

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* module in *System Management Configuration Guide for Cisco ASR 9000 Series Routers*.

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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* **port***number*
nocrypto ca http-proxy *server-IP-Address* **port***number*

Syntax Description

Syntax Description

http-proxy *server-IP-address*	Specifies the host IP address.
port*number*	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 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.

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
```

show license all

To display all entitlements in use the **show license all** command in the Administration mode.

show license all

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 the use of the **show license all** command.

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

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_1bea1f,
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 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 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 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 udi (smart)

To display the Smart Licensing UDI, use the **show license udi** command in the Administration mode.

show license udi

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 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 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

Usage Guidelines 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

Usage Guidelines

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

Usage Guidelines

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.