Avaya Co-Browsing Snap-in Reference

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Chapter 1: Introduction

Purpose

This document describes the characteristics, features, capabilities, and performance specifications of Avaya Co-Browsing Snap-in. This document also provides information about how to install, configure, and administer Avaya Co-Browsing Snap-in. If you have knowledge of Java script, jQuery, HTML, and Cascading Style Sheets (CSS), you can use this document to integrate Avaya Co-Browsing Snap-in with the website for which you want to enable Co-browsing.

This document is intended for people who want to install, configure, and administer Avaya Co-Browsing Snap-in.

Chapter 2: Avaya Co-Browsing overview

Overview

Avaya Co-Browsing Snap-in provides a set of consolidated services for sharing a webpage session. Using Avaya Co-Browsing Snap-in, Customer and Agent can browse the same webpages to collaborate and accomplish certain tasks. The Agent can assist the Customer to perform various actions on the Co-browse enabled webpages. For example, navigate through the webpages and fill out forms.

Avaya Co-Browsing Snap-in leverages the Document Object Model (DOM), which is an application programming interface (API) for valid HTML documents.

Avaya Co-Browsing Snap-in runs on the Avaya Breeze™, and you do not need to install any additional software or plug-in to use the snap-in.

Avaya Co-Browsing Snap-in provides the following functionality:

- A standard REST Web Service API to provide access to the Avaya Co-Browsing Snap-in services.

  For more information about APIs, see *Avaya Co-Browsing Snap-in Developer and API Reference Guide* on http://support.avaya.com.
- A developer SDK, including a sample reference client, that provides co-browsing capabilities.
- Out-of-the box summary reports about agents, sessions, and customers.

New in this release

In addition to the existing features, the current release of Avaya Co-Browsing Snap-in supports the following new features:

- Support for tokenless access for authentication and authorization
- Change in attribute grouping and description
- Enhanced logging capabilities for serviceability

Prerequisites for integration with customer website

Co-Browsing Snap-in integrates closely with the customer website. In order to extend the co-browse functionality, you must:

1. Analyze the extent of customizations and technologies needed on the customer website in order to integrate with Co-browsing Snap-in. Customer websites developed using javascripts, angular.js, jquery, and HTML 5 are best suited to integrate with Co-Browsing Snap-in.
2. Analyze the different elements from the customer website that should be co-browse enabled.
3. Analyze the customer website with the customer web development and user experience team to understand how the customer website is developed and how it can be integrated with C-Browsing Snap-in.
4. Analyze the webpages that support co-browsing functionality and identify the navigation strategy between the co-browse enabled pages and normal pages of the customer website.
5. Identify the secure fields/elements from the customer website that can be co-browse enabled.
6. Analyze the impact of NAMESPACE of the customer website or webpages against the co-browse NAMESPACE for any potential conflict.
7. Analyze the customer website JavaScript libraries. Customers might have site-specific java scripts enabled. In a co-browse session, some of these java scripts can cause unexpected behavior. The customers must closely analyze the java scripts and accordingly take action to ensure that the co-browse session does not display unwarranted behavior.
8. Ensure the customer website is functional and can use the co-browse functionality

Note:

Avaya Co-Browsing Snap-in supports only HTTPs traffic.

Features

Customer-initiated co-browsing

A customer can start a co-browsing session to seek assistance from the agent. The customer must share the system-generated session key with the agent so that the agent can join the session. The session key is an eight-digit number and must have a space between four digits. For example, “1234 5678”.

In case of a customer-initiated session, after the session key is generated, the system displays a modal window. If the customer closes the modal window without sharing the session key with the agent, the session is still active as the customer auto-joins the session. The user name you specify cannot be more than 30 characters long and has to be separated with a space after the first 8 characters. For example, “Abcdefgh ijklmn”.

Agent-initiated co-browsing

An agent can start a co-browsing session to assist the customer. The agent must share the system-generated session key with the customer so that the customer can join the session. The session key is an eight-digit number and must have a space between four digits. For example, “1234 5678”.

The user name you specify cannot be more than 30 characters long and has to be separated with a space after the first 8 characters. For example, “Abcdefgh ijklmn”. If you specify a user name without a space after the first 8 characters, before generating a PDF, expand the column width on the Reports dashboard. This accommodates the complete name in the PDF.

Two-way co-browsing

The customer can give control of the co-browsed webpage to an agent for assistance. By default, an agent has view-only permission to a co-browsed webpage. The agent can request permission to control or the customer can promote the agent to control the webpage. During the period when the agent has control, the agent gains restricted access to the webpage. The customer can revoke control from the agent at any point of time, or the agent can voluntarily release control.

Note:

The locale settings of the session are set by the session initiator. The joining party cannot override the locale settings. If the session has not started, the locale settings default to the locale settings on System Manager. The local settings are configurable through System Manager.

An agent can cancel the session even after the agent generates a session key. The customer is always auto-joined in the session.

Note:

When a session starts, the session owner can select values from the drop-down list. Depending on the available values, the session controller sees the values in the drop-down list. The system does not display all values in the list to the other party. The right-click Windows context-sensitive menu is browser-dependent. Therefore, the agent and customer will not see the same right-click Windows context-sensitive menu.

Data masking

The customer can ensure data privacy and secure co-browsing by using security measures such as hiding sensitive information, preventing certain actions, and hiding certain elements. Depending on the legal and location-specific requirements, the customer can apply data masking to certain fields such as Social Security Number or credit card number. The customer can also block certain actions so that the agent does not submit any information on behalf of the customer.

Note:

Ensure that the field that is masked for security cannot be edited by any other javascript events.

Highlight text

The customer or agent can highlight static text. The highlight functionality is configurable and can be enabled or disabled. The highlight color is configurable. If the customer is in control of the co-browse session and highlights some text, the highlighted text is visible to the agent. If the agent is in control of the co-browse session and highlights some text, the highlighted text is visible to the

customer. If the customer pauses a session after highlighting text, the highlighted text remains visible to the agent. If the customer cancels the highlight after pausing the session, the change is not visible to the agent till the customer resumes the session. The highlighted text disappears automatically if the session control is passed on from the agent and the customer or vice versa. The highlighted text disappears automatically if the agent or the customer clicks or double-clicks the mouse button.

Note:

Elements such as textbox, text area, or select box do not support highlighting of text. The customer or agent can highlight only through mouse selection or a double-click.

Serviceability feature for Oceana monitoring

Avaya Co-Browsing Snap-in can send heartbeat messages to Oceana Monitoring service and the messages and heartbeat information can be tracked through System Manager. The heartbeat messages are visible on Oceana Portal Monitor service page. You can view the heartbeat messages through System Manager only if you have selected the **Oceana serviceability feature enable** check box and set the value to `true`. For more information, see the *Troubleshooting* section.

Chapter 3: Avaya Co-Browsing requirements and compatibility

Avaya product requirements

Install the following Avaya products before installing Avaya Co-Browsing Snap-in:

Avaya products	Version
Avaya Breeze™	3.4
Avaya Aura® System Manager	7.1.2

Supported browsers and devices

Supported devices, Operating Systems and browser versions

Device	OS version	Default Browser Version
Nexus 5 Phone	Android 6.0.1	Chrome 56 to 61
Nexus 7 TAB	Android 6.0.1	Chrome 56 to 61
iPhone 6	iOS 9.3.3	Safari 9 to 11
iPAD Air	iOS 9.3.3	Safari 9 to 11
MacBook	OS X EL Capitan Ver 10.11.5	Safari 9 to 11
Desktop or Laptop	Windows 7 and or Windows 10	Chrome 56 to 61
Desktop or Laptop	Windows 7 and or Windows 10	Firefox 47.0.1
Desktop or Laptop	Windows 7 and or Windows 10	Internet Explorer 11
Desktop or Laptop	Windows 7 or Windows 10	Microsoft Edge 40

Important:

- Enable the Java script support in your browser for the Avaya Co-Browsing Snap-in. For more information, see http://www.enable-javascript.com/. Enable the following in your browser:
- Enable cookies support in your browser for Avaya Co-Browsing Snap-in to work correctly. For more information, see http://www.whatarecookies.com/enable.asp.

Database requirements

Avaya Co-Browsing Snap-in 3.3 supports the following external databases:

- Oracle 11g
- MS SQL Server 2012 and MS SQL Server 2014
- PostgreSQL 9.4.1
- Intersystem Caché Database 2015

Hardware requirements

The Avaya Co-Browsing Snap-in hardware requirements are based on the Avaya Breeze™ and System Manager requirements. For more information, see the respective product documentation. In addition, you need Avaya Breeze™ with 4 vCPU, 8 GB RAM, and 100 GB HDD.

Chapter 4: Licensing

License overview

License requirements

To use Avaya Co-Browsing Snap-in, you must procure the valid Avaya Co-Browsing Snap-in and Avaya Breeze™ license files.

Avaya Co-Browsing Snap-in uses the snap-in service licensing feature provided by Avaya Breeze™. The platform and snap-in licenses are available through PLDS. You must install these licenses on the WebLM server of Avaya Aura® System Manager which manages the platform and snap-in licenses.

Avaya Co-Browsing Snap-in contains a digital signature that the Avaya Breeze™ Element Manager uses to confirm that the licenses are applicable to these services. If the signature is invalid, the system does not load the service.

A single license containing the information for each licensed feature applies to the Avaya Co-Browsing Snap-in.

Configuring Avaya Co-Browsing Snap-in licenses

Before you begin

- Get the Avaya Co-Browsing Snap-in license from Avaya PLDS.
- You must get the primary HOST ID from the System Manager to generate the Avaya Co-Browsing license.

  Login to **System Manager**. Navigate to **Home** > **Services** > **Licenses** > **Server properties**.
- Ensure that the Avaya Co-Browsing Snap-in license is installed on the WebLM server that is integrated with System Manager.
- Ensure that the Avaya Breeze™ platform license is installed on System Manager.

  In System Manager, click **Elements** > **Avaya Breeze™** > **Server Administration** to see the current status of each Avaya Breeze™ server platform license.

About this task

Configure Avaya Co-Browsing Snap-in licenses in System Manager.

Procedure

1. On the System Manager Home page, click **Services** > **Licenses**.
2. Select **Install License**.
3. Browse to the location of the Avaya Co-Browsing Snap-in license.
4. Select the license file and click **Install**.

   The system installs the license file.

   In the left navigation pane, the system displays Collaborative_Browsing_Snap_in in **Licensed Products**.
5. To verify if the license file is installed successfully:
   a. Click **Elements** > **Avaya Breeze™** > **Service Management**.
   b. In the **License mode** column, verify that the column displays a check mark for the Avaya Co-Browsing Snap-in mode.

      The following licensing modes apply to all Avaya Breeze™ and Avaya Co-Browsing Snap-in licenses:

      - **License Normal Mode**: A valid license file is installed. The complete functionality is present for the Avaya Breeze™ instance.
      - **License Error Mode**: License error is seen in this mode. The Avaya Breeze™ instance is in a 30 day grace period during this mode. Complete functionality is available during the grace period. The system displays the warning icon along with the date and time of the grace period expiration in the **License Mode** column. If the grace period expires and the license error has not been corrected, the snap-in enters License Restricted mode and is uninstalled from all clusters.
      - **License Restricted Mode**: The Avaya Co-Browsing Snap-in instance goes in to the restricted mode after the 30 day grace period expires. As a result of this unresolved license error, the snap-in is in the License Restricted mode and is uninstalled from all clusters. If you install a license file, the Avaya Co-Browsing Snap-in server goes into the normal mode and automatically returns to service.

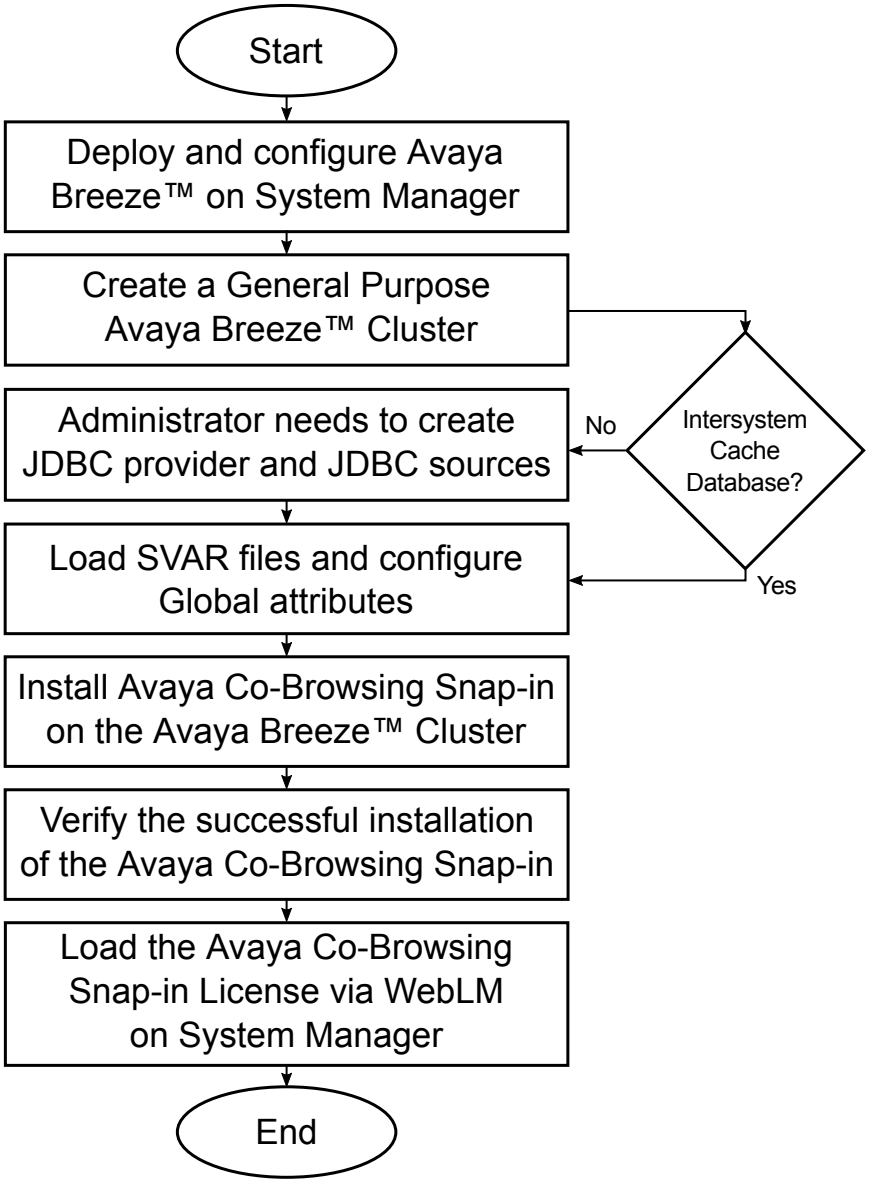
      For more information about licensing modes and licensing for Avaya Breeze™, see *Administering Avaya Breeze™*.

      Avaya Breeze™ licensing audit runs every 9 minutes. Any license changes, including install or uninstall actions on the WebLM server, take time to reflect on the user interface. The latest license information thus takes maximum 9 minutes to reflect in the Avaya Breeze™ Element Manager.

Chapter 5: Avaya Co-Browsing Snap-in deployment

Avaya Co-Browsing Snap-in process flow

The following diagram depicts the process flow for installing the Co-Browsing Snap-in for the first time:


Start
Deploy and configure Avaya Breeze™ on System Manager
Create a General Purpose Avaya Breeze™ Cluster
Intersystem Cache Database?
No
Administrator needs to create JDBC provider and JDBC sources
Yes
Load SVAR files and configure Global attributes
Install Avaya Co-Browsing Snap-in on the Avaya Breeze™ Cluster
Verify the successful installation of the Avaya Co-Browsing Snap-in
Load the Avaya Co-Browsing Snap-in License via WebLM on System Manager
End

Avaya Co-Browsing Snap-in deployment checklist

No.	Task	Notes
1	Ensure that Avaya Aura® System Manager is running.	Access the Avaya Aura® System Manager web console and check if you can login as an administrator.
2	Install and configure the Avaya Breeze™ server.	Before turning on the Avaya Breeze™ server, ensure that you set the memory to 8 GB of RAM.
3	Create a Avaya Co-Browsing Snap-in cluster.	Assign a Avaya Breeze™ server to the Avaya Co-Browsing Snap-in cluster. **Note:** When you administer a new Avaya Breeze™ server, you must add the server to a cluster. If not, the Avaya Breeze™ asset is not usable. Ensure that you have enabled **Only allow secure web communication** checkbox. If you are using a multi-instance clustered environment, then enable **Is load balancer enabled** and **Is session affinity enabled** checkbox.
4	Download the Avaya Co-Browsing Snap-in services from PLDS.	The Avaya Co-Browsing Snap-in services are available as Service Archive (SVAR) files, and the client is available as zip files. **Note:** Do not add any space between the file name and the service name while saving the SVAR file.
5	Load the Avaya Co-Browsing Snap-in SVAR file in System Manager.	None.
6	Configure JDBC provider and JDBC sources for Oracle, PostgreSQL, and MS SQL Server databases.	For more information about this, see Creating JDBC Providers DataSources on page 22. If you are using Intersystem Cache database, you do not need to configure JDBC providers.
7	Configure global attributes.	For more information about this, see Configuring Global Attributes on page 27.
8	Load the Avaya Co-Browsing Snap-in license via WebLM. For more information on licensing, see License requirements on page 14.	None.
9	Install Avaya Co-Browsing Snap-in.	None.

Table continues…

No.	Task	Notes
10	Verify the installation.	None.
11	Configure alarms on System Manager.	None.

High availability

The customers can deploy the co-browse application on multiple nodes of an Avaya Breeze™ cluster. The actual Avaya Breeze™ node handling the request is transparent to the API client. You can deploy Avaya Co-Browsing Snap-in either on an independent Avaya Breeze™ cluster with session affinity enabled or on an Avaya Oceana™ SolutionUAC cluster with session affinity disabled. If you have disabled the session affinity on Avaya Breeze™ cluster then you will need an external load balancer to achieve high availability.

Related links

Avaya Co-Browsing Snap-in on a single node Avaya Breeze cluster on page 19

Avaya Co-Browsing Snap-in on a multi-node Avaya Breeze cluster on page 20

Avaya Co-Browsing Snap-in on a single node Avaya Breeze™ cluster

If at least one node in the Avaya Breeze™ cluster is active and accepting new requests, the cluster IP will service incoming requests. The scope of the cluster support does not imply support for the following:

1. Load balancing: An even distribution of incoming requests to various nodes within the Avaya Breeze™ cluster is not provided. The mechanism for even load distribution is Avaya Breeze™ dependent.
2. High availability: A backup Avaya Breeze™ node takes 5 to 7 minutes to start serving requests after the primary Avaya Breeze™ node is unable to serve requests. During this period, the cluster IP might be unable to service new requests.
3. Session preservation: Ongoing sessions being serviced by a particular node will not be preserved when that Avaya Breeze™ node is no longer available to serve requests.

Note:

Ensure that the **Use Security IP for Multi-Node** attribute value is set to `True`.

Related links

High availability on page 19

Avaya Co-Browsing Snap-in on a multi-node Avaya Breeze™ cluster

If you want to install Avaya Co-Browsing Snap-in on a multi-node Avaya Breeze™ cluster, ensure that the **Use Security IP for Multi-Node** attribute value is set to `False`. If the session affinity is disabled , you will need an external load balancer to achieve high availability. The external load balancer IP address or FQDN is used as the CoBrowse service address. The external loadAvaya Breeze™ balancer must be able to support:

- Session affinity: To ensure that subsequent requests coming from the same client are routed to the same node. You can achieve session affinity using features like ip_hash, hash, or cookie-based session affinity.
- Routing based on URL parameters: To route the join request and subsequent request after join from the client to land on the respective node where CoBrowse session is created.
- Load balancing requests: To ensure that each node has well distributed amount of CoBrowse session creation requests.

Related links

High availability on page 19

Creating an Avaya Co-Browsing Snap-in cluster

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™**.
2. In the left pane, click **Cluster Administration**.
3. On the Cluster Administration page, click **New**.

   The system displays the Cluster Editor page.
4. In the **Cluster Profile** drop-down list, select the **General Purpose** profile.

   The system refreshes the Cluster Editor page and populates the profile attributes.
5. In the **General** tab, type the details in the following fields:
   a. **Cluster Name**: The unique name of the cluster.
   b. **Cluster IP**: The cluster IP address. The cluster IP address is mandatory if you enable the load balancer. If you enable the load balancer, ensure you select session affinity.

      For information on setting up the load balancer, see *Administering Avaya Breeze™*.
   c. **Description**: The description of the cluster.
   d. Ensure that you have selected **Only allow secure web communication** check box.
   e. If you want to deploy Avaya Co-Browsing Snap-in on multiple nodes, ensure you select the **Is load balancing enabled** check boxes.

6. In the **Servers** tab, in the **Unassigned Servers** table, click the plus sign (**+**) next to the **Name** column to add the Avaya Breeze™ server to the cluster.

   If the server is assigned to another cluster, remove the server from the existing cluster before you add to the Avaya Co-Browsing Snap-in cluster.
7. In the **Services** tab, select the services to install on all servers in the cluster.
8. Click **Commit** to create the cluster.

   On the Cluster Administration page, the **Service Install Status** field displays a green check mark after the cluster is successfully created.
9. **(Optional)** To view the Avaya Breeze™ instances in the cluster, click **Show** in the **Details** column of the cluster.

   The system displays the members of the cluster and the status of each instance in the cluster.
10. **(Optional)** To view the details of the Snap-ins installed on that instance, click a specific Avaya Breeze™ instance in the cluster.

Installing Avaya Co-Browsing Snap-in

Loading Avaya Co-Browsing Snap-in

Before you begin

- Install a WebLM license of Co-Browsing Snap-in on System Manager.
- Download the Avaya Co-Browsing Snap-in services from PLDS.

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™** > **Service Management** > **Services**.
2. Click **Load**.
3. On the Load Service window, click **Choose File**.
4. In the Load Service dialog box, click **Browse** and select the `Avaya Co-Browsing Snap-in<CoBrowse-3.4.0.0.xxxxxx>.svar` file.

   The system displays the `Avaya Co-Browsing Snap-in<CoBrowse-3.4.0.0.xxxxxx>.svar` file in the **Local PC** text field.
5. Click **Load**.

   System Manager checks the licensing of Avaya Co-Browsing Snap-in. On successful validation, System Manager displays the Accept End User License Agreement dialog box.

6. Click **Accept**.

   System Manager adds the Avaya Co-Browsing Snap-in to the list of services.

7. On the **Avaya Breeze™** web interface, click **Services** page to ensure the Avaya Co-Browsing Snap-in is in loaded state.

Creating JDBC providers and datasources

About this task

Use this procedure to create JDBC providers and datasources.

Important:

Skip this procedure if you use the Intersystem Cache database.

Before you begin

Ensure you download the JDBC driver `.jar` file compatible with the database version you want to use from the database vendor website. Ensure you are using the correct `.jar` file and the implementation class for that `.jar` file.

The following table lists the database and the corresponding `.jar` files:

Database	.jar file
Oracle	ojdbc6.jar
PostgreSQL	postgresql-9.0-801.jdbc4.jar
MS SQL Server	sqljdbc4-4.1.jar

Procedure

1. Login to **System Manager**.
2. Navigate to **Home** > **Avaya Breeze™** > **Configuration** > **JDBC Providers**.
3. Click **New**.
4. In the Jar field, create a JDBC provider using the JDBC driver `.jar` file.

   In the **JDBC Provider Editor**, specify the class name as mentioned in the JDBC Provider Class Name on page 24.

   In the **Jar File**, select the `.jar` file. For example, if you are creating JDBC provider MS SQL server TestProvider, then use the MS SQL server JDBC driver `sqljdbc4-4.1.jar` file.

5. Navigate to **Home** > **Avaya Breeze™** > **Service Management** > **Services**.
6. Search for the JDBC provider you created in step 3.
7. Select the provider and click **Install**.

   The system displays a popup list of clusters.

8. Select the cluster on which you want to install the provider and click **Commit**.
9. After you successfully install the JDBC provider, reboot all **Avaya Breeze™** instances for the cluster
10. Navigate to **Home** > **Avaya Breeze™** > **Configuration** > **JDBC Sources**.
11. Add a new datasource from the JDBC datasource page.
12. On the JDBC Data Source editor page, under **Basic** section, select the cluster on which you installed the provider.

    The system populates the installed provider name in the **JDBC Provider** drop-down.

    Note:

    Do not edit the **TLS** check box if you are using the Intersystem Cache database.
13. Specify a JNDI name. you can specify the JNDI name as `jdbc/<anyname>`. For example, if you creating JDBC source for SQL, then mention the JNDI name as `jdbc/sql`.
14. Specify the database URL, username, and password to connect to the database. For example, `jdbc:oracle:thin:<DB server IP address>:<port number>:oracledb`.
15. Under **Custom Properties** section, in the **Name** tab, specify the database name as `databaseName` and under the **Value** tab, specify the value as configured on the MS SQL server and PostgresSQL.
16. Under the **Name** tab, specify the port number as `portNumber` and under the **Value** tab, specify the value as configured on the MS SQL server and PostgresSQL.
17. Under the **Name** tab, specify the server name as `serverName` and under the **Value** tab, specify the value as configured on the MS SQL server and PostgresSQL.
18. Under the **Name** tab, specify the user name as `user` and under the **Value** tab, specify the value as configured on the PostgresSQL.
19. Under the **Name** tab, specify the password name as `password` and under the **Value** tab, specify the value as configured on the PostgresSQL.
20. Click **Commit**.
21. Verify that the connection to the database is working.

    You should be able to use the data source through the snap-in tool or Engagement Designer tool.
22. Reboot Avaya Breeze™ server after test connection is successful.

Related links

JDBC Provider Class Name on page 24

JDBC Provider Class Name

Database	JDBC Provider Class Name	JDBC Sources sample DB URL
Oracle	oracle.jdbc.pool.OracleConnectionPool DataSource	`jdbc:oracle:thin:@<Databaseserver IP or FQDN>:port number:<database name>` • serverName • databaseName • portNumber: default is 1521
PostgreSQL	org.postgresql.jdbc2.optional.ConnectionPool	`jdbc:postgresql:// <Database server IP` Ensure you configure the following custom properties: • serverName • databaseName • portNumber: default is 5432
MS SQL Server	com.microsoft.sqlserver.jdbc.SQLServerConnectionPoolDataSource	`jdbc:sqlserver://<Database server IP or FQDN>` Ensure you configure the following custom properties: • serverName • databaseName • portNumber: default is 1433

Related links

Creating JDBC providers and datasources on page 22

Configure Intersystem Cache database

Configuring Intersystem Caché database for data

You must create a separate database for storing code and data.

Before you begin

Ensure you install the Intersystem Caché instance. For more information, see *Deploying Avaya Oceana™*.

Procedure

1. Login to the system where you have installed the Caché instance.
2. Login to the Caché Management portal by typing `http://localhost:57772/csp/sys/%25CSP.Portal.Home.zen?$NAMESPACE=%25SYS`.

3. Click **Home** > **System Administration** > **Configuration** > **System Configuration** > **Local Database**.
4. Click **Create Database** and specify a name for the database along with the path. For example `C:/intersystems/cache/cobrowse/data`.
5. Click **Next**.
6. Specify a value for **Initial Size (MB)** as per your requirement. The minimum value is 11 MB.
7. Specify a value for **Block size for this database will be** as per your requirement. and select **Journal globals** as `Yes`.

   The minimum block size is 8 KB.
8. Select the default resource as **DB_DEFAULT**, and click **Next**.
9. Click **Finish**.

Configuring Intersystem Caché database for code

You must create a separate database for storing code and data.

Before you begin

Ensure you install the Intersystem Caché instance. For more information, see *Deploying Avaya Oceana™.*

Procedure

1. Login to the system where you have installed the Caché instance.
2. Login to the Caché Management portal by typing `http://localhost:57772/csp/sys/%25CSP.Portal.Home.zen?$NAMESPACE=%25SYS`.
3. Click **Home** > **System Administration** > **Configuration** > **System Configuration** > **Local Database**.
4. Click **Create Database** and specify a name for the code database along with the path. For example `C:/intersystems/cache/cobrowse/code`.
5. Click **Next**.
6. Specify a value for **Initial Size (MB)** as per your requirement. The minimum value is 128 MB.
7. Specify a value for **Block size for this database will be** as per your requirement, and select **Journal globals** as `Yes`.

   The minimum block size is 8 KB.
8. Select the default resource as **DB_DEFAULT**, and click **Next**.
9. Click **Finish**.

Configuring namepaces

Procedure

1. Login to the system where you have installed the Caché instance.
2. Login to the Caché Management portal by typing `http://localhost:57772/csp/sys/%25CSP.Portal.Home.zen?$NAMESPACE=%25SYS`.
3. Click **Home** > **System Administration** > **Configuration** > **System Configuration** > **Namespaces**.
4. Click **Create New Namespace** and specify a name for the code database along with the path. For example `C:/intersystems/cache/cobrowse/code`.
5. Specify the name for the namespace.
6. Select `cobrowse_data` for **globals** and `cobrowse_code` for **routines**.
7. Click **Save**.

Creating a new role

Procedure

1. Login to the system where you have installed the Caché instance.
2. Login to the Caché Management portal by typing `http://localhost:57772/csp/sys/%25CSP.Portal.Home.zen?$NAMESPACE=%25SYS`.
3. Click **Home** > **System Administration** > **Security** > **Roles**.
4. Click **Create role**.
5. Specify a name and description for the role.
6. Click **Save**.
7. Navigate to Assigned To tab, and select `%ALL` role and click **Assign**.

Creating a new user

Procedure

1. Login to the system where you have installed the Caché instance.
2. Login to the Caché Management portal by typing `http://localhost:57772/csp/sys/%25CSP.Portal.Home.zen?$NAMESPACE=%25SYS`.
3. Click **Home** > **System Administration** > **Security** > **Users**.
4. Click **Create new user**.
5. Specify a name and password for the user.
6. Select **Password never expires** and **Account never expires** check boxes.
7. Give **Startup Namespace** as required. For example, `COBROWSE`.
8. Click **Save**.

9. Navigate to the Roles tab, and select required role name as required, for example, cobrowseadmin role and click **Assign**.
10. Click **Save**.

Configuring global attributes

About this task

Configuring values for the Avaya Co-Browsing Snap-in is a one-time activity that you must perform before installing Avaya Co-Browsing snap-in.

Procedure

1. On the System Manager Home page, in **Elements**, select **Avaya Breeze™** > **Configuration** > **Attributes**.
2. Click the **Service Globals** tab.
3. From the **Service** drop-down menu, select the service that contains the attributes you want to configure.

   The table displays all attributes that you can configure for CoBrowse service. The table must include the description of each attribute.
4. For the attribute you want to change:
   a. Click **Override Default**.
   b. In the **Effective Value** field, enter the new value or string.
5. Click **Commit** to save your changes.

Note:

The cluster level service attributes persist after an uninstall from the cluster and the values are retained for subsequent install to ensure that you do not have to re-configure all of the attributes when changing service versions.

Runtime service configuration attributes

You can set the default group attributes.

Name	Description
Inactive Timeout (minutes)	Displays the value in minutes. The system ends a session if the owner of the co-browse session is idle for the time, that is configured in Inactive time out (minutes). The default value is 2 minutes. The minimum value is 2 minutes and maximum value is 30 minutes.

Table continues…

Name	Description
Inactive Timeout (message)	The system displays the message after the system ends the session. You can add your custom message.
Session Timeout (minutes)	Displays the value in minutes. The system ends a session during a regular clean up activity which runs at the interval of every 30 minutes, if the session does not end gracefully. The default value is 60 minutes. The minimum value is 30 minutes and maximum value is 1440 minutes.
Supported Locale	Displays the supported locales by the co-browse server. The default values are de,es,fr,it,ja,ko,pt,ru,zh_CN,pt_BR. The co-browse session server can support the following locales: • en_US: English • de: German • es: Spanish • fr: French • it: Italian • ja: Japanese • ko: Korean • ru: Russian • zh_CN: Chinese • pt_BR: Portuguese (Brazilian)
Server Default Locale	Displays the default locale. You can configure the locale as per requirements. For example, if you want the co-browse session to support English only, you can set the default locale as en_US or you can change the preference of the language.
Enable Tokenless Access	Setting the value to true allows the client to request access to the resource end-points without any authorization token. The default value is true and allowed values are true and false.
Oceana Serviceability Feature Enable	Setting the value to true enables the monitoring feature and the snap-in's heartbeat and life cycle messages are displayed on Avaya Aura® System Manager. The default value is true and allowed values are true and false.
Use Security IP for Multi-Node	If you are using a different node to connect to a co-browsing session, use the security IP address instead of the Collaborative Browsing Breeze Node token.

Table continues…

Name	Description
Collaborative Browsing Breeze Node Token name	Use the Collaborative Browsing Breeze Node token to redirect the requests to join the co-browsing session if you are using multiple nodes.

Avaya Co-Browsing Snap-in database attributes

You must set the database attributes before you install the Avaya Co-Browsing Snap-in.

Note:

The default values for the database attributes are for reference. You must create a database before you install the Avaya Co-Browsing Snap-in.

Name	Description	Default value
Enable JNDI	This value must be true if you use an external database. This value must be false if you use the Intersystem cache database configuration.	The default value is false.
Database JNDI Name	The name of the external database. You must use the JNDI name created in Creating JDBC Providers DataSources on page 22. If you change the value, you must stop and start the co-browse service.	This is a mandatory attribute if you are not using the Intersystem Cache Database.
Database Type	This is a mandatory attribute used to specify the external database type used for Co-Browsing. You can enter one of the following values depending on the database you want to use: • oracle • sqlserver • postgres • intersystemcache If you change the value, you must stop and start the co-browse service.	NA
Database Dialect	The external database dialect. If you change the value, you must stop and start the co-browse service.	This is a mandatory attribute.

Table continues…

Name	Description	Default value
		You can enter one of the following values depending on the database you use: • Oracle:*org.hibernate.dialect.Oracle10gDialect* • SQL:*org.hibernate.dialect.SQLServerDialect* • Postgres: *org.hibernate.dialect.PostgreSQLDialect* • Intersystem Cache: *org.hibernate.dialect.Cache71Dialect*

Important:

If you change any of the database attributes after installing Avaya Co-Browsing Snap-in, you must stop and start the co-browse service for the changes to take effect.

Omnichannel database configuration

You can set omnichannel attributes.

Name	Description	Default value
Database User Name	The username for external database. This is a mandatory attribute if you are using the Intersystem Cache Database. If you change the value, you must reboot the cluster.	NA
Database Password	The password for external database. This is a mandatory attribute if you are using the Intersystem Cache Database. If you change the value, you must reboot the cluster.	NA
Database Driver Class	The driver class name for external database. This is a mandatory attribute if you are using the Intersystem Cache Database.	`com.intersys.jdbc.CacheDriver`

Table continues…

Name	Description	Default value
	If you change the value, you must reboot the cluster.	
Database IP/FQDN	The IP address or FQDN for accessing external database. This is a mandatory attribute if you are using the Intersystem Cache Database. If you change the value, you must reboot the cluster.	NA
Database Port	The port used for accessing external database. This is a mandatory attribute if you are using the Intersystem Cache Database. If you change the value, you must reboot the cluster.	The default port number is 1972.
Database Name	The name of the external database. This is a mandatory attribute if you are using the Intersystem Cache Database. If you change the value, you must reboot the cluster.	The default name is COBROWSE.
Secure Intersystem Cache	Setting this to true enables a secure connection to the Omnichannel database. If you set this to true, ensure you create the relevant certificates in System Manager and Omnichannel database.	The default value is false.

Installing Avaya Co-Browsing Snap-in

Before you begin

- Load the Avaya Co-Browsing Snap-in.
- Ensure that you know the cluster name to install the Avaya Co-Browsing Snap-in.
- Configure all database attributes in the service global tab using System Manager.

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™** > **Service Management** > **Services**.
2. In the services name list, select the Avaya Co-Browsing snap-in and then click **Install**.

   The system displays a list of cluster names in the Confirm Install services dialog box.

3. Select the cluster name to install the Avaya Co-Browsing Snap-in, and then click **Commit**.

   The system starts installing the service and changes the state of the service to `Installing`. After installation, the system changes the state to `Installed`.

Starting a service

About this task

You can now start a service without rebooting the cluster.

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™** > **Service Management** > **Services**.
2. Select the service that you want to start.
3. Click **Start**.

   The system starts the selected service.

Stopping a service

About this task

You can now stop a service without rebooting the cluster.

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™** > **Service Management** > **Services**.
2. Select the service that you want to stop.
3. Click **Stop**.

   The system stops the selected service.

Verifying a Avaya Co-Browsing Snap-in deployment

Procedure

1. Open a web browser.
2. To check the query management REST API, type the following URL:

   `https://<Cluster_IP>/services/CoBrowse/v1/server/status`

   where <*Cluster_IP*> is the IP address of the Avaya Co-Browsing Snap-in cluster where the service that you want to verify is running.

Note:

For a single Avaya Breeze™ instance, provide the security IP address instead of cluster IP.

The system displays the following message: `{"statusCode":"200", "acsResult":"success", "acsResponse":"Successfull", "errorCode":"", "errorMessage":"", "options":null}`

Editing attributes for Avaya Co-Browsing Snap-in

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™**.
2. On the Server Administration page, click **Configuration** > **Attributes**.

   The system displays the Attributes Configuration page.
3. Configure attributes on the following tabs:
   - **Service Clusters:** The attributes are used by all Avaya Co-Browsing Snap-ins that are part of the cluster that you select.
   - **Service Globals:** The attributes are used by all occurrences of the Avaya Co-Browsing Snap-ins except when overridden by attributes administered for a specific cluster.

   Note:

   After installing snap-in, the **Effective value** for all attributes in **Service Clusters** are same as **Service Globals**. If you change the attribute value in **Service Globals**, then the value in **Service Clusters** changes automatically. To customize a specific attribute for a specific cluster, select the cluster from the drop-down, select the service as CoBrowse, and then select the **Override default** check box in **Service Clusters** for the specific attribute.
4. To configure attributes for **Service Clusters**, click the **Service Clusters** tab.
   a. In the **Cluster** field, select the cluster where the Snap-in is installed.
   b. In the **Service** field, select the service name as **CoBrowse**.

      The system displays a list of attributes that you can configure.
   c. In the **Override Default** column, specify the attributes by selecting the corresponding check box.
   d. **(Optional)** In the **Effective Value** column, change the value of the attributes.

      You can always restore the default by clearing the **Override Default** box.
5. Click **Commit** to save the configuration.

Upgrading Avaya Co-Browsing Snap-in

Upgrade overview

To upgrade Avaya Co-Browsing Snap-in service in Avaya Breeze™, you must install a new version of the Snap-in service.

When you upgrade the Avaya Co-Browsing Snap-in SVAR, the system does not remove the Avaya Co-Browsing Snap-in that is already deployed.

You can upgrade by using the preferred version or the latest version option.

Preferred version

When you deploy a new version of the Avaya Co-Browsing Snap-in service, the previous version of the service continues servicing the REST requests. To bring the newly deployed SVAR into service, you must set the newer version as the preferred version on the **Avaya Breeze™** > **Service Management** > **Services** page. For more information, see Setting Preferred Version on page 35.

Latest version

When you deploy a new version of the Avaya Co-Browsing Snap-in service, the new version of the Snap-in service starts servicing the REST requests automatically.

When you deploy a Avaya Co-Browsing Snap-in service in a new Avaya Breeze™ instance, the service is set to **latest** by default.

If you do not set any version as the preferred version, the system uses the latest version value.

When a version is set as the preferred version, the system does not give the option to set the latest version in the **Services** page.

Upgrading Avaya Co-Browsing Snap-in services

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™** > **Service Management** > **Services**.
2. Make a note of the existing attribute values of the old Co-Browse service before you upgrade.
3. Uninstall and delete the old Co-Browse service.
4. Ensure that the service name is “CoBrowse” by navigating to **Attributes** > **Service Global**.
5. On the **Services** page, click **Load**.
6. Click **Browse** next to **Local PC** to locate the latest `Avaya Co-Browsing Snap-in<CoBrowse-3.4.0.0.xxxxxx>.svar`, and then click **Open**.
7. In the Load Service window, click **Load** to load the Avaya Co-Browsing Snap-in service.

8. On the End User License Agreement (EULA) page, click **Accept**.

   The Service Management page displays the service with the `LOADED` state.

9. In the left navigation pane, click **Attributes** > **Service Global** and select “CoBrowse” service.
10. In the left navigation pane, click **Cluster Administration**.
11. For the cluster that you want to upgrade, select **Deny New Service** from the **Cluster State** drop-down.
12. To upgrade to the latest version of the Avaya Co-Browsing Snap-in service, perform one of the following steps:

    - On the **Services** page, select and install the latest version of the CoBrowse service.
    - On the **Cluster Administration** page, edit the cluster to select and commit the latest version of the Avaya Co-Browsing Snap-in service.

    The Services page displays the service with the `INSTALLED` state.

    - If you set the preferred version option for a service, the service continues to service the requests. The new service version comes in to service only after you set the new version as the preferred version option in the **Services** page.
    - If you do not set the preferred version option for the service in the cluster, the newly deployed version comes in to service after successful deployment. However, it is advisable to set the preferred version for the newly installed service.

13. Verify if the services are installed successfully. For more information, see *Verifying a Avaya Co-Browsing Snap-in deployment*.
14. For the upgraded cluster, select **Accept New Service** state from the **Cluster State** drop-down.
15. Verify the Co-Browsing deployment functionality after the upgrade.
16. **(Optional)** Uninstall the previous version of the service.
17. **(Optional)** Delete the previous version of the service.

Related links

Setting the preferred version for upgrades on page 35

Setting the preferred version for upgrades

Before you begin

Install the Snap-in service on Avaya Breeze™.

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™** > **Service Management** > **Services**.

2. Select the service that you want to set as the default version.
3. Select **Set Preferred Version**.

   The system displays the list of clusters.
4. Select the clusters for which you want to set the preferred version.
5. Click **Commit**.

   The **Preferred Version** column displays the clusters for which you have set the preferred version.
6. Verify whether the updated service can service requests successfully. For more information, see *Verifying Avaya Co-Browsing Snap-in deployment*.

Uninstalling and deleting Avaya Co-Browsing Snap-in

Avaya Co-Browsing Snap-in uninstallation overview

The options are:

- Uninstall a service Snap-in: When you uninstall a service, the system does not remove the attributes from the Avaya Breeze™ Postgres database. For more information, see Uninstalling Avaya Co-Browsing Snap-in on page 36.
- Delete a service Snap-in: When you delete a service, the system removes the attributes from the Avaya Breeze™ Postgres database. For more information, see .Deleting Avaya Co-Browsing Snap-in on page 37.

Uninstalling Avaya Co-Browsing Snap-in

About this task

When you uninstall a service, the system removes the attributes from the **Avaya Breeze™** server.

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™** > **Service Management** > **Services**.
2. On the Services page, select the check box for **CoBrowse** . Ensure that you select the correct version.
3. Click **Uninstall**.
4. Select the **Cluster Name** from which you want to uninstall the **CoBrowse** service.
5. Click **Commit**.

Next steps

To verify that the service is uninstalled, click **Elements** > **Avaya Breeze™** and perform the following steps:

1. On the Services page, verify that the **State** of the service is **Loaded**.
2. On the Cluster Administration page, perform the following steps:
    a. Click **Show**.
    b. Click the **Avaya Breeze™** server, and verify that the Service Status page does not display the uninstalled service.

Deleting Avaya Co-Browsing Snap-in

Before you begin

Ensure that the Avaya Co-Browsing Snap-in is in Loaded state.

About this task

When you uninstall a service, the system removes the attributes from the Avaya Breeze™ server.

Procedure

1. On the System Manager web interface, click **Elements** > **Avaya Breeze™** > **Service Management** > **Services**.
2. On the Services page, perform the following steps:
    a. Verify that the **State** of the service is **Loaded**.
    b. Select the service that you want to delete, and then click **Delete**.
    c. In the dialog box, select the **Please Confirm** check box.
    d. Click **Delete**.

Next steps

To verify that the service is deleted, click **Elements** > **Avaya Breeze™**, and perform the following steps:

1. Click **Elements** > **Avaya Breeze™** > **Service Management** > **Services**.
2. Verify that the Services page does not display the deleted service.

Chapter 6: Security

Security overview

Avaya Co-Browsing Snap-in utilizes Avaya Breeze™ to provide all security configurations to access all Avaya Breeze™ services. Avaya Breeze™ provides configuration for HTTPS, Mutual TLS (Client Certificate Challenge), Cross Origin Resource Sharing (CORS), Whitelists, and Trust Certificates. In addition, System Manager provides a flexible platform for administering certificates and authorities.

For more information about the security configuration, see the *Avaya Breeze™* and *System Manager* product documentation.

Selecting TLS version for a snap-in service

About this task

Avaya Breeze™ supports selection of minimum TLS version for SIP and HTTPS service in each cluster. By default, Avaya Breeze™ uses the value of the **Minimum TLS Version** field set in System Manager configuration. If the value of the **Minimum TLS Version** field is TLSv1.1, Avaya Breeze™ uses TLSv1.2. If the value of the **Minimum TLS Version** field is SSLv3, Avaya Breeze™ uses TLSv1.0.

Procedure

1. On the System Manager web console, click **Elements** > **Avaya Breeze**.
2. In the left navigation pane, click **Cluster Administration**.
3. On the Cluster Administration page, select the check box for the cluster and then click **Edit**.
4. On the Cluster Editor page, perform the following steps:
   a. Click the **Services** tab.

      The system displays the list of services installed in the cluster.

   b. Select the checkbox next to the snap-in service for which you want to select the TLS version.

   c. From the **Select TLS Version for the Selected Snap-in(s)**, select the relevant TLS version.

The selected TLS version appears in the TLS version column corresponding the service snap-in.

5. Click **Commit**.
6. Reboot the cluster for the changes to take effect.

Certificate-based authentication overview

For Avaya Co-Browsing Snap-in certificate-based authentication, perform the following procedures on the System Manager web interface:

- Configure client certificate challenge through the **Avaya Breeze™** > **Configuration** > **HTTP Security** page.
- Create a client keystore.
- Download the Avaya Breeze™ trusted certificate from System Manager.
- Authenticate browsers.

Ensure that the client applications that access Avaya Co-Browsing Snap-in operations provide the location and credentials of their client certificate and trusted certificate to establish a secure session with the Avaya Co-Browsing Snap-in cluster.

For more information, see the *Avaya Breeze™* and *System Manager* product documentation.

Cross Origin Resource Sharing

Cross Origin Resource Sharing (CORS) enables access to Avaya Co-Browsing Snap-in requests that originate from specific domains. Cross-origin resource sharing allows JAVA scripts from an application server that can send HTTPS requests to an Avaya Breeze™ instance. The configuration is available on the **Avaya Breeze™** > **Configuration** > **HTTP Security** > **HTTP CORS** page.

If the originator is `xyz.com`, then add `xyz.com` as an origin in the CORS list. If the origin is `<IP address:port>`, then add `<IP Address:port>` as an origin in the CORS list.

If the originator is `IP Address`, then add `IP Address` as an origin in the CORS list.

For more information, see the *Avaya Breeze™* product documentation.

Note:

If you use a custom web client application, and enable the client certificate challenge, the web clients cannot authenticate the client certificate through Javascript, that is, Ajax calls. The browser and javascript layers are not connected. Therefore, the system does not send the required client certificate.

Whitelist

Avaya Breeze™ accepts HTTPS requests only from the IP Addresses listed in the table. If you do not select this (whitelist enable checkbox), Avaya Breeze™ accepts any HTTPS request that passes the optional client certificate challenge.

Data security

The customer can ensure data privacy and secure co-browsing by using security measures such as hiding sensitive information, preventing certain actions, and hiding certain elements. Depending on the legal and location-specific requirements, the customer can apply data masking to certain fields such as Social Security Number or credit card number. The customer can also block certain actions so that the agent does not submit any information on behalf of the customer. For more information, see Data masking in *Avaya Co-Browsing Snap-in Developer and API Reference* guide.

Port utilization

For Avaya Co-Browsing Snap-in port information, see the *Avaya Breeze™ 3.3 to Port Matrix document* at https://support.avaya.com/security.

Chapter 7: Performance

Capacities and scalability

Avaya Co-Browsing Snap-in supports up 400 agent and customer sessions on two-node Avaya Breeze™, and supports 1200 sessions per hour.

Deployment	Number of nodes	System Configuration Per Node	Average. Concurrent Session	Average. Sessions Per Hour
Avaya Breeze™ nodes	2	4vCPUs, 8 GB RAM, and 100 GB HDD	530	3180

Note:

If your database size goes beyond 12 GB, you must purge the database. You can use the relevant purging procedures for the respective database. Ensure that you delete/purge the data from the cb_cobrowsesessiontable after you finish deleting/purging data from all other tables.

Chapter 8: Reports

Reports

The supported browsers for reports are Internet Explorer 11, Google Chrome, and Mozilla Firefox. The reports you generate are for reference only and you can generate and view three types of reports:

- Session summary report
- Agent summary report
- Customer summary report

Note:

The report fetches 2000 records at a time. To refine the search, use the search criteria on the Home page. If the report fetches more than 2000 records at a time and displays an error message, you must refine the search criteria. Use the **Refresh** button to view the changes done during the session.

You can generate all reports based on the following search criteria on the respective home page:

Field	Description
State	Use this option to search records based on the state. The states can be: • All: When you choose this option, the system displays all open and closed sessions. **Note:** In case of All sessions, the system displays all open sessions with the start date. For closed sessions, the system displays sessions with the start and end date. • Open: When you choose this option, the system displays all open and active sessions. **Note:** For Open sessions, the system searches for sessions with the start date only. • Close: When you choose this option, the system displays all closed sessions.

Table continues…

Field	Description
	For example , you can search records for all open sessions.
Start Date	Use this option to search records based on the start date and time of the session. The start date and time format is as per the ISO8601 format. For example, 2015-04-19T12:59:23Z
End Date	Use this option to search the records based on the end date and time of the session. The end date and time format is as per the ISO8601 format. For example, 2015-04-19T12:59:23Z
Agent Name	Use this option to search records based on a specific agent. For example, you can filter records for agent named “ABC”. The system displays all reports where the name is equal to “ABC” or contains “ABC”.
Customer Name	Use this option to search records based on a specific customer. For example, you can filter records for customer named “XYZ”. The system displays all reports where the name is equal to “XYZ” or contains “XYZ”.
Submit	Use this option to generate the report based on the filters you select.

You can also enable the filtering of the records within the reports. If you select more than one fields to filter the records, the condition is AND. For example, if you filter records based on agent name and session status, the system displays only those records that match both the filter criteria. You can use asterisk (“*”) to filter records using fuzz-match. For example, if you specify “*us*” in the **Intitiated By** field, then the system displays all records that contain “us”.

You can sort each column or hide a column in the report. If you sort the report on more than one columns, then the condition is AND. For example if you sort the first name as ascending and last name as descending, then the system sorts the first name as ascending and then last name as descending.

Session Summary report

The report gives information about all sessions initiated by a customer and an agent. The following table lists all the columns:

Field	Description
Session Key	Displays the unique key used to identify a session. The session key is system generated. You can click the session key to view all information related to the specific session: • Action By: Displays whether the action was performed by the agent or the customer. • Action: Displays all actions performed by either the agent or the customer. • Timestamp: Displays the timestamp when the action was performed by the agent or the customer.
Customer Name	Displays the name of the customer who initiated a session or joined a session.
Agent Name	Displays the name of the agent who initiated a session or joined a session.

Table continues…

Field	Description
Session Status	Displays the status of the session whether it is closed, idle, waiting for customer, waiting for agent, or in progress.
Duration	Displays the duration of the session in seconds, that is, the time between the start of the session and stop of the session.
Start	Displays the timestamp when the session started.
Stop	Displays the timestamp when the session ended.
Initiated By	Displays whether the session is started by an agent or customer.
Ended By	Displays whether the session is ended by an agent or customer.
Events	Displays all the events for the session. You can view all the events performed by the agent for the duration of the session. The events details are: • Event type: Displays the type of activity performed. For example, if you enter a value in a field, the event type is text. • Event name: Displays the actual activity performed. For example, if you enter a value in a field, the event name is keyup. • Element ID: Displays the field which was changed. For example if you enter a value in the first name field, the element ID is first_name. • Element value: Displays the actual value entered in the field. For example if you enter a value in the first name field as Joe, the element value is Joe. • CSS Selector: Displays either the CSS selector specified or the element ancestors. • Event By: Displays whether the activity was performed by an agent or customer. For example if the Agent entered a value in a field, the event by is Agent. • Timestamp: Displays the time when the activity is performed. For example 15:00:30.
	Use to hide columns in the report. The columns with a check mark are displayed in the report. You can also export the report columns. You can export the columns as: • Export all data as csv: The system exports all the columns in a csv file. • Export visible fields as csv: The system exports only the visible columns in a .csv file. If you hide certain columns, the system does not export the hidden columns. • Export visible data as pdf: The system exports only the visible columns in a .pdf file. If you hide certain columns, the system does not export the hidden columns. **Note:**

Table continues…

Field	Description
	You can export only selected rows from the report in a csv. If you select specific rows, the system displays one additional options for export: • Export visible data as pdf: The system exports only the selected rows in a .pdf file. If you hide certain columns, the system does not export the hidden columns.

Agent Summary report

The report gives information about all sessions initiated by an agent. The following table lists all the columns:

Field	Description
Agent Name	Displays the name of the agent who initiated a session.
Session Key	Displays the unique key used to identify a session. The session key is system generated.
Customer Name	Displays the name of the customer who initiated a session or joined a session.
Session Status	Displays the status of the session whether it is closed, idle, waiting for customer, or in progress.
Agent Device	Displays the device the agent used to initiate the session. **Note:** If the agent device is running Internet Explorer 10 in compatibility view, then the system displays the agent device as Internet Explorer 7.0.
Duration	Displays the duration of the session in seconds, that is, the time between the start of the session and stop of the session.
Start	Displays the timestamp when the session started.
Stop	Displays the timestamp when the session ended.
Agent Last Activity Time	Displays the timestamp when the agent performed the last activity.
Initiated By	Displays whether the session is started by an agent or customer.
Ended By	Displays whether the session is ended by an agent or customer.
	Use to hide columns in the report. The columns with a check mark are displayed in the report. You can also export the report columns. You can export the columns as: • Export all data as csv: The system exports all the columns in a csv file. • Export current data as csv: The system exports only the visible columns in a .csv file. If you hide certain columns, the system does not export the hidden columns. • Export current data as pdf: The system exports only the visible columns in a .pdf file. If you hide certain columns, the system does not export the hidden columns. **Note:**

Table continues…

Field	Description
	You can export only selected rows from the report in a csv. If you select specific rows, the system displays one additional options for export: • Export selected data as csv: The system exports only the selected rows in a .csv file. If you hide certain columns, the system does not export the hidden columns.

Customer Summary report

The report gives information about all sessions initiated by a customer. The following table lists all the columns:

Field	Description
Customer Name	Displays the name of the customer who initiated a session.
Session Key	Displays the unique key used to identify a session. The session key is system generated.
Agent Name	Displays the name of the agent who initiated a session or joined a session.
Session Status	Displays the status of the session whether it is closed, idle, waiting for customer, or in progress.
Customer Device	Displays the device the customer used to initiate the session. **Note:** If the customer device is running Internet Explorer 10 in compatibility view, then the system displays the customer device as Internet Explorer 7.0.
Duration	Displays the duration of the session in seconds, that is, the time between the start of the session and stop of the session.
Start	Displays the timestamp when the session started.
Stop	Displays the timestamp when the session ended.
Customer Last Activity Time	Displays the timestamp when the customer performed the last activity.
Initiated By	Displays whether the session is started by an agent or customer.
Ended By	Displays whether the session is ended by an agent or customer.
	Use to hide columns in the report. The columns with a check mark are displayed in the report. You can also export the report columns. You can export the columns as: • Export all data as csv: The system exports all the columns in a csv file. • Export current data as csv: The system exports only the visible columns in a .csv file. If you hide certain columns, the system does not export the hidden columns. • Export current data as pdf: The system exports only the visible columns in a .pdf file. If you hide certain columns, the system does not export the hidden columns.

Table continues…

Field	Description
	Note: You can export only selected rows from the report in a csv. If you select specific rows, the system displays one additional options for export: • Export selected data as csv: The system exports only the selected rows in a .csv file. If you hide certain columns, the system does not export the hidden columns.

Chapter 9: Troubleshooting

Failed installation

If the installation of Avaya Co-Browsing Snap-in fails:

- Ensure you have configured all database related attributes.
- Check any existing alarms for service level alarms.

You must make the necessary changes to the attributes from System Manager or handle the alarms and then restart the **Avaya Breeze™** server, or the WebSphere node for the changes to take effect.

Fails to run after database reboot

Avaya Co-Browsing Snap-in is in failed state after Oracle database reboot

Service install status in Avaya Breeze™	`Avaya Co-Browsing snap-in is in "failed to run" state after Oracle database reboot.`
Log file message text	`ORA-01017: invalid username/password; logon denied`
Log file	`CoBrowse.log`

Problem description

Avaya Co-Browsing Snap-in changes over to “failed to run” state if you reboot the Oracle database.

Solution

1. Unlock the Oracle user using *oracle client* or any other utility. For example, **`ALTER USER username ACCOUNT UNLOCK;`**
2. In System Manager, retype the Oracle password under the **Home** > **Elements** > **Avaya Breeze™** > **Configuration** > **JDBC Sources**.
3. Click **Commit**.
4. Reboot the Avaya Breeze™ server instances via System Manager.

Alarms

Overview

Avaya Co-Browsing Snap-in generates alarms when any error occurs. The system sends a self-service email to the configured email address.

You can view, search, filter, export, and configure alarms from the System Manager web interface. Alarm information is available on the **Services** > **Events** > **Alarms** page in System Manager. For more information, see *Maintaining and Troubleshooting Avaya Aura® Avaya Breeze™* at https://support.avaya.com/.

Alarm severities

Severity	Description
Critical	Critical alarms identify failures that are causing the service to stop. These alarms require immediate action.
Major	Major alarms identify failures that are causing a critical degradation of service. These alarms require immediate attention.
Minor	Minor alarms identify failures that are causing service degradation. These failures do not cause the system to be inoperable.

Alarm status

Status	Description
Raised	An alarm has been generated. Software recovery actions have failed to correct the problem.
Cleared	The problem has been fixed and the alarm has been cleared. The alarm can be auto clear or you might have to clear the alarm manually.

Attribute value failed to initialize

Alarm text	`Attribute Service initializing is failed`
Alarm ID	`CoBrowse_ATTR_ERR_001`
Alarm level	Minor
Trigger component	While installing the cobrowse service, if attribute service is unable to get the data or registration fails with Avaya Breeze™

Problem description

The attribute service fails to initialize as the attribute service is unable to get the data or registration fails with Avaya Breeze™.

Solution

1. Check the process status of Avaya Breeze™.
2. Start the particular process if the process is in failed state.

Invalid value reported for attribute

Alarm text	`Invalid value reported of attribute: {1}. Set default value as {2}`
Alarm ID	`CoBrowse_ATTR_ERR_002`
Alarm level	Minor
Trigger component	The administrator sets an invalid attribute value in System Manager.

Problem description

The system reports an invalid attribute value from System Manager. For example string value for Inactivity timeout.

Solution

Ensure that the attribute has a valid and correct value in System Manager.

Avaya Breeze™ license service failed to initialize

Alarm text	`License Service initializing is failed`
Alarm ID	`CoBrowse_LIC_ERR_003`
Alarm level	Minor
Trigger component	Licenser service from Avaya Breeze™

Problem description

The system logs the license service in error mode, if the licenser service is unable to get the service license data from Avaya Breeze™ while installing Avaya Co-Browsing Snap-in.

Solution

Check Avaya Breeze™ licenser service.

Server unable to reach Cobrowse database

Alarm text	`Cobrowse database may be down or database related attributed might be configured incorrectly`
Alarm ID	`CoBrowse_DB_ERR_001`
Alarm level	Critical
Trigger component	• Case1: The cobrowse service unable to connect the cobrowse database. • Case2: The cobrowse service is running but the cobrowse database in unavailable.

Problem description

The system can raise this alarm in two cases:

- Case1: The cobrowse service unable to connect the cobrowse database during the installation of the cobrowse service.
- Case2: The cobrowse service is running but the cobrowse database in unavailable.

Solution

1. Ensure you have configured a correct value for the database attribute on System Manager.
2. Ensure that the cobrowse database is available and can communicate with the cobrowse server.

Unable to load localization property

Alarm text	`Unable to load localization property`
Alarm ID	`PROP_ERR_001`
Alarm level	Critical
Trigger component	

Problem description

The system logs the error if the properties file is not defined correctly.

Solution

Check the configuration of the properties file.

Oceana Monitor service and CoBrowse service messages

Oceana Monitor service messages

Message	Level	Description
OceanaMonitorService heartbeat started	INFO	Indicates that the heartbeat task has started
Platform details for node successfully written	INFO	Indicates that the platform details
Attribute Update: Authorization Required to view Monitor output set to '<VALUE>'	INFO	Displays if the 'Oceana token Serviceability Security' has been updated in System Manager.
OceanaMonitorService listening for attribute changes	INFO	Indicates that the internal attribute listener is working.
OceanaMonitorService service started	OK	Indicates the the OceanaMonitorService has started successfully.
OceanaMonitorService attribute listener stopped	INFO	Indicates that the internal attribute listener is working.
OceanaMonitorService service destroyed	INFO	Indicates the OceanaMonitorService has been successfully uninstalled or shutdown.

CoBrowse service messages

Message	Level	Description
CoBrowse Service Starting	INFO	CoBrowse service installation is in progress.
CoBrowse DB initialization successfully	INFO	CoBrowse service successfully connected with the database during start up.
CoBrowse license service initialization successfully	INFO	Verified that valid CoBrowse svar installed.
CoBrowse Service Started	OK	CoBrowse Service ready to accept the request.
CoBrowse Service Stopped	INFO	CoBrowse service undeployed successfully.
CoBrowse license service initialization failed	WARN	Some issue with CoBrowse loaded svar. Avaya Breeze™ API failed to verify the service attributes.
Co_Browse attribute " %attributeName% new value changed as %attributeValue%	OK	Notification received when the below mentioned attributes will change with valid value. • CB.INACTIVE_TIMEOUT • CB.INACTIVE_TIMEOUT_MESSAGE • CB.SESSION_TIMEOUT
Co_Browse attribute %attributename% reverted with default value	WARN	Below attributes are configured with wrong value from System Manager. • CB.INACTIVE_TIMEOUT • CB.INACTIVE_TIMEOUT_MESSAGE

Table continues…

Message	Level	Description
		• CB.SESSION_TIMEOUT
CoBrowse DB initialization failed	FATAL	CoBrowse service unable to connect to the database during start up. You need to verify the database server status and verify the database attributes of CoBrowse service. CoBrowse service status shows as “Installing” for couple of minute and finally goes to in failed state in System Manager.

Logging

Avaya Co-Browsing Snap-in log files

Avaya Breeze™ provides a separate log file for Avaya Co-Browsing Snap-in. If more than one version of Avaya Co-Browsing Snap-in is installed, all logs are stored to the same file.

Note:

If you set the logging on the Avaya Breeze™ to OFF, the log level for Avaya Co-Browsing Snap-in is reset to INFO level. If you want to investigate the logs, select the logging level to Finer or Finest.

The following table describes the log name and location of the logs related to Avaya Co-Browsing Snap-in:

Log Name	Location	Description
Service installation/deployment logs	`/var/log/Avaya/sm/asm.log`	Validates the snap-in service installation/ deployment logs.
Service logs	`/var/log/Avaya/services/cecobrowsega/CoBrowse.log`	Validates the snap-in service logs.
Alarm logs	`/var/log/Avaya/services/event.log`	Validates the snap-in alarm logs.

You can modify the logging level for Collaboration Designer snap-ins on the System Manager Avaya Breeze™ login page. You can view the details of each log, perform a search for logs, and filter specific logs. Use the `/opt/avaya/contrib/bin/ce` tool to enter commands for viewing logs, changing logs configuration.

For more information, see Maintaining and Troubleshooting Avaya Breeze™.

Chapter 10: Resources

Localization

Avaya Co-Browsing Snap-in supports localization for G14 languages. The agent or customer can select the preferred language during session initiation and view the online help in the selected patpreferred language.

Note:

Sample client and reporting application are not localized and are available only in English. Avaya Co-Browsing Snap-in supports localization of server-side error messages only.

Online Help on sample client application is deployed in English language. For more information about on how to deploy localization for other languages, see Avaya Co-Browsing Snap-in Reference Guide.

All the localized help files are under `cobrowse_test_app\cobrowse\help\`. All the agent and client zip files are under `cobrowse_test_app\cobrowse\help\` folder. In the default setup of Avaya Co-Browsing Snap-in, English localized files for the client are under `cobrowse_test_app\cobrowse\customer\CoBrowseOLHCustomer\` and for the agent are under `cobrowse_test_app\cobrowse\agent\CoBrowseOLHAgent\`.

If you want to test the localized help files, depending on your preferred languauge, extract the zip files from the `cobrowse_test_app\cobrowse\help\` to the respective client or agent folder.

Documentation

See the following related documentation at http://support.avaya.com.

Title	Description	Audience
Avaya Co-Browsing Snap-in Release Notes	This document contains Avaya Co-Browsing Snap-in information that is not included in the Snap-in documentation. This document highlights known issues about Avaya Co-Browsing Snap-in with workarounds that are available.	Avaya Professional Services Implementation engineers

Table continues…

Title	Description	Audience
Avaya Co-Browsing Snap-in Developer and API Reference	This document provides a client library for users to write software that interacts with a deployed Avaya Co-Browsing Snap-in system.	Avaya Professional Services Implementation engineers Software developers
Avaya Co-Browsing Snap-in Database dictionary	This document provides the information about database schema.	Avaya professional services
Maintaining and Troubleshooting Avaya Breeze™	This document contains procedures to identify and troubleshoot problems for Avaya Breeze™.	Avaya Professional Services Implementation engineers
Avaya Breeze™ Overview and Specification	This document describes tested product characteristics and capabilities, including product overview and feature descriptions, interoperability, performance specifications, security, and licensing requirements.	Avaya Professional Services Implementation engineers Services and Support personnel System administrators
Administering Avaya Breeze™	This document provides the procedures to administer and configure Avaya Breeze™ services.	Services and Support personnel System administrators
Administering Avaya Aura® System Manager	This document provides the procedures to administer and configure System Manager.	Services and Support personnel System administrators

Training

The following courses are available on the Avaya Learning website at www.avaya-learning.com. Enter the course code in the **Search** field, and click **Go** to search for the course.

Course code	Course title
3420W	Avaya Oceana Solutions Design Fundamentals
3470T	Avaya Oceana Solutions Design Fundamentals APDS Online Test

Viewing Avaya Mentor videos

Avaya Mentor videos provide technical content on how to install, configure, and troubleshoot Avaya products.

About this task

Videos are available on the Avaya Support website, listed under the video document type, and on the Avaya-run channel on YouTube.

Procedure

- To find videos on the Avaya Support website, go to http://support.avaya.com and perform one of the following actions:
  - In **Search**, type `Avaya Mentor Videos` to see a list of the available videos.
  - In **Search**, type the product name. On the Search Results page, select **Video** in the **Content Type** column on the left.
- To find the Avaya Mentor videos on YouTube, go to www.youtube.com/AvayaMentor and perform one of the following actions:
  - Enter a key word or key words in the **Search Channel** to search for a specific product or topic.
  - Scroll down Playlists, and click the name of a topic to see the available list of videos posted on the website.

Note:

Videos are not available for all products.

Support

Go to the Avaya Support website at http://support.avaya.com for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

Appendix A: About sample reference client

You can use the sample reference client to initiate co-browse sessions. The sample client does not support control keys and hot keys for navigation.

Note:

The context-sensitive menu of the sample client is browser-dependent. If the agent and customer are not using the same browser, they might not always see the same context-sensitive menu.

Agent initiated session

An agent can initiate a session or join a live session. For an agent initiated session, the system generates a session key and displays the session key on screen. The customer must use the key to join the session. An agent can initiate a session and cancel the session even after the session key is generated. The system cancels the session key and the agent can start a new session. An agent can request control from the customer. When an agent requests control, the customer can allow or deny sharing the control. The agent can logout from the session. If the agent, that is, the session owner is idle for some time, then the system automatically closes the session. You can configure the inactivity time out. The default value is 2 minutes.

Customer initiated session

A customer can initiate a session or join a live session. For customer initiated session, the system generates a session key and displays the session key on screen. The agent must use the key to join the session. The customer can pause and resume the current session. If the customer is in control of the session, the customer can pause a session. Only when the customer resumes the session, the changes made are synchronized and visible to the agent. The customer can stop the session. If the customer, that is, the session owner is idle for some time, then the system automatically closes the session. You can configure the inactivity time out. The default value is 10 minutes. While the agent is controlling the session, the customer can revoke the access at any point of time.

Related links

Configuring files for agent JavaScript SDK on Tomcat server on page 58

Configuring files for customer JavaScript SDK on Tomcat server on page 58

Configuring files for admin SDK on Tomcat server on page 59

Configuring files for agent JavaScript SDK on Tomcat server

Procedure

1. Download the `cobrowse_test_app.zip`.
2. Unzip the `cobrowse_test_app.zip` file to `webapps/cobrowse_test_app` directory.
3. Configure the properties in the agent file `cobrowse_test_app/cobrowse/agent/js/app.js` as:

```
_cbconfig.serverInfo.hostName=<IP/hostname of cobrowse snap-in server>
_cbconfig.serverInfo.port=<port to access>
_cbconfig.serverInfo.isSecure=<true/false>
```

4. Restart the tomcat server.
5. Access the agent URL as `http://<hostname:port>/cobrowse_test_app/cobrowse/agent`

Related links

About sample reference client on page 57

Configuring files for customer JavaScript SDK on Tomcat server

Procedure

1. Download the `cobrowse_test_app.zip`.
2. Unzip the `cobrowse_test_app.zip` file to `webapps/cobrowse_test_app` directory.
3. Configure the properties in the customer file `cobrowse_test_app/cobrowse/customer/js/app.js` as:

```
_cbconfig.serverInfo.hostName=<IP/hostname of cobrowse snap-in server>
_cbconfig.serverInfo.port=<port to access>
_cbconfig.serverInfo.isSecure=<true/false>
```

4. Restart the tomcat server.
5. Access the agent URL as `http://<hostname:port>/cobrowse_test_app/cobrowse/customer`

Related links

About sample reference client on page 57

Configuring files for admin SDK on Tomcat server

Procedure

1. Download the `cobrowse_test_app.zip`.
2. Unzip the `cobrowse_test_app.zip` file to `webapps/cobrowse_test_app` directory.
3. Configure the properties in the admin file `cobrowse_test_app/cobrowse/admin/js/app.js` as:

   ```
   var serverURL = 'https://<Avaya Breeze_cluster>/services/CoBrowse'
   ```

   where

   `<Avaya Breeze_cluster>` is the URL of the Avaya Breeze™ where co-browse service is installed.
4. Restart the tomcat server.
5. Access the admin URL as `http://<hostname:port>/cobrowse_test_app/cobrowse/admin`.

Related links

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