Smart Software Manager Help

First Published: 2009-10-26

Last Modified: 2019-03-21

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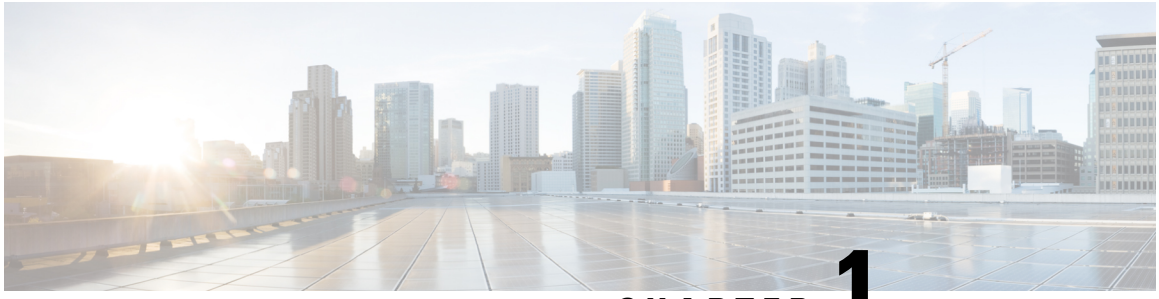


CHAPTER 1

Introduction to Smart Software Manager

Overview of Smart Software Manager

With **Smart Software Manager**, you organize and view your licenses in groups called virtual accounts. You use **Smart Software Manager** to transfer licenses between virtual accounts as needed.

Smart Software Manager allows you to:

- **Create a Product Instance Registration Token**.

  Create and manage product instance registration tokens.
- **View Licenses in a Virtual Account**.

  Choose virtual accounts from the list of all virtual accounts that are accessible by the user.
- **View Alerts**.

  View alerts regarding status of licenses and product instances.
- **Run Reports**.

  Run reports against your virtual accounts.
- **Set Email Notifications**.

  Modify your email notification settings.
- **Monitor and Review Transactions**.

  Review license transactions.
- **View Accounts**.

  View overall account information.

This help system describes the fields on each GUI page and in each dialog box:

- To access the help for a particular tab in the GUI, click the tab, and then click the Help link, located in the upper right with Feedback and Support links.

- To access the help for a dialog box, click the Help link in that dialog box.

What to Do Next

Access **Smart Account** information through the Smart Account Management.

Smart Account Management

Smart Software Manager enables you to manage all of your Cisco Smart Software licenses from one centralized website.

Smart Account Information

When you access the **Smart Software Manager** through the **Smart Licensing** function of **Cisco Software Central**, you see links to screens providing information on the following areas of **Smart Account** management:

Link	Description
Alerts	The **Alerts** tab provides a compilation of all alerts issued for this **Smart Account**, as well as all alerts for **Virtual Accounts** managed under this **Smart Account**. Alerts.
Inventory	In the **Inventory** tab provides access to all **Virtual Accounts** managed under this **Smart Account**.
Reports	The **Reports** tab provides options for generating reports on **Virtual Account** events and activities. Reports.
Email Notification	The **Email Notification** tab provides options for selecting the types of events, such as informational events or alerts, for which you wish to receive email notifications. Preferences
Satellites	The **satellites** tab provides options for viewing the details of the satellites that have been registered, as well as action options for syncing or removing satellites.
Activity	The **Activity** tab provides options for viewing **License Transactions** and **Event Log** information for **Smart Accounts**, including activity for all **Virtual Accounts** associated with that **Smart Account**. Activity.

What to Do Next

Refer to Licenses, on page 2, Product Instances, on page 3, or Registration Tokens, on page 3.

Licenses

Licenses are required for all Cisco products. The following types of product licenses vary depending on the Cisco product:

- **Term Licenses**-Licenses that automatically expire after a set amount of time: one year, three years, or whatever term was purchased.
- **Perpetual Licenses**-Licenses that do not expire.
- **Demo Licenses**-Licenses that expire after 60 days. Demo licenses are not intended for production use.

- **Reporting only licenses**-Licenses that are zero-dollar base and bundled with the hardware. Once a device registers and reports the use of these reporting only licenses, CSSM will begin to show consumption of such licenses in the SA/VA to which the device is registered. Please note: CSSM will always show purchased quantity for such licenses equal to the in-use quantity and there will never be a surplus of reporting only licenses in the inventory.

Product Instances

A product instance is an individual device with a unique device identifier (UDI) that is registered using a product instance registration token. You can register several instances of a product with a single registration token. Each product instance can have one or more licenses that reside in the same virtual account.

Note For details on **Registration Tokens**, see Managing Product Instance Registration Tokens.

Product instances must periodically connect to the **Smart Software Manager** servers during a specific renewal period. If a product instance fails to connect, it is marked as having a license shortage, but continues to use the license. If you remove the product instance, its licenses are released and made available within the virtual account.

Registration Tokens

A product requires a registration token until you have registered the product. Registration tokens are stored in the **Product Instance Registration Token Table** that is associated with your smart account. Once the product is registered, the registration token is no longer necessary and can be revoked and removed from the table. Registration tokens can be valid from 1 to 365 days.

Tokens can be generated with or without the export controlled functionality feature being enabled.

Note For details on creating a **Registration Tokens**, see Creating a Product Instance Registration Token.

Virtual Accounts

Virtual accounts are collections of licenses and product instances. You can create virtual accounts in **Smart Software Manager** to organize the licenses for your company into logical entities. You can use virtual accounts to organize licenses by business unit, product type, IT group, or whatever makes sense for your organization. For example, if you segregate your company into different geographic regions, you can create a virtual account for each region to hold the licenses and product instances for that region.

All new licenses and product instances are placed in a virtual account. You choose the virtual account when you register a product instance. You can transfer existing licenses or product instances from one virtual account to another.

There is exactly one default virtual account. You can access the default account by clicking the star icon next to the virtual account name. You can also re-assign the default status between your virtual accounts.

Note You cannot assign a virtual account associated with a satellite as the default virtual account.

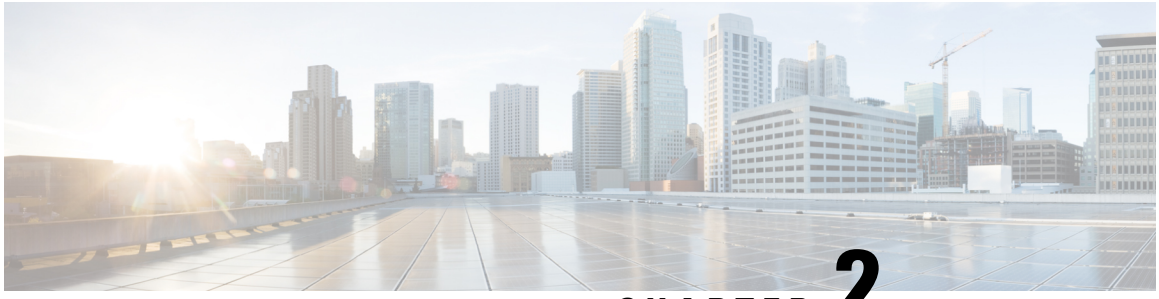
Satellite Virtual Accounts

Virtual accounts that are associated with the satellites are identified by the satellite icon next to the virtual account name.

Note Satellite is a standalone application that support products which have partial or no connectivity to Cisco network.

Note that the following points that apply to satellite virtual accounts:

- The registration tokens used for satellite virtual accounts, should be created in the Cisco Smart Software Manager satellite tool. This data must be synchronized with the Smart Software Manager to view the changes in the software.
- You cannot assign a virtual account associated with a satellite as the default virtual account.
- Virtual accounts can be added to a satellite but cannot be deleted. However, note that virtual accounts are disassociated when the satellite is removed.



CHAPTER 2

Alerts

Alerts Overview

There are two levels of alert messages used in the **Smart Software Manager**:

- **Smart Account** alerts - Smart Account Alerts
- **Virtual Account** alerts - Virtual Account Alerts

Alert Icons

Smart Software Manager uses alert icons to bring your attention to actions required to effectively manage your smart products and devices. Major alerts are noted in red icons, with the number of major alerts noted. Minor alerts are indicated by yellow icons, with the number of minor alerts noted.

In the **Smart Account alerts screen**, these icons provide a summary of the number of Major and Minor alerts listed.

In the **Virtual Account alerts screen**, these icons are buttons to be used to toggle between displaying the Major or Minor alerts for that specific Virtual Account.

Hide Alerts

In the **Virtual Account alerts screen** a **Hide Alerts** button allows you to collapse the details window for major and minor alerts.

Note You will always be able to view the number of **Major** and **Minor** alerts for any **Virtual Account** by using the drop-down menu in the **Virtual Account** screen under the **Inventory Tab**. There you are able to see the **Major** and **Minor Alert Summary** window.

Smart Account Alerts

When you click on the **Alerts** link in the **Smart Software Manager** screen, you display a table that provides detailed information on all alerts generated for a specific **Smart Account** plus alerts generated for all **Virtual Accounts** managed under that Smart Account.

The **Smart Account** alerts table provides the following information and management options:

Name	Description
Severity (Sev)	The **Sev** column provides an icon that defines each alert listed as either of **Major** or **Minor** importance. The default sort on the alerts is to list the alerts in order of **Severity**, and then **Action Due**.
Message	Alerts are generated for the following **License** and **Product Instance** events: • Insufficient Licenses • Product Instance Failed to Renew • Product Instance Failed to Connect • Updated Smart License Agreement • Synchronization Overdue • Satellite Unregistered and Removed • Smart Licensing Agreement Pending • Authorization Pending • Upcoming Cisco Smart Software Manager satellite Sync Deadline (30 Day) • Cisco Smart Software Manager satellite expired and removed (90 Days of no sync) • Satellite Authorization File Ready • Licenses Expired • Licenses Expiring • Reserved License Expired • Duplicate Licenses • Reserved Licenses Returned to Smart Account • Restricted License Not Available The message provides a description of what is required to address the alert, and may provide a link to **License** or **Product Instance** information. Refer to the **License Information** section below and Viewing Licenses in a Virtual Account . Refer to the **Product Instance Information** section below and Viewing Product Instances in a Virtual Account.
Source	Provides a link to the **Smart Account** or **Virtual Account** information referenced by the alert.
Action Due	Identifies the time frame in which the alert must be addressed.
Actions	Provides drop down menu options for **Actions** that may be taken to address the alert.

License Information

Click on a link in a "**License**" message to display a pop-up window with the following tabs:

Name	Description
Overview	**Description** provides a license description. **Virtual Account Usage** is displayed in a pie chart. The License Expiration section displays **Count**, **Type** and **Expiration Dates** for the licenses held by the Source group.
Product Instances	Lists the licenses held by the Source group.
Event Log	In the **Event Tab**, you see the **Message**, the **Time** the message was recorded, and the **User** who generated the message.
Order History	The **Order History** tab provides the following details for each license: • Order Number • Order line ID • Order Date • SKU • Quantity • Start Date • Expiration Date

Product Instance Information

Click on a link in a "**Product Instance**" message line to display a pop-up window with the following tabs:

Name	Description
Overview	In the **General** section a product description is provided. In the **General** section, the following product instance details are displayed: • Product Name • Product Number • Host Identifier • MAC Address • PID • Serial Number • Virtual Account • Registration Date • Last Contact The **License Usage** section displays the licenses in use and the number of each that are required.
Event Log	In the **Event Tab**, you see the **Message**, the **Time** the message was recorded, and the **User** who generated the message.

Alert Actions

Various categories of alert messages require that specific actions be taken to manage **Smart Accounts** effectively. The following table provides examples of **Alert Actions**, the **Action** that may be taken to address

the alert, and the effect that Action has on the **Behavior** of the Alert message. Note: Some alerts may not be applicable to everyone.

Alert	Type	Action	Behavior
Insufficient Licenses - The Virtual Account "<pool>" has a shortage of <license> licenses. <count> license is required to return to compliance.	Major	Select **Transfer Licenses** to display the transfer options for the license type, and the licenses in overage (available for transfer) in the Virtual Account pool.	The alert cannot be manually dismissed. It is automatically dismissed when the licenses are brought back into compliance.
Updated Smart License Agreement – The Cisco Smart Licensing Agreement has been updated and this new version must be accepted in order to continue using Smart Licensing.	Major	Select **View/Accept Agreement** to display and accept license agreements.	The alert cannot be manually dismissed. It is automatically dismissed when the agreement signed.
	There are three types of Licenses - **Perpetual, Demo, and Term** - and each are valid for a different period of time. **Perpetual** licenses remain valid in an ongoing, while **Demo** Licenses must be renewed after 60 days, and **Term** Licenses remain valid for specified periods of 1 to 3 years. Licenses are removed from Virtual Accounts as they expire.		
Licenses Expired – <count> <license> licenses in the virtual account "<pool>" expired on<date>.	Minor	Select **Dismiss** to hide the alert.	Use the **Dismiss** option in the **Actions** column to manual dismiss the alert.
Licenses Expiring – <count> <license> licenses in the virtual account "<pool>" are set to expire in 30 days on <date>.	Minor	Select **Remind Later** to hide the alert until the next warning period.	Select the **Remind Later** option to suppress the alert until the next warning period expires after a set number of days (e.g., 90, 60, 30, 14, 7, 3, 2, 1). If a previous warning has not been dismissed, it will be automatically dismissed when a new alert is generated.
Reserved License Expired – a term license in the reservation has expired.	Minor	Click the **update the reservation** link to select a different term license from the available surplus or the **dismiss** link to remove the alert.	The alert is dismissed when the Update Reserved Licenses process has been completed and validates the expiration of the selected term license or when the dismiss link is clicked.

Product Instance Failed to Connect: **Regular Licenses** – The Product Instance "<Product Name>" in the Virtual Account "<Virtual Account Name>" is not connected for its renewal period and the product instance may run in a degraded state if it does not connect within the next <# of days> days. If the product is not going to connect, you can remove it to immediately release the license it is consuming.	Minor	Select **Dismiss** to remove the alert.	Use the **Dismiss** option in the **Actions** column to manually dismiss the alert.
Product Instance Failed to Connect: **Export Restricted Licenses** (major alert appears when de-registration of the device is successful but de-authorization fails for any reason. The device will get de-registered, but the controlled entitlements will continue to be consumed.) – The product instance "<Product Name>" in the Virtual Account "<Virtual Account Name>" failed to connect. It is using licenses which enable restricted encryption technology, and those licenses have not been released. The non-restricted licenses it was consuming have been released for use by other product instances.	Major	Select **Remind Later** to hide the alert until the next warning period.	Select **Remind Later** to suppress the alert until the next warning period expires after a set number of days (e.g., 90, 60, 30, 14, 7, 3, 2, 1). If a previous warning has not been dismissed, it will be automatically dismissed when a new alert is generated.
Product Instance Failed to Renew: **Regular Licenses** – The product instance "<instance>" in the Virtual Account "<Virtual Account Name>" failed to connect during its renewal period and may be running in a degraded state. The licenses it was consuming have been released for use by other product instances.	Major	Select **Remove Instance** to remove the Product Instance and get a confirmation of that action.	If the **Remove Instance** action is selected, the product instance will be removed from CSSM.
Product Instance Failed to Renew: **Export Restricted Licenses** – The product instance "<Product Name>" in the Virtual Account "<Virtual Account Name>" failed to connect. It is using licenses which enable restricted encryption technology, and those licenses have not been released. The non-restricted licenses it was consuming have been released for use by other product instances.	Major		

Duplicate Licenses – (for licenses with purchase type “Usage”) when the same entitlement is present from different subscriptions within the same Virtual Account.	Minor	Either cancel the order in Cisco Commerce Workspace (CCW) and the entitlement will be removed from the Virtual Account or transfer the entitlement to another Virtual Account that should not already have the same entitlement.	The alert is removed when either action is performed.
Restricted License Not Available – When a Product Instance is trying to consume restricted license(s) and the license(s) is either not available or there is insufficient quantity in the Virtual Account. “The product instance <Product Instance Name> has requested license <License Name> which enables restricted encryption technology. This license is not available within the virtual account <VA name>. “	Informational	Click **Dismiss** to remove the alert.	Use the **Dismiss** option in the **Actions** column to manually dismiss the alert.
Reserved Licenses Returned to Smart Account – when a device with a factory-installed reserved license that was originally assigned to a specific Smart Account and/or Virtual Account is directly connected to CSSM or CSSM satellite to a different Smart Account and/or Virtual Account, you will receive the following alert. The product instance "<PI Name>", which had licenses reserved, has been moved to another Smart Account. The licenses it was reserving will be returned to the original virtual account "<VA Name>". Licenses reserved: "<Ent 1>", "<Ent 2>".	Informational	Click Dismiss to remove the alert.	The alert is removed.
Synchronization Overdue – The Smart Software Manager satellite "<VA days>" has not synchronized for <number of days> days. If it is not synchronized within <365-number of days> days, this satellite will be removed from Smart Software Manager and all of the product instances registered through the satellite may run in a degraded state.	Major	-	-

License Converted – The product instance "<PI name>" was successfully registered to the Virtual Account "<VA Name>" but one or more traditional licenses that were installed on it failed to be converted to Smart Software Licenses.	Minor	Click **Dismiss** to remove the alert.	Use the **Dismiss** option in the **Actions** column to manually dismiss the alert.
Licenses Not Converted – The product instance "<PI Name>" was unable to establish a connection with Smart Software Manager so the licenses could not be converted. Please contact Cisco Support for conversion assistance.	Minor	Click **Dismiss** to remove the alert.	Use the **Dismiss** option in the **Actions** column to manually dismiss the alert.

Note **Product Instances are validated for 90 days** from the date and time when they are first established. Smart-enabled products register contacts with the Cisco cloud, or their satellite service, as the products are used. If a Product Instance does not contact Cisco for 30 days, a **Minor Alert** is sent to the License Administrator, indicating that there may be disruption of their Internet connection. Another **Minor Alert** is sent if the Product Instance does not contact Cisco for 60 days following its validation date. After 90 days, a **Major Alert** is issued. If the Product Instance does not connect with Cisco after that, the Product Instance is de-linked from the licenses used by the product. Those licenses are returned to the company's license Quantity pool to be used for another Product Instance.

Product Instance Failed to Renew – The product instance "<instance>" in the Virtual Account "<pool>" failed to connect during its renewal period and may be running in a degraded state. The licenses it was consuming have been released for use by other product instances.	Select **Remove Instance** to remove a Product Instance, which will generate a message confirming its removal.	Select **Manual** to dismiss the alert.

Virtual Account Alerts

To view **Alerts** for your Virtual Accounts, use the **Inventory** link in the **Smart Software Manager** screen. This displays the **Virtual Accounts** screen.

The default **Virtual Account** is listed next to a drop-down menu that provides links to:

- Other **Virtual Accounts** associated with this **Smart Account** - click on the **Virtual Account** to display details for that account
- A summary of alerts for the selected **Virtual Account** - these indicate the number of **Major** and **Minor** alerts requiring action
- A history of the events that have been associated with the selected **Virtual Account** - click on **History** to display the History screen for the selected **Virtual Account**.

View Virtual Accounts

To view **Major** and **Minor** alerts for the selected Virtual Account, click on the buttons provided.

Clicking either button displays the appropriate **Virtual Account** alerts table, which provides the following information and management options:

Name	Description
Severity (Sev)	The severity (**Sev**)column provides an icon that defines each alert listed as either of **Major**, **Minor**, or **Informational**. The default sort on the alerts is to list the alerts in order of **Severity**, and then **Action Due**.
Message	Alerts are generated for the following **License** and **Product Instance** events: • Insufficient Licenses • Product Instance Failed to Renew • Product Instance Failed to Connect • Updated Smart License Agreement • Synchronization Overdue • Licenses Expired • Licenses Expiring • Reserved License Expired • Duplicate Licenses • Reserved Licenses Returned to Smart Account • Restricted License Not Available The message provides a description of what is required to address the alert, and may provide a link to **License** or **Product Instance** information. Refer to the **License Information** section below and Viewing Licenses in a Virtual Account . Refer to the **Product Instance Information** section below and Viewing Product Instances in a Virtual Account.
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Product Instances	Lists the licenses held by the Source group.

Name	Description
Event Log	In the **Event Tab**, you see the **Message**, the **Time** the message was recorded, and the **User** who generated the message.
Order History	The **Order History** tab provides the following details for each license: • Order Number • Order line ID • Order Date • SKU • Quantity • Start Date • Expiration Date

Product Instance Information

Click on a link in a "**Product Instance**" message line to display a pop-up window with the following tabs:

Name	Description
Overview	In the General section a product description is provided. In the General section, the following product instance details are displayed: • Product Name • Product Number • Host Identifier • MAC Address • PID • Serial Number • Virtual Account • Registration Date • Last Contact The **License Usage** section displays the licenses in use and the number of each that are required.
Event Log	In the **Event Tab**, you see the **Message**, the **Time** the message was recorded, and the **User** who generated the message.

Alert Actions

Various categories of alert messages require that specific actions be taken to manage **Virtual Accounts** effectively. The following table provides examples of **Alert Actions**, the **Action** that may be taken to address the alert, and the effect that Action has on the **Behavior** of the Alert message.

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Updated Smart License Agreement – The Cisco Smart Licensing Agreement has been updated and this new version must be accepted in order to continue using Smart Licensing.	Major	Select **View/Accept Agreement** to display and accept license agreements.	The alert cannot be manually dismissed. It is automatically dismissed when the agreement signed.
	There are three types of Licenses - **Perpetual**, **Demo**, and **Term** - and each are valid for a different period of time. Perpetual licenses remain valid in an ongoing, while **Demo** Licenses must be renewed after 60 days, and **Term** Licenses remain valid for specified periods of 1 to 3 years. Licenses are removed from Virtual Accounts as they expire.		
Licenses Expired – <count> <license> licenses in the virtual account "<pool>" expired on<date>.	Minor	Select **Dismiss** to hide the alert.	Use the **Dismiss** option in the **Actions** column to manually dismiss the alert.
Licenses Expiring – <count> <license> licenses in the virtual account "<pool>" are set to expire in 30 days on <date>.	Minor	Select **Remind Later** to hide the alert until the next warning period.	Select the **Remind Later** option to suppress the alert until the next warning period expires after a set number of days (e.g., 90, 60, 30, 14, 7, 3, 2, 1). If a previous warning has not been dismissed, it will be automatically dismissed when a new alert is generated.
Reserved License Expired – a term license in the reservation has expired.	Minor	Click the **update the reservation** link to select a different term license from the available surplus or the **dismiss** link to remove the alert.	The alert is dismissed when the Update Reserved Licenses process has been completed and validates the expiration of the selected term license or when the dismiss link is clicked.

Product Instance Failed to Connect: **Regular Licenses –**The product instance in the virtual account has not connected for its renewal period. The product instance may run in a degraded state if it does not connect within a specified number of days. If the product instance is not going to connect, you can remove it to immediately release the licenses it is consuming.	Minor	Select **Remove Instance** to remove the Product Instance, and get a confirmation of that action. Select **Remind Later** to hide the alert until the next warning period.	Select **Remind Later** to suppress the alert until the next warning period expires after a set number of days (e.g., 90, 60, 30, 14, 7, 3, 2, 1). If a previous warning has not been dismissed, it will be automatically dismissed when a new alert is generated.
Product Instance Failed to Connect: **Export Restricted Licenses** (major alert appears when de-registration of the device is successful but de-authorization fails for any reason. The device will get de-registered, but the controlled entitlements will continue to be consumed.) – The product instance "<Product Name>" in the Virtual Account "<Virtual Account Name>" failed to connect during its renewal period and may be running in a degraded state. It is using licenses which enable restricted encryption technology, and those licenses have not been released. The non-restricted licenses it was consuming have been released for use by other product instances.	Major	Select **Dismiss** to hide the alert.	Use the **Dismiss** option in the **Actions** column to manually dismiss the alert.
Product Instance Failed to Renew: **Regular Licenses –** The product instance in the virtual account failed to connect during its renewal period and may be running in a degraded state. It is using licenses which enable restricted encryption technology and those licenses have not been released. The non-restricted licenses it was consuming have been released for use by other product instances.	Major	Select **Remove Instance** to remove the Product Instance and get a confirmation of that action.	If the **Remove Instance** action is selected, the product instance will be removed from CSSM.

Product Instance Failed to Renew: **Export Restricted Licenses** – The product instance "<Product Name>" in the Virtual Account "<Virtual Account Name>" failed to connect during its renewal period and may be running in a degraded state. It is using licenses which enable restricted encryption technology, and those licenses have not been released. The non-restricted licenses it was consuming have been released for use by other product instances.	Major	Select **Dismiss** to hide the alert.	Use the **Dismiss** option in the **Actions** column to manually dismiss the alert.
Duplicate Licenses – (for licenses with **Purchase Type** “Usage”) when the same entitlement is present from different subscriptions within the same Virtual Account.	Minor	Either cancel the order in Cisco Commerce Workspace (CCW) and the entitlement will be removed from the Virtual Account or transfer the entitlement to another Virtual Account that should not already have the same entitlement.	The alert is removed when either action is performed.
Restricted License Not Available – when a Product Instance is trying to consume restricted license(s) and the license(s) is either not available or there is insufficient quantity in the Virtual Account. “The product instance <Product Instance Name> has requested license <License Name> which enables restricted encryption technology. This license is not available within the virtual account <VA name>. “	Informational	Select **Dismiss** to remove the alert.	Use the **Dismiss** option in the **Actions** column to manually dismiss the alert.

Note **Product Instances are validated for 90 days** from the date and time when they are first established. Smart-enabled products register contacts with the Cisco cloud, or their satellite service, as the products are used. If a Product Instance does not contact Cisco for 30 days, a **Minor Alert** is sent to the License Administrator, indicating that there may be disruption of their Internet connection. Another **Minor Alert** is sent if the Product Instance does not contact Cisco for 60 days following its validation date. After 90 days, a **Major Alert** is issued. If the Product Instance does not connect with Cisco after that, the Product Instance is de-linked from the licenses used by the product. Those licenses are returned to the company's license Quantity pool to be used for another Product Instance.

Product Instance Failed to Renew – The product instance "<instance>" in the Virtual Account "<pool>" failed to connect during its renewal period and may be running in a degraded state. The licenses it was consuming have been released for use by other product instances.	Select **Remove Instance** to remove a Product Instance, which will generate a message confirming its removal.	Select **Manual** to dismiss the alert.

Satellite Alerts

To view alerts for your Smart Software satellites, use the **satellite** link on the **Smart Software Manager** screen. This displays the **satellite** screen and the satellite information table.

The **satellites** table displays information in the following columns:

- **Name**
- **Product Instances**
- **Last Synchronization**
- **Synchronization Due**
- **Alerts**
- **Actions**

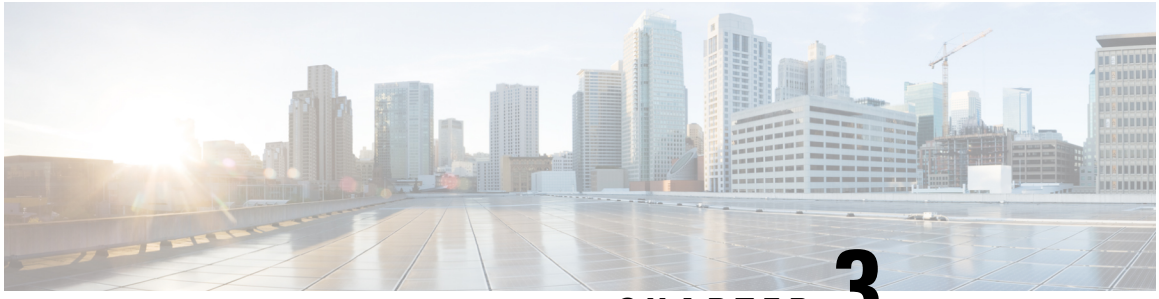
Click on the links provided in the **Alerts** column to display alert details for individual satellites.

Satellite Alert Messages

Alerts will be generated to notify you of the issues to be addressed to maintain each individual satellite:

Alert Message	Response
Authorization Pending	Use the **Alert** link to view the **Authorization Pending** message. A satellite **Authorization File** is required to complete the registration process. An email notification will be sent to your email address when the file has been generated and is ready to be downloaded.
Authorization File Ready	Use the **Alert** link to view the **Authorization File Ready** message. The **Authorization File** for this satellite has been generated and is ready to be downloaded. Click the **Download Authorization File** button. Save the downloaded file to your hard drive and then upload it to **Cisco Smart Software Manager satellite** using the setup utility.

Alert Message	Response
Synchronization Overdue	Use the **Alert** link to view the **Synchronization Overdue** message. This provides details about the status of the satellite. Information under a **Troubleshooting** tab describes steps to be taken to synchronize the device. A **Details** tab provides satellite information including: • Name • Hostname/IP • Address/UID • Software Version • Registered • Last Synchronization • Synchronization Due
Synchronization Failed	Use the **Alert** link to view the **Synchronization Failed** message. Generate a new **Synchronization File** from your satellite and try the synchronization again. If the problem persists, contact Cisco Support." Optionally, use the **Dismiss** button provided to dismiss the alert.



CHAPTER 3

Inventory: General Tab

The **General** tab displays information about the specific virtual account and the registration tokens that are associated with the virtual account. From the **General** tab, you can do the following:

- View information about the **Virtual Account**.
- Edit the **Virtual Account**.
- Make the virtual account as the default **Virtual Account**.
- View a list of existing **Product Instance** registration tokens.
- Create new **Product Instance** registration tokens.
- Copy, download, or revoke registration tokens. Revoked registration tokens can be left in the list or removed.

General Tab Overview

The **General** tab displays information about the specific virtual account and the registration tokens that are associated with the virtual account. From the **General** tab, you can do the following:

- View information about the **Virtual Account**.
- Edit the **Virtual Account**.
- Make the virtual account as the default **Virtual Account**.
- View a list of existing **Product Instance** registration tokens.
- Create new **Product Instance** registration tokens.
- Copy, download, or revoke registration tokens. Revoked registration tokens can be left in the list or removed.

Viewing Smart Accounts with Click to Accept Agreement Pending

After Smart Accounts are created, they become active even while the click-to-accept (C2A) agreement is yet to be accepted. If you go through the Administrative workspace of Cisco Software Central and select a Smart Account, you may view an alert sign indicating "Acceptance of Smart License Agreement Required". This indicates that there is a Cisco Smart License Agreement pending acceptance.

You are able to access **Smart Software Manager** even while the licensing agreement remains in a pending state, but you will be unable to register products to use **Smart Licensing** until the agreement is accepted.

Step 1	*If you have the authority* to accept the **Cisco Smart License Agreement**, click the **View/Accept Agreement** button. The Cisco Smart Licensing Terms of Agreement document displays in a window. *If you do not have authority* to accept the agreement, you still have the option of clicking the **Continue** button to view the **Alerts** screen of the **Smart Software Manager**, providing information on your pending account. (Refer to **Continue Option - View Alerts** below.)
Step 2	Read through the document, and then to accept the agreement check the **"I agree to the terms above"** box provided. The **Accept** button displays active. Click the **Close** button if you are unable to accept the terms of agreement, and you will return to the alert display indicating the pending state of the licensing agreement.
Step 3	Click **Accept**. The **Smart Software Manager** screen displays, providing complete functionality to manage your approved **Smart Account**.

Continue Option - View Alerts

If you click the **Continue** button (see Step 1 above), the **Alerts** screen for your **Smart Account** displays, which allows you to view the details of your account pending licensing agreement are accepted.

If you use the **Inventory** link provided in the **Smart Software Manager**, the **General** tab will display information for your default **Virtual Account**.

You will be able to access your **Smart Account** and perform all actions related to your role, with the exception of generating Product Registration tokens. The **Product Registration Token** will be disabled.

A notification message provides a link to the "Acceptance of Smart Licensing Agreement Required" screen. Use that link to perform the procedure shown above to Accept the agreement and activate the Smart Account.

Enabling Token Generation

If you accept the agreement, you will be able to generate **Product Registration Tokens** (Creating a Product Instance Registration Token).

Viewing Virtual Account Information

Procedure

Step 1	In the **Smart Software Manager** screen, select Inventory from the menu options, and then select a virtual account from the **Virtual Account** drop-down menu.
Step 2	Click the **General** tab. A description of the selected **Virtual Account** displays, along with **Product Instance Registration Tokens**, which allows you to create a registration token.

What to Do Next

Creating a Product Instance Registration Token.

Creating a Product Instance Registration Token

Product Instance Registration Tokens are used to register and consume a product for smart licensing. You must generate a token to register the product and add the product instance to a specified virtual account. When you create a new token, it is added to the **Product Instance Registration Token** table of that virtual account in which the product will be registered.

Note You cannot create token for virtual accounts that belong to a satellite. You can create a registration token in the Cisco Smart Software Manager satellite for these virtual accounts

Procedure

Step 1	In the **Smart Software Manager** screen, select **Inventory** from the menu options, and select an existing virtual account from the **Virtual Account** drop-down menu.
Step 2	On the **General** tab, click **New Token**.
Step 3	In the **Create Registration Token** dialog box, complete the following fields: • **Virtual Account Field:** Displays the virtual account under which the registration token will be created. • **Description Field:** The description of the registration token. **Note** Specify a description that will help you identify the token. • **Expire After Field:** The time limit for the token to be active up to 365 days.

Step 4	Check the check box to turn On the export controlled functionality for tokens of a product instance you wish in this virtual account. By checking the checkbox and accepting the terms, you enable the tokens to use the restricted features on your product instances. You can uncheck the check box if you wish not to allow the export controlled functionality to be made available for use with this token. **Caution** Use this option only if you are compliant with the export controlled functionality. Some export controlled features are restricted by the United States Department of Commerce. These features are restricted for products registered using this token when you uncheck the check box. The export controlled functionality is available for only those tokens that comply the regulations and policies of the United States Department of Commerce. Any violations are subjected to penalties and administrative charges. **Note** This field is visible for only those smart accounts that are permitted to use this functionality.
Step 5	Check the check box to indicate your agreement to the terms and conditions mentioned in the text box. Read them carefully before you choose your options.
Step 6	Click **Create Token** or **Cancel** to remove the data.

Viewing Product Instance Registration Tokens

You can view the registration tokens for a virtual account. These registration tokens can be used to register new product instances in the virtual account.

Procedure

Step 1	In the **Smart Software Manager** screen, select **Inventory** from the menu options, and then select an existing virtual account from the **Virtual Accounts** dropdown menu..
Step 2	Click the **General** tab. This page has two sections: **Virtual Account** and **Product Instance Registration Tokens**.
Step 3	In the **Product Instance Registration Tokens** section, the following details are displayed in a table.

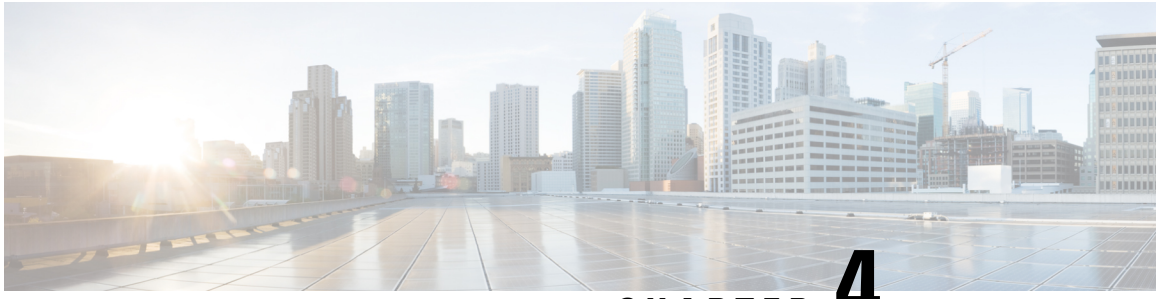
Name	Description
Tokens field	The token ID that was generated. You can click the link to view or press Ctrl+C to copy the entire length of the token string.

Name	Description
Expiration Date field	The time limit for the token to be active.
Description field	The description of the registration token.
Created By field Export Controlled-Functionality field	Specifies if the export controlled functionality is enabled for the generated token. **Note** This field is visible for only for those smart accounts that are permitted to use this functionality.
Created By field	The user who created the token.
Actions links	Perform one of the following actions: • **Copy**-Copy the token to your clipboard. • **Download**-Download the token to your local machine in a text file format. • **Revoke**-Revoke the token. Revoked tokens can no longer be used. • **Remove**-Remove a revoked token from the Product Instance Registration Token table.

Managing Product Instance Registration Tokens

Procedure

Step 1	In the **Smart Software Manager** screen, select **Inventory** from the menu options, and select an existing virtual account from the **Virtual Accounts** drop-down menu.
Step 2	On the **General** tab, locate the token in the **Product Instance Registration Token** table that you want to manage.
Step 3	In the **Product Instance Registration Token** table, perform one of the following actions: • **Copy**-Copy the token to your clipboard. • **Download**-Download the token to your local machine in a text file format. • **Revoke**-Revoke the token. Revoked tokens can no longer be used. • **Remove**-Remove a revoked token from the Product Instance Registration Token table.



CHAPTER 4

Inventory: License Tab

License Tab Overview

The Licenses tab displays information about all of the licenses in your virtual account. From the **Licenses** tab, you can do the following:

- **Search**
  - Search Virtual Accounts by name or by tag
  - Search licenses by name or by tag
  - Perform advanced search for licenses using additional search criteria
- **View**
  - All licenses in the Virtual Account
  - Detailed license information by checking the **Show License Transactions** check box
  - Information about a specific license and which product is usingit
  - Information about the alerts for specific licenses
- **Manage Tags**
  - Add, edit, and delete license tags for licenses and Virtual Accounts
  - Bulk assign/delete license tags at both the **Summary Level** and **License Transaction Detail Level**
- **Reserve Licenses**
- **Transfer**
  - Transfer/bulk transfer licenses between Virtual Accounts
- **Reports**

- Export license, license subscription, and product instance reports to Excel or .csv

Viewing Licenses in a Virtual Account

Selecting a **Virtual Account**, from the **Inventory** listed in the **Smart Software Manager**, displays a **Licenses** tab for the selected **Virtual Account**. Click the Licenses tab to display the **Licenses** table.

Procedure

Step 1	In the **Smart Software Manager** screen, select **Inventory** from the menu options, and then select an existing virtual account from the **Virtual Accounts** drop-down menu. You can search Virtual Accounts **By Name** or **By Tag** by entering the first few letters in the **Search** field to limit the number of available Virtual Accounts that are displayed.
Step 2	Click the **Licenses** tab to display all the licenses in your **Virtual Accounts**.
Step 3	(Optional) You can export the license list to a .csv file from this pane. See Exporting to CSV Files
Step 4	Click the license ID to see detailed information about a license. The system displays the **License Detailed Information** dialog box. This dialog box has four tabs: **Overview**, **Product Instances**, **Event Log**, and **Order History**.

Licenses Table

Viewing the **Licenses** table can be done at the **Summary Level** or **License Transaction Detail Level** as defined below.

View	Definition
Summary Level	Viewing the **Licenses** table at the **Summary Level** is the default top-level view. Each license at the **Summary Level** may be comprised of licenses from multiple sources (see **License Transaction Detail Level** below) and viewable only at the **License Transaction Detail Level**.

License Transaction Detail Level	Viewing the **Licenses** table at the **License Transaction Detail Level** is done by checking the **Show License Transactions*** check box. Click the plus (+) icon next to the license name to expand the view for each license. The license transaction details vary by source:
	• Device Migration
	  • Product SKU, Product SN, Device Details, Product Family, Quantity Purchased, Expiration Date
	• DLC Device Migration
	  • Product SKU, Product SN, License Family, Quantity Purchased, Expiration Date
	• PAK Migration
	  • PAK #, License SKU, License Family, Quantity Purchased, Expiration Date
	• EA Migration
	  • Transaction ID, Customer Suite Name, License SKU, License Family, Quantity Purchased, Expiration Date
	• Manual Fulfillment
	  • License SKU, License Family, Quantity Purchased, Expiration Date
	• Order
	  • PO #, Cisco Order #, Line #, Customer Name, Ship To Country, License SKU, License SKU Family Name, Quantity Purchased, Expiration Date
	• Device Transfer
	  • Product SKU, Product SN, License Family, Quantity Purchased, Expiration Date
	• Device Request
	  • Product SKU, Product SN, License Family, Quantity Purchased.

*All license tags associated to the entitlements in your Virtual Account at the **License Transaction Detail Level** are displayed only if the **License Transaction Details** drop-down menu in the **Preferences** tab is set to **Visible** AND the **Show License Transactions** check box in the **Licenses** tab is checked.

The **Licenses** table provides the following information for each license you have for a Virtual Account.

Column Heading	Description
License	License identifier (name)
Billing	How the licenses are billed (Prepaid or By Usage)

Column Heading	Description
Purchased	Number (quantity) of licenses bought, which may include perpetual and/or term If there are any upgrade pending licenses, they are identified by **(+ quantity pending)** in parenthesis () next to the available quantity. For example, if there are 10 regular entitlements and 5 pending upgrade entitlements in a Virtual Account, it would appear as **10 (+5 pending)**. **Please note**: licenses that are billed by usage do not have a predefined number purchased and is indicated by a dash (-) instead of a number. Hover over the dash to see the informational message.
In Use	Number of licenses currently in use along with number of licenses reserved (standard or reporting) in parenthesis (). This applies to all license reservations including factory installed license reservations. **Please note the following**: The yellow warning icon appears when any reserved licenses are in transition. Hovering over the icon, the details of why the licenses in transition will be displayed along with the prompt on what to do to resolve so that the licenses are no longer in transition. In-transition licenses will display if a reservation has been updated to reduce the quantity originally reserved. However, when reservation of reporting only licenses has been updated to reduce the quantity, they will not be marked as "In transition." • For licenses synchronized from Smart Software Manager Satellite, they are consumed and reflected here. If there are no licenses (**by usage** or **prepaid**) available in the Virtual Account, then an **out of compliance** alert will appear for that license • When a device that requires usage-based entitlements is directly connected to CSSM, it will not allow the device to consume the by-usage entitlements but instead start consuming in prepaid mode
Balance	Number of licenses that indicates either a surplus (+), shortage (-), or zero (0) **Please note**: licenses that are billed by usage are billed monthly and therefore do not have an outstanding balance. Hover over the dash to see the informational message.
Alerts	Messages alerting the user about actions required (major, minor, informational). Upgrade Pending – A number of upgrade licenses have been purchased but will not be available until the licenses being replaced have been identified. Click the Upgrade Pending link which will open a modal to complete the upgrade process. The alert is removed when the license upgrade process is completed.
Actions	Possible options available: • Transfer a number of licenses to/from another Virtual Account Upgrade licenses

License Details

Click on a license listed in the **Licenses table** to display detailed information on that Virtual Account license. The information is organized under the following tabs.

Overview Tab

The Overview tab displays:

- Description of the license
- A graphic illustration (pie chart) of Virtual Account usage of the license
    - Licenses that are duplicates or are pending upgrade are not included in these quantities
- License expiration details, including the number of licenses, their type, the number of licenses reserved (even those reserved through factory preinstallation), their start/expiration date, and subscription ID (if any).
-
- License Types
    - Count (as well as duplicate licenses)
        - If there are any upgrade licenses, they will appear as (pending) in this column
    - Type (Perpetual/Term)
    - Number of licenses reserved
    - Start date
    - Expiration date
    - Subscription ID (if any)

Note There are three types of Licenses - **Perpetual, Demo**, and **Term** - and each are valid for a different period of time. **Perpetual** licenses remain valid in an ongoing, while **Demo** Licenses must be renewed after 60 days, and **Term** Licenses remain valid for specified periods of 1 to 3 years. Licenses are removed from Virtual Accounts as they expire.

Product Instances Tab

The Product Instances tab displays:

- Product instances
- Product names
- Number of licenses used for these Product Instances

Event Log Tab

The Event Log tab displays details on events specific to the license for the selected Virtual Account:

- Messages describing events
- Times the events occurred
- Users associated with the event (either the account owner's CCO ID or "Cisco Support")

Note To view information on the all of the events at the Smart Account level, including events for all **Virtual Accounts** associated with your **Smart Account**, use the **Activity** link on the **Smart Software Manager** screen, and then click on the **Event Log** tab in the **Activity** screen. To view information on the licensing events specific to a Virtual Account, use the **Inventory** link on the **Smart Software Manager** screen, select a **Virtual Account** from the drop-down menu, and then click on the **Event Log** tab to display event messages for that Virtual Account.

Licensing Events

The table below provides an overview of licensing events. Users receive the following event messages, referencing the number (<n>) of Licenses (<license-name>) and Virtual Accounts (<va-name>), when licensing events occur in their Smart Account.

Event	Message
New Licenses	<n> new <license-name> licenses were added to the Virtual Account "<va-name>".
Licenses Transferred	<n> <license-name> licenses were transferred from the Virtual Account "<from-va-name>" to the Virtual Account "<to-va-name>"
Licenses Expired	<n> "<license-name>" licenses expired and were removed from the Virtual Account "<va-name>"
Licenses Removed	<n> "<license-name>" licenses were removed from the Virtual Account "<va-name>".
Insufficient Licenses Detected	The Virtual Account "<va-name>" reported a shortage of <n> <license-name> licenses.
Licenses Reserved	"The following licenses were reserved on product instance "XXXX" in Virtual Account "XXXX": <Quantity> "Ent 1" License(s) (<Quantity> expiring DD-MMM-YYYY, <Quantity> expiring DD-MMM-YYYY); <Quantity> "Ent 2" License(s) (<Quantity> expiring DD-MMM-YYYY, <Quantity> expiring DD-MMM-YYYY) and <Quantity> "Ent 3" license(s) (<Quantity> perpetual)."
License Upgrade	<n> new "<license-name>" term/perpetual licenses were added to the Virtual Account "<va-name>". These licenses will become available when the upgrade is completed by identifying the licenses to be replaced by the upgrade licenses.

Order History

The **Order History** tab displays license order history including:

- Order Number
- Order Line ID
- Order Date
- SKU
- Quantity
- Start Date

- Expiration Date

What to Do Next

You can transfer licenses to or from a different **Virtual Account**.

License Tags

License Tags are useful for classifying, locating, and grouping licenses. Adding, editing, and deleting license tags from the **Inventory** listed in the **Smart Software Manager** can be done through the **Licenses** tab within your **Virtual Account(s)** at both the **Summary Level** and **License Transaction Detail Level**.

Adding License Tags

Procedure

Step 1	In **Smart Software Manager**, choose **Inventory** from the menu and choose an existing Virtual Account from the **Virtual Account** drop-down menu. You can search Virtual Accounts **By Name** or **By Tag** by entering the first few letters in the **Search** field to limit the number of available Virtual Accounts that are displayed.
Step 2	Click the **Licenses** tab.
Step 3	**Summary Level** In the **Licenses** table, check the checkbox(es) to choose one or more licenses. Click **Available Actions** above the table and choose **Add Tags**. **License Transaction Detail Level** Above the **Licenses** table, check the **Show License Transactions*** check box and in the **Licenses** table, click the plus (+) icon to choose the individual lines of each license transaction. Click **Available Actions** above the table and choose **Add Tags**.
Step 4	In the **Add Tags to the Selected Licenses** window, click the tags to be added on all selected lines. The system populates the existing tags within the Virtual Account. Search for tag names by entering the first few letters in the field. You can also create a new tag by entering the name and click **Save.**
Step 5	Enter the new **Tag** name and click **Save**. **Note:** • Multiple tags can be added to the licenses by providing tag names in comma-separated format. • Tag names are not case sensitive. • Duplicate tag names cannot be created; you will receive an error message.

*All license tags associated to the entitlements in your Virtual Account at the **License Transaction Detail Level** are displayed only if the **License Transaction Details** drop-down menu inthe **Preferences** tab is set to **Enable** AND the **Show License Transactions** check box in the **Licenses** tab is checked.

Removing License Tags

Procedure

Step 1	In **Smart Software Manager**, choose **Inventory** from the menu and choose an existing Virtual Account from the **Virtual Account** drop-down menu. You can search Virtual Accounts **By Name** or **By Tag** by entering the first few letters in the **Search** field to limit the number of available Virtual Accounts that are displayed.
Step 2	Click the **Licenses** tab.
Step 3	**Summary Level** In the **Licenses** table, check the checkbox(es) to choose one or more licenses. Click **Available Actions** above the table and choose **Remove Tags**. **License Transaction Detail Level** Above the **Licenses** table, check the **Show License Transactions*** check box and in the **Licenses** table, click the plus (+) icon to choose the individual lines of each license. Click **Available Actions** above the table and choose **Remove Tags**.
Step 4	In the **Remove Tags from Selected Licenses** window, currently assigned tags are shown. Click the **x** to remove the tag(s) from selected licenses. Review the **Tags selected for removal** and click **Save** to remove the selected tag(s) from the licenses.

*All license tags associated to the entitlements in your Virtual Account at the **License Transaction Detail Level** are displayed only if the **License Transaction Details** drop-down menu in the **Preferences** tab is set to **Enable** AND the **Show License Transactions** check box in the **Licenses** tab is checked.

Advanced Search

Advanced Search

The **Advanced Search** feature allows you to filter using additional criteria, for example by source, order number, customer, product family, expiration date, purchase order, ship-to country, PAK, and/or SKU.

Procedure

Step 1	In **Smart Software Manager**, choose **Inventory** from the menu options and choose an existing virtual account from the **Virtual Accounts** drop-down menu. You can search Virtual Accounts **By Name** or **By Tag** by entering the first few letters in the **Search** field to limit the number of available Virtual Accounts that are displayed.
Step 2	Click the **Licenses** tab.
Step 3	Check the **Show License Transactions*** check box and click the **Advanced Search** down arrow.
Step 4	Enter one or more of the following search field parameters and click **Apply**:

Search Field	Search Criteria	Type of Search	Type Ahead

Source	Drop-down menu with the following values: • Order • Device Transfer • DLC Device Migration • Device Migration • EA Migration • PAK Migration Manual Entry	Exact Match	No
Order Number	SO# or WOID	Exact Match	No
PO Number	• PO Number	Exact Match	No
End Customer	End Customer Name	Contains	No
Ship To	Choose Country from drop-down menu.	Contains	No
PAK	PAK #	Exact Match	Yes
Product Family	License Product Family	Contains	
SKU	License or Product SKU	Contains	
Expires By	Date Picker on “Term End Date”	Any license that has an expiration date on or before the selected date	No

Step 5	Click **Clear** to remove all search criteria.

*You can perform an **Advanced Search** only if the **License Transaction Details** drop-down menu in the **Preferences** tab is set to **Enable** AND the **Show License Transactions** check box in the **Licenses** tab is checked.

Reserve Licenses

License reservation is a feature mostly used in highly secure networks.

Specific license reservation (SLR) is a manual feature which allows for you to reserve software license(s) on your device (product instance) through CSSM.

Factory installed license reservation is an automatic feature which allows for you to reserve software license(s) on your device without connecting to Cisco Smart Software Manager (CSSM). The authorization code will be preinstalled on your device before leaving the factory. CSSM automatically shows the device as reserving licenses after ship confirmation of the order.

Any time you attempt to reserve licenses on a product instance, you are allowed to reserve only the available quantity of licenses in the virtual account.

Note Please note: If the device (product instance) has the option of reserving reporting only licenses, CSSM will allow for reserving an unlimited quantity of such licenses.

Once the Specific PLR flag has been set to **Enable**, you can reserve licenses by clicking **License Reservation** under **Inventory → Licenses**. This will open the **Smart License Reservation** screen where you will go through either a 4- or 5-step process to reserve licenses. When the **Add to Inventory** flag is set to **Enabled** (see License Configuration in the **Preferences** section) and when the product for which you are reserving licenses is entitled to have additional licences, then the reservation becomes a 5-step process.

Procedure

Step 1	**Enter Request Code** You can reserve licenses for product instances that are unable to connect to the internet for security reasons. To reserve licenses, you must have a surplus of the licenses in the Virtual Account and also have generated a **Reservation Request Code** from the Product Instance that will be using the licenses. You can manually enter (copy/paste) the **Reservation Request Code** or click **Browse** to search for the file and then **Upload**. Click **Next.**
Step 2	**Add to Inventory** (Visible only when the product for which you are reserving licenses is entitled to have additional licenses, otherwise this step is omitted and the reservation becomes a 4-step process.) The licenses that are available to add are displayed in table format with the following column headers: • **License** (name) • **Expires** • **Available** • **Add to Inventory** In the **Add to Inventory** column, enter the number of licenses to add to your inventory in the field(s) provided. These licenses can then be used by this product by reservation and can also be used by other product instances in the future. **Please note**: This action can be performed only once per license per product instance.

Step 3	**Select Licenses** The surplus licenses are displayed in table format with the following column headers: • **License** (name) • **Description** • **Expires** • **Available** • **Quantity to Reserve** Under **Licenses to Reserve**, depending on the number and/or type of licenses you have, choose **Reserve a specific license** by clicking either the appropriate radio button or the **Reserve** drop-down menu. A grid displays a list of standard (perpetual and term) and reporting only (perpetual) licenses that are in inventory (including the quantities added in the **Add to Inventory** step above, if any). Reserving standard licenses is limited to the quantity in the **Available** column. Reserving reporting only licenses have no quantity limitations. The **Expires** column provides additional information for the available perpetual and/or terms licenses on the Product Instance with the: • **Expiration date** for term licenses • **Never** status for perpetual licenses • **Multiple terms** (link) when there is a combination of perpetual and term licenses or terms with different expiration dates To reserve licenses, enter the number in the **Quantity to Reserve** field. **Please note**: leaving the field blank is assumed to be zero (0). For the licenses that have multiple terms, the you have the option to click on the **multiple terms** link to see a breakdown of the licenses that comprise the available quantity and can enter/adjust the number in the **Quantity to Reserve** field.The **Total Quantity to Reserve** cannot exceed the value displayed under **Maximum**. Please note: For standard licenses, the quantity **cannot** exceed the value under the **Available** column. Reporting only licenses can be reserved in unlimited quantities. Click **Next**.
Step 4	**Review and Confirm** Review and confirm the selected licenses and quantity. If edits are needed, click **Back** to go to the previous step. To review the licenses selected for reservation also to be added to inventory, you can toggle between **Licenses to Reserve** and **Licenses To be added to Inventory** by clicking on the respective tab links. **Please note**: If you did **not** click on the **multiple terms** link in **Select Licenses** step above to adjust the quantities, this link will **not** be clickable in this step. Click **Generate Authorization Code**.

Step 5	**Authorization Code** After clicking Generate Authorization Code in **Review and Confirm** step above, the reservation has been successful. **Please note**: If you did not click the **multiple terms** link to adjust the quantities, the system will default to the perpetual licenses being reserved first followed by term licenses that end with the furthest expiration date. The **Reservation Authorization Code** has been generated. It will need to be entered into the product instance's Smart Licensing settings in order to complete the reservation. When the code has been entered, a **Reservation Confirmation Code** is generated. The Authorization Code can either be downloaded as a text file (XML) by clicking **Download as File** or copied by clicking **Copy to Clipboard**. Click **Close**.

Note Only when the reporting only licenses are reserved, will they display in the license pool as reserved. If the product instance that is reserving reporting only licenses is deleted, the licenses will not be released back to the license pool.

Transferring a License

Licenses can be transferred between Virtual Accounts in a Smart Account. You can choose one or more licenses from the licenses table either at the **Summary Level** or **License Transaction Detail Level**.

Please note the following:

- Once an entitlement has been reserved, it cannot be transferred between Virtual Accounts.
- Once a reserved term license has expired, the available quantity has been reduced due to licenses being used to fulfill the expired reservation.
- Only unassigned (unconsumed) restricted licenses are eligible for transfer between Virtual Accounts.

NOTE: This applies to factory installed license reservations as well.

Transfer Between Virtual Accounts – Summary Level

Procedure

Step 1	In **Smart Software Manager**, choose **Inventory** from the menu options and choose an existing virtual account from the **Virtual Accounts** drop-down menu.
Step 2	Click the **Licenses** tab.
Step 3	In the **Licenses** table, check the checkbox(es) to choose one or more licenses. Click **Available Actions** above the table and choose **Transfer Between Virtual Accounts**.
Step 4	In the **Transfer Between Virtual Accounts** window, complete the following fields:

Name	Description
Transfer To/From drop-down menu	Choose one of the following: • **Transfer To**-Licenses are transferred from the current virtual account to the selected virtual account. • **Transfer From**-Licenses are transferred from the selected virtual account to the current virtual account.
Virtual Account drop-down menu	Choose a **Virtual Account** to transfer the license(s) to/from.
License	Shows the name of the license, the virtual account that it belongs to, and the number of licenses that are currently available.
Expires	Shows the license expiration date. For permanent licenses, it will be shown as **Perpetual**.
Purchased	Shows the number (quantity) of licenses purchased, which may include **Perpetual** and/or **Term**. **NOTE:** Licenses billed by usage do not have a predefined number purchased and is indicated by a dash (-) instead of a number. Hover over the dash to see the informational message.
In Use	Shows the number of licenses currently in use, along with number of licenses reserved shown with the keyword **Reserved**.
Balance	Shows the number of licenses available for transfer between Virtual Accounts.
Transfer	Enter the number of licenses you want to transfer.

You can view a summary of changes from the **Transfer Licenses** window after you complete the **Transfer To/From** and **Virtual Account Quantity** fields by clicking **Show Preview**.

Step 5	Click **Transfer** to transfer the licenses or click **Show Preview** to view a summary of the changes or click **Cancel** to stop the license transfer. **NOTE:** When you click **Transfer**, a warning message will display alerting you that the association of license tags to the transferred licenses will be lost and the license tags will not be transferred along with license itself.
Step 6	In the **Preview Transfer Licenses Between Virtual Accounts** window, do one of the following: • Click **Transfer** to transfer the licenses. • Click **Hide Preview** to make more changes. • Click **Cancel** to stop the license transfer.

Transfer Between Virtual Accounts – License Transaction Detail Level

Procedure

Step 1	In **Smart Software Manager**, choose **Inventory** from the menu options and choose an existing virtual account from the **Virtual Accounts** drop-down menu.
Step 2	Click the **Licenses** tab.

Step 3	Check the **Show License Transactions*** check box.
Step 4	Click the plus (+) icon next to each license to expand the license transaction detail view.
Step 5	In license detail view, check the check box(es) to choose the individual order lines and in the **Actions** column, click the **Available Actions** drop-down menu and choose **Transfer Between Virtual Accounts**. **NOTE:** You may choose multiple order lines from different licenses to transfer between Virtual Accounts.
Step 6	In the **Transfer Between Virtual Accounts** window, complete the following fields:

Name	Description
Transfer To	Choose one of the following: • **Transfer To**-Licenses are transferred from the current virtual account to the selected virtual account.
Virtual Account drop-down menu	Choose a **Virtual Account** to transfer the license(s) to.
License	Shows the name of the license, the virtual account that it belongs to, and the number of licenses that are currently available.
Expires	Shows the license expiration date. For permanent licenses, it will be shown as **Perpetual**.
Purchased	Shows the number (quantity) of licenses purchased, which may include **Perpetual** and/or **Term**. **NOTE:** Licenses billed by usage do not have a predefined number purchased and is indicated by a dash (-) instead of a number. Hover over the dash to see the informational message.
In Use	Shows the number of licenses currently in use, along with number of licenses reserved shown with keyword **Reserved**.
Balance	Shows the number of licenses available for transfer between Virtual Accounts.
Transfer	Enter the number of licenses you want to transfer.

You can view a summary of changes from the **Transfer Licenses** window after you complete the **Transfer To** and **Virtual Account Quantity** fields by clicking **Show Preview**.

Step 7	Click **Transfer** to transfer the licenses or click **Show Preview** to view a summary of the changes or click **Cancel** to stop the license transfer. **NOTE:** When you click **Transfer**, a warning message will display alerting you that the association of license tags to the transferred licenses will be lost and the license tags will not be transferred along with license itself.

Step 8	In the **Preview Transfer Licenses Between Virtual Accounts** window, do one of the following: • Click **Transfer** to transfer the licenses. • Click **Hide Preview** to make more changes. • Click **Cancel** to stop the license transfer.

*You can view the license transactions details only if the **License Transaction Details** drop-down menu in the **Preferences** tab is set to **Visible** AND the **Show License Transactions** check box in the Licenses tab is checked.

Manage Tags

The **Manage Tags** option makes changes to your license tags across your Virtual Account. The License tags are displayed alphabetically and show the number of licenses and license transactions that are associated with each tag.

Editing License Tags

Procedure

Step 1	In **Smart Software Manager**, choose **Inventory** from the menu and choose an existing Virtual Account from the **Virtual Account** drop-down menu. You can search Virtual Accounts **By Name** or **By Tag** by entering the first few letters in the **Search** field to limit the number of available Virtual Accounts that are displayed.
Step 2	Click the **Licenses** tab.
Step 3	Click **Manage Tags**.
Step 4	Each tag will be shown under the **License Tag** column and the details of the tag association are shown under the **Assigned To** column.
Step 5	Under the tag name, click **Edit**.
Step 6	Update the tag name and click **Save**. If the updated tag name already exists in the Virtual Account, an error message will display. To stop editing the tag, click **Cancel**. **Note:** Clicking **Save** will update the tag name on all the associated licenses and license transactions in your **Virtual Account**. Once Saved**, "Tag updated Successfully"** confirmation message will be displayed.
Step 7	Click **Close**.

Deleting License Tags

Procedure

Step 1	In **Smart Software Manager**, choose **Inventory** from the menu and choose an existing Virtual Account from the **Virtual Account** drop-down menu. You can search Virtual Accounts **By Name** or **By Tag** by entering the first few letters in the **Search** field to limit the number of available Virtual Accounts that are displayed.

Step 2	Click the **Licenses** tab.
Step 3	Click **Manage Tags**.
Step 4	Each tag will be shown under the **License Tag** column and the details of the tag association are shown under the **Assigned To** column.
Step 5	Under the tag name, click **Delete** to delete the tag. The following messages are displayed: "***Are you sure you want to delete the tag?***" and "***Clicking on delete will delete the tag from all the associated summary lines and license transactions.***" Click **Yes**, **Delete It** to delete the tag from all associated summary lines and license transactions or click **Cancel** to cancel its deletion. **"Tag Delete Successful"** confirmation message will display once the tag is deleted.
Step 6	Click **Close**.

Search Licenses by Name or by Tag

Search by Name

Procedure

Step 1	In **Smart Software Manager**, choose **Inventory** from the menu and choose an existing Virtual Account from the **Virtual Account** drop-down menu. You can search Virtual Accounts **By Name** or **By Tag** by entering the first few letters in the **Search** field to limit the number of available Virtual Accounts that are displayed.
Step 2	Click the **Licenses** tab.
Step 3	In the Licenses table, click **By Name** above the **Search** field.
Step 4	Click inside the **Search** field and type the first few letters of a license name. A list of all matching entitlements within your Virtual Account is displayed. Choose the license from the list. To remove the selected license name, click x in the search text box

Search by Tag

Procedure

Step 1	In **Smart Software Manager**, choose **Inventory** from the menu and choose an existing Virtual Account from the **Virtual Account** drop-down menu. You can search Virtual Accounts **By Name** or **By Tag** by entering the first few letters in the **Search** field to limit the number of available Virtual Accounts that are displayed.
Step 2	Click the **Licenses** tab.
Step 3	Click **By Tag** above the **Search** field.

Step 4	Click inside the **Search** field. A list of license tags available within the Virtual Account is displayed. Type the first few letters of a tag to filter the list. **NOTE**: All license tags associated to the entitlements in your Virtual Account at the **License Transaction Detail Level** are displayed only if the **License Transaction Details** drop-down menu in the **Preferences** tab is set to **Enable** AND the **Show License Transactions** check box in the **Licenses** tab is checked.
Step 5	Choose one or more tags. Only the entitlements associated to the selected tags are displayed. To remove selected license tags, click **x** against each tag.

Change Virtual Account Assignment

Duplicate licenses can either be moved or copied to a different Virtual Account(s). These licenses become active if the target/selected Virtual Account(s) do not already contain the transferred licenses.

Please note: this option in the **Actions** drop-down menu is **only** available for By Usage entitlements.

Procedure:

Step 1	Identify the license to be moved or copied. Click on **Actions** and select **Change Virtual Account Assignment**.
Step 2	Select the **Subscription** for the license from the **Subscription ID** drop-down menu that should be transferred. Please note: The Subscription ID that correspond to the active entitlement is marked as **Enabled**. The Subscription IDs that correspond to duplicate entitlements are **Disabled**.
Step 3	Select the Virtual Accounts(s) from the available list to move or copy the license. The Virtual Account(s) that are checked means the license is already there. To move the license, uncheck the Virtual Accounts that currently has the license and select the other Virtual Accounts. To copy the license, leave the Virtual Accounts that are checked as-is and select other Virtual Accounts to copy the license to. Click **Check All** if the license is to be copied to all available Virtual Accounts. Please note: the **Duplicate Licenses** alert appears: • When the selected Virtual Account(s) has duplicate licenses or • The Virtual Account(s) will have duplicate licenses once the license has been copied or moved Click **OK**. The license is copied or moved to the selected Virtual Account(s).

Upgrade Licenses

Upgrade licenses are purchased as a part of SKU(s) to replace existing features.

Existing licenses can be upgraded as long as there is sufficient quantity of both existing and upgrade pending licenses in the inventory. Licenses, once upgraded, can be added to the current Virtual Account or to a different Virtual Account.

Please note: the quantity of existing and upgrade pending licenses required to complete the upgrade is based on the SKU.

Procedure

To Get Started	Identify the license that needs to be upgraded. Either click on: • The **Upgrade Pending** link in the **Alert** (within the **Alerts** column) • Select **Complete Upgrade** under the **Actions** column • Select **Complete Upgrade** under **Actions** at the bottom of the modal that opens when clicking on the license name These options will open the **Upgrade Licenses** window.
Step 1	**Select Licenses** Enter the **Quantity** and click **Apply**. A list of different upgrade option(s) appears. **Please note:** the quantity of licenses entered cannot exceed the total number of licenses available for upgrade (the maximum available quantity is indicated under the **Quantity** field). Select the option from the list. Click **Next.**
Optional	Select a different **To Virtual Account** from the available list. The list of upgrade option(s) may change based on the Virtual Account selected and quantity of licenses available. **Please note the following:** • The selected Virtual Account must have the required licenses in the **Upgrade To** and **Replaces Current** columns in its inventory in order to perform the upgrade. • If there is either insufficient or zero quantity in either the **Upgrade To** and **Replaces Current** columns, the **Quantity Available** will be in red and an error message appears at the top of the screen with the following text: This quantity cannot be upgraded because not enough licenses are currently available in this virtual account. Try lowering the quantity requested, or select a virtual account that contains more licenses to replace.

Step 2	**Review** Confirm the information on the screen reflects the selections made in the previous screen. If changes need to be made, click **Back**. If all looks fine, click **Submit** to complete the license upgrade process. The quantities of the existing and upgrade licenses will be adjusted in the **Purchased** column to reflect the inventory after the upgrade. **Please note:** • When the **Submit** button is clicked, if the quantity of **Upgrade To** or **Replaces Current** has changed, an error message appears - "The license upgrade failed because the number of licenses available in your account has changed. This usually occurs when a recent transaction changes the number of available licenses. Click the Start Over link to see the current list of available licenses." • If the license upgrade fails for any other reason, a system failure message appears – "We apologize, but the license upgrade failed due to a system error. Please click the **Start Over** link to try again."

Exporting to CSV Files

You can export information pertaining to licenses, product instances, event logs or user information.

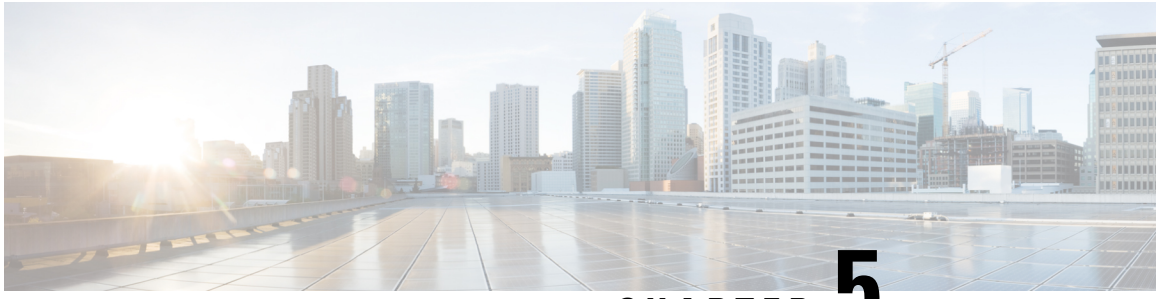
Procedure

Step 1 In the **Navigation** pane, click a virtual account.

Step 2 On the **License**, **Product Instances**, **Event Log**, or **Users** page, click the **CSV** icon in the upper right.

Step 3 Use the **File Save** dialog box to save the file on your hard drive.

Note The system uses a platform-dependent dialog box to save the file. The dialog box varies slightly depending on the browser and operating system that you are using.



CHAPTER 5

Inventory: Virtual Account Event Log Tab

Virtual Account Event Log Tab

The Event Log tab displays information for all of the events in a virtual account. Events are actions that you have taken using **Smart Software Manager** such as Specific License Reservations *, adding and removing licenses and products, adding and renaming virtual accounts, and so on. From the Event Log tab, you can do the following:

- View a detailed list of all events in the selected virtual account.
    - List of Specific License Reservation events is available below
- Export the list to a .csv file.

* The following Specific License Reservation events are displayed in the Event Log:

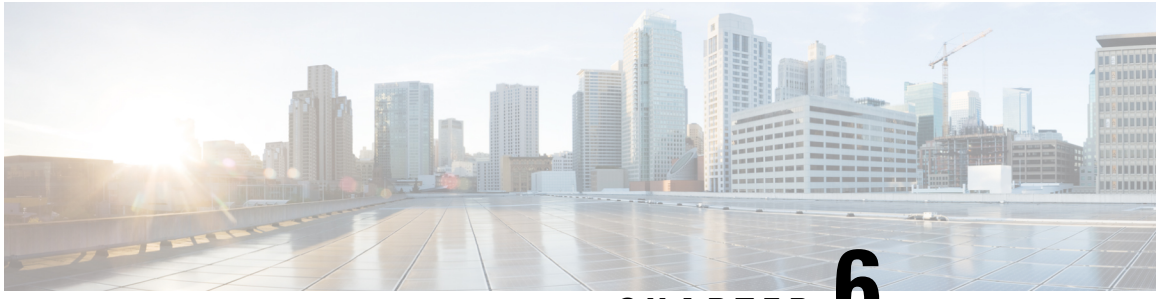
Event Description
A license is reserved
A product instance where reserved licenses is transferred between Virtual Accounts
Anytime a license reservation is updated and the quantity of licenses reserved is increased or new licenses are added, including the expiration date for term licenses
Anytime a license reservation is updated when the quantity of licenses reserved is decreased, including the expiration date for term licenses
Anytime a license reservation update is canceled
Anytime a user enters the confirmation code to update (increase/decrease) the quantity of licenses reserved

Note This applies to factory installed license reservations as well.

Virtual Account Event Log Tab Overview

The Event Log tab displays information about all of the events in a virtual account. Events are actions that you have taken using **Smart Software Manager** such as adding and removing licenses and products, adding and renaming virtual accounts, and so on. From the Event Log tab, you can do the following:

- View a detailed list of all events in the selected virtual account.
- Export the list to a .csv file.



CHAPTER 6

Inventory: Product Instances Tab

Product Instances Tab Overview

The Product Instances tab displays information about all of the product instances in your virtual account. From the Product Instances tab, you can do the following:

- View a list of all product instances.
- View information about specific product instances and what licenses it consumes.
- View information about the alerts for a specific product instance.
- Transfer a specific product instance between virtual accounts.

Note You cannot transfer or remove product instances from virtual accounts associated with a satellite. In addition, you cannot update any license reservation for product instance(s) in a satellite.

- Update reserved licenses
- Add licenses to inventory
- Enter the reservation confirmation code
- Remove a specific product instance from the virtual account which subsequently removes it from the smart account.
- Rehost licenses from a failed product
- Export a list of product instances to a .csv file.

Viewing Product Instances in a Virtual Account

Selecting a **Virtual Account**, from the **Inventory** listed in the **Smart Software Manager**, displays a **Product Instances** tab for the selected **Virtual Account**. Click the **Product Instances** tab to display the **Product Instances** table.

Procedure

Step 1	In the **Smart Software Manager**, click the link to a virtual account.
Step 2	Select **Inventory** from menu, and then click the **Product Instances** tab.
Step 3	**(Optional)** You can export the list of product instances to a .csv file. See Exporting to CSV Files .
Step 4	Click the product instance name to see detailed information about a product instance. **Note** A cluster setup icon by the right side of the product instance indicates a high availability of routers for that specific product instance. The system displays the **Product Instance Details** dialog box. This dialog box has two tabs: **Overview** and **Event Log**.

Product Instances Table

The **Product Instances** table provides the following information for each product you have associated with a Virtual Account.

Column Heading	Description
Name	Product ID plus Product Instance name
Product Type	Product Identification Number
Last Contact	Date

Alerts	Messages alerting the user to actions required to maintain products, such as: • **License Not Available** (informational alert) • **Failed to Connect** (minor alert for **Regular Licenses**) • **Failed to Connect** (major alert for **Restricted Licenses**) • **Failed to Renew** (major alert for **Regular** and **Restricted Licenses**) • **License Reservation Pending** (informational alert) • **Reserved License Expired** (minor alert) **Please note**: the following messages appear for each alert when the product instance is consuming restricted licenses: • **License Not Available** – "The product instance <Product Instance Name> has requested licenses that enable restricted encryption technology. These licenses are not available within the Virtual Account <VA name>. You must add the licenses to this Virtual Account or transfer the product instance to a virtual account that contains the licenses." • **Failed to Connect** or **Failed to Renew** – "It is using licenses which enable restricted encryption technology, and those licenses have not been released. The non-restricted licenses it was consuming have been released for use by other product instances."
Actions	Option for removing a Product Instance, or transferring a Product Instance to another Virtual Account

Product Instance Details

Click on a **Product Instance (Device)** listed in the **Product Instance table** to display detailed information on that Virtual Account product. The information is organized under the following tabs.

Overview Tab

The Overview tab displays:

- Description of the license
- General Product Instance information including:
  - Name
  - Product
  - Host identifier
  - MAC Address
  - PID
  - Serial Number
  - Virtual Account
  - Registration Date
  - Last Contact
  - Authorization Code (available for download)*
  - Update Reservation link

    *Available only when the Product Instances have reserved licenses.

- License Usage, which includes the following columns:
  - License –name of the licenses being consumed

    - For licenses synchronized from Smart Software Manager Satellite, they are consumed and reflected here. If there are no licenses (**by usage** or **prepaid**) available in the Virtual Account, then an **out of compliance** alert will appear for that license
    - When a device that requires usage-based entitlements is directly connected to CSSM, it will not allow the device to consume the by-usage entitlements but instead start consuming in prepaid mode
- Expires
    - **Expiration date** for term licenses
    - **Never** status for perpetual licenses
    - **Multiple terms** (link) when there is a combination of perpetual and term licenses or terms with different expiration dates
- Quantity –number of licenses reserved

Event Log Tab

The Event Log tab displays details on events specific to the Product Instance for the selected Virtual Account:

- Messages describing events
- Times the events occurred
- Users associated with the event (either the account owner's CCO ID or "Cisco Support")

Product Instance Events

The table below provides an overview of **Product Instance** events. Users receive the following event messages, referencing the number (<n>) of Product Instances (<instance-name>) and Virtual Accounts (<va-name>), when product instance events occur in their Smart Account.

Event	Message
New Product Instance	The product instance <instance-name> connected and was added to the Virtual Account "<va-name>".
New Product Instance (with redundancy)	The product instance <instance-name> was added to the Virtual Account "<va-name>" and configured for redundancy with the following Standbys: “<sb1-displayname>”, “<sb2-displayname>”.
Product Instance Transferred	The product instance <instance-name> was transferred from the Virtual Account "<from-va-name>" to the Virtual Account "<to-va-name>"
Product Instance Removed	The product instance "<instance-name>" was removed from Smart Software Manager.
Product Instance Requested License	The product instance <instance-name> in the Virtual Account "<va-name>" requested <n> "<license-name1>".
Product Instance Renewed Certificate	The product instance <instance-name> in the Virtual Account "<va-name>" connected and successfully renewed its identity certificate.

Event	Message
Product Instance Connected (with redundancy)	The product instance <instance-name> in the Virtual Account "<va-name>" connected and was configured for redundancy with the following Standbys: “<sb1-displayname>”, “<sb2-displayname>”..
Failure to Connect Detected	The product instance <instance-name> in the Virtual Account "<va-name>" failed to connect for its renewal period.
Product Instance Added via satellite	The product instance <instance-name> was added to the Virtual Account "<va-name>" via synchronization with the Satellite "<satellite-name>".
Product Instance Requested License via satellite	The product instance <instance-name> in the Virtual Account "<va-name>" requested <n> "<license-name1>" via synchronization with the satellite "<satellite-name>".
Product Instance Removed via satellite	The product instance <instance-name> was removed from the Virtual Account "<va-name>" via synchronization with the satellite "<satellite-name>".
Product Instance Detached	The product instance <instance-name> in the Virtual Account "<va-name>" was put in detached mode.
Product Instance Reattached	The product instance <instance-name> in the Virtual Account "<va-name>" was taken out of detached mode.
Product Instance Failed to Detach	The product instance <instance-name> in the Virtual Account "<va-name>" failed to go into detached mode.
Product Instance Failed to Reattach	The product instance <instance-name> in the Virtual Account "<va-name>" failed to be taken out of detached mode.
Export Authorization Success - Anytime a device calls for restricted licenses and is able to consume them.	Export restricted licenses were assigned to product instance "<Product Instance Name>" in Virtual Account "<VA Name>". Licenses: <Quantity> "<License Name>" <term/perpetual> licenses, <Quantity> "<License Name>" <term/perpetual> licenses.
Export Authorization Failure - Anytime a device calls for restricted features and is not able to consume them due to **Restricted License Not Available**.	**Restricted License Not Available** – The product instance "<Product Instance>" in Virtual Account "<VA Name>" has requested export restricted licenses that are not available. You must add these licenses to this Virtual Account or transfer the product instance to a Virtual Account that contains these licenses. Licenses: <Quantity> "<License Name>" <term/perpetual>, <Quantity> "<License Name>" <term/perpetual>.

Event	Message
Anytime a Product Instance consuming restricted licenses releases the restricted licenses back to the license pool.	Export restricted licenses were removed from product instance "<Product Instance Name>" in Virtual Account "<VA Name>" and released back to the inventory for use by other product instances. Licenses: <Quantity> "<License Name>" perpetual, <Quantity> "<License Name>" perpetual.

Export Restricted Licenses

Many Cisco licenses are subject to export restrictions under U.S., EU, and local law due to encryption. For more information, please visit our **Global Export Trade** page.

What to Do Next

You can transfer a product instance to a different virtual account or delete product instances.

Adding Licenses to Inventory from a Product Instance

For certain products, you can initiate adding additional entitled licenses when the **Add to Inventory** flag is set to **Enabled** (see License Configuration in the **Preferences** section)

This flag is set to **Enabled** by default; it is advised to keep it enabled.

Procedure

Locate the product instance in the table and from the **Actions** drop-down menu, choose **Add Licenses to Inventory**. This will open the **Add Licenses to Inventory** screen where you will go through a 2-step process to add available licenses to that product instance.

Step 1	**Select Licenses** Under **Licenses Available to Add**, enter the number of licenses to add in the **Add to Inventory** field. This number cannot exceed the value displayed under Available. **Please note**: This action can be performed only once per license per product instance. Click **Next**.
Step 2	**Review** Review and confirm the number of licenses in the **Quantity to Add** column. If edits are needed, you will not be able to make edits in this step. Click **Back** to go to the previous step. Click **Add to Inventory**.

What to Do Next

You can transfer a product instance to a different virtual account or delete product instances.

Transferring a Product Instance

Caution	Transferring a product instance from one virtual account to another virtual account does not result in the corresponding licenses being transferred. You will have to transfer the licenses separately.

Note

- You cannot transfer or remove product instances from virtual accounts associated with a satellite
- When transferring a product instance between Virtual Accounts, all the reserved licenses for that product instance will move to the destination Virtual Account
- When transferring a product instance between Virtual Accounts, all the restricted licenses consumed or reserved by that product instance will move to the destination Virtual Account along with the product instance
    - Transferring a product instance from one virtual account to another virtual account does not result in the corresponding unrestricted licenses being transferred. If you need to transfer the unrestricted licenses, then they have to be transferred separately

Procedure

Step 1	In the **Smart Software Manager**, click the link to a virtual account.
Step 2	Select **Inventory** from the menu, and then click the Product Instances tab.
Step 3	In the **Product Instances** table, locate the product instance that you want to transfer.
Step 4	In the **Actions**column, click the **Transfer**link for the product instance that you want to transfer. **Please note:** the following message appears if restricted licenses are being consumed by the Product Instance: • Informational message - "The following licenses that contain restricted encryption technology are currently assigned to this product instance. This license assignment will continue after the instance is transferred." Information for each license displayed includes its name, description, expiration, and quantity.
Step 5	In the **Transfer Product Instance** dialog box, select the destination **Virtual Account**.
Step 6	Click **Transfer**.

Update Reserved Licenses

Once a product instance has reserved licenses, the user can make updates to the original reservation.

When the **Add to Inventory** flag is set to **Enabled** (see License Configuration in the **Preferences** section) and the product for which you are updating reserved licenses is entitled to have additional licenses, updating the license reservation becomes a 4-step process.

Procedure:

From the **Product Instances** tab under the **Actions** column, click the drop-down arrow next to **Actions** for the product instance and choose **Update Reserved Licenses**. This will open the **Update License Reservation** screen where you will go through either a 3- or 4-step process to update the license reservation.

Step 1	**Add to Inventory** (Visible only when the product for which you are reserving licenses is entitled to have additional licenses, otherwise this step is omitted and the reservation becomes a 3-step process.) Enter the number of licenses in the **Add to Inventory** column. **Please note**: This action can be performed only once per license per product instance. Click **Next**.
Step 2	**Select Licenses** Under **Licenses to Reserve**, enter the number in the **Quantity to Reserve** field. **Please note**: leaving the field blank is assumed to be zero (0). For the licenses that have multiple terms, you have the option to click on the **multiple terms** link to see a breakdown of the licenses that comprise the available quantity and can enter/adjust the number in the **Quantity to Reserve** field. The **Total Quantity to Reserve** cannot exceed the value displayed under **Maximum**. Please note the following: • To release the licenses already reserved, decrease the quantity • The maximum **Quantity to Reserve** cannot exceed the value under the **Available** column • For standard licenses, the quantity entered **cannot** exceed the value under the **Available** column. Reporting licenses can be reserved in unlimited quantities. Click **Next**.
Step 3	**Review and Confirm** Review and confirm the selected licenses and quantity. If edits are needed, you will not be able to make edits in this step. Click **Back** to go to the previous step. **Please note**: if the user did **not** click on the **multiple terms** link during the reservation process to adjust the quantities, this link will not be clickable here as well. Click **Generate Authorization Code**.

Step 4	**Authorization Code** After clicking **Generate Authorization Code** in **Review and Confirm** step above, the reservation update has been successful. **Please note**: If you do **not** click the **multiple terms** link to adjust the quantities, the system will default to the perpetual licenses being reserved first followed by term licenses that end with the furthest expiration date. The **Reservation Authorization Code** has been generated. It will need to be entered into the product instance's Smart Licensing settings in order to complete the reservation. The Authorization Code can either be downloaded as a text file (XML) by clicking **Download as File** or copied by clicking **Copy to Clipboard**. When the authorization code has been entered, a **Reservation Confirmation Code** is generated. To release the licenses in transition, click **Enter Confirmation Code** and enter the **Reservation Confirmation Code. This is very important when reducing the quantity from the original reservation in order for the licenses to be available again.** The **Reservation Confirmation Code** can be entered either by clicking **Enter Confirmation Code** on this screen or select **Enter Confirmation Code** from the drop-down arrow next to **Actions** on the **Product Instances** tab. After entering the **Reservation Confirmation Code**, click **Close**.

Note Device(s) with reserved license(s) can be registered to CSSM or CSSM satellite. If that happens, the Authorization Code is removed from the device. CSSM releases the reserved licenses back to the license pool.

Cancel a Pending Reservation

If the user needs to edit or cancel the updated reservation, select **Update Reserved Licenses** from Actions and the **Previous Update Still Pending** screen appears. The user can click the **open a case** link and submit a GLO case.

Once the Global Licensing Operations (GLO) agent has contacted the user, the customer should perform the following steps:

1. Enter the authorization code from the previous update into the device's Smart Licensing settings
2. Receive a confirmation code from the device
3. Enter the confirmation code to complete the update

If the user is either unable to perform the steps or wants to proceed with the cancellation, the GLO agent or any Cisco Administrator has the ability to cancel the previous reservation by clicking **Cancel Previous Update**.

Enter Confirmation Code

Enter the **Reservation Confirmation Code** that was generated by the Product Instance after the **Reservation Authorization Code** was entered.

Removing a Product Instance

When you remove a product instance from the software, you are removing it only from the table. The licenses that the product instance was using are still available and can be used by other products. You must re-register the product instance with the cloud so that it can communicate with the product again.

When transferring a product instance between Virtual Accounts, all the reserved licenses for that product instance will move to the destination Virtual Account.

Procedure

Step 1	In the **Smart Software Manager**, click the link to a virtual account.
Step 2	Select **Inventory** from the menu, and then click the Product Instances tab.
Step 3	In the **Product Instances** table, locate the product instance that you want to remove.

Step 4	In the **Actions** column, click the **Remove** link for the product instance that you want to remove.
	If you have restricted licenses in use, the **Restricted Licenses in Use** window appears. You have the option to explicitly release the unrestricted licenses from the product instance.
	• If you choose to do so, click **OK:**
	  • De-registration of the Product Instance will fail as there are still restricted licenses in use
	  • The unrestricted licenses are released
	Please note: if there are no unrestricted licenses being consumed by the product instance, the **OK** button will not be active and the only option is to **Cancel**.

Step 5	In the **Confirm Remove Product Instance** dialog box, click **Remove Product Instance**.

Removing a Product Instance with Reserved Licenses

To remove a product instance that has reserved licenses, generate a **Reservation Return Code** from the Product Instance and enter it in CSSM.

Procedure

Step 1	Generate the **Reservation Return Code** from the device to remove the product instance. Under the **Remove** option (for products reserving licenses) enter the **Reservation Return Code.** This code must pass the validation check. Click **Remove Product Instance**.
Step 2	A message will display confirming that the product was removed. The reserved licenses are returned to the license pool and are available for other product instances to consume.

*This applies to factory installed license reservations as well.

Removing a Product Instance with Reporting Only Licenses

To remove a product instance that is reserving reporting only licenses, generate a **Reservation Return Code** from the Product Instance and enter it in CSSM.

Procedure

Step 1	Generate the **Reservation Return Code** from the device to remove the product instance. Under the **Remove** option (for products reserving licenses) enter the **Reservation Return Code.** This code must pass the validation check. Click **Remove Product Instance**.
Step 2	A message will display confirming that the product was removed.

NOTE: Once all reporting only licenses are released from the product instance, they are no longer available in the license pool.

Rehost Licenses from a Failed Product

There may be cases when your Cisco product which is reserving licenses is not accessible, i.e. due to a system failure. You have the option to rehost (or copy) the existing reserved licenses to a replacement product instance.

Procedure

In the **Smart Software Manager**, click the **Inventory** tab and click the **Product Instances** tab. Locate the product instance in the table and in the **Actions** column, from the **Actions** drop-down list, choose **Rehost Licenses from a Failed Product**.

Step 1	In the **Request Code** window, enter the **Reservation Request Code** in the field provided. (You will need to first generate a Reservation Request Code from the replacement product. To learn how to generate this code, see the configuration guide for the licensed product.) (Optional) In the **Notes** field, you may enter a reason for rehosting the reserved licenses on a replacement product, i.e., include details of the replacement product for future reference. Click **Next**.
System Check	The system checks to see how many product instances are being reserved in the Smart Account/Virtual Account. The system will only allow up to a certain number of product instances reserving licenses to be rehosted based on a threshold calculation (see Insufficient License Threshold Calculation below). If the rehost will result in insufficient licenses, the threshold calculation is invoked. If there are no replacement licenses available in your inventory, you will receive the following warning message and you will not be able to continue with the rehost: *"**Previous Product Return Pending:** The licenses on this product cannot be moved to another product because there are no replacement licenses available in your inventory, and too many other failed products are still pending removal. The licenses will be returned to your inventory when the failed product is returned. If you need assistance, please open a support case."* If replacement licenses are available, proceed to **Step 2**.

Step 2	Review and confirm the licenses that will be copied as reserved licenses in the replacement product, then click **Generate Authorization Code.**
Step 3	In the **Authorization Code** window, you can choose to download the **Reservation Authorization Code** as a file or copy it to the clipboard. Instructions for next steps are provided within this window as follows: **1.** Enter the Authorization Code in the Smart License settings for the replacement product. **2.** Return the failed product, if you have an RMA for a physical product. **3.** To release the licenses on the failed product back to your inventory, remove it by clicking Remove in the Actions menu (see Removing a Product Instance, on page 54). or If you are unable to remove the product, please open a support case for more assistance. Click **Close.**

Once the rehost is complete, you can see in **Smart Software Manager** under the **Inventory** and **Product Instances** tabs that the failed product and replacement product are reserving the same license(s). In the **Alerts** column, the failed product shows **Pending Removal**. Remove a failed product by contacting support. To clear the alert from the **Alerts** column, click the **Actions** drop-down menu for the failed product and choose **Reset Alert** to clear the alert.

Insufficient License Threshold Calculation

If rehosting a product instance reserving licenses results in insufficient licenses, the threshold calculation is invoked. The threshold is calculated at 10% of the total number of product instances reserving licenses in the Virtual Account. For example:

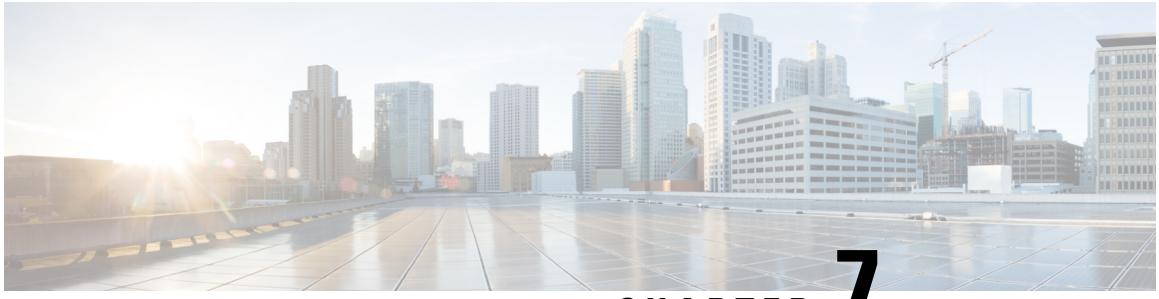
# Product Instances Reserving Licenses in the Virtual Account	# Product Instances that can be rehosted in the Virtual Account
1-10	1
11-20	2
21-30	3

Note Cisco **Product Instances** use Certification Identification that is valid for a period of one year from the date of issue. Product Instances automatically contact Cisco for this identifier when the product is used. If a product does not contact Cisco for more than 30 days, a **Minor Alert** is issued indicating that there may be an Internet connectivity issue. Another **Minor Alert** is issued if the Product Instance does not contact Cisco within 60 days of the validation date. A **Major Alert** is issued if the Product Instance has not contacted Cisco for 90 days. After one year, the Product Instance is assumed to be no longer valid and it is automatically removed from the portal.

Export Control

The following situations are applicable only to Export Control product instances for non-EULF government and military entities.

Scenario/Situation	Behavior in CSSM
Product Instance with restricted features consumes the restricted license(s) from the available quantity in the inventory	CSSM locks the controlled entitlement(s) to the product instance and enables the restricted license(s).
Product Instance with restricted features that is unable to consume the restricted license(s) as there is not enough quantity available in the inventory	CSSM fails the request and generates the **Restricted License Not Available** alert.
Product Instance with restricted features that is unable to consume the restricted licenses because either the entitlement tag or device does not exist, or it is a regular entitlement tag	CSSM fails the request and returns appropriate messages back to the device.



CHAPTER 7

Convert to Smart Licensing

Converting Classic Licenses in PAKs to Smart

Smart licensing lets you say goodbye to product activation keys (PAKs). You can migrate from Classic to Smart licenses via Cisco Smart Software Manager (CSSM) based upon your service contract status. Contract entitled upgrades for Smart Licensing enabled products are now supported.

Under **Convert to Smart Licensing > Convert PAKs**, the following information is displayed:

Name	Roles Impacted	Description
Informational Messages	Viewed by Smart Account Users, Virtual Account Administrators/Users	An informational message may be displayed, for example: *"The Smart Account administrator may be able to more easily convert the licenses based on the automatic conversion settings."*
	Viewed by Smart Account Administrators only	An informational message may be displayed, for example: *"There may be licenses that are eligible to be converted, based on your automatic conversion settings."*

Name	Roles Impacted	Description
Convert Now button	Available only to Smart Account Administrators	On click, all available PAKs in the Smart Account that are eligible for conversion based on the **Virtual Account** and **Product Type** settings in the **Conversion Settings** tab (available only to Smart Account Administrators) will be converted; also known as a bulk conversion. If PAK conversion fails for any license(s), the following minor alert will display: *"Errors occurred while converting traditional licenses to Smart Licenses. Please attempt to convert the licenses again. If the problem persists, you can open a support case for more assistance."*
Search field	Available to all	Use the **Search** feature (by **PAK**, **SKU**, **Virtual Account**, or **Order Number**) if you have a large number of PAKs to help you narrow down the search results.

PAK Details Table

The Product Activation Keys (PAKs) that contain licenses that can be used for traditional licensing or Smart Software Licensing are listed in the table as follows:

Column Header	Description
PAK (Product Authorization Key)	Lists all available PAKs (Classic Licenses). For more information on each PAK, click on the **PAK** hyperlink. This opens a window with the **PAK Details** and the **SKUs** (licenses) associated with the PAK.
SKUs (Stock Keeping Units)	Lists all SKUs available to be converted to Smart. • If the column width is too narrow to list all the SKUs, click the blue arrow icon to the right to view a complete list. • The number of SKUs available for conversion are in parentheses.
Order Number	Displays the system-generated sales order number.
Order Date	Displays the date and time for when the order was placed.
Virtual Account	Displays the **Virtual Account** name(s) where the licenses in a PAK reside.

Column Header	Description
Status	Displays the conversion status for the PAK. When the conversion is activated either automatically or by bulk conversion, the Status changes to **Conversion in Progress**.
Actions	Displays a **Convert to Smart Licenses** link. Click this link to begin conversion for that particular PAK.

The table data is refreshed every hour and the **Last Updated** date and time are located above the grid.

Bulk Conversion – Convert Multiple Classic Licenses in a PAK(s) to Smart Licenses

With the **Convert Now** button (available only to Smart Account Administrators), you can convert multiple PAKs that are assigned to a Smart Account/Virtual Account based on the **Virtual Account** and **Product Type** settings in the **Conversion Settings** tab (available only to Smart Account Administrators; see Conversion Settings, on page 65).

Procedure

Step 1	In the **Smart Software Manager**, under the **Convert to Smart Licensing** and **Convert PAKs** tabs, click the **Convert Now** button (available only to Smart Account Administrators). The following message will display: ***Convert Eligible Licenses*** *– If there are any licenses that are eligible to be converted, based on your automatic conversion settings, they will be converted now.* *When licenses are converted, they will be removed from the conversion tabs and will appear in your inventory.* *Please note that license conversion cannot be reversed.* *You will need to open a support case to revert from Smart Licenses back to traditional licenses.*
Step 2	Click **Ok** Based on the **Virtual Account** and **Product Type** settings in the **Conversion Settings** tab (available only to Smart Account Administrators), the bulk conversion of multiple licenses in a PAK(s) will be converted to Smart licenses and added to the inventory of the PAKs' source Virtual Account.

Manual Conversion – Convert Classic Licenses in a PAK(s) to Smart Licenses

To convert classic licenses in a PAK to Smart Licenses, click either the **Convert to Smart Licenses** button in the **PAK Details** window, or close this window and in the **Actions** column, click the **Convert to Smart Licenses** link. Both options open the **Convert to Smart Software Licenses** window.

Procedure

Step 1	**Select Licenses**
	Under **PAK Details**:
	• **PAK Number**
	• **Partial Fulfillment**
	  • **Allowed** – Availability to convert one or more licenses for each SKU
	  • **Not Allowed** – All licenses must be converted
	• **Destination Virtual Account**
	  • From the drop-down menu, select the **Virtual Account** to deposit the converted **Smart Licenses**
	
	Under **SKUs**:
	• Check the box next to each SKU to convert to **Smart Licenses**
	  • If **Partial Fulfillment** is **Allowed**, enter the **Quantity to Convert** from 1 to the maximum number of licenses
	  • If **Partial Fulfillment is Not Allowed**, there will be no checkbox available next to the SKU and the quantity cannot be changed
	
	Click **Next.**

	Contract Check
	Some licenses are eligible for a contract check based on the SKU settings.
	• Pass
	  • If all SKUs pass, review and confirm in Step 2.
	  • If some SKUs pass, check to see if Partial Fulfillment is Allowed. If so, you may proceed to convert the licenses that have passed to Smart.
	  • If some SKUs fail, check to see if Partial Fulfillment is Not Allowed. If so, you cannot proceed with conversion of Classic licenses to Smart.
	• Fail
	  • An alert message appears that states that no contract was found for some of the selected licenses. You will not be able to convert Classic licenses to Smart. Links are provided to:
	  • Cisco Commerce Workspace (CCW) where you can manage the contracts associated with your account
	  • Open a support case

Step 2	**Review and Confirm** Review the information on this screen. If any changes are needed, click **Back** and repeat **Step 1**. If all looks well, click **Convert Licenses**. **Please note:** The following pop-up confirmation message displays: "PAK converted. Your PAK has been successfully converted to Smart Software Licenses and added to the Virtual Account [*name*]." Under the **Convert to Smart Licensing** tab and **Convert PAKs** subtab, an information icon will display in the grid next to the PAK for partial conversions indicating that the data in the PAK was updated. Under the **Activity** tab and **License Transactions** subtab, the migration details will show **Conversion** (*PAK: xxxx*) in the **Source** column. Once the licenses chosen for conversion are successfully converted, they will no longer appear in the **License Registration Portal (LRP)** or **Convert PAKs** tab.

Converting Classic Licenses on a Device to Smart

Converting licenses that have been previously fulfilled on a device (product instance) can be done through CSSM under **Convert to Smart Licensing > Convert Licenses.** The following information is displayed:

Name	Roles Impacted	Description
Informational Messages	Viewed by Smart Account Users, Virtual Account Administrators/Users	An informational message may be displayed, for example: *"The Smart Account administrator may be able to more easily convert the licenses based on the automatic conversion settings."*
	Viewed by Smart Account Administrators only	An informational message may be displayed, for example: *"There may be licenses that are eligible to be converted, based on your automatic conversion settings."*
Convert Now button	Available only to Smart Account Administrators	On click, all available licenses in the Smart Account that are eligible for conversion based on the **Virtual Account** and **Product Type** settings in the **Conversion Settings** tab (available only to Smart Account Administrators) will be converted. If license conversion fails, the following minor alert will display: *"Errors occurred while converting traditional licenses to Smart Licenses. Please attempt to convert the licenses again. If the problem persists, you can open a support case for more assistance."*
Search field	Available to all	Use the **Search** feature (by **Device Identifier**, **Product Family**, or **Virtual Account**) if you have a large number of devices to help you narrow down the search results.

Device Details Table

The table displayed under **Convert to Smart Licensing > Convert Licenses** contains devices (product instances) in your Smart Account that are using traditional licenses that can be converted to Smart Licenses. The table is organized as follows:

Column Header	Description
Device Identifier	List of devices (product instances). For more information on each device, click on the **Device Identifier** hyperlink. This opens a window with the **Device Details** and the **Installed Licenses**. The table below **Installed Licenses** include: • SKU • Product Family • Quantity • Type • Expiration Date • Converts to Smart Licenses • Eligible SKUs show the converted license name.
Product Family	Displays the product family name. A blue arrow appears to the right if the product family name exceeds the column width. Click the blue arrow to view the full name.
Eligible SKUs	List of eligible Stock Keeping Units (SKUs) for each device. • If there is more than one eligible SKU, click the blue arrow icon to the right to view a complete list. • The number of eligible SKUs is in parentheses.
Virtual Account	Displays the **Virtual Account** name(s) that the devices are associated with.
Status	Displays the conversion status for the device. When the conversion is activated either automatically or by bulk conversion, the Status changes to Conversion in Progress.
Actions	Displays a **Convert to Smart Licenses** link. Click this link to begin conversion for that particular device.

Bulk Conversion – Convert Classic Licenses on Multiple Devices

With the **Convert Now** button (available only to Smart Account Administrators), you can convert classic licenses that are eligible for conversion to Smart on multiple devices (product instances) in the Smart Account based on the **Virtual Account** and **Product Type** settings in the **Conversion Settings** tab (available only to Smart Account Administrators; see Conversion Settings, on page 65).

Procedure

Step 1	In the **Smart Software Manager**, under the **Convert to Smart Licensing** and **Convert Licenses** tabs, click the **Convert Now** button (available only to Smart Account Administrators). The following message will display: ***Convert Eligible Licenses*** *– If there are any licenses that are eligible to be converted, based on your automatic conversion settings, they will be converted now.* *When licenses are converted, they will be removed from the conversion tabs and will appear in your inventory.* *Please note that license conversion cannot be reversed.* *You will need to open a support case to revert from Smart Licenses back to traditional licenses.*
Step 2	Click **OK** Based on the **Virtual Account** and **Product Type** settings in the **Conversion Settings** tab (available only to Smart Account Administrators), the bulk conversion of multiple eligible licenses on product instances will be converted to Smart Licenses.

Manual Conversion – Convert Classic Licenses on a Specific Device

To convert classic licenses on a specific device (product instance) to Smart Licenses, go to **Convert to Smart Licensing > Convert Licenses** and either click on the **Device Identifier** link in the table and click the **Convert Licenses** button in the **Device Identifier** window, or close this window and in the **Actions** column of the table, click the **Convert Licenses** link. Both options open the **Convert to Smart Software Licenses** window.

Procedure

Step 1	**Select Licenses**
	Under **Licenses to Convert**:
	• **Destination Virtual Account**
	  • From the drop-down menu, choose the destination **Virtual Account** for the converted Smart Licenses.
	• Check the box next to the device(s).
	  • Enter the **Quantity to Convert** from 1 to the maximum number of licenses. (If the SKU allows partial fulfillment, you will be able to enter the number of licenses to convert, otherwise all licenses in the SKU will be converted.)
	Click **Next.**

	Contract Check
	Some licenses are eligible for a contract check based on the SKU settings.
	• If it passes, proceed to **Step 2**.
	• If it does not pass or for multiple SKUs where some passed and some did not, an alert message appears that states that no contract was found that covers some of the selected licenses.
	  • Links are provided to:
	  • Cisco Commerce Workspace (CCW) where you can manage the contracts associated with your account, and/or
	  • Open a support case.
	
	NOTE: For multiple SKUs where some passed and some did not (where partial fulfillment was allowed), you have the option to convert the licenses that passed the **Contract Check**.
	• Click **Back**.
	• Uncheck the SKUs that did not pass or change the quantity to zero.
	• Click **Next**.

Step 2	**Review and Confirm** Review the information on this screen. If any changes are needed, click **Back** and repeat **Step 1**. If all looks well, click **Convert Licenses**.
Note	The following confirmation message will be displayed: "Your licenses have been successfully converted to Smart Software Licenses and added to the Virtual Account [name]." Under the **Activity** tab and **License Transactions** subtab, the migration details will show **Conversion** and the device identifier information in the **Source** column. Once the licenses are successfully converted, they will no longer appear in the **License Registration Portal (LRP)** or **Convert Licenses** tab.

Conversion Settings

The **Conversion Settings** tab (visible only to Smart Account Administrators), located under the **Convert to Smart Licensing** tab in CSSM, provides streamlined capabilities for automatic conversion to Smart Licensing when set to **Enabled**.

Automatic Conversion to Smart Licensing

Setting up automatic conversion to Smart Licensing can be done for PAKs and/or devices (product instances) that are assigned to Smart Accounts as part of a new order. In addition, these settings will apply towards the bulk conversion of licenses on PAK(s) and product instance(s).

PAK Smart Licensing Conversion

Procedure

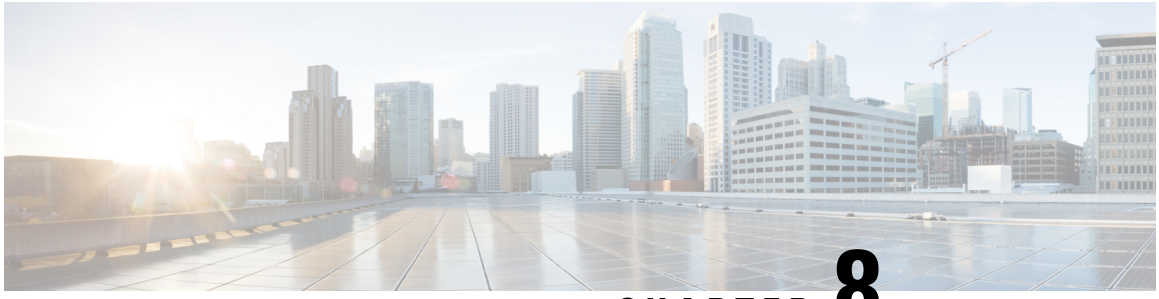
Step 1	In the **Smart Software Manager**, click the **Convert to Smart Licensing** tab and click the **Conversion Settings** tab (visible only to Smart Account Administrators).
Step 2	Under **Automatic Conversion to Smart Licensing**, check the **When Product Authorization Keys (PAKs) are Assigned to a Smart Account** check box. The conversion will be dependent upon the Virtual Account and product type that the PAK belongs to.
Step 3	From the **Virtual Accounts** drop-down list, choose either **PAKs in All Virtual Accounts** (default) or **PAKs in Selected Virtual Accounts**. • For **PAKs in Selected Virtual Accounts**, choose one or more **Available Virtual Accounts** from the list in the left pane and click the right arrow to move them over to the **Selected Virtual Accounts** in the right pane. Click **OK**.
Step 4	From the **Products** drop-down list, choose either **All Products** (default) or **Selected Products**, which gives you the option to choose the product type. • For **Selected Products**, choose one or more **Available Products** from the list in the left pane and click the right arrow to move them over to the **Selected Products** in the right pane. Click **OK**.
Step 5	Click **Save**. From this time forward, PAKs assigned to a Smart Account as part of a new order that meet the criteria you specified will automatically convert to Smart Licenses and added to your inventory. In addition, these settings will apply towards the bulk conversion of licenses on PAK(s).

Device Smart Licensing Conversion

Procedure

Step 1	In the **Smart Software Manager**, click the **Convert to Smart Licensing** tab and click the **Conversion Settings** tab (visible only to Smart Account Administrators).
Step 2	Under **Automatic Conversion to Smart Licensing**, check the **When Devices are Assigned to a Smart Account** check box. The conversion will be dependent upon the Virtual Account and product type that the device belongs to.
Step 3	From the **Virtual Accounts** drop-down list, choose either **Devices in All Virtual Accounts** (default) or **Devices in Selected Virtual Accounts**. • For **Devices in Selected Virtual Accounts**, choose one or more **Available Virtual Accounts** from the list in the left pane and click the right arrow to move them over to the **Selected Virtual Accounts** in the right pane. Click **OK**.
Step 4	From the **Products** drop-down list, choose either **All Products** (default) or **Selected Products**, which gives you the option to choose the product type. • For **Selected Products**, choose one or more **Available Products** from the list in the left pane and click the right arrow to move them over to the **Selected Products** in the right pane. Click **OK**.

Step 5	Click **Save**. From this time forward, devices assigned to a Smart Account as part of a new order that meet the criteria you specified will automatically convert to Smart Licenses and added to your inventory. In addition, these settings will apply towards the bulk conversion of licenses on devices (product instances).



CHAPTER 8

Reports

Reports Overview

The **Reports** window provides functions that allow you to run reports on all your virtual accounts and all your licenses within your Smart Account. The **Reports** table displays the following information for each supported report:

Name	Description
Name area	The name of the **Cisco Smart Software Manager** report. Click the link to view the specific report page.
Description area	The description of the **Report**.

Running Reports

You can run reports on **Licenses**, **License Subscriptions**,and **Product Instances**.

Procedure

Step 1	In the **Smart Software Manager**, click the **Reports** tab.
Step 2	In the **Reports** window, click **Licenses**, **License Subscriptions**, or **Product Instances**.
Step 3	In the **Run License Report** window, complete the following:

Licenses and License Subscriptions Reports

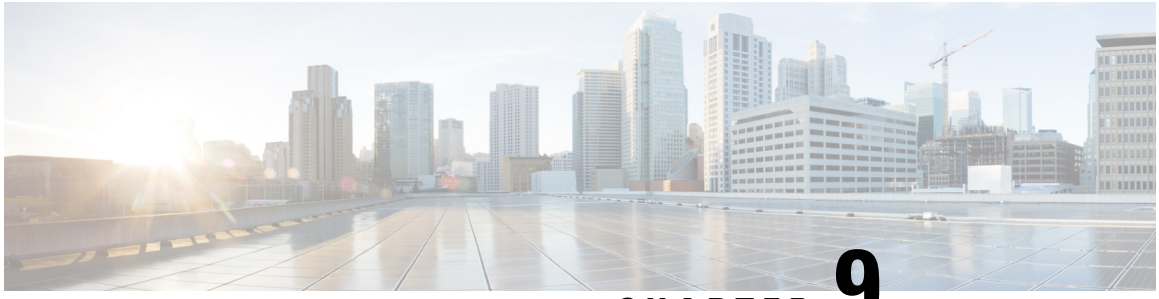
Name	Description
Name field	Enter the name that you want to assign to the report.
Description field	(Optional) Enter the description that you want to use for the report.

Virtual Accounts drop-down menu	Choose **All Virtual Accounts** to run the report against all your Virtual Accounts. Choose **Selected Virtual Accounts** or **Accounts with ALL of these Tags** which allows you to select one or more Virtual Accounts and search **By Name** or **By Tag**.
Licenses drop-down menu	Choose one or more licenses from the drop-down menu. Choose between **All Licenses**, **Licenses with ALL these License Tags**, or **Licenses with NO License Tags**.

Product Instances Reports

Name	Description
Name field	Enter the name that you want to assign to the report.
Description field	(Optional) Enter the description that you want to use for the report.
Virtual Accounts drop-down menu	Choose one or more virtual accounts that you want to run the report against. Choose All Virtual Accounts to run the report against all virtual accounts.
Product Type field	The product type that you want to run the report against. You can choose one or more product families.

Step 4	Click the button for the type of report you wish to generate: • Run Report • Export to Excel • Export to CSV Clicking **Run Report** opens the report in a new browser window. Clicking **Export to Excel** or **Export to CSV** opens a **File Save** dialog box.



CHAPTER 9

Preferences

Preferences Overview

The **Preferences** screen enables you to select events such as informational events or alerts for which you receive email notifications.

Alert Events

Alerts report on the changes to the status of your licenses and products. Standard alerts are generated as shown in the following table:

Name	Description
Insufficient Licenses	Usage in account exceeds available licenses.
Licenses Expiring	Warning that term-limited licenses will be expiring. Sent 90, 60, 30, 14, 7, 3 and 1 day prior to expiration.
Licenses Expired	Term-limited licenses have expired. Only displayed if Licenses Expiring warning have not been dismissed.
Product Instance Failed to Connect	Product has not successfully connected during its renewal period.
Product Instance Failed to Renew and was Removed	Product has not successfully connected within its maximum allowed renewal period and has been removed.
Satellite Synchronization Overdue	Satellite has not synchronized within the expected time period.
Satellite Unregistered and Removed	Satellite failed to synchronize in 90 days and has been removed.

Informational Events

Informational Events are generated for licenses and/or product instances as shown in the following table:

Name	Description
New Licenses	An order has been processed and new licenses have been added to the account.
New Licenses	An order has been processed and new licenses have been added to the account.
Licenses Reserved	A product instance has reserved licenses in the account.

License Configuration

Under **License Configuration**, there are two (2) flags that can be enabled or disabled along with the ability to **View Change Log**.

Name	Visbility	Description
Add to Inventory	Smart Account Administrators	When set to Enabled, this capability allows licenses available on a product instance to be added to the inventory. This flag is set to Enabled by default; it is advised to keep it enabled.
Show License Transactions Details in Inventory Tab	Smart Account Administrators	When enabled, this allows you to view the license transaction details in your inventory and search with advanced filters

When you enable or disable any of the above capabilities and click the **Save** button, an **Add Notes** window displays. Enter the reason for the change in the respective text field. Smart Account Administrators will receive an email notification any time the **Add to Inventory** flag status has changed.

Creating Email Notifications

Email notifications are sent to the email address that is associated with your login. Each user can have different notification settings.

Procedure

Step 1	In the **Smart Software Manager** (for the smart account that has been selected), select **Email Notification** from the menu options at the top of the screen.
Step 2	On the **Email Notification** page, complete the following fields in the **Alert Events** and **Informational Events** sections:

Name	Description
Receive a daily email summary check box	Check the check box to receive a daily email summary of all selected alerts. Email summaries are sent at 12:01 a.m. EST.
Email Address field	The email address that you have specified to receive email notifications.
Alert Events section	Check the check box for each alert for which you would like to receive emails. This can be one or more of the following: • Insufficient Licenses-Receive an alert whenever the account license usage exceeds the existing accounts. • Licenses Expiring-Receive an alert whenever the expiration date for a term-limited license is approaching. • Licenses Expired-Receive an alert whenever the expiration date for a term-limited license has passed. • Product Instance Failed to Connect-Receive an alert whenever a product has not successfully connected to the Cisco servers during the renewal period. • Product Instance Failed to Renew and Was Removed-Receive an alert whenever a product was removed because it has not connected to the Cisco servers during its maximum allowed renewal period. • Satellite Synchronization Overdue - Satellite has not synchronized within the expected time period. • Satellite Unregistered and Removed - Satellite failed to synchronize in 90 days and has been removed.
Informational Events section	Check the check box for each event for which you would like to receive emails. This can be one or more of the following: • New Licences-Receive an alert whenever new licenses are added to the account. • New Product Instance-Receive an alert whenever a new product instance is successfully registered.
Status Notification	Check the check box to receive an email when a satellite synchronization file has finished processing by Smart Software Manager.

Step 3	Click **Save**.

CHAPTER 10

Satellites

Satellite Overview

Cisco Smart Software Manager satellite supports products that do not have connectivity to the Cisco network or have limited network access. **Cisco Smart Software Manager** satellite serves as a local data collector to access the **Smart Software** licenses in a disconnected mode. It collects and transfers the data that is stored at scheduled time intervals by communicating with Cisco.com.

Cisco Smart Software Manager satellite Setup

To configure the satellite, complete the following setup functions:

- Register satellite
- Time Settings
- Synchronization Settings
- Summary

Before You Begin

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

Note For more details on the installation process, see Cisco Smart Software Manager satellite Installation Guide.

Procedure

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

Step 2	Log in to the **Cisco Smart Software Manager satellite Setup** page with the default username: admin and password: Admin!23.The **Cisco 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 **Smart Software Manager** to authorize the registration file. Follow the steps 3-10 to log on and continue the process.
Step 4	Launch the **Smart Software Manager** using https://software.cisco.com/?route=module/SmartLicensing.
Step 5	Log in to your **Smart Account** in **Smart Software Manager** using your smart account username and password.
Step 6	On the **Smart Software Manager** screen, 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 **Cisco Smart Software Manager 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. **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.
Step 13	Log into **Smart Software Manager** after you receive the email notification. Navigate to the **satellite** screen.
Step 14	In the **satellite** screen, search the satellite table to locate the new satellite that you created. 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** for your new satellite.
Step 15	Click the **Download Authorization File** link and download the authorization file to your local file directory on your hard drive. **Note** After this step, you should revert to Cisco Smart Software Manager satellite and upload the authorized file. Perform the following steps to continue the setup process.

Step 16	In the **Cisco Smart Software Manager 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 Cisco Smart Software Manager satellite and the Smart Manager. • **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. Refer to the Synchronization procedure provided following this table. **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 **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.

Satellite Synchronization

Once the satellite Status is no longer pending, you must execute the following procedure to synchronize the satellite.

Step 1	Download the **Authorization File** and save it to your computer.
Step 2	Upload the **Synchronization File** generated by the **Cisco Smart Software Manager satellite**.

Step 3	Click **Generate Response File**. **Note** A message will display indicating that the "Synchronization Response File Generation is in Progress". This process may take some time. The status of this process may be viewed under the **Alerts** column for this satellite. When the file is ready, a link to download the file will replace the status message.
Step 4	When the file is ready, you will receive a message on the **Email Notification** screen. In the sync file processed email click the "Ok" button to close the message and to display the satellites screen.
Step 5	Click the "**Download Response File**" link. If the synchronization fails, you will receive an alert message. Generate a new synchronization from the **Cisco Smart Software Manager satellite** and repeat steps 2 through 5.

Verifying Time Sync with the NTP

You can use the following procedure to verify time sync with the NTP.

Step 1	Login to the console using the default user ID **admin** and the password **Admin!23** . Use the following commands to verify the time sync with NTP. admin# **timesync**
Step 2	Synchronize Appliance Time by identifying the NTP Server Address [pool.ntp.org] : **171.68.38.65**
Step 3	Would you like to synchronize time with '171.68.38.65' (y|n)? **y**
Step 4	Review the message indicating that you have successfully updated the NTP and identifying the sync interval admin#.

Creating a New satellite

Before You Begin

Ensure that you have generated the registration file using the Cisco Smart Software Manager satellite set up process.

Procedure

Step 1	In the **Smart Software Manager** screen, select **satellites** from the menu options.

Step 2	On the **satellites** screen, click **New satellite** tab and complete the following:

Name	Description
Satellite Name	The name you want to assign to the new satellite.
Registration File	Click on the Browse tab to locate the registration file that was generated using the Cisco Smart Software Manager satellite setup process. On selection, the filename is displayed beside the Browse button.
Virtual Accounts	Click on the drop-down list arrow to choose a virtual account that you want to associate the satellite with. Optionally, you can add a new virtual account by selecting the New Virtual Account from the drop-down list. Click Add tab to include the new virtual account in the table. **Note** You have to select or add a virtual account to continue this process.
The virtual account details such as the name, description and action fields are updated and displayed in the virtual account table.	
Contact Email Address	The email address to receive a notification about the authorization file being generated and due for download.

Step 3	Click the **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.
Step 4	Save this file and upload it to **Cisco Smart Software Manager satellite** using the setup utility to complete the registration process.

Cisco Smart Software Manager satellite Management

The satellites screen allows you to view the details of the satellites that you have registered. The satellite screen includes the following:

- Alert Bar
- Satellite information table

Note The number of major and minor alerts associated with the satellites are displayed on the satellites tab in the left navigation pane of the Cisco Smart Software Manager.

Alert Bar

Any satellite that has not been authorized or synchronized in due time creates an alert. The Alert Bar provides a summary of the alerts in the satellite. Alerts are listed in the tables on the satellite pane and are summarized in the Alert Bar.

If you choose the Major or Minor button to view alerts, the Alert Bar, which appears below the alert buttons, shows one row per alert. If there are no alerts, the alert buttons are hidden.

The main portion of an alert contains the alert description. On the right of an alert are notifications or links to appropriate actions. For example, the alert satellite Authorization File Ready has links to the Download File dialog box and to a Dismiss dialog box.

On the right of the alert is the Action Due field, which shows how much time remains for you to take action on the alert.

- The **Major** button enables you to view all major alerts and specifies the due time to act upon.
- The **Minor** button allows you to view all minor alerts and take action on a specific alert. Minor alerts are promoted to major alerts if not acted upon within their time limit. With minor alerts, you have the following options:
  - **Remind Later**-Notifications are dismissed until half of the time that is displayed in the Action Due field has passed.
  - **Dismiss**-No notifications are displayed until the next time that the error is generated.
- The **Hide Alerts** button allows you to collapse the alerts.

New satellite Tab

You can create new satellites in this pane using the New satellite tab.

Satellite Information Table

The following satellite details are displayed on the **satellites** page:

Column Heading	Description
Name	The name of the satellite.
Product Instances	The number of product instances associated with the satellite.
Last Synchronization	The time when the most recent synchronization was successfully completed.
Synchronization Due	The sync up time that is due for the next data transfer to occur.

Alerts	The following are the type of alerts that can be generated by the system.
	• **Synchronization Overdue**-Any instance of the satellite that has not synchronized with Cisco for over a period of 66 days will receive this overdue alert. Clicking the alert will provide you with the following two tabs that can help you find solutions to clear the alert:
	  • Troubleshooting
	  • Details
	  Follow the instructions provided to troubleshoot the alert. You can also view the satellite information by clicking the Details tab.
	• **Synchronization Attempt Failed**-This type of alert is displayed when you attempt to synchronize data from Smart Software Manager to Cisco and the network connection fails.

Column Heading	Description

Actions	The following actions can be performed:
	• **File Synchronization**-You can choose this action and follow the instructions below to synchronize the satellite file.
	  • Click Browse to upload the synchronization file that was generated by the smart software satellite.
	  • Click the Generate Response File button to generate a synchronization response file. A confirmation message is displayed. Download the file to your local desktop and upload the same file to the smart software satellite to complete the synchronization process.
	• **Remove**-You can choose to remove all the product instances registered with this satellite by using this action button.

Using Export Controlled Licenses

1) If the Product Instance is registered against satellite and wants to consume restricted licenses, the following occurs:

- Product Instance sends an authorization request for the restricted license(s) to Cisco Smart Software Manager satellite
- Cisco Smart Software Manager satellite requests the export authorization directly from CSSM through synchronization and passes the authorization request to CSSM regardless of whether it has available restricted licenses or not
- During synchronization, CSSM checks whether or not the requested restricted license(s) exist and is available in sufficient quantity for use in the Virtual Account and apply to the product being registered
  - If yes, CSSM returns success to satellite and Cisco Smart Software Manager satellite locks the restricted licenses to the product instance when it connects back to the satellite
  - If no, CSSM will fail the request and return an Export Authorization failure along with the reason to the Cisco Smart Software Manager satellite

2) To return restricted license(s) against satellite from the Product Instance, either de-configure the restricted functionality on the Product Instance or de-register the Product Instance.

CHAPTER 11

Activity

Activity Overview

Activity, in **Smart Software Manager**, is defined to include license transactions and a variety of event messages.

As with Alerts, **Activity** in **Smart Software Manager** is organized into **Smart Account** and the **Virtual Account** levels.

Smart Account Event Logs

Use the Activity link in Smart Software Manager to display two tabs:

- License Transactions
- Event Log

The messages listed in the **Event Log** of the **Activity** link are a compilation of all **Smart Account** events, and all events associated with all **Virtual Accounts** managed under the Smart Account.

Event Log messages specific to each Virtual Account are accessed under the **Inventory** link under Smart Software Manager.

License Transactions

The view you have when using the **License Transactions** tab depends upon your role as a **Cisco Administrator, Smart Licensing Administrator**, or **Virtual Account Administrator**. You can view the Licensing Information for which you have authorized access.

The **Smart Licensing Administrator** and **Virtual Account Administrator**, for instance, has access to Smart Account information provided under the following tabs:

- Transaction History
- Event Log

A **Cisco Administrator** has access to information provided under a different set of tabs:

- License Transactions
- Event Log

Under the **License Transactions** tab, the Cisco Administrator may view:

- Transaction Dates
- Transaction ID
- Transaction Type
- Order ID
- Order Line ID
- License SKU
- Licenses
- License Expiration
- Count
- Virtual Account
- Source
    - Upgrade Completed (appears after a “pending upgrade” license is upgraded)
- Action
- User
- Notes

Under the **License Transactions** tab, the Cisco Administrator also has the option to:

- Add licenses by clicking the **Add License** button
- Remove licenses by using the Remove Licenses option found under the **Action** heading in the License Transactions table.

Smart Account Event Log

The event log shows the event message, the time of the event, and the user (if any) associated with the event.

The following events are captured on the **Smart Account Event Log**:

- Changes to Smart Account level attributes/properties
- Events for acceptance of legal agreements at Smart Account level
- Events for generation of tokens (Restricted Or Un-restricted)
- Events for satellites (New satellite created, satellite renamed, satellite failed to sync and removed, satellite removed, satellite synchronized via network, satellite file synchronization)

Procedure

Step 1	In the **Smart Software Manager**, click the link to a virtual account.
Step 2	Select **Activity** from menu, and then click the **Event Log** tab. **Note** You can filter the event log to display either by license type or product instance. Enter a value in the Filter combo box and click Filter to limit the number of entries that are displayed.

Step 3	(Optional) You can export the event list to a .csv file from this pane. See Exporting to CSV Files

CHAPTER 12

Smart Accounts Info & Selection

Smart Accounts Overview

Smart Accounts are collections of **Virtual Accounts**. You can have access to multiple smart accounts to which you are assigned. A list of smart accounts for which you have access are displayed when you log in to the **Cisco Software Workspace**. You can view the following details in the smart account table.

Name	Description
Account Name link	Displays a list of smart accounts to which you have access. You can click the Account Name link to sort the smart accounts column in an alphabetical order. Click the link of the account name to view the details of all virtual accounts associated with that smart account.
Account Domain Identifier link	Displays the domain identity of the host associated with the smart account. You can click the Account Domain Identifier link to sort the account domain ID column in an alphabetical order.
Major Alerts field	Click the alert link to view the major alerts associated with this smart account. In the Alerts page, view the alert message and click the action links against the smart account to view and perform appropriate action.
Minor Alerts field	Click the alert link to view the minor alerts associated with this smart account. In the Alerts page, view the alert message and click the action links against the smart account to view and perform appropriate action.
Note: You can view alerts for those accounts for which you have access only.	
Access Roles field	Displays the types of user roles assigned to the smart account. The number of users assigned to the perform the role is displayed against the user role.

Viewing Smart Accounts

Procedure

Step 1	In the **Smart Software Manager** screen, click the **Account Name** drop-down menu to display your Smart Accounts. **Note** The drop-down menu is only available if you have access to multiple smart accounts.
Step 2	Click the name of a **Smart Account** to display the **Virtual Accounts** associated with that Smart Account.

CHAPTER 13

Feedback and Support

Smart Account Manager Feedback

You can provide your feedback to Cisco. Links for submitting **Feedback** are provided in the upper right portion of each screen in the Smart Software Manager, along with links for **Support** and **Help**.

Procedure

Step 1	On the **Smart Software Manager** page, click the Feedback icon in the upper right.
Step 2	In the **Smart Software Manager Feedback** page, choose the category in the field above the feedback text box. This can be one of the following: • Like • Dislike • Suggestion • Problem/Error • General Comment
Step 3	In the feedback text box, enter your comments.
Step 4	Check the check box if you want to submit your feedback anonymously. If you do not check the check box, your Cisco.com user ID will be included with your feedback.
Step 5	Click **Send Feedback** to submit or Cancel to undo your actions on this form.

Smart Software Manager Support

You can contact the Cisco support for any troubleshooting issues that you have encountered with the software.

Procedure

Step 1	On the Smart Software Manager page, click the Support icon in the upper right.

Step 2	In the Smart Software Manager Support page, describe the problem that you encountered with your smart account in the text box. Complete the following field details and submit the issue to the support group:

Name	Description
Smart Account field	The name of your smart account.
Reported By field	The name of the person who reports the issue.
Preferred Contact Method drop-down list	Choose how you can be contacted: email or phone
Contact Email Address field	The email address through which the support can contact you.
Contact Phone Number field	The phone number through which the support can contact you.
Time Zone drop-down list	Choose the time zone of your region.

Step 3	Click **Send** to submit the form to the support group or **Cancel** to undo your actions on this page. Requests submitted using the support form will receive a response within 48 hours.

CHAPTER 14

Web Browsers and Release Notes

Supported Web Browsers

The following web browsers are supported for Cisco Smart Software Manager:

- Chrome 36.0 and later versions
- Firefox 30.0 and later versions
- Safari 5.1.7
- Internet Explorer 10.0 and later versions

Note Javascript must be enabled in your browser.

Release Notes

The following features have been added for this release:

- Content updated to reflect the release of Smart Software Manager on the Cisco Software Central platform