator's Guide:

- "Viewing and Flushing 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 the Management History for a Mobile Device"
   Find out how to view the management history for a mobile device.

### **Migrating to Another Server**

- 1. Back up the existing jamfsoftware database using the JSS Database Utility. For more information, see <u>Backing Up the Database</u>.
- 2. Ensure that the new server meets the requirements for the JSS Installer, and then follow the instructions in <u>Installing the JSS</u> to install the required software (if needed) and create the jamfsoftware database.
- 3. Copy the JSS Installer to the new server.
- 4. Install the JSS by launching the installer and following the onscreen instructions. For more information, see <u>Installing the JSS</u>.
- 5. Copy the database backup to the new server, and then use the JSS Database Utility to restore the backup. For more information, see <u>Restoring Database Backups</u>.
- 6. Re-upload or create the SSL certificate. For more information, see <u>SSL Certificate</u>.
- 7. Update the DNS entry to point to the new server's IP address.

*Note:* If you can't change the DNS entry, you must change the JSS URL and re-enroll all mobile devices and computers.