

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 BreezeTM 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 BreezeTM 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.

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 BreezeTM 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 BreezeTM 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.

2.1 Interoperability Compliance Testing

The compatibility tests included the following.

- Ensure the phone displays the correct status when set to Available, Busy, Away, Do Not Disturb 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.

2.3 Support

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

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: <u>triosupport@enghouse.com</u>

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 BreezeTM Platform.
- Avaya Aura® System Manager used to configure Avaya BreezeTM Platform.

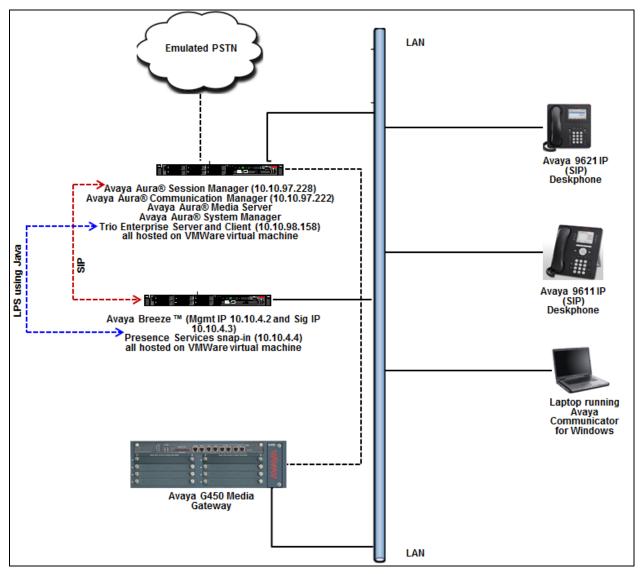


Figure 1: Configuration for Avaya Aura® Presence Services and Trio Enterprise

4. Equipment and Software Validated

The following equipment and versions were used in the reference configuration described above:

Hardware Component	Version
Avaya Aura® System Manager running on virtualized environment	7.0.1.2.086007
Avaya Aura® Session Manager running on virtualized environment	7.0.1.2.701230
Avaya Aura® Presence Services Snap-in	7.0.1.0.861
Avaya Breeze TM Platform	3.2.0.1.320111
Avaya PresenceServices-LPS-SDK	7.0.1.0.852
Avaya Communicator	2.1 SP4
Avaya 96x1 Series IP Telephone	
• 9611 (SIP)	7.0.1.1.5
• 9621 (SIP)	7.0.1.1.5
Trio Enterprise Server and Client running on Microsoft Windows 2012 R2 Server	6.2

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.

AVAVA Aura [®] System Manager 7.0		
Recommended access to System Manager is via FQDN.		
Go to central login for Single Sign-On	User ID:	
If IP address access is your only option, then note that authentication will fail in the following cases:	Password:	
 First time login with "admin" account Expired/Reset passwords 	Log On Cancel	
Use the "Change Password" hyperlink on this page to change the password manually, and then login.	<u>c</u>	hange Password

5.2 Administer Domain

In the subsequent screen (not shown), select **Elements** \rightarrow **Routing** to display the **Introduction** to Network Routing Policy screen below. Select Routing \rightarrow Domains from the left pane, and click New in the subsequent screen (not shown) to add a new domain

AVAVA Aura [®] System Manager 7.0 Home Routing ×	Last Logged on at March 11, 2016 11:51 AM Go Go
Routing	Home / Elements / Routing
Domains Locations	Help ? Introduction to Network Routing Policy
Adaptations	Network Routing Policy consists of several routing applications like "Domains", "Locations", "SIP Entities", etc.
SIP Entities	The recommended order to use the routing applications (that means the overall routing workflow) to configure your network configuration is as follows:

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**.

AVAYA				Last Logged on at January 2
Aura [®] System Manager 7.0	Configurations *	_		Go
Home Avaya Breeze™ *	User Management × Routing ×		v	adm
▼ Routing	Home / Elements / Routing / Domains			
Domains				Help ?
Locations	Domain Management			Commit Cancel
Adaptations				
SIP Entities				
Entity Links	1 Item 🍣			Filter: Enable
Time Ranges	Name	Туре	Notes	
Routing Policies	* presence.bvwdev.com	sip \vee	Domain for Presence Serv	/er
Dial Patterns				
Regular Expressions				
Defaults				Commit Cancel

5.3 Administer Locations

Select **Routing** \rightarrow **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.

AVAYA Aura [®] System Manager 7.0			Last Lo Go
Home Routing ×			
▼ Routing	Home / Elements / Routing / Locations		
Domains			
Locations	Location Details		Commit Cancel
Adaptations	General		
SIP Entities		De llev ille	
Entity Links	* Name:	Belleville	
Time Ranges	Notes:	Belleville DevConnect Lab	
Routing Policies			
Dial Patterns	Dial Plan Transparency in Survivable Mo	ode	
Regular Expressions	Enabled:		

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.

4 Items 🛛 😌		Filter: Enable
IP Address Pattern	Notes	
* 10.10.5.*		
* 10.10.97.*		
* 10.10.98.*		
*		
Select : All, None		

5.4 Administer SIP Entity

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

Select **Routing** \rightarrow **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.

				Last Logged on	at January 20, 2017 10:00 AM
Aura [®] System Manager 7.0	Configurations *		9	Go	Log off admin
Home Avaya Breeze™ ×	User Management	× Routing ×			
▼ Routing ◀	Home / Elements /	Routing / SIP Entities			0
Domains					Help ?
Locations	SIP Entity D	etalis		Commit Cancel	
Adaptations	General				
SIP Entities		* Name:	PresenceServer		
Entity Links		* FQDN or IP Address:	presencevm.bvwdev.com		
Time Ranges		Туре:	Presence Services		
Routing Policies		Notes:	SIP Entity for Presence Server		
Dial Patterns					
Regular Expressions Defaults		Adaptation:	~		
Deraults		Location:	Belleville 🗸		
		Time Zone:	America/Fortaleza 🗸		
	* 5	IP Timer B/F (in seconds):	4	-	
		Credential name:			
		Securable:			
		Call Detail Recording:	none 🗸		
	Loop Detection				
		Loop Detection Mode:			
		Loop Count Threshold:			
	Loop De	etection Interval (in msec):	200		
	SIP Link Monito	rina			
		2	Link Monitoring Enabled		
		2			

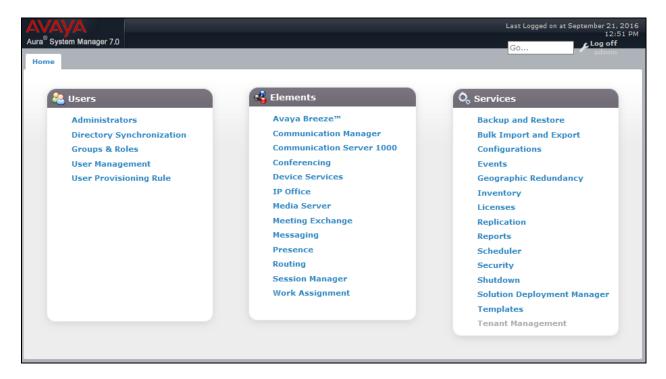
Scroll down to the **Entity Links** sub-section, and click **Add** to add an entity link. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- 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

Add	Remove							
Iten	n 🛛 🍣						Filter: Ena	ble
	Name 🔺	SIP Entity 1	Protocol	Port	SIP Entity 2	Port	Connection Policy	s
	* DevvmSM_PresenceServ	DevvmSM 🗸	TLS 🗸	* 5062	PresenceServer 🗸	* 5061	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 BreezeTM** 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 BreezeTM Platform has already been installed and configured. For additional information, see the documentation in the **References** section.

Navigate to Home \rightarrow Elements \rightarrow Avaya BreezeTM.

AVAVA									Last Lo	gged on at Jan	
Aura [®] System Manager 7.0	onfigur	ations *							Go	اع	10:00 A .og off
Home Avaya Breeze™ ×						0			00		
▼ Avaya Breeze™ 4	Home	/ Elements	s / Avaya Breeze™	1							c
Server											Help ?
Administration	Clu	ster Ad	Iministratio	on							
Cluster	Cita										
Administration	This pa	ige allows y	ou to view, edit and	delete Avaya	Breeze clusters.						
Service Management											
Reliable Eventing	Ava	ya Breez	e Clusters								
Administration	/ E	dit 💿 🛚	lew Oelete	Certifica	ate Management	Cluste	r State	Ва	ckup and R	estore •	
Configuration											
Mome Avaya Breeze*** Avaya Breeze*** Home / Elements / Avaya Breeze*** Administration Cluster Administration Cluster Administration Service Management This page allows you to view, edit and delete Avaya Breeze clusters. Pediable Eventing Administration Administration Verya Breeze Clusters Administration Verya Breeze Clusters Administration Verya Breeze Clusters Administration Verya Breeze Clusters Item @ Pedete Certificate Management * Cluster State * Backup and Restore * Item @ Pedete Certificate Management * Cluster State Alter Cluster Name Cluster IP Cluster Profile Cluster State Alarms Activity Cluster Details Cluster IP Cluster Profile Cluster State Alarmas Activity Cluster Data Replication Station											
		Details	Cluster Name	Cluster IP	Cluster Profile	Cluster State	Alarms	Activity			Service Install Status
		►Show	PresenceServices	10.10.4.4	Core Platform	Accepting [1/1]	0/0/0	10	[5/49M]	~	~
	<										>
	Selec	t:All, None	2								

To install the Presence Services Snap-in navigate to Avaya BreezeTM \rightarrow Service Management.

Aura [®] System Manager 7.0	Configurations *	_	_	0	Go	at Logged on a		IO:00 AM
✓ Avaya Breeze™ Server Administration Cluster Administration	Home / Elements / Avaya Service Manage This page allows you to mana	ment					н	o elp ?
Service Management Reliable Eventing Administration Configuration System Tools 	All Services O Load Install 39 Items 2	ninstall 🥥 Delete	Set Preferred Ve	rsion	Stop	Fil	ter: Enab	le
System 10013	Name AuthorizationService	Version 3.2.0.0.05320005	Preferred Version	State	Deployment Type	License Mode Not Applicable	Avaya Signed	Lo <u>c</u> 10

Select **Load** to upload the Presence Services Snap-in, click **Browse** and select the Presence Services Snap-in. Click **Load** to continue.

Aura® System Manager 7.0	Configurations [¥]	o Go		: Logged on a		10:00 AM off
Server Administration Cluster Administration Service Management	Service Manage	a Breeze™ / Service Management ement nage the service life cycle across clusters.			H	lelp ?
 Reliable Eventing Administration Configuration 	All Services	Load Service Select Service Archive(s):	x			
▹ System Tools	39 Items 💝	WARNING: The total size of all selected files cannot exceed the browser-specific upload limits.		icense Iode	ter: Enab Avaya Signed	Las
	AuthorizationServic	Local PC Browse No file selected.		Not Applicable Not Applicable	✓ ✓	10 10
	CallEventControl	Load Cancel		Not Applicable	~	10
	CallEventControl	5121010122022 S010		Not Applicable	~	10

Follow the steps and ensure that the **PresenceServices** snap-in now has a state of **Loaded** (not shown).

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.

System Manager 7.0	onngura	ations *			0	Go			o <mark>g off</mark> dmin
me Avaya Breeze™ ×								_	
Avaya Breeze™ ◀	Home	/ Elements / Avaya Br	eeze™ / Service №	lanagement					
Server									Help
Administration	Ser	vice Managen	nent						
Cluster		_							
Administration	This pa	ige allows you to manage	the service life cycle	across clusters.					
Service Management									
 Reliable Eventing Administration 	_	ervices							_
	C L		istall 🛛 🥥 Delete	Set Preferred Ve	ersion <u>Start</u>	Stop			
 Configuration System Tools 	39 Ite	ems 🍣	T			T		Filter: Er	nable
		Name	Version	Preferred Version	State	Deployment Type	License Mode	Avaya Signed	Log S
		EventingConnector	3.2.0.1.320110		🗸 Loaded	Java	Not Applicable	~	10
		HelloWorld	3.1.0.0.310007		🗸 Loaded	Java	Not Applicable	Not Signed	10
		HelloWorld	3.1.0.0.310011		✓ Loaded	Java	Not Applicable	Not Signed	10
		HelloWorld	3.1.1.0.311008		🗸 Loaded	Java	Not Applicable	Not Signed	10
		HelloWorld	3.1.1.1.311102		🗸 Loaded	Java	Not Applicable	Not Signed	10
		HelloWorld	3.2.0.0.05320005		🗸 Loaded	Java	Not Applicable	Not Signed	10
		HelloWorld	3.2.0.1.320110		🗸 Loaded	Java	Not Applicable	Not Signed	10

6.2 Add Presence Users

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

AVAYA							Last Logged on at January 20, 2017 10:00 AM
Aura [®] System Manager 7.0	onfigura	ations *	_		0		Go Log off
Home Avaya Breeze™ ×	User I	Management	×				- admin
🔻 User Management 🔳	Home	/ Users / User	Management	/ Manage Users			0
Manage Users	Searc	'n			0		Help ?
Public Contacts					<u> </u>		
Shared Addresses							
System Presence	US	er Manag	jement				
ACLs							
Communication							
Profile Password	Use	rs					
Policy		View 🖊 🖊 Ed	it 🔍 New	😂 Duplicate 🛛 🤤 Delete	More Actions •		Advanced Search 🔸
	11 It	ems 🛛 💝 🗆 Sho	w All ~				Filter: Enable
		Last Name	First Name	Display Name	Login Name	SIP Handle	Last Login
		51000	51000	51000, 51000	51000@bvwdev.com	51000	
		admin	admin	Default Administrator	admin	51000	January 25, 2017 3:09:18 PM -05:00
		MediaOFive	OFive	MediaOFive, OFive	56205@bvwdev.com	56205	
		OEight1	FiveSix1	OEight1, FiveSix1	56208@bvwdev.com	56208	
		OSeven	FiveSix	OSeven, FiveSix	56207@bvwdev.com	56207	
		SIP203	Lab	SIP203, Lab	56203@bvwdev.com	56203	
		SMCS1KUser	SMCS1KUser	SMCS1KUser, SMCS1KUser	54777@bvwdev.com	54777	
		TwoOFour	OFour	TwoOFour, OFour	56204@bvwdev.com	56204	
		TwoOOne	OOne	TwoOOne, OOne	56201@bvwdev.com	56201	
		TwoOTwo	OTwo	TwoOTwo, OTwo	56202@bvwdev.com	56202	
		twosix	twosix	twosix, twosix	56206@bvwdev.com	56206	
	Selec	t : All, None					

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.

User Prof	ile Edit: 56204@bvwdev.com	Commit & Continue Commit Cancel	
Identity *	Communication Profile Membership (Contacts	
Commun	ication Profile 👻		
	Communication Profile Password:	•••••• <u>Edit</u>	
O New	😂 Delete 🔚 Done 🕴 Cancel		
Nam	e		
Prim	ary		
Select : Nor	ne la		
	* Name: Primary		
	Default :		
	Communication Address 💿		
	💿 New 🖉 Edit 💿 Delete		
	🗹 Туре	Handle	Domain
	Avaya SIP	56204	bvwdev.com
	Select : All, None		
	Туре:	Avaya Presence/IM	~
	* Fully Qualified Address:	56204	presence.bvwdev.com
			Add Cancel

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.

Presence Profile	
* System	PresenceServer (8)
SIP Entity	PresenceServer
* IM Gateway SIP Entity	PresenceServer ~
Publish Presence with AES Collector	System Default 🗸

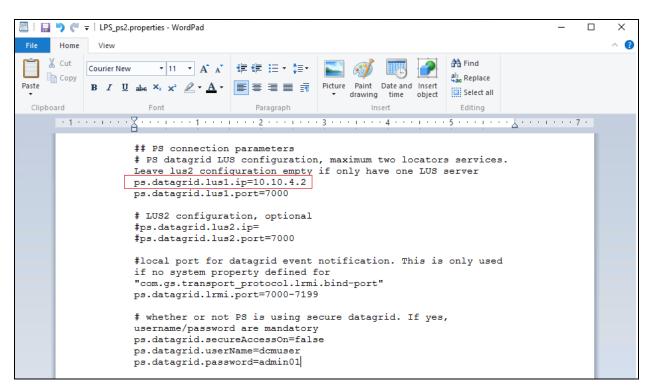
7. Configure Local Presence Service Test Client

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 will be installed.

During compliance testing, this tool was 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-7.0.1.0.852.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 BreezeTM server in the **ps.datagrid.lus1.ip** field as shown in the screen below.

Retain default values for all other remaining fields.



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**.

C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-ddx-cll setEnv.bat C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-ddx-cll EgitEnlib C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-ddx-cll EgitEnlib C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_LCE.plin C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_ARGUNENTSOpropertyFile=LPS_presenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_ARGUNENTS0.0.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_ARGUNENTS0.0.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_ARGUNENTS0.0.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_ARGUNENTS0.0.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_DCCONnect\Documents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_DCCONnect\Documents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_DCCONnect\Documents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_DCCONnect\Documents-7.0.1.0.851\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdx-set LPS_DCCONNect\Documents-7.0.1.0.861\PresenceServices-DPTC_0.0.0.0.000\PresenceServices-DPTC_0.0.0.000\PresenceServices-DPTC_0.0.0.0.000\PresenceServices-DPTC_0.0.0.000\PresenceServices-DPTC_0.0.0.0.000\PresenceServices-DPTC_0.0.0.000\PresenceServices-DPTC_0.0.0.000\PresenceServices-DPTC_0.0.0.000\PresenceServices-DPTC_0.0.0.000\PresenceServices-DPTC_0.0.0.000\PresenceServices-DPTC_0.0.0.000\PresenceServices-DPTC_0.0.0.000\Presence	C:\WI	INDOWS\system32\cmd.exe	- 🗆 X		
##enceServices-LPS-SDK-7,0.1.0.852\lps-sdk>set LPS_LIB-lib' C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7,0.1.0.852\lps-sdk>set LPS_LCe.;bin C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7,0.1.0.852\lps-sdk>set LPS_LARGUMENTSDpropertyFileLPS_ pr2.properties C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7,0.1.0.852\lps-sdk>set LPS_ARGUMENTSDpropertyFileLPS_ pr2.properties C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdk>set LPS_ARGUMENTSDpropertyFileLPS_ pr2.properties C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdk>set LPS_ARGUMENTSDpropertyFileLPS_ pr2.properties C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-DpropertyFileLPS_ pr2.properties Status C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.863\PresenceServices-LPS-SDK-7.0.1.0.852\lps-sdk>call lpslc_append.bat lib\apache-log4 Statt Stort Status LastError Statt Stop Statt Stop Statt Stop Statt Stop Statt Stop Statt Stappend Resume Exit Exit Exit Exit Exit Exit Exit Exit Exit				^	
esenceServices-LPS-SDK-7.0.1.0.052\lps-sdk>set LPS_LC=.jbin C:\Userx\DevConnect\DevCuments\PresenceServices-OptionalComponents-7.0.1.0.061\Pre esenceServices-LPS-SDK-7.0.1.0.052\lps-sdk>set LPS_ARGUNENTS-DpropertyFilesLPS_ p32.properties C:\Userx\DevConnect\Decuments\PresenceServices-OptionalComponents-7.0.1.0.061\Pre esenceServices-LPS-SDK-7.0.1.0.052\lps-sdk>ct lpslc_append d.bat xi C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.061\Pre esenceServices-LPS-SDK-7.0.1.0.052\lps-sdk>ctall lpslc_append d.bat xi C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.061\Pre esenceServices-LPS-SDK-7.0.1.0.052\lps-sdk>ctall lpslc_append Service mgnt Service Service Status LastError Status LastError Statu Supend Datagrid Publish Manager STARTED StatTED S					
searceServices-LPS-SDK-7.0.1.0.852\lps-sdk>set LPS_ARGUMENTS=-DpropertyFile=LPS_ ps2.properties C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\Pre esenceServices-LPS-SDK-7.0.1.0.852\lps-sdk>for %i in (lib*) do call lps1c_appen d.bat %i C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\Pre esenceServices-LPS-SDK-7.0.1.0.852\lps-sdk>call lps1c_append.bat lib\apache-logd j=extras.jar Service mgmt Service mgmt Service mgmt StartED Datagrid IM Manager Datagrid IM Manager STARTED Datagrid IM Manager STARTED User mgmt User mgmt					
ssenceServices-LPS-SOK-7.0.1.0.852\lps-sdk>for %i in (lib*) do call lpslc_appen d.bat %i C:\Users\DevConnect\Documents\PresenceServices-OptionalComponents-7.0.1.0.861\PresenceServices-LPS-SOK-7.0.1.0.852\lps-sdk>call lpslc_append.bat lib\apache-logd j-extras.jar	esenceServi	ices-LPS-SDK-7.0.1.0.852\lps-sdk>set			
services-LPS-SDK-7.0.1.0.852\lps-sdk>call lpslc_append.bat lib\apache-logd Service mgmt Service mgmt Service Status Last Error AbstractAuthorization STARTED Datagrid Publish Manager STARTED Datagrid IM Manager STARTED Exit	esenceServi				
Service mgmt Status Last Error Service Status Start AbstractAuthorization STARTED Stop S2S STARTED Suspend Datagrid IM Manager STARTED Resume Exit StartED StartED	esenceServi	ices-LPS-SDK-7.0.1.0.852\lps-sdk>call			
Service Status Last Error Start AbstractAuthorization STARTED Stop Stop S2S STARTED Suspend Datagrid Publish Manager STARTED Resume Datagrid IM Manager STARTED Exit State					~
AbstractAuthorization STARTED Stop S2S STARTED Suspend Datagrid Publish Manager STARTED Suspend Datagrid IM Manager STARTED Exit	LPS Client v2.0			= U	^
S2S STARTED Superd Datagrid Publish Manager STARTED Suspend Datagrid IM Manager STARTED Exit User mgmt	Service mgmt				
Datagrid Publish Manager STARTED Suspend Datagrid IM Manager STARTED Exit Exit User mgmt	Service mgmt		Last Error		
Datagrid IM Manager STARTED Resume Exit User mgmt	Service mgmt	STARTED	Last Error		Start
STARTED	Service mgmt Service AbstractAuthorization S2S	STARTED STARTED	Last Error		Start Stop
STARTED	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED	Last Error		Start Stop
STARTED	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED	Last Error		Start Stop Ispend
User mgmt	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED	Last Error		Start Stop Jspend esume
User mgmt	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED	Last Error		Start Stop Jspend esume
User mgmt	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED	Last Error		Start Stop Jspend esume
User mgmt	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED	Last Error		Start Stop Jspend esume
User mgmt	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED	Last Error		Start Stop Jspend esume
User mgmt	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED	Last Error		Start Stop Jspend esume
User mgmt	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED	Last Error		Start Stop Jspend esume
	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager	STARTED STARTED STARTED STARTED			Start Stop Jspend esume
User ID: Open User Window	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager Datagrid IM Manager	STARTED STARTED STARTED STARTED			Start Stop Jspend esume
	Service mgmt Service AbstractAuthorization S2S Datagrid Publish Manager Datagrid IM Manager User mgmt	STARTED STARTED STARTED STARTED			Start Stop Ispend esume Exit

In the **User mgmt** section enter the User ID of a SIP user whose presence needs to be monitored. In the screen below *56207@bvwdev.com* was entered. Next click on the **Open User Window** button.

🕌 LPS Client v2.0			- 🗆 X
Service mgmt			
Service	Status	Last Error	Start
AbstractAuthorization	STARTED		Stop
S2S	STARTED		
Datagrid Publish Manager	STARTED		Suspend
Datagrid IM Manager	STARTED		Resume
			resume
			Exit
	STARTED		
-User mgmt			
User ID: 56207@bvwdev.com			Open User Window

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 can be obtained by right clicking on the user shown and selecting **Details** (not shown). Also for comparison, a screen showing the Avaya Communicator for user **56207** is also shown below with a status of **Available**.

실 USER 450) - '56207@bv	/wdev.com'			×
Subscriptions	Contact List	Publishing Authorization IM			
ID		Presentity id	Level	Status	Presence document
		0 USER 450 - '56207@bvwdev	ALL	SUBSCRIBED	available Enterprise IM:op
			Close		
				Avaya Communicator	× – ≡ مە
				56207	
				Available	1 🕚 🗩 🏪
					new conversation +

Solution & Interoperability Test Lab Application Notes ©2017 Avaya Inc. All Rights Reserved. In the screen below, when the status for **56207** is changed to **Busy** on the Avaya Communicator, the Presence on the client is also changed to **Busy**.

실 USER 450 - '56207@bv	/wdev.com'			×
Subscriptions Contact List	Publishing Authorization IM			
ID	Presentity id	Level	Status	Presence document
	2 USER 450 - '56207@bvwdev	ALL	SUBSCRIBED	busy Enterprise IM:open Vi
		Close		
			Avaya Communicator 56207 Busy	×_≡ ∞ *** ● ①
				new conversation +

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.

T.	Enterprise Man	agement Center (Adı	ministrator) - [30]	_ D X
File Edit View Actions Help				
Enterprise Management Ce	nter			(•TRIO
Overview				
ervices	Subsystems			
Parameters	Name	Туре	Comment	
New Subsystem -	Contact Center	Operation And Mainte	Operation And Maintenance	
UAW 1		Line Interface	Line Interface	
		Contact Center Root	Root Contact Center	
CCR 🕂 New Subsystem -	Visit	Client Phone Manager	Client Phone Manager	
Clien New Subsystem -	Contact Center Gateway	Core Security	Core Security	
CoreSecurity	111 CommonDataCayor	Common Data Layer	Common Data Layer	
CommonDataLayer	- CC1	Contact Center	Contact Center 1	
CC1	A Presence 1	Presence	Presence1	
		Company Directory	Company Directory 1	
CD1				
4 4 4 CO 1				

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

nterprise Management (Center			(•TRI
verview				
Servers	Subsystems			
Arrices	Name	Туре	Comment	
Subsystems		Operation And Mainte		
OAM		Line Interface	Line Interface	
	CCRoot	Contact Center Root	Root Contact Center	
CCRoot	Client Phone Manager	Client Phone Manager	Client Phone Manager	
	- CoreSecurity	Core Security	Core Security	
	Common Data Layer	Common Data Layer	Common Data Layer	
CommonDataLayer		Contact Center	Contact Center 1	
	Presence1	Presence	Presence1	
Presence1		Company Directory	Company Directory 1	

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

₽ ¥	Enterprise Management Center (Administrator) - [30]	_ D X
File Edit View Actions Help		
Enterprise Management Center		(+TRIO
Overview		
Core Security General General General Presence (Presence 1) Parameters Connectors Acatel Acatel Key Store Password Key Store Password Wotification Engine Proxy Store Domain With Cation HoldOff Store Passt	Presence.Parameters.Connectors.AvayaAura.Enabled Image: Connector Connector Image: Connector Connector	Revert

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.

	Enterprise Management Center (Administrator) - [30]	_ D X
File Edit View Actions Help		
Enterprise Management Center		(¢TRIO
Overview		
CorreSecurity General CorreSecurity General Presence (Presence 1) Parameters Connectors Connectors Connectors KeyStorePassword Weight KeyStorePassword Weight KeyStorePassword W	Presence.Parameters.Connectors.AvayaAura bvwdev.com The presence domain to monitor v	a.PresenceDomain

Navigate to **Presence (Presence1)** \rightarrow **Parameters** \rightarrow **Connections** \rightarrow **AvayaAura** \rightarrow **PS_Host**. During compliance testing *10.10.4.2* was the IP address of Avaya BreezeTM Management IP as shown in the screen below. Click on the **Apply** button.

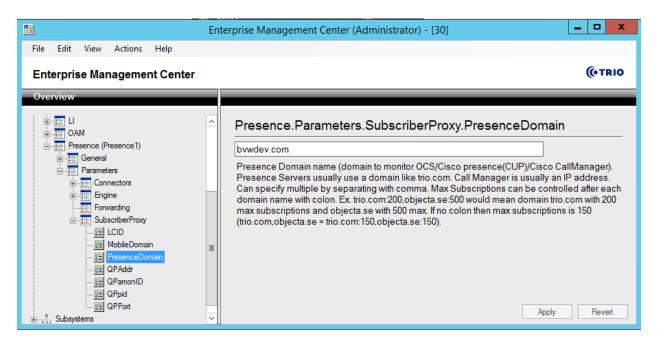
FV	Enterprise Management Center (Administrator) - [30]	- 🗆 X
File Edit View Actions Help		
Enterprise Management Center		(OTRIO
Overview Core Security General Consecurity Presence (Presence 1) Presence (Presence 1) Parameters Acatel AvayaAura KeyStore Password KeyStore Password Fresence Domain Fresence Domai	Presence.Parameters.Connectors.AvayaAura.PS_Host 10.10.4.2 The address to the Avaya Aura Presence Server, use the fully qualified name	Revert

The completed configuration screen for **Presence** (**Presence1**) \rightarrow **Parameters** \rightarrow **Connections** \rightarrow **AvayaAura** is shown below.

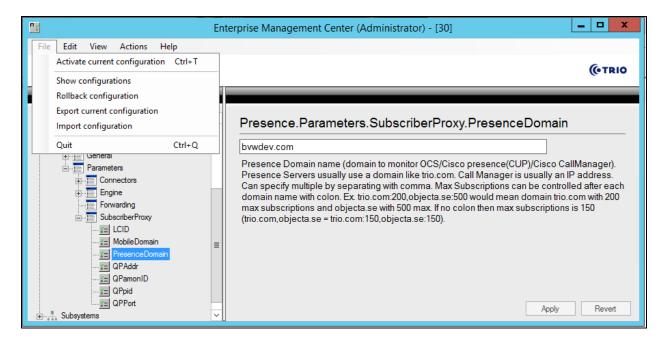
<mark>₽¥</mark>	Ente	rprise Management Ce	nter (Administrator) - [30]	_ 🗆 X
File Edit View Actions Help					
Enterprise Management Center					(©TRIO
Overview					
Core Security	^	Presence.Param			
		Name	Value	Comment	
Presence (Presence 1)		Enabled	true	Enable Avaya Aura Presence Co	
		KeyStorePassword	[XXXXX]	Avaya Presence Server certificat	
		X= Notification Engine Proxy	http://127.0.0.1:3104	The address to the Notification E	
Parameters		X= PresenceDomain	bvwdev.com	The presence domain to monitor	
		<pre>s= PS_Host</pre>	10.10.4.2	The address to the Avaya Aura	
Alcatel		Kegistration HoldOff	60	The holdoff period between regis	
📄 🧱 Avaya Aura		SMGR_Host		The address to Avaya Aura Syst	
		SMGR_Password		The password to the Avaya Aura	
KeyStorePassword		SMGR_Usemame		The usemame to Avaya Aura Sy	
Notification Engine Proxy		TrustStorePassword	[XXXXXX]	Avaya Presence Server certificat	
Presence Domain					
PS_Host					
<u>x=</u> RegistrationHoldOff					
SMGR_Host	× []				

Navigate to **Presence (Presence1)** \rightarrow **Parameters** \rightarrow **SubscriberProxy** \rightarrow **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 \rightarrow Activate current configuration Ctrl+T to activate the Enterprise Management Center configration as shown in the screen below.



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.

		Configuration		_ D X
System				
Communications	Operators	Imports	Calendar	Message Systems
Bookings	PBX	Virtual PBX	Televoice	Processes
Flex	Exports	Mis	cellaneous	Remote PBX
<u>B</u> ackup				
<u>C</u> lient Config	Presence Gateway			
	Phonetic Search			
Sync Config	⊻oiceguide Settings			
<u>K</u> eepAlive				
<u>A</u> larm				
<u>L</u> icense				
l				

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.

Presence Gateway	:
Server URL: net.pipe://localhost/Presence1 Present Domain: 1	
Enable connection for monitor of presence or line state	
Enable connection to Microsoft Lync/Skype for Business	
Enable setting of presence from referrals	
🥅 Mobile Line Status	
Mobile Domain[s] to subscribe to:	
Mobile Prefix: Mobile in ExtraField: (1-20) <u>D</u> k <u>C</u> ancel	

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

1 <u>7</u>	Enterprise Management Center (Admir	nistrator) -	[30]
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>A</u> ctions <u>H</u> elp			
Enterprise Management Center			(@TRI0
Overview			
 Bervices Bervices Bervices Bervices 	te62cs1k76		
Parameters	Name	Status	Comment
CCRoot	🕸 Trio Operations And Maintenance Service	Running	Trio Operations And Maintenance Service
	A SQL Server (EISQL)	Running	SQL Server (EISQL)
	WySQL Service	Running	MySQL Service
E	World Wide Web Publishing Service	Running	World Wide Web Publishing Service
ContactCenter (CC1)	🕸 Trio Client Phone Manager	Running	Client Phone Manager Service
E CoreSecurity	🕸 Trio TeleVoice Service	Running	Trio TeleVoice Service
🖶 🔚 General	🕸 Trio CC1	Running	Trio Contact Center CC1
💼 🧱 Ll	🕸 Trio CC1 Custom	Running	Trio Contact Center CC1 Custom Service
🛓 📲 OAM	🕸 Trio CC1 Mail	Not Active	Trio Contact Center CC1 Mail
Presence (Presence 1)	🕸 Trio Presence1	Running	Trio Presence Service
	🕸 Trio Unify SQLBase Service	Running	Company Directory Database Engine Service
	🕸 Trio CD1	Running	Trio Company Directory Service CD1
	🏘 Trio CD1 Custom	Not Active	Trio Company Directory CD1 Custom Service
			Restart Start Stop

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**.

仓	Trio Adminis	trator			_ D X
File Edit View Search Functions Wind	w Admin Help	_			
la 🗞 🚯 🔊 🕺 🖓 🖓	<u>A</u> dd Subscriber <u>C</u> opy Subscriber	ved Searches:	· · · · · · · · · · · · · · · · · · ·	•	
Extension Department	Edit Subscriber	e	To	Title	Alternate an
56203 <	Remove Subscriber				>
	E <u>d</u> it Company				- 4
Reason Fro	Administrate CC1		Alternate	Answering	Information
Find:	III				>
			1		
(Trio Admin 2017-02-22	17:28 -00-	NUM

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.

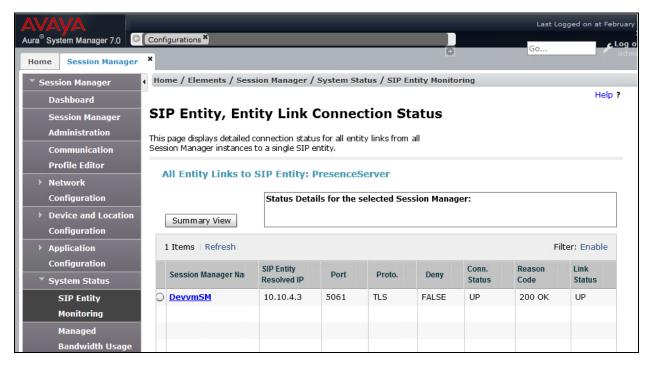
G/	Add Subscriber		x
Subscriber - Phone - Security - Department - Skills - Message Channels - Schedule - Extra Fields - Secretary - Future Updates	Security Type of Subscriber User Extension Communicator Sign-in address sip:56203@bvwdev.com		
Add Subscriber	Copy Subscriber OK Cancel Apply H	lelp	

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** \rightarrow **Session Manager** and then select **System Status** \rightarrow **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.

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.

Ready v	t 🛞 -	E 💿 🗠	6 9 4	5 E (் ஆ-	8 1	0 -	6 - 5
Ic Service	Phone no	Time	Job no					
Company Directory	✓ Q 56] ;	🏡 <current service)<="" td=""><td>> •</td><td></td><td></td><td></td><td></td></current>	> •				

Image: Time Job no
Time Job no
Current service>

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 BreezeTM Platform using a Java API. All test cases passed with any observations noted in **Section 0**.

11. References

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

- 1. Administering Avaya Aura® Session Manager, Release 7.0, Issue 1 August 2015
- 2. Deploying Avaya Aura® System Manager, Release 7.0, Issue 1 September 2015
- 3. Administering Avaya Aura® System Manager for Release 7.0, Release 7.0, Issue 1 August 2015
- 4. Avaya Aura® Communication Manager Feature Description and Implementation, Release 7.0, 555-245-205, Issue 1 August 2015
- 5. Deploying Avaya Breeze[™], Release 3.2 Issue 1October 2016
- 6. Administering Avaya BreezeTM, Release 3.2 Issue 1October 2016
- 7. Avaya Aura® Presence Services Snap-in Reference, Release 7.0.1 Issue 2 May 2016
- 8. *Presence Services SDK Developers Guide*, Compass Document ID: 137976, PS Release: 7.0.1, Version: 1.0 Dec 3, 2015

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

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