



Licensing Command Reference for Cisco IOS-XR Series Routers

First Published: 2024-04-29

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

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

All printed copies and duplicate soft copies of this document are considered uncontrolled. See the current online version for the latest version.

Cisco has more than 200 offices worldwide. Addresses and phone numbers are listed on the Cisco website at www.cisco.com/go/offices.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: <https://www.cisco.com/c/en/us/about/legal/trademarks.html>. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1721R)

© 2024 Cisco Systems, Inc. All rights reserved.



Preface

This command reference describes the Cisco IOS XR licensing commands.

From Release 6.1.2 onwards, Cisco introduces support for the 64-bit Linux-based IOS XR operating system. Extensive feature parity is maintained between the 32-bit and 64-bit environments. Unless explicitly marked otherwise, the contents of this document are applicable for both the environments. For more details on Cisco IOS XR 64 bit, refer to the [Release Notes](#) for Cisco IOS XR Series Routers.



Smart Licensing Commands

This module describes the commands used to configure Smart Licensing.

For detailed information about Smart Licensing concepts, configuration tasks, and examples, see the *Implementing Smart Licensing on Cisco IOS XR Software* .

- [crypto ca http-proxy, on page 3](#)
- [license smart deregister, on page 4](#)
- [license smart enable, on page 5](#)
- [license smart factory reset, on page 6](#)
- [license smart import, on page 7](#)
- [license smart proxy, on page 8](#)
- [license smart renew, on page 9](#)
- [license smart reservation, on page 10](#)
- [license smart register idtoken, on page 11](#)
- [license smart sync, on page 12](#)
- [license smart transport, on page 13](#)
- [license smart url, on page 14](#)
- [license smart trust idtoken, on page 15](#)
- [show license all, on page 16](#)
- [show license certificate, on page 18](#)
- [show license entitlement, on page 19](#)
- [show license features \(chassis\), on page 20](#)
- [show license ha, on page 21](#)
- [show license pool, on page 22](#)
- [show license rum, on page 23](#)
- [show license register-status, on page 27](#)
- [show license status \(compliance\), on page 28](#)
- [show license scheduler, on page 29](#)
- [show license udi \(smart\), on page 30](#)
- [show license version, on page 31](#)
- [show license platform detail, on page 32](#)
- [show license platform summary, on page 34](#)
- [show license platform trace, on page 35](#)
- [show license status, on page 37](#)
- [show license summary, on page 38](#)

- [show license usage, on page 40](#)

crypto ca http-proxy

To enable communication with the certification authority to retrieve the Certificate Revocation List (CRL) use the **crypto ca http-proxy** command in the Global Configuration mode. Use the **no** form of this command to disable the proxy.

crypto ca http-proxy *server-IP-Address* **portnumber**
no**crypto ca http-proxy** *server-IP-Address* **portnumber**

Syntax Description	Parameter	Description
	http-proxy <i>server-IP-address</i>	Specifies the host IP address.
	portnumber	http-proxy server port number. The range is from 1-65535.

Command Default No default.

Command Modes Global configuration

Command History	Release	Modification
	Release 7.0.2	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read, Write, Execute

Example

This example shows how to run the command to enable communication with the certification authority to retrieve the Certificate Revocation List (CRL).

```
RP/0/RSP0/CPU0:router# configure
RP/0/RSP0/CPU0:router(config)# crypto ca http-proxy 10.10.10.1 port 1
```

license smart deregister

To cancel device registration from Cisco Smart Software Manager (CSSM), use the **license smart deregister** command in the EXEC mode.

license smart deregister

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	Release 7.11.1	This command was introduced.
		This command is not applicable to smart licensing protocol (SLP).

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.



Note This command is not applicable to smart licensing protocol (SLP).

Task ID	Task ID	Operation
	pkg-mgmt	Execute

Example

The following example shows output for the **license smart deregister** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router#license smart deregister
```


license smart enable

To enable Smart Licensing for your product, use the **license smart enable** command in the Administration Configuration mode. Use the **no** form of this command to disable Smart Licensing and return to the default traditional mode of licensing.

license smart enable
no license smart enable

Syntax Description This command has no keywords or arguments.

Command Default By default, traditional licensing mode is on.

Command Modes Administration configuration

Command History	Release	Modification
	Release 5.2.0	This command was introduced on ASR 9000 routers.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Smart Licensing components are packaged into the asr9k mini image. By default, traditional licensing mode is on. Use the **license smart enable** command to switch to the Smart Licensing model.

Task ID	Task ID	Operation
	pkg-mgmt	Read, Write, Execute

Example

This example shows how to run the command to enable Smart Licensing, and the configuration with Smart Licensing enabled.

```
RP/0/RSP0/CPU0:router(admin)# configure
RP/0/RSP0/CPU0:router(admin-config)#license smart enable
RP/0/RSP0/CPU0:router(admin-config)#show config
Building configuration...
!! IOS XR Configuration 5.2.0.19I
license smart enable
end
```

license smart factory reset

To clear all licensing information from the trusted store and memory, except the evaluation period count down and the Specific License Reservation (SLR) sequence number, use the **license smart factory reset** command in EXEC mode.

license smart factory reset

Syntax Description	reset	Clears all saved smart licensing information.
Command Default	None	
Command Modes	EXEC mode	
Command History	Release	Modification
	Release 24.1.1	This command was introduced.
Usage Guidelines	Restart the Smart License server after a factory reset to ensure the Smart Agent functions properly.	
Task ID	Task ID	Operation
	pkg-mgmt	execute

Example

The following example shows output for the **license smart factory reset** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router#license smart factory reset
```

license smart import

To import Smart Licensing authorization codes, policies, trust codes and other licensing elements, use the **license smart import** command in EXEC mode.

license smart import word

Syntax Description	word	Specifies the complete path to a file, including the filename.
Command Default	None	
Command Modes	EXEC mode	
Command History	Release	Modification
	Release 24.1.1	This command was introduced.
Task ID	Task ID	Operation
	pkg-mgmt	execute

Example

The following example shows output for the **license smart import** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router#license smart import word
```

```
Mon May 6 11:12:05.761 IST
Failed to read file content
Error : Null pointer Error
```

license smart proxy

To configure the smart licensing proxy settings, use the **license smart proxy** command in XR Config mode.

```
license smart proxy { hostname <address/ hostname> | port <0-65535> }
```

Syntax Description	hostname <address/ hostname>	Enter the IP Address or hostname of the proxy server.
	port <0-65535>	Specifies the proxy port. Enter the proxy port number.

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes XR Config mode

Command History	Release	Modification
	Release 24.1.1	This command was introduced.

Usage Guidelines Configures a proxy for the Smart transport mode. When a proxy is configured, licensing messages are sent to the proxy along with the final destination URL (CSSM). The proxy sends the message on to CSSM. Provide the address and port information.

Task ID	Task ID	Operation
	pkg-mgmt	read, write

Example

The following example shows output for the **license smart proxy** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router (config)#license smart proxy hostname address
```

license smart renew

To manually renew your device's ID or authorization with Cisco Smart Software Manager (CSSM), use the **license smart renew** command in the EXEC mode.

license smart deregister { **auth** | **id** }

Syntax Description	auth	Renews your authorization.
	id	Renews your ID.
Command Default	None	
Command Modes	EXEC mode	
Command History	Release	Modification
	Release 7.11.1	This command was introduced.
Usage Guidelines	Renew your token ID or authorization with Cisco smart licensing.	
Task ID	Task ID	Operation
	pkg-mgmt	Execute

Example

The following example shows output for the **license smart renew** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router#license smart renew auth
```

license smart reservation

To enable or disable the license reservation, use the **license smart reservation** command in Global configuration mode.

license smart reservation
no license smart reservation

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Global configuration mode

Command History	Release	Modification
	Release 24.1.1	This command was introduced.

Usage Guidelines First, enable Flexible Consumption Model (FCM) of licensing. To enable FCM for your hardware, use the **license smart flexible-consumption enable** command in the global configuration mode.

Then, enable Specific License Reservation feature of licensing. In order to enable SLR feature, license reservation must be configured in the global configuration mode:

Task ID	Task ID	Operation
	pkg-mgmt	read, write

Example

The following example shows output for the **license smart reservation** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router(config)#license smart reservation
```

The following example shows output for the **no license smart reservation** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router(config)#no license smart reservation
```

license smart register idtoken

To register a device with the token generated from Cisco Smart Software Manager (CSSM), use the **license smart register idtoken** command in EXEC mode.

```
license smart register idtoken token_ID { force }
```

Syntax Description		
	<i>token_ID</i>	Device with the token generated from CSSM.
	force	(Optional) Forcefully registers your device irrespective of whether the device is registered or not.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	Release 7.11.1	This command was introduced.
		This command is not applicable to smart licensing protocol (SLP).

Usage Guidelines



Note This command is not applicable to smart licensing protocol (SLP).

Use the existing token in place of token_ID attribute.

If you do not have a token, then generate a new token from the CSSM portal.

For information on how to generate a new token, see Generate Product Registration Token from the Portal topic in the latest release of System Management Configuration Guide for respective platform in Cisco.com

Task ID	Task ID	Operation
	pkg-mgmt	execute

Example

The following example shows output for the **license smart register idtoken** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router#license smart register idtoken <token_ID>
```

license smart sync

To synchronize the Smart Licensing status, use the **license smart sync** command in the EXEC mode.

license smart sync all

Syntax Description	all	Specifies codes for all devices in HA config.
Syntax Description	This command has no keywords or arguments.	
Command Default	None	
Command Modes	EXEC mode	
Command History	Release	Modification
	Release 24.1.1	This command was introduced.
Usage Guidelines	<p>To manually trigger the first RUM report, you can enter the license smart sync command in privileged EXEC mode. Normally, the product instance automatically sends this report at the scheduled time, according to the policy. Along with this first report, if applicable, it sends a request for a UDI-tied trust code.</p> <p>If the utility mode is enabled on the product instance, the RUM report that the product instance sends to CSLU is flagged accordingly.</p>	
Task ID	Task ID	Operation
	pkg-mgmt	execute

Example

The following example shows output for the **license smart sync all** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router#license smart sync all
```


license smart transport

To configure Smart Licensing communication message transport, use the **license smart transport** command in the XR Config mode.

license smart transport { **callhome** | **cslu** | **off** | **smart** }

Syntax Description	callhome	Use call home as transport.
	cslu	Use CSLU as transport.
	off	It disables the transport functionality.
	smart	Use smart transport.

Syntax Description This command has no keywords or arguments.

Command Default The cslu transport is default.

Command Modes XR Config mode

Command History	Release	Modification
	Release 24.1.1	This command was introduced.

Task ID	Task ID	Operation
	pkg-mgmt	read, write

Example

The following example shows output for the **license smart transport callhome** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router(config)#license smart transport callhome
```

license smart url

To configure the transport URL for Smart Licensing communication, use the **license smart url** command in XR Config mode.

```
license smart url { cslu | smart } <url>
```

Syntax Description	Parameter	Description
	cslu	Set the CSLU URL.
	smart	Set the smart transport URL.

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes XR Config mode

Command History	Release	Modification
	Release 24.1.1	This command was introduced.

Task ID	Task ID	Operation
	pkg-mgmt	read, write

Example

The following example shows output for the **license smart url** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router(config)#license smart url smart
```

license smart trust idtoken

To establish trust between a Cisco device and the Smart Software Manager (SSM) On-Prem, use the **license smart trust idtoken <ID Token>** command in EXEC mode.

license smart trust idtoken <s0> all { force }

Syntax Description	<s0>	Provide id token received from backend.
	all	Establish trust with backend for all CSLU.
	force	(Optional) Force backend to re-establish trust.

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	Release 24.1.1	This command was introduced.

Task ID	Task ID	Operation
	pkg-mgmt	execute

Example

The following example shows output for the **license smart trust idtoken <ID Token>** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router#license smart trust idtoken <s0> all
```

show license all

To display all entitlements in use the **show license all** command in the Administration mode, and on Cisco IOS XR 64-bit, it runs in EXEC mode.

show license all

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration for Cisco IOS XR
EXEC for Cisco IOS XR 64-bit

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example displays the use of the **show license all** command.

```
RP/0/RSP0/CPU0:router(admin)#show license all
```

This example displays the use of the **show license all** command in the EXEC mode.

```
RP/0/RSP0/CPU0:router#show license all
Thu May  9 09:41:05.800 UTC
```

```
Smart Licensing Status
=====
```

```
Smart Licensing is ENABLED
```

```
License Conversion:
  Automatic Conversion Enabled: True
```

```
Export Authorization Key:
  Features Authorized:
    <none>
```

```
Utility:
```

Status: DISABLED

Smart Licensing Using Policy:

Status: ENABLED

Account Information:

Smart Account: <none>

Virtual Account: <none>

show license certificate

To display details of the licensing certificate use the **show license certificate** command in the Administration mode.

show license certificate

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example shows the output of the **show license certificate** command.

```
RP/0/RSP0/CPU0:router(admin)#show license cert
Licensing Certificates:
ID Cert Info:
Start Date: Mon Mar10 2014 05:58:28 UTC.
Expiry Date:Tue Mar10 2015 05:58:28 UTC
Serial Number: 34506
Version: 3
Subject/SN: 144a76ed-75de-4a8e-969e-30cf683c
Common Name: 5daab5111895b37e21e164dacc::1,2
ID Cert Info:
Start Date: Fri Jun14 2013 20:18:52 UTC.
Serial Number: 3
Expiry Date:Sun Apr24 2033 21:55:42 UTC
Version: 3
```

show license entitlement

To display the details of the various entitlements you own use the **show license entitlement** command in the Administration mode.

show license entitlement

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example shows the output of the **show license entitlement** command.

```
RP/0/RSP0/CPU0:router(admin)#show license entitlement
Entitlement:Tag: regid.2014-04.com.cisco.S-A9K-IVRF-LIC,1.0_0bb7,
Version: 1.0, Enforce Mode: Authorized
Requested Time : Mon May 19 2014 16:59:24 PST,
Requested Count: 1 Vendor String:
Tag: S-A9K-iVRF-LIC, Version: 1.0, Enforce Mode: Waiting
Requested Time : Mon Mar 10 2014 11:33:12 UTC,
Requested Count: 1 Vendor String:
Tag: regid.2014-04.com.cisco.S-A9K-IVRF-LIC,1.0_1bealf,
Version: 1.0, Not In Use
Requested Time : NA, Requested Count: NA
Vendor String:
Tag:S-A9K-9001-AIP-LIC,Version:1.0,Enforce Mode:Eval period
```

show license features (chassis)

To display the licenses that are supported on a given chassis, use the **show license features** command in the Administration mode.

show license features

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example shows the output for the **show license features** command.

```
RP/0/RSP0/CPU0:router(admin)#show license features
Platform Feature ID:
A9K-iVRF-LIC
A9K-9001-AIP-LIC
A9K-9001-OPT-LIC
A9K-9001-VID-LIC
A9K-NVSAT1-LIC
A9K-NVSAT5-LIC
A9K-NVSAT20-LIC
A9K-NVSAT1S-LIC
A9K-NVSAT5S-LIC
A9K-NVSAT20S-LIC
A9K-NV-CLUSTR-LIC
A9K-9001-MOB-LIC
```


show license ha

To display the Smart Licensing high availability status, whether it is in active or standby mode, use the **show license ha** command in the Administration mode.

show license ha

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example shows the output of the **show license ha** command.

```
RP/0/RSP0/CPU0:router(admin)#show license ha
HA Info:
RP Role: Active
Chassis Role: Active
HA Sudi:
Role: Active PID:ASR-9001,SN:FOC1741NC0Z
```

show license pool

To display the pool to which the device belongs, use the **show license pool** command in the Administration mode.

show license pool

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example shows the output of the **show license pool** command.

```
RP/0/RSP0/CPU0:router(admin)#show license pool
Assigned Pool Info: IMC0_POOL
```

show license rum

To display information about Resource Utilization Measurement reports (RUM report) available on the product instance, including report IDs, the current processing state of a report, error information (if any), and to save the detailed or summarized view that is displayed, use the **show license rum** command in the EXEC mode.

show license rum id all [detail]

Syntax Description	id	Displays RUM report information based on the license name.
	all	Specify a particular license name to display all RUM reports for that license, or use the all keyword to display all RUM reports available on the product instance.
	detail	Displays detailed RUM report information. You can use this to display detailed information by license name and detailed information by RUM report ID.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	Release 24.1.1	This command was introduced.

Usage Guidelines A 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. Once the ACK for a report is available on the product instance, it indicates that the corresponding RUM report is no longer required and can be deleted. You can use the **show license rum** command to:

Display information about the available RUM reports on the product instance - filtered by ID or license name.

Display a short summary of the information or display a detailed view of the information.

Track a RUM report throughout its lifecycle (from the time it is first generated until its acknowledgement from CSSM). By displaying the current processing state and condition of a report you can ascertain if and when there is a problem in the reporting workflow.

Save the displayed information. The CLI displays information about up to 200 reports. If there are more than 200 reports on the product instance and you want to view information about all of them, save the displayed info in a .txt file and export to the desired location to view.

To display a statistical view of RUM report information (the total number of reports on the product instance, the number of reports that have a corresponding ACK, the number of reports waiting for an ACK etc.) refer

to the Usage Report Summary: section of the show license all and show license tech privileged EXEC commands.

The show license tech command also provides RUM report related information that the Cisco technical support team can use to troubleshoot, if there are problems with RUM reporting.

Task ID	Task ID	Operation
	pkg-mgmt	Execute

Example

The following example shows output for the **show license rum id all** command on Cisco IOS XR:

```
Router# show license rum id all
Tue Jun 18 00:27:40.389 UTC
Smart Licensing Usage Report:
=====
Report Id,           State,   Flag,  Feature Name
1718664968          ACK     N      8KSW_B_SIA
1718664969          ACK     N      8KSW_C_SIA
1718664970          ACK     N      8KSW_D_SIA
1718664971          ACK     N      8KE_PRM_100G_RTU
1718664972          ACK     N      8KSW_B_SIA
1718664973          ACK     N      8KSW_C_SIA
1718664974          ACK     N      8KSW_D_SIA
1718664975          ACK     N      8KE_PRM_100G_RTU
1718664976          ACK     N      8KE_ADN_100G_RTU
1718664977          ACK     N      8KSW_B_SIA
1718664978          ACK     N      8KSW_C_SIA
1718664979          ACK     N      8KSW_D_SIA
1718664980          ACK     N      8KE_ADN_100G_RTU
1718664981          ACK     N      8KSW_B_SIA
1718664982          ACK     N      8KSW_C_SIA
1718664983          ACK     N      8KSW_D_SIA
1718664984          ACK     N      8KE_ESS_100G_RTU
1718664985          ACK     N      8KE_ADN_100G_RTU
1718664986          OPEN    N      8KSW_B_SIA
1718664987          OPEN    N      8KSW_C_SIA
1718664988          OPEN    N      8KSW_D_SIA
1718664989          OPEN    N      8KE_ADN_100G_RTU
```

The following example shows output for the **show license rum id all detail** command on Cisco IOS XR:

```
Router# show license rum id all detail
Tue Jun 18 00:28:01.307 UTC
Smart Licensing Usage Report Detail:
=====
Report Id: 1718664968
Metric Name: ENTITLEMENT
Feature Name: 8KSW_B_SIA
Metric Value: regid.2024-03.com.cisco.8KSW_B_SIA,1.0_dda2a110-f0be-453c-8f82-6362ea7fde74

UDI: PID:8808,SN:FOX2412PNUY
Previous Report Id: 0,      Next Report Id: 1718664972
Version: 2.0
State: ACK,      State Change Reason: ACKED
Close Reason: SMART
Start Time: Jun 17 2024 22:56:55 UTC,      End Time: Jun 17 2024 23:05:32 UTC
Storage State: DELETED,      Storage State Change Reason: PROCESSED
```

```
Transaction ID: 0 ()
Transaction Message: <none>
Report Size: 1320(0)
```

```
Report Id: 1718664969
Metric Name: ENTITLEMENT
Feature Name: 8KSW_C_SIA
Metric Value: regid.2024-03.com.cisco.8KSW_C_SIA,1.0_aaf74680-e8ed-4293-8794-352952cdf64f
```

```
UDI: PID:8808,SN:FOX2412PNUY
Previous Report Id: 0, Next Report Id: 1718664973
Version: 2.0
State: ACK, State Change Reason: ACKED
Close Reason: SMART
Start Time: Jun 17 2024 22:56:57 UTC, End Time: Jun 17 2024 23:05:33 UTC
Storage State: DELETED, Storage State Change Reason: PROCESSED
Transaction ID: 0 ()
Transaction Message: <none>
Report Size: 1320(0)
```

```
Report Id: 1718664970
Metric Name: ENTITLEMENT
Feature Name: 8KSW_D_SIA
Metric Value: regid.2024-03.com.cisco.8KSW_D_SIA,1.0_601a512c-6644-4d4b-8e8b-9d5414d7d196
```

```
UDI: PID:8808,SN:FOX2412PNUY
Previous Report Id: 0, Next Report Id: 1718664974
Version: 2.0
State: ACK, State Change Reason: ACKED
Close Reason: SMART
Start Time: Jun 17 2024 22:56:58 UTC, End Time: Jun 17 2024 23:05:33 UTC
Storage State: DELETED, Storage State Change Reason: PROCESSED
Transaction ID: 0 ()
Transaction Message: <none>
Report Size: 1320(0)
```

```
Report Id: 1718664971
Metric Name: ENTITLEMENT
Feature Name: 8KE_PRM_100G_RTU
Metric Value:
regid.2023-05.com.cisco.8KE_PRM_100G_RTU,1.0_b3e036df-810f-41a8-9c44-1ec757967f66
```

```
UDI: PID:8808,SN:FOX2412PNUY
Previous Report Id: 0, Next Report Id: 1718664975
Version: 2.0
State: ACK, State Change Reason: ACKED
Close Reason: SMART
Start Time: Jun 17 2024 23:05:34 UTC, End Time: Jun 17 2024 23:05:35 UTC
Storage State: DELETED, Storage State Change Reason: PROCESSED
Transaction ID: 0 ()
Transaction Message: <none>
Report Size: 1153(0)
```

```
Report Id: 1718664972
Metric Name: ENTITLEMENT
Feature Name: 8KSW_B_SIA
Metric Value: regid.2024-03.com.cisco.8KSW_B_SIA,1.0_dda2a110-f0be-453c-8f82-6362ea7fde74
```

```
UDI: PID:8808,SN:FOX2412PNUY
Previous Report Id: 1718664968, Next Report Id: 1718664977
Version: 2.0
State: ACK, State Change Reason: ACKED
Close Reason: SMART
Start Time: Jun 17 2024 23:05:32 UTC, End Time: Jun 17 2024 23:18:40 UTC
Storage State: DELETED, Storage State Change Reason: PROCESSED
```

```
Transaction ID: 0 ()  
Transaction Message: <none>  
Report Size: 1218(0)
```

```
Report Id: 1718664973  
Metric Name: ENTITLEMENT  
Feature Name: 8KSW_C_SIA  
Metric Value: regid.2024-03.com.cisco.8KSW_C_SIA,1.0_aaf74680-e8ed-4293-8794-352952cdf64f
```

```
UDI: PID:8808,SN:FOX2412PNUY  
Previous Report Id: 1718664969, Next Report Id: 1718664978  
Version: 2.0  
State: ACK, State Change Reason: ACKED  
Close Reason: SMART  
Start Time: Jun 17 2024 23:05:33 UTC, End Time: Jun 17 2024 23:18:41 UTC  
Storage State: DELETED, Storage State Change Reason: PROCESSED  
Transaction ID: 0 ()  
Transaction Message: <none>  
Report Size: 1218(0)
```

show license register-status

To display the Smart Licensing registration status, use the **show license register-status** command in the Administration mode.

show license register-status

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example shows the output for the **show license register-status** command.

```
RP/0/RSP0/CPU0:router(admin)#show license register-status
Registration Status: Completed
Step 3
for connectivity issues with the Cisco license
manager or register the device with a new token
ID.
Registration Start Time: Fri May 02 2014 17:19:53 PST
Next ID Cert Renew Time: Wed Oct 29 2014 17:21:55 PST
Next ID Cert Expiration Time: May02 2015 17:18:50 PST
Last Response Time: Fri May 02 2014 17:20:11 PST
Last Response Message: OK
```

show license status (compliance)

To display the compliance status of Smart Licensing, use the **show license status** command in the Administration mode.

show license status

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example shows you to use show license status command to display the current status of your license.

```
RP/0/RSP0/CPU0:router(admin)#show license status
Compliance Status: Eval period
```


show license scheduler

To display the Smart Licensing scheduler information use the **show license scheduler** command in the Administration mode.

show license scheduler

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example shows how to use the **show license scheduler** command, and its output.

```
RP/0/RSP0/CPU0:router(admin)#show license scheduler
Upcoming Scheduled Jobs:
  Job Name: Daily Job
    Recurring: Yes,      Cancelled: No
    Next Run Time : Sat May 31 2014 03:58:02 PST
  Job Name: Authorization Renewal Job
    Recurring: No,      Cancelled: Yes
    Next Run Time : NA
  Job Name: Init Flag Check Job
    Recurring: No,      Cancelled: Yes
    Next Run Time : NA
  Job Name: Evaluation Expiration Check Job
    Recurring: No,      Cancelled: No
    Next Run Time : Wed Aug 20 2014 11:18:42 PST
  Job Name: Register Period Expiration Check Job
    Recurring: No,      Cancelled: No
    Next Run Time : Fri May 30 2014 04:15:06 PST
```

show license udi (smart)

To display the Smart Licensing UDI, use the **show license udi** command in the Administration mode, and on Cisco IOS XR 64-bit, it runs in EXEC mode.

show license udi

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration for Cisco IOS XR
EXEC for Cisco IOS XR 64-bit

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example shows you how to use the **show license udi** command, and a sample output.

```
RP/0/RSP0/CPU0:router#admin
RP/0/RSP0/CPU0:router(admin)#show license udi
UDI:
PID:ASR-9001, SN:FOC1741NC0Z
```

show license version

To display the Smart Licensing version information, use the **show license version** in the Administration mode.

show license version

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.2.0	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

This example displays how to use the **show license version** command, and the output.

```
RP/0/RSP0/CPU0:router(admin)#show license version
Cisco Smart Licensing Agent, Version 1.1.0_dev/240
```

show license platform detail

To display smart license detail, use the **show license platform detail** command in the EXEC mode.

show license platform detail

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	Release 7.11.1	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

The following example shows output for the **show license platform detail** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router#show license platform detail
Wed May  8 06:29:33.782 UTC
Collection: LAST: Wed May 08 2024 06:27:38 UTC
            NEXT: Wed May 08 2024 07:27:38 UTC
Reporting:  LAST: Wed May 08 2024 06:27:38 UTC
            NEXT: Thu May 09 2024 06:27:38 UTC
SIA Status: In Compliance
Parameters: Collection interval:          60 minute(s)
            Reporting interval:         1440 minute(s)
            Throughput gauge:          1000000 Kbps

=====
Feature/Area 'system'
  Name: System
  Status: ACTIVE
  Flags: CONFIG

  [ 1] Name: Product: ASR9K 8x100GE-CM Right to Use
      Entitlement Tag:
      regid.2015-06.com.cisco.A9K-8X100GE-CM,1.0_f05eb271-27f3-4169-b143-0b468072f8f7
      Count: Last reported: 0
            Next report: 0
  [ 2] Name: Product: ASR99 8x100GE-CM Right to Use
```

```
Entitlement Tag:  
regid.2016-02.com.cisco.A99-8X100GE-CM,1.0_dc4a177b-2992-42d3-b004-885f9b969839  
Count: Last reported:    0
```

show license platform summary

To display smart license summary, use the **show license platform summary** command in the EXEC mode.

show license platform summary

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	Release 7.11.1	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

The following example shows output for the **show license platform summary** command on Cisco IOS XR:

```
RP/0/RP1/CPU0:router#show license platform summaryWed May  8 06:29:12.376 UTC
Collection: LAST: Wed May 08 2024 06:27:38 UTC
              NEXT: Wed May 08 2024 07:27:38 UTC
Reporting:  LAST: Wed May 08 2024 06:27:38 UTC
              NEXT: Thu May 09 2024 06:27:38 UTC
SIA Status: In Compliance

Feature/Area      Entitlement                                     Count
=====
Last Next
=====
```

show license platform trace

To display trace logs for platform-specific licensing operations, use the **show license platform trace** command in EXEC mode.

show license platform trace { **all** | **detail** | **error** | **info** }

Syntax Description	all	Displays all trace logs.
	detail	Displays detail trace logs.
	error	Displays error messages in the trace logs.
	info	Displays detailed informational messages in the trace logs.

Command Default None

Command Modes EXEC mode

Command History	Release	Modification
	Release 7.11.1	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	Read

Example

The following example shows output for the **show license platform trace** command with the **all** keyword:

```
RP/0/RP1/CPU0:router#show license platform trace all
Wed May  8 06:30:24.936 UTC
3 unique entries (3072 possible, 0 filtered)
May  8 06:17:00.322 plat_sl/sl-err 0/RSP0/CPU0 2# t7377 PLUGIN(vortex): ok , proc name -
plat_sl_client / location - 0/RSP0/CPU0
May  8 06:27:38.867 plat_sl/sl-inf 0/RSP0/CPU0 30# t7377 SIALOG: BAU model is active
May  8 06:29:33.869 plat_sl/sl-det 0/RSP0/CPU0 186# t7344 plat_sl_edm_get_detail_info:
detail info len: 26934
218 wrapping entries (55488 possible, 448 allocated, 0 filtered, 218 total)
May  8 06:16:59.840 plat_sl/sl-inf 0/RSP0/CPU0 t6906 Process start (count 1)
May  8 06:16:59.840 plat_sl/sl-err 0/RSP0/CPU0 t6906 Process start (count 1)
May  8 06:16:59.849 plat_sl/sl-det 0/RSP0/CPU0 t6906 Process start (count 1)
May  8 06:16:59.851 plat_sl/sl-det 0/RSP0/CPU0 t6906 EVM creation completed
May  8 06:16:59.851 plat_sl/sl-det 0/RSP0/CPU0 t6906 Checkpoint initialized for the first
```

```
time
May  8 06:16:59.851 plat_sl/sl-det 0/RSP0/CPU0 t6906 Checkpoint init completed
May  8 06:16:59.852 plat_sl/sl-det 0/RSP0/CPU0 t6906 EDM init completed
May  8 06:16:59.852 plat_sl/sl-det 0/RSP0/CPU0 t6906 Plugin Configuration init completed
May  8 06:16:59.852 plat_sl/sl-det 0/RSP0/CPU0 t6906 IM init completed
May  8 06:16:59.881 plat_sl/sl-det 0/RSP0/CPU0 t7344 plat_sl_edm_thread: evm 0x7f6638000b70
May  8 06:16:59.914 plat_sl/sl-det 0/RSP0/CPU0 t7345 sysdb bind to /cfg/gl/flexconsumption/
  completed
May  8 06:16:59.914 plat_sl/sl-det 0/RSP0/CPU0 t7344 sysdb bind to
  /admin/oper/smartlic-edm/gl/ completed
May  8 06:16:59.951 plat_sl/sl-det 0/RSP0/CPU0 t7345 sysdb bind to /cfg/gl/licensing/
  completed
May  8 06:16:59.989 plat_sl/sl-det 0/RSP0/CPU0 t7344 sysdb edm register completed
May  8 06:17:00.008 plat_sl/sl-det 0/RSP0/CPU0 t6906 Install init completed
May  8 06:17:00.025 plat_sl/sl-inf 0/RSP0/CPU0 t6906 Opening connection to IM
May  8 06:17:00.031 plat_sl/sl-det 0/RSP0/CPU0 t7377 WORKER thread starting
May  8 06:17:00.033 plat_sl/sl-det 0/RSP0/CPU0 t7345 sysdb edm register completed for flex
  consumption
```


show license status

To display the registration details, status of license, and authorization details of license, use the **show license status** command in the Administration mode.

show license status

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration

Command History	Release	Modification
	Release 5.3.3	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID	Task ID	Operation
	pkg-mgmt	read

Example

The following example shows output from the **show license status** command:

```
RP/0/RSP0/CPU0:router(admin)# show license status

Smart Licensing is ENABLED
  Initial Registration: SUCCEEDED on Thu Nov 12 2015 22:05:18 PDT
  Last Renewal Attempt: None
  Registration Expires: Fri Nov 11 2016 21:59:04 PDT

License Authorization:
  Status: EVAL MODE
  Evaluation Period Remaining: 87 days, 8 hours, 19 minutes, 11 seconds
  Last Communication Attempt: SUCCEEDED on Thu Nov 12 2015 22:05:30 PDT
  Next Communication Attempt: Thu Nov 12 2015 23:05:30 PDT
  Communication Deadline: Wed Dec 31 1969 17:00:00 PDT
```

show license summary

To display the license summary, use the **show license summary** command. On Cisco IOS XR, this command runs in Administration mode, and on Cisco IOS XR 64-bit, it runs in EXEC mode.

show license summary

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration for Cisco IOS XR
EXEC for Cisco IOS XR 64-bit

Command History

Release	Modification
Release 6.1.1	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operation
pkg-mgmt	read

Example

The following example shows output from the **show license summary** command:

```
RP/0/RSP0/CPU0:router# show license summary
```

```
Smart Licensing is ENABLED
```

```
Registration:
```

```
Status: REGISTERED
Smart Account: Smart-Account-Name
Virtual Account: ASR9K-SL-eXR
Last Renewal Attempt: None
Next Renewal Attempt: Mon Apr 09 2018 12:52:44 UTC
```

```
License Authorization:
```

```
Status: AUTHORIZED on Wed Oct 11 2017 12:55:24 UTC
Last Communication Attempt: SUCCEEDED
Next Communication Attempt: Thu Oct 12 2017 00:55:24 UTC
```

```
License Usage:
```

License	Entitlement tag	Count	Status
ASR 9000 Consumption Model LC	(A9K-8X100GE-CM)	1	AUTHORIZED

ASR 9K 48x10-1G Consumption Model Line Card License	(A9K-48X10-1-CM-LIC)	1	AUTHORIZED
ASR9000 IP Basic 10G	(S-A9K-IP-10G)	48	AUTHORIZED

show license usage

To display the license usage count, use the **show license usage** command. On Cisco IOS XR, this command runs in Administration mode, and on Cisco IOS XR 64-bit, it runs in EXEC mode.

show license usage

Syntax Description This command has no keywords or arguments.

Command Default None

Command Modes Administration for Cisco IOS XR
EXEC for Cisco IOS XR 64-bit

Command History

Release	Modification
Release 6.1.1	This command was introduced.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using a command, contact your AAA administrator for assistance.

Task ID

Task ID	Operation
pkg-mgmt	read

Example

The following example shows output from the **show license usage** command:

```
RP/0/RSP0/CPU0:router (admin)# show license usage

License Authorization:
  Status: AUTHORIZED on Thu Nov 12 2015 22:05:41 PDT

ASR 9000 Lawful Intercept License (A9K-LI-LIC):
  Description: ASR 9000 Lawful Intercept License
  Count: 1
  Version: 1.0
  Status: AUTHORIZED

ASR 9000 Consumption Model LC (A9K-8X100GE-CM):
  Description: ASR 9000 Consumption Model LC
  Count: 1
  Version: 1.0
  Status: AUTHORIZED
```

In the above show command output, notice that the status of two licenses (A9K-LI-LIC and A9K-8X100GE-CM) is Authorized.

show license usage