

# **Smart Licensing Using Policy**

- Overview of Smart Licensing Using Policy, on page 1
- Architecture, on page 2
- Concepts, on page 3
- Supported Topologies, on page 6
- Workflow for Topology: Full Offline Access, on page 8
- Workflow for Topology: CSLU Has Access to CSSM, on page 9
- Workflow for Topology: CSLU Has No Access to CSSM, on page 12
- Removing the Product Instance from CSSM, on page 17

## **Overview of Smart Licensing Using Policy**

Smart Licensing Using Policy is supported on Cisco Wireless Gateway for LoRaWAN Release 2.2 and later, for the subscription of Common Packet Forwarder (CPF).

Smart Licensing Using Policy is an enhanced version of Smart Licensing, with the overarching objective of providing a licensing solution that does not interrupt the operations of your network, rather, one that enables a compliance relationship to account for the hardware and software licenses you purchase and use. Smart Licensing Using Policy provides a seamless experience with the various aspects of licensing.

• Purchase licenses: Purchase licenses through the existing channels and use the Cisco Smart Software Manager (CSSM) portal to view product instances and licenses.



**Note** To simplify your implementation of Smart Licensing Using Policy, provide your Smart Account and Virtual Account information when placing an order for new hardware or software. This allows Cisco to install applicable policies and authorization codes (terms explained in the Concepts, on page 3 section below), at the time of manufacturing.

- Use: All licenses on your devices are unenforced. This means that you do not have to complete any licensing-specific operations, such as registering or generating keys before you start using the software and the licenses that are tied to it. License usage is recorded on your device with timestamps and the required workflows can be completed at a later date.
- Report license usage to CSSM: Multiple options are available for license usage reporting. You can use the Cisco Smart Licensing Utility (CSLU), or report usage information directly to CSSM. For air-gapped

networks, a provision for offline reporting where you download usage information and upload it to CSSM, is also available. The usage report is in plain text XML format.

• Reconcile: For situations where delta billing applies (purchased versus consumed).

The primary benefits of this enhanced licensing model are:

· Seamless day-0 operations

After a license is ordered, no preliminary steps, such as registration or generation of keys etc., are required unless you use an export-controlled or enforced license.

Visibility and manageability

Tools, telemetry and product tagging, to know what is in-use.

· Flexible, time series reporting to remain compliant

Easy reporting options are available, whether you are directly or indirectly connected to Cisco Smart Software Manager (CSSM), or in an air-gapped network.

### Smart Account

To use Smart Licensing, you must first set up a Cisco Smart Account at Cisco Software Central.

A Smart Account provides a single location for all Smart-enabled products and entitlements. It helps speed procurement, deployment, and maintenance of Cisco Software. When creating a Smart Account, you must have the authority to represent the requesting organization. After submitting, the request goes through a brief approval process.

### **Virtual Account**

A Virtual Account exists as a sub-account withing the Smart Account. Virtual Accounts are a customer-defined structure based on organizational layout, business function, geography or any defined hierarchy. They are created and maintained by the Smart Account administrator.

## Architecture

This section explains the various components that can be part of your implementation of Smart Licensing Using Policy.

### **Product Instance**

A product instance is a single instance of a Cisco product, identified by a Unique Device Identifier (UDI).

A product instance records and reports license usage (RUM reports), and provides alerts and system messages about overdue reports, communication failures, etc. The RUM reports and usage data are also stored securely in the product instance.

### Cisco Smart Software Manager (CSSM)

CSSM is a portal that enables you to manage all your Cisco software licenses from a centralized location. CSSM helps you manage current requirements and review usage trends to plan for future license requirements.

You can access CSSM at https://software.cisco.com. Under the License tab, click the Smart Software Licensing link.

In CSSM you can:

- Create, manage, or view virtual accounts.
- · Create and manage Product Instance Registration Tokens.
- Transfer licenses between virtual accounts or view licenses.
- Transfer, remove, or view product instances.
- Run reports against your virtual accounts.
- Modify your email notification settings.
- View overall account information.

Prior to using CSSM, please view a short video about how to use the portal found here:

https://www.cisco.com/c/en/us/buy/smart-accounts/software-manager.html

Click on the View Video button.

## **Cisco Smart Licensing Utility (CSLU)**

CSLU is a Windows-based reporting utility that provides aggregate licensing work-flows. This utility performs the following key functions:

- Provides the options relating to how work-flows are triggered. The work-flows can be triggered by CSLU
  or by the product instance.
- Collects usage reports from the product instance and upload these usage reports to the corresponding smart account or virtual account – online, or offline, using files. Similarly, the RUM report ACK is collected online, or offline, and provided back to the product instance.
- Sends authorization code requests to CSSM and receives authorization codes from CSSM.

CSLU can be part of your implementation in the following ways:

- Install the windows application, to use CSLU as a standalone tool and connect it to CSSM.
- Install the windows application, to use CSLU as a standalone tool and not connect it to CSSM. With this option, the required usage information is downloaded to a file and then uploaded to CSSM. This is suited to air-gapped networks.

## Concepts

This section explains the key concepts of Smart Licensing Using Policy.

### License Enforcement Types

A given license belongs to one of three enforcement types. The enforcement type indicates if the license requires authorization before use, or not.

• Unenforced or Not Enforced

Unenforced licenses *do not* require authorization before use in air-gapped networks, or registration, in connected networks. The terms of use for such licenses are as per the end user license agreement (EULA).

• Enforced

Licenses that belong to this enforcement type require authorization before use. The required authorization is in the form of an authorization code, which must be installed in the corresponding product instance.

An example of an enforced license is the Media Redundancy Protocol (MRP) Client license, which is available on Industrial Ethernet Switches.

Export-Controlled

Licences that belong to this enforcement type are export-restricted by U.S. trade-control laws and these licenses require authorization before use. The required authorization code must be installed in the corresponding product instance for these licenses as well. Cisco may pre-install export-controlled licenses when ordered with hardware purchase.

An example of an export-controlled license is the High Speed Encryption (HSECK9), which is available on certain Cisco Routers.

### **License Duration**

This refers to the duration or term for which a purchased license is valid. A given license may belong to any one of the enforcement types mentioned above and be valid for the following durations:

- Perpetual: There is no expiration date for such a license.
- Subscription: The license is valid only until a certain date.

## **Authorization Code**

The Smart Licensing Authorization Code (SLAC) allows activation and continued use of a license that is export-controlled or enforced.

If you are upgrading from an earlier licensing model to Smart Licensing Using Policy, you may have a Specific License Reservation (SLR) with its own authorization code. The SLR authorization code is supported after upgrade to Smart Licensing Using Policy.

## Policy

A policy provides the product instance with these reporting instructions:

 License usage report acknowledgement requirement (Reporting ACK required): The license usage report is known as a RUM Report and the acknowledgement is referred to as an ACK (See RUM Report and Report Acknowledgement, on page 6). This is a yes or no value which specifies if the report for this product instance requires CSSM acknowledgement or not. The default policy is always set to "yes".

- First report requirement (days): The first report must be sent within the duration specified here.
- Reporting frequency (days): The subsequent report must be sent within the duration specified here.
- Report on change (days): In case of a change in license usage, a report must be sent within the duration specified here.

#### **Understanding Policy Selection**

*CSSM* determines the policy that is applied to a product instance. Only one policy is in use at a given point in time. The policy and its values are based on a number of factors, including the licenses being used.

cisco default is the default policy that is always available in the product instance. If no other policy is applied, the product instance applies this default policy. The table below shows the Cisco default policy values.

While you cannot configure a policy, you can request for a customized one, by contacting the Cisco Global Licensing Operations team. Go to Support Case Manager. Click **OPEN NEW CASE** > Select **Software Licensing**. The licensing team will contact you to start the process or for any additional information. Customized policies are also made available through your Smart account in CSSM.



**Note** To know which policy is applied (the policy in-use) and its reporting requirements, enter the **show license all** command in privileged EXEC mode.

Policy: c	isco default	Default Policy Values
Export (I	Perpetual/Subscription)	Reporting ACK required: Yes
Note	Applied only to licenses with enforcement type "Export-Controlled".	First report requirement (days): 90 Reporting frequency (days): 90 Report on change (days): 90
Enforced (Perpetual/Subscription)		Reporting ACK required: Yes
Note	Applied only to licenses with enforcement type "Enforced".	First report requirement (days): 90 Reporting frequency (days): 90 Report on change (days): 90
Unenforced/Non-Export Perpetual <sup>1</sup>		Reporting ACK required: Yes First report requirement (days): 365 Reporting frequency (days): 0 Report on change (days): 90

Table 1: Policy: Cisco default

Policy: Cisco default	Default Policy Values
Unenforced/Non-Export Subscription	Reporting ACK required: Yes
	First report requirement (days): 90
	Reporting frequency (days): 90
	Report on change (days): 90

<sup>1</sup> For Unenforced/Non-Export Perpetual: the default policy's first report requirement (within 365 days) applies only if you have purchased hardware or software from a distributor or partner.

## **RUM Report and Report Acknowledgement**

A Resource Utilization Measurement report (RUM report) is a license usage report, which the product instance generates, to fulfil reporting requirements as specified by the policy.

An acknowledgement (ACK) is a response from CSSM and provides information about the status of a RUM report.

The policy that is applied to a product instance determines the following reporting requirements:

- Whether a RUM report is sent to CSSM and the maximum number of days provided to meet this requirement.
- Whether the RUM report requires an acknowledgement (ACK) from CSSM.
- The maximum number of days provided to report a change in license consumption.

A RUM report may be accompanied by other requests, such as a trust code request, or a SLAC request. So in addition to the RUM report IDs that have been received, an ACK from CSSM may include authorization codes, trust codes, and policy files as well.

## **Trust Code**

A UDI-tied public key with which the product instance signs a RUM report. This prevents tampering and ensures data authenticity.

## **Supported Topologies**

This section describes the various ways in which you can implement Smart Licensing Using Policy. Cisco Wireless Gateway for LoRaWAN supports the following topologies:

• Full Offline Access



In this topology, devices do not have connectivity to CSSM (software.cisco.com). You must copy and paste information between Cisco products and CSSM to manually check in and out licenses.

To implement this topology, see Workflow for Topology: Full Offline Access, on page 8.

• CSLU (Cisco Smart Licensing Utility) mode

CSLU mode has two different kind of CSLU modes depending on the topology between the CSLU and CSSM.

· CSLU has access to CSSM



In this topology the devices are connected to CSLU controller. There is connectivity between CSLU and CSSM (Cisco Smart Software Manager – software.cisco.com). Cisco products send usage information to a locally installed CSLU. There is online transmission between CSLU and CSSM to check-in and check-out licenses and data.

To implement this topology, see Workflow for Topology: CSLU Has Access to CSSM, on page 9.

CSLU has No Access to CSSM.



In this topology the devices are connected to CSLU. There is no connectivity between CSLU and CSSM (Cisco Smart Software Manager – software.cisco.com). Cisco products send usage information to a locally installed CSLU. You need to copy and paste information between CSLU and CSSM to manually check-in and check-out licenses.

To implement this topology, see Workflow for Topology: CSLU Has No Access to CSSM, on page 12.

# **Workflow for Topology: Full Offline Access**

This procedure requires a manual exchange of required information between the router and CSSM.

#### Procedure

Step 1	Set license transport method to "off".
	In configuration mode, perform the following:
	Example:
	Gateway# <b>configure terminal</b> Gateway(config)# <b>license smart transport off</b>
Step 2	Start license service through enabling common-packet-forwarder.
	In configuration mode, perform the following:
	Example:
	Gateway(config)# <b>common-packet-forwarder profile</b> Gateway(config-cpf-profile)# <b>ipaddr A.B.C.D port X</b> Gateway(config-cpf-profile)# <b>cpf enable</b>
Step 3	Generate a license usage (RUM reports) file from the device and export the license usage file to your host laptop/PC.
	Enter the license smart save usage command in privileged EXEC mode.
	Example:
	Gateway#license smart save usage all file flash:report
Step 4	Copy the usage report from IXM using the SCP command in privileged EXEC mode.
	Example:
	Gateway#scp local flash:report user1 171.69.181.77 /ws/user1/report
Step 5	Import the license usage file to CSSM on Cloud.
	a) Log in to the CSSM Web UI at https://software.cisco.com, using the username and password provided by Cisco.
	b) Select the <b>Smart Account</b> (upper left-hand corner of the screen) that will receive the report.
	c) Select Smart Software Licensing $\rightarrow$ Reports $\rightarrow$ Usage Data Files.
	d) The <b>Upload Usage Data</b> window appears. Click <b>Browse</b> , and navigate to where the file is. Click on <b>Upload Data</b> .

e) From the **Select Virtual Accounts** pop-up, select the Virtual Account that will receive the uploaded file. The file is uploaded to Cisco and is listed in the Usage Data Files table in the Reports screen showing the File Name, time is was Reported, which Virtual Account it was uploaded to, the Reporting Status, Number of Product Instances reported, and the Acknowledgement status. In the Acknowledgement column, click **Download** to save the **.txt** ACK file for the report you uploaded. f) Wait for the ACK to appear in the Acknowledgement column. g) Check under the Product Instances tab to verify your device is listed. Step 6 Download the ACK file, using the SCP command in privileged EXEC mode. Example: Gateway#scp remote user 171.69.181.77 /ws/ACK report flash:ACK report Step 7 Import the ACK file from CSSM to your device, using the license smart import file command in privileged EXEC mode. Example: Gateway#license smart import file flash: ACK report Step 8 Verify the Product Instance has imported the data. Use the following command to display license authorization, policy and reporting information for the product instance. Example: Gateway#show license usage Step 9 Verify the license is in use. Example: Gateway#show license summary

## Workflow for Topology: CSLU Has Access to CSSM

Tasks for Product Instance-Initiated Communication:

- Ensure network neachability (SSH).
- Check NTP status is in sync.
- Ensure the transport type is set to **cslu** (default).

Device (config) **#license smart transport cslu** 

• Specify the CSLU information to be used.

Configure a specific URL for CSLU by using the following CLI:

Device (config) **#license smart url cslu** http://<HOST or IP>:<port-num>/cslu/v1/pi

• HOST or IP - Hostname / IP address of the windows (where CSLU is installed)

• port-num – use 8180 or 8182.

• Verify the license policy is successfully installed by running the CLI command and verifying the time/date stamp.

```
Gateway#show common-packet-forwarder status
Enabled : Yes
Running : Yes
NS Registration : Successful
License Status: Reported - Yes, Acknowledged - Yes
Gateway#show license status
Utility:
 Status: DISABLED
Smart Licensing Using Policy:
  Status: ENABLED
Data Privacy:
  Sending Hostname: yes
   Callhome hostname privacy: DISABLED
    Smart Licensing hostname privacy: DISABLED
  Version privacy: DISABLED
Transport:
  Type: cslu
  Cslu address: http://172.27.164.116:8182/cslu/v1/pi
  Proxy:
   Not Configured
Policy:
  Policy in use: Installed On Feb 23 2021 02:14:41 UTC
  Policy name: Test Policy
  Reporting ACK required: no (Customer Policy)
 Unenforced/Non-Export Perpetual Attributes:
   First report requirement (days): 94 (Customer Policy)
   Reporting frequency (days): 100 (Customer Policy)
   Report on change (days): 100 (Customer Policy)
  Unenforced/Non-Export Subscription Attributes:
    First report requirement (days): 120 (Customer Policy)
   Reporting frequency (days): 100 (Customer Policy)
   Report on change (days): 100 (Customer Policy)
  Enforced (Perpetual/Subscription) License Attributes:
   First report requirement (days): 0 (CISCO default)
    Reporting frequency (days): 204 (Customer Policy)
   Report on change (days): 100 (Customer Policy)
  Export (Perpetual/Subscription) License Attributes:
   First report requirement (days): 0 (CISCO default)
   Reporting frequency (days): 100 (Customer Policy)
    Report on change (days): 100 (Customer Policy)
Miscellaneous:
 Custom Id: <empty>
Usage Reporting:
  Last ACK received: Feb 23 2021 02:14:41 UTC
 Next ACK deadline: <none>
 Reporting push interval: 0 (no reporting)
 Next ACK push check: <none>
 Next report push: <none>
 Last report push: Feb 23 2021 02:10:41 UTC
  Last report file write: <none>
Trust Code Installed: <none>
Gateway#
```

Sample configuration

```
Gateway#configure terminal
Gateway(config) #interface FastEthernet 0/1
Gateway(config-if) #ip address 172.27.170.104 255.255.255.128
Gateway (config-if) #exit
Gateway(config) #ip default-gateway 172.27.170.1
Gateway(config)#
Gateway(config)#exit
*Feb 20 02:37:17: Configured from console by console
Gateway#
Gateway#configure terminal
Gateway(config) #crypto key generate rsa
Gateway(config) #ip ssh admin-access
Gateway(config)#exit
*Feb 20 02:37:31: Configured from console by console
Gatewav#
Gateway(config) #configure terminal
Gateway(config) #common-packet-forwarder profile
Gateway(config-cpf-profile) #ipaddr 172.27.166.121 port 6070
Gateway(config-cpf-profile)#cpf enable
By typing 'y' below, I agree that to abide to SMART LICENSING subscription royalty agreement
with Cisco on this unit
Do you agree the above statement? [y/n]\mathbf{y}
common-packet-forwarder started successfully
Gateway(config-cpf-profile)#exit
Gateway(config)#exit
Gateway#
Gateway#configure terminal
Gateway(config) #license smart transport cslu
```

Gateway(config)#license smart url cslu http://172.27.164.116:8182/cslu/v1/pi Gateway(config)#exit

%SMART\_LIC-6-POLICY\_INSTALL\_SUCCESS:A new licensing policy was successfully installed

Check the status of the device on CSLU as shown below:

#### Figure 1: Verify the status of the device on CSLU

Product	Inventory Preferences		
Produ	uct Instances		
Add s	Single Product Actions for Selected Refresh Product Instance List		
	Name	Last Contact	Alerts
	Filter By Host/IP, SN or PID	Filter By Last Contact	Filter By Alerts
	UDI_PID1R8140H-P-K9; UDI_SN FD02420J64L	15-Feb-2021 16:17	COMPLETE Usage report uploaded to CSSM
	UDI_PID1XM+LPWA+600-16-K9; UDI_SN:FOC242145DW	22-Feb-2021 18:25	<ul> <li>COMPLETE: Usage report acknowledgement to product instance</li> </ul>
	UDI_PID:SamplePID; UDI_SN:36	22-Feb-2021 18:13	COMPLETE: Usage report acknowledgement to product instance
	UDI_PID.IX0A-LPWA-900-16-K9; UDI_SN:FOC23195XLK	22-Feb-2021 18:17	<ul> <li>COMPLETE: Usage report acknowledgement to product instance</li> </ul>
			Items per page: 5

Check updated information on CSSM as shown below:

#### Figure 2: Verify updated information on CSSM

Cisco Software Central > Smart Software Licensing				SA-IOT-Polari
Smart Software Licensing		Feedback Support Hel		
Alerts Inventory Convert to Smart Licensing Reports	Preferences On-Prem Acc	ounts Activity		
Virtual Account: DEFAULT -			(14) Minor	2 Informational Hide Alerts
General Licenses Product Instances Ev	ent Log			
Authorize License-Enforced Features		F0C242145	DW	× 9,
Name	Product Type	Last Contact	Alerts	Actions
UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:FOC242145DW;	AIRWAN	2021-Feb-23 02:10:47		Actions -
				Showing 1 Record

## Workflow for Topology: CSLU Has No Access to CSSM

In this topology, the devices are connected to CSLU. There is no connectivity between CSLU and CSSM (Cisco Smart Software Manager – software.cisco.com). Cisco products send usage information to a locally installed CSLU. You need to copy and paste information between CSLU and CSSM to manually check-in and check-out licenses.

#### Procedure

**Step 1** In the CSLU Preferences tab, click the **Cisco Connectivity** toggle switch to **off**. The field switches to "Cisco Is Not Available".

Preferences		
Cisco Connectivity Cisco Is Not Available Cisco and and a contract (second) Cisco Report Transa (second) S0 Conce Report Transa (second) Cisco Report Transa (second) Cisco Report Transa (second) Cisco Cisco Convise/Vices/ap/is/marti-accounts-and-licensing/v2/ Cisco Cisco Convise/ Cisco Cisco Convise/ Cisco Cisco Convise/ Cisco Cisco Cinvise/ Cisco Cisco Cisco Cisco Cinvise/ Cisco Cisco Cisco Cisco Cinvise	CSLU Connectivity Product instance Service Port* 8182  Hight Air Aper* 8180  State  Hight Air Account BU Production Test  Validate Device Cslu Variage Device Cslu Variage practice Cslu Variage Cs	
	Default Connect Method Product Instance Initiated only	-

**Step 2** Download tar file from CSLU.

	Inventory Preferences		
Prod	uct Instances		
Add	Single Product Actions for Selected Refresh Product Instance List		
	Name	Last Contact	Alerts
	Filter By Host/IP, SN or PID	Filter By Last Contact	Filter By Alerts
	UDL_PID.IR8140H-P-K9, UDL_SN FD02420J84L	15-Feb-2021 16:17	COMPLETE: Usage report uploaded to CSSM
	UDL_PID.XXM-LPWA-900-16-K9, UDL_SN.FOC242145DW	22-Feb-2021 18:25	COMPLETE: Usage report acknowledgement to product instance
	UDL_PID.IXM-LPWA-900-16-K9, UDL_SN-FOC23195XLK	23-Feb-2021 14:59	COMPLETE: Usage report from product instance
	UDL_PID.XXM-LPWA-900-16-K9, UDL_SN.FOC242145K5	23-Feb-2021 15:15	COMPLETE: Usage report from product instance
			Items per page: 5 ▼ 1-4 of 4  < < >>

#### **Step 3** Select the PID and choose **Download All for Cisco** from CSLU

Ci:	sco Smart	License Utility
CSLU	Product	Instances Edit Help
	Dow	nload All Product Instance List Ctrl+S
	Uplo	ad Product Instance List Ctrl+U
	Send	I All To Cisco Ctrl+Enter
1	Dow	nload All For Cisco Ctrl+Shift+S
	Uplo	ad From Cisco Ctrl+Shift+U
	Add S	Actions for Selected Refresh Product Instance List
		Name
		Filter By Host/IP, SN or PID
		UDI_PID:IR8140H-P-K9; UDI_SN:FDO2420J64L
		UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:FOC242145DW
		UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:FOC23195XLK
		UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:FOC242145K5

**Step 4** Save the file from CSLU.

Produ	ct Instances								
Add S	Single Product Actions for Selec	Save As						×	
	Name	Vnallar	mo 🕨 Downloads 🕨			• + <del>1</del>	Search Downloads	Q	
		Organize 🔻 New fo	older				J	0	
	Filter By Host/IP, SN or PID	☆ Favorites	^ Name	Date modified	Туре	Size		-	L
		Nesktop	퉬 coronado1.bin	10/18/2016 10:02	File folder			=	
	UDI_PID:IR8140H-P-K9; UDI_SN:FDO2420	) Downloads	🎉 coronado1nondemo.bin	10/25/2016 11:18	File folder				t uploade
		🔚 Recent Places	🎉 coronado1phy10.bin	11/1/2016 10:45 AM	File folder				
			Driver Support	8/2/2017 12:25 AM	File folder				
	UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:F0	词 Libraries	Configuration	2/4/2020 7:42 PM	File folder				acknowl
		Documents	ME_5M_9.0.0.1323	9/19/2016 1:23 PM	Compressed (zipp	63,047 KB			
		J Music	PRO_v21.0	9/19/2016 1:23 PM	Compressed (zipp	106,965 KB			
	UDI PID:IXM-LPWA-900-16-K9: UDI SN:F0	Pictures	Chipset_v10.0.27	9/19/2016 1:24 PM	Compressed (zipp	2,665 KB			from pro
		🚼 Videos	Vista_Win7_Win8_Win81_Win10_R279	9/19/2016 1:24 PM	Compressed (zipp	222,124 KB			
			MIATA_CD	9/19/2016 1:24 PM	Application	22,885 KB			
$\checkmark$	UDI PID'IXM-I PWA-900-16-K9' UDI SN'E0	🖳 Computer	MS.Net_Framework_4.5.2	9/19/2016 1:25 PM	Compressed (zipp	68,249 KB			t from pro
_		🏭 Local Disk (C:)	🔒 Win	9/19/2016 1:25 PM	Compressed (zipp	669 KB			
		KINGSTON (E:)	P putty	10/5/2016 10:10 AM	Application	519 KB			
			<ul> <li> <i>P</i> putty (1)         </li> </ul>	10/6/2016 1:54 PM	Application	519 KB		*	-
		File name: 🕕	_SA_SA_IOT_Polaris_21Feb23_15_18_57_736.tar					•	-
		Save as type: All	Files (*.*)					-	
								_	
		Hide Folders				(	Save Cancel		

#### **Step 5** Upload the tar file downloaded from CSLU to CSSM.

Ciano Coffuero Control	- deale	
Cisco Soliware Central	Upload Usage Data	
Cisco Software Central > Smart Software Licens Smart Software Licensing Alerts Inventory Convert to Smart Licensin Bonocto	Please select the Usage File you wish to upload. * Usage Data File: Browse UD_SA_SA_JOT_Poteris_21Feb23_15_18_57_730	Illi SAHOT-Poteris Star.gz Feedback Support Help
Report Usage Data Files Repo	ting Policy Synch File for Device Controllers	
Devices can be configured to report the features This usage then determines which licenses are r	that they are using. eeded, in order to be compliant.	
Upload Usage Data		Search by File Name, Virtual Account

#### **Step 6** Check the status on CSSM and download the file from CSSM.

Cisco Software C	entral > Smart Softwa	re Licensing				ملك	SA-IOT-Pola
Smart So	mart Software Licensing						Support H
Alerts Invento	ory Convert to Smart	t Licensing Reports	Preferences On-Prem Acc	counts Activity			
Reports							
Report	Usage Data Files	Reporting Policy	Synch File for Device Control	llers			
Devices can b	e configured to report the	e features that they are	using.				
Upload	en determines which lice Usage Data	nses are needed, in ord	er to be compliant.	Se	earch by File Name, Virtual Account		0,
Usage	Data File		Reported Virtual Account	Reporting Status	Devices	Acknowledgeme	int
. UD_SA	_SA_IOT_Polaris_21Fe	b23_15_18_57_73 20	21-Feb-23 DEFAULT	1 No Errors	1	Download	

#### **Step 7** Upload the file downloaded file from CSSM on the CSLU.

	Inventory Preferences		
Prod	uct Instances		
Add	Single Product Actions for Selected Refresh Prod	uct Instance List	
	Name	Last Contact	Alerts
	Filter By Host/IP, SN or PID	Filter By Last Contact	Filter By Alerts
	UDI_PID1R8140H-P-K9; UDI_SN:FD02420J64L	15-Feb-2021 16:17	COMPLETE:Usage rep
	UDI_PIDIXM-LPWA-900-16-K9; UDI_SN:FOC242145DW	Upload From Cisco	COMPLETE:Usage rep
	UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:FOC23195XLK		COMPLETE:Usage rep
	UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:FOC242145K5	Drag & Drop a File or Browse from your computer.	COMPLETE:Usage rep
			Items per page: 5

#### **Step 8** Upload the specified tar file.

Produ	ict Instances		
Add :	Single Product Actions for Selected Refresh Product	ict Instance List	
	Name	Last Contact	Alerts
	Filter By Host/IP, SN or PID	Filter By Last Contact	Filter By Alerts
	UDI_PID:IR8140H-P-K9; UDI_SN:FD02420J64L	15-Feb-2021 16:17	COMPLETE:Usage report uploaded
	UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:FOC242145DW	Upload From Cisco	COMPLETE:Usage report ackn
	UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:FOC23195XLK	ACK_UD_SA_SA_IOT_Polaris_21Feb23_15_18_57_736.tar.gz uploaded successfully	COMPLETE:Usage report from
	UDI_PID:IXM-LPWA-900-16-K9; UDI_SN:FOC242145K5	Drag & Drop a File	COMPLETE:Acknowledgement
			Items per page: 5 💌

#### **Step 9** Verify the status on CSLU.

Product Instances					
Add Single Product Actions for Selected. Refresh Product Instance List					
	Name	Last Contact	Alerts		
	Filter By Host/IP, SN or PID	Filter By Last Contact	Filter By Alerts		
	UDLPID1R8140H-P-K9, UDL_SN FD02420J84L	15-Feb-2021 16:17	COMPLETE:Usage report uploaded to CSSM		
	UDL_PID.IXM-LPWA-900-16-K9; UDL_SN:FOC242145DW	22-Feb-2021 18:25	COMPLETE:Usage report acknowledgement to product instance		
	UDL_PID.IXM+LPWA-900-16-K9; UDL_SN-FOC23195XLK	23-Feb-2021 14:59	COMPLETE:Usage report from product instance		
	UDL/PID.IXM-LPWA-900-16-K9, UDL_SN.FOC242145K5	23-Feb-2021 15:26	COMPLETE:Acknowledgement received from CSSM		
			Items per page: 5    1 − 4 of 4      <    >    >		

#### Gateway#show license usage

License .	Authoi	rization:
Status	: Not	Applicable

```
LORAWAN CPF (LORAWAN CPF):
  Description: LORAWAN CPF
  Count: 1
  Version: v01
  Status: IN USE
 Export status: NOT RESTRICTED
 Feature Name: LORAWAN CPF
  Feature Description: LORAWAN CPF
 Enforcement type: NOT ENFORCED
 License type: Invalid
Gateway#show license status
Utility:
  Status: DISABLED
Smart Licensing Using Policy:
 Status: ENABLED
Data Privacy:
  Sending Hostname: yes
    Callhome hostname privacy: DISABLED
    Smart Licensing hostname privacy: DISABLED
  Version privacy: DISABLED
Transport:
  Type: cslu
  Cslu address: http://172.27.164.116:8182/cslu/v1/pi
  Proxy:
   Not Configured
Policy:
  Policy in use: Installed On Feb 24 2021 00:04:10 UTC
  Policy name: Test Policy
  Reporting ACK required: no (Customer Policy)
  Unenforced/Non-Export Perpetual Attributes:
   First report requirement (days): 94 (Customer Policy)
    Reporting frequency (days): 100 (Customer Policy)
    Report on change (days): 100 (Customer Policy)
  Unenforced/Non-Export Subscription Attributes:
   First report requirement (days): 120 (Customer Policy)
    Reporting frequency (days): 100 (Customer Policy)
   Report on change (days): 100 (Customer Policy)
  Enforced (Perpetual/Subscription) License Attributes:
    First report requirement (days): 0 (CISCO default)
    Reporting frequency (days): 204 (Customer Policy)
   Report on change (days): 100 (Customer Policy)
  Export (Perpetual/Subscription) License Attributes:
    First report requirement (days): 0 (CISCO default)
    Reporting frequency (days): 100 (Customer Policy)
   Report on change (days): 100 (Customer Policy)
Miscellaneous:
  Custom Id: <empty>
Usage Reporting:
  Last ACK received: Feb 24 2021 00:04:10 UTC
  Next ACK deadline: <none>
  Reporting push interval: 0 (no reporting)
 Next ACK push check: <none>
  Next report push: <none>
  Last report push: Feb 23 2021 23:04:11 UTC
  Last report file write: <none>
```

Trust Code Installed: <none> Gateway#

# **Removing the Product Instance from CSSM**

#### Procedure

Step 1	Log in to the CSSM Web UI at https://software.cisco.com and click Smart Software Licensing. Log in using the username and password provided by Cisco.		
Step 2	Click the <b>Inventory</b> tab.		
Step 3	From the Virtual Account drop-down list, choose your virtual account.		
Step 4	Click the <b>Product Instances</b> tab. The list of product instances that are available is displayed.		
Step 5	Locate the required product instance from the product instances list. Optionally, you can enter a name or product type string in the search tab to locate the product instance.		
Step 6	Click the required product instance to expand the same. The Overview window is displayed.		
Step 7	From the Actions drop-down list, choose Remove. The Remove Product Instance window is displayed.		
Step 8	In the Reservation Return Code field, enter the return code.		
Step 9	Click <b>Remove Product Instance</b> . The license is returned to the license pool.		

Smart Licensing Using Policy