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.

- license smart enable, on page 2
- show license all, on page 3
- show license certificate, on page 4
- show license entitlement, on page 5
- show license ha, on page 6
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- show license scheduler, on page 9
- show license udi (smart), on page 10
- show license version, on page 11
- show license status, on page 12
- show license summary, on page 13
- show license usage, on page 15
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**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.2.0</td>
<td>This command was introduced.</td>
</tr>
</tbody>
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**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**

<table>
<thead>
<tr>
<th>Task ID</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>pkg-mgmt</td>
<td>Read, Write, Execute</td>
</tr>
</tbody>
</table>

**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 5.2.0.191
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**

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**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**

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**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**

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

```
RP/0/RSP0/CP00:router# show license entitlement
Version: 1.0, Enforce Mode: Authorized
Requested Time : Mon May 19 2014 16:59:24 PST,
Requested Count: 1 Vendor String:
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:
```
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.

Syntax Description
This command has no keywords or arguments.

Command Default
None

Command Modes
Administration

Command History

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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**

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**Example**

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

```
RP/0/RSP0/CPU0:router#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**

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**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 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**

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**Example**

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

```
RP/0/RSP0/CPUD:router#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
  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.

```
show license udi
```

**Syntax Description**

This command has no keywords or arguments.

**Command Default**

None

**Command Modes**

Administration

**Command History**

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**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.

```plaintext
show license version
```

**Syntax Description**

This command has no keywords or arguments.

**Command Default**

None

**Command Modes**

Administration

**Command History**

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</table>

**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.

**Usage Guidelines**
This command has no keywords or arguments.

**Command Default**
None

**Command Modes**
Administration

**Command History**

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release 5.3.3</td>
<td>This command was introduced.</td>
</tr>
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<tr>
<td>pkg-mgmt</td>
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</table>

**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 23:05:30 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.

**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**

<table>
<thead>
<tr>
<th>Release</th>
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<tr>
<td>Release 6.1.1</td>
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**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:
Last Communication Attempt: SUCCEEDED
Next Communication Attempt: Thu Oct 12 2017 00:55:24 UTC

License Usage:

<table>
<thead>
<tr>
<th>License</th>
<th>Entitlement tag</th>
<th>Count</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASR 9000 Consumption Model LC</td>
<td>(A9K-8X100GE-CM)</td>
<td>1</td>
<td>AUTHORIZED</td>
</tr>
</tbody>
</table>
```
<table>
<thead>
<tr>
<th>License Type</th>
<th>License Code</th>
<th>Count</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASR 9K 48x10-1G Consumption Model Line Card License</td>
<td>A9K-48X10-1-CM-LIC</td>
<td>1</td>
<td>AUTHORIZED</td>
</tr>
<tr>
<td>ASR9000 IP Basic 10G</td>
<td>S-A9K-IP-10G</td>
<td>48</td>
<td>AUTHORIZED</td>
</tr>
</tbody>
</table>

show license summary
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

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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.