



## **Smart Software Manager satellite Installation Guide**

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## Preface

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This preface contains the following sections:

- [Audience, page iii](#)
- [Document Conventions, page iii](#)
- [Obtaining Documentation and Submitting a Service Request, page iv](#)

## Audience

This guide is intended for site administrators who will manage Cisco Smart-enabled software installation and licensing.

## Document Conventions

Command descriptions use the following conventions:

Convention	Description
<b>bold</b>	Bold text indicates the commands and keywords that you enter literally as shown.
<i>Italic</i>	Italic text indicates arguments for which the user supplies the values.
[x]	Square brackets enclose an optional element (keyword or argument).
[x   y]	Square brackets enclosing keywords or arguments separated by a vertical bar indicate an optional choice.

{x   y}	Braces enclosing keywords or arguments separated by a vertical bar indicate a required choice.
[x {y   z}]	Nested set of square brackets or braces indicate optional or required choices within optional or required elements. Braces and a vertical bar within square brackets indicate a required choice within an optional element.
<i>variable</i>	Indicates a variable for which you supply values, in context where italics cannot be used.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.

Examples use the following conventions:

Convention	Description
<code>screen font</code>	Terminal sessions and information the switch displays are in screen font.
<b>boldface screen font</b>	Information you must enter is in boldface screen font.
<i>italic screen font</i>	Arguments for which you supply values are in italic screen font.
<>	Nonprinting characters, such as passwords, are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

This document uses the following conventions:



**Note** Means reader take note. Notes contain helpful suggestions or references to material not covered in the manual.



**Caution** Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation*, at: <http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html>.

Subscribe to *What's New in Cisco Product Documentation*, which lists all new and revised Cisco technical documentation, as an RSS feed and deliver content directly to your desktop using a reader application. The RSS feeds are a free service.



## CHAPTER

# 1

## Overview

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This chapter contains the following sections:

- [About Smart Software Manager satellite Installation, page 1](#)
- [Device Terminology, page 2](#)
- [System Requirements, page 3](#)

## About Smart Software Manager satellite Installation

This section describes the process involved in launching the Cisco Smart Software Manager satellite.



**Note**

Ensure that you are assigned to a smart account before you proceed with the tasks mentioned in this guide.

The Smart Software Manager satellite requires the configurations mentioned in this section to ensure secure data transfer to Cisco.com. Your installation package of the OVA build for Smart Software Manager consists of the following:

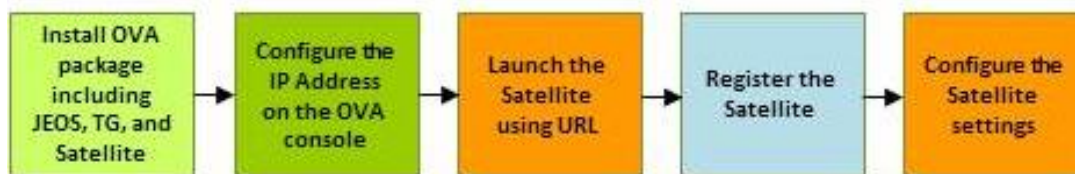
- **JEOS**
- **Smart Call Home Transport Gateway(TGW) – refer to References for TGW links**
- **Smart Software Manager satellite**



**Note**

JEOS pronounced as juice stands for Just Enough Operating System. It contains various system and middleware components. It provides basic services for ServicePack components to operate and play an enabling role. Some of the examples include: Hardened CentOS, ActiveMQ, MYSQL, Connectivity TGW, LCM AdminShell and Agent.

This figure shows the satellite installation workflow process:



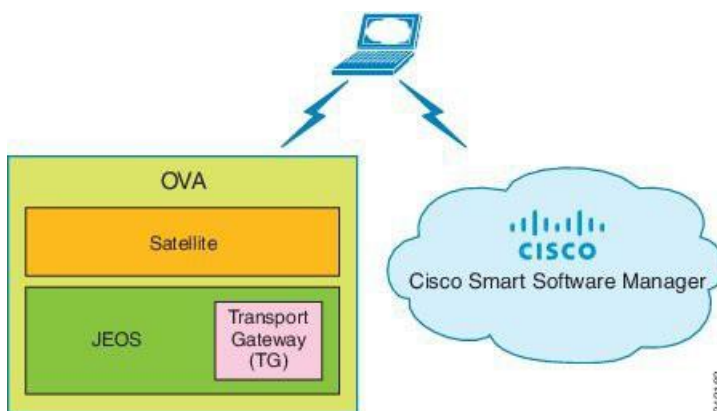
OVA – Open Virtualization Appliance  
 JEOS – Just Enough Operating System

You must configure the following before you proceed to install:

- Deploying the OVA file on the VSphere Client
- Configuring the IP address at the Console

Smart Call Home Transport Gateway is identified as a secure transport mechanism to transfer cisco licensing data from the SCH back-end server to the smart licensing back-end.

This figure shows the satellite install components that communicate with Cisco Smart Software Manager during the configuration:



This process requires you to:

- Launch the Cisco Smart Software Manager satellite

## Device Terminology

Term	Description
ESXi	Vmware Hypervisor technology Learn more at <a href="http://www.vmware.com">www.vmware.com</a> .



Term	Description
Open Virtual Appliance or Application (OVA) file	Package that contains the following files used to describe a virtual machine and saved in a single archive using .TAR packaging: <ul style="list-style-type: none"> <li>• Descriptor file (.OVF)</li> <li>• Manifest (.MF) and certificate files (optional)</li> </ul>
Open Virtual Machine Format (OVF)	Platform-independent method of packaging and distributing Virtual Machines (VMs).
Virtual Machine (VM)	Virtualized x86 PC environment in which a guest operating system and associated application software can run. Multiple VMs can operate on the same host system concurrently.
vSphere Client	User interface that enables users to connect remotely to vCenter Server or ESXi host from any Windows PC. You can use the primary interface for vSphere Client to create, manage, and monitor VMs, their resources, and the hosts. It also provides console access to VMs.

## System Requirements



### Note

Ensure that you are assigned to a smart account before you proceed with the tasks mentioned in this guide.

The following install component is required for the satellite installation:

- Satellite OVA file

Ensure that the OVA image supplied for the installation of Cisco Smart Software Manager satellite has the following configuration:

- 50GB-200GB hard disk
- 8GB Memory
- 4 Virtual CPUs





## CHAPTER 2

# Installing Smart Software Manager satellite

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This chapter contains the following sections:

- [Prerequisites of the OVA File Deployment for the Smart Satellite, page 5](#)
- [Deploying the OVA file for the Smart Software Manager satellite, page 5](#)
- [Configuring the IP Address, page 6](#)
- [Verifying Time Sync with the NTP , page 7](#)
- [Launching the Cisco Smart Software Manager satellite, page 7](#)
- [Setting Up Smart Software Manager satellite, page 8](#)
- [Sample of Configuring the Call-home Profile to Use Smart Software Manager satellite on the Cloud Service Router, page 10](#)

## Prerequisites of OVA File Deployment

You must install and configure the following components before you install the OVA file:

- ESXi v5.x host with sufficient OVA resources.
- vSphere Client v5.x

# Deploying the OVA File

- 
- Step 1** Connect to the UCS EXSi server by logging into vSphere Client.
- Step 2** Choose **File > Deploy OVF Template**.
- Step 3** In the **Deploy OVF Template—Source** window, do the following:
- Browse to the OVA file in the **Deploy from a file or URL** field.
  - Click **Next**. The **Deploy OVF Template—OVF Template Details** window opens.
- Step 4** In the **Deploy OVF Template—OVF Template Details** window, review the product information, including the size of the file and the VM disk, and then click **Next**.
- Step 5** In the **Deploy OVF Template—Name and Location** window, do the following:
- In the **Name** field, enter a name for the OVA file installation that is unique within the inventory folder and has up to 80 characters.
  - In the **Inventory Location** pane, choose the location that you would like to use for hosting the OVA file.
  - Click **Next**.
- Step 6** In the **Deploy OVF Template—Disk Format** window, do the following:
- In the **Datastore** field, enter the datastore in which you want to store the OVA file.
  - In the **Available space (GB)** field, enter the value for disk space availability.
  - In the option for **Provision**, click the radio button for the **Thick Provision** disk format.
  - Click **Next**.
- Step 7** In the **Deploy OVF Template—Network Mapping** dialog box, click **Next**.



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**Note** You do not need to configure this dialog box.

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- Step 8** In the **Ready to Complete** window, do the following:
- Review the deployment settings information.
  - Check the **Power on after deployment** check box.
  - Click **Finish** to install the image.

- Step 9** Power on the VM. You will be prompted to log in and configure initial settings at the console on your vSphere Client. See [Configuring the IP Address](#).



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**Note** This process takes time, so please be patient.

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# Configuring the IP Address

You can use the following procedure to configure the virtual machine IP address, its gateway and the subnetmask:

**Step 1** Login to console using the default user ID **admin** and a password **Admin!23**.



**Note** After you log in for the first time, you will be asked to change to a new password. Create a new password and make a note of it for future reference.

**Step 2** Configure the IP Address. At the command prompt enter the command **conf ip <intf> <ipaddr> <netmask> <gateway>** in which

- **intf**—Interface name
- **ipaddr**—Static IP Address of virtual machine
- **netmask**—Subnet mask in dot notation
- **gateway**—Default gateway IP Address

**Example:**

**conf ip eth0 172.168.16.130 255.255.255.128 172.168.16.129** in which

- **eth0**—Ethernet 0 interface
- **172.168.16.130** —Static IP Address of virtual machine
- **255.255.255.128** —Subnet mask
- **172.168.16.129** —Default gateway IP Address

**Step 3** Configure the DNS.



**Note** Contact your network administrator to obtain the required DNS information.

You will need to enter at least one DNS IP address, and optionally additional IP addresses (shown in brackets in the following command line).

At the command prompt enter the command:

**conf dns -a <DNS ip-address1> [DNS ip-address2] [DNS ip-address3] [DNS ip-address4]**

**Example:**

**conf dns -a 192.168.1.1 192.168.2.1**  
**conf dns -a 8.8.8.8 8.8.4.4**



**Note** These two examples are of Google's public DNS addresses. Please use the DNS addresses recommended by your network administrator.

**Step 4** Reload the VM machine to use the config IP Address. At the command prompt enter the command **reload**. The system prompts for reboot confirmation and provides options: Y or N. Type Y at the command prompt to confirm reboot and proceed.

**Example:**

**admin# reload**  
**Do you want to reload the appliance [y/n]? : y**

**Step 5** At the command prompt enter the command **show ip** to verify the IP Address and DNS configured. The default gateway, IP Address, DNS details are displayed.

**Example:**

```
admin# show ip
Interface eth0 is up
DHCP is disabled
    Device   : eth0
    IP       : 172.168.16.130
    MAC      : 00:0C:29:F2:96:E9
    Subnet Mask: 255.255.255.128
    DNS Servers:
        Nameserver1 : 8.8.8.8
        Nameserver2 : 8.8.4.4
    Gateway :

    Interface: eth0
    Gateway: 172.168.16.129
Proxy is not configured
admin#
```

## Verifying Time Sync with the NTP

You can use the following procedure to verify time sync with the NTP. Login to console using the default user ID **admin** and the password you created in Step 1 under Configuring the IP Address. Use the following commands to verify the time sync with NTP:

```
admin# timesync
```

```
=====
Synchronize Appliance Time
=====
```

```
Ntp Server Address [pool.ntp.org] : 171.68.38.65
Would you like to synchronize time with '171.68.38.65' (y|n)? y
Successfully updated NTP sync interval
admin#
```



**Note**

If the time sync fails, it gives the message: Problem while updating to NTP sync interval. Contact your network administrator to obtain the required DNS information.

### What to Do Next

Launch the Cisco Smart Software Manager satellite.

# Launching the Cisco Smart Software Manager satellite

## Before You Begin

Ensure the following actions:

- Deployed the OVA file on the VSphere Client
- Configured the IP address at the Console

---

**Step 1** Provide the `http://<ip-address>:8080` URL on a web browser to launch the Smart Satellite. The Cisco Smart Software Manager satellite login screen is displayed.

**Example:**

`http://172.168.16.130:8080`

Use the IP-address that you use in Step 2 of **Configuring the IP Address**.

## Before You Begin

Ensure that you have installed and launched the Satellite before you begin the setup process.



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**Note** Alternatively, you may also launch the Smart Satellite by using <https://<ip-address>:8443>.

**Example:**

`https://172.168.16.130:8443`

---

# Setting Up the Smart Software Manager satellite

To configure the satellite, complete the following setup functions:

- **Register Satellite**
- **Time Settings**
- **Synchronization Settings**
- **Summary**



## Note

The default communication between the device and Smart Call-Home Transport Gateway is via HTTP. For more information about HTTPS connection between the client and Smart Call Home Transport Gateway, refer to the user guide:

[http://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart\\_call\\_home/user\\_guides/appendix.pdf](http://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart_call_home/user_guides/appendix.pdf) .

## Before You Begin

Ensure that you have installed and launched the Satellite before you begin the setup process.

**Step 1** Launch the Cisco Smart Software Manager satellite using the URL: example <http://172.168.18.130:8080>

**Step 2** Log in to the **Smart Software Manager satellite Setup** page with the default username: **admin** and password: **Admin!23**.



## Note

After you log in for the first time, you will be asked to change to a new password. Create a new password and make a note of it for future reference.

The **Smart Software Manager satellite Setup** page is displayed. On this page, the **Register Satellite** step allows you to generate and save the registration file.

**Step 3** Click **Generate Registration File** to generate and save the file to your local file directory.



## Note

After this step, you are required to open a new tab in the browser and log into Cisco Smart Software Manager to authorize the registration file. Follow the steps 3-10 to log on and continue the process.

**Step 4** Launch the Cisco Smart Software Manager using the URL:  
<http://tools.cisco.com/rhodui/index#/home>.

**Step 5** Log in to your Smart Account in **Cisco Smart Software Manager** using your smart account **username** and **password**.

**Step 6** On the **Navigation** pane, click **Satellites**.



- Step 7** In the **Satellites** page, click **New Satellite** button.
- Step 8** In the **New Satellite** dialog box, enter the name of the satellite that requires registration.
- Step 9** Click **Browse**, which is located next to the **Registration File** field, to select the registration file that was generated in the Software Satellite Setup tool.
- Step 10** In the **Virtual Accounts** field specify the virtual account in which you want to add the new satellite.
- Step 11** In the text box next to **Contact Email Address** field, enter your email address. You will be notified to this email once the satellite file has been authorized.
- Step 12** Click **Send Authorization Request** to proceed. A message is displayed stating that an authorization file is generated within 48 hours of the request and that you will receive an email notification to download the same.




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**Note** If the authorization file is not generated within 48 hours of your request or you do not receive an email notification, you can contact the Cisco support.

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- Step 13** Log into Cisco Smart Software Manager after you receive the email notification. Navigate to the Satellite page.
- Step 14** In the **Satellite** page, locate the new satellite that you created in the satellite table. You will see an alert message in the **Alerts** column displaying: **Authorization File Ready** and a link in the **Actions** column displaying: **Download Authorization File** against the new satellite that you created in the satellite table.
- Step 15** Click the **Download Authorization File** link and download the authorization file to your local file directory on your hard drive.




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**Note** After this step, you should use the Cisco Smart Software Manager satellite to upload the authorized file. Perform the following steps to continue the setup process.

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- Step 16** In the Software Satellite, at the **Register Satellite** step, click **Browse** and navigate to the location where the authorized satellite file was downloaded.
- Step 17** Click **Upload** to upload the authorized satellite file.
- Step 18** Click **Next** to proceed.
- Step 19** On the **Time Settings** tab, ensure that the time on the satellite is accurate to synchronize with the Cisco licensing cloud.  
If the time varies, make sure that the JEOS platform on which the satellite is running is in sync with the NTP server.
- Step 20** Click **Next** to proceed to the **Synchronization Settings** page.  
A periodical synchronization must happen between the satellite and the Cisco licensing servers to update the licenses and reauthorize any product instances.
- Step 21** Choose one of the following methods to set up the synchronization.  
This section allows you to set up the connection between the Cisco Smart Software Manager satellite and the Cisco.com cloud portal to synchronize at different time intervals using the following mode options:

- **Network Synchronization**—Data is synchronized and updated at scheduled time periods in this mode. You can choose this mode if you are able to connect to Cisco.com periodically. This type of synchronization is suitable for network enabled environments.




---

**Note** Port 443 must be enabled for communications between the Smart Satellite and the Smart Manager.

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- **Manual Synchronization**—Data is transferred through a file download and upload process in a manual synchronization mode. You can choose this mode if you do not have network connectivity or cannot establish a connection to communicate with Cisco Smart Software Manager.



**Note** You can modify this setting and schedule synchronization timing later in the Synchronization page of the Cisco Smart Software Manager satellite portal. For more details, see [Scheduling Synchronization for Satellites](#).

**Step 22** Click **Next** to view the **Summary** page.

**Step 23** Review the summary details and click **Configure Satellite** to complete the satellite configuration and navigate to the Cisco Smart Software Manager satellite screen or click **Back** to edit the previous page settings. This completes the satellite configuration process. You can now navigate to the Cisco Smart Software Manager and view the details of the satellite. Refer to the other sections of the user guide to view or perform various tasks of smart licensing.

**Step 24** (Optional step): You can use snapshot functionality to create a backup instance of Satellite.

## Sample of Configuring the Call-home Profile to Use Smart Software Manager satellite on the Cloud Service Router

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<b>enable</b>	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
<b>Step 2</b>	<b>configure terminal</b>	Enters global configuration mode.
<b>Step 3</b>	<b>call-home</b>	Enters call-home configuration mode.
<b>Step 4</b>	<b>contact-email-addr</b> <i>email-address</i>	Specify a valid email ID.
<b>Step 5</b>	<b>profile</b> <i>name</i>	Specify the profile name. Note: CiscoTAC-1 is the default profile.
<b>Step 6</b>	<b>destination transport-http</b>	Sets the transport option to HTTP.
<b>Step 7</b>	<b>destination address</b> <b>http</b> <i>http from TG</i>	Accesses the SCH Transport Gateway URL. Note: The destination url is <a href="http://&lt;ip-address&gt;:80/Transportgateway/services/DeviceRequestHandler">http://&lt;ip-address&gt;:80/Transportgateway/services/DeviceRequestHandler</a> . This is the same IP address you get from Step 2 of Configuring the IP Address.

<b>Step 8</b>	<b>active</b>	Activates the profile specified in step 5.
<b>Step 9</b>	<b>exit</b>	Saves and exits the current configuration mode and returns to privileged EXEC mode.
<b>Step 10</b>	<b>end</b>	Returns to privileged EXEC mode.
<b>Step 11</b>	<b>wr</b>	Saves the configuration.

**Note**

This configuration is only a sample for CSR. Please see platform specific configurations for the call-home profile config.

If you are using the cloud server router, you will need to change the destination URL in the smart call home profile.

**Example:**

```
Router# configure terminal
Router(config)# call-home
Router(cfg-call-home)# contact-email-addr aaa@cisco.com
Router(cfg-call-home)# profile CiscoTAC-1
Router(cfg-call-home-profile)# active
Router(cfg-call-home-profile)# destination transport-method http
Router(cfg-call-home-profile)# no destination transport-method email
Router(cfg-call-home-profile)# destination address http
http://172.168.16.130:8080/Transportgateway/services/DeviceRequestHandler
```

# References

Note For more information about TG, here is the TG user guide:

[http://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart\\_call\\_home/user\\_guides/SCH\\_Ch4.pdf](http://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart_call_home/user_guides/SCH_Ch4.pdf) .

Note For more information about HTTPS connection between the client and Smart CallHome Transport Gateway, refer to the user guide: [http://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart\\_call\\_home/user\\_guides/appendix.pdf](http://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart_call_home/user_guides/appendix.pdf) .