



## Broadband Smart Licensing

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The Broadband Smart Licensing feature supports broadband Lite sessions during the deployment of ASR1000 Aggregation Services Routers.

- [Finding Feature Information, page 1](#)
- [Prerequisites for Broadband Smart Licensing, page 1](#)
- [Restrictions for Broadband Smart Licensing, page 2](#)
- [Information About Broadband Smart Licensing, page 2](#)
- [How to Configure Broadband Smart Licensing, page 2](#)
- [Configuration Examples for Broadband Smart Licensing, page 4](#)
- [Additional References for Broadband Smart Licensing, page 5](#)
- [Feature Information for Broadband Smart Licensing, page 6](#)

## Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

## Prerequisites for Broadband Smart Licensing

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# Restrictions for Broadband Smart Licensing

- The Broadband Smart Licensing feature is supported only on AR1K running Polaris 16.5 release and above.
- The feature does not support broadband Lite sessions.
- The stand-by RP does not have an account.
- Only broadband smart licenses that are multiples of two can be requested, 1 license = 2 thousand sessions.

## Information About Broadband Smart Licensing

### Broadband Sessions

## How to Configure Broadband Smart Licensing

### Configuring the Subscriber License

To configure broadband smart licensing, configure the **subscriber license** command before starting a broadband session.

#### Before You Begin

Do the following:

#### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **subscriber license**
4. **exit**

#### DETAILED STEPS

	Command or Action	Purpose
Step 1	<b>enable</b>	<ul style="list-style-type: none"><li>• Enables privileged EXEC mode.</li><li>• Enter your password if prompted.</li></ul>
	<b>Example:</b> Device> enable	

	Command or Action	Purpose
<b>Step 2</b>	<b>configure terminal</b>  <b>Example:</b> Device# configure terminal	Enters global configuration mode.
<b>Step 3</b>	<b>subscriber license</b>  <b>Example:</b> Device(config)# subscriber license	Configures the subscriber license.  <b>Note</b> The following configurations are essential to establish a connection between the ASR1000 and the licensing server. <ul style="list-style-type: none"> <li>• <a href="#">License Smart Enable</a></li> <li>• <a href="#">Call Home</a></li> <li>• <a href="#">Device Registration</a></li> </ul>
<b>Step 4</b>	<b>exit</b>  <b>Example:</b> Device(config)# exit	Exits global configuration mode.  <b>Note</b> If the <b>subscriber license</b> command is configured before bringing up a broadband session, irrespective of any earlier broadband license request failure, the range of the license to be requested must be between 2 – 128K (range of subscriber license). When the session count exceeds the procured broadband license count by 100, a request is sent for a new license.  Ensure that there is no failure of license procurement in the last 24 hours. <b>Note</b> Use the <b>subscriber license</b> command to release all procured licenses.  During procuring and releasing the licenses, a message is displayed with the details about the license and the session count.

## Clearing the Subscriber License

### SUMMARY STEPS

1. clear subscriber license

### DETAILED STEPS

	Command or Action	Purpose
<b>Step 1</b>	<b>clear subscriber license</b>  <b>Example:</b> Device# clear subscriber license  *Jul 10 10:24:27.217: %SSSMGR-5-BB_LICENSE_REQUEST_SENT: Broadband license request sent for 0 license with configured license count 0  *Jul 10 10:24:27.217: %SSSMGR-5-BB_LICENSE_RELEASE_SUCCESS: Successfully released all BroadBand licenses	

	Command or Action	Purpose
	Sessions: ISG session, except for the lite session	

## Verifying Broadband Smart Licensing

### SUMMARY STEPS

1. Debug subscriber license

### DETAILED STEPS

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Debug subscriber license

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## Configuration Examples for Broadband Smart Licensing

### Example: show subscriber license

The **show subscriber license** command tracks the number of procured broadband licenses, the configured value of broadband licenses, current session count on the router, the highest session count reached since the last license request was sent to the server and the time at which it was procured.

The following is sample output of the **show subscriber license** command

```
Device# show subscriber license
Broadband Smart License Compliance      : In Compliance

Total Number of Broadband Licenses Procured : 0

Broadband Licenses Configured          : 0

Current Broadband Session Count         : 0

Time of Last License Procurement        : No License Procured

Sessions Peak Count Since Last Procurement : 0
```

Use the **no subscriber license** command to release all procured licenses.

**no subscriber license****Note**

During procuring and releasing of licenses, a message is displayed with the license details and the session count.

## Example: Show license summary

Example: Show license summary

## Example: Clear subscriber license

Example: Clear subscriber license

# Additional References for Broadband Smart Licensing

### Related Documents

Related Topic	Document Title
Cisco IOS commands	<a href="#">Cisco IOS Master Commands List, All Releases</a>

### Standards and RFCs

Standard/RFC	Title
Standard	<i>Title</i>

### MIBs

MIB	MIBs Link
<ul style="list-style-type: none"> <li>CISCO-MIB</li> </ul>	<p>To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL:</p> <p><a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a></p>

**Technical Assistance**

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	<a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a>

## Feature Information for Broadband Smart Licensing

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

**Table 1: Feature Information for Broadband Smart Licensing**

Feature Name	Releases	Feature Information
Broadband Smart Licensing	Cisco IOS XE Everest 16.6.1	<p>The Broadband Smart Licensing feature enables to purchase licenses for any number of broadband sessions that are active during the deployment of ASR1000 Aggregation Services Routers.</p> <p>The following commands were introduced or modified: <b>subscriber license</b>, <b>show subscriber licens</b></p>