cisco.



Specific License Reservation

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Americas Headquarters

Cisco Systems, Inc. 170 West Tasman Drive San Jose, CA 95134-1706 USA http://www.cisco.com Tel: 408 526-4000 800 553-NETS (6387) Fax: 408 527-0883 © 2018 Cisco Systems, Inc. All rights reserved.



CONTENTS

CHAPTER 1

Specific License Reservation 1

Introduction to Specific License Reservation 1 Requesting License Reservation for Your Smart Account 2 Registering a Device with SLR 3 Device is Shipped with the Cisco IOS XE Fuji 16.9.x Release or Later 3 Enabling SLR on a Device **3** Device is Upgraded from Earlier Releases to Cisco IOS XE Fuji 16.9.x or Later 3 Configuring the License Level 4 Generating a Request Code from a Device 5 Reserving a License in Cisco SSM 6 Registering a Device with Authorization Code 10 Registering Stack Members with a Single Authorization File 10 Upgrading or Downgrading a License on a Device **11** Generating a New Authorization Code for the New License in Cisco SSM 12 Registering a Device Using Authorization Code 15 Verifying the License Status After Registering the Device Using Authorization Code **16** Configuring the License Level **16** Entering the Confirmation Code in Cisco SSM 17 Canceling a SLR Request 20 Verifying the License Status After Canceling SLR 20 Removing SLR from a Device 21 Generating a Return Code from a Device 21 Removing the Product Instance from CSSM 21 Configuration Examples for SLR 24 Example: Enabling SLR 24 Example: Viewing the License Information Before Registering 24

Example: Viewing the License Status After Registering 26 Example: Adding a New Member to a Stack Running SLR 29 Example: Replacing the License for a Member in a Stack Running SLR 34 Supported Devices 40



Specific License Reservation

Specific License Reservation allows customers in highly secure networks to use Smart Licensing (and Smart licenses) without communicating the license information.

For a more detailed overview on Cisco Licensing, go to cisco.com/go/licensingguide.

- Introduction to Specific License Reservation, on page 1
- Requesting License Reservation for Your Smart Account, on page 2
- Registering a Device with SLR, on page 3
- Upgrading or Downgrading a License on a Device, on page 11
- Canceling a SLR Request, on page 20
- Removing SLR from a Device, on page 21
- Configuration Examples for SLR, on page 24
- Supported Devices, on page 40

Introduction to Specific License Reservation

Devices that are registered with smart licenses share device information at regular intervals with Cisco Smart Software Manager (SSM). Devices that are deployed in a highly secure network must not share the device information externally. Cisco offers license reservation as an on-request configuration for these devices.



Note License reservation provides limited or no functionality to certain smart licensing features such as transfer of licenses between products, license usage, asset management and so on.

Feature Support Information

Release	Feature Support Information
Cisco IOS XE Fuji 16.9.1	Support for SLR was introduced.

Release	Feature Support Information
Cisco IOS XE Amsterdam 17.3.2a	Smart Licensing Using Policy was introduced. In this enhanced version of Smart Licensing, the notion of "reservation" does not apply.
	For new deployments, this means that you no longer request a new license reservation, or generate authorization codes, or register devices etc. Instead, you can deploy a topology that is suited to air-gapped networks: <i>No Connectivity to CSSM and No CSLU</i> .
	For existing deployments, this means that when you upgrade to a release that supports Smart Licensing Using Policy, any existing SLR authorization codes are migrated. After migration the <i>No Connectivity to CSSM and No CSLU</i> topology is effective.
	Once you are in the Smart Licensing Using Policy environment, license usage is recorded on your device with timestamps and any required reporting workflows can be completed at a later date. For air-gapped networks, a provision for offline reporting (download usage information and upload to CSSM), is available.
	For more conceptual, configuration, migration, and troubleshooting information for Smart Licensing Using Policy, in the software configuration guide of the required release (17.3.x onwards) and platform, see System Management \rightarrow Smart Licensing Using Policy.

Overview

Specific License Reservation (SLR) allows reservation of specific licenses, including add-on licenses. Begin by requesting license reservation for your Smart Account. After you have received a response from the licensing support team, you can proceed with the next steps, as outlined below.

To reserve specific licenses for a device, generate a request code from the device. Enter the request code in Cisco SSM along with the required licenses and their quantity, and generate an authorization code. Enter the authorization code on the device to map the license to the Unique Device Identifier (UDI).

To reserve specific licenses for a stack configuration, generate a request code for each member in the stack. Generate individual authorization codes for each of the request codes. Register each member of the stack with the generated authorization code.

To reserve specific licenses for modular switches, generate request codes for the supervisor module and chassis module separately. Enter the request code in Cisco SSM and select the required licenses (Network license for the supervisor module and DNA license for the chassis module) and generate authorization codes. Register the supervisor module and the chassis module with the respective authorization codes.

For a Quad-Supervisor with RPR setup, generate authorization codes separately for the two chassis. Chassis 1 needs an authorization code with 2 Network licenses (for the two supervisor modules in Chassis 1) and 1 DNA license (for Chassis 1), and Chassis 2 needs another authorization code with 2 Network licenses (for the two supervisor modules in Chassis 2) and 1 DNA license (for Chassis 2)

Requesting License Reservation for Your Smart Account

To request license reservation to your Smart Account in Cisco Smart Software Manager, complete the following steps:

- 1. Go to Support Case Manager.
- 2. Click OPEN NEW CASE
- 3. Select Software Licensing

The licensing team will contact you to start the process or for any additional information.

Registering a Device with SLR

Registering device with SLR depends on whether the device is purchased newly from Cisco or whether you are upgrading your existing device. Both the scenarios are explained in the following sections.

Device is Shipped with the Cisco IOS XE Fuji 16.9.x Release or Later

The license is reserved in Cisco SSM and the device is preregistered with the selected license by Cisco. Enable specific license reservation on the device only.

Enabling SLR on a Device

To enable SLR, perform this procedure:

Procedure

	Command or Action	Purpose		
Step 1	enable	Enables privileged EXEC mode.		
	Example:	Enter your password, if prompted.		
	Device> enable			
Step 2	configure terminal	Enters global configuration mode.		
	Example:			
	Device# configure terminal			
Step 3	license smart reservation	Enables SLR. Use the no form of this command		
	Example:	to disable SLR.		
	Device(config)# license smart reservation			
Step 4	exit	Exits global configuration mode, and returns		
	Example:	the device to privileged EXEC mode.		
	Device(config)# exit			

Device is Upgraded from Earlier Releases to Cisco IOS XE Fuji 16.9.x or Later

To register a device with SLR, you must do the following tasks:

1. Enable license reservation on a device.

- 2. Generate a license reservation request code from the device.
- 3. Enter the request code in Cisco SSM, reserve a license, and generate an authorization code.
- 4. Register the device with the generated authorization code.

Configuring the License Level

This procedure is optional. Use this procedure to :

- Downgrade or upgrade licenses.
- Enable or disable an evaluation or extension license.
- Clear an upgrade license.

Configure the required license levels on the device before registering. The following are the license levels that are available for the Cisco Catalyst 9000 Series Switches:

Base Licenses

- Network Essentials
- Network Advantage (includes Network Essentials)

Add-on licenses—These can be subscribed for a fixed term of 3, 5, or 7 years.

- Cisco Digital Networking Architecture (DNA) Essentials
- Cisco DNA Advantage (includes DNA Essentials)

To configure the license levels, follow this procedure:

	Command or Action	Purpose		
Step 1	enable	Enables privileged EXEC mode.		
	Example:	Enter your password, if prompted.		
	Device> enable			
Step 2	configure terminal	Enters global configuration mode.		
	Example:			
	Device# configure terminal			
Step 3	license boot level license_level	Activates the licenses on the device.		
	Example:			
	Device(config)# license boot level network-advantage			
Step 4	exit	Returns to the privileged EXEC mode.		
	Example:			
	Device(config)# exit			

	Command or Action	Purpose
Step 5	write memory	Saves the license information on the device.
	Example:	
	Device# write memory	
Step 6	show version	Shows license-level information.
	Example:	
	Device# show version	
	Technology-package Current Type Technology-package Next reboot	ackage
	network-advantage Sma License network-advantage None	rt
	Subscription Smart License N	one
Step 7	reload	Reloads the device.
	Example:	
	Device# reload	

Generating a Request Code from a Device

After SLR is enabled, you must generate a request code from the device.

To generate a request code, perform this procedure:

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode.
	Example:	Enter your password, if prompted.
	Device> enable	
Step 2	<pre>license smart reservation request [all local] Example: Device# license smart reservation request local Enter this request code in the Cisco Smart Software Manager portal: CP-ZC9300-24U:FCW2125L046-AK9A6sMTr-47</pre>	 Generates a request code that needs to be entered in Cisco SSM. The request code can be generated for the following: all—Generates a request code for all connected devices. local—Generates a request code for the active device.

What to do next

Reserving a license in Cisco SSM.

Verifying the License Status After Generating Request Code

To verify the license status after generating request code, use the show license reservation command:

```
Device> enable
Device# show license reservation
Overall status:
   Active: PID:C9300-24U,SN:FCW2125L046
   License reservation: ENABLED
        Reservation status: RESERVATION IN PROGRESS on Jun 12 15:36:04 2018 UTC
        Export-Controlled Functionality: Not Allowed
        Request code: CP-ZC9300-24U:FCW2125L046-AK9A6sMTr-47
```

Reserving a License in Cisco SSM

Procedure

Step 1	Log in to the Cisco SSM from https://software.cisco.com/#.
	Log in to the Cisco SSM using the username and password provided by Cisco.
Step 2	Click the Inventory tab.
Step 3	From the Virtual Account drop-down list, choose your virtual account.
Step 4	Click the Licenses tab.
Step 5	Click License Reservation.

rts Inventory Convert to Smart Licensing Reports Preferences Satellites Activity			Questions About Licensing? Try our Virtual Assistant				
ual /	Account: Virtual Account 1 -						104 Minor Hide
enera	I Licenses Product Instance	s Event Log					
Ava	ailable Actions - Manage Lice	ense Tags License	Reservation	Show License	Transactions	Search by License	By Name By 1
							Advanced Searc
lı	icense	Billing	Purchased	In Use	Balance	Alerts	Actions
Ð /	ASAv10 Standard - 1G	Prepaid	1	1	0	A Licenses Expiring	Actions 👻
)	C3850 High Port DNA Advantage	Prepaid	20	0	+ 20	A Licenses Expiring	Actions 👻
)	C3850 High Port DNA Essentials	Prepaid	20	0	+ 20	A Licenses Expiring	Actions 👻
)	C3850 Low Port DNA Advantage	Prepaid	20	0	+ 20	A Licenses Expiring	Actions 👻
)	C3850 Low Port DNA Essentials	Prepaid	20	0	+ 20	A Licenses Expiring	Actions 👻
)	C3850-DNA-A-12	Prepaid	20	0	+ 20	A Licenses Expiring	Actions 👻
	C3850-DNA-A-24	Prepaid	40	0	+ 40	A Licenses Expiring	Actions 👻
	C3850-DNA-A-48	Prepaid	20	0	+ 20	A Licenses Expiring	Actions -
)	C3850-DNA-E-12	Prepaid	20	0	+ 20	A Licenses Expiring	Actions -

The Smart License Reservation window is displayed. The Enter Request Code tab is selected by default.

```
Step 6 In the Reservation Request Code field, enter the request code.
```

```
Step 7
```

in the Reservation Request Code neta, enter the request
Click Next.

Step /

Smart License Reserva	tion				×
STEP 1 Enter Request Code	STEP 2 Select Licenses	STEP 3 Review and confirm	STEP 4 Authorization Code		
You can reserve licenses for pro You will begin by generating a R To learn how to generate this co	oduct instances that cannot connec teservation Request Code from the ide, see the configuration guide for	t to the Internet for security reasons product instance. the product being licensed.	S.		I
Once you have generated the c	ode:				
1) Enter the Reservation Re	quest Code below				
2) Select the licenses to be r	reserved				
3) Generate a Reservation A	authorization Code				
Enter the Reservation Aut	horization Code on the product ins	tance to activate the features			
* Reservation Request Code:					
CP-ZC9300-24U:FCW2125L04	6-AK9A6sMTr-47				
		Browse	e Upload		
To learn how to enter this code	, see the configuration guide for the	e product being licensed			
				Cancel	ext

The Select Licenses tab is displayed.

Step 8 Check the **Reserve a specific license** check box.

Smart License Reservat	tion				×			
STEP 1 ✓ Enter Request Code	STEP 2 Select Licenses	STEP 3 Review and confirm	STEP 4	3				
Product Instance Details	:							
Product Type:	C9300							
UDI PID:	C9300-24U							
UDI Serial Number:	FCW2125L046							
Licenses to Reserve	Licenses to Reserve							
In order to continue, ensure that	you have a surplus of the licenses	s you want to reserve in the Virtual	Account.					
Reserve a specific license								
License	Description		Expires	Available Quantity To Reserve				
C9300 Network Advantage	C9300-24P Ne	C9300-24P Network Advantage		15				
C9300 48P DNA Advantage	C9300 48P DN	IA Advantage	2018-Nov-28	7				
				Cancel	Back Next			

Step 9In the Quantity to Reserve field, enter the numeral 1 adjacent to the required license.NoteThe Quantity to Reserve field allows the reservation of only one license at a time.

Step 10 Click Next.

Smart License Reservation				х
STEP 1 🗸	STEP 2 Select Licenses	STEP 3 Review and confirm	STEP 4. Authorization Code	
C9300 Network Advantage	C9300-24P Ne	twork Advantage	multiple terms	15
C9300 48P DNA Advantage	C9300 48P DN	IA Advantage	2018-Nov-28	7
WLC 5520 or WLC 8540 or WLC 3504 /	Access Poi WLC 5520 or \	VLC 8540 or WLC 3504 Access Poi	- never -	10
C9300 DNA Essentials	C9300-24P DM	IA Essentials	2018-Nov-28	10
C9300 Network Essentials	C9300-24P Ne	twork Essentials	multiple terms	32 1
C9300 24P NW & DNA Upgrade	C9300 24-port	NW	2018-Nov-28	10
C9300 DNA Advantage	C9300-24P DM	IA Advantage	2018-Nov-28	7
				Cancel Back Next

The **Review and confirm** tab is displayed.

Step 11 Click Generate Authorization Code.

Smart License Reserva	tion			×
STEP 1 ✓ Enter Request Code	STEP $2 \checkmark$ Select Licenses	STEP 3 Review and confirm	STEP 4	
Product Instance Details	5			
Product Type:	C9300			
UDI PID:	C9300-24U			
UDI Serial Number:	FCW2125L046			
Licenses to Reserve				
License		Description	Expires	Quantity To Reserve
C9300 Network Essentials		C9300-24P Network Essentials	multiple terms	1
			Cancel B	Generate Authorization Code

The Authorization Code tab is displayed.

Step 12 After the authorization code is generated, click **Copy to Clipboard** to copy the authorization, or **Download as File** to download the file and save it to the Flash drive or TFTP server.

Smart Licen	se Reservat	ion				×
STEP	est Code	STEP 2 ✓ Select Licenses	STEP $3 \checkmark$ Review and confirm	STEP 4		
The Resu Enter this	ervation Authorizat	on Code below has been generated art Licensing settings for the product	for this product instance. to enable the licensed features.			
Product Type:	lance Details	C9300				
UDI PID:		C9300-24U				
UDI Serial Nu	mber:	FCW2125L046				
Authorization	Code:					
<specificplr> <entitlement>- JUN-23 UTC< <subscriptioni <signature>MI <th><authorizationcod tag>regid.2017-03 (endDate><license D>EUCIFMsZ6D8TrTI ></license </authorizationcod </th><th>e><flag>A</flag><version>C.com.cisco.essentialsk9,1.0_90406 Type>TERM<display ></display </version></th></signature></subscriptioni </entitlement>2B6uhZYhY9Om6uizJ7vHYbnT8JN</specificplr>	<authorizationcod tag>regid.2017-03 (endDate><license D>EUCIFMsZ6D8TrTI ></license </authorizationcod 	e> <flag>A</flag> <version>C.com.cisco.essentialsk9,1.0_90406 Type>TERM<display ></display </version>	on> <piid>08f3fa0d-e880-4c8d-94de-4 ae8-385e-43aa-ac98-91da0ea270e2< Name>C9300 Network EssentialsthorizationCode> 9R/kCAiEAm15j0CHD9bqF7frfbR4Ou</piid>	85262c2226a <timestamp>153 'tag><count>1</count><startdate>20 splayName><tagdescription>C9300- uioyxgsQUBSawO3YYvxpZI=<th>i6173491838<entitlements> 018-MAR-30 UTC</entitlements></th></tagdescription></startdate><enddate>2019- 24P Network Essentials ature><udi>P:C9300-24U,S:FCW2125L046</udi></enddate></timestamp>	i6173491838 <entitlements> 018-MAR-30 UTC</entitlements>	
To learn how to	enter this code,	see the configuration guide for th	e product being licensed			
				Do	ownload as File Copy to Clipboard Cl	ose

What to do next

Register a device with authorization code.

Registering a Device with Authorization Code

To register a device with authorization code, perform this procedure:

Procedure

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode.
	Example:	Enter your password, if prompted.
	Device> enable	
Step 2	license smart reservation install file	Loads the authorization code either from the
	{ flash : <i>filename</i> tftp :// <i>filepath</i> }	Flash drive or the TFTP server and registers the
	Example:	device.
	Device# license smart reservation install file flash:AuthCode.txt Reservation install file successful Last Confirmation code UDI: PID:C9300-24U,SN:FCW2125L046 2ce72617	

Verifying the License Status After Registering the Device with Authorization Code

To verify the license status after registration, use the show license reservation command:

```
Device> enable
Device# show license reservation
License reservation: ENABLED
Overall status:
  Active: PID:C9300-24U, SN:FCW2125L046
      Reservation status: SPECIFIC INSTALLED on Sep 05 15:03:03 2018 EDT
      Export-Controlled Functionality: Not Allowed
      Last Confirmation code: 2ce72617
Specified license reservations:
  C9300 Network Advantage (C9300-24 Network Advantage):
   Description: C9300-24P Network Advantage
    Total reserved count: 1
   Term information:
      Active: PID:C9300-24U, SN:FCW2125L046
        License type: TERM
          Start Date: 2018-APR-02 EDT
          End Date: 2019-JUN-26 EDT
          Term Count: 1
```

Registering Stack Members with a Single Authorization File

In a stack configuration, a single authorization file can be used to register all the members in the stack instead of registering each member separately.

To create a single authorization file, perform this procedure:

1. Download the authorization files of each member in the stack and save it locally.

2. Open any of the authorization file using a text editor.

The following code is available:

```
<specificPLR><authorizationCode><flag>A</flag>
<version>C</version><piid>O7639008-be16-43c7-8dfd-fd31eae63fdf</piid>
<timestamp>1528829828573</timestamp><entitlements><entitlement>
<startDate>2018-JUN-12 UTC</startDate><endDate>2018-DEC-09 UTC</endDate>
<tag>regid.2018-02.com.cisco.C3850_24_Ipserv,1.0_f8e7b1ab-93d6-4c16-b579-e1aef2d7e528</tag>
<count>1</count><licenseType>TERM</licenseType><displayName>C3850_24_Ipserv</displayName>
<tagDescription>C3850_24 Port
Ipserv</tagDescription><subscriptionID></subscriptionID></entitlement></entitlements></authorizationCode>
<signature>MEQCIHfhX/eqXaTIPvUM+U1kMut9nfibYGMtSMx/On1KKX2AiBc4/oxMsyzGwFZDY3htC0FUN/ujJly4xmSezIANkkw=</signature>
<udi>P:WS-C3850-24P, S:FCW1818C01U</udi></specificPLR>
```

3. Insert the tag <smartLicense> at the beginning of the code, and the tag </smartLicense> at the end of the code:

```
<smartLicense>
<specificPLR><authorizationCode><flag>A</flag>
<version>C</version><piid>07639008-be16-43c7-8dfd-fd31eae63fdf</piid>
<timestamp>1528829828573</timestamp><entitlements><entitlement>
<startDate>2018-JUN-12 UTC</startDate><endDate>2018-DEC-09 UTC</endDate>
<tag>regid.2018-02.com.cisco.C3850_24_Ipserv,1.0_f8e7b1ab-93d6-4c16-b579-e1aef2d7e528</tag>
<count>1</count><licenseType>TERM</licenseType><displayName>C3850_24_Ipserv</displayName>
<tagDescription>C3850_24 Port
Ipserv</tagDescription><subscriptionID></subscriptionID></entitlement></entitlements></signature>
<signature>MEQCIHfhX7eq%aTIPvUMHUkMut9nfibYQMtSMx/CmlKK2AiBc4/coMsyzGmFZDY3htC0FUN/ujJly4xmSezIANkkw=</signature>
</subscription>
```

<udi>P:WS-C3850-24P, S:FCW1818C01U</udi></specificPLR></smartLicense> 4. Copy the authorization code from all the other files and paste it into this file:

```
<smartLicense>
<specificPLR><authorizationCode><flag>A</flag>
<version>C</version><piid>07639008-be16-43c7-8dfd-fd31eae63fdf</piid>
<timestamp>1528829828573</timestamp><entitlements><entitlement>
<startDate>2018-JUN-12 UTC</startDate><endDate>2018-DEC-09 UTC</endDate>
<tag>regid.2018-02.com.cisco.C3850 24 Ipserv,1.0 f8e7blab-93d6-4c16-b579-elaef2d7e528</tag>
<count>1</count><licenseType>TERM</licenseType><displayName>C3850 24 Ipserv</displayName>
<tagDescription>C3850 24 Port
Ipserv</tagDescriptionID>/subscriptionID>/entitlement>/entitlement>/authorizationCode>
<signature>MEQCIHfhX7eqXaTlPvUwHUlXMut9nfibYGMt5Mx/CmlKKX2AiBc4/cxMsyzGhwFZDY3htCOFUN/ujJly4xbnSezIANxkw=</signature>
<udi>P:WS-C3850-24P,S:FCW1818C01U</udi></specificPLR>
<specificPLR><authorizationCode><flag>A</flag>
<version>C</version><piid>07639008-be16-43c7-8dfd-fd31eae63fdf</piid>
<timestamp>1528829828573</timestamp><entitlements><entitlement>
<startDate>2018-JUN-12 UTC</startDate><endDate>2018-DEC-09 UTC</endDate>
<tag>regid.2018-02.com.cisco.C3850 24 Ipserv,1.0 f8e7blab-93d6-4c16-b579-elaef2d7e345</tag>
<count>l</count>licenseType>TERM</licenseType>CdisplayName>C3850 24 Ipserv</displayName>tagDescription>C3850
24 Port
Ipserv</tagDescription><subscriptionID></subscriptionID>/entitlement>/entitlements>/authorizationCode>
```

signature>MEQCIHfhX?eq&aTlPvUMHUlkMut9nfibYGMt9Mx/CmlKKv2AiBc4/cxMsyzGhwFZDY3htCOFUN/ujJly4kmSezIANkkw=</signature>
<udi>P:WS-C3850-24P,S:FCW2089C01X</udi></specificPLR></smartLicense>

5. Save the authorization file. Install the authorization file using the **license smart reservation install file** {**flash**:*filename* | **tftp**://*filepath*} command.

Upgrading or Downgrading a License on a Device

You can upgrade or downgrade your device license level without sharing the device information with Cisco SSM.

To change the license level on a device, perform the following tasks:

- 1. Generate a new authorization code for the new license from Cisco SSM.
- 2. Install the authorization code on the device and get the confirmation code.
- 3. Configure the new license level on the device.
- 4. Enter the confirmation code in Cisco SSM.

Generating a New Authorization Code for the New License in Cisco SSM

Procedure

Step 1	Log in to the Cisco SSM at https://software.cisco.com/#.
	Log in to the Cisco SSM using the username and password provided by Cisco.
Step 2	Click the Inventory tab.
Step 3	From the Virtual Account drop-down list, choose your virtual account.
Step 4	Click the Product Instances tab.

		Qu	estions About Licensing?	
ts Inventory Convert to Smart Licensing Rep	orts Preferences Satellites	Activity	Try	our Virtual Assistant
tual Account: Virtual Account 1 -				(104) Minor Hide Ale
General Licenses Product Instances	Event Log			
		Search b	y Name, Product Type	0,
Name	Product Type	Last Contact	Alerts	Actions
513E.C.26-9300-9	C9300	2018-Aug-02 21:07:03		Actions -
CAT3850-DLC	C3850	2018-Jul-09 15:41:30		Actions -
CAT93008x 🗖	C9300	2018-Aug-29 02:02:59		Actions -
elo-csr5	CSR1KV	2018-Aug-03 06:39:48		Actions -
jgorlin-asav	ASAHIGH	2018-Aug-01 20:03:34		Actions -
UDI_PID:C9300-24U; UDI_SN:FCW2123G002; 🗖	C9300	2018-Aug-29 02:01:13		Actions -
UDI_PID:C9407R; UDI_SN:FXS2131Q29D;	C9400	2018-Jul-06 14:40:11 (Reserved	d Licenses)	
UDI_PID:C9410R; UDI_SN:RME4QEXT0AQ;	C9400	2018-Jul-30 17:00:05 (Reserved	d Licenses)	Actions -
UDI_PID:C9410R; UDI_SN:SME4QEXT0AQ;	C9400	2018-Apr-06 09:26:05 (Reserve	d Licenses)	Actions -

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 also 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.

Cisco Software Central > Smart Software Licensing			English [Change]	Hello 🏥 Smart Account Name 🔻
Smart Software Licensing				Feedback Support Hel
Alerts Inventory Convert to Smart Licensing Reports	Preferences Satellites	Activity		Questions About Licensing?
Virtual Account: Virtual Account 1 -				104 Minor Hide Alerts
General Licenses Product Instances E	vent Log			
		C9300		× °
Name	Product Type	Last Contact	Alerts	Actions
513E.C.26-9300-9	C9300	2018-Aug-02 21:07:03		Actions 🗸
CAT93008x 🗖	C9300	2018-Aug-29 02:02:59		Actions -
UDI_PID:C9300-24U; UDI_SN:FCW2123G002;	C9300	2018-Aug-29 02:01:13		Actions 🗸
UDI_PID:C9300-24U; UDI_SN:FCW2125L046;	C9300	2018-Sep-06 14:14:48 (Reserve	ed Licenses)	Actions -
				Showing All 4 Records

The **Overview** window is displayed.

Step 7 From the Actions drop-down list, choose Update Reserved Licenses.

I_PID:C9300-24U; UDI_SN:FCW2125L046; 300		
I_PID:C9300-24U; UDI_SN:FCW2125L046; 300		
I_PID:C9300-24U; UDI_SN:FCW2125L046; 300		
I_PID:C9300-24U; UDI_SN:FCW2125L046; 300		
300		
300-24U		
W2125L046		
tual Account 1		
18-Sep-05 18:51:31		
18-Sep-05 18:51:31 (Reserved Licenses) - Down	load Reservation Authorization Code	
	These license:	s are reserved on this product instance Update reservatio
Billing	Expires	Required
Prepaid	2019-Jun-23	1
		Showing all 1
	W2125L046 tual Account 1 18-Sep-05 18:51:31 18-Sep-05 18:51:31 (Reserved Licenses) - Down Billing Prepaid	W2125.D466 tual Account 1 18-Sep-05 18:51:31 (Reserved Licenses) - Download Reservation Authorization Code These license Billing Expires Prepaid 2019-Jun-23

The Update License Reservation window is displayed.

Step 8 In the **Quantity to Reserve** field adjacent the corresponding license, enter 1.

Note The **Quantity to Reserve** field allows reservation of one license at a time.

Step 9 Click Next.

U	pdate License Reservation								×
	STEP 1 Select Licenses	STEP 2	confirm	STEP 3 Authorization Code					
	WLC 5520 or WLC 8540 or WLC 3504 Acc	cess Poi	WLC 5520 or V	VLC 8540 or WLC 3504 Access Poi.	never -	10			
	C9300 DNA Essentials		C9300-24P DN	IA Essentials	2018-Nov-28	10			
	C9300 Network Essentials		C9300-24P Ne	twork Essentials	multiple terms	32	0		
	C9300 24P NW & DNA Upgrade		C9300 24-port	NW	2018-Nov-28	10			L
	C9300 DNA Advantage		C9300-24P DN	IA Advantage	2018-Nov-28	7	1		
	C9300 48P NW Advantage		C9300 48P NW	V Advantage	multiple terms	17			
						**			
								Cancel	ext

The Review and confirm tab is displayed.

Note The **Quantity to Reserve** field allows reservation of one license at a time.

Step 10 Review the license reservation information and click **Generate Authorization Code**.

Update License Reserve	ation				×
STEP 1 🗸	STEP 2 Review and confirm	STEP 3 Authorization Code			
Product Instance Details	5				
Product Type:	C9300				
UDI PID:	C9300-24U				
UDI Serial Number:	FCW2125L046				
Licenses to Reserve					
Licenses to Reserve Review the licenses to be reserved	for this product instance.				
License	De	scription	Expires	Quantity To Reserve	
C9300 Network Advantage	C9	300-24P Network Advantage	multiple terms	1	
C9300 DNA Advantage	C9	300-24P DNA Advantage	2018-Nov-28	1	I
			Cancel B	Generate Authorization Co	de

The Authorization Code tab is displayed.

Step 11 After the authorization code is generated, click **Copy to Clipboard** to copy the authorization, or **Download as File** to download the file and save it to the Flash drive or the TFTP server.

STEP 1 , , , , , , , , , , , , , , , , , ,	STEP 1 → Beiet Licenses STEP 2 → Review and confirm STEP 3 Authorization Code Image: Constraint of the product Instance's Smart Licensing settings to complete the reservation. 1. Since de must be entered into the Product Instance's Smart Licensing settings to complete the reservation. 1. Nis code must be entered into the Product Instance's Smart Licensing settings to complete the reservation. 1. Since de must be entered, a Reservation Confirmation Code will be generated. 1. To release licenses in transition, enter confirmation code generated by device into CSSM. Dutrization Code StepficPLR> <authorizationcode><flag>A<version>C Statistican Code: StepficPLR><authorizationcode><flag>A<version>C Statistican AutorizationCode><flag>A<version>C Avantage Statistican Autorization Code Statistican Statistican Statistican Statistican Statistican Autorization Code><flag>A<version>C Statistican Statistican AutorizationCode> Statistican AutorizationCode> Statistican Autorization Code Statistican AutorizationCode> Statistican AutorizationCode> Statistican AutorizationCode> Statistican <td< th=""><th>pdate License Reserv</th><th>ration</th><th></th><th></th></td<></version></flag></version></flag></version></flag></authorizationcode></version></flag></authorizationcode>	pdate License Reserv	ration		
Select Licenses Review and confirm Authorization Code Image: Control of the select Licenses Review and confirm Authorization Code Image: Control of the select Licenses The Reservation Authorization Code below has been generated for this product instance. Several steps remain: 1. This code must be entered into the Product Instance's Smart Licensing settings to complete the reservation. When the code has been entered, a Reservation Code will be generated. 3. To release licenses in transition, enter confirmation code generated by device into CSSM. Select Licenses Authorization Code: PsetificPLR> <authorizationcode> Select Licenses in transition, enter confirmation code sension>pid>08fad0-e880.4c8d-94de-465282c2228a Select S</authorizationcode>	Select Licenses Review and confirm Authorization Code Image: Control Authorization Code below has been generated for this product instance. Several steps remain: 1. This code must be entered into the Product Instance's Smart Licensing settings to complete the reservation. 2. When the code has been entered, a Reservation Confirmation Code will be generated. 3. To release licenses in transition, enter confirmation code generated by device into CSSM. Authorization Code:	STEP 🕇 🗸	STEP 2 🗸	STEP 3	
The Reservation Authorization Code below has been generated for this product instance. Several steps remain: 1. This code must be entered into the Product Instance's Smart Licensing settings to complete the reservation. 2. When the code has been entered, a Reservation Confirmation Code will be generated. 3. To release licenses in transition, enter confirmation code generated by device into CSSM. Authorization Code: <pre></pre>	The Reservation Authorization Code below has been generated for this product instance. Several steps remain: This code must be entered into the Product Instance's Smart Licensing settings to complete the reservation. When the code has been entered, a Reservation Confirmation Code will be generated. To release licenses in transition, enter confirmation code generated by device into CSSM. Authorization Code: specificPLR> <authorizationcode><flag>A</flag><version>C</version><plid>08/3fa0d-e880.4c8d-94de-465262c2226a</plid>Immestantp>1536174314668 Immestantp><entitlement></entitlement> StartDate>2018-APR-03 UTC<entitlement></entitlement> StartDate>2018-APR-03 UTC StartDate>2018-APR-03 UTC StartDate>2018-APR-03 UTC StartDate>2018-APR-03 UTC StartDate> Advantage Advantage Advantage Advantage Advantage StartDate> StartDate></authorizationcode>	Select Licenses	Review and confirm	Authorization Code	
Advantage <tagdescription>C9300-24P DNA Advantage</tagdescription> <subscriptionid></subscriptionid>	Advantage <tagdescription>C23300-24P DNA Advantage</tagdescription> C>subscriptionID> <th>The Reservation Authoriza The Reservation Authoriza The Reservation Authoriza When the code has bee To release licenses in tr Authorization Code: <pre></pre></th> <th>ation Code below has been generated ered into the Product Instance's Smart 1 n entered, a Reservation Confirmation ansition, enter confirmation code gene obse><flag>A</flag><version>CAPR-03 UTCcendDate>2 <licensetype>TERMubscriptionID></licensetype></version></th> <th>for this product instance. Several step Licensing settings to complete the resi- n Code will be generated. rrated by device into CSSM. on><piid>08/3fa0d-e880-468d-94de-44 2019-JUN-27 UTC<tap>rep eType><displayname>C9300 Network liement><entillement><startdate>201 5/35/fe/6ff18</startdate></entillement></displayname></tap></piid></th> <th>s remain: #vation. 35262c2226a<tiimestamp>1536174314668<entitlements> jid 2017-03.com.cisco.advantagek9,1.0_bd1da96e-ec1d-412b-a50e- Advantage<tagdescription>C9300-24P Network &JUN-01 UTC=entDate>2018-NOV-22018-NOV-22018-NOV-2010-2010-</tagdescription></entitlements></tiimestamp></th>	The Reservation Authoriza The Reservation Authoriza The Reservation Authoriza When the code has bee To release licenses in tr Authorization Code: <pre></pre>	ation Code below has been generated ered into the Product Instance's Smart 1 n entered, a Reservation Confirmation ansition, enter confirmation code gene obse> <flag>A</flag> <version>CAPR-03 UTCcendDate>2 <licensetype>TERMubscriptionID></licensetype></version>	for this product instance. Several step Licensing settings to complete the resi- n Code will be generated. rrated by device into CSSM. on> <piid>08/3fa0d-e880-468d-94de-44 2019-JUN-27 UTC<tap>rep eType><displayname>C9300 Network liement><entillement><startdate>201 5/35/fe/6ff18</startdate></entillement></displayname></tap></piid>	s remain: #vation. 35262c2226a <tiimestamp>1536174314668<entitlements> jid 2017-03.com.cisco.advantagek9,1.0_bd1da96e-ec1d-412b-a50e- Advantage<tagdescription>C9300-24P Network &JUN-01 UTC=entDate>2018-NOV-22018-NOV-22018-NOV-2010-2010-</tagdescription></entitlements></tiimestamp>
		53846b347d53 <count>1 Advantagess 05.com.cisco.c9300_dna_adva Advantage<tag To learn how to enter this code</tag </count>	<pre><licensetype>TERMC9300-24P DNA Advant pescription>C9300-24P DNA Advant pescription>C9300-24P DNA Advant pesce the configuration guide for the percent of the p</licensetype></pre>	e Type> <displayname>C9300 Network Itement>-entitlement>-startDate>201 -5d35/fe6ff 45/tag>-count>-l //agDescription>-subscriptionID> e product being licensed</displayname>	Advantage <tagdescription>C9300-24P Network 3-UN-01 UTC<enddate>2018-NOV-28 UTC</enddate><tag>regid.201 TERM<displayname>C9300 DNA </displayname></tag></tagdescription>

What to do next

Registering a device with authorization code.

Registering a Device Using Authorization Code

To register a device with authorization code, perform this procedure:

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode.
	Example:	Enter your password, if prompted.
	Device> enable	
Step 2	license smart reservation install file {flash:filename tftp://filepath} Example:	Loads the authorization code either from the Flash drive or the TFTP server and registers the device.
	Device# license smart reservation install file flash:AuthCode.txt Reservation install file successful Last Confirmation code UDI: PID:C9300-24U,SN:FCW2125L046 4e731fd5	

Verifying the License Status After Registering the Device Using Authorization Code

To verify the status of license after registration, use the **show license reservation** command:

```
Device> enable
Device# show license reservation
License reservation: ENABLED
Overall status:
  Active: PID:C9300-24U, SN:FCW2125L046
      Reservation status: SPECIFIC INSTALLED on Sep 05 15:03:03 2018 EDT
      Export-Controlled Functionality: Not Allowed
      Last Confirmation code: 4e731fd5
Specified license reservations:
  C9300 Network Advantage (C9300-24 Network Advantage):
   Description: C9300-24P Network Advantage
   Total reserved count: 1
   Term information:
      Active: PID:C9300-24U, SN:FCW2125L046
        License type: TERM
          Start Date: 2018-APR-02 EDT
          End Date: 2019-JUN-26 EDT
          Term Count: 1
  C9300 DNA Advantage (C9300-24 DNA Advantage):
   Description: C9300-24P DNA Advantage
    Total reserved count: 1
   Term information:
      Active: PID:C9300-24U, SN:FCW2125L046
        License type: TERM
          Start Date: 2018-MAY-31 EDT
          End Date: 2018-NOV-27 EDT
          Term Count: 1
```

Configuring the License Level

This procedure is mandatory. Only on completion of this procedure, is a device authorized to use the new license level.

To configure the license level, follow this procedure:

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode.
	Example:	Enter your password, if prompted.
	Device> enable	
Step 2	configure terminal	Enters global configuration mode.
	Example:	
	Device# configure terminal	

	Command or Action	Purpose
Step 3	license boot level license_level	Activates the licenses on the device.
	Example:	
	Device(config)# license boot level network-advantage addon dna-advantage	
Step 4	exit	Returns to the privileged EXEC mode.
	Example:	
	Device(config)# exit	
Step 5	write memory	Saves the license information on the device.
	Example:	
	Device# write memory	
Step 6	show version	Shows license-level information.
	Example:	
	Device# show version	
	Technology-package Current Type	_
	Next reboot	e
	network-advantage Smart	
	License network-advantage	
	dna-advantage	
	dna-advantage	
Stop 7	wheed	Palanda tha daviaa
oreh 1		Keloaus ule device.
	Example:	
	Device# reload	

Entering the Confirmation Code in Cisco SSM

This procedure is mandatory. On completion of this procedure, information stored in Cisco SSM is updated to indicate that the device is reloaded with the new license level and registered with the new authorization code. You need to complete this procedure to allow Cisco SSM to accept upgrades or downgrades at the license level in the future.

Step 1	Log in to the Cisco SSM at https://software.cisco.com/#.		
	Log in to the Cisco SSM using the username and password provided by Cisco.		
Step 2	Click the Inventory tab.		
Step 3	From the Virtual Account drop-down list, choose your virtual account.		

Step 4 Click the **Product Instances** tab.

Cisco Software Central > Smart Software Licensing Smart Software Licensing			English [Cha	nge] 💄 Hello 💷 Smart A Feedt	ccount Name 👻
Alerts Inventory Convert to Smart Licensing Repo	rts Preferences Satellites	Activity		Questions About Try our Virtual As	Licensing?
Virtual Account: Virtual Account 1 -				(104) Mine	or Hide Alerts
General Licenses Product Instances	Event Log				
ß			Search by Name, Product Typ	е	0,
Name	Product Type	Last Contact	Alert	s	Actions
513E.C.26-9300-9	C9300	2018-Aug-02 21:07:0	3		Actions -
CAT3850-DLC	C3850	2018-Jul-09 15:41:30	1		Actions -
CAT93008x 🗗	C9300	2018-Aug-29 02:02:5	9		Actions -
elo-csr5	CSR1KV	2018-Aug-03 06:39:4	8		Actions -
jgorlin-asav	ASAHIGH	2018-Aug-01 20:03:3	4		Actions -
UDI_PID:C9300-24U; UDI_SN:FCW2123G002;	C9300	2018-Aug-29 02:01:1	3		Actions -
UDI_PID:C9300-24U; UDI_SN:FCW2125L046;	C9300	2018-Sep-06 14:17:5	9 (Reserved Licenses) (1) Li	cense Reservation Pending	Actions -
UDI_PID:C9407R; UDI_SN:FXS2131Q29D;	C9400	2018-Jul-06 14:40:11	(Reserved Licenses)		
UDI_PID:C9410R; UDI_SN:RME4QEXT0AQ;	C9400	2018-Jul-30 17:00:05	(Reserved Licenses)		Actions -
10 🛊			Showing	g Page 1 of 2 (12 Records)	< ► ►

The list of product instances available is displayed.

- **Step 5** Locate the required product instance from the product instances list. Optionally, you can also 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 Enter Confirmation Code.

Overview Event Log				
Lion Log				
Description				
General				
Name:	UDI_PID:C9300-24U;	UDI_SN:FCW2125L046;		
Product:	C9300			
Host Identifier:	-			
MAC Address:	-			
PID:	C9300-24U			
Serial Number:	FCW2125L046			
Virtual Account: Virtual Account 1				
Registration Date:	2018-Sep-06 14:14:48	3		
Last Contact:	2018-Sep-06 14:17:59	(Reserved Licenses) - Downloa	ad Reservation Authorization Code	
icense Usage			These lic	censes are reserved on this product instance Update reservation
License		Billing	Expires	Required
C9300 Network Essentials		Prepaid	2019-Jun-23	1
		Prepaid	2019-Jun-27	1
ansfer		Prepaid	2018-Nov-28	1
ter Confirmation Code				Showing all 3 R
move				

The Enter Confirmation code window is displayed.

Step 8 In the **Reservation Confirmation Code** field, enter the confirmation code.

Step 9

Click OK.

Enter Confirmation Code	>
To complete the pending License Reservation, enter the Reservation Confirmation Code that was generated by the Product Instance after the Reservation Authorization Code was installed.	
* Reservation Confirmation Code:	
0df55aa5	
Browse	í.
Cancel	DK

The confirmation code is updated on Cisco SSM.

Canceling a SLR Request

The license reservation request code can be cancelled before or after an authorization code is generated. Note that the authorization file needs to be returned to Cisco SSM if the cancellation request is raised after an authorization code is generated from CSSM.

To cancel an SLR request before the authorization code is installed, perform this procedure:

Procedure

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode.
	Example:	Enter your password, if prompted.
	Device> enable	
Step 2	<pre>license smart reservation cancel [all local] Example: Device# license smart reservation cancel local</pre>	 Cancels the license reservation request. Cancellation can be requested for the following: all—Cancels the request for all the connected devices. local—Cancels the request for the active device.
Step 3	<pre>license smart reservation return authorization file {flash:filename tftp://filepath} Example: Device# license smart reservation return authorization file flash:AuthCode.txt</pre>	(Optional) Returns the generated authorization file. Note This step is required if only an authorization file is generated. Use the license smart reservation return authorization file command to return the authorization file if you need to return the license, but have misplaced the return reservation code.

Verifying the License Status After Canceling SLR

To verify the status of license after canceling SLR, use the **show license reservation** command:

```
Device> enable
Device# show license reservation
Overall status:
Active: PID:C9300-24U,SN:FCW2125L046
License reservation: ENABLED
Reservation status: NOT INSTALLED
Export-Controlled Functionality: Not Allowed
Last return code: CBe1nZ-FjphFy-a4NFut-7y578M-XFpf3Y-jAX7X7-R3csh9-Gp5Fsc-5vH
```

Removing SLR from a Device

To remove SLR from a device, perform the following tasks:

- 1. Generate a return code from a device.
- 2. Enter the return code on Cisco SSM.
- **3.** Remove the product instance.

Generating a Return Code from a Device

To generate a return code, perform this procedure:

Procedure

	Command or Action	Purpose
Step 1	enable	Enables privileged EXEC mode.
	Example:	Enter your password, if prompted.
	Device> enable	
Step 2	license smart reservation return [all local]	Cancels the device registration with the return
	Example:	code. The return code can be generated for the following:
	Device# license smart reservation return This command will remove the license reservation authorization code and the device will transition back to the unregistered state. Some features may not function properly.	 all —Generates return codes for all the connected devices. local—Generates return code for the active device.
	Do you want to continue? [yes/no]: y Enter this return code in Cisco Smart Software Manager portal: UDI: PID:C9300-24U,SN:FCW2125L046	
	CBelrZ-FjphFy-a4NFut-7y578M-XFpf3Y-jAX7X7-R3csh9-Qp5Fsc-5vH	

Removing the Product Instance from CSSM

Step 1	Log in to Cisco SSM at https://software.cisco.com/#.
	Log in to Cisco SSM using the username and password provided by Cisco.
Step 2	Click the Inventory tab.
Step 3	From the Virtual Account drop-down list, choose your virtual account.

Step 4 Click the **Product Instances** tab.

Smart Software Licensing					
erts Inventory Convert to Smart Licen	sing Reports Preferences Satellites	Activity			
rtual Account: Virtual Account	•				
General Licenses Product In	Event Log				
Name	Product Type	L			
513E.C.26-9300-9	C9300	2			
CAT3850-DLC	C3850	2			
CAT93008x Г	C9300	20			
elo-csr5	CSR1KV	20			
jgorlin-asav	ASAHIGH	20			
UDI_PID:C9300-24U; UDI_SN:FCW2123G0	02; 🗖 C9300	20			
UDI_PID:C9407R; UDI_SN:FXS2131Q29D;	C9400	2			
UDI_PID:C9410R; UDI_SN:RME4QEXT0AC	C9400	2			
		2			

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**.

DI_PID:C9300-24U; L	JDI_SN:FCW2125L0	46;			0
Overview Event Log					
Description					
09300					
General					
Name:	UDI_PID:C9300-24U; UDI_	SN:FCW2125L046;			
Product:	C9300				
Host Identifier:	-				
MAC Address:	-				
PID:	C9300-24U				
Serial Number:	FCW2125L046				
Virtual Account:	Virtual Account 1				
Registration Date:	2018-Sep-05 18:51:31				
Last Contact:	2018-Sep-05 19:09:49 (Re:	served Licenses) - Download Re	servation Authorization Code		
_icense Usage			These	licenses are reserved on this product instance Update reservati	ion
License	Billi	ng	Expires	Required	
C9300 Network Advantage	Pre	paid	2019-Jun-27	1	
anofor	Pre	paid	2018-Nov-28	1	
odate Reserved Licenses				Showing all	2 Row
emove					
Lations .					

The Remove Product Instance window is displayed.

- **Step 8** In the **Reservation Return Code** field, enter the return code.
- Step 9 Click Remove Product Instance.

Remove Product Instar	nce	IC .
To remove a Product Instance that ha to other Product Instances, enter in the you cannot generate a Reservation F	as reserved licenses and make those licenses once again available ne Reservation Return Code generated by the Product Instance. If Return Code, contact Cisco Support	
* Reservation Return Code:	CBe1nZ-FiphFy-a4NFut-7y578M-XFpf3Y-jAX7X7- R3csh9-Gp5Fsc-5vH	
	Remove Product Instance Cancel	

The reservation information is removed and the license is made available in the virtual account.

Configuration Examples for SLR

The following sections provide various SLR examples.

Example: Enabling SLR

To enable SLR, use the license smart reservation command:

```
Device> enable
Device# configure terminal
Device(config)# license smart reservation
Device(config)# exit
```

Example: Viewing the License Information Before Registering

To display license entitlements, use the show license all command:

```
License Reservation is ENABLED
Registration:
 Status: UNREGISTERED
 Export-Controlled Functionality: Not Allowed
License Authorization:
 Status: EVAL MODE
 Evaluation Period Remaining: 47 days, 0 hours, 24 minutes, 24 seconds
Utility:
  Status: DISABLED
Data Privacy:
  Sending Hostname: yes
   Callhome hostname privacy: DISABLED
   Smart Licensing hostname privacy: DISABLED
 Version privacy: DISABLED
Transport:
 Type: Callhome
License Usage
_____
C9300 Network Essentials (C9300-24 Network Essentials):
 Description: C9300-24P Network Essentials
  Count: 1
  Version: 1.0
 Status: EVAL MODE
 Reservation:
   Reservation status: NOT INSTALLED
Product Information
_____
UDI: PID:C9300-24U, SN:FCW2125L046
Agent Version
Smart Agent for Licensing: 4.4.13 rel/116
Component Versions: SA: (1_3_dev)1.0.15, SI: (dev22)1.2.1, CH: (rel5)1.0.3, PK: (dev18)1.0.3
Reservation Info
_____
License reservation: ENABLED
Overall status:
  Active: PID:C9300-24U, SN:FCW2125L046
     Reservation status: NOT INSTALLED
     Export-Controlled Functionality: Not Allowed
```

To display the license usage information, use the show license usage command:

```
Device> enable
Device# show license usage
License reservation: ENABLED
Overall status:
Active: PID:C9300-24U,SN:FCW2125L046
```

```
Reservation status: NOT INSTALLED
Export-Controlled Functionality: Not Allowed
```

To display all the license summaries, use the show license summary command:

```
Device> enable
Device# show license summary
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
 Status: UNREGISTERED
 Export-Controlled Functionality: Not Allowed
License Authorization:
 Status: EVAL MODE
 Evaluation Period Remaining: 47 days, 0 hours, 24 minutes, 24 seconds
License Usage:
 License
                     Entitlement tag
                                             Count Status
 ______
                     (C9300-24 Network Essen...) 1 EVAL MODE
```

To display the license status information, use the **show license status** command:

```
Device> enable
Device# show license status
Smart Licensing is ENABLED
Utility:
 Status: DISABLED
Data Privacy:
  Sending Hostname: yes
   Callhome hostname privacy: DISABLED
   Smart Licensing hostname privacy: DISABLED
 Version privacy: DISABLED
Transport:
 Type: Callhome
Registration:
 Status: UNREGISTERED
 Export-Controlled Functionality: Not Allowed
License Authorization:
  Status: EVAL MODE
  Evaluation Period Remaining: 47 days, 0 hours, 24 minutes, 24 seconds
```

Example: Viewing the License Status After Registering

To display license entitlements, use the show license all command:

```
Device> enable
Device# show license all
Smart Licensing Status
_____
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
 Status: REGISTERED - SPECIFIC LICENSE RESERVATION
 Export-Controlled Functionality: Not Allowed
 Initial Registration: SUCCEEDED on Aug 20 18:34:01 2018 UTC
License Authorization:
 Status: AUTHORIZED - RESERVED on Aug 20 18:34:01 2018 UTC
Utility:
 Status: DISABLED
Data Privacy:
 Sending Hostname: yes
   Callhome hostname privacy: DISABLED
    Smart Licensing hostname privacy: DISABLED
 Version privacy: DISABLED
Transport:
 Type: Callhome
License Usage
_____
C9300 Network Essentials (C9300-24 Network Essentials):
 Description: C9300-24P Network Essentials
 Count: 1
 Version: 1.0
 Status: AUTHORIZED
 Reservation:
   Reservation status: SPECIFIC INSTALLED
   Total reserved count: 1
Product Information
_____
UDI: PID:C9300-24U, SN:FCW2125L046
Agent Version
_____
Smart Agent for Licensing: 4.4.13 rel/116
Component Versions: SA: (1 3 dev)1.0.15, SI: (dev22)1.2.1, CH: (rel5)1.0.3, PK: (dev18)1.0.3
Reservation Info
_____
License reservation: ENABLED
Overall status:
 Active: PID:C9300-24U, SN:FCW2125L046
     Reservation status: SPECIFIC INSTALLED on Sep 05 14:57:01 2018 EDT
     Export-Controlled Functionality: Not Allowed
     Last Confirmation code: 2ce72617
Specified license reservations:
 C9300 Network Essentials (C9300-24 Network Essentials):
   Description: C9300-24P Network Essentials
   Total reserved count: 1
   Term information:
```

```
Active: PID:C9300-24U,SN:FCW2125L046
License type: TERM
Start Date: 2018-MAR-29 EDT
End Date: 2019-JUN-22 EDT
Term Count: 1
```

To display the license usage information, use the show license usage command:

```
Device> enable
Device# show license usage
License Authorization:
   Status: AUTHORIZED - RESERVED on Aug 20 18:34:01 2018 UTC
C9300 Network Essentials (C9300-24 Network Essentials):
   Description: C9300-24P Network Essentials
   Count: 1
   Version: 1.0
   Status: AUTHORIZED
   Reservation:
    Reservation status: SPECIFIC INSTALLED
   Total reserved count: 1
```

To display all the license summaries, use the show license summary command:

```
Device> enable
Device# show license summary
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
 Status: REGISTERED - SPECIFIC LICENSE RESERVATION
 Export-Controlled Functionality: Not Allowed
License Authorization:
 Status: AUTHORIZED - RESERVED
License Usage:
                                             Count Status
 License
                     Entitlement tag
 _____
 C9300 Network Essent... (C9300-24 Network Essen...)
                                             1 AUTHORIZED
```

To display the license status information, use the show license status command:

```
Device> enable
Device# show license status
Smart Licensing is ENABLED
Utility:
   Status: DISABLED
License Reservation is ENABLED
Data Privacy:
   Sending Hostname: yes
    Callhome hostname privacy: DISABLED
   Smart Licensing hostname privacy: DISABLED
   Version privacy: DISABLED
```

L

Transport:
Type: Callhome
Registration:
Status: REGISTERED - SPECIFIC LICENSE RESERVATION
Export-Controlled Functionality: Not Allowed
Initial Registration: SUCCEEDED on Aug 20 18:34:01 2018 UTC
License Authorization:
Status: AUTHORIZED - RESERVED on Aug 20 18:34:01 2018 UTC

Example: Adding a New Member to a Stack Running SLR

This example shows how to add a new member to an existing stack running SLR.

The following are the key aspects of this process:

- Ensure that the Cisco IOS XE software version on the new member is the same as the version running on the existing stack.
- Bring-up the member as a standalone, install the SLR authorization code, and only then add it to the existing stack running SLR.
- 1. Displaying and verifying the details of the existing stack.

This is a two-member stack, where one switch is the active and the other, the standby. The **show license summary** command shows that the stack is registered and running SLR. The **show version** command shows that the software version running on the stack is Cisco IOS XE Gibraltar 16.12.4.

Device#	show swit	. <mark>ch</mark>					
Switch/S	Switch/Stack Mac Address : 0077.8d38.ba00 - Local Mac Address						
Mac pers	istency w	ait time: Indefi	nite				
				H/W	Current		
Switch#	Role	Mac Address	Priority	Version	State		
×1	Active	00//.8d38.ba00	15	V02	Ready		
2	Standby	0c75.bd0e.e080	10	V01	Ready		
Device#	show lice	nse udi					
UDI: PID	:C9300-24	UX,SN:FCW2303D16	Y				

```
HA UDI List:
Active:PID:C9300-24UX,SN:FCW2303D16Y
Standby:PID:C9300-24U,SN:FHH2043P09E
```

Device# show license summary

Smart Licensing is ENABLED License Reservation is ENABLED

Registration: Status: REGISTERED - SPECIFIC LICENSE RESERVATION Export-Controlled Functionality: ALLOWED

License Authorization: Status: AUTHORIZED - RESERVED

License Usage:		
License	Entitlement tag	Count Status
C9300 24P Network Ad	(C9300-24 Network Advan)	2 AUTHORIZED
C9300 24P DNA Advantage	(C9300-24 DNA Advantage)	2 AUTHORIZED

Device# show version Cisco IOS XE Software, Version 16.12.04 Cisco IOS Software [Gibraltar], Catalyst L3 Switch Software (CAT9K_IOSXE), Version 16.12.4, RELEASE SOFTWARE <output truncated>

2. Bringing up the new member as a standalone and verifying that the software version is the same as the existing stack. In this example, this is Cisco IOS XE Gibraltar 16.12.4.

```
Device# show switch

Switch/Stack Mac Address : f8b7.e24e.a100 - Local Mac Address

Mac persistency wait time: Indefinite

H/W Current

Switch# Role Mac Address Priority Version State

*1 Active f8b7.e24e.a100 1 P2B Ready

Device# show version

Cisco IOS XE Software, Version 16.12.04

Cisco IOS Software [Gibraltar], Catalyst L3 Switch Software (CAT9K_IOSXE),
```

3. Enabling SLR on the standlone and saving configuration changes.

Version 16.12.4, RELEASE SOFTWARE

<output truncated>

The show license summary command is used to verify the same (License Reservation is ENABLED)

```
Device# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Device(config)# license smart reservation
Device(config) # exit
Switch# copy running-config startup-config
Building configuration ...
[OK]
Device# show license udi
UDI: PID:C9300-48T, SN:FCW2139L056
Device# show license summary
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
 Status: UNREGISTERED
 Export-Controlled Functionality: NOT ALLOWED
License Authorization:
 Status: EVAL MODE
 Evaluation Period Remaining: 89 days, 22 hours, 47 minutes, 10 seconds
License Usage:
 License
                       Entitlement tag
                                                   Count Status
  _____
                        (C9300-48 Network Advan...)1 EVAL MODE(C9300-48 DNA Advantage)1 EVAL MODE
```

4. Generating a request code from the standalone, reserving the license in CSSM (not shown in the sample output), registering the device using the authorization code generated in CSSM.

Device# license smart reservation request all Enter this request code in the Cisco Smart Software Manager portal:

```
UDI: PID:C9300-48T,SN:FCW2139L056
Request code: CB-ZC9300-48T:FCW2139L056-AK9A6sMTr-B0
```

At this point, you have to enter the request code in CSSM and generate an authorization code. See Reserving a License in Cisco SSM, on page 6, then proceed with the installation of the authorization code.

The **show license summary** command shows that the standalone now has a registered SLR and can be added to a stack running SLR.

Device# license smart reservation install file		
tftp://192.0.2.0//auto/tftp-users2/tom/SLR-9300-SA.txt		
Reservation install file successful		
Last Confirmation code UDI: PID:C9300-48T, SN:FCW2139L05	6	
Confirmation code: fc6c282f		
Device# show license summary		
Smart Licensing is ENABLED		
License Reservation is ENABLED		
Registration:		
Status: REGISTERED - SPECIFIC LICENSE RESERVATION		
Export-Controlled Functionality: ALLOWED		
License Authorization:		
Status: AUTHORIZED - RESERVED		
License Usage:		
License Entitlement tag	Count	Status
C9300 48P Network Ad (C9300-48 Network Advan)	1	AUTHORIZED
C9300 48P DNA Advantage (C9300-48 DNA Advantage)	1	AUTHORIZED

5. Power off the standalone switch. Through their StackWise ports, connect the switch to a powered-on switch stack, and finally power on the new member.

For information about connecting switches in a stack, refer to the *Planning a Switch Data Stack* section of the *Hardware Installation Guide* for the device.

Powering off the switch and then connecting it to a stack is faster, but you can also reload the switch to bootloader (switch:) and add it to the SLR stack. To reload to bootloader, you must ensure that the switch is set to manual boot mode as shown below:

```
Device# configure terminal
Device(config)# boot manual
Device(config)# end
Device# copy running-config startup-config
Device# show boot | include Manual
```

!!!Reload to bootloader, add the switch to the stack running SLR and boot the new switch.

The show switch command shows that the stack has a third member now.

The **show license udi** command shows that the active is the retained (PID:C9300-24UX,SN:FCW2303D16Y), and the new member is listed (PID:C9300-48T,SN:FCW2139L056).

The **show license summary** and **show license all** commands display SLR-related information for the three-member stack.

Device# show switch

Manual Boot = yes

```
Switch/Stack Mac Address : 0077.8d38.ba00 - Local Mac Address Mac persistency wait time: Indefinite
```

Switch#	Role	Mac Address	Priority	H/W Version	Current State	
*1	Active	0077.8d38.ba00	15	V02	Ready	
2	Standby	0c75.bd0e.e080	10	V01	Ready	
3	Member	f8b7.e24e.a100	1	P2B	Ready	

Device# show license udi

UDI: PID:C9300-24UX,SN:FCW2303D16Y HA UDI List: Active:PID:C9300-24UX,SN:FCW2303D16Y Standby:PID:C9300-24U,SN:FH2043P09E Member:PID:C9300-48T,SN:FCW2139L056

Device# show license summary

```
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
 Status: REGISTERED - SPECIFIC LICENSE RESERVATION
 Export-Controlled Functionality: ALLOWED
License Authorization:
 Status: AUTHORIZED - RESERVED
License Usage:
 License
                                              Count Status
                     Entitlement tag
 _____
 C9300 24P Network Ad... (C9300-24 Network Advan...)
                                                 2 AUTHORIZED
                                                  2 AUTHORIZED
 C9300 24P DNA Advantage (C9300-24 DNA Advantage)
                                              1 AUING.
1 AUTHORIZED
 C9300 48P Network Ad... (C9300-48 Network Advan...)
 C9300 48P DNA Advantage (C9300-48 DNA Advantage)
```

Device# show license all Smart Licensing Status

```
_____
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
 Status: REGISTERED - SPECIFIC LICENSE RESERVATION
 Export-Controlled Functionality: ALLOWED
 Initial Registration: SUCCEEDED on Nov 24 13:59:33 2020 PST
License Authorization:
 Status: AUTHORIZED - RESERVED on Nov 24 11:38:45 2020 PST
Export Authorization Key:
  Features Authorized:
   <none>
Utility:
 Status: DISABLED
Data Privacy:
 Sending Hostname: yes
   Callhome hostname privacy: DISABLED
   Smart Licensing hostname privacy: DISABLED
 Version privacy: DISABLED
Transport:
 Type: Callhome
License Usage
_____
C9300 24P Network Advantage (C9300-24 Network Advantage):
 Description: C9300-24P Network Advantage
 Count: 2
 Version: 1.0
 Status: AUTHORIZED
 Export status: NOT RESTRICTED
```

```
Reservation:
   Reservation status: SPECIFIC INSTALLED
   Total reserved count: 2
C9300 24P DNA Advantage (C9300-24 DNA Advantage):
  Description: C9300-24P DNA Advantage
  Count: 2
  Version: 1.0
 Status: AUTHORIZED
 Export status: NOT RESTRICTED
 Reservation:
   Reservation status: SPECIFIC INSTALLED
   Total reserved count: 2
C9300 48P Network Advantage (C9300-48 Network Advantage):
  Description: C9300 48P Network Advantage
  Count: 1
  Version: 1.0
  Status: AUTHORIZED
  Export status: NOT RESTRICTED
 Reservation:
   Reservation status: SPECIFIC INSTALLED
   Total reserved count: 1
C9300 48P DNA Advantage (C9300-48 DNA Advantage):
  Description: C9300 48P DNA Advantage
 Count: 1
 Version: 1.0
 Status: AUTHORIZED
 Export status: NOT RESTRICTED
 Reservation:
   Reservation status: SPECIFIC INSTALLED
   Total reserved count: 1
Product Information
_____
UDI: PID:C9300-24UX, SN:FCW2303D16Y
HA UDI List:
   Active:PID:C9300-24UX,SN:FCW2303D16Y
    Standby:PID:C9300-24U,SN:FHH2043P09E
   Member:PID:C9300-48T,SN:FCW2139L056
Agent Version
_____
Smart Agent for Licensing: 4.8.10 rel/63
Reservation Info
_____
License reservation: ENABLED
Overall status:
 Active: PID:C9300-24UX, SN:FCW2303D16Y
     Reservation status: SPECIFIC INSTALLED on Nov 24 11:38:45 2020 PST
      Export-Controlled Functionality: ALLOWED
      Last Confirmation code: db4dc928
  Standby: PID:C9300-24U, SN:FHH2043P09E
     Reservation status: SPECIFIC INSTALLED on Nov 24 11:38:45 2020 PST
      Export-Controlled Functionality: ALLOWED
     Last Confirmation code: 2edf2248
  Member: PID:C9300-48T, SN:FCW2139L056
     Reservation status: SPECIFIC INSTALLED on Nov 24 13:12:38 2020 PST
     Export-Controlled Functionality: ALLOWED
     Last Confirmation code: fc6c282f
Specified license reservations:
  C9300 24P Network Advantage (C9300-24 Network Advantage):
   Description: C9300-24P Network Advantage
   Total reserved count: 2
   Term information:
```

```
Active: PID:C9300-24UX, SN:FCW2303D16Y
     License type: PERPETUAL
       Term Count: 1
   Standby: PID:C9300-24U, SN:FHH2043P09E
     License type: PERPETUAL
       Term Count: 1
C9300 24P DNA Advantage (C9300-24 DNA Advantage):
 Description: C9300-24P DNA Advantage
 Total reserved count: 2
 Term information:
   Active: PID:C9300-24UX, SN:FCW2303D16Y
      License type: PERPETUAL
       Term Count: 1
   Standby: PID:C9300-24U, SN:FHH2043P09E
     License type: PERPETUAL
       Term Count: 1
C9300 48P DNA Advantage (C9300-48 DNA Advantage):
 Description: C9300 48P DNA Advantage
 Total reserved count: 1
 Term information:
   Member: PID:C9300-48T, SN:FCW2139L056
      License type: PERPETUAL
        Term Count: 1
C9300 48P Network Advantage (C9300-48 Network Advantage):
 Description: C9300 48P Network Advantage
 Total reserved count: 1
 Term information:
   Member: PID:C9300-48T, SN:FCW2139L056
     License type: PERPETUAL
       Term Count: 1
```

Example: Replacing the License for a Member in a Stack Running SLR

If you have a new member in a stack and there are no spare licenses available to reserve, this example shows you how to correctly go about getting the license for the member.

The following are the key aspects of this process:

- Remove the member for which you want to replace the license, from the stack. Then boot the removed member as a standalone, to return the SLR authorization code.
- After the returned license count is updated in CSSM, follow the steps as shown in Example: Adding a New Member to a Stack Running SLR, on page 29, to install a new SLR authorization code.
- 1. Starting with a three-member stack running SLR and attempting to request a code and install an SLR authorization code (generated in CSSM).

```
Device# show switch

Switch/Stack Mac Address : 0077.8d38.ba00 - Local Mac Address

Mac persistency wait time: Indefinite

H/W Current

Switch# Role Mac Address Priority Version State

*1 Active 0077.8d38.ba00 15 V02 Ready

2 Standby 0c75.bd0e.e080 10 V01 Ready

3 Member f8b7.e24e.al00 1 P2B Ready

Device# show license summary
```

Smart Licensing is ENABLED

License Reservation is ENABLED					
Registration: Status: UNREGISTERED Export-Controlled Functionality: NOT ALLOWED					
License Authorization: Status: EVAL MODE Evaluation Period Remaining: 89 days, 4 hours, 12 minutes, 51 seconds					
License Usage: License Entitlement tag Count Status	_				
(C9300-24 Network Advan)2 EVAL MODE(C9300-24 DNA Advantage)2 EVAL MODE(C9300-48 Network Advan)1 EVAL MODE(C9300-48 DNA Advantage)1 EVAL MODE					
<pre>Device# license smart reservation request all Enter this request code in the Cisco Smart Software Manager portal: UDI: PID:C9300-24UX, SN:FCW2303D16Y Request code: CD-ZC9300-24UX:FCW2303D16Y-AK9A6sMTr-65 UDI: PID:C9300-24U, SN:FHH2043P09E Request code: CD-ZC9300-24U:FHH2043P09E-AK9A6sMTr-F6 UDI: PID:C9300-48T, SN:FCW2139L056 Request code: CC-ZC9300-48T:FCW2139L056-AK9A6sMTr-DD</pre>					
<pre>Device# license smart reservation install file tftp://192.0.2.0//auto/tftp-users2/tom/SLR-9300-3M.txt Reservation install file successful Last Confirmation code UDI: PID:C9300-24UX,SN:FCW2303D16Y Confirmation code: 2d5a7388 UDI: PID:C9300-24U,SN:FHH2043P09E Confirmation code: dc8d69d8 UDI: PID:C9300-48T,SN:FCW2139L056 Confirmation code: d4edc453</pre>					
Device# show license summary					
Smart Licensing is ENABLED License Reservation is ENABLED					
Registration: Status: REGISTERED - SPECIFIC LICENSE RESERVATION Export-Controlled Functionality: ALLOWED					
License Authorization: Status: AUTHORIZED - RESERVED					
License Usage: License Entitlement tag Count Status	_				
C9300 24P Network Ad (C9300-24 Network Advan)2 AUTHORIZEDC9300 24P DNA Advantage (C9300-24 DNA Advantage)2 AUTHORIZEDC9300 48P Network Ad (C9300-48 Network Advan)1 AUTHORIZEDC9300 48P DNA Advantage (C9300-48 DNA Advantage)1 AUTHORIZED	-				

2. Removing the device (switch 3) which does not have enough spare licenses to reserve.

The show switch command shows that switch 3 has been removed.

```
Device# reload slot 3
Proceed with reload?[confirm]
```

Device# show license summary

```
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
 Status: REGISTERED - SPECIFIC LICENSE RESERVATION
 Export-Controlled Functionality: ALLOWED
License Authorization:
 Status: AUTHORIZED - RESERVED
License Usage:
 License
                    Entitlement tag
                                            Count Status
 _____
 C9300 24P Network Ad... (C9300-24 Network Advan...) 2 AUTHORIZED
C9300 24P DNA Advantage (C9300-24 DNA Advantage) 2 AUTHORIZED
Device# show switch
Switch/Stack Mac Address : 0077.8d38.ba00 - Local Mac Address
Mac persistency wait time: Indefinite
                                    H/W
                                        Current
Switch# Role
             Mac Address Priority Version State
_____
     Active 0077.8d38.ba00 15 V02 Ready
*1
     Standby 0c75.bd0e.e080 10 V01 Ready
2
3
      Member 0000.0000.0000 0 P2B Removed
```

3. Bringing-up the removed member as a standalone and returning the SLR.

The second instance of the **show license summary** command shows that the device has returned to an unregistered state and is in EVAL MODE.

Device# :	Device# show switch						
Switch/S	Switch/Stack Mac Address : f8b7.e24e.a100 - Local Mac Address						
Mac pers	istency w	wait time: Indefi	nite				
				H/W	Current		
Switch#	Role	Mac Address	Priority	Version	State		
1	Member				Provisioned		
1	Meniber	0000.0000.0000	0		110V1310Hed		
2	Member	0000.0000.0000	0		Provisioned		
*3	Active	f8b7.e24e.a100	1	P2B	Ready		

Device# show license summary

Smart Licensing is ENABLED)				
License Reservation is ENA	ABLED				
Registration:					
Status: REGISTERED - SPE	CIFIC LICENSE RESERVATION				
Export-Controlled Functi	onality: ALLOWED				
License Authorization:					
Status: AUTHORIZED - RESERVED					
License Usage:					
License	Entitlement tag	Count Status			
C9300 48P Network Ad	(C9300-48 Network Advan)	1 AUTHORIZED			
C9300 48P DNA Advantage	(C9300-48 DNA Advantage)	1 AUTHORIZED			

Device# license smart reservation return all

This command will remove the license reservation authorization code and the device will

transition back to the unregistered state. Some features may not function properly.

Do you want to continue? [yes/no]: **yes** Enter this return code in Cisco Smart Software Manager portal: UDI: PID:C9300-48T,SN:FCW2139L056 Return code: CjJP1E-V1SDoG-XaQXfN-n7MFFk-vLcijg-eSF1ev-KEF2Pq-U3uBXq-gQM

Device# show license summary

```
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
 Status: UNREGISTERED
 Export-Controlled Functionality: NOT ALLOWED
License Authorization:
 Status: EVAL MODE
 Evaluation Period Remaining: 89 days, 22 hours, 39 minutes, 28 seconds
License Usage:
                       Entitlement tag
 License
                                                   Count Status
                                                      -----
  _____
                       (C9300-48 Network Advan...)1 EVAL MODE(C9300-48 DNA Advantage)1 EVAL MODE
                        (C9300-48 DNA Advantage)
```

4. Booting up the switch and reserving the license

After this point, the sample output follows the same steps as in this example: Example: Adding a New Member to a Stack Running SLR, on page 29.

```
Device# show switch
Switch/Stack Mac Address : f8b7.e24e.a100 - Local Mac Address
Mac persistency wait time: Indefinite
                                        H/W Current
Switch# Role Mac Address Priority Version State
_____
                                                    _____
*1 Active f8b7.e24e.a100 1 P2B Ready
Device# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Device(config) # license smart reservation
Device(config)# exit
Device# copy running-config startup-config
Device# show license summary
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
  Status: UNREGISTERED
 Export-Controlled Functionality: NOT ALLOWED
License Authorization:
 Status: EVAL MODE
 Evaluation Period Remaining: 89 days, 22 hours, 31 minutes, 51 seconds
License Usage:
 License
                       Entitlement tag
                                                  Count Status
  _____

        (C9300-48 Network Advan...)
        1 EVAL MODE

        (C9300-48 DNA Advantage)
        1 EVAL MODE

Device#
Device# license smart reservation request all
Enter this request code in the Cisco Smart Software Manager portal:
UDI: PID:C9300-48T, SN:FCW2139L056
   Request code: CD-ZC9300-48T:FCW2139L056-AK9A6sMTr-36
```

Device# license smart reservation install file tftp://192.0.2.0//auto/tftp-users2/tom/SLR-9300-SA.txt Reservation install file successful Last Confirmation code UDI: PID:C9300-48T, SN:FCW2139L056 Confirmation code: f9eb0732 Device# show license summary Smart Licensing is ENABLED License Reservation is ENABLED Registration: Status: REGISTERED - SPECIFIC LICENSE RESERVATION Export-Controlled Functionality: ALLOWED License Authorization: Status: AUTHORIZED - RESERVED License Usage: Count Status License Entitlement tag _____ C9300 48P Network Ad... (C9300-48 Network Advan...) 1 AUTHORIZED C9300 48P DNA Advantage (C9300-48 DNA Advantage) 1 AUTHORIZED C9300 48P DNA Advantage (C9300-48 DNA Advantage)

After reloading the new switch, adding it to the stack and booting up the switch to join the stack:

```
Device# show switch
Switch/Stack Mac Address : 0077.8d38.ba00 - Local Mac Address
Mac persistency wait time: Indefinite
                                             H/W
                                                  Current
Switch# Role Mac Address Priority Version State
_____

        Active
        0077.8d38.ba00
        15
        V02
        Ready

        Standby
        0c75.bd0e.e080
        10
        V01
        Ready

        Member
        f8b7.e24e.a100
        1
        P2B
        Ready

*1
2
3
Device# show license summary
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
 Status: REGISTERED - SPECIFIC LICENSE RESERVATION
  Export-Controlled Functionality: ALLOWED
License Authorization:
  Status: AUTHORIZED - RESERVED
License Usage:
 License
                        Entitlement tag
                                                      Count Status
  _____
  C9300 24P Network Ad... (C9300-24 Network Advan...)
                                                          2 AUTHORIZED
                                                           2 AUTHORIZED
  C9300 24P DNA Advantage (C9300-24 DNA Advantage)
  C9300 48P Network Ad... (C9300-48 Network Advan...)
                                                            1 AUTHORIZED
                                                          1 AUTHORIZED
  C9300 48P DNA Advantage (C9300-48 DNA Advantage)
Device# show license all
Smart Licensing Status
_____
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
  Status: REGISTERED - SPECIFIC LICENSE RESERVATION
 Export-Controlled Functionality: ALLOWED
  Initial Registration: SUCCEEDED on Nov 24 16:17:28 2020 PST
License Authorization:
 Status: AUTHORIZED - RESERVED on Nov 24 15:39:51 2020 PST
Export Authorization Key:
 Features Authorized:
   <none>
Utility:
  Status: DISABLED
```

```
Data Privacy:
  Sending Hostname: yes
   Callhome hostname privacy: DISABLED
   Smart Licensing hostname privacy: DISABLED
 Version privacy: DISABLED
Transport:
 Type: Callhome
License Usage
_____
C9300 24P Network Advantage (C9300-24 Network Advantage):
  Description: C9300-24P Network Advantage
 Count: 2
 Version: 1.0
 Status: AUTHORIZED
 Export status: NOT RESTRICTED
 Reservation:
   Reservation status: SPECIFIC INSTALLED
   Total reserved count: 2
C9300 24P DNA Advantage (C9300-24 DNA Advantage):
  Description: C9300-24P DNA Advantage
  Count: 2
 Version: 1.0
 Status: AUTHORIZED
 Export status: NOT RESTRICTED
 Reservation:
   Reservation status: SPECIFIC INSTALLED
   Total reserved count: 2
C9300 48P Network Advantage (C9300-48 Network Advantage):
  Description: C9300 48P Network Advantage
  Count: 1
  Version: 1.0
 Status: AUTHORIZED
 Export status: NOT RESTRICTED
 Reservation:
   Reservation status: SPECIFIC INSTALLED
   Total reserved count: 1
C9300 48P DNA Advantage (C9300-48 DNA Advantage):
 Description: C9300 48P DNA Advantage
 Count: 1
  Version: 1.0
 Status: AUTHORIZED
 Export status: NOT RESTRICTED
 Reservation:
   Reservation status: SPECIFIC INSTALLED
   Total reserved count: 1
Product Information
_____
UDI: PID:C9300-24UX, SN:FCW2303D16Y
HA UDI List:
   Active:PID:C9300-24UX,SN:FCW2303D16Y
   Standby:PID:C9300-24U,SN:FHH2043P09E
   Member:PID:C9300-48T, SN:FCW2139L056
Agent Version
_____
Smart Agent for Licensing: 4.8.10 rel/63
Reservation Info
```

```
_____
License reservation: ENABLED
Overall status:
 Active: PID:C9300-24UX, SN:FCW2303D16Y
      Reservation status: SPECIFIC INSTALLED on Nov 24 15:39:51 2020 PST
      Export-Controlled Functionality: ALLOWED
     Last Confirmation code: 2d5a7388
  Standby: PID:C9300-24U, SN:FHH2043P09E
      Reservation status: SPECIFIC INSTALLED on Nov 24 15:39:51 2020 PST
      Export-Controlled Functionality: ALLOWED
      Last Confirmation code: dc8d69d8
  Member: PID:C9300-48T, SN:FCW2139L056
      Reservation status: SPECIFIC INSTALLED on Nov 24 16:12:00 2020 PST
      Export-Controlled Functionality: ALLOWED
     Last Confirmation code: f9eb0732
Specified license reservations:
  C9300 24P DNA Advantage (C9300-24 DNA Advantage):
    Description: C9300-24P DNA Advantage
   Total reserved count: 2
   Term information:
      Active: PID:C9300-24UX, SN:FCW2303D16Y
        License type: PERPETUAL
          Term Count: 1
      Standby: PID:C9300-24U, SN:FHH2043P09E
       License type: PERPETUAL
          Term Count: 1
  C9300 24P Network Advantage (C9300-24 Network Advantage):
   Description: C9300-24P Network Advantage
   Total reserved count: 2
   Term information:
      Active: PID:C9300-24UX, SN:FCW2303D16Y
        License type: PERPETUAL
          Term Count: 1
      Standby: PID:C9300-24U, SN:FHH2043P09E
        License type: PERPETUAL
         Term Count: 1
  C9300 48P DNA Advantage (C9300-48 DNA Advantage):
   Description: C9300 48P DNA Advantage
   Total reserved count: 1
   Term information:
     Member: PID:C9300-48T, SN:FCW2139L056
        License type: PERPETUAL
          Term Count: 1
  C9300 48P Network Advantage (C9300-48 Network Advantage):
   Description: C9300 48P Network Advantage
   Total reserved count: 1
   Term information:
     Member: PID:C9300-48T, SN:FCW2139L056
       License type: PERPETUAL
          Term Count: 1
```

Supported Devices

The following table lists the devices that support SLR.

Table 1: Supported Devices

Supported devices	Additional information
Cisco Catalyst 9200 Series Switches	—
Cisco Catalyst 9300 Series Switches	Includes Cisco Catalyst 9300L Series Switches
Cisco Catalyst 9400 Series Switches	—
Cisco Catalyst 9500 Series Switches	Includes Cisco Catalyst 9500 Series Switches-High Performance
Cisco Catalyst 9600 Series Switches	Includes Quad-Supervisor with RPR setup.

Specific License Reservation



INDEX

C

Cancel SLR Request 20

Ε

Enable Specific License Reservation 3

G

Generate Request Code 5

R

Register Device with Authorization Code10Remove Specific License Reservation21Request Specific License Reservation2Reserve License in CSSM6

S

Specific License Reservation 1

U

Upgrade or Downgrade License 11

INDEX

I

I