



NetBoot/SUS/LP Server User Guide

Version 4.0.0

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Overview

The NetBoot/SUS/LP server allows you to host an internal software update server (SUS), a NetBoot server, and a LDAP Proxy server on the same Linux system. Unlike a standard SUS, the SUS hosted by the NetBoot/SUS/LP server allows you to control which updates should be installed on each computer in your organization. The NetBoot/SUS/LP server also installs a web application that can be used to easily manage your NetBoot server and/or SUS.

There are two ways to get started with the NetBoot/SUS/LP server: install the NetBoot/SUS/LP server using an installer, or set it up as an appliance.

Requirements

To install the NetBoot/SUS/LP server using an installer, you need:

- The NetBoot/SUS/LP Server Installer (.run), available at:
<https://jamfnation.jamfsoftware.com/viewProduct.html?id=180&view=info>
- One of the following operating systems:
 - Ubuntu 10.04 LTS Server
 - Ubuntu 12.04 LTS Server
 - Ubuntu 14.04 LTS Server
 - Red Hat Enterprise Linux (RHEL) 6.4 or later
 - CentOS 6.4 or later
- 300 GB of disk space available
- 1 GB of RAM

To set up the NetBoot/SUS/LP server as an appliance, you need:

- The OVA file for the NetBoot/SUS/LP server, available at:
<https://jamfnation.jamfsoftware.com/viewProduct.html?id=180&view=info>
- Virtualization software that supports Open Virtualization Format
- 300 GB of disk space available
- 2 GB of RAM

To host a NetBoot server using the NetBoot/SUS/LP server, you need a NetBoot image (.nbi folder). For more information, see the following Knowledge Base article:

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

Only Intel-based Macs can use a NetBoot server hosted by the NetBoot/SUS/LP server.

Installing the NetBoot/SUS/LP Server Using an Installer

1. Copy the NetBoot/SUS/LP Installer (.run) to the server on which you plan to install the NetBoot/SUS/LP server.
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/NetSUSLP_4.0.0.run
```

4. When prompted to specify whether the installation is a standalone installation, type "y" unless you are planning to create a package of the NetBoot/SUS/LP server and deploy it to another server.
5. Type "y" to proceed.
6. Go to <https://myhostname.local/webadmin> to access the NetBoot/SUS/LP server web application. Once the NetBoot/SUS/LP server is installed, it is recommended that you log in to the web application and change all usernames and passwords associated with the server. For more information, see [Accounts](#).

Setting Up the NetBoot/SUS/LP Server as an Appliance

To set up the NetBoot/SUS/LP server as an appliance, import the OVA file for the NetBoot/SUS/LP server into a virtualization software product. This creates an Ubuntu VM with running SMB and AFP shares. The first time you power on the VM, a page displaying the URL for the NetBoot/SUS/LP server web application appears.

Once the NetBoot/SUS/LP server is set up as an appliance, it is recommended that you log in to the web application and change all usernames and passwords associated with the server. For more information, see [Accounts](#).



Accounts

The following table lists the default credentials for all accounts associated with the NetBoot/SUS/LP server:



Account	Username	Password
Web application	webadmin	webadmin
Shell (used to administer the NetBoot/SUS/LP server from the command line)	shelluser	shelluser
AFP share	afpuser	afpuser
SMB share	smbuser	smbuser

You can change the usernames and passwords for the web application and shell accounts. You can also change the passwords for the AFP and SMB shares.

Changing the Web Application or Shell Credentials

1. Log in to the NetBoot/SUS/LP server web application.
2. In the top-right corner of the page, click **Settings** .
3. In the "NetBoot/SUS/LDAP Proxy Server" section, click **Accounts** .
4. Change the credentials using the fields and tabs provided.
5. Click **Save**.
A message displays, reporting the success or failure of the change.

Changing the Password for the AFP or SMB Share

1. Log in to the NetBoot/SUS/LP server web application.
2. In the top-right corner of the page, click **Settings** .
3. In the "Shares" section, click **AFP** or **SMB** .
4. Enter and verify the new password.
5. Click **Save**.
A message displays, reporting the success or failure of the change.

Managing the SUS

The SUS hosted by the NetBoot/SUS/LP server uses Reposado, an open source software update application.

Unlike a standard SUS, you can divide the SUS hosted by the NetBoot/SUS/LP server into branches and enable different software updates on each branch. This gives you more control over which updates should be installed on each computer in your organization.

Setting Up the SUS

1. Log in to the NetBoot/SUS/LP server web application.
2. Click **Software Update Server**.
On a smartphone, this option is in the pop-up menu.
3. Enter a base URL and click **Change URL**.

The screenshot shows the 'Base URL' section with a text input field containing 'http://thor.local/' and a 'Change URL' button. Below this is a 'Branches' section with a table. The table has three columns: 'Root', 'Name', and 'URL'. The first row has a '*' in the 'Root' column, an empty 'Name' column, and the URL 'http://thor.local/content/catalogs/index_sucatalog'. There is a 'Delete' button next to the URL. Below the table is a 'New Branch' section with a text input field and an 'Add' button. Further down, there is a checkbox labeled 'Store software updates on the NetBoot/SUS server' which is currently unchecked. Below this checkbox is a paragraph of text: 'Ensure that computers install software updates from the NetBoot/SUS server instead of downloading and installing them from Apple's software update server'. Below this is a 'Manual Sync' section with a paragraph of text: 'Manual method for syncing the list of available updates with Apple's Software Update server' and a 'Sync Manually' button. Below that is a 'Daily Sync Time' section with a paragraph of text: 'Time at which to sync the list of available updates with Apple's Software Update server each day' and a dropdown menu currently set to 'None'. At the bottom, there is a 'Last Sync:' label.

Root	Name	URL
*		http://thor.local/content/catalogs/index_sucatalog

4. Create at least one branch by typing a branch name in the **New Branch** field and clicking **Add**. Repeat as needed for each branch.

Syncing with Apple's Software Update Server

You can sync the list of available software updates with Apple's Software Update server manually or on a schedule.

1. Log in to the NetBoot/SUS/LP server web application.
2. Click **Software Update Server**.
On a smartphone, this option is in the pop-up menu.

3. Sync the list of available software updates manually, or choose a time to sync the list each day.

Base URL
Base URL for the software update server (e.g. "https://sus.mycompany.corp")
 [Change URL](#)

Branches

Root	Name	URL	
	Branch	http://thor.local/content/catalogs/index_Branch.sucatalog	Delete

New Branch
 [Add](#)

☐ **Store software updates on the NetBoot/SUS server**
Ensure that computers install software updates from the NetBoot/SUS server instead of downloading and installing them from Apple's software update server

Manual Sync
Manual method for syncing the list of available updates with Apple's Software Update server
[Sync Manually](#)

Daily Sync Time
Time at which to sync the list of available updates with Apple's Software Update server each day

Last Sync:

Configuring SUS Branches

The NetBoot/SUS/LP server web application allows you to do the following for each branch:

- Make the branch the root.
- Manually enable or disable software updates.
- Automatically enable new software updates.

1. Log in to the NetBoot/SUS/LP server web application.
2. Click **Software Update Server**.
On a smartphone, this option is in the pop-up menu.
3. Click the branch you want to configure.
4. Configure the branch using the settings on the pane.

Branch Displayed:










☐ **Automatically Enable New Updates**
☐ **Use as Root Branch**

Filter updates by:

[Select All](#) [Clear All](#)

	Name		Version	Date
<input type="checkbox"/>	AirPort Client Update 2009-001		1.0	2012-03-21
<input type="checkbox"/>	AirPort Client Update for MacBook and MacBook Pro		1.0	2012-03-20
<input type="checkbox"/>	AirPort Client Update for MacBook and MacBook Pro		1.0	2012-03-21
<input type="checkbox"/>	AirPort Extreme Update 2007-002		1.0	2007-03-08
<input type="checkbox"/>	AirPort Extreme Update 2007-003		1.0	2007-05-01
<input type="checkbox"/>	AirPort Extreme Update 2007-004		1.0	2007-08-07
<input type="checkbox"/>	AirPort Extreme Update 2008-002		1.0	2008-07-24
<input type="checkbox"/>	AirPort Utility		5.6.1	2012-06-15
<input type="checkbox"/>	AirPort Utility		5.6.1	2012-06-15

5. Click **Apply** below the list of software updates.

<input type="checkbox"/>	Xsan 2.2 Update		2.2	2009-12-17
<input type="checkbox"/>	Xsan 2.2.1 Update		2.2.1	2009-12-17
<input type="checkbox"/>	Xsan Admin Update		1.4.2	2007-10-18
<input type="checkbox"/>	Xsan Admin Update		2.2	2009-09-14
<input type="checkbox"/>	Xserve EFI Firmware Update		1.0	2007-09-27
<input type="checkbox"/>	Xserve EFI Firmware Update		1.1	2012-03-21
<input type="checkbox"/>	Xserve EFI Firmware Update		1.2	2012-03-21
<input type="checkbox"/>	Xserve G5 Firmware Update		5.1.7f1	2005-04-26
<input type="checkbox"/>	Xserve LOM Firmware Update		1.2	2012-03-21

Using the SUS with the Casper Suite

Like a standard SUS, you can use the SUS hosted by the NetBoot/SUS/LP server to run Software Update on computers that are enrolled with the JSS. This involves pointing computers at a branch, and then using a policy or Casper Remote to run Software Update on the computers.

Pointing Computers at a SUS Branch

Note: The instructions in this section are for the Casper Suite v9.0 or later. However, if you are using the Casper Suite v8.x, these instructions can still be followed loosely.

There are several ways to point computers at a SUS branch:

- Use network segments (root branch only)
- Use a configuration profile
- Use Managed Preferences
- Use a policy or Casper Remote

Pointing Computers at a SUS Branch Using Network Segments

This method is available for the root branch only. It involves adding the root branch to the JSS as a software update server, and then using network segments to set a default software update server for computers.

For more information, see the “Software Update Servers” and “Network Segments” sections in the *Casper Suite Administrator’s Guide*.

When adding the root branch to the JSS as a software update server, be sure to enter “80” for the port.

Pointing Computers at a SUS Branch Using a Configuration Profile

Create a configuration profile with the branch URL entered in the **Software Update Server** field in the Software Update payload.

For more information on creating configuration profiles, see the “OS X Configuration Profiles” section in the *Casper Suite Administrator’s Guide*.

For more information on branch URLs, see the “Branch URLs” section below.

Pointing Computers at a SUS Branch Using Managed Preferences

Create a Managed Preference profile with the branch URL entered in the **Software Update Server** field in the Software Update payload.

For more information on creating Managed Preference profiles, see the “Managed Preferences” section in the *Casper Suite Administrator’s Guide*.

For more information on branch URLs, see the “Branch URLs” section below.

Pointing Computers at a SUS Branch by Executing a Command

Use a policy or Casper Remote to execute the following command on managed computers:

```
defaults write /Library/Preferences/com.apple.SoftwareUpdate CatalogURL  
<Branch URL>
```

Substitute <Branch URL> with the branch URL. For more information, see the “Branch URLs” section below.

You can execute a command from the Advanced pane in Casper Remote, or from the Files and Processes payload in a policy.

Branch URLs

Branch URLs vary depending on the operating system of enrolled computers. Example branch URLs are listed below.

OS X v10.5

`http://sus.mycompany.corp/content/catalogs/others/index-leopard.merged-1_<Branch name>.sucatalog`

OS X v10.6

`http://sus.mycompany.corp/content/catalogs/others/index-leopard-snowleopard.merged-1_<Branch name>.sucatalog`

OS X v10.7

`http://sus.mycompany.corp/content/catalogs/others/index-lion-snowleopard-leopard.merged-1_<Branch name>.sucatalog`

OS X v10.8

http://sus.mycompany.corp/content/catalogs/others/index-mountainlion-lion-snowleopard-leopard.merged-1_<Branch name>.sucatalog

OS X v10.9

http://sus.mycompany.corp/content/catalogs/others/index-10.9-mountainlion-lion-snowleopard-leopard.merged-1_<Branch name>.sucatalog

OS X v10.10

http://sus.mycompany.corp/content/catalogs/others/index-10.10-10.9-mountainlion-lion-snowleopard-leopard.merged-1_name>.sucatalog

OS X v10.11

http://sus.mycompany.corp/content/catalogs/others/index-10.11-10.10-10.9-mountainlion-lion-snowleopard-leopard.merged-1_name>.sucatalog

Running Software Update on Computers

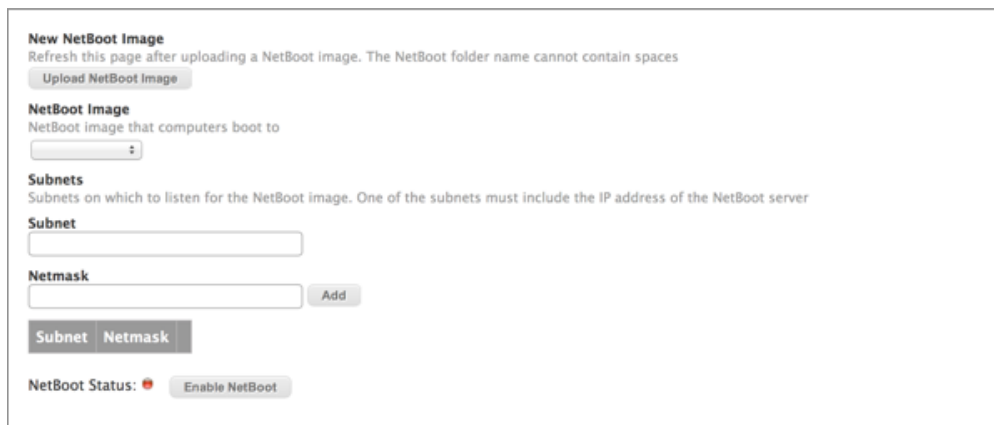
For instructions on using the Casper Suite to run Software Update on computers that are managed by the JSS, see the “Running Software Update” section in the *Casper Suite Administrator’s Guide*.

Setting Up the NetBoot Server

To set up a NetBoot server, you need a NetBoot image (.nbi folder). For more information, see the following Knowledge Base article:

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

1. Log in to the NetBoot/SUS/LP server web application.
2. Click **NetBoot Server**.
On a smartphone, this option is in the pop-up menu.
3. Upload a NetBoot image:
 - a. Click **Upload NetBoot Image**.



The screenshot shows the 'New NetBoot Image' form in the NetBoot/SUS/LP server web application. The form includes a title 'New NetBoot Image', a refresh instruction, an 'Upload NetBoot Image' button, a 'NetBoot Image' dropdown menu, a 'Subnets' section with a description, a 'Subnet' input field, a 'Netmask' input field with an 'Add' button, a 'Subnet Netmask' button, and a 'NetBoot Status' section with a red status icon and an 'Enable NetBoot' button.

You will be connected to the SMB share where NetBoot images are stored.

- b. Enter credentials for the SMB share and click **Connect**.
 - c. Copy a NetBoot image (.nbi) to the SMB share.
Important: The name of the folder cannot contain any spaces.
4. Return to the NetBoot/SUS/LP server web application and refresh the page.
 5. Choose the NetBoot image from the pop-up menu.
 6. Choose subnets for the NetBoot image by entering a subnet and a netmask. Then click **Add Subnet**.
Important: One of the subnets must include the IP address of the NetBoot server.
 7. Click **Enable NetBoot**.
If NetBoot is successfully enabled, the NetBoot status icon turns green.

Using the NetBoot Server with the Casper Suite

Note: The instructions in this section are for the Casper Suite v9.0 or later. However, if you are using the Casper Suite v8.x, these instructions can still be followed loosely.

Like standard NetBoot servers, you can add the NetBoot server hosted by the NetBoot/SUS/LP server to the JSS. This allows you to use a policy or Casper Remote to boot managed computers to a NetBoot image.



When adding the NetBoot server to the JSS, enter the IP address specified in the NetBoot/SUS/LP server web application and choose the "Use default image" option from the **NetBoot Image** pop-up menu.

For more information on adding a NetBoot server to the JSS, see the "NetBoot Servers" section in the *Casper Suite Administrator's Guide*.

For more information on using a policy or Casper Remote to boot computers to a NetBoot image, see the "Booting Computers to NetBoot Images" section in the *Casper Suite Administrator's Guide*.

Restarting the AFP or SMB Share



You may need to restart the AFP or SMB share for troubleshooting purposes.

1. Log in to the NetBoot/SUS/LP server web application.
2. In the top-right corner of the page, click **Settings** .
3. In the "Shares" section, click **AFP** or **SMB** .
4. Click **Restart**.

Network Settings

The Network settings allow you to configure the following:



- Hostname
- Network type (DHCP or static)
- IP address
- Netmask
- Gateway
- DNS servers
- Enabling/Disabling SSH
- Enabling/Disabling Firewall

1. Log in to the NetBoot/SUS/LP server web application.
2. In the top-right corner of the page, click **Settings** .
3. In the "NetBoot/SUS/LDAP Proxy Server" section, click **Network** .
4. Configure the settings on the pane.
5. Click **Save**.

Date/Time Settings

The Date/Time settings allow you to do the following:

- View the current time on the NetBoot/SUS/LP server.
- Change the current time zone on the NetBoot/SUS/LP server.
- Use a network time server to synchronize the date/time.

1. Log in to the NetBoot/SUS/LP server web application.
2. In the top-right corner of the page, click **Settings** .
3. In the "NetBoot/SUS/LDAP Proxy Server" section, click **Date/Time** .
4. Configure the settings on the pane.
5. Click **Save**.

Disabling GUI

The User Menu now adds additional functionality to be able to Disable GUI.

1. Log in to the NetBoot/SUS/LP server web application.
2. In the top-right corner of the page, click the username drop down.
3. In the drop down list select Disable GUI.
4. Click "Disable" to continue with Disable GUI.
5. Reload the NetBoot/SUS/LP server in your browser.

Enabling GUI

The NetBoot/SUS/LP server allows you to enable a disabled GUI by modifying the configuration file on the NetBoot/SUS/LP Server.

1. Log in to the server as a user with superuser privileges.
2. Modify the file at the following location:

```
/var/appliance/conf/appliance.conf.xml
```

3. Remove the following elements from the file:

```
<webadmingui>disabled</webadmingui>
```

4. Save the appliance.conf.xml file.
5. Reload the NetBoot/SUS/LP server in your browser

LDAP Proxy Server

The LDAP Proxy Server is a proxy server that allows you to expose an access point to an LDAP Server. In doing so it allows you to adjust the distinguished name to whatever you choose, as well as allows you to put multiple LDAP Servers and sections under the same distinguished name.

1. Log in to the NetBoot/SUS/LP server web application.
2. Click **LDAP Proxy Server**.
On a smartphone, this option is in the pop-up menu.
3. Enter "Exposed Distinguished Name" that you intend to use to reach the proxy.

4. Enter "Real Distinguished Name" that you use to connect to the LDAP Server.
5. Enter "LDAP URL" with port of the LDAP Server.
6. Click "Add"


Proxies
Proxies that will be available for use. You can connect to several directories or to several specific OU's in one directory.

Exposed Distinguished Name
Example: DC=jss,DC=corp

Real Distinguished Name
Example: DC=myorg,DC=corp

LDAP URL
Example: ldaps://ldap.myorg.com:636/



Exposed Distinguished Name	Real Distinguished Name	LDAP URL	
DC=jss,DC=corp	DC=myorg,DC=corp	ldaps://ldap.myorg.com:636/	Delete

LDAP Proxy Status: 

7. Enter as many other LDAP Connections as you want to configure.
8. Click "Enable LDAP Proxy".

Using the LDAP Proxy Server with the Casper Suite

Note: The instructions in this section are for the Casper Suite v9.0 or later. To add a LDAP Proxy Server to the JSS you will be adding the server as an LDAP Server.

1. Log into the JSS with a user that can add an LDAP Server
2. In the top-right corner of the page, click **Settings** .
3. Then click **LDAP Servers** .
4. Then click **New**.
5. Then click the **Configure Manually** radio button.
6. Then click **Next**.
7. Then configure the LDAP Server normally



Note: Your Distinguished Names now match what you entered for "Exposed Distinguished Name" in the LDAP Proxy. Pay attention to the port and SSL Verification as it will be dependent on how you configured your certificate on the NetBoot/SUS/LP Server as well.

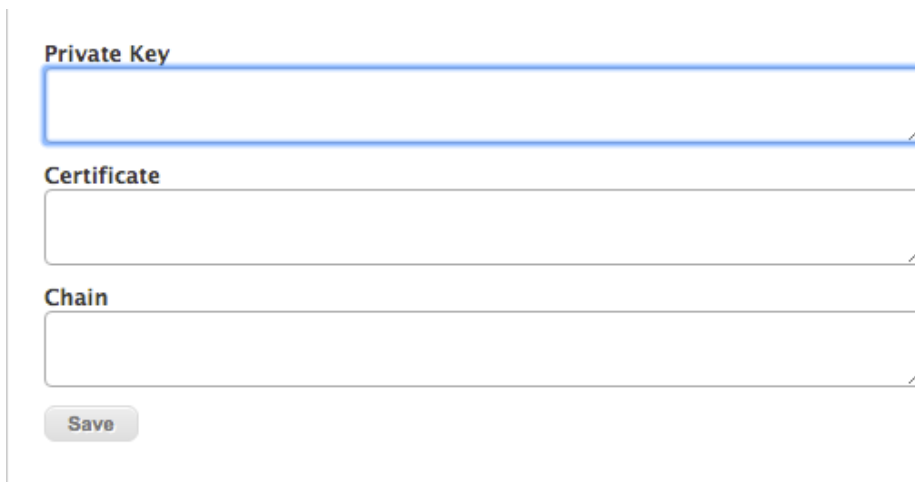
8. Then click **Save**.

9. Then click **Test**.
10. Test your connection and if you configured it right, it should work.

Certificates Settings

Certificates Settings allows you to modify the server settings with either a Tomcat or Slapd certificate to be used for communication with the NetSUSLP Server.

1. Log in to the NetBoot/SUS/LP server web application.
2. In the top-right corner of the page, click **Settings** .
3. In the "NetBoot/SUS/LDAP Proxy Server" section, click **Certificates** .
4. Enter the "Private Key", "Certificate", and "Chain" fields with the appropriate unencrypted certificate information.



The screenshot shows a web form titled "Certificates Settings". It contains three text input fields, each with a label above it: "Private Key", "Certificate", and "Chain". The "Private Key" field is highlighted with a blue border. Below the input fields is a "Save" button. The form is part of a larger interface, with a vertical line on the left side.

5. Click "Save"
6. Restart NetBoot/SUS/LP Server

Release History

Version	Changes
v4.0.0	<ul style="list-style-type: none">▪ Renamed to NetBoot/SUS/LP (NetSUSLP) for reference to LDAP Proxy.▪ Added El Capitan support for SUS.▪ Added firewall functionality with port managing for running NetSUSLP services by using app armor.▪ Added ability to disabled WebAdmin interface.▪ Added LDAP Proxy functionality with the use of slapd.▪ Added GAWK installation for WebAdmin on Ubuntu operating systems.▪ Added functionality to only enable services as needed.▪ Added functionality to update Ubuntu apt-get repository to prevent failures on service installation.▪ Added certificate page to allow tomcat or slapd certificates, and configured an installation to use a self-signed certificate.▪ Changed NetBoot page to enable SMB for uploading a NetBoot file, and then disable it when it is not in use.▪ OVA updated to use 2GB of memory and hard drive space increased to use 300 GB of hard drive space.
v3.0	The NetBoot/SUS/LP Server can now be installed on RHEL and CentOS.
v2.0	<ul style="list-style-type: none">▪ Added the option to install the NetBoot/SUS/LP server using an installer.▪ Updated the NetBoot/SUS/LP server web application GUI to match the JSS v9.0 and later.▪ The NetBoot server hosted by the NetBoot/SUS/LP server now uses HTTP instead of NFS.▪ Updated the version of Reposado that is used by the NetBoot/SUS/LP server.