Oracle® Enterprise Session Border Controller

Web GUI Guide

Release S-Cz10.1.0
G49671-02
April 2026

Oracle Enterprise Session Border Controller Web GUI Guide, Release S-Cz10.1.0

G49671-02

Copyright © 2020, 2026, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, MySQL, and NetSuite are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

About This Guide

My Oracle Support ii

Revision History

1 Before You Begin

Browser Support 1
RADIUS Server Roles and Access Privileges 1

2 Enable the Web GUI for Access

Access the Web GUI with HTTPS 1
Enable the Web GUI for a New Installation 1
Enable the Web GUI for an Existing Installation 3
Set Up High Availability 3
Set the Log On Banner Message 5
Simultaneous Logons 5
Log on to the Web GUI 6
    Change the Sign In Password 7
Log Off from the Web GUI 7

3 Configuration Assistant Operations

How to Populate the Configuration Assistant Work Flow 1
Configuration Assistant Work Flow and Checklist 2
Configuration Assistant Summary 6

4 The Web GUI Landing Page

Web GUI Landing Page Overview 1
    Configuration Search Tool 2

Copyright © 2020, 2026, Oracle and/or its affiliates.

5 The Dashboard Tab Display and Operations

Dashboard Controls and Operations 1
- Widget Controls 3

About the Add Widgets Page 4
- Add a Dashboard Widget 6
- Configure the Data Sampling Settings for a Dashboard Widget 6

Copy the Dashboard Widgets Display from one Enterprise SBC to Another 7

View A Widget That is Not on the Dashboard 7

6 The Configuration Tab Display and Operations

Configuration Tab Display and Operations 1
- Configuration Tab Controls 2
- ESR Configuration Tab Controls 3
- View the Enterprise SBC Configuration Inventory 3
- ESR Configuration Inventory View 4
- Show or Hide Advanced Configuration Objects in the Navigation Pane 6
- Show or Hide Advanced Configuration Parameters 7
- Show the Configured Parameters of a Configuration Object 8
- Configuration Dialogs Behavior 9
- Controls for Managing Multi-instance Configurations 11
  - Controls for Managing Configuration Lists 11
  - Controls for Ordering Table Rows in a Multi-Instance Configuration 13
  - Controls for Showing and Hiding Column Headers 14
- Configuration Error Messages 15
- Configuration States and Behavior 15
- Duplicate a Configuration 16
- Create a Configuration Manually 16

Media Manager Configuration Tab 17

Security Configuration Objects 18
- Update a Certificate 20

Session Router Configuration 20

System Configuration Tab Objects 23

7 The Monitor and Trace Tab Display and Operations

Monitor and Trace 1
- SIP Monitor and Trace for Ingress and Egress Messages 3
- SIP Sessions Summary 3
- SIP Registrations Summary 4
- SIP Subscriptions Summary 5

Copyright © 2020, 2026, Oracle and/or its affiliates.

SIP Notable Events Summary 7
Ladder Diagrams and Display Controls 8
Display a Ladder Diagram 11
SIPREC Call Data Example 14
Hairpin Call Data Example 15
Configure SIP Monitoring 15
Search for a Report Record 16
Export Monitor and Trace Information to a Text File 19
Export Report Information to a Text File 19

8 The Widgets Tab Display and Operations

Widget Access and Behavior 1

9 The System Tab Display and Operations

Configuration Assistant Operations 1
System File Management Types and Descriptions 1
Buttons and Controls on File Management Pages 4
System Operations Configuration 5
Force an HA Switch Over 6
System Restart 7
Obtain Support Information - Chrome Browser 7
Obtain Support Information - Firefox Browser 8

A Keyboard Commands and Shortcuts for the Enterprise SBC Web GUI

Copyright © 2020, 2026, Oracle and/or its affiliates.

About This Guide

The Web GUI Guide provides information about using the Oracle® Enterprise Session Border Controller (Enterprise SBC) from the Web GUI. The Web GUI Guide does not provide configuration instructions or descriptions of the configuration parameters. Use the ACLI Configuration Guide to get the configuration instructions and parameter descriptions.

> **Note**
>
> The Web GUI displays the Enterprise SBC configuration objects in the same tree-like structure as the ACLI command line. To get instructions for configuring objects by way of the Web GUI, locate the procedure in the ACLI Configuration Guide. In the procedure, transpose the path given for reaching the object from the command line onto the Web GUI to reach the configuration dialog on the Web GUI. Other than the path, the configuration parameters, defaults, and valid values are the same.

Related Documentation

The following list describes related documentation for the Oracle® Enterprise Session Border Controller. You can find the listed documents on http://docs.oracle.com/en/industries/communications/ in the "Session Border Controller Documentation" and "Acme Packet" sections.

Configuration Guide	Contains conceptual and procedural information for configuring, administering, and troubleshooting the Enterprise SBC.
ACLI Reference Guide	Contains explanations of how to use the ACLI, as an alphabetical listings and descriptions of all ACLI commands and configuration parameters.
Admin Security Guide	Contains conceptual and procedural information for supporting the Admin Security, Admin Security with ACP, and JITC feature sets on the Enterprise SBC.
Call Traffic Monitoring Guide	Contains conceptual and procedural information for configuration using the tools and protocols required to manage call traffic on the Enterprise SBC.
HMR Guide	Contains conceptual and procedural information for header manipulation. Includes rules, use cases, configuration, import, export, and examples.
Platform Preparation and Installation Guide	Contains conceptual and procedural information for system provisioning, software installations, and upgrades.
Release Notes	Contains information about this release, including platform support, new features, and limitations.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Known Issues & Caveats	Contains information about the known issues and caveats for this release.
Security Guide	Contains information about security considerations and best practices from a network and application security perspective for the Oracle Communications Session Delivery Product family of products.
Time Division Multiplexing Guide	Contains the concepts and procedures necessary for installing, configuring, and administering Time Division Multiplexing (TDM) on the Acme Packet 1100, Acme Packet 3900, and Acme Packet 3950.
Web GUI Guide	Contains conceptual and procedural information for using the tools and features of the Enterprise SBC Web GUI.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

My Oracle Support

My Oracle Support (https://support.oracle.com) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with My Oracle Support registration.

Call the CAS main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select 2 for New Service Request.
2. Select 3 for Hardware, Networking, and Solaris Operating System Support.
3. Select one of the following options:
   - For technical issues such as creating a new Service Request (SR), select 1.
   - For non-technical issues such as registration or assistance with My Oracle Support, select 2.

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

My Oracle Support is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability

Copyright © 2020, 2026, Oracle and/or its affiliates.

- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) site, http://docs.oracle.com. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at http://www.adobe.com.

1. Access the Oracle Help Center site at http://docs.oracle.com.
2. Click **Industries**.
3. Under the Oracle Communications sub-header, click the **Oracle Communications documentation** link.
   The Communications Documentation page appears. Most products covered by these documentation sets appear under the headings "Network Session Delivery and Control Infrastructure" or "Platforms."
4. Click on your Product and then Release Number.
   A list of the entire documentation set for the selected product and release appears.
5. To download a file to your location, right-click the **PDF** link, select **Save target as** (or similar command based on your browser), and save to a local folder.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Revision History

The following table shows the dates and descriptions of revisions to the Web GUI Guide.

Date	Description
April 2026	• Initial release.

Copyright © 2020, 2026, Oracle and/or its affiliates.

1
Before You Begin

Oracle recommends that you review the following information before using the software.

- Browser Support
- Basic Mode Support and Behavior
- RADIUS Server Roles and Access Privileges

Browser Support

Oracle recommends that you use the latest versions of Google Chrome, Mozilla Firefox, and Microsoft Edge as of the date of this release, for the best user experience.

Oracle does not support Internet Explorer 11.

> **Note**
>
> After upgrading the software, clear the browser cache before using the Web GUI.

RADIUS Server Roles and Access Privileges

The Web GUI supports RADIUS authentication functionality similar to a user signing on by way of Secure Shell (SSH) and SSH File Transfer Protocol (SFTP).

Available functions depend on the role that you assign to the "userclass" on the RADIUS server.

- When you configure the RADIUS server as userclass=admin, the system allows the Administrator full access to all features and functions after logging onto the GUI.
- When you configure the RADIUS server as userclass=user, the system limits User access to the following features and functions after signing on to the GUI.
  - Full access to all System features and functions
  - Can download the following files in System File Management:
    - Backup Configuration
    - Configuration CSV
    - Local Subscriber Table
    - Log
    - Audit Log
    - Playback Media
    - Software image
    - SPL Plug-in (SPL)

Copyright © 2020, 2026, Oracle and/or its affiliates.

> **Note**
>
> The "User" account cannot upload files in System File Management.

For more information about RADIUS support, see the *Administrative Security Guide*.

Copyright © 2020, 2026, Oracle and/or its affiliates.

2
Enable the Web GUI for Access

You must enable access to the Web GUI from the Web server before you can log on and the steps vary depending on whether you want to enable a new Oracle® Enterprise Session Border Controller (Enterprise SBC) or an existing one. To provide secure access, you can enable HTTPS.

- Access the Web GUI with HTTPS
- Enable the Web GUI for a New Installation
- Enable the Web GUI for an Existing Installation
- Set Up High Availability
- Log on to the Web GUI
- Log Off from the Web GUI

Access the Web GUI with HTTPS

To provide secure access to the Web GUI from the Web server, you can enable HTTPS by creating a Transport Layer Security (TLS) profile. The Oracle® Enterprise Session Border Controller (Enterprise SBC) does not require either the hardware Security Service Module (SSM) or the software TLS license when configuring **certificate record**, **tls-profile**, and **tls-global** for an HTTPS connection to the Web GUI from the Web server.

Note that the Enterprise SBC requires the TLS license when you configure SIP for TLS.

> **Note**
>
> Virtual machines require the software TLS license.

Enable the Web GUI for a New Installation

To enable the Web GUI on a new Oracle® Enterprise Session Border Controller (Enterprise SBC) installation, use the run setup command from the ACLI command line. After you save and activate the configuration, you can sign on to the Web GUI.

Prerequisites

- Install the hardware and connect to the Enterprise SBC. See "Getting Started" in the *ACLI Configuration Guide*"

For new installations, use the following procedure to run the Installation Wizard to configure the primary Enterprise SBC and enable the Web GUI. To set up another Enterprise SBC as the secondary peer in a High Availability pair, see Set Up High Availability.

Copyright © 2020, 2026, Oracle and/or its affiliates.

> **Note**
>
> For existing installations, see Enable the Web GUI for an Existing Installation.

1. In Superuser mode, type **run setup**, and press Enter.

   The system displays the following:

   ```
   ------------------------------------------------------------
   Thank you for purchasing the Oracle Enterprise Session Border Controller.
   The following short wizard will guide you through the initial setup.
   A restart will be required to save changes.
   ------------------------------------------------------------
   '?' = Help; '.' = Clear; 'q' = Exit
   CONFIGURATION
   WARNING: Proceeding with wizard will result in existing configuration
   being erased.
   Erase config and proceed (yes/no) [no] : yes
   Configuration will be backed up as bkup_setup_wizard_<timestamp>.gz
   '-' = Previous; '?' = Help; '.' = Clear; 'q' = Exit
   ```

2. For "Erase config and proceed", type **yes**, and press Enter.

   The system displays the following:

   ```
   GUI ACCESS
   If you want to the allow GUI to access this SBC, enable this setting.
   Enable Web GUI with HTTP Connection (yes/no) [yes] :
   ```

3. For "Enable Web GUI with HTTP Connection", type **yes**, and press Enter.

   The system displays the following:

   ```
   HIGH AVAILABILITY
   This SBC may be a standalone or part of a highly available redundant
   pair.
   SBC mode
   1 - standalone     2 - high availability
   Enter choice [<choice>] :
   ```

4. For "SBC mode", type **1** for a standalone installation or type **2** for a High Availability installation.

   The system displays the following:

   ```
   SBC SETTINGS
   Unique target name of this SBC :
   IP address on management interface :
   Subnet mask :
   Management interface VLAN (0 - 4095) [0] :
   Gateway IP address :
   ```

5. Set the values for the Enterprise SBC parameters according to your deployment, and press Enter.

Copyright © 2020, 2026, Oracle and/or its affiliates.

The system displays the following:

```
OC SDM ACCESS SETTINGS
Configure the SBC to allow the OC Session Delivery Manager to access it
OC SDM access (yes/no) [yes] : no
```

6. Set access permission to either allow (yes) or prohibit (no) the Oracle Communications Session Delivery Manager to access the SBC, and press Enter.
7. Save and activate the configuration.

Enable the Web GUI for an Existing Installation

To enable the Web GUI on an existing Oracle® Enterprise Session Border Controller (Enterprise SBC) installation, use the ACLI command line to set the name of the HTTP server. After you save and activate the configuration, you can sign on to the Web GUI.

The following procedure requires Administrator credentials.

> **Note**
>
> For new installations, see Enable the Web GUI for a New Installation .

1. Go to **configure terminal**, **system**, **http-server**.

```
# conf t
# system
# http-server
```

2. In **http-server** configuration, in the name parameter, type the name of your HTTP server.
3. Save and activate the configuration.

Set Up High Availability

To minimize downtime and service interruptions, you can pair Oracle® Enterprise Session Border Controllers (Enterprise SBCs) for redundancy to provide High Availability (HA).

Before you begin, configure a primary Enterprise SBC.

Use the following procedure to configure a secondary Enterprise SBC to form an HA pair with a primary Enterprise SBC.

1. In Superuser mode, type **run setup**, and press Enter.

   The system displays the following:

```
-----------------------------------------------------------
Thank you for purchasing the Oracle Enterprise Session Border Controller.
The following short wizard will guide you through the initial set-up.
A restart will be required to save changes.
-----------------------------------------------------------
'?' = Help; '.' = Clear; 'q' = Exit
CONFIGURATION
WARNING: Proceeding with wizard will result in existing configuration
being erased.
```


Copyright © 2020, 2026, Oracle and/or its affiliates.

```
Erase config and proceed (yes/no) [no] :
 yes
Configuration will be backed up as bkup_setup_wizard_<timestamp>.gz
'-' = Previous; '?' = Help; '.' = Clear; 'q' = Exit
```

2. For "Erase config and proceed", type **yes**, and press Enter.

   The system displays the following:

```
GUI ACCESS
If you want to the allow GUI to access this SBC, enable this setting.
Enable Web GUI with HTTP Connection (yes/no) [yes] :
```

3. For "Enable Web GUI with HTTP Connection", type **yes**, and press Enter.

   The system displays the following:

```
HIGH AVAILABILITY
This SBC may be a standalone or part of a highly available redundant
pair.
SBC mode
1 - standalone     2 - high availability
Enter choice [<choice>] :
If this SBC is the primary, enter the configuration.
If this SBC is the secondary, you can import settings from the primary.
SBC role     1 - primary     2 - secondary
Enter choice [<choice>] :
Specify the IP address to set on interface connected for redundancy
Redundancy interface address [<YourRedundancyInterfaceAddress>] :
Redundancy subnet mask [<YourSubnetMask>] :
```

4. For "SBC mode", type **2** for a High Availability installation, and press Enter.

   The system displays the following:

```
SBC SETTINGS
Unique target name of this SBC [<YourSbcName>] :
IP address on management interface
[<YourSbcManagementInterfaceIpAddress>] :
Subnet mask [<YourSubnetMask>] :
Management interface VLAN (0 - 4095) [0] :
Gateway IP address [<YourGatewayIpAddress>] :
```

5. Type the necessary Enterprise SBC settings, and press Enter.

   The system displays the following:

```
PEER CONFIGURATION
Peer IP address [<PeerIpAddress>] :
Peer target name [<PeerTargetName>] :
```

6. Type the IP address and target name of the peer and, press Enter.

Copyright © 2020, 2026, Oracle and/or its affiliates.

The system displays the following:

```
OC SDM ACCESS SETTINGS
Configure the SBC to allow the OC Session Delivery Manager to access it.
OC SDM access (yes/no) [yes] : no
```

7. Set access permission to either allow (yes) or prohibit (no) the Oracle Communications Session Delivery Manager to access the SBC, and press Enter.
8. Save and activate the configuration.

Set the Log On Banner Message

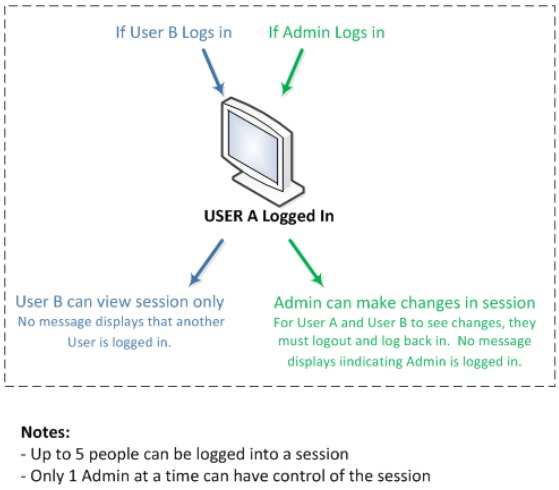
When you want to get messaging to your Oracle® Enterprise Session Border Controller (Enterprise SBC) users, you can put your message into the optional log on banner. The log on banner is a text box that displays before the system asks users for their log on credentials.

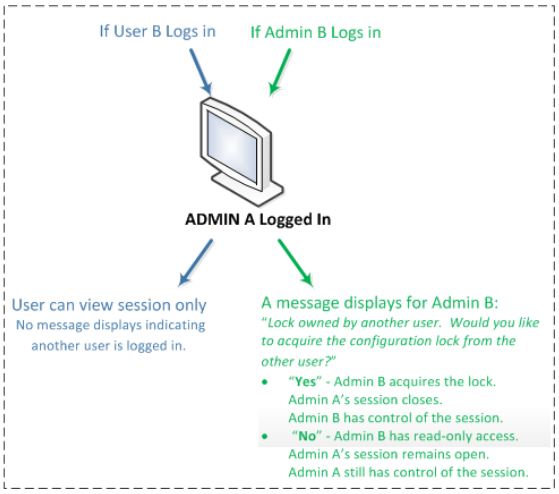
To get your message into the log on banner, enter the text you want into the Set Login Banner field. There is no character limit. The the banner field adjusts to the quantity of text.

1. Access the Systems tab, System Operations, Set Login Banner.
2. Enter the text you want into the **Set login banner** field.
3. Click **Complete**.

Simultaneous Logons

The Web GUI allows the User and Administrator to log on simultaneously. Session availability to the User and Admin depends on which type of user is logged on to the session. The following illustrations depict and explain the system behavior when a User and an Administrator log on to a Web GUI session.





> **Note**
>
> In the illustration where Admin A logged in first, the behavior is as described. If Admin B logs in first, then the system shows the lock message to Admin A. The first Admin to log in acquires the lock.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Up to five users can log onto the same session at the same IP address at the same time. Only one Administrator at a time can have full control of a simultaneous session.

Log on to the Web GUI

You can log on to the Enterprise SBC as a User or an as Administrator, depending on your permissions.

You need your User name, Password, and optionally your passcode to log on. The system requires your passcode when two factor authentication is enabled. If your system Administrator configured the optional log on page message, the system displays the message after you enter your log on credentials. After reading the message, click **Close**, and the system displays the GUI. The first time you log on, the GUI displays the Configuration Assistant.

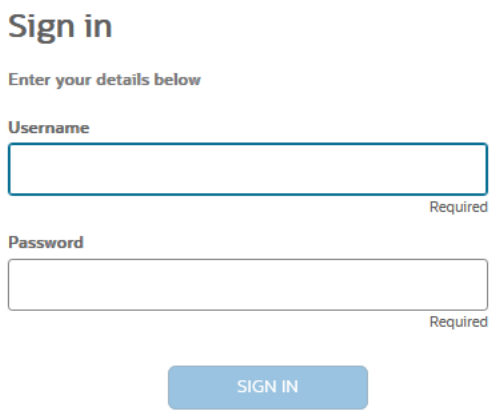
1. On a PC, open a supported Internet browser. See "Browser Support" in your software version's Release Notes for the list of supported browsers.
2. Start the GUI with either the HTTP or HTTPS log on.

   ```
   http://<YourEcbManagementInterfaceIpAddress> previously configured.
   https://<YourEcbManagementInterfaceIpAddress> previously configured.
   ```

   > **Note**
   >
   > Whether you log on using HTTP or HTTPS depends on the settings for your deployment.

3. In the Sign in dialog, enter your Enterprise SBC credentials, and click **Sign in**. The Login banner is displayed. For more information on the Sign in Banner, see Login Banner.

   Figure 2-1 Sign in



Copyright © 2020, 2026, Oracle and/or its affiliates.

4. If your Enterprise SBC requires two-factor authentication, do the following:
   a. In the **log on** dialog, enter your passcode.
   b. In the **Confirm** dialog, acknowledge the Last Log on information. Yes—allows you to login. No—ends the session.
5. Click **log on**.

> **Note**
>
> If you want to open another Web GUI tab on the same Enterprise SBC in a new tab in the same browser, you can do so without logging on again.

Change the Sign In Password

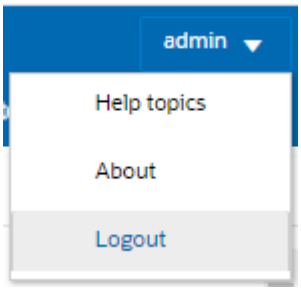
Use the Oracle® Enterprise Session Border Controller ACLI to change a User or Administrator sign in password.

Use the **secret** command from the ACLI to change the sign in password for a User and the **config password** command for an Administrator. For more information about setting passwords, see the *Oracle Enterprise Session Border Controller ACLI Configuration Guide*.

Log Off from the Web GUI

To log off from the Web GUI, open the User menu, and click **Log Out**.

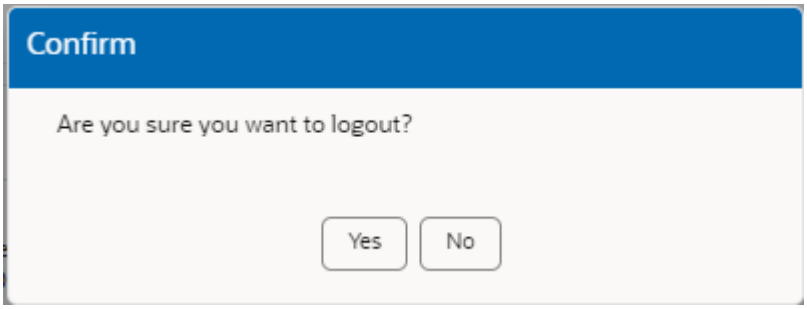
1. On the User menu located in the upper right corner of the Web GUI, click **Log Out**.



   The Web GUI displays a confirmation message that depends on whether or not unsaved changes exist.

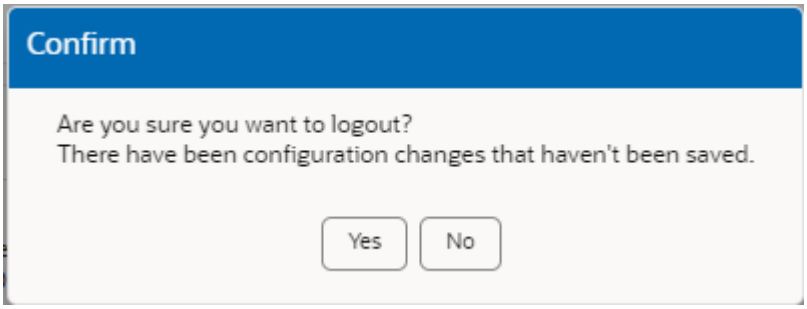
2. In the **Confirm** dialog, take the appropriate action.

   Click **Yes** when no unsaved changes exist.



   Click the action you want when unsaved changes exist.

Copyright © 2020, 2026, Oracle and/or its affiliates.



Copyright © 2020, 2026, Oracle and/or its affiliates.

3
Configuration Assistant Operations

When you first log on to the Oracle® Enterprise Session Border Controller (Enterprise SBC), the system requires you to set the configuration parameters necessary for basic operation. To help you set the initial configuration with minimal effort, the Enterprise SBC provides the Configuration Assistant to lead you through the configuration process. The Configuration Assistant asks you questions based on a selectable template and uses your answers to set the necessary parameters. You can use the Configuration Assistant for the initial set up as well as for subsequent changes that you want to make to the basic configuration.

The Enterprise SBC provides many additional configurable features and functions that do not require configuration to get the system running initially. You can configure the additional features and functions through the Dashboard, Configuration, Monitor and Trace, Widgets, and System tabs on the Web GUI after running the Configuration Assistant. You can also edit any of the settings, including those for the initial configuration, through the Web GUI tabs without running the Configuration Assistant again. If you want to re-run the Configuration Assistant as an easier way to update the configuration than to navigate through the configuration object tree, click the **Configuration Assistant** button on the System tab in the Web GUI.

How to Populate the Configuration Assistant Work Flow

The Oracle® Enterprise Session Border Controller (Enterprise SBC) Configuration Assistant requires a template to display the work flow and parameters you need to set initially for your deployment. You can choose a template from the list in the Configuration Assistant or upload one from another Enterprise SBC. The available templates may vary from release to release. You can also upload a configuration from another Enterprise SBC to populate the Configuration Assistant.

- Select a Template—Select a template from the drop-down list. The Configuration Assistant populates the list from the package you download from https://www.oracle.com/technical-resources/documentation/acme-packet.html.
- Upload a Template—Upload a template used for another of your Session Border Controllers to drag and drop into the **Drag and Drop** box.
- Upload a Configuration—Upload a configuration file used for another of your Session Border Controllers to drag and drop into the **Drag and Drop** box. Use SFTP and put it into the /code/configAssistant/templates/ folder on the target Enterprise SBC.

> **Note**
>
> When you upload a configuration, the system closes the current Configuration Assistant session and restarts.

After you select a template or upload a configuration, the Configuration Assistant displays any warnings, prerequisites, and recommendations. For example, you may need to enable one or more entitlements or set the Session Capacity. The information provided depends on the template. You may need to address these items before proceeding.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Configuration Assistant Work Flow and Checklist

The Oracle® Enterprise Session Border Controller (Enterprise SBC) Configuration Assistant guides you through the minimum number of steps necessary to make the software operational on the Session Border Controller. Each step requires you to enter information or make a choice. You can move forward and backward through the steps as you work. When you complete the configuration, the Configuration Assistant displays a summary of your settings that you can review and edit before activating the configuration. From the Summary page, you can go directly to any section of the work flow and edit your settings.

The following checklist shows the information needed for each step in the configuration work flow. Oracle recommends that you use the checklist to gather the necessary information in advance.

> ⚠ **Caution**
>
> Running the Configuration Assistant removes all of the configuration on the Enterprise SBC, including the High Availability (HA) configuration. You must reconfigure HA after running the Configuration Assistant.

On the Settings tab, click **Configuration Assistant** to launch the Configuration Assistant.

Let's Get Started

To begin, you must upload an existing configuration, or upload a template, or select a template type. You can drag and drop an existing Enterprise SBC configuration or template into the Drag and Drop field, or you can select a template type from the list. In the list, hover over the template to see a description of the template. After you select a template, the Configuration Assistant displays notes such as warnings, prerequisites, and recommendations. The text displayed depends on the template you selected.

> ⓘ **Note**
>
> The Template Type list may vary from release to release.

Information Needed (choose one)	Information to Use
Upload a Configuration—Upload a configuration file used for another of your Session Border Controllers to drag and drop into the **Drag and Drop** box. Note: When you upload a configuration, the system closes the current Configuration Assistant session and restarts.	File name and location:
Upload a Template—Upload a template used for another of your Session Border Controllers to drag and drop into the **Drag and Drop** box.	Template name and location:

Copyright © 2020, 2026, Oracle and/or its affiliates.

Information Needed (choose one)	Information to Use
Select a Template—Select a template from the drop-down list. Note: After you select a template, the Configuration Assistant displays any warnings, prerequisites, and recommendations. The information provided depends on the template you selected. You may need to address these items before proceeding.	Template to use:

Step 1 - Configure Microsoft Teams Network

The Configuration Assistant requires you to configure the interface that communicates with Microsoft Teams. The only parameter not required is DNS Domain.

Information Needed	Information to Use
Port Number—The port connected to Microsoft Teams (Internet-facing). Port 0 or Port 1. Default: Port 0.	N/A
Network IP Address—IP address of the network interface.	N/A
Network IP Subnet Mask—The netmask of the network interface in dotted decimal format.	N/A
Network IP Gateway Address—The gateway the network interface uses to communicate with the next hop.	N/A
Alternate DNS Server IP Address—The DNS server. You can set two additional DNS servers with the dns-ip-backup1 and dns-ip-backup2 parameters in the network-interface configuration after you complete the configuration assistant and load it onto the SBC.	N/A
DNS Domain—The default domain name.	N/A

Step - 2 Configure PSTN Network

The Configuration Assistant requires you to configure the interface that communicates with the Public Switched Telephone Network (PSTN). The only parameters not required are Primary DNS Server IP Address and DNS Domain.

Information Needed	Information to Use
Port number—The port connected to the PSTN. Port 0 or Port 1. Default: Port 1.	N/A
Network IP address—IP address of the network interface.	N/A
Network IP subnet mask—The netmask of the network interface in dotted decimal format.	N/A
Network gateway IP address—The gateway the network interface uses to communicate with the next hop.	N/A

Copyright © 2020, 2026, Oracle and/or its affiliates.

Information Needed	Information to Use
Primary DNS server IP address—The DNS server. You can set two additional DNS servers with the dns-ip-backup1 and dns-ip-backup2 parameters in the network-interface configuration after you complete the configuration assistant and load it onto the SBC.	N/A
DNS domain—The default domain name.	N/A

Step 3 - Configure Media

Media bypass shortens the path of media traffic and reduces the number of hops in transit for better performance. With media bypass, media stays between the SBC and the client instead of going through the Microsoft Phone System.

When you select Yes, the system establishes the required settings. The Configuration Assistant does not require any additional input at this time. You can customize the settings later by way of the Configuration tab.

Information Needed	Information to Use
Do you want to bypass Media?	Yes or No

Step 4 - Configure Transcoding

You can select one or more media codecs that you want for Microsoft Teams (from the SBC to Microsoft Teams) and the PSTN (from the SBC to the PSTN).

> **Note**
>
> Selecting codecs and enabling comfort noise adds RTCP capabilities to the SBC.

Information Needed	Information to Use
Do you want to enable transcoding features (Comfort Noise, RTCP)?	No or Yes
(If you chose Yes for the preceding question, you must answer this question.) Do you want to select media codecs (SBC to Microsoft Teams)?	No or Yes. If Yes, set one or more of the following codecs: • SILK • G729 • G722 • PCMU • PCMA
Do you want to select media codecs (SBC to PSTN)?	No or Yes. If Yes, set one or more of the following codecs: • G729 • G722 • PCMU • PCMA

Step 5 - Configure Trusted Certificate

You must install the Baltimore CyberTrust Root certificate on the Enterprise SBC to communicate securely with Microsoft Teams Direct Routing Service.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Information Needed	Information to Use
Do you consent to installing the Baltimore CyberTrust Root? Default: enabled.	No - Yes
Certificate provisioning type	PKCS12
Fully Qualified Domain Name or Common Name	N/A
PKCS12 file Upload (.p12 or .pfx)	Location of the file:
Password	N/A

Step 6 - Configure SBC Certificate

The parameters that display depend on which certificate provisioning type you select; PKCS12 or CSR.

Information Needed	Information to Use
Certificate provisioning type—Upload a signed PKCS12 format certificate or generate a Certificate Signing Request (CSR) to send to a Certificate Authority (CA). Default: PKCS 12.	PKCS12 or CSR
Fully Qualified Domain Name or Common Name—The Fully Qualified Domain Name of the SBC that resolves to the public network IP address you entered in step 1. This FQDN must be the same as the Common Name of the certificate.	N/A
For PKCS12 certificate (.p12 or .pfx)—Upload the PKS12 certificate.	N/A
For PKCS12 certificate password—The PKCS12 password.	N/A
For CSR—Country—Country name.	N/A
For CSR—State—State name.	
For CSR—Locality—Locality name.	
For CSR—Organization—Organization name.	
For CSR—Organization Unit—Organizational unit name.	

View the Configuration Summary

After you complete last step of the Configuration Assistant, click **Review** to see the summary page. From the summary page, you can edit any of the preceding pages by clicking the Edit button displayed on each summary section. Scroll to see all of the sections.

If you chose CSR as the provisioning type in step 6, the Configuration Assistant displays the Certificate Signing Request on the Review page. Copy or download the CSR and send it to the Certificate Authority.

- Configuration Assistant Summary

Apply the Configuration

When you are ready to Save and Activate the configuration, click **Apply**. The Web GUI displays a confirmation message, which may include information about post-requisites. Click **Confirm**. The system erases the previous configuration (when there is one), applies the new configuration, and restarts.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Post-Requisites

If you chose CSR as the provisioning type in step 6, import the certificate after the system restarts. To use the command line, see "Import a Certificate Using the ACLI" in the *ACLI Configuration Guide*. To use the Web GUI, go to Security, certificate-record and upload the certificate.

- Downloaded CSR record—The name of the certificate-record must be the name of the downloaded file minus the .csr extension. For example, suppose the downloaded CSR file name is TeamsCSR.csr. The name to enter in the certficate-record configuration is TeamsCSR.
- Copied CSR record—The CSR tab on the Summary Review page displays the CSR file name, for example, Teams CSR CSR. The name to enter in the certficate-record configuration is TeamsCSR.

Configuration Assistant Summary

After you successfully complete the Configuration Assistant, use **Review** to see the Summary page. The Summary page displays a section for each step in the work flow, showing the information that you entered. If you want to make changes, you can go directly back to any section of the work flow before activating the configuration. When the configuration meets your approval, use **Apply** to activate the configuration.

If you chose Certificate Signing Request (CSR) as the provisioning type for the Oracle® Enterprise Session Border Controller (Enterprise SBC), send the CSR to the Certificate Authority. When you receive the signed certificate, upload the certificate to the Enterprise SBC.

From the Summary page, you can download the configuration. For example, you might want it for backup or to upload to another Oracle® Enterprise Session Border Controller.

Copyright © 2020, 2026, Oracle and/or its affiliates.

4

The Web GUI Landing Page

The first time you log on to an unconfigured Oracle® Enterprise Session Border Controller (Enterprise SBC) with the Web GUI enabled, the system displays the Configuration Assistant. After you configure the Enterprise SBC, the system displays the Web GUI landing page on subsequent logons.

Topics:

- Web GUI Landing Page Overview

Web GUI Landing Page Overview

The Oracle® Enterprise Session Border Controller (Enterprise SBC) Web GUI landing page displays the system identification and tabs that you click to display information and perform tasks, such as configuring, managing, and monitoring the system. The following sections describe the information, operations, and tool sets for each tab.

System Information

The Web GUI landing page banner displays the following system identification information for the Enterprise SBC hardware or Virtual Machine you are using.

Target Name—The target name you configured. You set the Target Name in the Set Boot Parameters configuration with the Target Name parameter. The Enterprise SBC updates the target name immediately when ever you change the target name from boot parameters. (System Tab, System Operations, Set Boot Parameters.)

IP Address—The IPv4 address, IPv6 address, or both that you configured. You configure the IP addresses in the Set Boot Parameters configuration with the IP Address (for IPv4) and IPv6 Address parameters. (System Tab, System Operations, Set Boot Parameters.)

Build Number—The software version and build number running.

Dashboard Tab

The Dashboard tab displays SIP statistics and other information about your Oracle® Enterprise Session Border Controller (Enterprise SBC) through Widgets that display graphs, charts, and tables. The Enterprise SBC provides dozens of Widgets to choose from and the Dashboard can display up to eighteen widgets at a time. You can add and remove the Widgets, as needed. The Dashboard is the default landing page.

See Dashboard Controls and Operations

Configuration Tab

The Configuration tab displays the View Configuration, Discard, Verify, and Save control along with the list of configuration objects, grouped in the same tree-like structure as found in the Acme Command Line Interface (ACLI).

Copyright © 2020, 2026, Oracle and/or its affiliates.

See Configuration Tab Operations

Monitor and Trace Tab

The Monitor and Trace tab displays the call ladders and session details of SIP signaling calls and information about system activities by way of summary reports of filtered SIP data. You can export the ladder diagrams, session details, and summaries from the Monitor and Trace tab.

See Monitor and Trace Tab Operations

Widgets Tab

The Widgets tab displays graphical views of System, Media, and Signaling data about the Oracle® Enterprise Session Border Controller. Each Widget corresponds to an ACLI **show** command. On the Widgets tab, you can click links to the Widgets for viewing and you can add Widgets to the Dashboard and your Favorites list.

Widget Tab Operations

System Tab

The System tab displays system objects and controls for managing, booting, configuring, and upgrading the system, including the System Operations wizards.

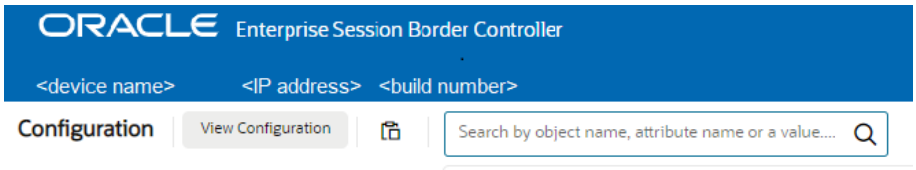
See System Tab Operations.

Configuration Search Tool

The Configuration tab provides two levels of search operations. You can use the **Search** tool on the Configuration tab to search for configuration objects. Within a multi-instance configuration object, you can use **Search** to find a specific configuration instance on the list.

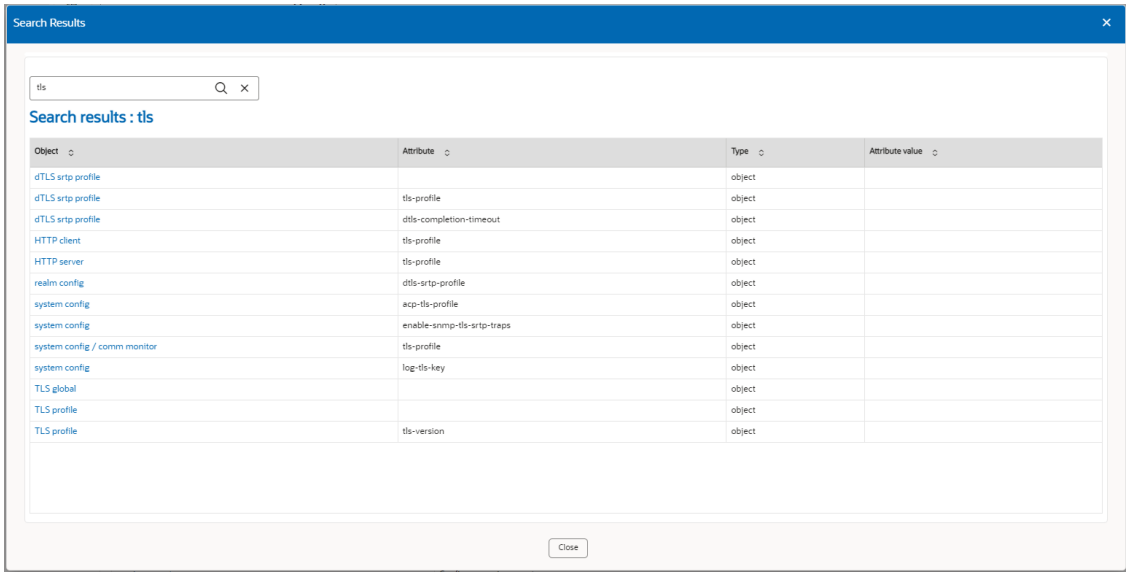
The **Search** tool, displayed as a magnifying glass, on the Configuration page header opens the Search text box where you enter the text to search for, such as a configuration object name, an attribute, or value. You can enter the full name of a configuration object to find a specific object or you can enter a phrase to see a list of all objects that contain that phrase. For example, you can enter enable-snmp-auth-traps to find that object or you can enter SNMP to see a list of all configuration objects with SNMP in their name.

The **Search** magnifying glass is located in the middle of the Configuration tab.



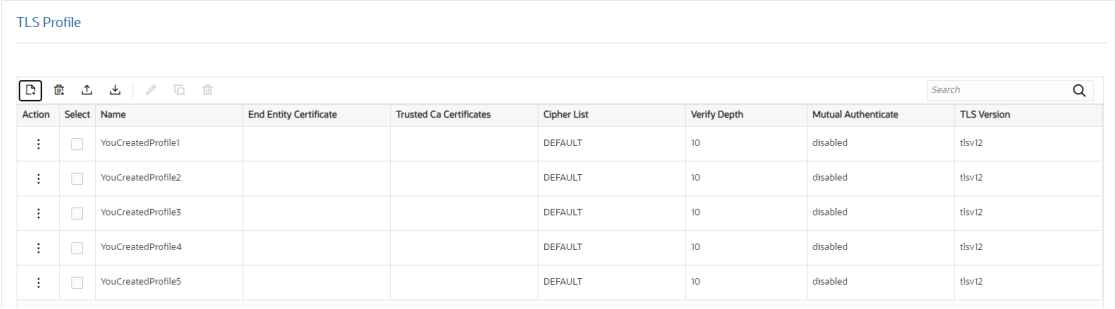
When you click the **Search** tool, the system displays the Configuration Search text box next to the Magnifying Glass, where you enter the configuration object name, attribute, or value that you want to find. When you search for a phrase, rather than a complete object name, the system displays a list of all objects that contain the phrase. The following example shows the results of searching for "tls", which occurs in configuration objects and attributes.

Copyright © 2020, 2026, Oracle and/or its affiliates.



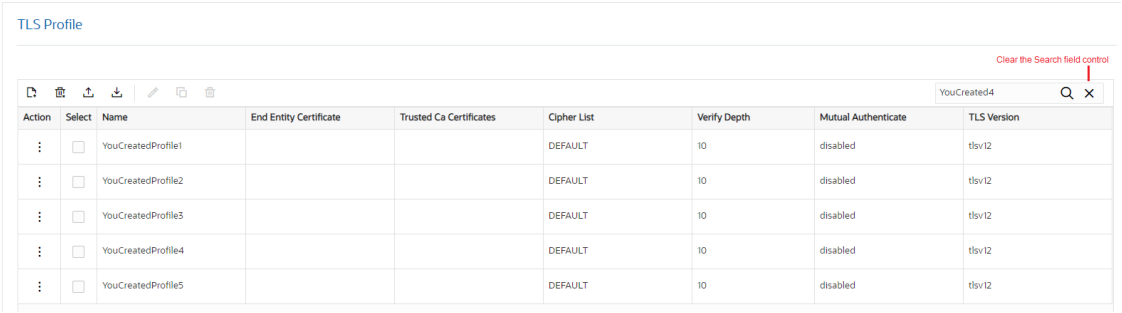
Object	Attribute	Type	Attribute value
dTLS srtp profile		object	
dTLS srtp profile	tls-profile	object	
dTLS srtp profile	dtls-completion-timeout	object	
HTTP client	tls-profile	object	
HTTP server	tls-profile	object	
realm config	dtls-srtp-profile	object	
system config	acp-tls-profile	object	
system config	enable-snmp-tls-srtp-traps	object	
system config / comm monitor	tls-profile	object	
system config	log-tls-key	object	
TLS global		object	
TLS profile		object	
TLS profile	tls-version	object	

Multi-instance configuration objects display a list of configurations and the table includes a text box for local search within the table. You can enter all or part of the configuration name.



Action	Select	Name	End Entity Certificate	Trusted Ca Certificates	Cipher List	Verify Depth	Mutual Authenticate	TLS Version
⋮	☐	YouCreatedProfile1			DEFAULT	10	disabled	tlsv12
⋮	☐	YouCreatedProfile2			DEFAULT	10	disabled	tlsv12
⋮	☐	YouCreatedProfile3			DEFAULT	10	disabled	tlsv12
⋮	☐	YouCreatedProfile4			DEFAULT	10	disabled	tlsv12
⋮	☐	YouCreatedProfile5			DEFAULT	10	disabled	tlsv12

When you search for a particular configuration, the results display only that configuration and the system adds a clear entry icon, displayed as an 'x', to the **Search** field.



Action	Select	Name	End Entity Certificate	Trusted Ca Certificates	Cipher List	Verify Depth	Mutual Authenticate	TLS Version
⋮	☐	YouCreatedProfile1			DEFAULT	10	disabled	tlsv12
⋮	☐	YouCreatedProfile2			DEFAULT	10	disabled	tlsv12
⋮	☐	YouCreatedProfile3			DEFAULT	10	disabled	tlsv12
⋮	☐	YouCreatedProfile4			DEFAULT	10	disabled	tlsv12
⋮	☐	YouCreatedProfile5			DEFAULT	10	disabled	tlsv12

When you click the button, the system resumes displaying all of the configurations on the list.

Copyright © 2020, 2026, Oracle and/or its affiliates.

5

The Dashboard Tab Display and Operations

The Oracle® Enterprise Session Border Controller (Enterprise SBC) provides a web-based Dashboard that can display application and system data in Widgets to help you monitor and manage the system. You can add and remove Widgets from the Dashboard, specify their data sampling settings, and export the data.

Topics:

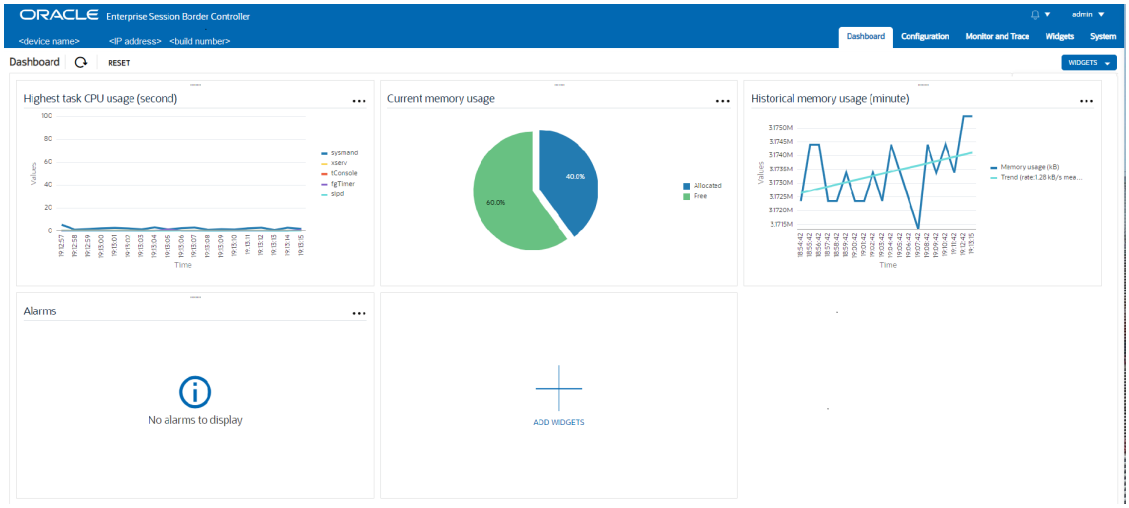
- Web GUI Tabs Displays and Operations
- Dashboard Controls and Operations
- About the Add Widgets Page
- View A Widget That is Not on the Dashboard

Dashboard Controls and Operations

The Oracle® Enterprise Session Border Controller (Enterprise SBC) can display dynamic data about the system through Widgets that you choose to place on the Dashboard. You can decide which Widgets to display by adding, deleting, and moving them at any time. The Dashboard can display up to 18 Widgets.

> **Note**
>
> The Enterprise SBC collects only SIP data for the Dashboard Widgets, including the default CPU and Memory Widgets. For this reason, you must set up a valid SIP configuration before the Enterprise SBC can display any data on a Dashboard Widget.

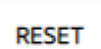
The following screen capture shows an example of the Dashboard page and the controls you use to manage the Widgets:



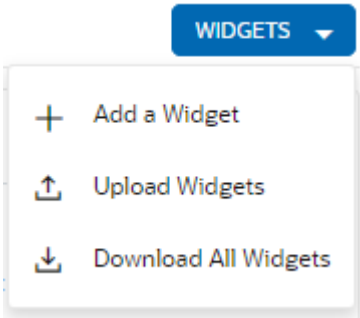
Copyright © 2020, 2026, Oracle and/or its affiliates.

—Shows the device name, the device IP address, and the software build number. When you deploy your SBC in a High Availability (HA) pair, the system identification also states whether the device is the Active or Standby peer.

—Updates the data in all of the Widgets on the Dashboard.



—Resets the Dashboard to display the default Widgets and removes all other Widgets from the Dashboard.



—Displays the Widgets action menu.

—Tells you that the Widget is blank because there is no data to display.

A Widget can display a table, text, a pie graph, or a line graph depending on the type of data and the purpose of the display. For example, the SIP Realms All Widget displays an actionable table and the Recording Widget displays static text. You can access the list of Widgets from the Dashboard page by clicking Add Widget.

Most of the Widgets automatically display any available data when you click the name of the Widget, but some Widgets require further input. Such Widgets include a Settings button in their tool bar that launches a parameters dialog were you specify the data to display. For example, the Realm Specifics Widget requires you to set the name of the realm and the auto refresh interval.

Copyright © 2020, 2026, Oracle and/or its affiliates.

> **Note**
>
> The operation of Widgets, such as those that require the SIP Session module, may affect system performance. The system displays a warning when you add a Widget that may affect performance. Oracle recommends adding such Widgets at a time when the performance impact will not affect service.

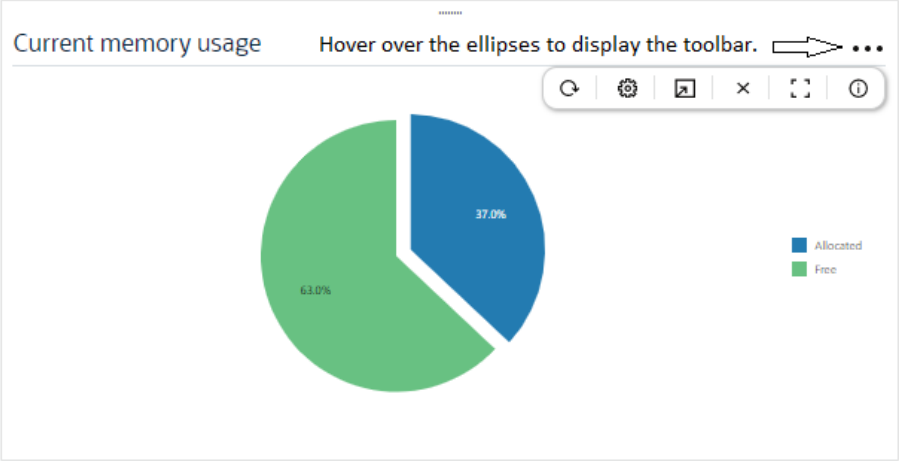
The default display includes the following Widgets:

- Highest CPU Usage
- Current Memory Usage
- Historical Memory Usage
- Alarms

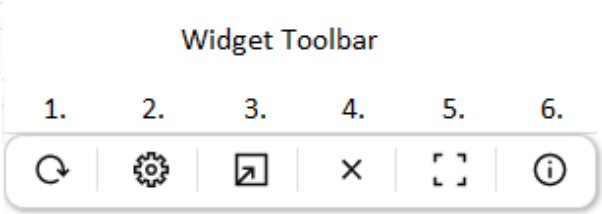
Widget Controls

Each Widget contains the controls that you use to manage its operations, according to the purpose of the Widget. The controls display when you hover over the three ellipses in the upper right corner of the Widget.

The following screen capture shows an example of the tool bar that displays in a Widget. In the Widget, you can hover over the control for a description.



The following information describes the Widget controls.



1. Refresh—Updates the data in the Widget.
2. Settings—Displays the dialog where you set the data sampling parameters for the Widget. When you click the icon, the Widget displays the Settings dialog, where you can set the auto-refresh interval and other parameters that apply to the particular Widget. Widgets can display up to 100 data samples in intervals of 1 hour, 1 minute, or 1 second.

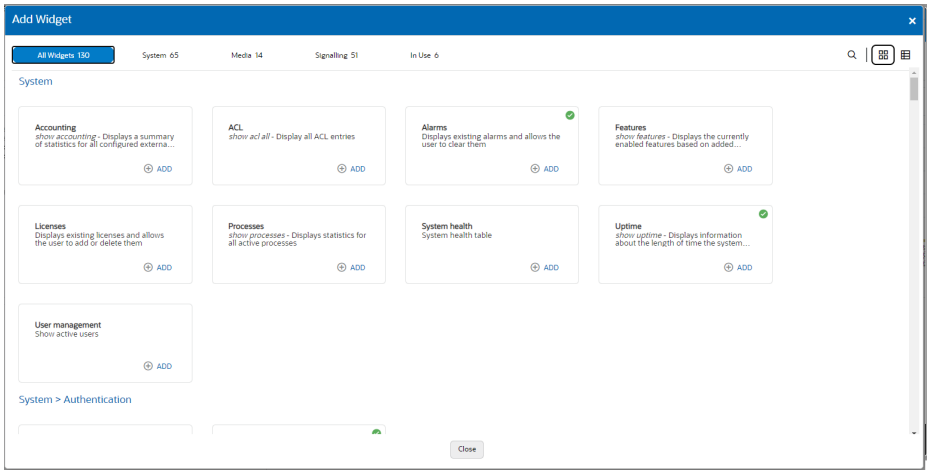
Copyright © 2020, 2026, Oracle and/or its affiliates.

3. Export—Downloads the data displayed in the Widget.
4. Remove—Removes the Widget from the Dashboard. When you remove all Widgets from the Dashboard, the GUI displays the following message: " Your Dashboard is empty, please add a Widget or reset to restore the original Dashboard."
5. Maximize—Displays the Widget in full-screen size.
6. Show Information—Describes the data display. For example, in the Current Memory Usage Widget, the information icon says, "Pie graph displays current percentage of free and allocated memory."

About the Add Widgets Page

After you click either the **+Widget** button or the **Add Widget** card on the Dashboard, the Web GUI displays the Add Widget page. On the Add Widget page, you can search for Widgets to add to the Dashboard and you can see which Widgets exist on the Dashboard. You can also see descriptions of the Widgets and change the display from card view to list view.

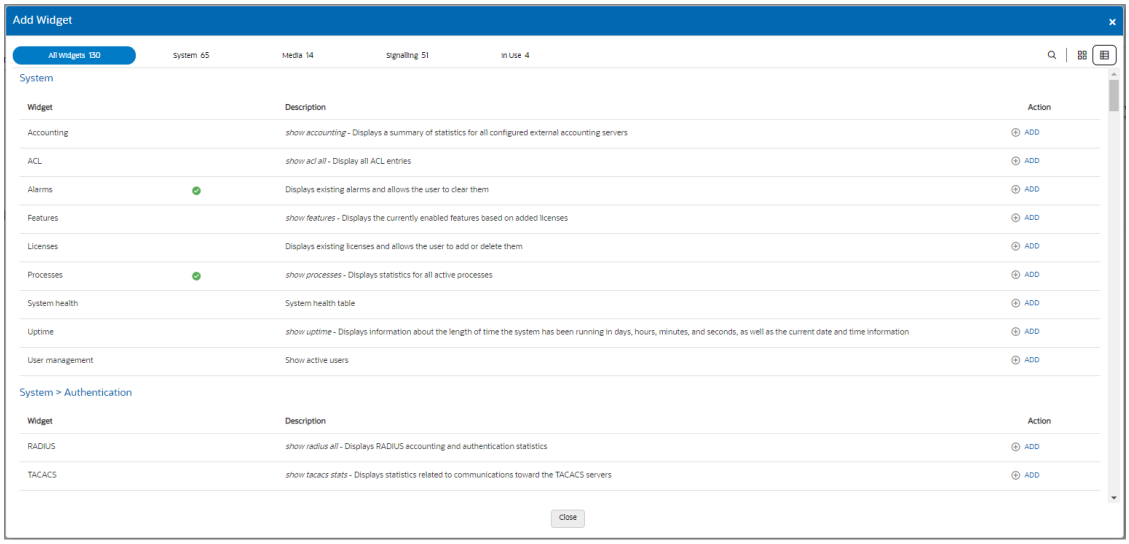
The following screen capture shows the default view of the Add Widgets page, called card view.



In the top row of the preceding screen capture, the Alarms card and the Licenses card each display a green circle around a check mark. The check mark means that those Widgets currently display on the Dashboard.

The following screen capture shows the list view of the Add Widgets page.

Copyright © 2020, 2026, Oracle and/or its affiliates.



In the preceding screen capture, the Alarms row and the Licenses row each display a green circle around a check mark in the column between the Widget and Description. The check mark means that those Widgets currently display on the Dashboard.

Action Controls on the Banner

Regardless of which view you choose, the banner displays the following controls.

-
  Search—Click to display the Search field, where you enter the name of a Widget.
-
  Card view—Click to display the card view.
- List view—Click to display the list view.
-
  Close—Click to close the Add Widgets page.

Search Filters

Regardless of which view you choose, the Add widgets page displays the following search filters, located across the top of the Add Widget page. The Web GUI puts a blue background behind the filter when you hover over it to indicate the active display.

-

  All widgets—Click to see a list of all Widgets in alphabetical order.
-

  System—Click to see only a list of System-related Widgets.

Copyright © 2020, 2026, Oracle and/or its affiliates.

-

  Media—Click to see only a list of Media-related Widgets.

-

  Signaling—Click to see only a list of Signaling-related Widgets.

-

  In Use—Click to see a list of Widgets currently displayed on the Dashboard.

> **Note**
>
> All of the lists display a scroll bar when the list exceeds the page space.

Add a Dashboard Widget

You can add up to eighteen Widgets to the Web GUI Dashboard to display SIP and System statistics to help you monitor and manage the system.

The system does not require a re-boot after performing the following procedure. The system adds the Widget to the Dashboard right away.

1. Access the Dashboard page and click **Add a Widget**.

   The GUI displays the Add Widget page with the Widget categories named across the top.
2. On the Add Widget page, click the category for the widget you want to add.
3. Do one of the following:
   - In card view, click **Add** on the card.
   - In list view, click **Add** in the Action column.

The system displays the newly added Widget on the Dashboard right away.
Next Steps:

- See "Configure Data Sampling Settings for a Dashboard Widget."

Configure the Data Sampling Settings for a Dashboard Widget

To display SIP and System statistics on a Dashboard Widget, the system requires a setting for how often to refresh the display. You can use the default interval or select one from the Auto-refresh interval drop-down list on the Widget.

Confirm that the Widget that you want to configure is on the Dashboard. If not, see Add a Dashboard Widget

Some Widgets also display the Table Name drop-down list, where you can set the data sampling frequency. For example, you might configure the Widget to refresh the display every 40 seconds and to display the data samples in one minute increments.

1. Click the **Dashboard** tab.
2. On the Widget, hover over the ellipses to display the toolbar, and click the **Settings** icon.

Copyright © 2020, 2026, Oracle and/or its affiliates.

3. Select a Widget display refresh frequency from the **Auto-Refresh Interval (seconds)** drop down list.
4. If the Widget displays the **Table Name** drop-down list, select a data sampling increment for the Widget display. Valid values: Seconds | Minutes | Hours.
5. Click **OK**.
6. Click **Close**.

Copy the Dashboard Widgets Display from one Enterprise SBC to Another

When you want the Dashboard Widgets display to be the same on multiple Enterprise SBC's, you can download an XML file of the Widgets from one Enterprise SBC and upload it to another one by way of the Widgets button on the Dashboard.

The following steps take place on both the source and target Enterprise SBCs.

> **Note**
>
> When viewing the Dashboard tab, which displays the Widgets button, you can also see the Widgets tab. The following procedure refers to the Widgets button on the Dashboard tab.

1. On the source Enterprise SBC, access the Dashboard tab.
2. Click the **Widgets** button, and click **Download all Widgets**.

   The system downloads the XML file to the local machine you are using to access the Web GUI.
3. Go to the target Enterprise SBC and Access the Dashboard tab.
4. On the target Enterprise SBC Dashboard, click the **Widgets** button, and click **Upload Widgets**.
5. In the Upload File dialog, click **Upload** to select a file.
6. Browse to the downloaded file on the local machine you are using to access the Web GUI, and click **Open**.
7. In the Upload file dialog, click **Upload**.

   Upon successful upload, the system backs up your existing Widgets file to `/code/dashboard` and updates the Dashboard on the target Enterprise SBC with the new display.

View A Widget That is Not on the Dashboard

When you want to see a Widget that is not on the Dashboard, go to the Widgets tab and select the Widget.

1. Access the **Widgets** tab.
2. In the navigation pane, click the name of the Widget that you want to see.

   The system displays the Widget.

Copyright © 2020, 2026, Oracle and/or its affiliates.

3. (Optional)—Add the widget to the Dashboard, if the Dashboard is not fully populated.

Copyright © 2020, 2026, Oracle and/or its affiliates.

6

The Configuration Tab Display and Operations

The Oracle® Enterprise Session Border Controller (Enterprise SBC) Web GUI provides access to the dialogs and controls that you need to set up, administer, and maintain the configuration objects used on your sOracle® Enterprise Session Border Controller through the Configuration tab.

> **Note**
>
> The *Web GUI Guide* does not provide instructions for setting up the configuration objects. Use the *ACLI Configuration Guide* to get the instructions by transposing the path given to reach the object in the ACLI onto the Web GUI and you will reach the configuration dialog. The parameters displayed in the Web GUI dialogs are the same as those in the ACLI.

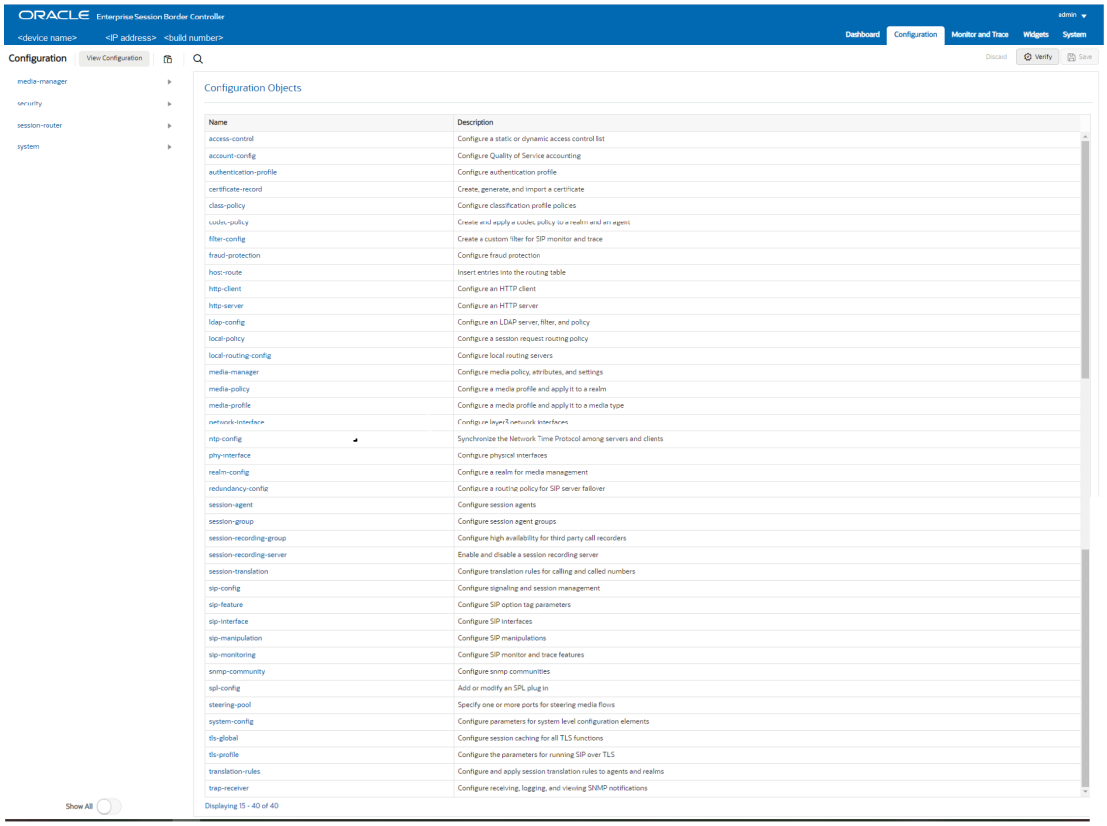
Topics:

- Configuration Tab Display and Operations
- Media Manager Configuration Tab
- Security Configuration Objects
- Session Router Configuration
- System Configuration Tab Objects

Configuration Tab Display and Operations

The Configuration tab displays configuration objects in the navigation pane organized much like they are on the ACLI command line. When you click a top-level object in the navigation pane, the center pane displays the sub-objects in alphabetical order. You can also click the twister by the high-level object in the navigation pane to display an alphabetical list of the sub-objects in the navigation pane. The Configuration tab header displays the system identification at the left end of the banner and the Notifications alarm and the User menu at the right end of the banner. Below the banner, the page displays the controls for View Configuration, Search, Discard, Verify, and Save.

Copyright © 2020, 2026, Oracle and/or its affiliates.



See [Configuration Tab Controls](#).

Configuration Tab Controls

The Configuration tab displays controls to help you find, review, and work with the configurations that you set on the Oracle® Enterprise Session Border Controller.

Device Name—IP Address—Build Number—Use to identify the system and the software version. When you deploy your SBC in a High Availability (HA) pair, the system identification also states whether the device is the Active or Standby peer.

View Configuration—Use to see the configuration Inventory, Editing Configuration Short, Running Configuration Short, Configuration Version, and Realm Specifics.

Paste—Use to paste a configuration that you want to duplicate into a dialog where you can make edits, if you want, and save the configuration.

Search—Use to find and display configuration objects to edit. The first time you place the cursor in the search field, the Web GUI displays a drop-down list of all the configuration objects in alphabetical order. You can refine your search by entering a parameter, an attribute, a value, or an object. When you use Search and switch to another tab, the system retains the search criteria when you return to the Configuration tab.

Discard—Use to undo all configuration changes made in the current session. The system can only discard the changes that you saved. It cannot discard any changes that you activated.

Verify—Use to validate the configuration is valid before saving.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Save—Use to save the current configuration session. Upon Save, the system displays a prompt with a choice of whether or not to activate the configuration. If you do not activate the configuration, you can continue to make changes and Save again. When finished, you can save and activate all of the configuration changes.

ESR Configuration Tab Controls

The Configuration tab displays controls to help you find, review, and work with the configurations that you set on the Oracle® Enterprise Session Border Controller .

Device Name—IP Address—Build Number—Use to identify the system and the software version. When you deploy your SBC in a High Availability (HA) pair, the system identification also states whether the device is the Active or Standby peer.

View Configuration—Use to see the configuration Inventory, Editing Configuration Short, Running Configuration Short, Configuration Version, and Realm Specifics.

Paste—Use to paste a configuration that you want to duplicate into a dialog where you can make edits, if you want, and save the configuration.

Search—Use to find and display configuration objects to edit. The first time you place the cursor in the search field, the Web GUI displays a drop-down list of all the configuration objects in alphabetical order. You can refine your search by entering a parameter, an attribute, a value, or an object. When you use Search and switch to another tab, the system retains the search criteria when you return to the Configuration tab.

Discard—Use to undo all configuration changes made in the current session. The system can only discard the changes that you saved. It cannot discard any changes that you activated.

Verify—Use to validate the configuration is valid before saving.

Save—Use to save the current configuration session. Upon Save, the system displays a prompt with a choice of whether or not to activate the configuration. If you do not activate the configuration, you can continue to make changes and Save again. When finished, you can save and activate all of the configuration changes.

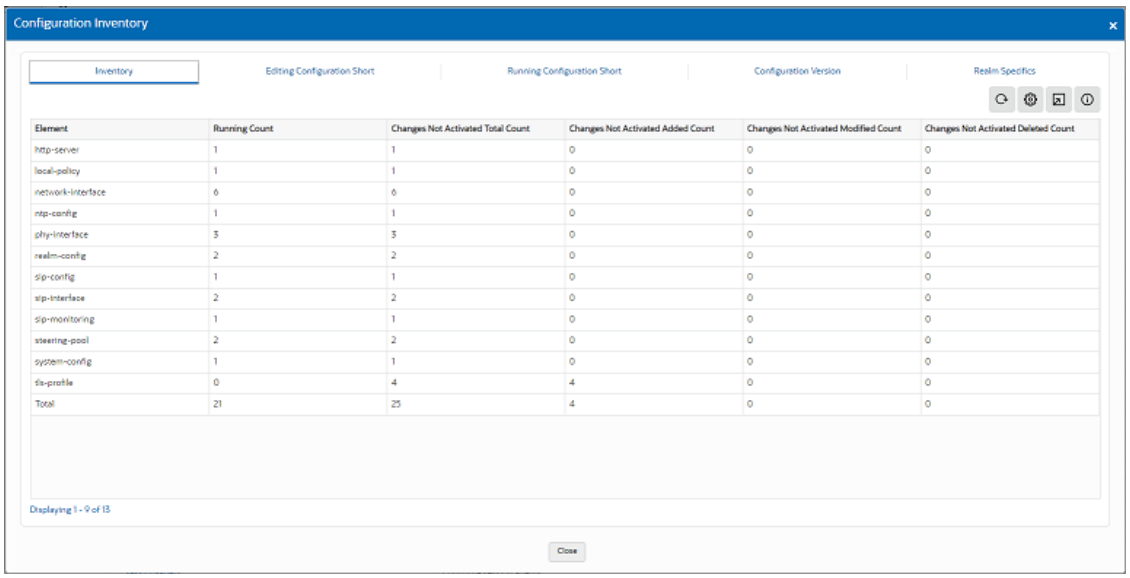
View the Enterprise SBC Configuration Inventory

When you want to see aggregated information about the state of the configuration on the Oracle® Enterprise Session Border Controller (Enterprise SBC), click **View Configuration** on the Configuration tab. The Web GUI displays the Configuration Inventory page by default with tabs for the other views.

The following screen capture shows the default landing page after you click View Configuration.

> **Note**
>
> When you set the process level or system log level to DEBUG, the Web GUI may not display any configuration information for large configurations when you click "View Configuration".

Copyright © 2020, 2026, Oracle and/or its affiliates.



Element	Running Count	Changes Not Activated Total Count	Changes Not Activated Added Count	Changes Not Activated Modified Count	Changes Not Activated Deleted Count
http-server	1	1	0	0	0
local-policy	1	1	0	0	0
network-interface	6	6	0	0	0
ntp-config	1	1	0	0	0
phy-interface	3	3	0	0	0
realm-config	2	2	0	0	0
sip-config	1	1	0	0	0
sip-interface	2	2	0	0	0
sip-monitoring	1	1	0	0	0
steering-pool	2	2	0	0	0
system-config	1	1	0	0	0
tls-profile	0	4	4	0	0
Total	21	25	4	0	0

View Configuration Tabs

Inventory—Shows the Element list, Running Count, Changes Not Activated Total Count, Changes Not Activated Added Total Count, Changes Not Activated Modified Count, and Changes Not Activated Deleted Count.

Editing Configuration Short—Shows only the modified attributes in the editing configuration.

Running Configuration Short—Shows only the modified attributes in the running configuration.

Configuration Version—Shows the configuration version number table, which shows both the Current Version and the Running Version.

Realm Specifics—Allows you to set the Realm parameter and Auto Refresh interval.

Controls

Each tab, except for Realm Specifics, displays a set of controls in the upper right corner. The following list includes all of the available controls, but note that the controls vary per tab.

Refresh—Use to manually refresh the data on the tab.

Settings—Use to set the Auto Refresh Interval and to enable the option to Show Only Differences.

Download—Use to download data to the Configuration Inventory.

Description—Use to see a description of the view.

ESR Configuration Inventory View

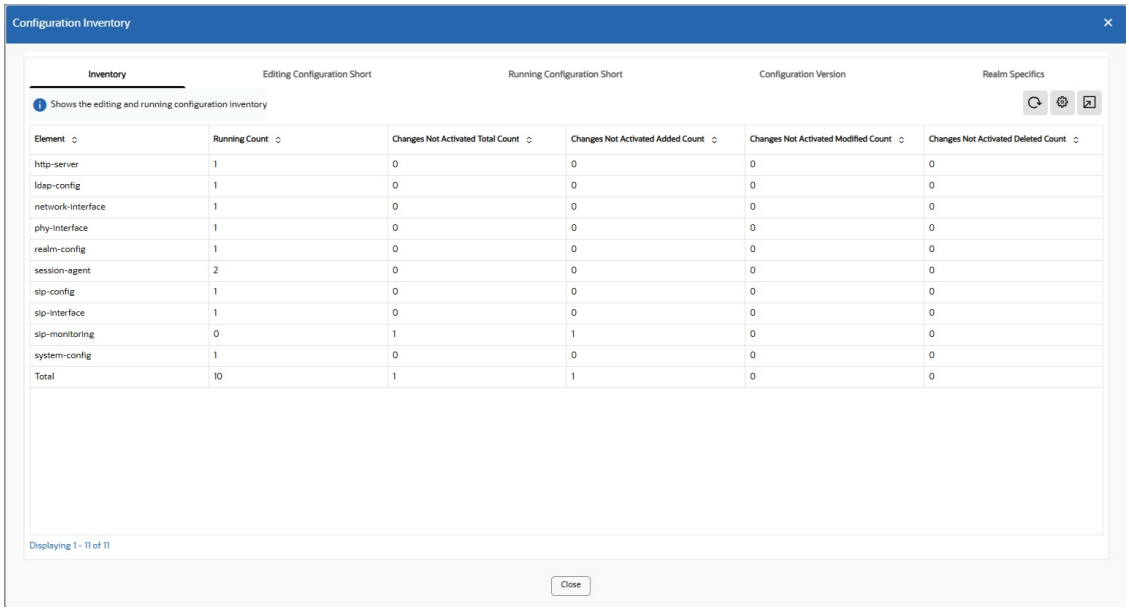
When you want to see aggregated information about the state of the configuration on the Oracle® Enterprise Session Border Controller, click **View Configuration** the Configuration tab.

Copyright © 2020, 2026, Oracle and/or its affiliates.

The Web GUI displays the Configuration Inventory page by default with tabs for the other views.

The following screen capture shows the default landing page after you click View Configuration.

> **Note**
>
> When you set the process level or system log level to DEBUG, the Web GUI may not display any configuration information for large configurations when you click View Configuration.



Element	Running Count	Changes Not Activated Total Count	Changes Not Activated Added Count	Changes Not Activated Modified Count	Changes Not Activated Deleted Count
http-server	1	0	0	0	0
ldap-config	1	0	0	0	0
network-interface	1	0	0	0	0
phy-interface	1	0	0	0	0
realm-config	1	0	0	0	0
session-agent	2	0	0	0	0
sip-config	1	0	0	0	0
sip-interface	1	0	0	0	0
sip-monitoring	0	1	1	0	0
system-config	1	0	0	0	0
Total	10	1	1	0	0

View Configuration Tabs

Inventory—Shows the Element list, Running Count, Changes Not Activated Total Count, Changes Not Activated Added Total Count, Changes Not Activated Modified Count, and Changes Not Activated Deleted Count.

Editing Configuration Short—Shows only the modified attributes in the editing configuration.

Running Configuration Short—Shows only the modified attributes in the running configuration.

Configuration Version—Shows the configuration version number table, which shows both the Current Version and the Running Version.

Realm Specifics—Allows you to set the Realm parameter and Auto Refresh interval.

Controls

Each tab, except for Realm Specifics, displays a set of controls in the upper right corner. The following list includes all of the available controls, but note that the controls vary per tab.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Refresh—Use to manually refresh the data on the tab.

Settings—Use to set the Auto Refresh Interval and to enable the option to Show Only Differences.

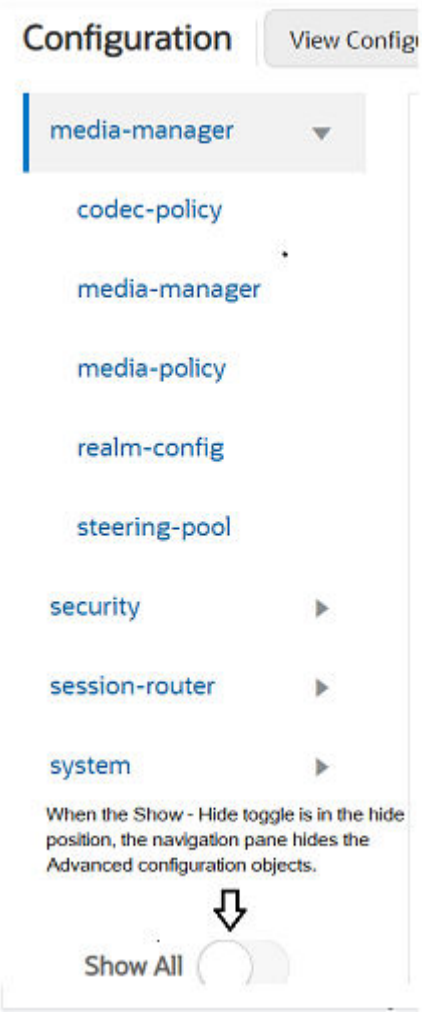
Download—Use to download data to the Configuration Inventory.

Description—Use to see a description of the view.

Show or Hide Advanced Configuration Objects in the Navigation Pane

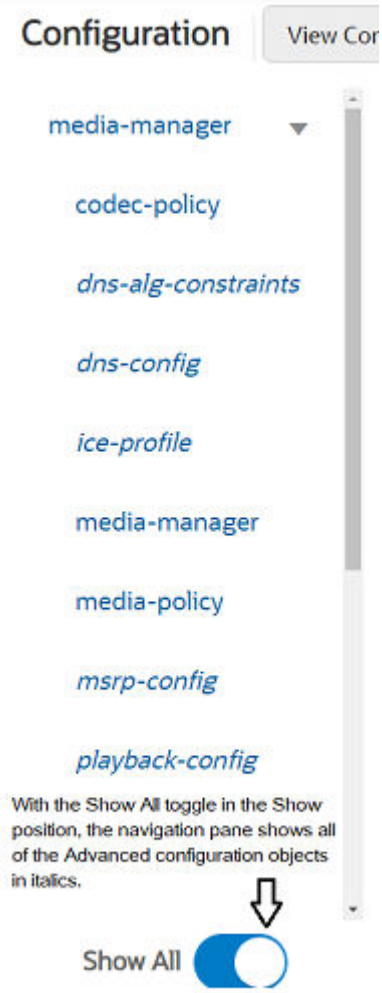
Each category of configuration objects includes additional objects that are not required to complete a basic configuration. Such objects are called Advanced objects, which you use to customize your configuration. If you do not need to see the advanced objects, you can hide them from view with the **Show All** toggle located at the bottom of the navigation pane. The **Show All** toggle affects all categories of configuration objects. You can toggle between show and hide at anytime.

The following screen capture shows the navigation pane with the **Show All** toggle in the hide position. In this example, media-manager displays only five configuration objects because the Advanced configuration objects are hidden.



The following screen capture shows the navigation pane with the **Show All** toggle in the **Show All** position. The Web GUI displays the advanced elements in italics.

Copyright © 2020, 2026, Oracle and/or its affiliates.



Show or Hide Advanced Configuration Parameters

Configuration dialogs can contain both Basic and Advanced parameters. You can choose to see only the Basic parameters or to see both the Basic and Advanced parameters by using the Show Advanced toggle. The Web GUI displays the toggle on every configuration dialog that contains both Basic and Advanced parameters.

The Web GUI defaults to displaying only the Basic parameters, even when a configuration contains Advanced parameters. Use the Show Advanced toggle to see all the parameters.

When all parameters in a configuration are Advanced, the Web GUI turns on Show Advanced by default.

When all parameters in a configuration are Advanced and you toggle Show Advanced off, the Web GUI hides all parameters for that configuration.

When you highlight an Advanced parameter during Search or Verify, the Web GUI activates Show Advanced and displays all the Advanced parameters for the configuration.

When an error occurs upon submission of input for an Advanced parameter, the GUI turns Show Advanced on automatically.

Copyright © 2020, 2026, Oracle and/or its affiliates.

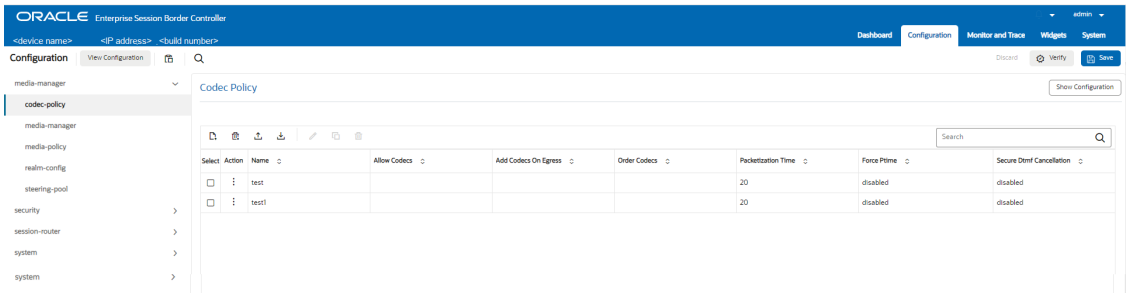
When you leave the Configuration tab for another tab and return to the Configuration tab, the Show Advanced state remains as it was before you left the tab.

When you turn Show Advanced on while configuring a multi-instance object and click OK, the Show Advanced state persists when you open any instance in the table. When you configure another instance and turn Show Advanced off, the off state persists when you open any instance in the table.

Show the Configured Parameters of a Configuration Object

After you add a new configuration or modify an existing one, you might want to view the settings to confirm your work before activation. Every configuration object includes the Show Configuration button in the title banner, which you can click to see the editing version of the configuration.

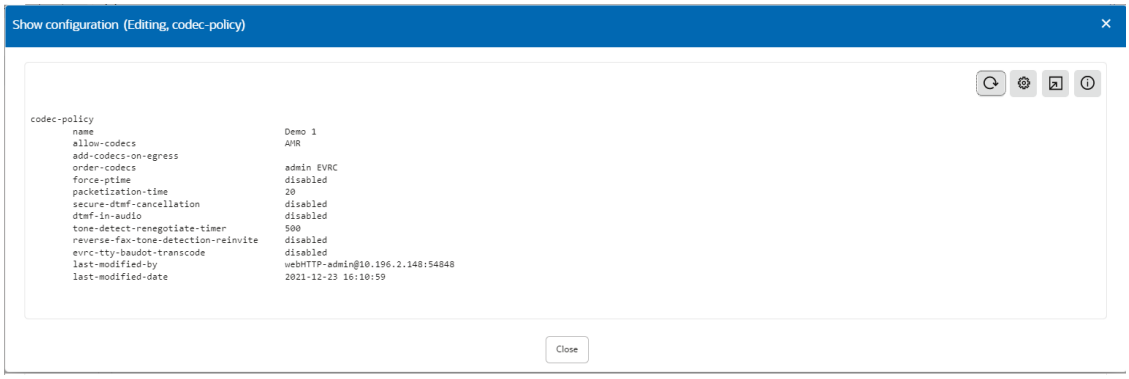
The following screen capture shows the **Show Configuration** button, which is located at the right end of the configuration object title banner.



When you click Show Configuration, the Web GUI displays a list of the parameters that you edited and the values you set.

> **Note**
>
> The list shows only the parameters you edited.

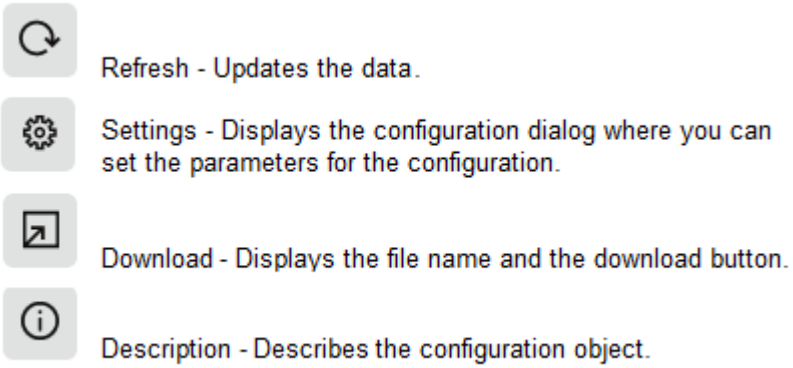
The following screen capture shows an example of how the Web GUI displays an edited configuration.



Descriptions of the Show Configuration Controls

The Show Configuration page displays the following icons in the upper right corner that you can use to work with the configuration.

Copyright © 2020, 2026, Oracle and/or its affiliates.

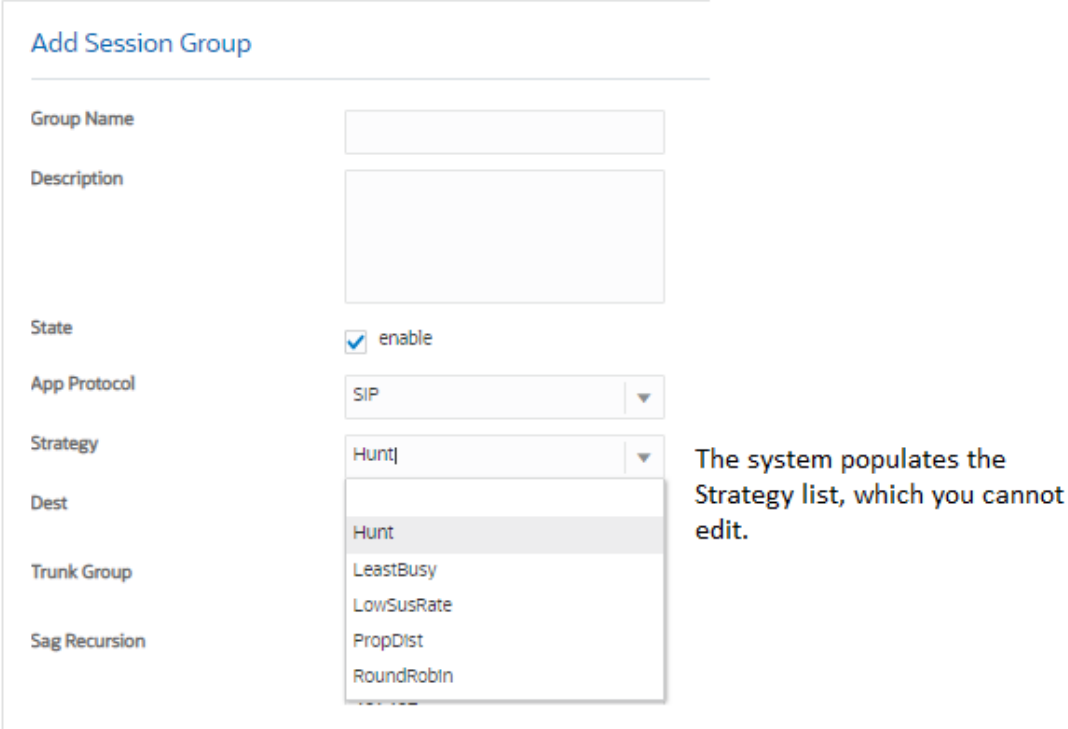


Configuration Dialogs Behavior

Drop-Down Lists

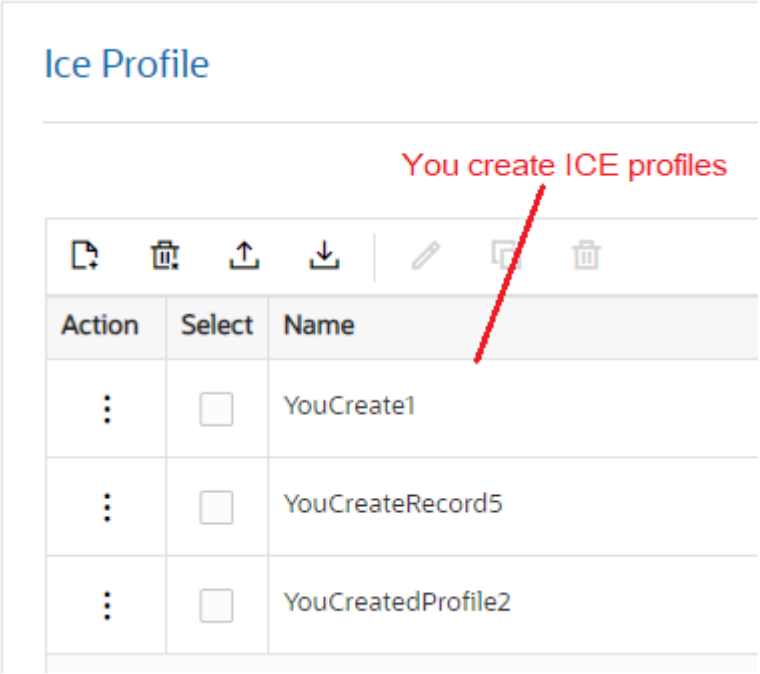
To make configuration easier, the Web GUI displays drop-down lists for selecting values for configuration parameters. Drop-down lists behave in the following ways:

System Populated—The system populates the list. You can only select an item that exists on the list and you cannot edit the list. For example, the system populates the list for the Strategy parameter in the Add Session Group configuration dialog.

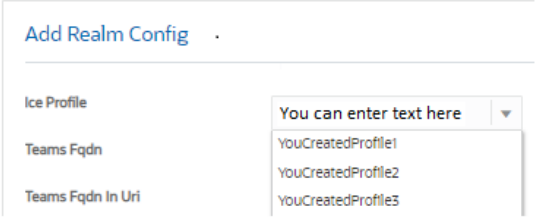


User Populated—You can populate the list by configuring the objects in advance or by entering text in the field. For example, in the Add Realm configuration, the Ice Profile parameter can display a drop-down list of Ice Profiles. You create the list by configuring one or more profiles in the Ice Profile configuration.

Copyright © 2020, 2026, Oracle and/or its affiliates.



In Realm Config, the system displays the name of each Ice profile that you created in the Ice Profile drop-down list. You can either select an entry from the list or enter the name of one that you plan to create.



In Realm Config, the Ice Profile parameter drop-down list displays the profiles that you created in the Ice Profile configuraton.

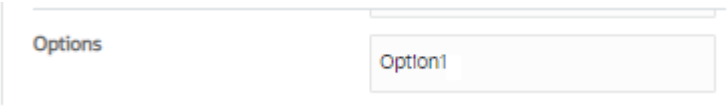
You can either select an item from the list, or enter text (the name of an appropriate configuration.)

> **Note**
>
> Some configuration parameters allow you to select multiple items from the drop-down list.

Options Fields

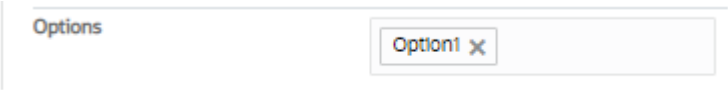
Options fields require you to enter each option separately with a delimiter between options. Without delimiters the system considers all of the entries as one, which can lead to unpredictable behavior. The Options text box accepts commas, semi-colons, full stops, and parens as delimiters.

To add one option:
Type the name of the option.



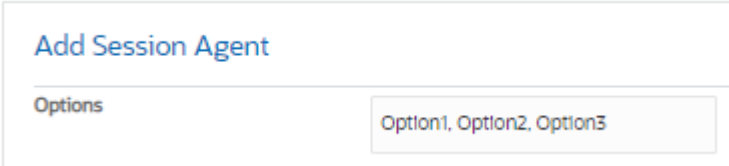
Copyright © 2020, 2026, Oracle and/or its affiliates.

Click outside of the text box and the GUI sets the option in its own tab.

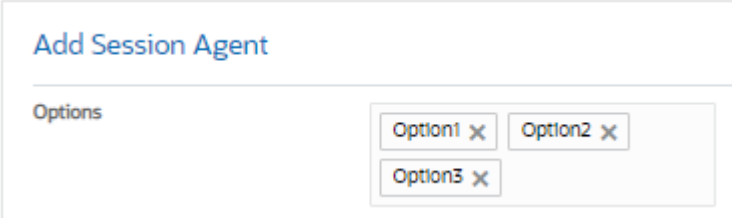


To add multiple options:

Type the name of each option, separated with either the comma, semi-colon, or space characters. The following example shows commas as the delimiters.



Click outside of the text box and the GUI sets each option as a separate tab.



If you have a list of options in a text document and they are delimited with a comma, semi-colon, full stop, or parens, you can copy the list into the Options field and the system will add each option as a separate tab as soon as you click outside of the tab.

To delete an Option, click the X on the tab.

Unsaved Changes Persistence

While working in a configuration dialog, you can switch to another tab before you save the changes you made and expect your work to persist when you return to the dialog.

Controls for Managing Multi-instance Configurations

Some configuration objects allow you to create multiple instances of the configuration, which the system displays in a list on the configuration object landing page. You can manage multi-instance configuration objects with the buttons and controls displayed on the landing page and within the configuration dialog. Buttons display at the top of the dialog and controls display when you right-click elements of the configuration in the list.

Controls for Managing Configuration Lists

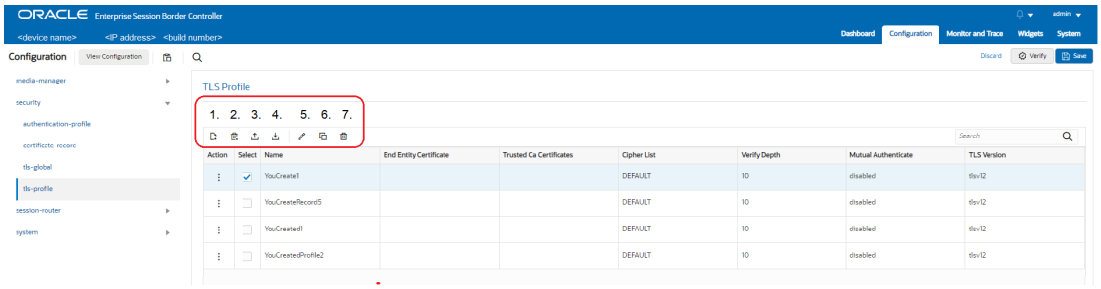
Web GUI configuration pages display controls for managing lists of multi-instance configurations. You can use certain controls to affect multiple instances, while others can affect only one instance at a time.

Global Controls

At the top of a multi-instance configuration list, the Web GUI displays the controls for managing the list. All the controls are active when you select a single row in the table. When you select multiple rows in a table, the system activates only the icons for supported actions. For

Copyright © 2020, 2026, Oracle and/or its affiliates.

example, when you select multiple rows, the Add, Delete, Upload, and Download icons remain activated. The system deactivates the Edit and Copy icons because those operations work on a single row, only.



1. **Add**—Click to add a configuration instance to the list.

2. **Delete All**—Click to delete all instances. You do not need to select the instances, just click the Delete All icon.

3. **Upload**—Click to upload one or more CSV configuration files to the configuration displayed.

4. **Download**—Click to download one or more configurations to a CSV file.

5. **Edit**—Click to edit the selected configuration.

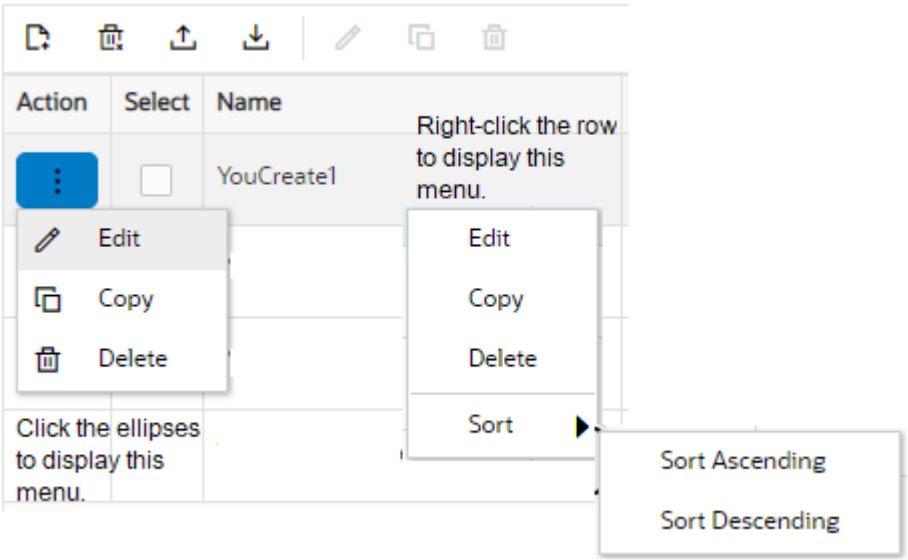
6. **Copy**—Click to copy the selected configuration.

7. **Delete**—Click to delete the selected configuration.

> **Note**
>
> When you Add, Edit, or Copy in a table, the table reloads and returns to the record you were on.

Row Controls

You can also access the Edit, Copy, and Delete controls from a row in the list. Either click the ellipses or right-click the row. When you right-click, the menu also includes the sorting choices.



Copyright © 2020, 2026, Oracle and/or its affiliates.

Controls for Ordering Table Rows in a Multi-Instance Configuration

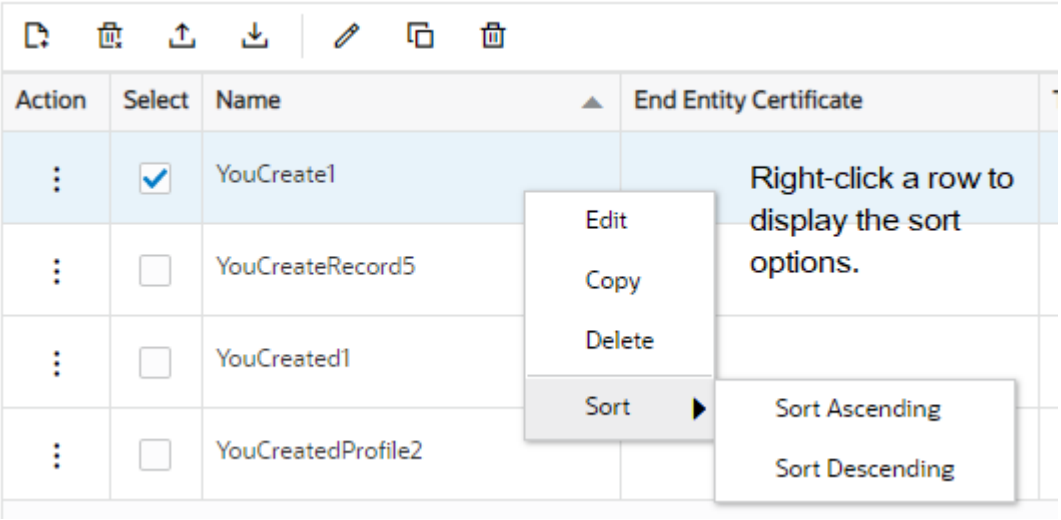
Controls for Showing and Hiding Column Headers

Controls for Ordering Table Rows in a Multi-Instance Configuration

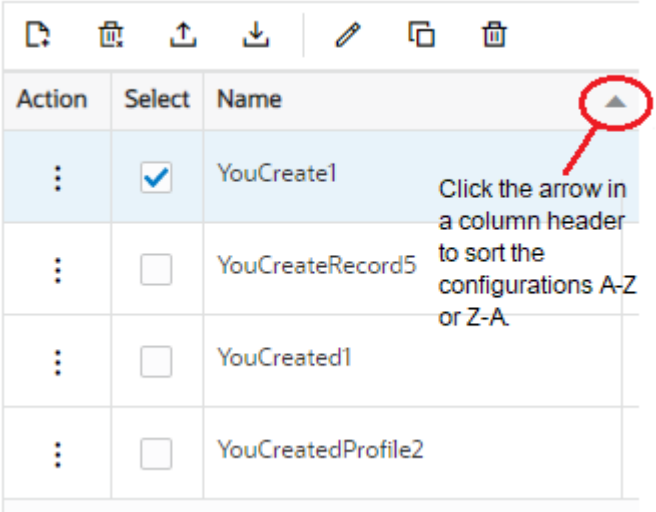
You can set the order of the configurations in most multi-instance configuration lists to display in either ascending or descending alphabetical order. The exception occurs in the Local Policy configuration, where you can manually set the rows in any order.

Set the Sort Order for All Lists Except Local Policy

Right-click the configuration, and the system displays the control menu that includes **Sort**. Click **Sort**, and click either **Sort Ascending** or **Sort Descending**.



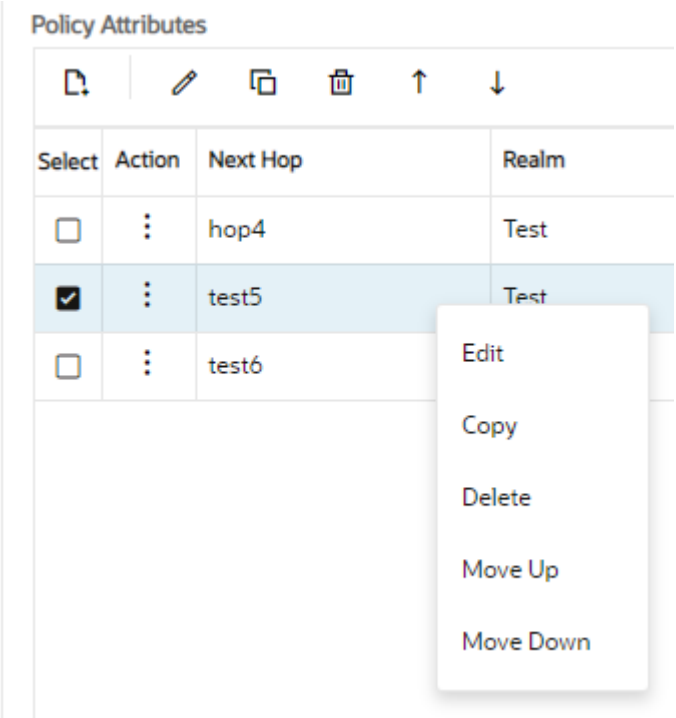
You can also set the sort order by clicking the arrow in the column header.



Set the Sort Order for the Local Policy Table

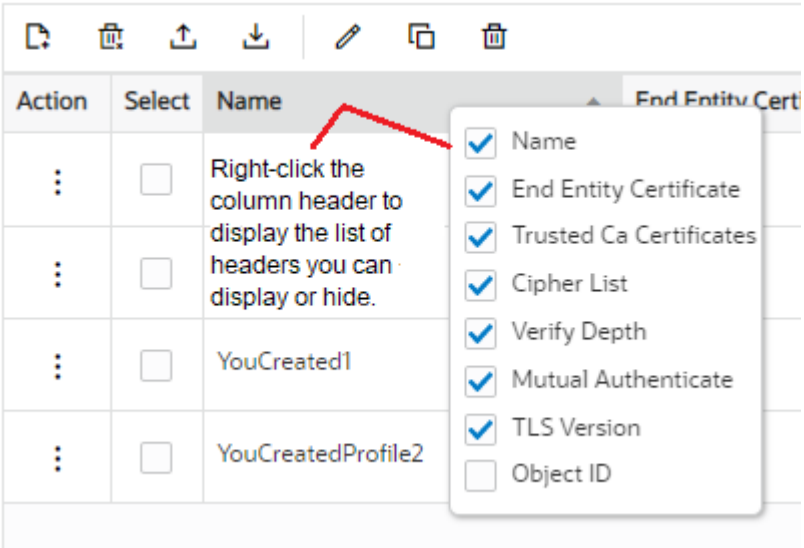
Right-click the row that you want to move, and the system displays the control menu that includes **Move Up** and **Move Down**.

Copyright © 2020, 2026, Oracle and/or its affiliates.



Controls for Showing and Hiding Column Headers

Each multi-instance configuration list supports a unique array of column headers and you can choose the ones that you want displayed and hidden. Right-click a column header to display the list of column headers that is available for the table displayed.



> **Note**
>
> The same list displays regardless of which column you click.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Configuration Error Messages

If you save a configuration that contains errors, the system displays the following error message: *There were errors! Are you sure you want to activate the configuration?*

The system displays a list of errors at the bottom the page. Click an error to go to the location in the configuration where the error occurred and edit the configuration as needed.

Severity	Identifies the level of severity that the Oracle® Enterprise Session Border Controller assigns to the error. Valid values are: • ERROR—Means that the issue identified in the Message column is not correctly configured or it does not exist. You can still verify, save, and activate the configuration if this severity exists. • WARNING—Means that the configuration contains invalid information for the element field identified in the Message column. You can still verify, save, and activate the configuration if this severity exists. • CRITICAL—Means that a critical error occurred in the configuration and you cannot verify, save, or activate until the error is corrected. The Message column indicates the element field where the error has occurred.
Message	Identifies the element field where the error, warning, or critical error occurred, and the reason for the error.
Object	Identifies the element and the field for that element where the error occurred.
Attribute Name	Identifies the attribute within the element where the error occurred.
Other	Identifies any other pertinent information relating to the error.

Configuration States and Behavior

The Enterprise SBC uses three states of memory to manage configuration changes, which allows you to make changes and decide when you want them to take effect.

At any time, the following three versions of the configuration can exist on the Enterprise SBC.

- Editing—The editing configuration is the version that you are making changes to from the Web GUI. The editing version is stored in the Enterprise SBC volatile memory. The editing version cannot survive a system restart.
- Saved—The saved configuration is the version of the editing configuration that the system copies into the non-volatile memory when you click **Save** on the Web GUI. The changes do not take effect on the Enterprise SBC until you activate the saved configuration. Note that the system does not load the saved, but unactivated, configuration as the running configuration upon restart. The Saved configuration requires activation, first.
- Running configuration—The running configuration is the configuration that the system is using. When you activate the saved configuration it becomes the running configuration. Most configuration changes can take effect upon activation. Some configuration changes require a system restart. Upon restart, the system loads the running configuration.

The process for saving and activating a configuration, includes the following steps.

Copyright © 2020, 2026, Oracle and/or its affiliates.

1. **OK**—All configuration dialogs display an **OK** button that saves changes to the editing memory. If you restart before the next step, the Enterprise SBC does not save the changes.
2. **Verify**—(Optional) Oracle recommends verifying the validity of the configuration before saving because saving shows any errors after saving. Verify displays the configuration changes and any errors found, before saving.
3. **Save**—The **Save** button on the Web GUI toolbar verifies the configuration, saves the current configuration to the last-saved configuration, and displays errors. Save stores the configuration on the Enterprise SBC. The system displays any errors at the bottom of the Configuration page.
4. **Activate**—After you finish making one or more configuration changes, **OK** and **Save** from the last configuration dialog that you need to edit at this time. The system displays the Confirmation dialog containing the **Activate** button. When you click **Activate**, the Enterprise SBC activates all of the saved configuration changes and saves the new configuration to the running configuration. If you cancel the activation function, the Enterprise SBC saves the configuration in a file and does not change the running configuration. You can continue to make changes to the configuration.

Duplicate a Configuration

To save time when adding configurations to a multi-instance configuration object, you can paste an existing configuration into an editable dialog on the Web GUI as the starting point for adding the new one. You can use the copied configuration exactly or make modifications.

You can use the following procedure to duplicate configurations on the Oracle® Enterprise Session Border Controller you are logged on to or ones you copied from elsewhere. If you copy from elsewhere, begin this procedure with step 3.

1. Access the Widgets tab, and do one of the following:
   - Editing Configuration—Use to see all configurations.
   - Running Configuration—Use to see only the active configurations.
2. On either the Editing or Running Configuration page, select and copy the configuration you want to duplicate.
3. Go to the Configuration tab and click the paste icon. (Located next to the View Configuration button.)
4. Paste the configuration into the dialog.
5. (Optional)—Edit the configuration.
6. Click **Save**.

   The system will display notifications if any errors occur.
7. If the system detects no errors, click **Yes** in the Confirm dialog.
8. (Optional)—Go to the affected configuration object on the Configuration tab to confirm that the new configuration is added to the list.

Create a Configuration Manually

Use the following procedure to manually create a configuration through the Web GUI.

The following procedure includes an example of the format to use for the configuration. To see more examples, go to the Widgets tab and click either Editing Configuration or Running Configuration.

Copyright © 2020, 2026, Oracle and/or its affiliates.

1. Access the Configuration tab, and click the **Paste Configuration** icon.
2. In the Paste Configuration dialog, type the configuration the following format.

   Format Example

   ```
   codec-policy
                    name              CP1
                    allow-codecs      1016
                    order-codecs      AMR
   ```

3. Click **Save**.

   The system will display notifications if any errors occur.
4. If the system detects no errors, click **Yes** in the Confirm dialog.
5. (Optional)—Go to the Configuration tab, locate the affected configuration object, and click **View Configuration** to confirm your work.

Media Manager Configuration Tab

Use the Media Manager configuration object to define the settings for the media steering functions performed by the Oracle® Enterprise Session Border Controller (Enterprise SBC), including timer limits, logging, and trust levels.

You can configure the following Media Manager objects from the Configuration tab on the Web GUI. See the documentation specified in the following list for explanations of these configuration objects and how to set their parameters.

Codec Policy	Create a codec policy to specify allowed codecs, the order of codecs, and codecs to add on egress. See "Codec Policy Configuration" in the *ACLI Configuration Guide*.
DNS ALG Constraints	Configure and enable DNS ALG constraints. See the "DNS ALG Service Name Configuration" section of the "Application Gateway Services" chapter in the *ACLI Configuration Guide*.
DNS Config	Configure the DNS ALG service. See "DNS Configuration" in the *ACLI Configuration Guide*.
ICE Profile	Configure ICE profile. See "Configure ICE Profile" in the *ACLI Configuration Guide*.
Media Manager	Configure media steering functions. See "Creating Steering Pools for Multiple Interface Realms" in the *ACLI Configuration Guide*.
Media Policy	Configure a media policy and ToS settings. See "Packet Marking Configuration" in the *ACLI Configuration Guide*.
MSRP Config	Configure and enable MSRP. See "RCS Services" in the *ACLI Configuration Guide*.
Playback Config	Configure media use for playback. See "Local Media Playback" in the *ACLI Configuration Guide*.
Realm Config	Configure a realm for media management. See "Realms and Nested Realms" in the *ACLI Configuration Guide*.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Realm Group	Configure realm groups for local media playback. See "Configuring Realm Groups" in the *ACLI Configuration Guide*.
RTCP Policy	Configure an RTCP policy. See "Configuring RTCP Generation" in the *ACLI Configuration Guide*.
Static Flow	Configure static network traffic flows. See "Static Flows" in the *ACLI Configuration Guide*.
Steering Pool	Specify one or more ports for steering media flows. See "Steering Pools" in the *ACLI Configuration Guide*.
TCP Media Profile	Configure the TCP media profile and profile entries. See "Configure TCP Media Profile" in the *ACLI Configuration Guide*.

Security Configuration Objects

The Oracle® Enterprise Session Border Controller (Enterprise SBC) can provide security for VoIP and other multi-media services. Enterprise SBC security includes access control, DoS attack, and overload protection to help secure service and protect the network infrastructure. Enterprise SBC security lets legitimate users place a call during attack conditions, while protecting the service itself.

Enterprise SBC security includes the numerous features and architecture designs of the Net-SAFE framework. Net-SAFE is a requirements framework for the components required to provide protection for the Enterprise SBC, the service provider's infrastructure equipment (proxies, gateways, call agents, application servers, and so on), and the service itself.

You can configure the following Security objects from the Configuration tab on the Web GUI. See the documentation specified in the following list for explanations of these configuration objects and how to set their parameters.

audit-logging	Configure the size, location, and conditions that trigger the transfer of logs to the specified location. See "Configure the Audit Log" in the "Audit Log" chapter in the *Administrative Security Guide*.
auth-params	Configure authentication protocol, strategy, and servers. See the "Authentication and Authorization" section in the "Access" chapter in the *Administrative Security Guide*.
authentication	Configure RADIUS and TACACS authentication. See "RADIUS Authentication" and "TACACS+" in the *ACLI Configuration Guide*.
authentication profile	Reserved for future use.
certificate record	Create or update a certificate record for either a CA or end entity. See "Certificate Configuration Process" in the *ACLI Configuration Guide*. See "Update a Certificate in the *Web GUI Guide*.
data-flow	Specify the pass-through data-traffic processing when using IKE. See "data-flow" in the *ACLI Reference Guide*.
dpd-params	Enable one or more sets of DPD Protocol parameters. See "dpd-params" in the *ACLI Reference Guide*.

Copyright © 2020, 2026, Oracle and/or its affiliates.

ike-access-control	Define the allow list, blocklist, and DDoS parameters for the ike-interface that uses this parameter. See "ike-access-control" in the *ACLI Reference Guide*.
ike-accounting-param	Specify the IKE accounting parameters.
ike-certficate-profile	Specify the public certificate that authenticates a specific IKEv2 identity, as well as one or more CA certificates used to validate a certificate offered by a remote peer. See "ike-certficate-profile" in the *ACLI Reference Guide*.
ike-config	Define a single, global Internet Key Exchange (IKE) configuration object. See "ike-config" in the *ACLI Reference Guide*.
ike-interface	Create multiple OKE-enabled interfaces. See "ike-interface" in the *ACLI Reference Guide*.
ike-sainfo	Enable the negotiation and establishment of IPSec tunnels. See "ike-sainfo" in the *ACLI Reference Guide*.
local-address-pool	Create local address pools to provide a local (internal) address in response to remote requests for IP addresses. See "local-address-pool" in the *ACLI Reference Guide*.
tunnel-orig-params	Define a single, remote IKEv2 peer. See "tunnel-orig-params" in the *ACLI Reference Guide*.
ipsec-global-config	Configure the parameters governing system-wide IPSec functions and behavior, including IPSec redundancy. See "ipsec-global-config" in the *ACLI Reference Guide*.
security-association	Configure a security association on the Oracle Session Border Controller. See "security-association-manual" in the *ACLI Reference Guide*.
secutiy-policy	Define multiple policy instances with each policy defining match criteria and an operational action performed on matching traffic flows. See "security-policy" in the *ACLI Reference Guide*.
dtls-srtp-profile	Configure the key exchange and DTLS handshake on a media session, the role the SBC negotiates when offered alternatives, and the crypto suites to use. See the "Configure DTLS SRTP Profile" section in the "Advanced Media Termination Support" chapter of the *ACLI Configuration Guide*.
media-sec-policy	Define a policy that affects inbound and outbound traffic. See "media-sec-policy" in the *ACLI Reference Guide*.
sdes-profile	Configure the parameter values offered and accepted during SDES negotiation. See "sdes-profile" in the *ACLI Reference Guide*.
sipura-profile	Specify the materials (certificate, protocol suites, and so on) the support cryptographic operations. See "sipura-profile" in the *ACLI Reference Guide*.
password -policy	Create a password policy. See the "Password Policy" section in the "Access" chapter in the *Administrative Security Guide*.
security-config	Configure security for VoIP and other multimedia services. See the "Security" chapter in the *ACLI Configuration Guide*.

Copyright © 2020, 2026, Oracle and/or its affiliates.

ssh-config	Configure the system for an SSH connection. See "SSH Remote Connections" in the *ACLI Configuration Guide*.
ssh-key	Add or upload an SSH key. See "SSH Remote Connections" in the *ACLI Configuration Guide*.
tls-global	Configure session caching to allow a previously authenticated client to re-connect with the unique session identifier from the previous session. See "TLS Session Caching Configuration" in the *ACLI Configuration Guide*.
tls-profile	Create a profile to define communications security for running SIP over TLS. See "Configure a TLS Profile" in the *ACLI Configuration Guide*.

Update a Certificate

When you need to renew a certificate on the Oracle® Enterprise Session Border Controller (Enterprise SBC), you can go to the existing certificate record and overwrite the existing certificate with the renewed certificate. You do not need to create a new certificate record.

Before You Begin

- Confirm that the certificate record you want to update contains a certificate.
- Send the original certificate request to the Certificate Authority (CA) for renewal.

Perform the following procedure after you receive the signed certificate from the CA. On the Web GUI, go to the certificate record you want to update and import the renewed certificate into the record.

1. On the Web GUI, go to **Configuration**, **Security**, **certificate-record**.
2. On the Certificate Record page, select the certificate record you want to update.
3. Click the **Import** icon.
4. In the Import Certificate dialog, do the following:
   - Format—Select a format. No default. Valid values: pkcs7 | x509 | try-all
   - Import Method—Select either **File** or **Paste**.
5. Click **Import**.
6. Click **Confirm** and then **Import**.

   The system imports the certificate and overwrites the existing one.

Session Router Configuration

You can configure the following Session Router objects from the Configuration tab on the Web GUI. See the documentation specified in the following list for explanations of these configuration objects and how to set their parameters.

Access Control	Configure a static or dynamic access control list. See the *Security Guide* and "System Access Control" in the *ACLI Configuration Guide*.
Allowed Elements Profile	Configure an allowed elements profile to configure SIP Allowlist which, control the passage of unknown headers and parameters in request and response traffic. Includes the Rule Sets sub-object. See the "Allowlist Lists for Managing Incoming SIP Headers and Parameters" section of

Copyright © 2020, 2026, Oracle and/or its affiliates.

	the "Admission Control and QoS" chapter in the *ACLI Configuration Guide*.
Class Policy	Configure a classification profile policy. See "Using Class Profile for Packet Marking", " Class Profile and Class Policy Configuration", and " Applying a Class Policy to a Realm" in the *ACLI Configuration Guide*.
Diameter Manipulation	Configure diameter manipulation rules. See the "Diameter Rf Accounting" chapter in the *Accounting Guide*.
Enforcement Profile	Configure an enforcement profile. See "SIP Enforcement Profile and Allowed Methods" in the *ACLI Configuration Guide*.
ENUM Config	Configure an ENUM server. See "ENUM Server", and other ENUM topics in the *ACLI Configuration Guide*.
Filter Config	Configure a custom filter for SIP monitor and trace. See the "SIP Monitor and Trace" section of the "Introduction to SIP Monitor and Trace" chapter in the *ACLI Configuration Guide*.
H323 Config	Configure and enable an H.323 protocol. See the "Signaling" chapter in the *ACLI Configuration Guide*.
H323 Stack	Configure an H.323 stack. See the "Signaling" chapter in the *ACLI Configuration Guide*.
Home Subscriber Server	For future use. Not supported at this time.
HTTP ALG	Configure an HTTP proxy. See "Dynamic ACL for the HTTP-ALG" in the See the "Signaling" chapter in the *ACLI Configuration Guide*.
LDAP Config	Configure and enable an LDAP server. See the "Active Directory-based Call Routing" section of the "Session Routing and Load Balancing" chapter in the *ACLI Configuration Guide*.
Local Policy	Configure a session request routing policy. See "The Role of Local Policy" and "Configuring the Local Policy Attribute" in the *ACLI Configuration Guide*.
Local Response Map	Configure a local SIP response map. See "Add a Local Response Map" in the *ACLI Configuration Guide*.
Local Routing Config	Configure the parameters for the local routing table. See the "Using the Local Route Table for Routing" section of the "Session Routing and Load Balancing" chapter in the *ACLI Configuration Guide*.
Media Profile	Configure a media profile and apply it to a media type. See the various "Media Profile Configuration" topics throughout the *ACLI Configuration Guide*.
Net Management Control	Configure and enable network management controls. See "Network Management Controls" in the *ACLI Reference Guide*.
Response Map	Configure a SIP response map. See "Add a Local Response Map" in the *ACLI Configuration Guide*.
Service Health	Configure a service tag list to indicate the Session Agent Group assigned to the interface on the Enterprise SBC.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Session Agent	Configure and enable a session agent. See "Session Agent Configuration" and "Configuring a Session Agent" in the *ACLI Configuration Guide*.
Session Agent ID Rule	Configure the SIP header and the parameter within the specified header to use to identify the Session Agent.
Session Constraints	Configure and enable session constraints. See "Aggregate Session Constraints Configuration" in the *ACLI Configuration Guide*.
Session Group	Configure a session agent group. See the "Session agent Groups" section of the "Session Routing and Load Balancing" chapter in the *ACLI Configuration Guide*.
Session Recording Group	Configure a session recording server group. See the "Configuring SIPREC" section of the "Selective Call Recording SIPREC" chapter in the*Call Traffic Monitoring Guide*.
Session Recording Server	Configure and enable a session recording server. See the "Configuring SIPREC" section of the "Selective Call Recording SIPREC" chapter in the*Call Traffic Monitoring Guide*.
Session Timer Profile	Configure a session timer profile. See "Sip-Config option session-timer-support" and "ACLI Configuration" in the *ACLI Configuration Guide*.
Session Translation	Configure the translation rules for calling and called numbers. See the session translation topics in the "Number Translation" chapter of the *ACLI Configuration Guide*.
SIP Advanced Logging	Configure logging of specific SIP requests by criteria. See "Advanced Logging" in the "Maintenance and Troubleshooting" chapter of the *ACLI Configuration Guide*.
SIP Config	Configure and enable signaling and session management. See the "SIP Signaling Services" chapter of the *ACLI Configuration Guide*.
SIP Feature	Configure SIP option tag parameters. See "SIP Options Tag Handling" in the "SIP Signaling Services" chapter of the *ACLI Configuration Guide*.
SIP Feature Caps	Configure to support SRVCC handover and other ATCF functionality. See "sip-feature-caps" in the *ACLI Reference Guide*.
SIP Interface	Configure and enable a SIP interface. See "SIP Interface Configuration" in the *ACLI Configuration Guide*.
SIP Manipulation	Configure SIP manipulation. See "Configuring SIP Manipulations" in the "SIP Signaling Services" chapter of the *ACLI Configuration Guide*.
SIP Monitoring	Configure and enable SIP monitor and trace features. See the "Introduction to SIP Monitor and Trace" chapter in the *Call Traffic Monitoring Guide*.
SIP Recursion Policy	Configure a recursion policy. See the "SIP Configurable Route Recursion" section of the "SIP Signaling Services" chapter of the *ACLI Configuration Guide*.
Surrogate Agent	Configure a surrogate agent. See the Surrogate Agents topics in the "SIP Signaling Services" chapter of the *ACLI Configuration Guide*.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Survivability	Configure and enable survivability. See the "Remote Survivability" chapter in the *ACLI Configuration Guide*.
Translation Rules	Configure and apply session translation rules to an agent and a realm. See the "Translation Rules" section of the "Number Translation" chapter in the *ACLI Configuration Guide*.

System Configuration Tab Objects

You can configure the following System objects from the Configuration tab on the Web GUI. See the documentation specified in the following list for explanations of these configuration objects and how to set their parameters.

Capture Receiver	Enable and configure a capture receiver. See the "Capture Receiver" section of the *ACLI Reference Guide*.
Fraud Protection	Enable and configure fraud protection. See the "Telephony Fraud Protection" section of the "System Configuration" chapter in the *ACLI Configuration Guide*.
Host Route	Add one or more host routes. See the "Host Routes" section of the "System Configuration" chapter in the *ACLI Configuration Guide*.
HTTP Client	Use to specify the interface and IP address from which the E-SBC makes HTTP requests. See "Configure the HTTP Client" in the *ACLI Configuration Guide*.
HTTP Server	Use to enable the REST API or the Web interface. See "HTTP Server" and "Enable the HTTP Server" in the *ACLI Configuration Guide*.
Network Interface	Add one or more network interfaces. See the "Network Interfaces" section of the "System Configuration" chapter in the *ACLI Configuration Guide*.
Network Parameters	Configure SCTP and TCP parameters for the network. See the "Stream Control Transfer Protocol Overview" and "System TCP Keepalive Settings" sections of the "System Configuration" chapter in the *ACLI Configuration Guide*.
NTP Config	Add one or more NTP servers and authentication servers. See the "NTP Synchronization" section of the "System Configuration" chapter in the *ACLI Configuration Guide*.
Phy Interface	Add one or more physical interfaces. See the "Phy Interfaces" section of the "System Configuration" chapter in the *ACLI Configuration Guide*.
Redundancy Config	Enable redundancy and add one or more peers. See the "SIP Server Redundancy" section of the "SIP Signaling Services" chapter in the *ACLI Configuration Guide*.
SNMP Address Entry	Add one or more SNMP addressees. See "SNMP-Address-Entry" in the *ACLI Reference Guide*.
SNMP Community	Add and specify one or more Simple Network Management Protocol (SNMP) communities. See "SNMP v1 v2 Community Configuration" in the *ACLI Configuration Guide* and "SNMP-Community" in the *ACLI Reference Guide*.

Copyright © 2020, 2026, Oracle and/or its affiliates.

SNMP Group Entry	Add one or more SNMP groups. See "SNMP-Group-Entry" in the *ACLI Reference Guide*.
SNMP User Entry	Add one or more SNMP users. See "SNMP-User-Entry" in the *ACLI Reference Guide*.
SNMP View Entry	Add one or more SNMP views. See "SNMP-View-Entry" in the *ACLI Reference Guide*.
SPL Config	Add an SPL option and one or more plug-ins. See the "SPL Plug-in Language" chapter in the *ACLI Configuration Guide*.
System Access List	Add one or more system access lists. See "System Access List" in the *ACLI Reference Guide*.
System Config	Configure the system settings for MIBS, SNMP functions, syslog servers, comm monitor, and more. See the "System Configuration" chapter in the *ACLI Configuration Guide*.
TDM Config	Enable and configure Time Division Multiplexing (TDM). See the *Time Division Multiplexing Guide*. For the Acme Packet 1100, only.
Threshold Crossing Alert	Configure an alarm threshold type to indicate the resource to monitor. See "Configurable Alarm Thresholds and Traps" section in the "System Configuration" chapter in the *ACLI Configuration Guide*.
Trap Receiver	Add one or more trap receivers. See "Trap Receiver" in the *ACLI Reference Guide*.

Copyright © 2020, 2026, Oracle and/or its affiliates.

7

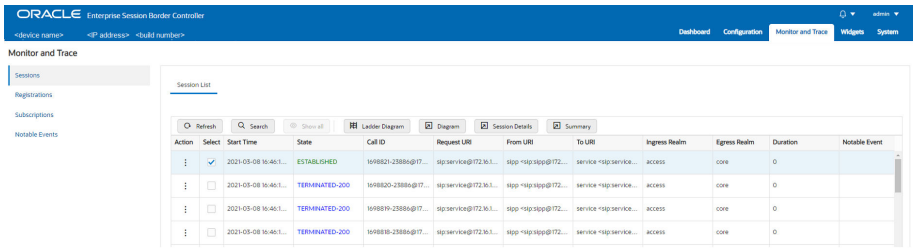
The Monitor and Trace Tab Display and Operations

The Monitor and Trace tab displays links to tools that help you see system and session data on the Oracle® Enterprise Session Border Controller (Enterprise SBC). The Monitor and Trace link provides summary reports that include session data, ladder diagrams of call and media flows, and Quality of Service statistics.

Monitor and Trace

The Monitor and Trace tab displays the results of filtered SIP session data from the Oracle® Enterprise Session Border Controller in categorical lists. Each of the lists displays the results in a common log format for local viewing, which you can export as HTML and text files.

When you click the Monitor and Trace tab, the Web GUI displays links to the available lists in the navigation pane and defaults to Sessions. In the white space below the list, the GUI displays the total number of entries in the list and the numbers of the entries currently in view. The counter is dynamic and changes the enumeration as you scroll through the list. The following screen capture shows the Monitor and Trace default display.

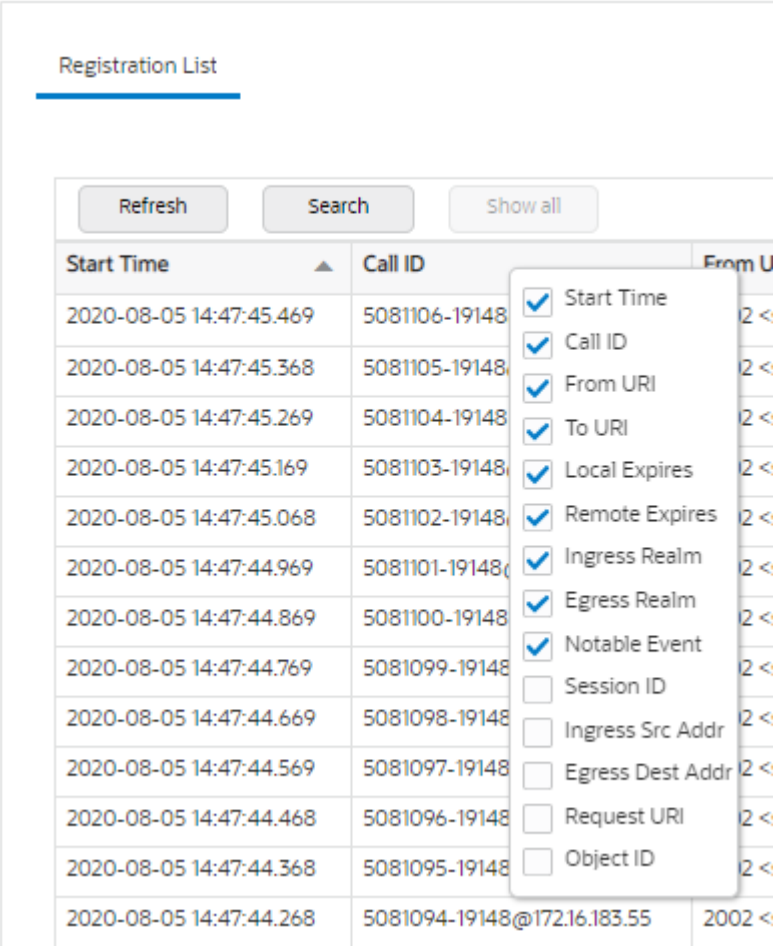


Monitor and Trace supports the following summary reports.

- SIP Sessions Summary
- SIP Registrations Summary
- SIP Subscriptions Summary
- SIP Notable Events Summary

Each summary provides sorting, searching, paging, and exporting functionality, as well as a ladder diagram view where you can see a session summary, session details, and QoS statistics. You can choose which columns that you want each summary list to display by right clicking any column header and selecting column names from the pop-up list. The available column names vary according to the list type.

Copyright © 2020, 2026, Oracle and/or its affiliates.



Monitor and Trace can store messages per session and it can store cumulative sessions across all report types. When the sessions maximum is reached, the system removes the oldest call and adds the newest call.

- On systems with less than 4GB of RAM, the system can store:
  - 50 messages
  - 2,000 sessions
- On systems with more than 4GB of RAM, the system can store:
  - 50 messages
  - 4,000 sessions

The call database does not persist when you change the number of rows in a Ladder Diagram and Save and Activate the change.

The system can perform live paging from Monitor and Trace tables.

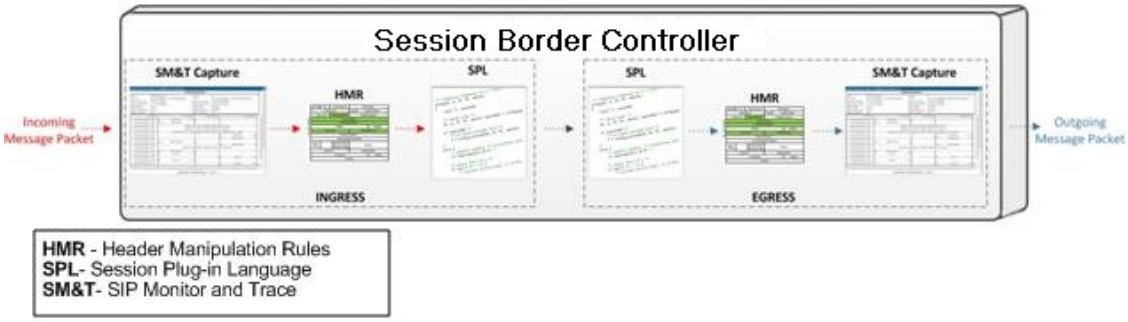
> **Note**
>
> Only one user at a time can view Monitor and Trace information. Monitor and Trace does not support multiple, simultaneous viewers.

Copyright © 2020, 2026, Oracle and/or its affiliates.

SIP Monitor and Trace for Ingress and Egress Messages

SIP Monitor and Trace operations allow the Oracle® Enterprise Session Border Controller (Enterprise SBC) to monitor SIP sessions in your network. The system processes SIP Monitor and Trace data on incoming messages first, and then sends the data out on outgoing messages. This process allows the Enterprise SBC to capture SIP Monitor and Trace data for display in the Web GUI.

The Enterprise SBC captures a SIP message in ingress, applies the Header Manipulation Rules (HMR) that you configured, and applies the Session Plug-in Language (SPL). When the Enterprise SBC sends the message on egress, the Enterprise SBC applies the SPL, applies the HMR, and sends out the captured SIP message.



SIP Sessions Summary

The SIP Sessions Summary summarizes all logged call sessions on the Oracle® Enterprise Session Border Controller (Enterprise SBC). The columns that display on the Sessions Summary page depend on the columns that you specified in the "Customizing the Page Display" procedure.

The following table describes the columns on the SIP Session Summary page.

Start Time	Timestamps of the first SIP message in the call session.
State	Status of the call or media session. Valid values are: INITIAL—Session for which an INVITE or SUBSCRIBE was forwarded. EARLY—Session that received the first provisional response (1xx other than 100). ESTABLISHED—Session for which a success (2xx) response was received. TERMINATED—Session that ended by receiving or sending a BYE for an “Established” session or forwarding an error response for an “Initial” or "Early" session. The session remains in the terminated state until all the resources for the session are freed up. FAILED—Session that failed due to a 4xx or 5xx error code.
Call ID	Identification of the call source. Includes the phone number and source IP address.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Request URI	Uniform Resource Identifier (URI) formatted string that identifies a resource by way of a protocol, name, location, and any other applicable characteristic that is sent by the Enterprise SBC in REQUEST headers.
From URI	URI formatted string that identifies the call source information.
To URI	URI formatted string that identifies the call destination information.
Ingress Realm	Name of the inbound realm.
Egress Realm	Name of the outbound realm.
Duration	Amount of time, in seconds, that the call or media event was active.
Notable Event	Indicates if a notable event has occurred on the call session. Valid values are: Short Session—Sessions that do not meet a minimum configurable duration threshold. Session dialogue, captured media information, and termination signaling. Any event flagged as a short session interesting event. Local Rejection—Sessions locally rejected at the Enterprise SBC for any reason, for example, Session Agent (SA) unavailable, no route found, SIP signaling error, and so on. Session dialogue, capture media information, and termination signaling. Any event flagged as a local rejection interesting event.
Session ID	Identification assigned to the call session.
Ingress Src Addr	Source IP address of the incoming call or media event.
Egress Dest Addr	Destination IP address of the outgoing call or media event.
Calling Pkts	Number of calling packets.
Called Pkts	Number of called packets.
Calling R	Calling packets R-Factor calculation.
Called R	Called packets R-Factor calculation.
Calling MOS	Calling packets Mean Opinion Score (MOS) calculation.
Called MOS	Called packets Mean Opinion Score (MOS) calculation.
Ingress Src Port	Source port of the incoming call or media event.
Object ID	ID number of the object in a row. Use to aid troubleshooting.

SIP Registrations Summary

The SIP Registrations Summary displays a summary of all logged SIP registrations sessions on the Oracle® Enterprise Session Border Controller (Enterprise SBC). The columns that display on the Registrations Summary page depend on the columns you selected in the "Customizing the Page Display" procedure.

The following table describes the columns available on the Registrations Summary page.

Start Time	Timestamp of the first SIP message in the call session.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Call ID	Identification of the call source. Includes the phone number and source IP address.
From URI	URI formatted string that identifies the call source information.
To URI	URI formatted string that identifies the call destination information.
Local Expires	The current setting for the expiration of a registration request sent from the Integrated Media Gateway (IMG) to a Remote SIP User Agent. Default: 3600 seconds.
Remote Expires	The current setting for the expiration of a registration request sent from the Remote SIP User Agent to the Integrated Media Gateway (IMG). Default: 3600 seconds.
Ingress Realm	Incoming realm name.
Egress Realm	Outgoing realm name.
Notable Event	Indicates a notable event that occurred on the call session. Valid value: local rejection - Sessions locally rejected at the E-SBC for any reason (for example, Session Agent (SA) unavailable, no route found, SIP signalling error, etc.); Session dialogue, capture media information and termination signalling; Any event flagged as a local rejection interesting event
Session ID	Identification assigned to the call session.
Ingress Src Addr	Source IP address of the incoming call or media event.
Egress Dest Addr	Destination IP address of the outgoing call or media event.
Request URI	Uniform Resource Identifier (URI) formatted string that identifies a resource with the protocol, name, location, and any other applicable characteristic. The SBC only sends the URI in REQUEST headers.
Object ID	ID number of the object in a row. Use to aid troubleshooting.

SIP Subscriptions Summary

The SIP Subscriptions Report displays a summary of all logged SIP subscription sessions on the Oracle® Enterprise Session Border Controller (Enterprise SBC). The columns that display on the Subscription Report page depend on the columns you selected in the "Customizing the Page Display" procedure.

The following table describes the columns on the Subscriptions Report page.

Start Time	Timestamps of the first SIP message in the call session.
Call ID	Identification of the call source. Includes the phone number and source IP address.
From URI	URI formatted string that identifies the call source information.
To URI	URI formatted string that identifies the call destination information.
Events	Specific subscribe event package that was sent from an endpoint to the destination endpoint. Applicable event packages include the following:

Copyright © 2020, 2026, Oracle and/or its affiliates.

	Conference—Event package that allows users to subscribe to a conference Uniform Resource Identifier (URI). Consent—pending additions - Event package used by SIP relays to inform user agents about the consent-related status of the entries to be added to a resource list. Dialog—Event package that allows users to subscribe to another user, and receive notifications about the changes in the state of the INVITE-initiated dialogs in which the user is involved. Message—summary - Event package that carries message-waiting status and message summaries from a messaging system to an interested User Agent (UA). Presence—Event package that conveys the ability and willingness of a user to communicate across a set of devices. A presence protocol is a protocol for providing a presence service over the Internet or any IP network. Reg—Event package that provides a way to monitor the status of *all* the registrations for a particular Address of Record (AoR). Refer—Event package that provides a mechanism to allow the party sending the REFER to be notified of the outcome of a referenced request. Winfo—Event package for watcher information. It tracks the state of subscriptions to a resource in another package. Vvq-rtcpx—Event package that collects and reports the metrics that measure quality for RTP sessions.
Expires	The current setting for the expiration of a registration request. Default: 3600 sec.
Ingress Realm	Incoming realm name.
Egress Realm	Outgoing realm name.
Notable Event	Indicates that a notable event occurred on the call session. Valid value is: local rejection - Sessions locally rejected at the Enterprise SBC for any reason (for example, Session Agent (SA) unavailable, no route found, SIP signaling error); Session dialogue, capture media information and termination signaling; Any event flagged as a local rejection interesting event
Session ID	Identification assigned to the call session.
State	Status of the call or media session. Valid values are: INITIAL—Session for which an INVITE or SUBSCRIBE was forwarded. EARLY—Session that received the first provisional response (1xx other than 100). ESTABLISHED—Session for which a success (2xx) response was received. TERMINATED—Session that ended by receiving or sending a BYE for an “Established” session or forwarding an error response for an “Initial” or "Early" session. The session remains in the terminated state until all the resources for the session are freed up.

Copyright © 2020, 2026, Oracle and/or its affiliates.

	FAILED—Session unsuccessful due to a 4xx or 5xx error code.
Ingress Src Addr	Source IP address of the incoming call or media event.
Egress Dest Addr	Destination IP address of the outgoing call or media event.
Request URI	Uniform Resource Identifier (URI) formatted string that identifies a resource by way of a protocol, name, location, and any other applicable characteristic, and is sent by the Enterprise SBC in REQUEST headers.
Object ID	ID number of the object in a row. Use to aid troubleshooting.

SIP Notable Events Summary

The SIP Notable Events Summary contains all logged sessions that have a notable event on the Oracle® Enterprise Session Border Controller (Enterprise SBC) associated with the session. The columns that display on the Notable Events Summary page depend on the columns that you selected in the "Customizing the Page Display" procedure.

The following table describes the columns that Notable Events Summary page can display.

Start Time	Timestamp of the first SIP message in the call session.
State	Status of the call or media event session. Valid values: INITIAL—Session for which an INVITE or SUBSCRIBE was forwarded. EARLY—Session received the first provisional response (1xx other than 100). ESTABLISHED—Session for which a success (2xx) response was received. TERMINATED—Session that has ended by receiving or sending a BYE for an “Established” session or forwarding an error response for an “Initial” or Early session. The session remains in the terminated state until all the resources for the session are freed up. FAILED Session that has failed due to a 4xx or 5xx error code.
Call ID	Identification of the call source. Includes the phone number and source IP address.
Request URI	Uniform Resource Identifier (URI) formatted string that identifies a resource through a protocol, name, location, and any other applicable characteristic, and is sent by the Enterprise SBC in REQUEST headers.
From URI	URI formatted string that identifies the call source information.
To URI	URI formatted string that identifies the call destination information.
Ingress Realm	Name of the inbound realm.
Egress Realm	Name of the outbound realm.
Notable Event	Indicates if a notable event has occurred on the call session. Valid values: short session—Sessions that don’t meet a minimum configurable duration threshold; Session dialogue, captured media information and termination signalling; Any event flagged as a short session interesting event.

Copyright © 2020, 2026, Oracle and/or its affiliates.

	local rejection—Sessions locally rejected at the Enterprise SBC for any reason (for example, Session Agent (SA) unavailable, no route found, SIP signalling error, etc.); Session dialogue, capture media information and termination signaling; Any event flagged as a local rejection interesting event.
Session ID	Identification assigned to the call session.
Ingress Src Addr	Source IP address of the incoming call or media event.
Ingress Src Port	Source port of the incoming call or media event.
Egress Dest Addr	Destination IP address of the outgoing call or media event.
Object ID	ID number of the object in a row. Use to aid troubleshooting.

Ladder Diagrams and Display Controls

A ladder diagram is a graphical representation of the flow of call and media packets on ingress and egress routes through the Oracle® Enterprise Session Border Controller (Enterprise SBC). Viewing ladder diagrams can help you with troubleshooting and system monitoring. The Web GUI can display ladder diagrams for each of the summary reports available through Monitor and Trace.

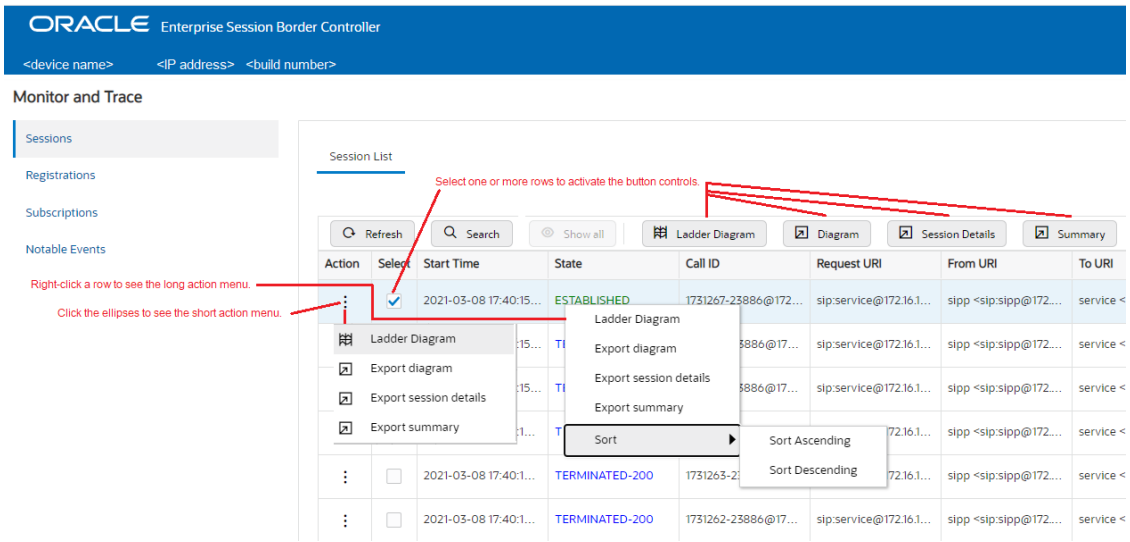
The Enterprise SBC can store up to 4,000 calls on a system with more than 4GB of memory and up to 2,000 calls on a system with less than 4GB of memory. A ladder diagram can display an unlimited number of rows, but the relationship of calls to rows is inverse. The more rows you see per call, the fewer calls the Enterprise SBC can display. You cannot set the number of rows displayed.

To display one or more ladder diagrams, select one or more rows in the Session, Registrations, Subscriptions, or Notable Events lists and click **Ladder Diagram**. The Web GUI adds a tab to the top of the page for each ladder diagram. Click the tabs to see the ladder diagrams.

> **Note**
>
> You can also right-click a row and click **Ladder Diagram** on the pop-up menu or click the ellipses at the beginning of a row and click **Ladder Diagram** on the pop-up menu.

The following illustration shows a sample ladder diagram with notations about the controls for viewing and exporting.

Copyright © 2020, 2026, Oracle and/or its affiliates.



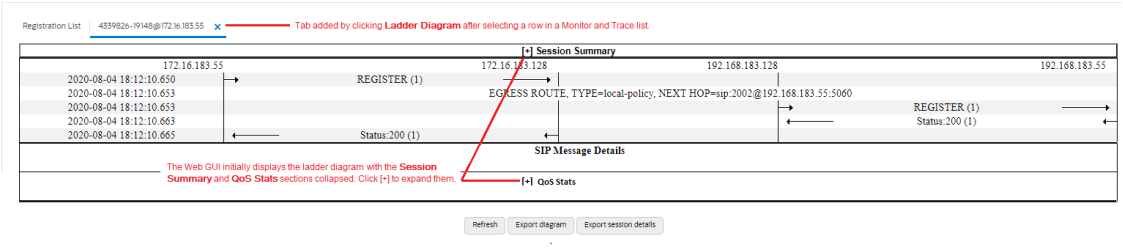
Ladder diagrams contain the following sections.

Session Summary—Displays session data. Use the [+] and [-] controls to toggle between show and hide. The default is hide.

Ladder Diagram—Displays SIP message and call flow information. Hover over a line in the ladder diagram to see more information about the highlighted flow.

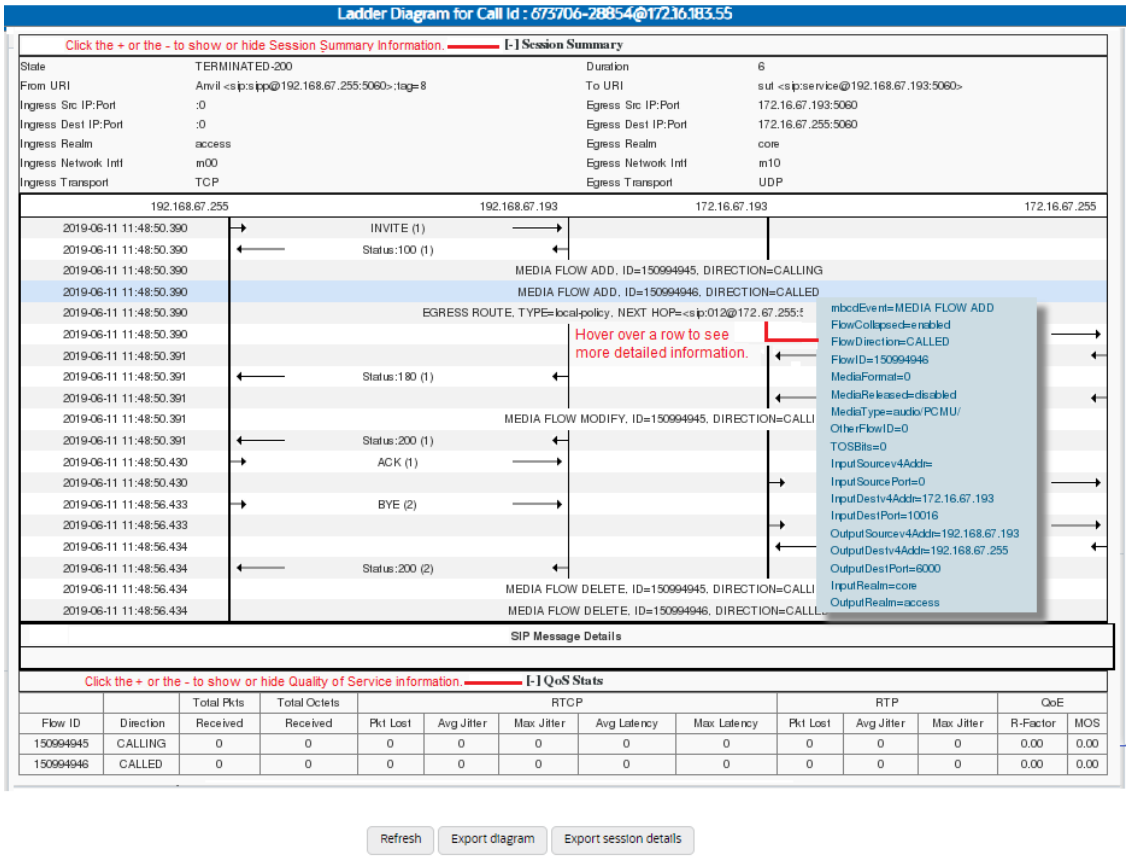
QoS Stats—Displays Quality of Service (QoS) information. Use the [+] and [-] controls to toggle between show and hide. The default is hide. You must enable Quality of Service (QoS) on your system to see the QoS Statistics information.

The following screen capture shows an example of a ladder diagram as initially displayed with the Session Summary and QoS Stats sections hidden.



The following screen capture shows an example of an Enterprise SBC ladder diagram with the Session Summary and QoS sections expanded. This screen capture also shows an example of the pop-up that displays detailed SIP Message Details when you hover over a row in the diagram.

Copyright © 2020, 2026, Oracle and/or its affiliates.



> **Note**
>
> The Enterprise SBC captures SIP messages, applies the Header Manipulation Rules (HMR) that you configured on the Enterprise SBC, and applies the Session Plug-in Language (SPL) to that message. When the Enterprise SBC sends the message, it applies the SPL, the HMR, and sends the captured SIP message. When viewing the session detail on a Ladder Diagram, the HMR and SPL information may be present.

Ladder Diagram Controls

Ladder diagrams display the following controls at the bottom of the page.

Refresh—Use to refresh the data in the ladder diagram.

Export diagram—Use to export the ladder diagram to an HTML file.

Export session details—Use to export the session details to a text file.

Close and Remove Ladder Diagram Tabs

To remove an individual tab you can either click the X on the tab or right-click and click **Remove** on the pop-up menu.

To remove all tabs, right-click a tab and click **Close All** on the pop-up menu.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Display a Ladder Diagram

You can display a ladder diagram of call and media flow data from the Sessions, Registrations, Subscriptions, and Notable events lists in Monitor and Trace. Each list page displays a table, where each row represents one session. You can view a ladder diagram for each session with the following procedure.

The **Monitor and Trace** tab can display multiple ladder diagrams in separate tabs. You can either select multiple rows from the list initially or repeat the procedure later to display more ladder diagram tabs.

1. Access the **Monitor and Trace** tab.
2. On the **Monitor and Trace** tab, select one of the following lists:
   - Sessions
   - Registrations
   - Subscriptions
   - Notable Events
3. On the list page, do one of the following :
   - Double click a row.
   - Select one or more rows and click **Ladder Diagram**.

   The Web GUI adds one or more tabs above the list that you can click to view the contents.
4. (Optional)—On the ladder diagram, click the [+] to expand the Session Summary and QoS Stats sections.
5. (Optional)—Refresh the diagram, export the diagram, or export the session details, using the buttons at the bottom of the page.

Session Summary

To see a Session Summary, open a ladder diagram from a record in a Summary report and click the [+] control that precedes "Session Summary" at the top of the page. Monitor and Trace displays the session data and statistics.

The following screen capture shows a sample Session Summary page generated from a selected item on a ladder diagram.

[-] Session Summary			
State	TERMINATED-200	Duration	47
From URI	sipp <sip:sipp@100.10.30.10:5060>;tag=24	To URI	sut <sip:service@100.10.30.226:5060>;tag=99
Ingress Src IP:Port	100.10.30.10:5060	Egress Src IP:Port	200.20.40.226:5060
Ingress Dest IP:Port	100.10.30.226:5060	Egress Dest IP:Port	200.20.40.17:5060
Ingress Realm	access	Egress Realm	backbone
Ingress Network Intf	access	Egress Network Intf	backbone
Ingress Transport	UDP	Egress Transport	UDP

The following table describes each field in the Session Summary report.

State	Status of the call or media session. Valid values are: INITIAL—Session for which an INVITE or SUBSCRIBE was forwarded.

Copyright © 2020, 2026, Oracle and/or its affiliates.

	EARLY—Session received the first provisional response (1xx other than 100). ESTABLISHED—Session for which a success (2xx) response was received. TERMINATED—Session that has ended by receiving or sending a BYE for an “Established” session or forwarding an error response for an “Initial” or Early session. The session remains in the terminated state until all the resources for the session are freed up. FAILED—Session that has failed due to a 4xx or 5xx error code.
Duration	Amount of time, in seconds, that the call or media session was active.
From URI	URI formatted string that identifies the call source information.
To URI	URI formatted string that identifies the call destination information.
Ingress Src IP:Port	Source IP address and port number of the incoming call or media session.
Egress Src IP: Port	Source IP address and port number of the outgoing call or media session.
Ingress Dest IP:Port	Destination IP address and port number of the incoming call or media session.
Egress Dest IP: Port	Destination IP address and port number of the outgoing call or media session.
Ingress Realm	Incoming realm name.
Egress Realm	Outgoing realm name.
Ingress Network Intf	Name of the incoming network interface on the Oracle® Enterprise Session Border Controller (Enterprise SBC).
Egress Network Intf	Name of the outgoing network interface on the Enterprise SBC.
Ingress Transport	Protocol type used on the incoming call or media session. Valid values are User Datagram Protocol (UDP) or Transport Control Protocol (TCP).
Egress Transport	Protocol type used on the outgoing call or media session. Valid values are User Datagram Protocol (UDP) or Transport Control Protocol (TCP).

Display a Session Summary

You can view data and statistics about a call or media session by displaying the Session Summary from a ladder diagram.

1. Under the **Monitor and Trace** tab, select one of the following summaries:
   - Sessions
   - Registrations
   - Subscriptions
   - Notable Events

Copyright © 2020, 2026, Oracle and/or its affiliates.

2. On the Summary page, select a row in the table and right-click.
3. On the pop-up menu, click Ladder Diagram.
4. (Optional)—On the ladder diagram, click the [+] to expand the Session Summary section.

QoS Statistics

The Quality of Service (QoS) Stats section of the Session Summary displays information about the quality of the service for a selected call session or media event. To see the QoS statistics, open a ladder diagram from a record in a Summary report and click the [+] control that precedes "QoS Statistics" at the bottom of the page.

Expand QoS Stats section with the [+} control.

[-] QoS Stats													
		Total Pkts	Total Octets	RTCP					RTP			QoE	
Flow ID	Direction	Received	Received	Pkt Lost	Avg Jitter	Max Jitter	Avg Latency	Max Latency	Pkt Lost	Avg Jitter	Max Jitter	R-Factor	MOS
100663297	CALLING	0	0	0	0	0	0	0	0	0	0	0.00	0.00
100663298	CALLED	0	0	0	0	0	0	0	0	0	0	0.00	0.00

The following table describes each column in the QoS Stats report.

Flow ID	ID number assigned to the call session or media event flow of data.
Direction	The direction of the call or media event flow. CALLING—egress direction CALLED—ingress direction
Total Pkts Received	Total number of data packets received on the interface during the active call session or media event.
Total Octets Received	Total number of octets received on the interface during the active call session or media event.
RTCP	Real-time Transport Control Protocol—used to send control packets to participants in a call.
Pkts Lost	Number of RTCP data packets lost on the interface during the active call session or media event.
Avg Jitter	Average measure of the variability, called jitter, over time of the RTCP packet latency across a network. A network with constant latency has no jitter. Jitter is referred to as Packet Delay Variation (PDV). It is the difference in the one-way end-to-end delay values for packets of a flow. Jitter is measured in terms of a time deviation from the nominal packet inter-arrival times for successive packets.
Max Jitter	Maximum measure of the variability, called jitter, over time of the RTCP packet latency across a network. A network with constant latency has no variation jitter.
Avg Latency	Average observed one-way signaling latency during the active window period. This is the average amount of time the signaling travels in one direction.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Max Latency	Maximum observed one-way signaling latency during the sliding window period. This is the maximum amount of time the signaling travels in one direction.
RTP	Real-Time Transport Protocol—a standard packet format for delivering audio and video over the internet.
Pkts Lost	Number of RTP data packets lost on the interface during the active call session or media event.
Avg Jitter	Average measure of the variability, called jitter, over time of the RTP packet latency across a network. A network with constant latency has no jitter. Jitter is referred to as Packet Delay Variation (PDV). It is the difference in the one-way end-to-end delay values for packets of a flow. Jitter is measured in terms of a time deviation from the nominal packet inter-arrival times for successive packets.
Max Jitter	Maximum measure of the variability, called jitter, over the time of the RTP packet latency across a network. A network with constant latency has no jitter.
QoE	Quality of Experience—measurement used to determine how well the network is satisfying the end user's requirements.
R-Factor	Rating Factor—An average Quality of Service (QoS) factor observed during the active window period. QoS shapes traffic to provide different priority and level of performance to different data flows. R-Factors are metrics in VoIP that use a formula to take into account both user perceptions and the cumulative effect of equipment impairments to arrive at a numeric expression of voice quality. This statistic defines the call or transmission quality, which is expressed as an R factor.
MOS	Mean Opinion Score (MOS) score—MOS is a measure of voice quality. MOS provides a numerical indication of the perceived quality of the media received after being transmitted and eventually compressed using Codecs.

Display QoS Statistics

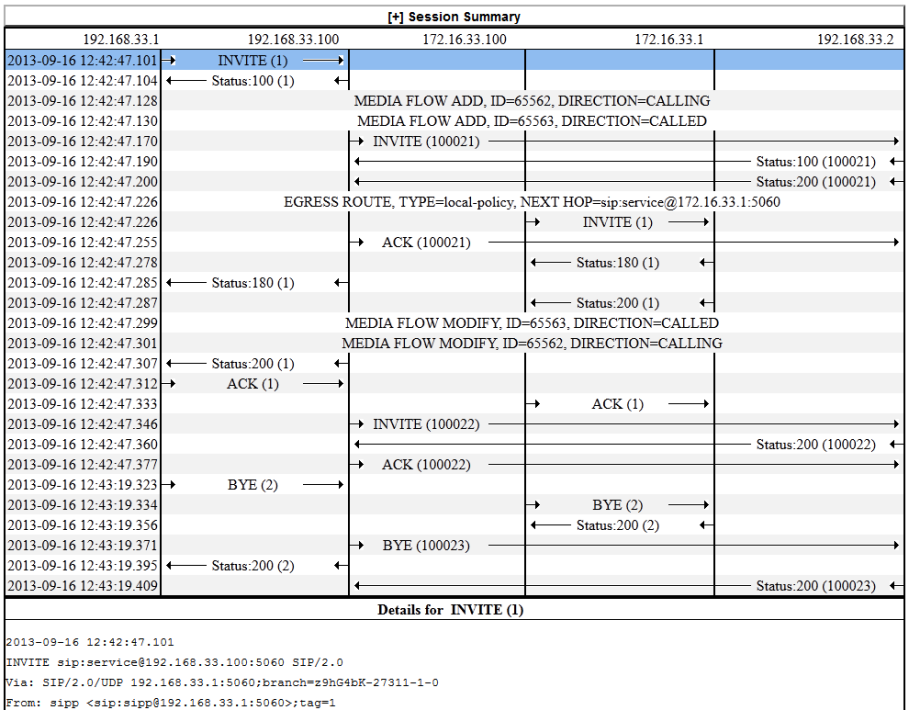
When you want to view QoS statistics for a call or media flow session, you can do so from a ladder diagram in **Monitor and Trace**.

1. Under the **Monitor and Trace** tab, select one of the following summaries:
   - Sessions
   - Registrations
   - Subscriptions
   - Notable Events
2. On the Summary page, select a row in the table and right-click.
3. On the pop-up menu, click Ladder Diagram.
4. On the ladder diagram, click the [+] to expand the **QoS Stats** section.

SIPREC Call Data Example

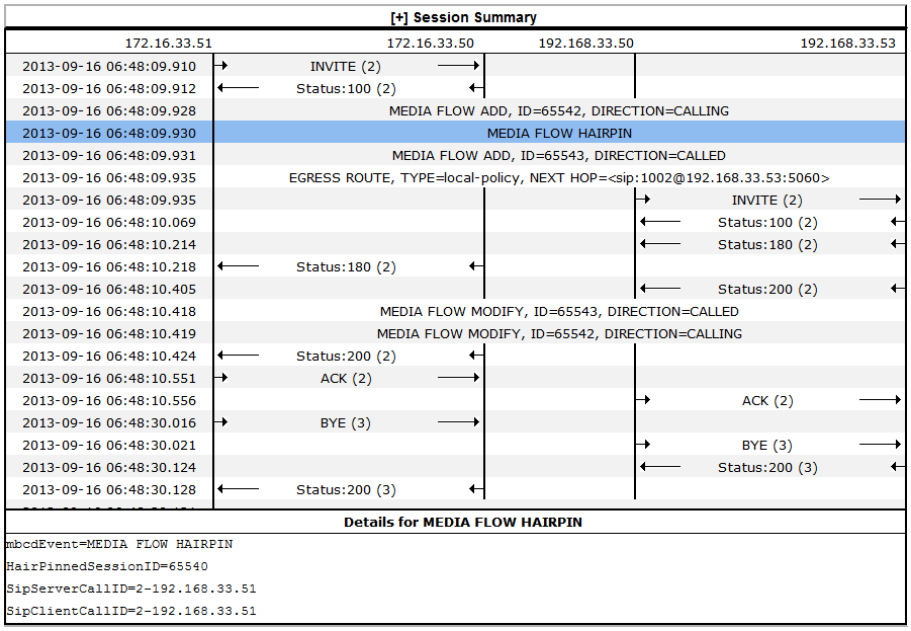
The following example shows SIP Monitor and Trace output for a call with media forwarded by way of SIPREC.

Copyright © 2020, 2026, Oracle and/or its affiliates.



Hairpin Call Data Example

The following example shows SIP Monitor and Trace output for a hairpin call. The Media Flow Hairpin indication is highlighted.



Configure SIP Monitoring

You must enable SIP Monitoring and configure the options for displaying session data and notable event data on the Monitor and Trace page.

- Configure any filters that you want, if you don't want to monitor all SIP traffic. See "Filter Configuration."

Copyright © 2020, 2026, Oracle and/or its affiliates.

The only required setting is State, which enables SIP Monitoring. You can optionally monitor all filters and you can specify one or more filters to monitor. You can specify a time for short session duration monitoring and you can configure interesting events to monitor.

1. Access SIP Monitoring: **Configuration**, **Session Router**, **SIP Monitoring**.
2. On the SIP Monitoring page, do the following.

Match Any Filter	Select to monitor all SIP traffic. Default: Disabled.
State	Select to enable SIP monitoring.
Short Session Duration	Enter a value, in seconds, for the maximum session duration of a short session. Default: 0. Range 0-999999999.
Monitoring Filters	Create a global list of monitoring filters.
Interesting Events	Create a global list of interesting events to monitor. Click **Add**, and do the following: • Type—Select an event type from the drop-down list. Default: None. Valid values: Short Session, Local Rejection. • Trigger Threshold—Set the number of events required to occur in within the trigger window before the system starts monitoring. Default: 0. Range: 0-999999999. • Trigger Timeout—Set the amount of time, in seconds, that the monitoring persists. Default: 0. Range: 0-999999999, • Click **OK**. The system displays the SIP monitoring page.

3. Click **OK**.
4. Save the configuration.

- View the SIP Session Summary and SIP Notable Event Summary on the Monitoring tab.

Search for a Report Record

Use the Search button located above the report table to help you find a specific record in an Oracle® Enterprise Session Border Controller (Enterprise SBC) Monitor and Trace report. When you click Search, the Web GUI displays a dialog where you specify criteria for the search.

You can specify a value for any or all of the fields in the Search field. The search process searches for records with all of the values you specify and displays only the records with all those values. When you perform a Global Search and specify values in other fields, the search process searches the other specified fields first and then filters on the Global Search field.

- If you specify the “*” character in a search string, the search is performed on that exact string. For example, if you search for “123*45”, the search shows results for all strings containing “123*45”.
- You can use quotes (“ “) to specify a search. For example, you can enter Smith and the search finds all of the records that match Smith, such as: John **Smith** field<sip:sipp@192.168.1.70:5070>;tag=12260SIPpTag001.
- When you enter a space before or after a quotation mark, (for example, “Smith “), the search returns no data.

Copyright © 2020, 2026, Oracle and/or its affiliates.

1. On any reports page, click **Search** and do the following in the Search dialog.

Global Search—Search all parameters in all records.	Enter the URI formatted string of the call source information you are searching. Valid values: alpha-numeric characters. For example, sipp<sip:sipp@172.16.34.10:5060;tag=24.
From URI—Search on the From-URI header.	Enter the URI formatted string that contains a protocol, name, location, or any other applicable characteristic, that is sent by the Enterprise SBC in the FROM header. Valid values: alpha-numeric characters. For example, sip:service@172.16.34.226:5060.
Request URI—Search on the Request-URI header.	Enter the URI formatted string that contains a protocol, name, location, or any other applicable characteristic, that is sent by the Enterprise SBC in the REQUEST header. Valid values: alpha-numeric characters. For example, sip:service@172.16.34.226:5060.
To URI—Search on the To-URI header.	Enter the URI formatted string of the call destination information you want to find. Valid values: alpha-numeric characters. For example, sut<sip:service@172.16.34.226:5060;tag=99.
Start Date— Search from messages that start at the specified date and time.	• Enter a starting date to search on in the first text box in the format YYYY-MM-DD (where Y =year, M=month, and D=day). For example, 2012-04-15 would search for all records ending on April 15, 2012. Valid values: numeric characters only. • Enter a start time to search on in the last three text boxes in the format HH mm ss (where H=hour, m=minutes, and s=seconds). For example, 01 30 45 would search for all records starting at 1:30 and 45 seconds. Valid values: numeric characters only.
End Date—Search from messages that end at the specified date and time.	• Enter an end date to search on in the first text box in the format YYYY-MM-DD (where Y =year, M=month, and D=day). For example, 2012-04-15 would search for all records starting on April 15, 2012. Valid values: numeric characters only. • Enter an end time to search on in the last three text boxes in the format HH mm ss (where H=hour, m=minutes, and s=seconds). For example, 01 30 45 would search for all records ending at 1:30 and 45 seconds. Valid values: numeric characters only.
Session ID—Search on the monitored SIP session ID, as shown in the Summary table.	Enter the ID of the call session you want to search. Valid values: alpha-numeric characters. For example, 22-3412@172.16.34.1.
In Call ID—Search on the SIP call ID of the initial received request.	Enter the ID of the incoming call (phone number and source IP address). Valid values: alpha-numeric characters. For example, 25-3412@172.16.34.10.
Out Call ID—Search on the SIP call ID of the first routed request.	Enter the ID of the outgoing call (phone number and IP address). Valid values: alpha-numeric characters. For example, 14-3412@172.14.54.6.

Copyright © 2020, 2026, Oracle and/or its affiliates.

State (with result code)—Search on the state of the call, as shown in the Summary table.	Enter the status of the call session with the result code for which you want to search. Result codes can range from 1xx to 5xx. For example, terminated-200, or failed-400. Case-sensitive. Valid values: • INITIAL—<result code> • EARLY—<result code> • ESTABLISHED—<result code> • TERMINATED—<result code> • FAILED—<result code>
Notable Event—Search on a notable event type that you select from the drop-down list.	Select the notable event that you want to find. Valid values: • any event—Search displays any notable event that was stored in memory. • short session—Search displays only records that indicate a short-session duration occurred. • local rejection— Search displays only records that indicate a local-rejection occurred.
In Realm—Search the realm from which the initial request was received.	Enter the name of the realm to which the incoming call belongs. Valid values: alpha-numeric characters. For example, access.
Out realm—Search the realm to which the first routed request was sent.	Enter the name of the realm to which the outgoing call belongs. Valid values: alpha-numeric characters. For example, backbone.
Destination Agent—Search on the name of the session agent from which the initial request was received.	Enter the name of the session agent (SA) on the incoming call session. Valid values: alpha-numeric characters. For example, SA1.
Destination Session Agent—Search on the realm to which the first routed request was sent.	Enter the name of the session agent (SA) on the outgoing call session. Valid values: alpha-numeric characters. For example, SA2.
Ingress Destination Address—Search on the IP address from which the initial request was received.	Enter the source IP address of the SA that accepted the incoming call session. You must enter the IP Address in dotted decimal format (0.0.0.0). For example, 172.45.6.7.
Egress Destination Address—Search on the IP address to	Enter the destination IP address of the SA that accepted the outgoing call session. You must enter the IP Address in dotted decimal format (0.0.0.0). For example, 172.64.56.7.

Copyright © 2020, 2026, Oracle and/or its affiliates.

which the initial request was sent.	
In Network Interface—Search on the IP address on which the initial*f* request was received.	Enter the incoming core network interface that connects the Enterprise SBC to your network. You must enter the IP Address in dotted decimal format (0.0.0.0). For example, 192.45.6.7.
Out Network Interface—Search on the IP address that was the source for the routed request.	Enter the outgoing network interface that connects theEnterprise SBC to the outside network. You must enter the IP Address in dotted decimal format (0.0.0.0). For example, 192.45.6.8.

2. Click **Search**.

Export Monitor and Trace Information to a Text File

Monitor and Trace allows you to export Monitor and Trace information to a text file from the Sessions, Registrations, Subscriptions, and Notable Events Reports.

To export report information, do one of the following:

- Select a row and click one of the export buttons displayed above the report list.
- Select a row, right click, and click an export operation on the menu.
- Click the ellipses on a row and click an export operation on the menu.

The following list describes the export commands.

Diagram	Exports all of the information in the Ladder Diagram (Session Summary, SIP Message Details, and QoS statistics), to an HTML file format.
Session Details	Exports detailed information about the SIP messages and media events in the Ladder Diagram associated with the selected session, to a file in text format.
Summary	Exports all logged session summary records to a file in text format.

Export Report Information to a Text File

To export information from a Monitor and Trace report to a text file:

> **Note**
>
> The GUI exports Ladder Diagrams as HTML files.

1. Access the **Monitor and Trace** tab.
2. On the Monitor and Trace page, select a report type.
3. On the report Summary page for the selected report type, select a report from the list, right-click, and click one of the following:
   - Click **Export diagram**.
   - Click **Export session details**.

Copyright © 2020, 2026, Oracle and/or its affiliates.

- Click **Export summary**.

The system downloads the report in a file at the bottom of your screen.

Copyright © 2020, 2026, Oracle and/or its affiliates.

8

The Widgets Tab Display and Operations

The Web GUI displays the Widgets tab, which you can use to access graphical views of System, Media, and Signaling data about the Oracle® Enterprise Session Border Controller and a few configuration dialogs. The views, called Widgets, correspond to an Acme Command Line Interface (ACLI) **show** command.

On the Widgets tab, you can click links to the Widgets you want to see and add Widgets to the Dashboard and Favorites list.

Topics:

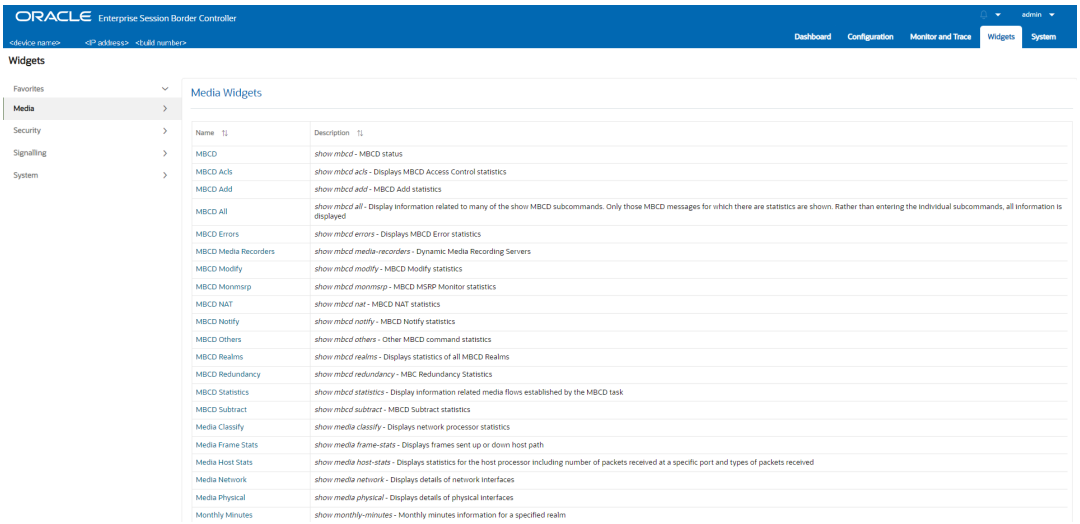
- Widget Access and Behavior

Widget Access and Behavior

In the navigation pane, the Widgets tab displays links to the Media, Security, Signaling, and System groups along with a link to your self-created Favorites list.

The Widgets tab provides two ways to navigate to the Widget you want to see.

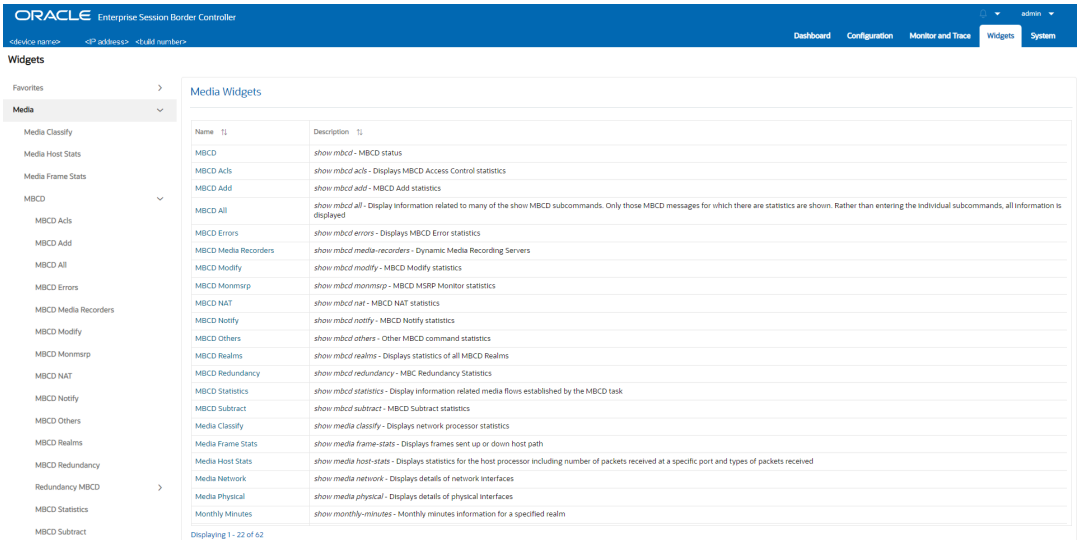
- Click a group link in the navigation pane. The Web GUI lists all the Widgets in the group in the center pane with a link to each one, the corresponding ACLI show command, and a description. Scroll to see them all. When you click a link in the center pane, the Web GUI displays the data for the specified Widget. The following screen capture shows an example.



- Click the twister to the right of the group name in the navigation pane. The Web GUI lists all the Widgets in the group beneath the group name in the navigation pane, with a link to each one. Scroll to see them all. When you click a link in the navigation pane, the Web GUI displays the data for the specified Widget. The following screen capture shows the Media group expanded.

Copyright © 2020, 2026, Oracle and/or its affiliates.

> **Note**
>
> The Web GUI also displays all the Widgets for the group in the center pane.



Each Widget displays management controls in the upper right corner of the Widget. The Web GUI displays only the controls that apply to the selected Widget.

To learn what each control does, hover over the control. The following list describes the Widget controls.

1. Refresh—Updates the data in the Widget.
2. Settings—Displays the Settings Page where you set the auto-refresh interval and any other parameters that apply to the particular Widget.
3. Export—Sends the Widgets XML file to the location you specify. For example, you can save the Widgets XML file locally and upload it to another Session Border Controller. In this way, both SBCs show the same array of Widgets on the Dashboard.
4. Add—Adds this Widget to the Dashboard.
5. Favorites—Adds this Widget to your Favorites list on the Widgets tab.
6. Show Information—Describes the data display. For example, in the Current Memory Usage Widget, the information icon says, "Pie graph displays current percentage of free and allocated memory."

Copyright © 2020, 2026, Oracle and/or its affiliates.

9

The System Tab Display and Operations

The System tab provides links to system-wide file management and configuration dialogs for the Oracle® Enterprise Session Border Controller (Enterprise SBC). When you first configure the Enterprise SBC, you need to set boot parameters and licenses, for example. After running the Enterprise SBC, you might want to see Audit Logs or add an SPL Plug-in, for example. The System tab divides such tasks into groups called File Management and System Operations. Each group displays links to tasks you might want to perform.

Topics:

- Configuration Assistant Operations
- Force an HA Switch Over
- System Restart
- Obtain Support Information - Chrome Browser
- Obtain Support Information - Firefox Browser

Configuration Assistant Operations

When you first log on to the Oracle® Enterprise Session Border Controller (Enterprise SBC), the system requires you to set the configuration parameters necessary for basic operation. To help you set the initial configuration with minimal effort, the Enterprise SBC provides the Configuration Assistant to lead you through the configuration process. The Configuration Assistant asks you questions based on a selectable template and uses your answers to set the necessary parameters. You can use the Configuration Assistant for the initial set up as well as for subsequent changes that you want to make to the basic configuration.

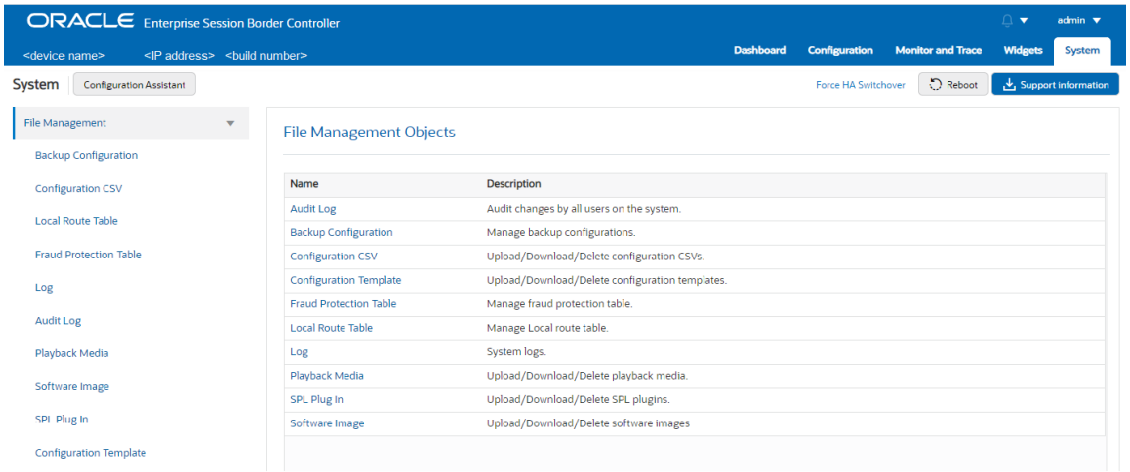
The Enterprise SBC provides many additional configurable features and functions that do not require configuration to get the system running initially. You can configure the additional features and functions through the Dashboard, Configuration, Monitor and Trace, Widgets, and System tabs on the Web GUI after running the Configuration Assistant. You can also edit any of the settings, including those for the initial configuration, through the Web GUI tabs without running the Configuration Assistant again. If you want to re-run the Configuration Assistant as an easier way to update the configuration than to navigate through the configuration object tree, click the **Configuration Assistant** button on the System tab in the Web GUI.

System File Management Types and Descriptions

After using the Oracle® Enterprise Session Border Controller (Enterprise SBC), you might want to view and manage some of the system-wide files. For example, you might want to see the Audit Log or refresh the Fraud Protection Table. You can find links to such tasks under the File Management heading on the System tab.

The following screen capture shows the list of File Management links on the System tab.

Copyright © 2020, 2026, Oracle and/or its affiliates.



The following table lists the file type, formats, and description of the files you can manage from the System tab.

File Type	Format	Description
Audit Log	Text	Contains Log files with information about the various aspects of the Enterprise SBC. For example, information logged about the ACLI, SIP, or H323. Note: Only the Download and Delete functions are applicable to log files on the Enterprise SBC.
Backup Configuration	.gz	Contains a backup of the Enterprise SBC software configuration. You can apply this file to restore a previous configuration.
Configuration CSV	.csv	Contains Comma Separated Value configuration files that you can upload.
Configuration Template	.gz	Upload, download, and delete configuration templates.
Fraud Protection Table	.gz, .gzip, .xml	Contains fraud protection files that you can upload, download, delete, or open to modify.
Local Route Table (LRT)	.xml.gz	Contains the Local Routing Table (LRT) file that you can apply to theEnterprise SBC. The LRT is an in-memory table that contains IP addresses that the local router recognizes. It calculates the destinations of messages it is responsible for forwarding.

Copyright © 2020, 2026, Oracle and/or its affiliates.

File Type	Format	Description
Log	Text	Contains Log files with information about the various aspects of the Enterprise SBC. For example, information logged about the ACLI, SIP, or H323. Note: Only the Download and Delete functions are applicable to log files on the Enterprise SBC.
Playback Media	Any media format valid in an RTP audio stream	Contains call progress playback files. The Enterprise SBC can use these files in generated media streams. Note: The media files are raw binary files that contain data for the codec that you want played in the media stream. The Enterprise SBC plays the data on the first audio flow in the Session Description Protocol (SDP).
Software Image	.bz or .tar	Contains bootable images.
SPL Plug-in	.lua or .spl	Contains a Session Plug-in Language (SPL) file that you can apply to the Enterprise SBC to incorporate additional functionality. The SPL file contains a programming language capable of performing various tasks by utilizing APIs and callbacks in the Enterprise SBC. Note: Before you select the Activate option during the upload, confirm that the following condition is met. You must add a Session Border Controller Programming Language (SPL) plug-in file to the spl-config element before the system can execute the plug-in. The system ignores any SPL plug-in that exists in the /code/spl directory that is not included in the spl-config element.

The following table lists and describes the file management controls that display in the system file type dialogs, according to the supported behavior for the file type.

Control	Description
Refresh	Updates the screen to display the latest data.
Add (Fraud Protection files, only.)	Adds a new Fraud Protection file.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Control	Description
Upload	Uploads a file from your server or PC to the Enterprise SBC. The LRT, SPL, and backup configuration upload process provides the option of dynamically applying these files to the Enterprise SBC. The only non-alphabetical characters allowed in file names for upload are parens, full stop, and space. The system verifies that the file name syntax is correct before uploading and displays an error message when the syntax is incorrect.
Download All (Log files, only.)	Downloads all Log files from the Enterprise SBC to your local server or PC (typically to the download directory on your system).
Download	Download a single file or a group of selected files from the Enterprise SBC to your local server or PC (typically to the download directory on your system).
Backup	Creates a file that contains a backup of the device software configuration. You can apply this file to restore a previous configuration.
Restore (Backup configuration files, only.)	Restores and applies a Backup configuration file to the Enterprise SBC.
Delete	Delete a single file or a group of selected files from the Enterprise SBC.
Delete All (Log files, only.)	Deletes all Log files from the Enterprise SBC.

Buttons and Controls on File Management Pages

Each File Management page displays a set of buttons and controls for managing the information. The buttons and controls that display vary according to the purpose of the page.

The following tables show you which buttons and controls apply to each file type.

File Management Buttons

The following table provides a quick reference for finding which buttons apply to the system files that you can manage.

Table 9-1 File management buttons available by file type

	Refresh	Upload	Backup	Add	Delete All	Delete	Download	Download All	Restore
Backup	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes
Configuration CSV	Yes	Yes	No	No	No	No	No	No	No
Local Route Table	Yes	Yes	No	No	No	No	No	No	No
Fraud Protection Table	Yes	Yes	No	Yes	No	No	No	No	No
Log	Yes	No	No	No	Yes	No	No	Yes	No

Copyright © 2020, 2026, Oracle and/or its affiliates.

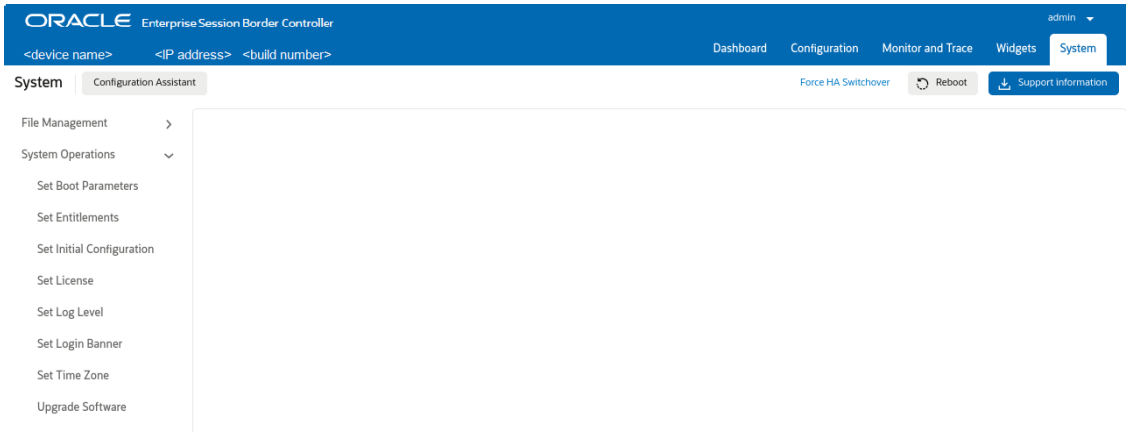
Table 9-1 (Cont.) File management buttons available by file type

	Refresh	Upload	Backup	Add	Delete All	Delete	Download	Download All	Restore
Audit Log	Yes	No	No	No	No	No	No	No	No
Playback Media	Yes	Yes	No	No	No	No	No	No	No
Software Image	Yes	Yes	No	No	No	No	No	No	No
SPL Plug-in	Yes	Yes	No	No	No	No	No	No	No
Configuration Template	Yes	Yes	No	No	No	Yes	Yes	No	No

System Operations Configuration

When configuring the Oracle® Enterprise Session Border Controller (Enterprise SBC), you must configure certain settings that affect the system globally. For example, boot parameters and licenses. You can find links to such tasks under the System Operations heading on the System tab.

The following screen capture shows the list of System Operations links on the System tab.



The following table describes the System Operations configurations you can set from the System tab.

Configuration	Description
Set Boot Parameters	Specify the boot file and the boot parameters.
Set Entitlements	Set the number of sessions that a license entitles you to, and enable advanced features.
Set Initial Configuration	Configure a new Enterprise SBC or reconfigure an existing one. Includes configuring High Availability.
Set License	Enter the license number for a feature that requires a license.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Configuration	Description
Set Log Level	Set the Process and Log Level you want. Note: You cannot set the following log tasks through the Web GUI. You must use the ACLI command line. • authqueue • fragHandler • healthCheckd • heap • SSHD • tIFMIBd On the ACLI, go to system-config where you can configure system-log-level and process-log-level. Note: When you set the process level or system log level to DEBUG, the Web GUI may not display any configuration information for large configurations when you click "View Configuration".
Set Login Banner	Customize the text on the Web GUI log on banner.
Set Time Zone	Set the time zone for the deployment.
Upgrade Software	Upload a newer version of the software and bootloader. When you upload the boot file, the system • renames the file to bootloader and uploads it to /boot path. • backs up the existing bootloader to /code/images path with name bootloader.backup. • verifies the uploaded boot file is verified and displays a message if verification is unsuccessful. Note: Oracle recommends using the corresponding software image and bootloader when upgrading.

Force an HA Switch Over

You can manually initiate a High Availability (HA) switch over from the Web GUI to reverse the roles of the active and standby peers in an HA pair.

- The Oracle® Enterprise Session Border Controller (Enterprise SBC) from which you initiate the switch over must be in one of the following states: active, standby, or becoming standby.
- A manual switch over to the active state is allowed on an Enterprise SBC only in the standby or becoming standby state when it has achieved full media, signaling, and configuration synchronization.
- A manual switch over to the active state is allowed on an Enterprise SBC only in the standby or becoming standby state when it has a health score above the value that you configured for the threshold.

The following procedure forces the Enterprise SBCs in an HA pair to trade roles. The active system becomes the standby, and the standby system becomes active.

1. Access Force HA Switchover: **System**, **Force HA switchover**.
2. Click **Force HA switchover**.

Copyright © 2020, 2026, Oracle and/or its affiliates.

The system displays the **Confirm** dialog.

3. Click **Confirm**.
4. On the Force HA switch over page, click **Switch to standby**.

   The system performs the role change.

System Restart

You can manually restart the Oracle® Enterprise Session Border Controller (Enterprise SBC) from the Web GUI. If you have a High Availability (HA) deployment, connectivity to the standby Enterprise SBC stops until the restart completes.

When the restart completes, the active and standby systems each display the log on screen and you must manually log on to each system.

> **Note**
>
> When you restart the system from the Web GUI, the Web GUI is unavailable until the restart completes.

When you perform a restart from the Web GUI	The system behaves
and no boot is in process and the system is not switching over to the standby system of an HA pair,	the GUI session closes and the system displays the Log On screen. You cannot log on to the Web GUI until the restart completes on the Enterprise SBC.
and a restart is already in progress,	the system displays a message stating that a restart cannot occur. The first restart must complete before another restart is initiated.
and the active system is currently switching over to the standby system in an HA environment,	the system displays a message stating that a restart cannot occur because the HA switch over is underway. The standby Enterprise SBC is updating and getting its configuration from the active Enterprise SBC.

Obtain Support Information - Chrome Browser

You can manually generate a file by way of the Web GUI that contains troubleshooting information. You can save the file and send it to Oracle Customer Support.

(Optional)To <manage/change/do something>:

1. Access Support Information: **System**, **Support Information**
2. Click **Support Information**.

   The system displays the confirmation dialog.
3. Click **Confirm**.

   The system generates and downloads the file to your system. You may see it in the lower, left corner of your monitor.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Obtain Support Information - Firefox Browser

You can manually generate a file by way of the Web GUI that contains troubleshooting information. You can save the file and send it to Oracle Customer Support.

1. Access Support Information: **System** tab, **Support Information**.
2. Click **Support Information**.

   The system displays the confirmation dialog.
3. Click **Confirm**.

   The system generates the file.
4. The browser asks you to do one of the following:

   The system generates and saves the file to the Download directory or to another location that you specify.

Copyright © 2020, 2026, Oracle and/or its affiliates.

A

Keyboard Commands and Shortcuts for the Enterprise SBC Web GUI

You can use the following keyboard commands and shortcuts to navigate and operate the Oracle® Enterprise Session Border Controller (Enterprise SBC) Web GUI.

Navigate between screen elements

Action	Keyboard Command	Behavior
Navigate forward between screen elements.	Tab	Navigate top to bottom and left to right between tab groups.
Navigate backwards between screen elements.	Shift+Tab	Navigate bottom to top and right to left between tab groups.

Navigate within screen elements

Action	Keyboard Shortcut	Behavior
Navigation within a tab group.	Up Arrow or Down Arrow	Highlight the component in the direction of the arrow.

Navigate drop-down lists

Action	Keyboard Shortcut	Behavior
Trigger a drop-down list.	Up Arrow or Down Arrow	Highlight the option item in the direction of the arrow. When the drop-down is not open, expand the drop-down list.
Select a drop-down element	Enter	Select the highlighted choice from the drop-down list.
Close the drop-down list	Esc	Collapse the drop-down list. When the drop-down is closed, do nothing.
The focus on drop-down list	Tab In	Move the focus to the previous or next selected item.

Select many

Action	Keyboard Shortcut	Behavior
Select box in a select many component.	Left Arrow or Right Arrow	Move the focus to the previous or next selected item.
Selected item with remove icon in a select many component.	Backspace or Delete	Remove the selected item.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When the focus is on a table column header

Keyboard Shortcut	Behavior
Tab	Navigate to next the focusable element on the page (outside table).
Shift+Tab	Navigate to previous the focusable element on the page (outside table).
Down Arrow	Move the focus to the first row.
Left Arrow	Move the focus to the previous column header. When there is no previous column, do nothing.
Right Arrow	Move the focus to the next column header. When there is no next column, do nothing.
Home	Move the focus to the first column header.
End	Move the focus to the last column header.

When the focus is on a cell in a table

Keyboard Shortcut	Behavior
Tab	When the focus is on a row and the row is actionable, Tab moves the focus to the next the focusable element within the row. When the focus is already on the last the focusable element, the focus wraps to the first the focusable element in the row.
Shift+Tab	When the focus is on a row and the row is actionable, Shift+Tab moves the focus to the previous the focusable element within the row. When the focus is already on the first the focusable element, the focus wraps to the last the focusable element in the row.
Down Arrow	Move the focus to the next row.
Shift+Down Arrow	Select and move the focus to the next row, if the row is selectable.
Up Arrow	Move the focus to the previous row. When already at the first row, move to the column header.
Home	Move the focus to the first row.
End	Move the focus to the last row.
Space	Select a row, if the row is selectable.
Enter	If the table edit Mode is row Edit, then make the current row editable. When the table edit Mode is none, toggle the current row to actionable mode if there exists a tabbable element in the row. Once toggled to the actionable mode, the focus moves to be first tabbable element in the row.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When the cell in focus is in an editable row

Keyboard Shortcut	Behavior
Tab	Move the focus to the next editable cell or the focusable element in the row. When the focus is on the last editable cell or the focusable element in the row, make the next row editable and move the focus to the first editable cell or the focusable element in the next row. When the focus is on the last editable cell or the focusable element in the last row, move the focus to the next the focusable element on the page (outside of the table).
Shift+Tab	Move the focus to the previous editable cell or the focusable element in the row. When the focus is on the first editable cell or the focusable element in the row, make the previous row editable and move the focus to the last editable cell or the focusable element in the previous row. When the focus is on the first editable cell or the focusable element in the first row, move the focus to the previous the focusable element on the page (outside of the table).
Enter	Make the next row editable and move the focus to the editable cell in current column in the next row. When enter is pressed when in the last editable row, make it read only.
Shift+Enter	Make the previous row editable and move the focus to the editable cell in current column in the previous row. When enter is pressed when in the last editable row, make it read only.
F2	Toggle the current row between editable and read only.
Esc	Make the current row read only.

Sort on a column

Action	Keyboard Shortcut	Behavior
Sort on a column.	Enter	When the column is sortable it will sort the column, or else do nothing.

Access a context menu

Action	Keyboard Shortcut	Behavior
To access context menu.	Shift+F10	Opens the context menu when it is available on the focused component.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Move a scroll bar in a table

Action	Keyboard Shortcut	Behavior
Scroll	Up Arrow or Down Arrow	Moves the scroll bar in the direction of the arrow.
When the focus is on any other component, to scroll.	Shift + Up Arrow or Down Arrow	Moves the scroll bar in the direction of the arrow.

When the focus is on a collapsible header

Keyboard Shortcut	Behavior
Space or Enter	Toggle disclosure state.
Tab	Navigate to the next collapsible header and when there is none, go to the next element on the page.
Shift+Tab	Navigate to the previous collapsible header and when there is none, go to the previous element on page.
Up Arrow or Left Arrow (Right Arrow in RTL)	Move the focus to the previous collapsible header with wrap around.
Down Arrow or Right Arrow (Left Arrow in RTL)	Move the focus to the next collapsible header with wrap around.
Home	Move the focus to the first collapsible header.
End	Move the focus to the last collapsible header.

When the focus is on a button

Keyboard shortcut	Behavior
Enter or Space	Push the button or Toggle the button or Open the menu depends on type of button.
Esc	Closes the menu.

When the focus is on a chart

Keyboard shortcut	Behavior
Tab	Move the focus to next element.
Shift + Tab	Move the focus to previous element.
Up Arrow	Move the focus and selection to the previous data item.
Down Arrow	Move the focus and selection to the next data item.
Left Arrow	Move the focus and selection to the previous data item on the left.
Right Arrow	Move the focus and selection to the next data item on the right.
Page Up	Pan up when scrolling is enabled.
Page Down	Pan down when scrolling is enabled.
Enter	Drill down on a data item, categorical axis label, or legend item when drilling is enabled.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When the focus is on check box set

Keyboard Shortcut	Behavior
Tab In	Set the focus to the first item in the focusable check box in the check box set. Disabled check boxes are not focusable. If hints, Help Instruction, or messages exist in a note window, pop up the note window.

When the focus is on a check box

Keyboard Shortcut	Behavior
Space	Toggles the check box. When the check box is unselected, it will select it and vice versa.
Tab	Sets the focus to the next the focusable check box in the check box set. Disabled check boxes are not the focusable. When the target is the last the focusable check box in the check box set, the focus goes to the next the focusable item after the check box group.
Shift+Tab	Sets the focus to the previous focusable check box in the check box set. Disabled check boxes are not the focusable. If the target is the first focusable check box in the check box set, the focus goes to the previous focusable item before the check box group.

When working in a dialog

Action	Keyboard shortcuts	Behavior
When the focus is on a dialog	Esc	Close the dialog.
When the focus is on a dialog close icon	Enter or Space	Close the dialog.

When the focus is on a file picker

Keyboard shortcut	Behavior
Enter	Launch the browser's file picker.

When the focus is on a date input element

Keyboard shortcut	Behavior
Down Arrow or Up Arrow	Shows the calendar grid and moves the focus into the expanded grid.
Esc	Close the grid.
Tab In	Set the focus to the input. If hints, title or messages exist in a note window, pop up the note window.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When the focus is on a picker

Keyboard shortcut	Behavior
Enter	Select the currently the focused day.
Up Arrow	Move up in the grid.
Down Arrow	Move down in the grid.
Right Arrow	Move right in the grid.
Left Arrow	Move left in the grid.
Esc	Close the grid.
Home	Move the focus to first day of the month.
End	Move the focus to last day of the month.
Page Up	Switch to previous month.
Page Down	Switch to next month.
Alt + Page Up	Switch to previous year.
Alt + Page Down	Switch to next year.
Ctrl + Alt + T	Places the focus on Today button if it exists.

When working with input number elements

Keyboard Shortcut	Behavior
Enter or Tab	Submit the value you typed in the input field.
Tab In	Set the focus to input. Show user assistance text. This may be inline or in a note window depending upon the theme and property settings.
Up Arrow	Increment the number.
Down Arrow	Decrement the number.

When working with other input elements

Action	Keyboard shortcut	Behavior
When the focus is on input password element	Tab In	Set the focus to the input. Show user assistance text. This may be inline or in a note window depending upon theme and property settings.
When the focus is on input text element	Tab In	Set the focus to the input. Show user assistance text. This may be inline or in a note window depending upon theme and property settings.
When the focus is on input time element	Down Arrow or Up Arrow	Shows the time picker and moves the focus into the expanded time picker.
When the focus is on input time element	Tab In	Set the focus to the input. If hints, title or messages exist in a note window, pop up the note window.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When the focus is on a Help icon

Keyboard shortcut	Behavior
Enter	If there is a URL associated with the Help icon, navigate to the URL.
Tab In	Show the help definition in a pop up.

When the focus is on a list item

Keyboard shortcut	Behavior
F2	Enters Actionable mode. This enables keyboard action on elements inside the item, including navigate between the focusable elements inside the item.
Esc	Exits Actionable mode.
Tab	When in Actionable Mode, navigates to next the focusable element within the item. When the last the focusable element is reached, shift the focus back to the first the focusable element. When not in Actionable Mode, navigates to next the focusable element on a page outside of List View.
Shift+Tab	When in Actionable Mode, navigates to previous the focusable element within the item. When the first the focusable element is reached, shift the focus back to the last the focusable element. When not in Actionable Mode, navigates to previous the focusable element on a page outside of List View.
Down Arrow	Move the focus to the item below.
Up Arrow	Move the focus to the item above.
Left Arrow	When the display is in card layout, move the focus to the item on the left.
Right Arrow	When the display is in card layout, move the focus to the item on the right.
Shift+Down Arrow	Extend the selection to the item below.
Shift+Up Arrow	Extend the selection to the item above.
Shift+Left Arrow	When the display is in card layout, extend the selection to the item on the left.
Shift+Right Arrow	When the display is in card layout, extend the selection to the item on the right.
Shift+F10	Launch the context menu when there is one associated with the current item.
Enter	Selects the current item. No operation when the item is already selected.
Space	Toggles to select and deselect the current item. When previous items are selected, deselects them and selects the current item.
Shift+Space	Selects contiguous items from the last selected item to the current item.
Ctrl+Space	Toggles to select and deselect the current item while maintaining previous selected items
Ctrl+X	Marks the selected items to move if drag and drop reorder is enabled.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Keyboard shortcut	Behavior
Ctrl+C	Marks the selected items to copy if drag and drop reorder is enabled.
Ctrl+V	Paste the items that are marked to directly before the current item or as the last item if the current item is a folder.

When the focus is on a group item

Keyboard shortcut	Behavior
Left Arrow	Collapse the current item if it is expanded and is collapsible. For non-hierarchical data, do nothing.
Right Arrow	Expand the current item if it has children and is expandable. For non-hierarchical data, do nothing.

When the focus is on menu item

Keyboard shortcut	Behavior
Enter or Space	Invoke the focused menu item's action.
Up Arrow	Move the focus to the previous menu item, wrapping around at the top.
Down Arrow	Move the focus to the next menu item, wrapping around at the bottom.
Home	Move the focus to the first menu item.
End	Move the focus to the last menu item.
Esc	Close the menu and move the focus to the launcher when the focus is on top level menu.

When working with a JET Component or HTML Element having a JET Context Menu

Keyboard Shortcut	Behavior
Shift + F10	Open the context menu

When working with message elements

Action	Keyboard Shortcut	Behavior
When the focus is on a message	Esc	Close the message.
When the focus is on a Message Close Icon	Enter or Space	Close the message.
When the focus is within Messages	Tab or Shift + Tab	Navigate the content of the messages region.
When the focus is within Messages	F6	Moves the focus back to the last the focused element outside the messages region.
When the focus is within Messages	Esc	Moves the focus back to the last the focused element outside the messages region.
When the focus outside Messages	F6	Move the focus to the first message within the more recently disclosed messages region.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When the focus is on a navigation list item

Keyboard shortcut	Behavior
Enter or Space	Selects list item.
Up Arrow	Moves the focus to the previous visible list item.
Down Arrow	Moves the focus to the next visible list item.
Right Arrow (Left Arrow in RTL)	For horizontal navigation list, moves the focus to the next visible item.
Left Arrow (Right Arrow in RTL)	For horizontal navigation list, moves the focus to the previous visible item.
Home	Moves the focus to the first visible list item.
End	Moves the focus to the last visible list item.
F2	When the focus is on a list item, pressing F2 makes its contents accessible using TAB.
Esc	When F2 mode is enabled, press Esc to exit F2 mode.
Shift +Tab	Move the focus to a hierarchical menu button. Applicable only for a sliding navigation list and when a hierarchical menu button is enabled.

When working with other navigation list elements

Action	Keyboard shortcut	Behavior
When the focus is on navigation Group Item	Right Arrow (Left Arrow in RTL)	When the focus is on a collapsed node, expands the sub list.
When the focus is on navigation Group Item	Left Arrow (Right Arrow in RTL)	When the focus is on an expanded node, collapses the sub list.
When the focus is on List Item in sublist	Esc	Applicable only for a sliding navigation list. When the focus is in a sub list, closes the sublist and moves the focus to the parent list item.
When the focus is on Hierarchical Menu button	Enter	Open menu. Note: This target is visible only for a Sliding Navigation List.
When the focus is on Hierarchical Menu button	Tab	Moves the focus to the current list item. Note: This target is visible only for a Sliding Navigation List.
When the focus is on Hierarchical Menu button	Shift + Tab	Moves the focus to the Previous Icon. Note: This target is visible only for a Sliding Navigation List.
When the focus is on Previous Icon or List Header	Enter	Collapses the sublist and slides to the parent list. Note: This target is visible only for a Sliding Navigation List.
When the focus is on Previous Icon or List Header	Tab	Moves the focus to the Hierarchical Menu button. Note: This target is visible only for a Sliding Navigation List.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When working with page control elements

Action	Keyboard shortcut	Behavior
When the focus is Page Control	Tab in	Set the focus to the input.
When the focus is on Arrow Page Navigation	Tab	Set the focus to the first, previous, next, or last page arrow.
When the focus is on Numbered Page Links	Tab	Set the focus to the page link.

When the focus is within a pop up or on a pop up launcher

Keyboard shortcut	Behavior
Tab or Shift Tab	Navigate the content of the pop up. Close the open pop up if there are no tab stops in the pop up.
F6	Move the focus to the launcher for a pop up with mode-less modality. Close the open pop up if the modality is modal.
Esc	Close the open pop up.
F6	Move the focus to the first tab stop within the open pop up. If there is not a tab stop within the content, the focus is established on the pop up.

When the focus is on a radio button

Keyboard shortcut	Behavior
Up Arrow	Select the previous input in the group.
Down Arrow	Select the next input in the group.
Tab In	Set the focus to the checked radio input. When hints, title or messages exist in a note window, pop up the note window.

When the focus is on a rating gauge

Keyboard shortcut	Behavior
Enter	Submit the current value of the gauge.
Tab	Move the focus to the next element and submit the current value of the gauge.
Shift + Tab	Move the focus to the previous element.
Up Arrow	Increase the gauge's transient value. Sets the value after using Enter or Tab to submit.
Down Arrow	Decrease the gauge's transient value. Sets the value after using Enter or Tab to submit.
Left Arrow	Decrease the gauge's transient value in left-to-right locales. Increase the gauge's transient value in right-to-left locales. Sets the value after using Enter or Tab to submit.
Right Arrow	Increase the gauge's transient value in left-to-right locales. Decrease the gauge's transient value in right-to-left locales. Sets the value after using Enter or Tab to submit.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When working with a row expander element

Action	Keyboard shortcut	Behavior
When the focus is on a Row or Cell with RowExpander.	Ctrl + Right Arrow	Expand.
When the focus is on a Row or Cell with Row Expander.	Ctrl + Left Arrow	Collapse.
When the focus is on an Icon.	Enter	Expand or Collapse.

When working with single-select elements

Action	Keyboard shortcut	Behavior
When the focus is on a single-select option item	Enter	Select the highlighted choice from the drop-down.
When the focus is on a single-select input field	Enter	Set the input text as the value.
When the focus is on a single-select drop-down	Up Arrow or Down Arrow	Highlight the option item on the drop-down list in the direction of the arrow. If the drop-down is not open, expand the drop-down list.
When the focus is on a single select drop-down	Esc	Collapse the drop-down list. If the drop-down is already closed, do nothing.
On Tab in single select	Tab In	Set the focus to the Select. If hints, title or messages exist in a note window, pop up the note window.

When the focus is on a status meter gauge

Keyboard shortcut	Behavior
Enter	Submit the current value of the gauge.
Tab	Move the focus to the next element and submit the current value of the gauge.
Shift + Tab	Move the focus to the previous element.
Up Arrow	Increase the gauge's transient value. Sets the value after using Enter or Tab to submit.
Down Arrow	Decrease the gauge's transient value. Set the value after using Enter or Tab to submit.
Left Arrow	Decrease the gauge's transient value in left-to-right locales. Increase the gauge's transient value in right-to-left locales. Sets the value after using Enter or Tab to submit.
Right Arrow	Increase the gauge's transient value in left-to-right locales. Decrease the gauge's transient value in right-to-left locales. Sets the value after using Enter or Tab to submit.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When working with a switch thumb element

Action	Keyboard shortcut	Behavior
When the focus is on Switch Thumb	Enter or Space	Toggle the switch value.
When Switch Thumb is target	Tab in	Set the focus to the thumb. If hints, title or messages exist in a note window, pop up the note window.

When the focus is on list items

Keyboard shortcut	Behavior
Enter or Space	Selects list item.
Up Arrow	Moves the focus to the previous visible list item.
Down Arrow	Moves the focus to the next visible list item.
Right Arrow(Left Arrow in RTL)	For a horizontal tab bar, the focus moves to next visible item.
Left Arrow(Right Arrow in RTL)	For a horizontal tab bar, the focus moves to previous visible item.
Home	Moves the focus to the first visible list item.
End	Moves the focus to the last visible list item.
F2	When the focus is on a list item, pressing F2 makes its contents accessible using TAB.
Esc	When F2 mode is enabled, press Esc to exit F2 mode.
Ctrl+X	Marks the current item to move when reorderable is enabled.
Ctrl+V	Paste the items that are marked to directly before the current item.
DELETE	Delete the current item.
Enter or Space	Open menu. Note: This is applicable only for Horizontal Tab Bar, when overflow is set to pop up.

When navigating text area

Action	Keyboard shortcut	Behavior
On tabbing in text area	Tab In	Set the focus to the text area. Show user assistance text. This may be inline or in a note window depending upon theme and property settings.
When the focus is on text area	MacOS : Return Windows : Enter	Insert a new line. Used for a plain text area or a nested text area where Enter is not used by the parent component for other purposes.

Copyright © 2020, 2026, Oracle and/or its affiliates.

Action	Keyboard shortcut	Behavior
When the focus is on text area	MacOS: Option + Return Windows: Alt + Enter	Insert a new line. This is used for cases where Enter is used by the parent component, such as a text area in a table, where Enter will go to the cell below in an editable table.

When the focus is on a train

Keyboard shortcut	Behavior
Tab	Move the focus to the next selectable step.
Shift + Tab	Move the focus to the previous selectable step.
Enter	Select the focused step.

When the focus is on a tree view item

Keyboard shortcut	Action
Tab	Navigates to next the focusable element on page.
Shift+Tab	Navigates to previous the focusable element on page.
Down Arrow	Moves the focus to the item below.
Up Arrow	Moves the focus to the item above.
Left Arrow	On an expanded item, collapses the item. Otherwise, move the focus to the item above. The action is swapped with the Right Arrow in RTL locales.
Right Arrow	On a collapsed item, expands the item. Otherwise, move the focus to the item below. The action is swapped with the Left Arrow in RTL locales.
Shift + Down Arrow	Extends the selection to the item below. Applicable only when the multiple or last item selection is enabled.
Shift + Up Arrow	Extends the selection to the item above. Only applicable if the multiple or last item selection is enabled.
Space	Toggles the selection of the current item and deselects the other items.
Enter	Selects the current item and deselects the other items. No operation when the current item is already selected.
Ctrl + Space/Enter / CMD + Space/Enter	Toggles the selection of the current item, while maintaining previously selected items. Only applicable if the multiple or last item selection is enabled.
Shift + Space/Enter	Selects contiguous items from the last selected item to the current item. Only applicable if the multiple or last item selection is enabled.
Ctrl + A / CMD+A	When the selection Mode is multiple, selects all selectable nodes.

Copyright © 2020, 2026, Oracle and/or its affiliates.

When the focus is on an action card

Keyboard shortcut	Action
Enter or Space	Invoke the card action.
F2	Enters Actionable mode, which enables keyboard action on elements inside the item, including navigate between focusable elements inside the item.
Esc	Exits Actionable mode.
Tab	When in Actionable Mode, navigates to next focusable element within the item. When you reach the last focusable element, shift focus back to the first focusable element. When not in Actionable Mode, navigates to the next focusable element on the page (outside List View).
Shift+Tab	When in Actionable Mode, navigates to the previous focusable element within the item. When you reach the first focusable element, shift focus back to the last focusable element. When not in Actionable Mode, navigates to the previous focusable element on the page (outside List View).

Copyright © 2020, 2026, Oracle and/or its affiliates.