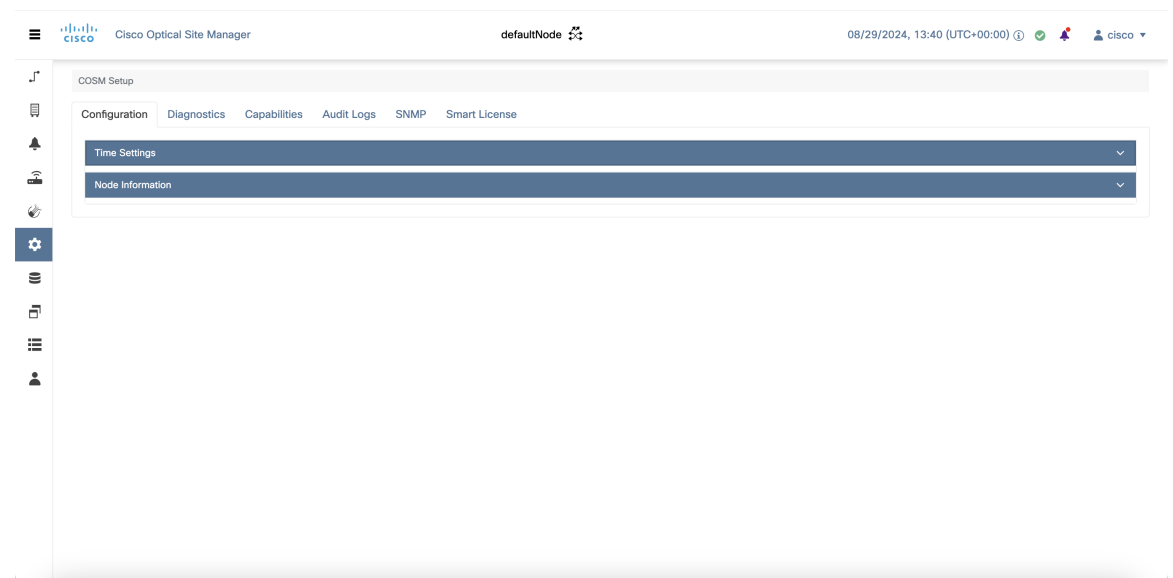




Set up Cisco Optical Site Manager

This chapter covers the tasks for configuring the Cisco Optical Site Manager's timezone and node information. Additionally, you'll learn how to view diagnostic and audit logs, as well as configure smart licensing.

Figure 1: Set up Cisco Optical Site Manager



- [Configure Timezone, on page 1](#)
- [View Cisco Optical Site Manager Diagnostics, on page 2](#)
- [View Audit Logs, on page 3](#)
- [Smart Licensing for Cisco Optical Site Manager, on page 4](#)
- [Deploying Smart Licenses , on page 5](#)
- [Smart Transport, on page 6](#)
- [Cisco Smart License Utility, on page 9](#)
- [Offline, on page 11](#)

Configure Timezone

Use this task to configure the time zone.

Before you begin[Log into Cisco Optical Site Manager](#)**Procedure**

-
- Step 1** Click **COSM Setup** in the left panel.
- Step 2** Click the **Configuration** tab and then click **Time Settings** to expand it.
- Step 3** Type the name of the city or press space in the **Time Zone** field and select a time zone from the drop-down list.
- Step 4** Click **Apply**.
A confirmation message appears.
- Step 5** Click **Yes**.
-

View Cisco Optical Site Manager Diagnostics

Use this task to retrieve and download Cisco Optical Site Manager diagnostics information.

Before you begin[Log into Cisco Optical Site Manager](#)**Procedure**

-
- Step 1** Click **COSM Setup** in the left panel.
The **COSM Configuration** page appears.
- Step 2** Click the **Diagnostics** tab.
- Step 3** To retrieve Cisco Optical Site Manager diagnostic logs, perform these steps:
- Select the check boxes for which you want to retrieve the logs.

Note

By default, all the check boxes are selected except **NCS Callback Log**.

Table 1: Fields Description

Fields	Description
Alarms	Collects the active alarms
Audit Logs	Collects NSO audit logs
Conditions	Collects the active conditions
Admin Logs	Collects the Admin logs

Fields	Description
Engineer Logs	Collects all the system software logs
History Logs	Collects the alarms history logs
Inventory Logs	Collects the hardware inventory logs
NCS Callback Log	Collects information about the implementation status and return values of entire NSO data tree

- b) Click **Retrieve** to retrieve the diagnostics report.

A confirmation message appears.

- c) Click **Yes**.

- d) Click **Download** to download the diagnostics report.

A zip file containing the logs is downloaded.

View Audit Logs

Use this task to retrieve and download Cisco Optical Site Manager audit logs.

Before you begin

[Log into Cisco Optical Site Manager](#)

Procedure

-
- | | |
|---------------|---|
| Step 1 | Click COSM Setup in the left panel.
The COSM Configuration page appears. |
| Step 2 | Click the Audit Logs tab. |
| Step 3 | Select the search criteria from the Search filters section and click Search .
Details of each event including the date, user type, SID and event details are displayed in a table. |
-

Smart Licensing for Cisco Optical Site Manager

Table 2: Feature History

Feature Name	Release Information	Feature Description
Cisco Optical Site Manager Smart Licensing	Cisco IOS XR Release 24.3.1	Cisco Optical Site Manager now supports the smart licensing. It enables you to automate the time-consuming manual licensing tasks and allows you to easily track the status of your license and software usage trends.

This chapter provide information about Smart Licensing (SL) solutions and their deployment on Cisco Optical Site Manager.

Smart Software Licensing is a solution for managing software across the Cisco portfolio and your organization. It provides complete visibility into your software usage and gives you full control over your licensing status.



Restriction

For NCS 2000, Cisco Optical Site Manager must be running on the SVO line card.

Efficient Cloud-Based Software Licensing with Smart Licensing

Smart Licensing (SL) is a cloud-based, flexible software licensing model that allows you to activate and manage Cisco software licenses across your organization. This solution enables you to easily track the status of your licenses and software usage trends. Smart Licensing allows pooling of licenses or entitlements that you can use across the entire organization in a flexible and automated manner.

Benefits of Smart Licensing

These are the key benefits of Smart Licensing.

- **Easy activation:** establishes a pool of software licenses that can be used across your company.
- **Unified management:** provides a complete view into all of your products and services in a user-friendly portal.
- **License flexibility:** enables you to transfer licenses as needed easily, because the software is not restricted to a specific hardware.

Key Features of Smart Licensing

These are the key features of Smart Licensing:

- **Direct and proxy registration:** registers your device directly with the Cisco Smart Software Manager (CSSM) portal or through a proxy for restricted internet access environments.

- **Centralized management:** manages your license inventory using CSSM, simplifying software asset tracking and management.
- **License portability:** moves or transfers your licenses easily between devices, offering flexibility in deploying software assets within the organization.
- **Simplified activation:** simplifies this process by using a pool of licenses that aren't tied to a specific device as against Traditional licensing.
- **Automatic license renewal:** renews licenses automatically, reducing the administrative burden of tracking license expiration dates and manual renewals.
- **Usage reporting:** generates detailed reports on license usage to understand device software consumption, optimizing your license investments.
- **Compliance assurance:** provides visibility into license entitlements versus actual usage, helping that you stay compliant.
- **Support for hybrid environments:** supports both on-premises and cloud-based environments, allowing for consistent license management across different deployment models.
- **Real-time updates:** receives real-time updates from Cisco, ensuring that you have access to the latest features and compliance information.

Deploying Smart Licenses

Smart Licensing solution makes it easier for you to procure, deploy, and manage your license. Cisco Smart Software Manager (CSSM) is your primary licensing server and portal where you can create your smart accounts and manage licenses.

Smart Software Manager On-Prem is your locally installed on-premises user portal that work with CSSM.

License consumption

Each NCS 1010 consumes one licesnse.

For NCS 2000, NCS 1014, NCS 1004, and NCS 1001 the license count is based the number of line cards available on Cisco Optical Site Manager application. Each line card consumes one license. Controller cards do not consume licenses.

Smart Licensing Workflow

These are the stages for deploying Smart Licenses:

Procedure

-
- | | |
|---------------|---|
| Step 1 | Order licenses |
| | a) Order your license from Cisco Commerce Workspace (CCW). |
| | b) Access CSSM and create the smart account and virtual accounts to organize your licenses. |
| Step 2 | Activate licenses. |

- a) Select the deployment methods.
 - [Direct Deployments: Direct Cloud Access \(CSSM\)](#)
 - [On-Premises Deployments: Locally installed servers on your premises](#)
 - [Offline Deployments: No connectivity to CSSM](#)
- b) Configure the smart license transport mode and register the device with CSSM.

Step 3 Manage licenses.

- a) Generate your report from the device. Synchronize the report with CSSM either automatically or manually.
 - b) Monitor the license usage and compliance status through the CSSM portal.
-

Smart Transport

Devices send usage information directly over the internet to the Cisco Smart Software Manager (CSSM).

Configure Smart Transport method

Before you begin

- [Create Token](#)
- [DNS Configuration](#)

Create a Token

Use this task to create a new token using Cisco Smart Software Manager.

Procedure

- Step 1** Log in to the Cisco Smart Software Manager.
<https://software.cisco.com/software/cswws/platform/home#SmartLicensing-Inventory>
- Step 2** Click the Inventory tab, and select your virtual account from the **Virtual Account** drop-down list.
The **Create Registration Token** pane appears.
- Step 3** Click the **General** tab, and click **New Token**.
- Step 4** Enter the token description. Specify the number of days the token must be active.
- Step 5** Check the **Allow export-controlled functionality on the products registered with this token** check box.
- Step 6** Click **Create Token**.
- Step 7** Copy the token and register Cisco Optical Site Manager with the same token ID.

An example of the token ID:

YzY2ZjYyNjktY2NlOS00NTc4LWlXNTAtMjZkNmNiNzMxMTY1LTE2NjAzNjQ3
%0ANzY4Njl8ZVJSckxKN2pFV2tleHV0MUKxbGxTazFDVm9kc1B5MGIHQmlFWUJi%0Ac3VNRT0%3D%0A

Configure DNS to Access Cisco Optical Site Manager

Provide Domine Name System(DNS) must be configure, as Cisco Optical Site Manager will not be accessible from outside the network.

Procedure

Use this sample configuration to connect to the Cisco Optical Site Manager from your network.

Example:

```
Config
admin server-information networking dns-configuration dns-server <ipaddress> of DNS
commit
exit
```

Configure Smart Transport mode

Use this task to configure Smart Transport Licensing Mode.

Procedure

- Step 1** Click **Cisco Optical Site Manager Setup** in the left pane, and then click **Smart License**.
- Step 2** Click the **Configuration** to expand it.
- Step 3** Under **Transport Settings**, select the **Transport Mode** as **Smart Transport** from the drop-down list.
Go to [Smart Transport User Interface Field descriptions, on page 8](#) for field descriptions.
- Step 4** Add <https://smartreceiver.cisco.com/licservice/license> under **Smart Transport URL** field.
- Step 5** Under the **Proxy Setting**
 - a) Populate these fields.
 1. HTTPS Proxy (*Optional*)
 2. HTTP Proxy (*Optional*)
 3. Username (*Optional*)
 4. Password (*Optional*)
- Step 6** Under **Reports Settings**, add **Reporting Interval (days)**

Step 7 Check the **Send Hostname** check box to receive the hostname information.

Step 8 Check the **Send Product Version** check box to receive the product version.

Step 9 Click **Apply** to apply the settings.

Step 10 Click **Check Connection** to check the connection with the new settings.

If the **Check Connection** button turns **Green**, it indicates that the connection is good.

If the **Check Connection** button turns **Yellow**, it indicates that there is an issue with the connection.

Smart Transport User Interface Field descriptions

Table 3: CSLU UI field descriptions

Field name	Field descriptions
Transport Mode	Specifies the mode of transport.
CSLU URL	Specifies the CSLU URL
HTTPS Proxy(Optional)	Specifies the HTTPS Proxy Address.
HTTP Proxy(Optional)	Specifies the HTTP Proxy Address.
Username(Optional)	Specifies the Username.
Password(Optional)	Specifies the Password
Reporting Interval (Days)	Specifies the reporting interval in days.
Hostname	Specifies the hostname that will be included in the report.
Product Version	Specifies the product version that will be included in the report.

Establish Trust for Smart Transport

Use this procedure to establish trust for smart transport.

Procedure

Step 1 Navigate to **Information Tab**, click **Establish Trust**.

The **Establish Trust** dialog box appears.

Step 2 Copy the **Token** text from the **Virtual Account**, paste under the **ID Token** dialog box and click **Trust**.

Step 3 Configuration Verification

- Under **Trust** tab **Trust Established** time and **Last Attempt Result** as **Success** displays, indicating that the **Trust Established**.

- Click **Sync**, under **Reporting** it displays **Last Report Pushed** time and **Last Acknowledgment Received** time indicating synchronization is done.
 - Under **License Usage**, license count displays.
-

Cisco Smart License Utility

Cisco Smart License Utility (CSLU) is a application that enables customers to administer licenses and their associated Product Instances from their premises instead of having to directly connect their Smart Licensed enabled Product Instances to Cisco Smart Software Manager (CSSM).

Configure CSLU

Before you begin

1. [Install CSLU Application on Windows or Linux System.](#)

Configure CSLU Licensing Mode

Use this task to configure CSLU licensing mode.

Procedure

- | | |
|---------------|--|
| Step 1 | Click Settings in the left panel, and then click Smart License . |
| Step 2 | Click the Configuration to expand it. |
| Step 3 | Under Transport Settings , select the CSLU/OnPrem from the drop-down list.
Go to CSLU User Interface Field descriptions, on page 10 for field descriptions. |
| Step 4 | Under the CSLU URL enter <i>http://<Device IP>:8182/cslu/v1/pi</i> under.
<i>Device IP</i> is the Ethernet2 IP address of the computer in which the CSLU application is installed. |
| Step 5 | Under Proxy Setting
a) Perform these steps as needed. <ol style="list-style-type: none">1. HTTPS Proxy (Optional)2. HTTP Proxy (Optional)3. Username (Optional)4. Password (Optional) |
| Step 6 | Under Reports Settings , add Reporting Interval (Days)
a) Enter <i><1-30></i> |

Step 7 Check the check box **Send Hostname** to receive the hostname information.

Step 8 Check the check box **Send Product Version** to receive the product version.

Step 9 Click **Apply** to apply the settings.

Step 10 Click **Check Connection** to check the connection with the new settings.

If the **Check Connection** button turns **Green**, it indicates that the connection good.

If the **Check Connection** button turns **Yellow**, it indicates that there is an issue with the connection.

CSLU User Interface Field descriptions

Table 4: CSLU UI field descriptions

Field name	Field descriptions
Transport Mode	Specifies the mode of transport.
CSLU URL	Specifies the CSLU URL
HTTPS Proxy(Optional)	Specifies the HTTPS Proxy Address.
HTTP Proxy(Optional)	Specifies the HTTP Proxy Address.
Username(Optional)	Specifies the Username.
Password(Optional)	Specifies the Password
Reporting Interval (Days)	Specifies the reporting interval in days.
Hostname	Specifies the hostname that will be included in the report.
Product Version	Specifies the product version that will be included in the report.

Establish Trust for CSLU

Establishing trust enables you to access and view license usage data.

1. In the Cisco Optical Site Manager application, click the **Sync** button.
2. CSLU displays **COMPLETE: Sync response acknowledgement to product instance** when the **Sync** is complete from the CSLU.

Configuration Verification

Verify the configuration to check trust is established.

Procedure

-
- | | |
|---------------|---|
| Step 1 | Under Trust tab Trust Established time and Last Attempt Result as Success displays, indicating that the Trust Established . |
| Step 2 | When Sync is done, under Reporting it displays Last Report Pushed time and Last Acknowledgement Received time indicating synchronization is done. |
| Step 3 | Under License Usage , license count displays indicating trust is established. |
-

Offline

Offline mode allows you to manage your devices on premises without connecting to CSSM. You can set up your devices without internet access, and they do not require communication with Cisco, making it suitable for highly secure environments.

The offline mode involves a manual exchange of files between Cisco Optical Site Manager (COSM) and Cisco Smart Software Manager (CSSM) to establish trust and report license usage. The workflow is the same for both trust establishment and usage reporting.

Offline Trust Establishment Workflow

1. [Download Request File from COSM.](#)
2. [Import and Process File in CSSM.](#)
3. [Download Acknowledgement File from CSSM.](#)
4. [Import Acknowledgement File into COSM.](#)



Note If you perform a usage report before establishing trust, the usage-file.xml generated by COSM automatically includes a trust request. This allows you to establish trust and report usage in a single operation.

Configure Offline

Use this task to configure offline licensing mode.

Procedure

-
- | | |
|---------------|---|
| Step 1 | Click Settings in the left panel, and then click Smart License . |
| Step 2 | Click the Configuration tab to expand it. |
| Step 3 | Under Transport Settings , select Offline mode from Transport Mode drop-down list. |
| Step 4 | Check the Send Hostname check box to send the hostname information. |
| Step 5 | Check the Send Product Version check box to send the product version. |

- Step 6** Click **Apply** to apply the settings.
Check Connection is disabled for **Offline** mode.
-

Download Request File from COSM

Perform these steps to establish trust for Cisco Optical Site Manager offline licensing.

Procedure

- Step 1** Click the **Information** tab to expand it.
- Step 2** Click the **Save** button and choose **Trust Request trust-request** XML file downloads
- Step 3** Establish Trust by performing these steps in sequential order.
- [Upload Usage Data to CSSM, on page 12](#)
 - [Download Acknowledgement from CSSM, on page 12](#)
 - [Import Acknowledgement in COSM, on page 13](#)
-

Upload Usage Data to CSSM

Perform these steps at CSSM.

Procedure

- Step 1** Go to Cisco Smart Software Manager then go to **Reports** then click **Usage Data Files** then click **Upload Usage Data** and select the **Virtual Account** and click **Ok**.
- Step 2** **Upload Usage Data** window opens, click the **Browse** button and upload the **trust-request** file.
- Step 3** Check under the **Reporting Status** tab to see **No Errors**.
- It may take a few minuets to show **No Errors**. If it shows **Errors**, you have to fix them.
-

Download Acknowledgement from CSSM

Perform these steps at CSSM.

Procedure

- Step 1** In the CSSM, under **Usage Data Files** click **Upload Usage Data**.
- Step 2** It opens a **Upload Usage Data** window, click **Browse** and select **rum-report-xxx** click **Open** then click **Upload Data** In the **Select Virtual Accounts** window, select the appropriate account and click **ok**.

It may take a few minutes to show **No Errors**. If it shows **Errors**, you have to fix them.

Step 3 When **No Errors** appears, **Download** the **Ack_rum-report-xxx**.

Step 4 In the Cisco Optical Site Manager click **Import** button, it opens **Establish Trust** click **Select files..** and select **Ack_rum-report-xxx** click **Open** then click **Done**.

Import Acknowledgement in COSM

Perform these steps at Cisco Optical Site Manager.

Procedure

Step 1 Click **Download** under **Acknowledgment** tab.

Step 2 In the Cisco Optical Site Manager click **Import** button, it opens a **Establish Trust** window.

Step 3 Click **Select files...** and upload **Ack_trust-request-xxxx** click **Open** then click **Upload**.

Step 4 Click **Save**, then **Usage**, it opens a **Select what to save** window, then choose any one option.

- unreported
- all
- days

rum-report-xxx downloads

Step 5 Click the **Refresh** button to see updated information.

Step 6 Configuration Verification

- Under the **Trust** tab, you will see a **Trust Established** time, indicating that the trust has been established.
 - Under **Reporting** it displays **ACK Report Time** .
 - Under **License Usage**, license count displays.
-

