AVAYA

Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Trio Enterprise from Enghouse Interactive AB with Avaya Aura® Presence Services Snap-in running on Avaya Breeze™ Platform - Issue 1.0

Abstract

These Application Notes describe the steps required to integrate Trio Enterprise with Avaya Aura® Presence Services Snap-in running on Avaya Breeze™ Platform using a Java Application Program Interface (API) that connects to the Local Presence Server. Trio Enterprise display presence status of each monitored phone.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

1 of 35
Trio70_PS71

1. Introduction

These Application Notes describe the steps required to integrate Trio Enterprise with Avaya Aura® Presence Services Snap-in (Presence Services) running on Avaya Breeze^{TM} Platform using a Java API that connects to the Local Presence Server (LPS). Trio Enterprise displays the presence status of each monitored phone. The assumption is made that the installation and configuration of the Avaya Breeze^{TM} server with Avaya Aura® Session Manager is already in place. For additional documentation, refer to **Section 11**.

2. General Test Approach and Test Results

The general test approach was to configure Trio Enterprise server to connect to Presence Services and display enterprise phones status on Trio Enterprise Attendant window.

During compliance testing, the presence of phones is set to be in a different status like available, busy, etc. From the Attendant window, monitor the presence status of the phone user. Change the presence status of the phones. The attendant window displays the new status. Also verify that the Attendant window shows when the user of a phone is on-hook or off-hook.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in this DevConnect Application Note included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with this Application Note, the interface between Avaya systems and the Trio Enterprise did not include use of any specific encryption features as requested by Enghouse Interactive AB.

2.1 Interoperability Compliance Testing

The compatibility tests included the following.
- Ensure the phone displays the correct status when set to Automatic, Available, Busy, Away, Do not disturb, offline and out of office.
- Set the phone to on hook and off hook.

2.2 Test Results

Tests were performed to confirm interoperability between the Trio Enterprise and Presence Service. All the test cases passed successfully with the following observations.

- When phone's presence is set to "Do not Disturb", the actual presence shown in the database is "Unavailable" and Trio displays the same.
- When phone's presence is set to "Out of Office", the actual presence shown in the database is "Vacation" and Trio displays the same.

2.3 Support

For technical support for Enghouse Interactive AB products, please use the following web link.
http://www.trio.com/web/Support.aspx

Enghouse Interactive AB can also be contacted as follows.
Phone: +46 (0)8 457 30 00
Fax: +46 (0)8 31 87 00
E-mail: triosupport@enghouse.com

3. Reference Configuration

Figure 1 illustrates a sample configuration with an Avaya network that includes the following Avaya products:

- Avaya Aura® Presence Services Snap-in running on Avaya Breeze™ Platform.
- Avaya Aura® System Manager used to configure Avaya Breeze™ Platform.
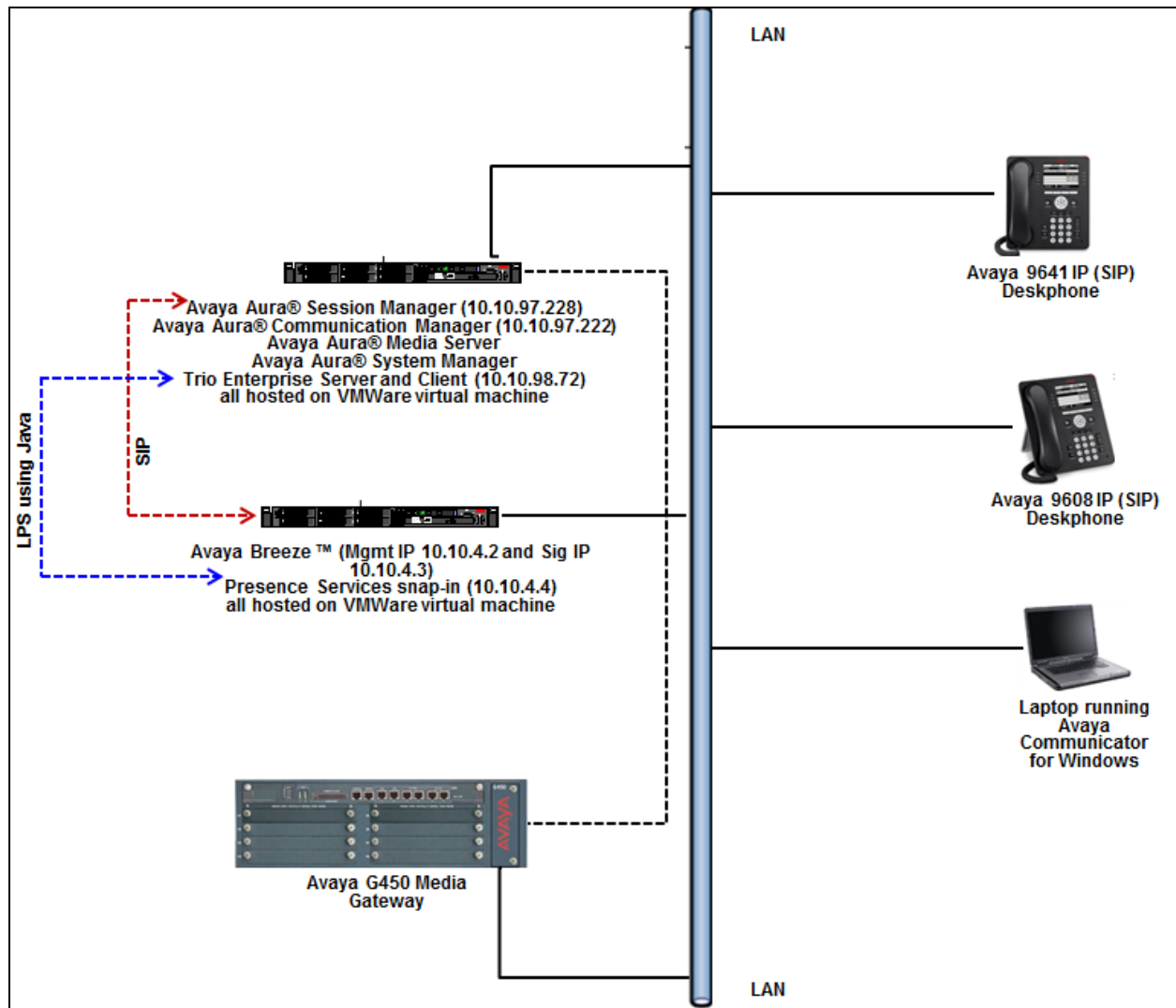
Figure 1: Configuration for Avaya Aura® Presence Services and Trio Enterprise

4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment/Software	Release/Version
Avaya Aura® System Manager running on virtualized environment	7.1.1.0 FP1
Avaya Aura® Session Manager running on virtualized environment	7.1.1.0.711008
Avaya Aura® Presence Services Snap-in	7.1.0.0.604
Avaya Breeze^{TM} Platform	3.3.1.1.331107
Avaya PresenceServices-LPS-SDK	7.1.0.0.579
Avaya Communicator for Windows	2.1.4.84
Avaya 96x1 Series IP Telephone • 9641GS (SIP) • 9608 (SIP)	7.0.1.2.9 7.0.1.2.9
Trio Enterprise Server and Client running on Microsoft Windows 2012 R2 Server	7.0

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

5 of 35
Trio70_PS71

5. Configure Avaya Aura® Session Manager for Presence Services

This section provides the procedures for configuring Session Manager for Presence Services. The procedures include the following areas:

- Launch Avaya Aura® System Manager
- Administer Domain
- Administer locations
- Administer SIP entities

5.1 Launch Avaya Aura® System Manager

Access the System Manager web interface by using the URL "https://ip-address" in an Internet browser window, where "ip-address" is the IP address of System Manager. Log in using the appropriate credentials.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

6 of 35
Trio70_PS71

5.2 Administer Domain

In the subsequent screen (not shown), select **Elements → Routing** to display the **Introduction to Network Routing Policy** screen below. Select **Routing → Domains** from the left pane, and click **New** in the subsequent screen (not shown) to add a new domain
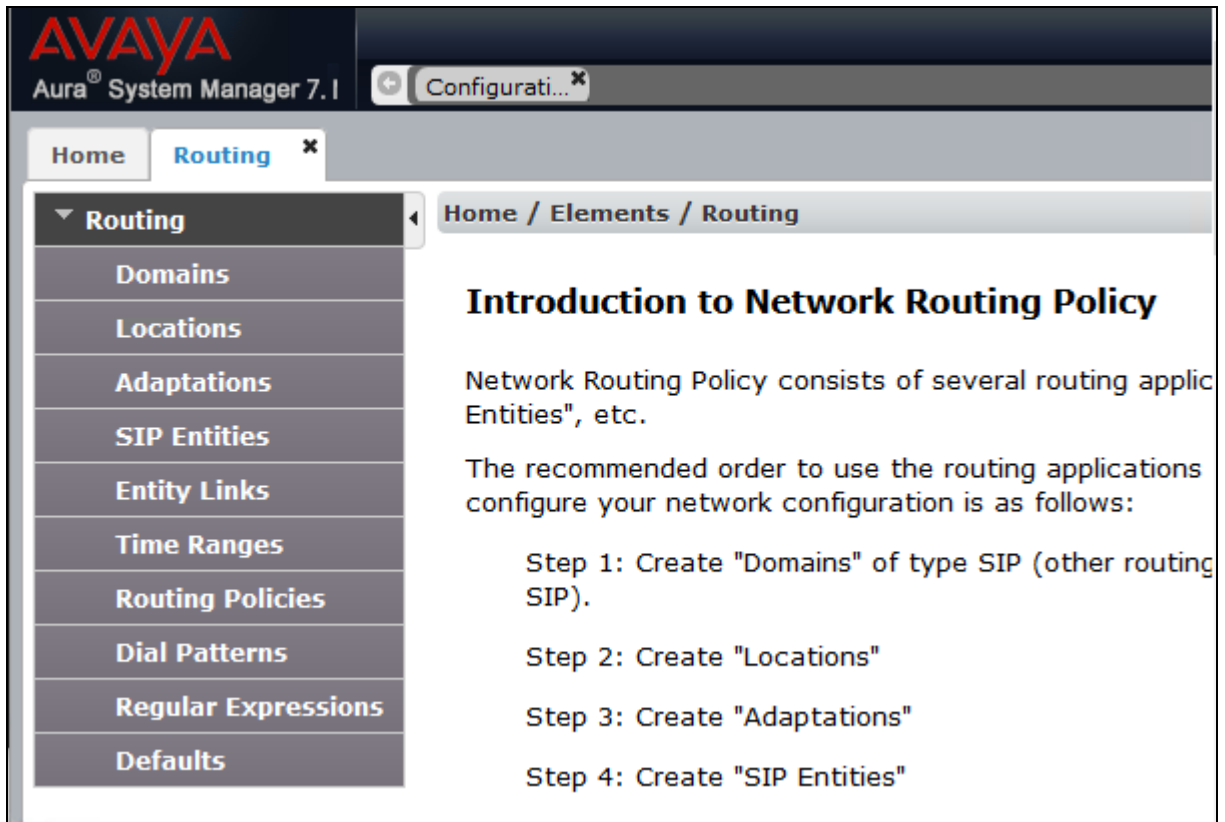
The **Domain Management** screen is displayed. In the **Name** field enter the domain name, select *sip* from the **Type** drop down menu and provide any optional **Notes**.
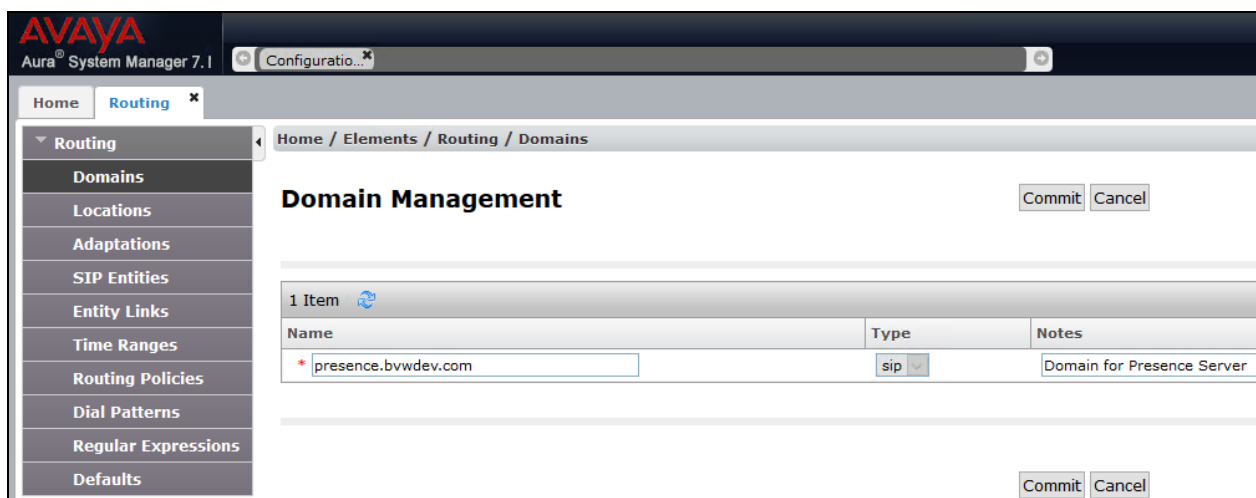
5.3 Administer Locations

Select **Routing → Locations** from the left pane, and click **New** in the subsequent screen (not shown) to add a new location for Trio Enterprise.

The **Location Details** screen is displayed. In the **General** sub-section, enter a descriptive **Name** and optional **Notes**. Retain the default values in the remaining fields.

Scroll down to the **Location Pattern** sub-section, click **Add** and enter the IP address of all devices involved in the compliance testing in **IP Address Pattern**, as shown below. Retain the default values in the remaining fields.

RS; Reviewed:
SPOC 12/21/2017
Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.
8 of 35
Trio70_PS71

5.4 Administer SIP Entity

This section explains the adding of a SIP entity for the Presence Server.

Select **Routing → SIP Entities** from the left pane, and click **New** in the subsequent screen (not shown) to add a new SIP entity for Trio Enterprise.

The **SIP Entity Details** screen is displayed. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Name:** A descriptive name.
- **FQDN or IP Address:** The FQDN of Presence Server.
- **Type:** Select *Presence Services* from the drop down menu.
- **Notes:** Any desired notes.
- **Location:** Select the Trio Enterprise location name from **Section 5.3**.
- **Time Zone:** Select the applicable time zone.

Scroll down to the **Entity Links** sub-section, and click **Add** to add an entity link. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Name:**   A descriptive name.
- **SIP Entity 1:**   The Session Manager entity name, in this case *DevvmSM*.
- **Protocol:**   *TLS*
- **Port:**   *5062*
- **SIP Entity 2:**   The Presence Server entity name from this section.
- **Port:**   *5061*
- **Connection Policy:** *trusted*

6. Configure Avaya Aura® Presence Services Snap-in and Presence for SIP Users

Configuration for Presence Services is accomplished by accessing the browser-based GUI of System Manager using the URL "https://<*ip-address*>/SMGR", where <*ip-address*> is the IP address of System Manager. Log in with the appropriate credentials. The initial screen is displayed as shown below. The configuration in this section will be performed under **Avaya Breeze™** and **User Management** listed within the **Elements** and **Users** section.
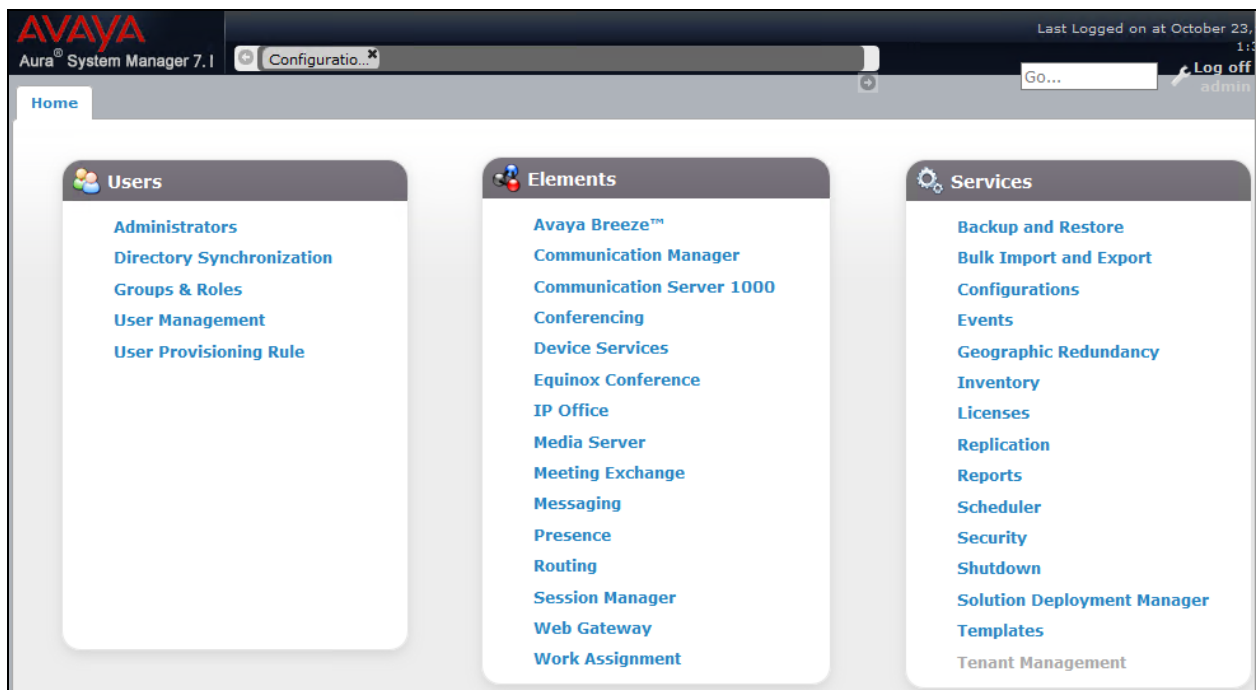
6.1 Install Avaya Aura® Presence Services Snap-in

It is assumed that the Avaya Breeze[TM] Platform has already been installed and configured. For additional information see the documentation in the **References** section.

Navigate to **Home → Elements → Avaya Breeze[TM]**.

To install the Presence Services Snap-in navigate to **Avaya Breeze[TM] → Service Management**.
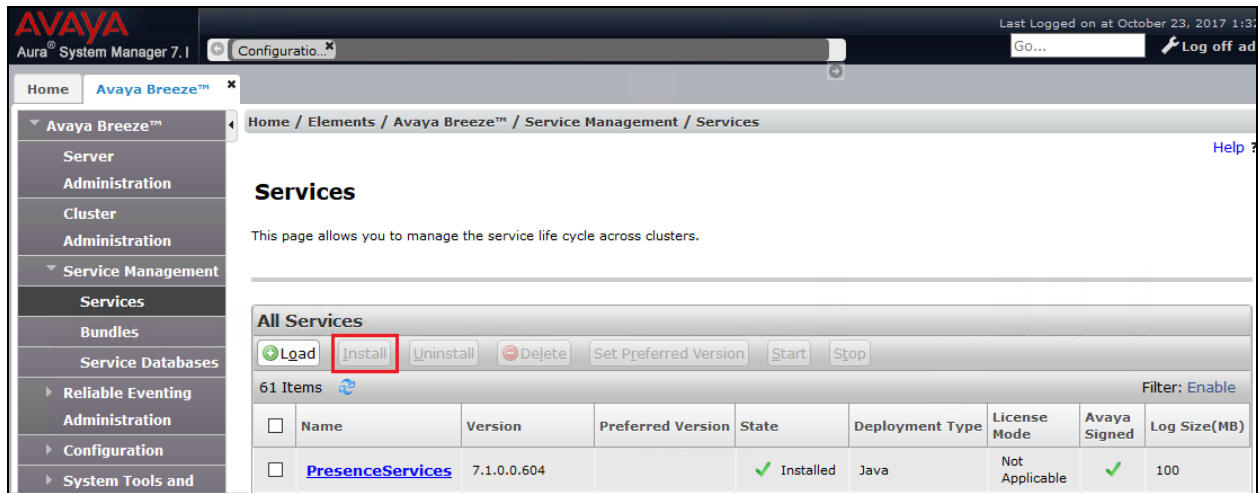
Select **Services** and then click on **Load** to upload the Presence Services Snap-in, click **Browse** and select the Presence Services Snap-in. Click **Load** to continue.
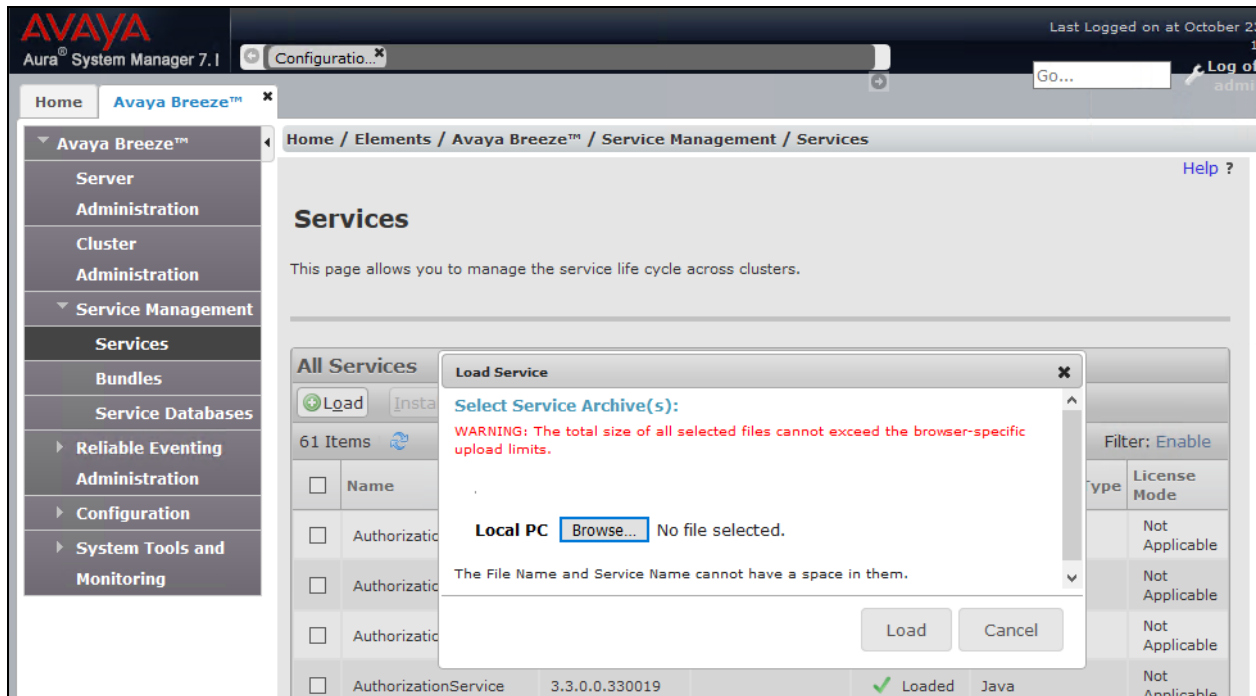
Follow the steps and ensure that the **PresenceServices** snap-in now has a state of **Loaded** (not shown).

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

13 of 35
Trio70_PS71

To install the snap-in, check the box for **PresenceServices** and select **Install**. Follow the installation steps. Screen below shows the snap-in after the installation is complete.

6.2 Add Presence Users

This section only shows the adding of Presence to an already configured SIP User**.** Navigate to **Users → User Management → Manager Users**. Select an already configured SIP user. The screen below shows user *56204* selected. Click on the **Edit** button.

Under the **Communication Profile** tab:
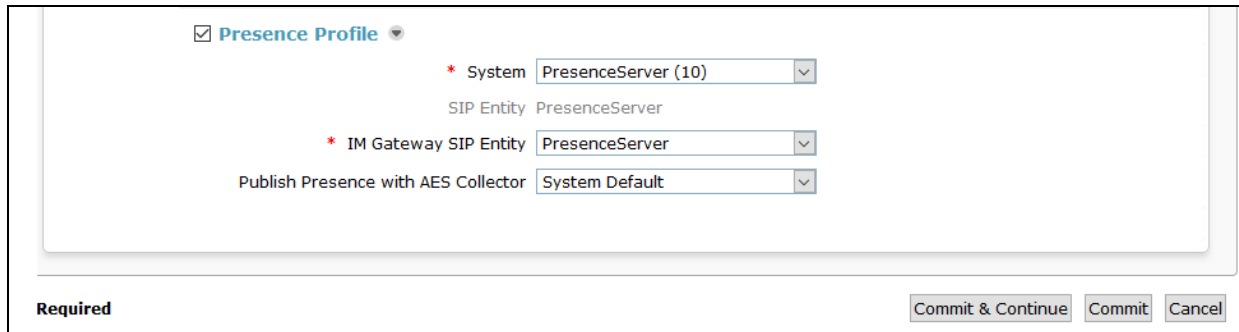
Select **New** in the **Communication Address** section:

- Select *Avaya Presence/IM* from the **Type** drop down menu.
- For the **Fully Qualified Address**, type in the extension number that will be used by the SIP user to log in. For the domain, select the domain created (**Section 5.2**) for the Presence Server from the drop down menu.

Once done, select **Add**.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

16 of 35
Trio70_PS71

Continuing from above, scroll down and enable the check box for **Presence Profile.** For the **System** and **IM Gateway SIP Entity** (**Section 5.4**) drop down menu, select the Presence Services server. Select **Commit** to add the user.

RS; Reviewed:
SPOC 12/21/2017
Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.
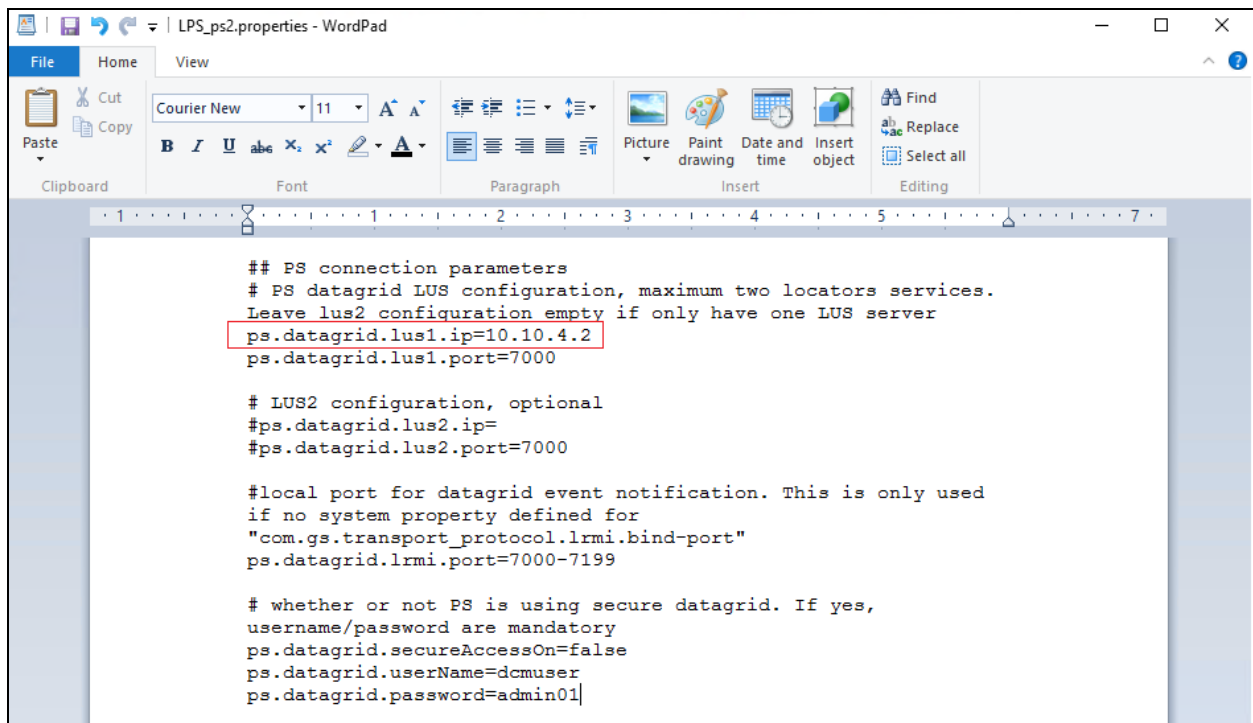17 of 35
Trio70_PS71

7. Configure Local Presence Service Test Client

The Java-based Local Presence Service (LPS) test client application connects to Presence Services to subscribe and publish presence status information on behalf of one or many users. The LPS test client is an Avaya test tool that acts like a third party client and shows the presence status of various users. Note that Java Runtime Environment (JRE) is required for this client and must be installed on the system where the client is going to be installed.

During compliance testing, this tool is installed on the same server running the Trio Enterprise application. The client tool is part of the Presence Services bundle. During compliance testing the "PresenceServices-LPS-SDK-7.1.0.0.579.zip" file was used. Unzip this file and from "lps-sdk" folder, open the "LPS_ps2.properties" file.

Enter the Management IP address of the Avaya Breeze™ server in the **ps.datagrid.lus1.ip** field as shown in the screen below.

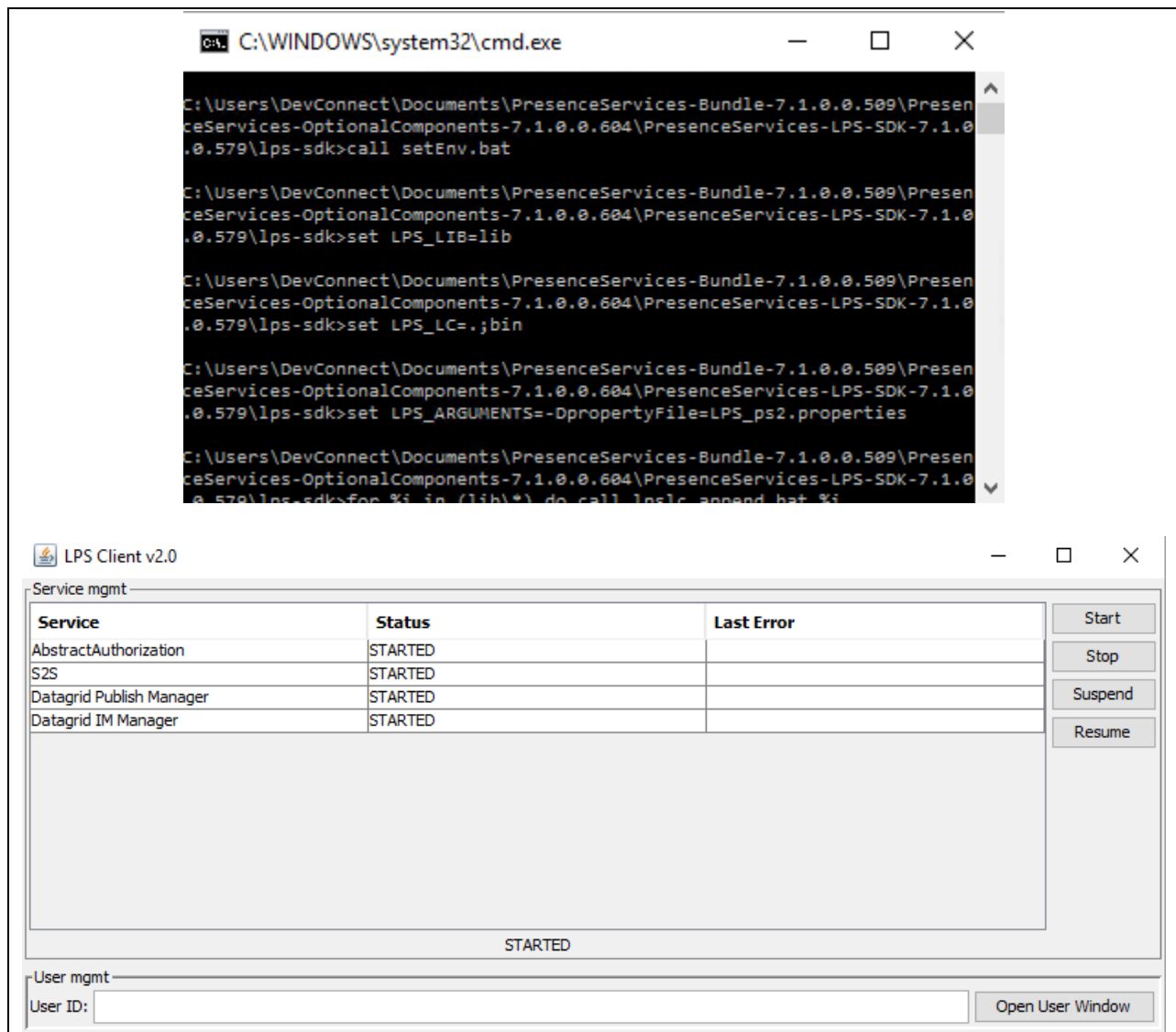Retain default values for all other remaining fields.

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

From the "lps-sdk" folder, double click on "runUI.bat" file to start the client. Screen below shows the client running. Ensure that **Status** is "STARTED" for all **Service**.
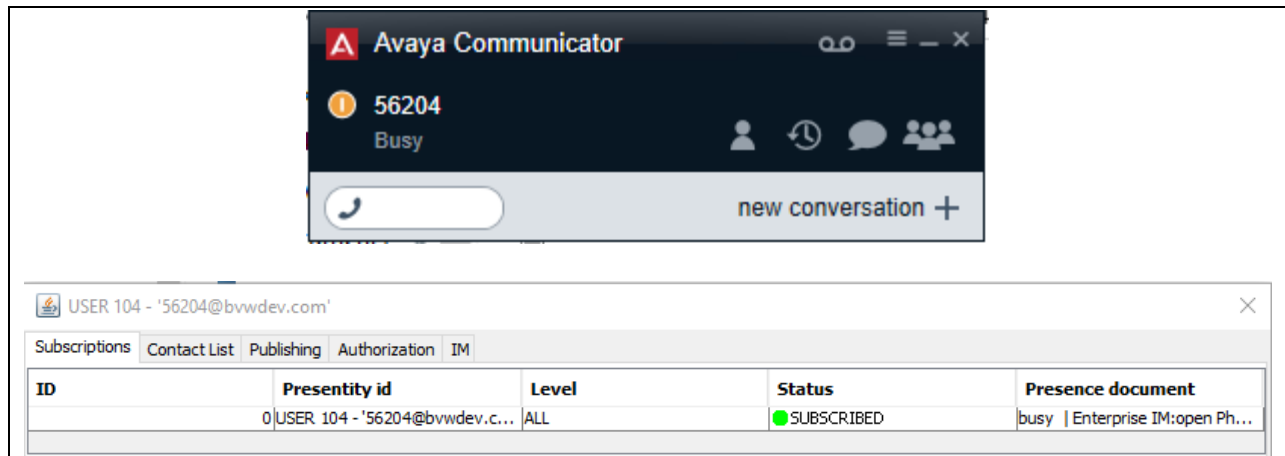
In the **User mgmt** section enter the User ID of a SIP user whose presence needs to be monitored. In the screen below *56204@bvwdev.com* was entered. Next, click on the **Open User Window** button.
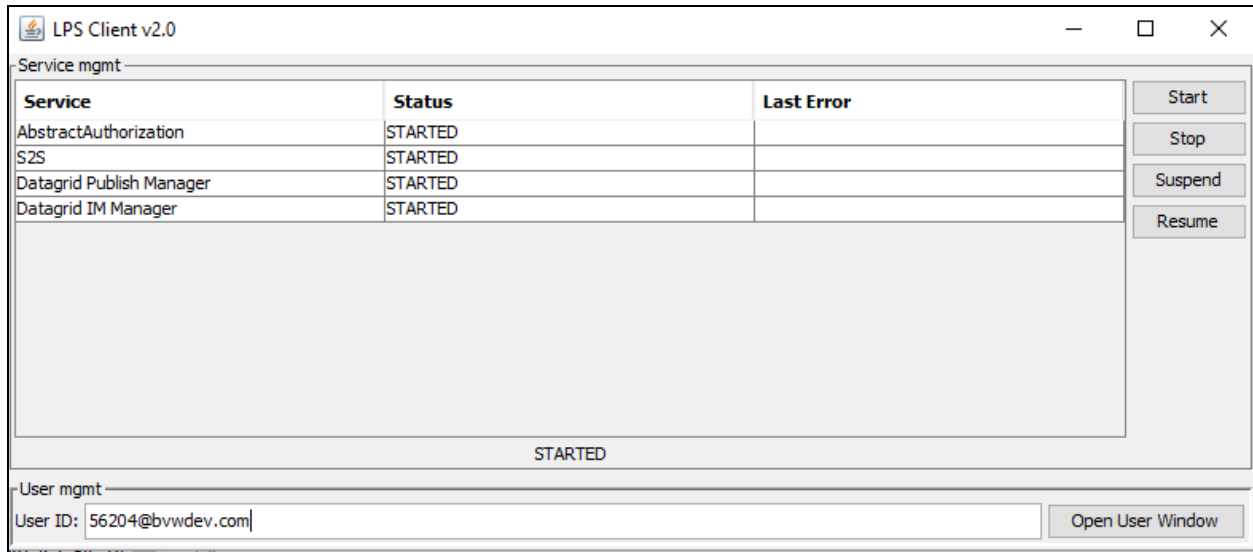
The screen below shows the user **Status** as *SUBSCRIBED* and the **Presence document** shows that the user presence is *available* and the phone is *open*. More details of this subscription is obtained by right clicking on the user shown and selecting **Details** (not shown). Also for comparison, a screen showing the Avaya Communicator for user *56204* is shown below with a status of *Available*.
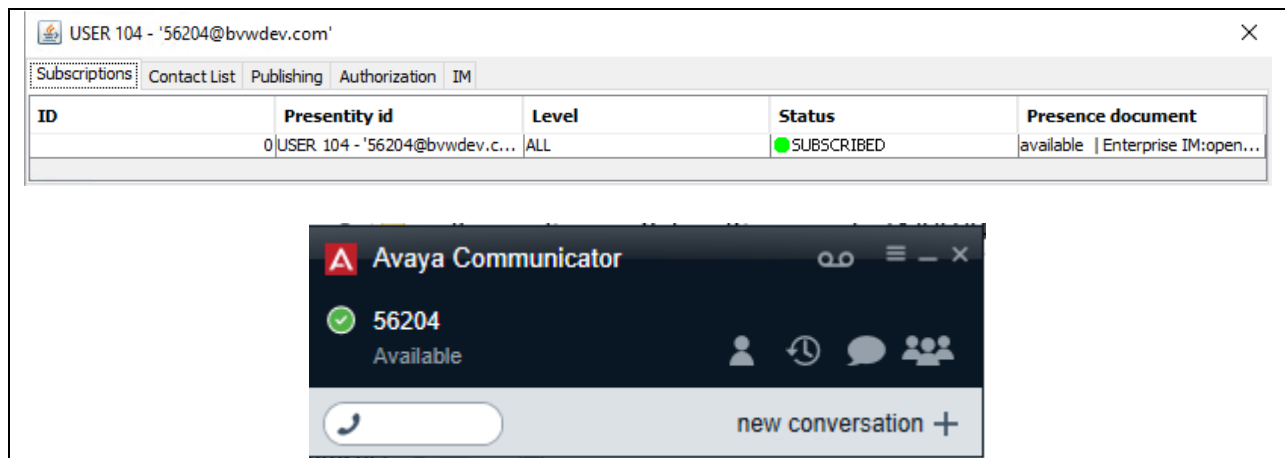
In the screen below change the status for *56204* to **Busy** on the Avaya Communicator, the Presence on the client is also changed to **Busy**.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.
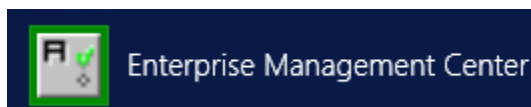
21 of 35
Trio70_PS71

8. Configure Trio Enterprise for Avaya Aura® Presence Services

The presence connectivity between Trio Enterprise and the Presence Server is dependent on Java. Java runtime is required to be installed on the Trio Enterprise server.
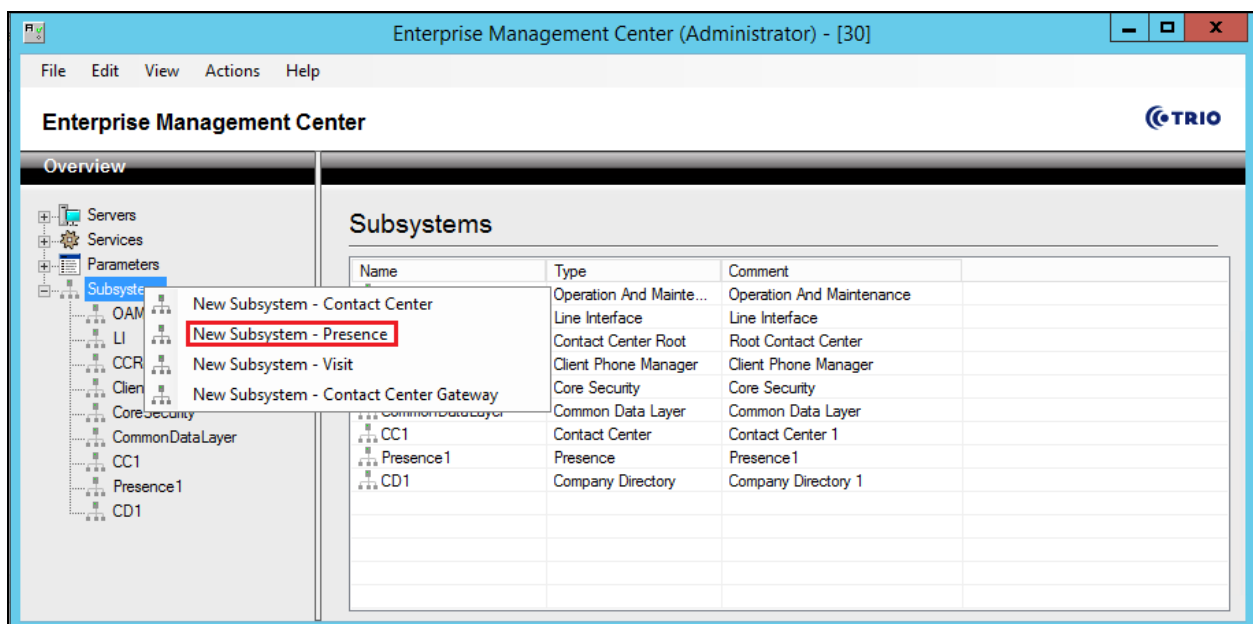This section shows how to configure Trio Enterprise to successfully connect to the Presence Server. It is assumed that the installation of the Trio Enterprise software is complete and the Trio services are up and running. The steps to configure a Trio Enterprise for presence are as follows.

8.1 Add Presence Subsystem
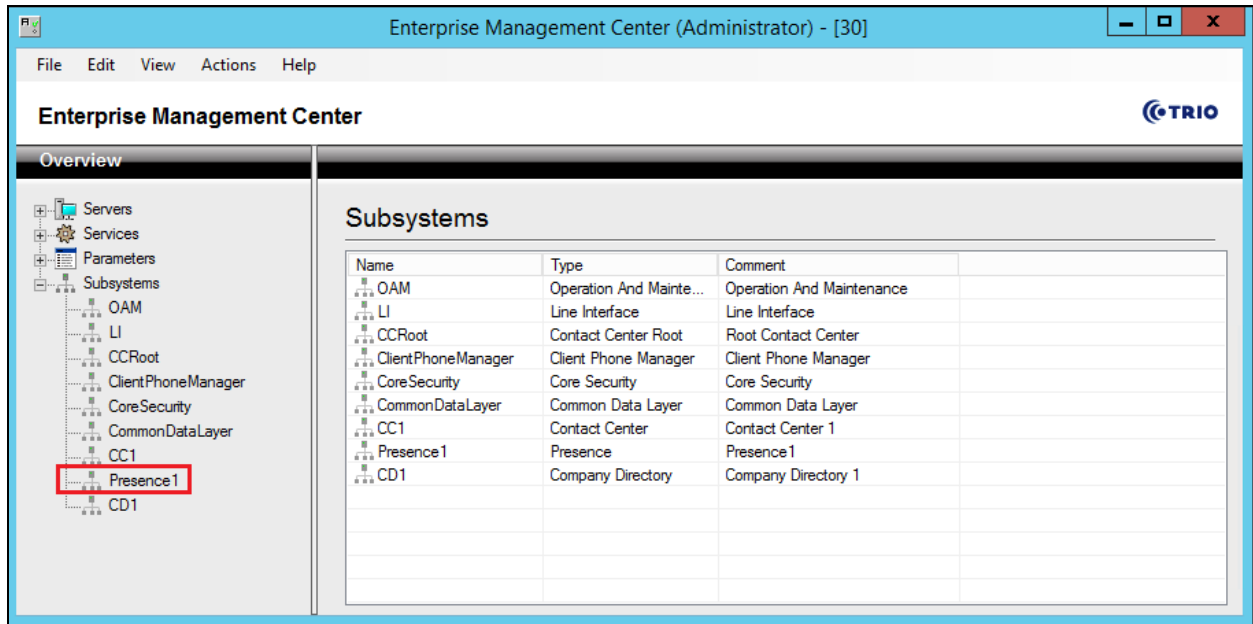
To launch the Enterprise Management Center window as shown in the screen below, launch the 'Enterprise Management Center' icon as shown here.

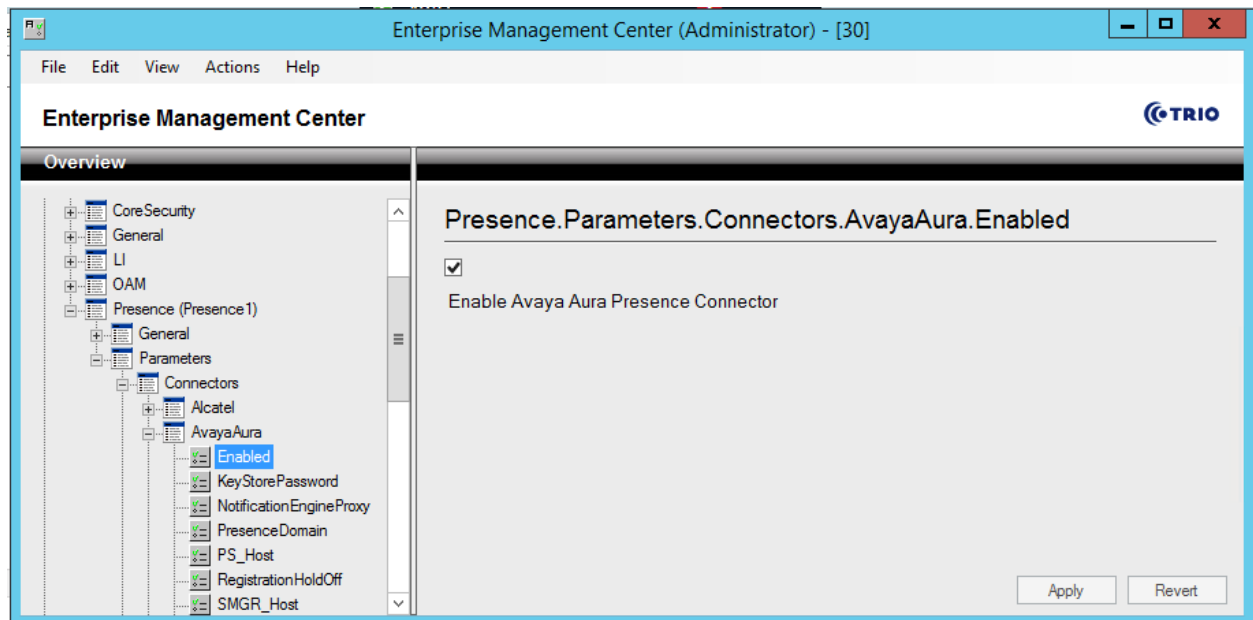Right click on **Subsystem** and add Presence by selecting **New Subsystem – Presence** as shown below.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

22 of 35
Trio70_PS71

The screen belows shows the window after **Presence1** is added.

Navigate to **Presence (Presence1) → Parameters → Connections → AvayaAura → Enabled** and check the box for **Enable Avaya Aura Presence Connector** as shown in the screen below. Click on the **Apply** button.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

23 of 35
Trio70_PS71

Navigate to **Presence (Presence1)** → **Parameters** → **Connections** → **AvayaAura** → **PresenceDomain**. During compliance testing *bvwdev.com* was the presence domain to monitor as shown in the screen below. Click on the **Apply** button.
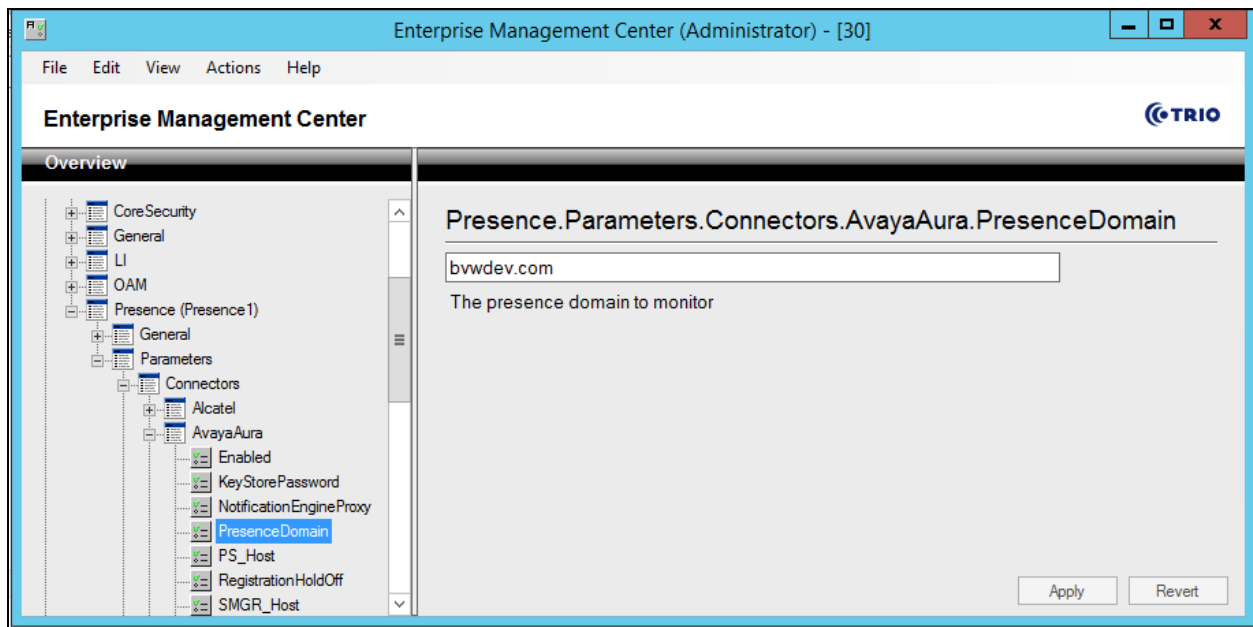
Navigate to **Presence (Presence1)** → **Parameters** → **Connections** → **AvayaAura** → **PS_Host**. During compliance testing *10.10.4.2* was the IP address of Avaya Breeze™ Management IP as shown in the screen below. Click on the **Apply** button.
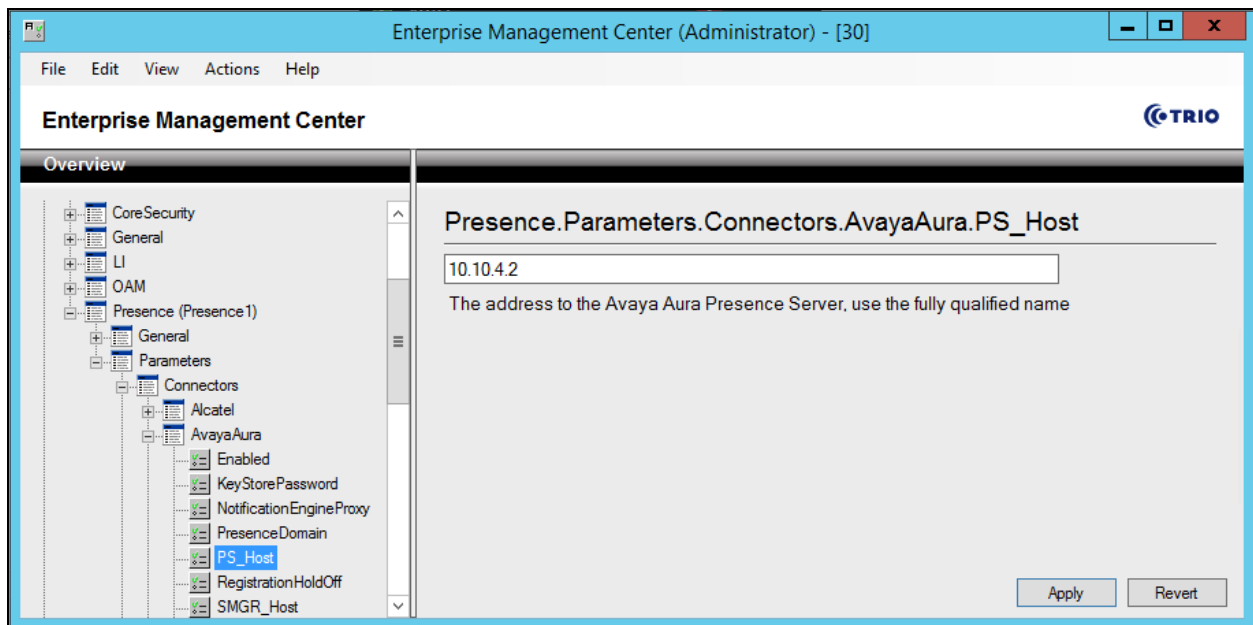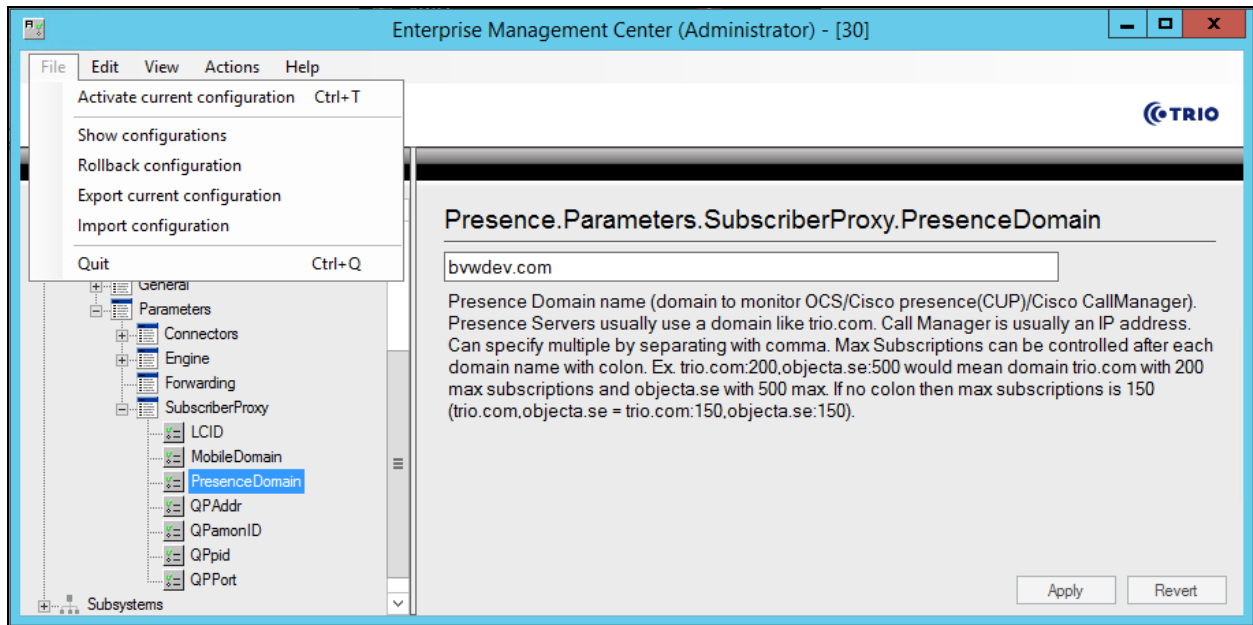
The completed configuration screen for **Presence (Presence1)** → **Parameters** → **Connections** → **AvayaAura** is shown below.
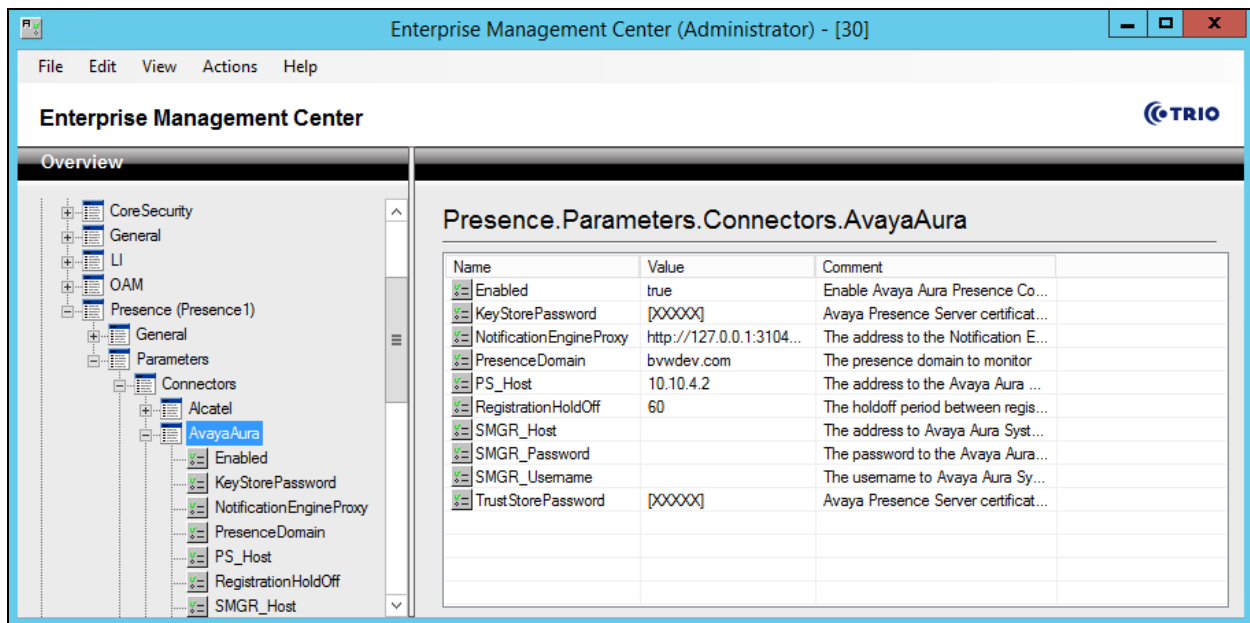
Navigate to **Presence (Presence1)** → **Parameters** → **SubscriberProxy** → **PresenceDomain**. During compliance testing *bvwdev.com* was the presence domain used as shown in the screen below. Click on the **Apply** button.
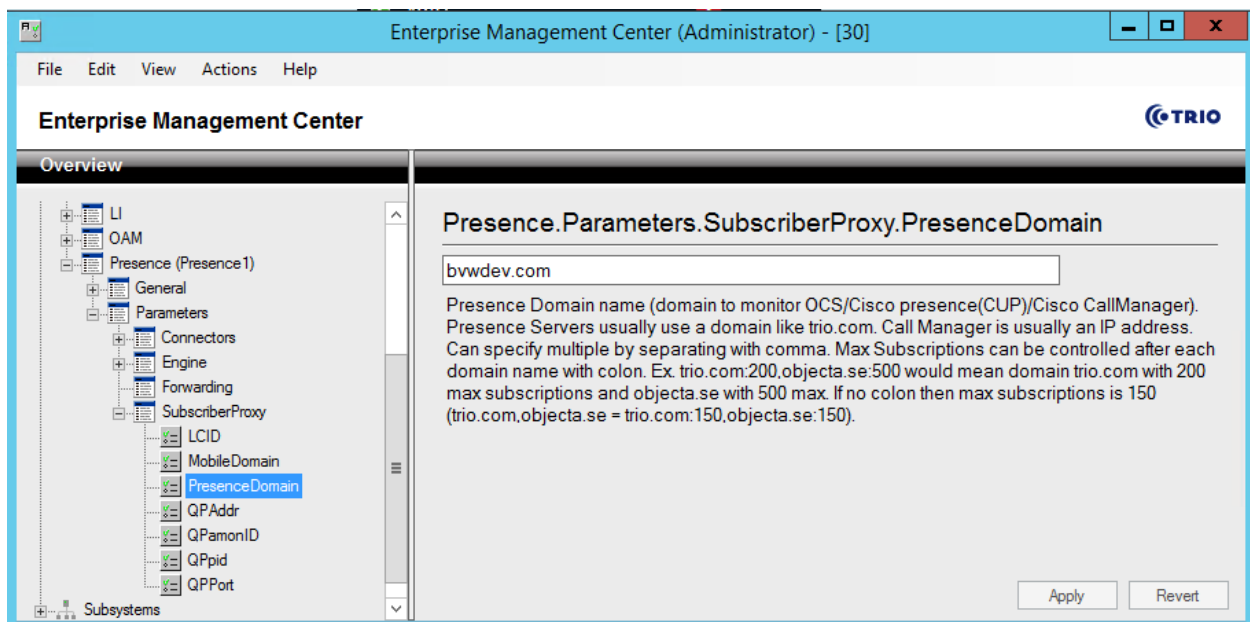
Navigate to **File → Activate current configuration Ctrl+T** to activate the Enterprise Management Center configration as shown in the screen below.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.
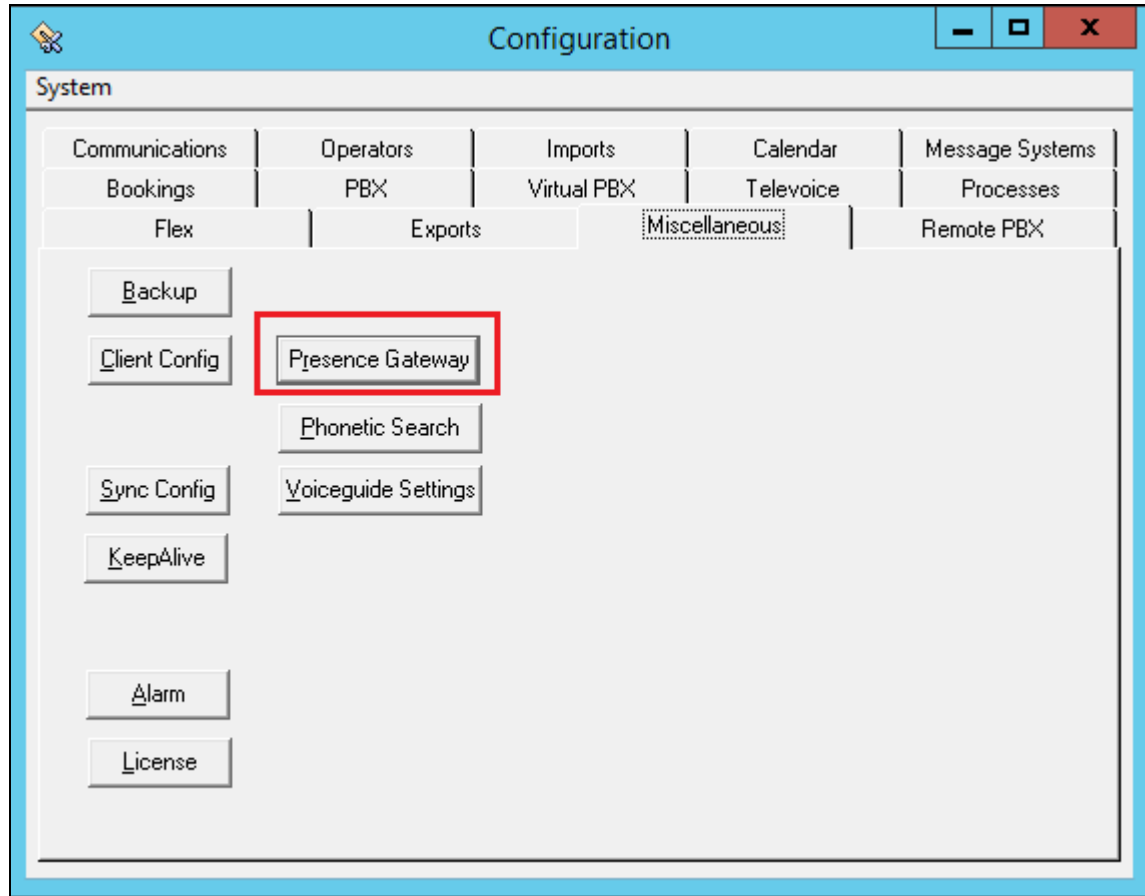
26 of 35
Trio70_PS71

8.2 Configure Trio Presence Gateway

To launch the Trio Configuration window to configure the Presence Gateway as shown in the screen below, launch the 'Trio Present Setup' icon as shown here.

The **Presence Gateway** button can be found under the **Miscellaneous** tab. Click on this button.

In the Presence Gateway window shown below, configure the following.

- **Server URL***: net.pipe://localhost/Presence1*
- **Present Domain:** *1*
- Check the box for **Enable connection for monitor of presence or line state**

Retain default values for all other fields and click on the **OK** button.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

28 of 35
Trio70_PS71

From the **Enterprise Management Center** window as shown in **Section 8.1**, navigate to **Services → te62cs1k76** and restart the *Trio Presence1* and *Trio CD1* services as shown in the screen below.
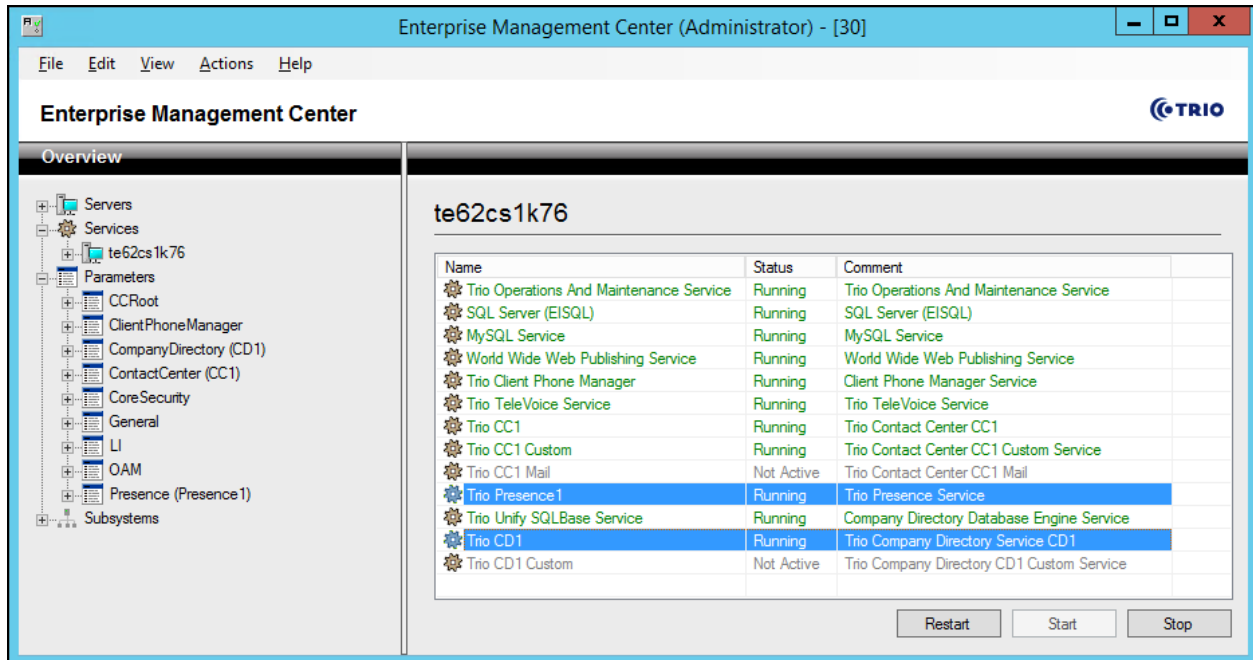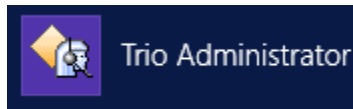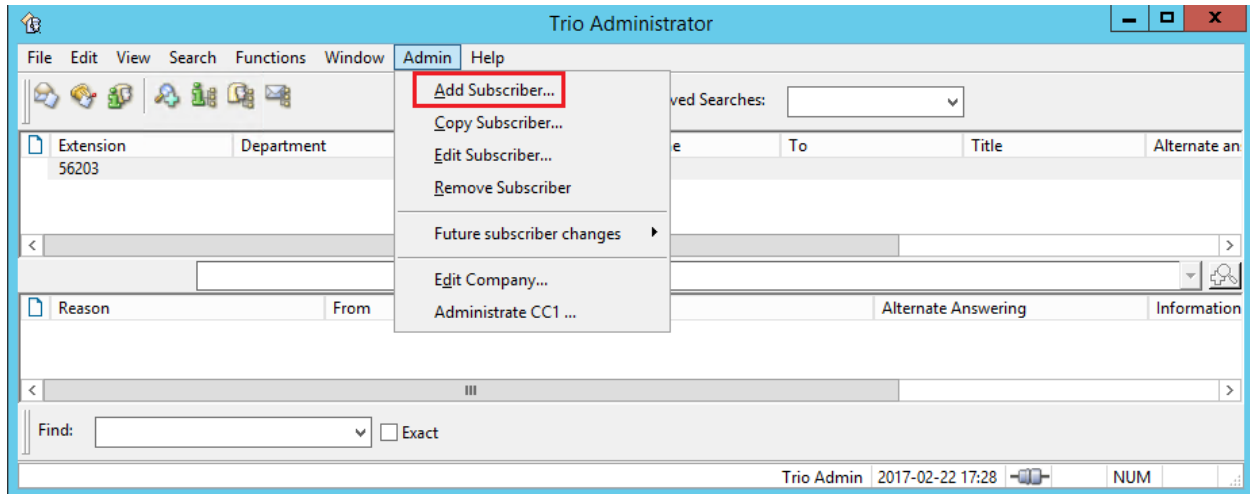
8.3 Administer Users

To launch the Trio Administrator window to configure users as shown in the screen below, launch the 'Trio Administrator' icon as shown here.

From the **Trio Administrator** window, navigate to **Admin → Add Subscriber**.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

30 of 35
Trio70_PS71

In the **Add Subscriber** window as shown below, from the **Security** tab, select the **Extension** radio button and populate the **Sign-in address** field with the correct information of the user whose presence needs to be monitored. The example below shows the sign in address of user '56203', which is *sip:56203@bvwdev.com*. Populate the other tabs as required and click on the **OK** button.
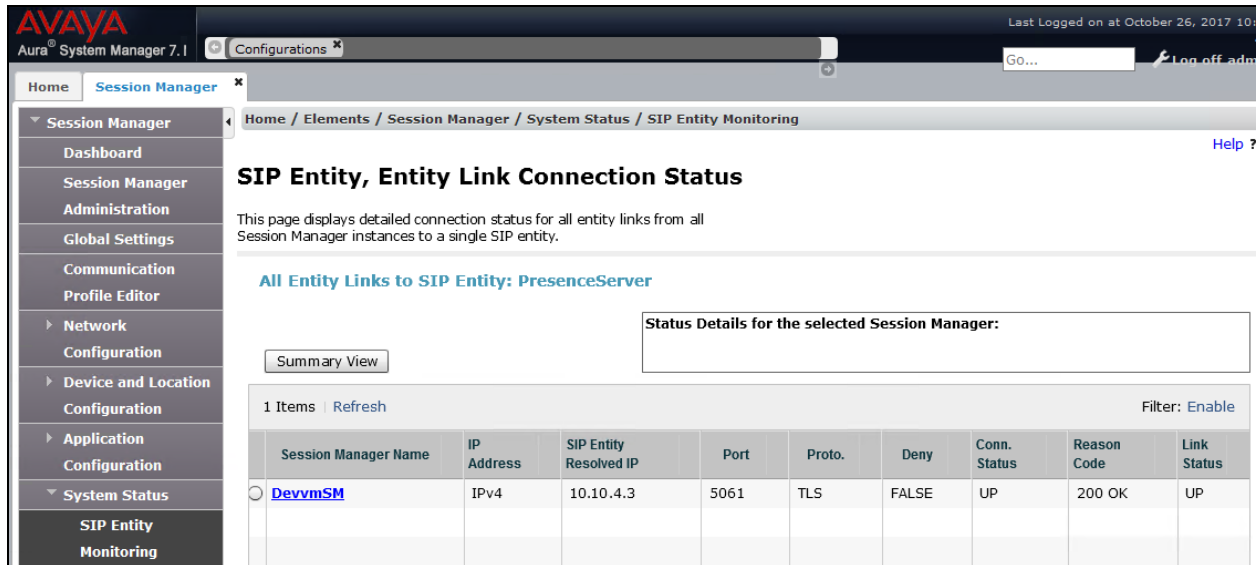
9. Verification Steps

This section provides the tests that can be performed to verify correct configuration of Avaya Aura® Presence Server with Trio Enterprise.

9.1 Verify Status of Avaya Aura® Presence Server Snap-in

In System manager web page, to confirm a successful Presence Server SIP entity connection to Session Manager, click on **Element → Session Manager** and then select **System Status → SIP Entity Monitoring**, click on the **PresenceServer** entity to verify its status. The detail page shows the link from **PresenceServer** to **Session Manager** via **TLS** is **UP**.

9.2 Verify Status of Users via Local Presence Server Client

Refer to **Section 7**, which explains the LPS test client verifying the presence status of a user.

RS; Reviewed:
SPOC 12/21/2017

Solution & Interoperability Test Lab Application Notes
©2017 Avaya Inc. All Rights Reserved.

32 of 35
Trio70_PS71

9.3 Verify Status of Users via Trio Enterprise Attendant

To verify that Trio Enterprise shows the presence status of users, log in to the Trio Enterprise Attendant by launching the "Agent Client" icon as shown here.

Log in with the appropriate credentials.The **Trio Enterprise Attendant** window appears as shown below. The screen below shows the presence of user *56203* as *Available*. Change the presence status of this user to "Busy" and the same is reflected on the Trio Enterprise screen as shown in the following screen.
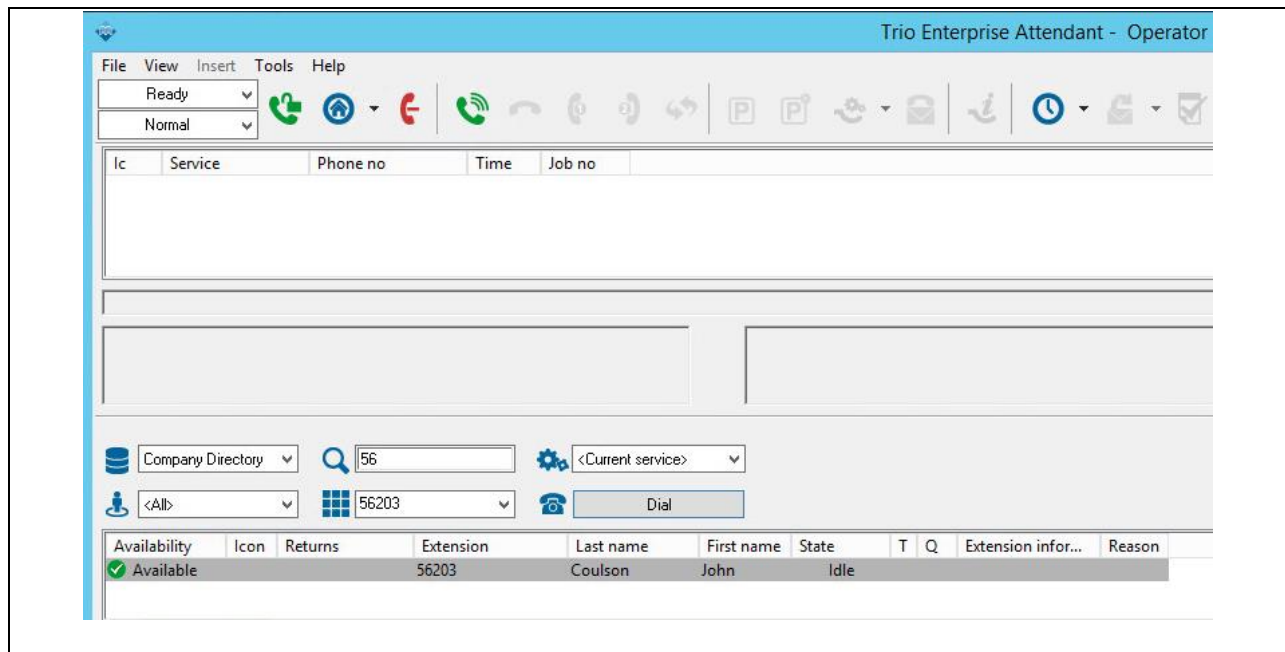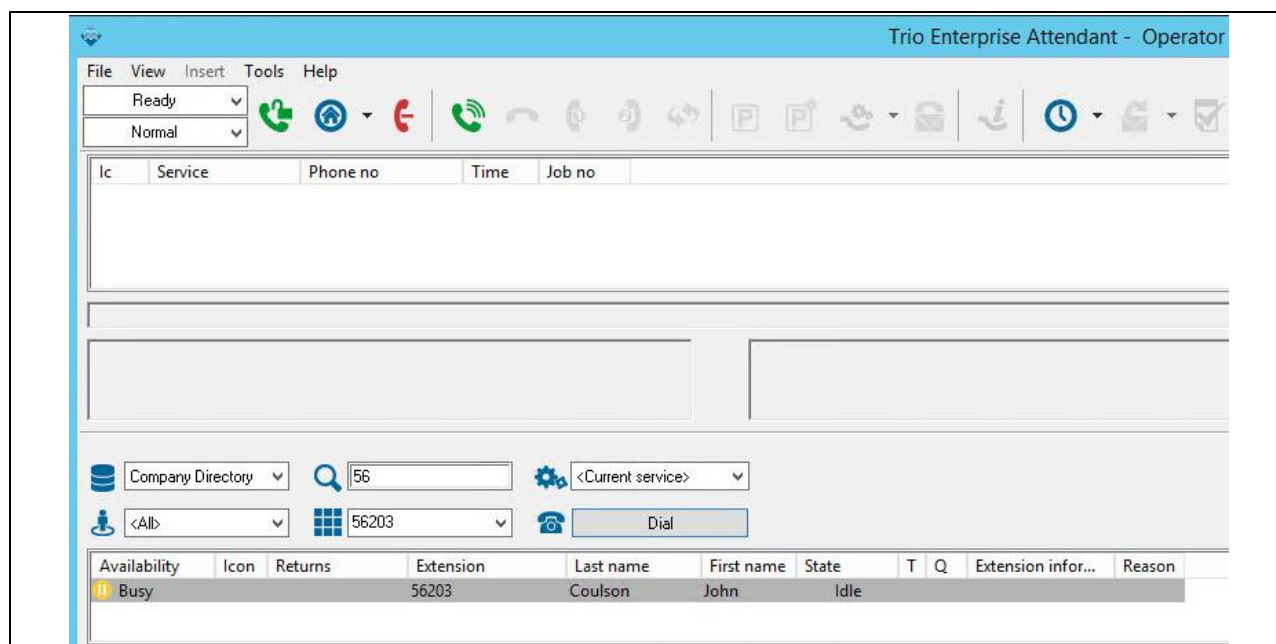
10. Conclusion

These Application Notes have described the administration steps required to integrate Trio Enterprise with Avaya Aura® Presence Services Snap-in running on Avaya Breeze™ Platform using a Java API. All test cases passed with any observations noted in **Section 2.2**.

11. References

These documents form part of the Avaya official technical reference documentation suite. Further information may be had from *http://support.avaya.com* or from the local Avaya representative.

1. *Administering Avaya Aura® Session Manager*, Release 7.1.1 Issue 2 August 2017.
2. *Deploying Avaya Aura® System Manager*, Release 7.1.1 Issue 3 August 2017.
3. *Administering Avaya Aura® System Manager for Release 7.1.1*, Release 7.1.1 Issue 7 October 2017.
4. *Avaya Aura® Communication Manager Feature Description and Implementation*, Release 7.1.1 Issue 2 August 2017.
5. *Deploying Avaya Breeze™,* Release 3.3 Issue 2 July 2017.
6. *Administering Avaya Breeze™,* Release 3.3 Issue 2 June 2017.
7. *Avaya Aura® Presence Services Snap-in Reference,* Release 7.1 Issue 1 May 2017
8. *Presence Services SDK Developers Guide,* Compass Document ID: 137976, PS Release: 7.1, Version: 1.1 Nov 3, 2015

Product Documentation for Enghouse Interactive AB can be obtained in the installed software or at: http://enghouseinteractive.com

©2017 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.