



## Smart License Commands

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# license smart register

To register a device instance with the Cisco licensing cloud, use the **license smart register** command in XR EXEC mode.

**license smart register id-token** *id-token*

<b>Syntax Description</b>	<i>id-token</i>	Registers a device using the token from the CSSM portal.
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**Command Default** Device not registered

**Command Modes** XR EXEC mode

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	Release 7.0.12	This command was introduced.

**Usage Guidelines** On successful registration, the device displays the “Registered” status and receives an identity certificate. This certificate is saved on your device and is automatically used for all future communication with Cisco. However, if the registration fails, the system generates an error log.

This example shows how to register a device:

```
#
RP/0/RP0/CPU0:router# license smart register idtoken MzhmMjZiYzEtYjExNC00MjE0LThjZ
Fri Mar 6 20:38:45.486 UTC
```

License command "license smart register idtoken " completed successfully.

# license smart deregister

To cancel the registration of your device, use the **license smart deregister** command in XR EXEC mode.

**license smart deregister**

**Syntax Description** This command has no keywords or arguments.

**Command Default** None

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** This command is used to return a license to the user's virtual account in CSSM.



**Note** After you deregister a license, the same license can be reused to register the same device or another device with the Cisco licensing cloud.

This example shows how to cancel the registration of a device:

```
RP/0/RP0/CPU0:router# license smart deregister
Fri Mar 6 20:40:20.960 UTC

License command "license smart deregister " completed successfully.
```

# license smart renew

To renew the ID certification manually, use the **license smart renew** command in XR EXEC mode.

**license smart renew ID**

**Syntax Description** This command has no keywords or arguments.

**Command Default** None

**Command Modes** XR EXEC mode

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	Release 7.0.12	This command was introduced.

**Usage Guidelines** ID certificates are renewed automatically after six months. In case, the renewal fails, the product instance goes into unidentified state. You can manually renew the ID certificate using the **license smart renew** command.

For information on license renewal, see the [show license status](#) command.

This example shows how to manually renew the ID certificate of a device:

```
#
RP/0/RP0/CPU0:router# license smart renew id
```

# show license all

To view the entitlements in use, use the **show license all** command in XR EXEC mode.

## show license all

**Syntax Description** This command has no keywords or arguments.

**Command Default** No default behavior or values.

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** This command is also used to check if Smart Licensing is enabled. Also, it shows authorization status, smart license agent version, registration status, UDI number, license usage, associated licensing certificates, compliance status, and other details.

This sample output shows all entitlements in use for Cisco 8201 router:

```
RP/0/RP0/CPU0:router# show license all

Smart Licensing Status
=====

Smart Licensing is ENABLED

Registration:
  Status: REGISTERED
  Smart Account: /* Customer Smart account name */
  Virtual Account: /* Customer virtual account name */
  Export-Controlled Functionality: ALLOWED
  Initial Registration: SUCCEEDED on Mar 02 2020 03:37:59 UTC
  Last Renewal Attempt: SUCCEEDED on Mar 02 2020 03:40:45 UTC
  Next Renewal Attempt: Aug 29 2020 03:40:45 UTC
  Registration Expires: Mar 02 2021 03:35:51 UTC

License Authorization:
  Status: AUTHORIZED on Mar 02 2020 03:38:34 UTC
  Last Communication Attempt: SUCCEEDED on Mar 02 2020 03:38:34 UTC
  Next Communication Attempt: Apr 01 2020 03:38:33 UTC
  Communication Deadline: May 31 2020 03:33:39 UTC

Export Authorization Key:
  Features Authorized:
    <none>

Utility:
  Status: DISABLED

Data Privacy:
  Sending Hostname: yes
  Callhome hostname privacy: DISABLED
```

**show license all**

```
Smart Licensing hostname privacy: DISABLED
Version privacy: DISABLED

Transport:
  Type: Callhome

License Usage
=====

8201 Base HW Tracking PID (8201-TRK):
  Description: 8201 Base HW Tracking PID
  Count: 1
  Version: 1.0
  Status: AUTHORIZED
  Export status: NOT RESTRICTED

8000 Software Tracking PID 7.0 (XR-8K-7.0-TRK):
  Description: 8000 Software Tracking PID 7.0
  Count: 1
  Version: 1.0
  Status: AUTHORIZED
  Export status: NOT RESTRICTED

Product Information
=====
UDI: PID:8201-SYS,SN:FOC76578C65

Agent Version
=====
Smart Agent for Licensing: 4.9.6_rel/41

Reservation Info
=====
License reservation: DISABLED
```

# show license platform

To view the platform specific entitlements in use, use the **show license platform** command in XR EXEC mode.

**show license platform {detail | summary}**

Syntax Description	detail	Displays platform smart license details
	summary	Displays platform smart license summary

**Command Default** No default behavior or values.

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** This command displays a device's license usage details.

This sample output shows platform details:

```
RP/0/RP0/CPU0:router# show license platform detail
  Wed Apr 1 07:09:06.337 UTC
Current state: REGISTERED

Collection: LAST: Wed Apr 01 2020 07:08:25 UTC
NEXT: Wed Apr 01 2020 07:09:25 UTC
Reporting: LAST: Wed Apr 01 2020 07:08:25 UTC
NEXT: Wed Apr 01 2020 07:09:25 UTC

Parameters: Collection interval: 1 minute(s)
Reporting interval: 1 minute(s)
Throughput gauge: 1000000 Kbps

=====
Feature/Area 'vortex'
Name: Vortex
Status: ACTIVE
Flags:

[ 1] Name: Core & Aggr Essentials SW Right-to-Use per 400G for Cisco 8000 series
Entitlement Tag:
regid.2019-03.com.cisco.ESS-CA-400G-RTU-2,1.0_015f335a-e7cd-4d5c-aec5-b9a0eee2df9b
Count: Last reported: 0
Next report: 0
[ 2] Name: Core & Aggr Essentials SW Right-to-Use per 100G for Cisco 8000 series
Entitlement Tag:
regid.2019-03.com.cisco.ESS-CA-100G-RTU-2,1.0_48bdd67b-c17a-42fe-908a-9ed16d242b84
Count: Last reported: 0
Next report: 0
[ 3] Name: Core & Aggr Advance SW Right-to-Use per 400G for Cisco 8000 series
Entitlement Tag:
```

## show license platform

```

regid.2019-03.com.cisco.ADV-CA-400G-RTU-2,1.0_5a5661d3-275b-485e-bb57-642a81f35e7a
Count: Last reported: 0
Next report: 0
[ 4] Name: Core & Aggr Advance SW Right-to-Use per 100G for Cisco 8000 series
Entitlement Tag:
regid.2019-03.com.cisco.ADV-CA-100G-RTU-2,1.0_f7ea7475-09bb-4705-9e21-252dd1e2e5cd
Count: Last reported: 0
Next report: 0
[ 5] Name: SPITFIRE 8201 Base Hardware Tracking PID
Entitlement Tag: regid.2019-03.com.cisco.8201-TRK,1.0_2b015ca9-b01d-40eb-80b6-e6647f8fcf76
Count: Last reported: 1
Next report: 0
[ 6] Name: SPITFIRE 8812 Base Hardware Tracking PID
Entitlement Tag: regid.2019-03.com.cisco.8812-TRK,1.0_dced2f84-eb13-4e49-8129-28927d9d123a
Count: Last reported: 0
Next report: 0
[ 7] Name: SPITFIRE 8808 Base Hardware Tracking PID
Entitlement Tag: regid.2019-03.com.cisco.8808-TRK,1.0_84f675be-e484-475f-a6f3-9ba07dff65d8
Count: Last reported: 0
Next report: 0
[ 8] Name: SPITFIRE 8800 36FH LC Base Hardware Tracking PID
Entitlement Tag:
regid.2019-03.com.cisco.8800-LC-36FH-TRK,1.0_88859883-9491-4e2b-9d98-bfedafbc80dc
Count: Last reported: 0
Next report: 0
[ 9] Name: SPITFIRE 8800 48H LC Base Hardware Tracking PID
Entitlement Tag:
regid.2019-03.com.cisco.8800-LC-48H-TRK,1.0_b8c07f73-3115-4912-8135-91446f5df302
Count: Last reported: 0
Next report: 0
[10] Name: SPITFIRE IOS XR 7.0 SW Version Tracking PID
Entitlement Tag:
regid.2019-03.com.cisco.XR-8K-7.0-TRK,1.0_eaa94880-aed9-42aa-8cfd-037e7f1d9466
Count: Last reported: 1
Next report: 0
[11] Name: SPITFIRE IOS XR 7.0 SW K9 Version Tracking PID
Entitlement Tag:
regid.2019-03.com.cisco.XR-8K-7.0-K9-TRK,1.0_49d6bf0c-08f0-47ef-b7ca-db5c2ef603bf
Count: Last reported: 0
Next report: 0

```

This sample shows platform summary:

```
RP/0/RP0/CPU0:router# show license platform summary
```

```

Sat Mar 28 16:50:45.890 UTC
Current state: REGISTERED

Collection: LAST: Sat Mar 28 2020 16:50:23 UTC
            NEXT: Sat Mar 28 2020 16:51:23 UTC
Reporting:  LAST: Sat Mar 28 2020 16:50:23 UTC
            NEXT: Sat Mar 28 2020 16:51:23 UTC

```

Feature/Area	Entitlement	Count	
		Last	Next
Vortex	SPITFIRE 8201 Base Hardware Tracking PID	1	0
Vortex	SPITFIRE IOS XR 7.0 SW Version Tracking PID	1	0



# show license udi

To view the smart license Unique Device Identifier (UDI) information, use the **show license udi** command in XR EXEC mode.

**show license udi**

<b>Syntax Description</b>	<b>UDI</b>	Displays smart license UDI number.
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**Command Default** No default behavior or values.

**Command Modes** XR EXEC mode

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	Release 7.0.12	This command was introduced.

**Usage Guidelines** A UDI consists of the following elements:

- Product identifier (PID)
- Serial number (SN)

<b>Task ID</b>	<b>Task ID</b>	<b>Operations</b>
	pkg-mgmt	read

You use the UDI information to procure the smart license specific to the device.

This sample output shows UDI information:

```
RP/0/RSP0/CPU0:router# admin
RP/0/RSP0/CPU0:router(admin)# show license udi
Mon Apr 26 06:40:06.234 DST
```

```
Local Chassis UDI Information:
  PID          : ASR-9010-AC
  S/N          : FOX1232H67M
  Operation ID: 5
```

**Table 1: show license udi Field Descriptions**

<b>Field</b>	<b>Description</b>
PID	Product ID number.
S/N	Chassis serial number.

Field	Description
Operation ID	License operation ID number. The license operation ID is incremented by the license manager every time there is a successful license add or remove operation.

# show license usage

To view the smart license usage information, use the **show license usage** command in XR EXEC mode.

**show license usage**

**Syntax Description** This command has no keywords or arguments.

**Command Default** No default behavior or values.

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

This sample output shows smart license usage information:

```
RP/0/RP0/CPU0:router# show license usage
  License Authorization:
Status: AUTHORIZED on Apr 01 2020 07:08:36 UTC

8201 Base HW Tracking PID (8201-TRK):
Description: 8201 Base HW Tracking PID
Count: 1
Version: 1.0
Status: AUTHORIZED
Export status: NOT RESTRICTED

8000 Software Tracking PID 7.0 (XR-8K-7.0-TRK):
Description: 8000 Software Tracking PID 7.0
Count: 1
Version: 1.0
Status: AUTHORIZED
Export status: NOT RESTRICTED
```

# show license summary

To view the number and type of entitlements consumed on a device, use the **show license summary** command in XR EXEC mode.

## show license summary

**Syntax Description** This command has no keywords or arguments.

**Command Default** No default behavior or values.

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.0.12	This command was introduced.

**Usage Guidelines** This command is also used to check if Smart Licensing is enabled. Also, it shows authorization status, smart account, virtual account, and other details.

This sample output shows summary of all entitlements in use for Cisco 8201 router:

```
RP/0/RP0/CPU0:router# show license summary
Sat Mar 28 16:52:42.120 UTC

Smart Licensing is ENABLED

Registration:
Status: REGISTERED
Smart Account:      /* Customer Smart account name */
Virtual Account:   /* Customer virtual account name */
Export-Controlled Functionality: ALLOWED
Last Renewal Attempt: None
Next Renewal Attempt: Sep 24 2020 16:46:04 UTC

License Authorization:
Status: AUTHORIZED
Last Communication Attempt: SUCCEEDED
Next Communication Attempt: Apr 27 2020 16:46:12 UTC

License Usage:
License                Entitlement tag                Count Status
-----
8201 Base HW Trackin... (8201-TRK)                1 AUTHORIZED
8000 Software Tracki... (XR-8K-7.0-TRK)            1 AUTHORIZED
```

# show license status

To check the number and type of entitlements consumed on a device, use the **show license status** command in the XR EXEC mode.

## show license status

<b>Syntax Description</b>	This command has no keywords or arguments.	
<b>Command Default</b>	None	
<b>Command Modes</b>	XR EXEC mode	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	Release 7.0.12	This command was introduced.

## Example

This example shows you to use show license status command to check the number and type of entitlements consumed on a device:

```
RP/0/RP0/CPU0:router##show license status
Sat Mar 28 16:53:07.523 UTC

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: REGISTERED
Smart Account: /* Customer Smart Account name appears here */
Virtual Account: /* Customer Virtual Account name appears here */
Export-Controlled Functionality: ALLOWED
Initial Registration: SUCCEEDED on Mar 28 2020 16:46:04 UTC
Last Renewal Attempt: None
Next Renewal Attempt: Sep 24 2020 16:46:03 UTC
Registration Expires: Mar 28 2021 16:40:54 UTC

License Authorization:
Status: AUTHORIZED on Mar 28 2020 16:46:12 UTC
Last Communication Attempt: SUCCEEDED on Mar 28 2020 16:46:12 UTC
Next Communication Attempt: Apr 27 2020 16:46:12 UTC
Communication Deadline: Jun 26 2020 16:41:04 UTC
```

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