

Avaya Solution & Interoperability Test Lab

Application Notes for Orange Abandon Call Notification 1.0 with Avaya Aura® Communication Manager R6.3 and Avaya Aura® Application Enablement Services R6.3 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Orange Abandon Call Notification 1.0 to interoperate with Avaya Aura® Communication Manager R6.3 and Avaya Aura® Application Enablement Services (AES) R6.3.

Orange Abandon Call Notification (ABN) is a desktop CTI solution developed by Orange Business Services. Orange ABN monitors configured VDNs and captured Call Details for all calls including blind and consultative transfers and conference to agents for both abandoned and completed calls.

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 configuration steps required for Orange Abandon Call Notification 1.0 to interoperate with Avaya Aura® Communication Manager R6.3 and Avaya Aura® Application Enablement Services (AES) R6.3.

Orange Abandon Call Notification (ABN) is a contact center solution developed using Java Telephony Application Programming Interface (JTAPI). Orange ABN monitors configured VDNs and captured Call Details for all calls including blind and consultative transfers and conference to agents for both abandoned and completed calls.

2. General Test Approach and Test Results

The feature test cases were performed manually. Inbound calls were made on Communication Manager and calls handled by agent's Orange Softphone Client running on Microsoft windows based computer. In this testing, agents were logged in from the phones as expert agents.

The serviceability test cases were also performed manually by disconnecting/reconnecting the Ethernet cable on AES server and desktop running Orange Softphone, and restarting of Orange ABN application server, Orange Softphone, AES and Communication Manager.

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 interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying Orange ABN using Orange Softphone for the following:

- Direct VDN for answered and abandon calls before queuing, during queuing and ringing stage
- Blind Transferred VDN for answered and abandon calls before queuing, during queuing and ringing stage
- Consultative Transferred VDN for answered and abandon calls before queuing, during queuing and ringing stage
- Conference VDN for answered and abandon calls before queuing, during queuing and ringing stage

The serviceability testing focused on verifying the ability of Orange ABN to recover from adverse conditions such as disconnecting the Ethernet cables on the AES and Orange Softphone; resetting of the Orange Softphone, Communication Manager and Orange ABN server.

2.2. Test Results

All feature test cases were executed and passed. The following observations were made:

- Orange ABN application has to be restarted for data to be collected if AES Lan is reconnected and Communication Manager is restarted.
- Setup of Aux Code on Softphone and Call Work Code on Communication Manager needs to be in sync with the Call Work Code button administered on agents for the expected data to be received on Orange ABN from AES.

2.3. Support

Technical support on Orange Business Services can be obtained through the following:

• Phone: +91-2261544848, Toll Free - 18002096699

• Email: servicedesk.india@orange.com

3. Reference Configuration

Figure 1 illustrates a sample configuration consisting of a duplex pair of Avaya S8800 Servers, an Avaya G430 Media Gateway, Avaya Aura® AES Server and Avaya 96x1 H.323 IP Telephones. Orange Softphone client application is installed on a Microsoft Windows 7 Professional computer. Apache Tomcat in one of the computers for sharing information such as VDN and Call Work Code list. Abandon Call Notification application is installed on another computer with Microsoft SQL 2008 Express edition. Orange Abandon Call Notification and Softphone communicate with the TSAPI service on the Avaya Aura® AES Server. The Avaya 4548GT-PWR Converged Stackable Switch provides Ethernet connectivity to the servers and IP telephones.

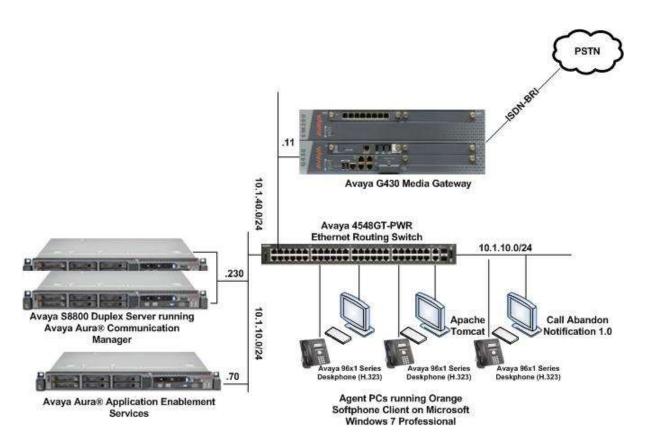


Figure 1: Test Configuration

4. Equipment and Software Validated

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

Equipment/Software	Version
Avaya Aura® Communication Manager on S8800	R6.3.12.0-SP12
Duplex Servers	(R016x.03.0.124.0-22505)
Avaya G430 Media Gateway	36.14.0
Avaya Aura® Application Enablement Services	6.3.3.4.10-0
running on VMware 5.1	
96x1 Series (H.323) IP Telephones	6.6029
Orange Softphone running on Windows 7	1.0
Professional Service Pack 1.0	
Orange Abandon Call Notification on Windows 7	1.0
Professional Service Pack 1.0	
Apache Tomcat	7.0.64

Table 1: Equipment/Software Validated

5. Configure Avaya Aura® Communication Manager

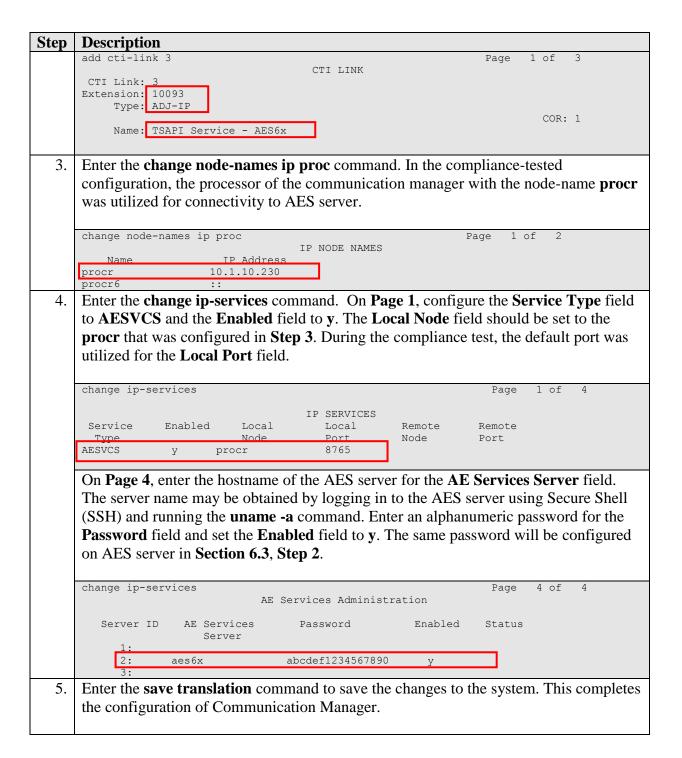
This section provides the procedures for configuring Computer Telephony Integration (CTI) links on Communication Manager. Setup of agent stations with appropriate feature buttons, agent login ID, VDNs, Vectors, Hunt Groups, Trunks and Call Center features like Call Work Code is assumed to be configured and will not be detailed here.

All the configuration changes in Communication Manager are performed through the System Access Terminal (SAT) interface. The highlights in the following screens indicate the values used during the compliance test.

5.1. Configure Aura® Application Enablement Services and CTI Links

AES server forwards CTI requests, responses, and events between Orange Softphone clients/Orange ABN and Communication Manager. AES server communicates with Communication Manager over an AES link. Within the AES link, CTI links may be configured to provide CTI services to CTI applications such as Orange Softphone and ABN. The following steps demonstrate the configuration of the Communication Manager side of the AES and CTI links.

Step	Description
1.	Enter the display system-parameters customer-options command. On Page 3 , verify that Computer Telephony Adjunct Links is set to y . If not, contact an authorized Avaya account representative to obtain the license.
	display system-parameters customer-options Page 3 of 11 OPTIONAL FEATURES
	Abbreviated Dialing Enhanced List? y Access Security Gateway (ASG)? n Analog Trunk Incoming Call ID? y A/D Grp/Sys List Dialing Start at 01? y Answer Supervision by Call Classifier? y ARS/AAR Partitioning? y ARS/AAR Partitioning? y ARS/AAR Dialing without FAC? n ASAI Link Core Capabilities? y ASAI Link Plus Capabilities? y Async. Transfer Mode (ATM) PNC? n Async. Transfer Mode (ATM) Trunking? n ATM WAN Spare Processor? n ATMS? y Attendant Vectoring? y Audible Message Waiting? y Authorization Codes? y Authorization Codes? y CAS Branch? n CAS Main? n Change COR by FAC? n Computer Telephony Adjunct Links? y Cvg Of Calls Redirected Off-net? y DCS (Basic)? y DCS Call Coverage? y DCS with Rerouting? y Digital Loss Plan Modification? y Digital Loss Plan Modification? y DS1 MSP? y DS1 Echo Cancellation? y
2.	Enter the add cti-link m command, where m is a number between 1 and 64, inclusive Enter a valid Extension under the provisioned dial plan in Communication Manager, set the Type field to ADJ-IP , and assign a descriptive Name to the CTI link.

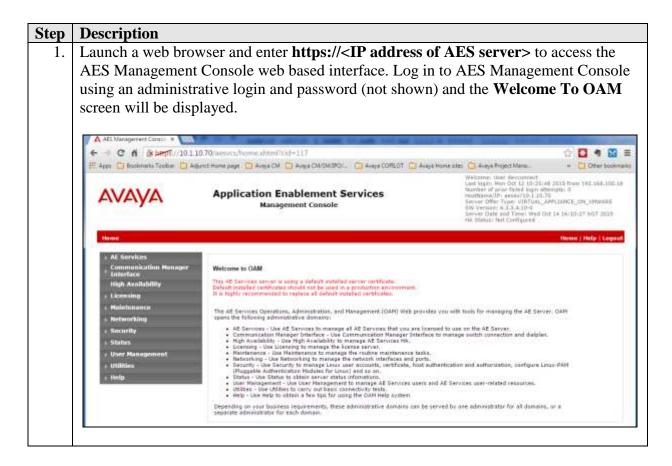


6. Configure Avaya Aura® Application Enablement Services

This section provides the procedures for configuring AES. The procedures fall into the following areas:

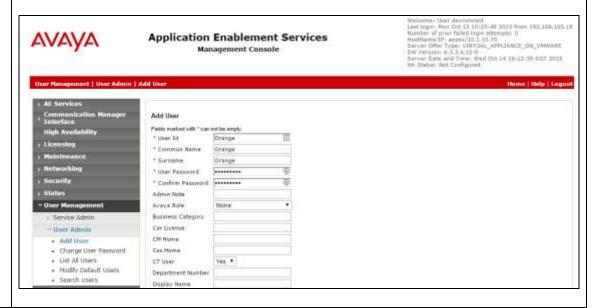
- Administer CTI User
- Verify AES License
- Administer Switch Connection
- Administer TSAPI link and verify TSAPI Service Port
- Administer CTI user permission

6.1. Administer CTI User



Step | **Description**

2. Select User Management → User Admin → Add User in the left pane. Specify a value for User Id, Common Name, Surname, User Password and Confirm Password. Set CT User to Yes. Use the values for User Id and User Password to configure Orange Softphone and ABN to access the TSAPI Service on AES server. Scroll down to the bottom of the page and click Apply (not shown).



6.2. Verify Avaya Aura® Application Enablement Services License

Step Description

1. Select **Status** from the Welcome to OAM Screen page. Verify that AES license has proper permissions for the features illustrated in these Application Notes by ensuring the TSAPI service is licensed. If the TSAPI service is not licensed, then contact the Avaya sales team or business partner for a proper license file.



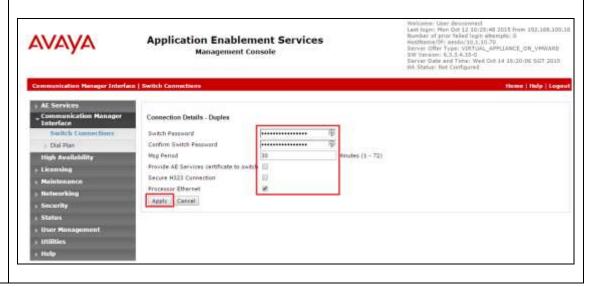
6.3. Administer Switch Connection

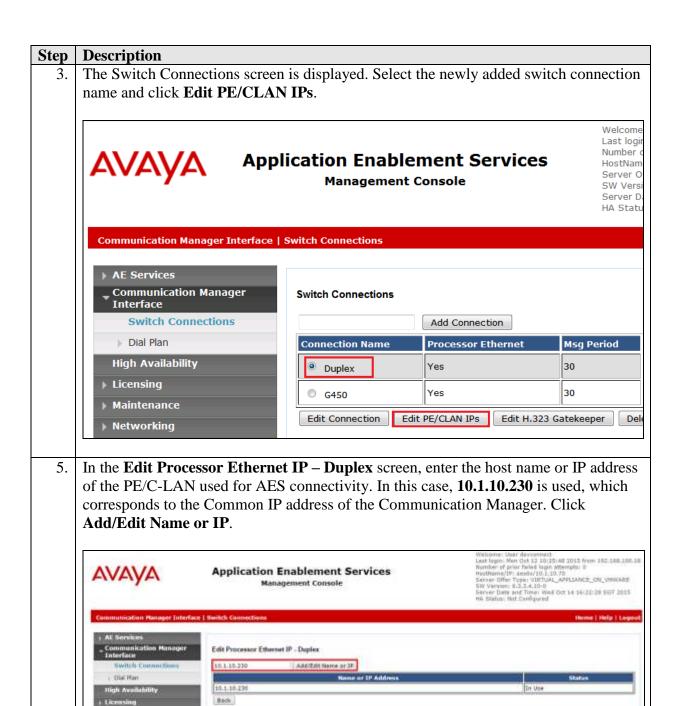
Step Description

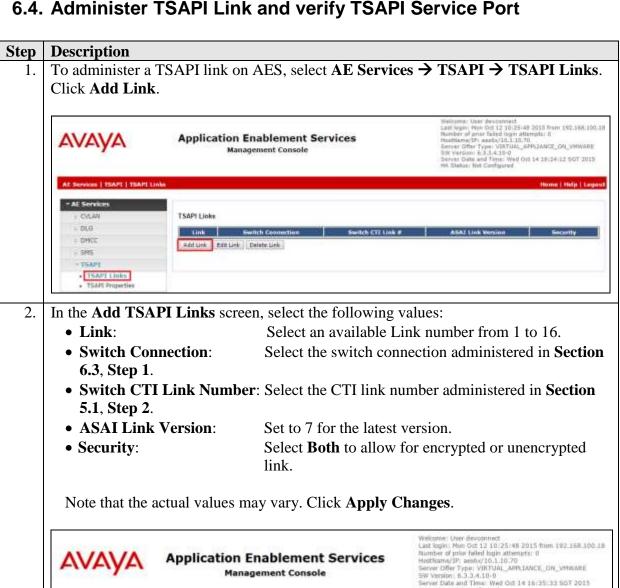
From the Home menu, select Communication Manager Interface → Switch Connections. Enter a descriptive name for the switch connection and click Add Connection. In this configuration, Duplex is used.



2. The Connection Details – Duplex screen is displayed. For the Switch Password and Confirm Switch Password fields, enter the password that was administered in Communication Manager using the IP Services form in Section 5.1, Step 4. Processor Ethernet box is checked as proor is used for this connection as shown in Section 5.1, Step 3. Click on Apply to effect changes.









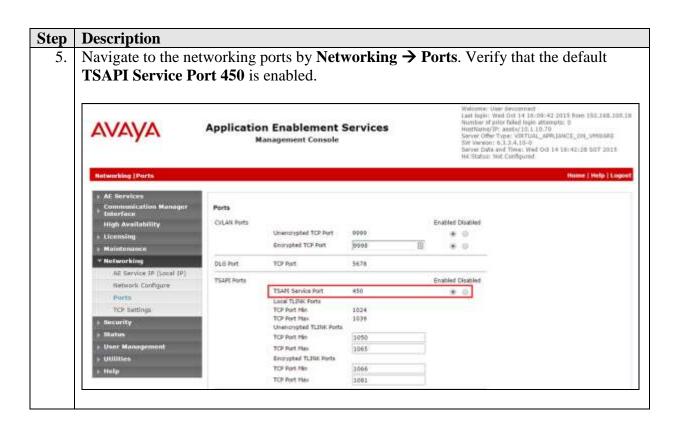
Step | **Description**

3. To restart the TSAPI Service, select **Maintenance** → **Service Controller** from the Home menu. Check the **TSAPI Service** checkbox and click **Restart Service**.

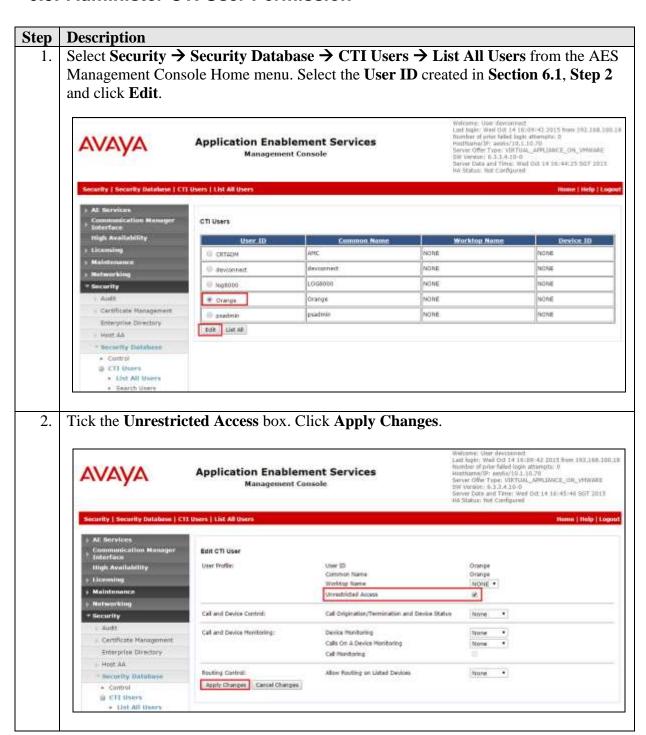


4. Navigate to the Tlinks screen by selecting Security → Security Database → Tlinks from the Home menu. Note the value of the Tlink Name, as this will be needed to configure the Orange ABN in Section 7. In this configuration, the unencrypted Tlink Name, AVAYA#DUPLEX#CSTA#AES6X, which is automatically assigned by the AES server, is used.





6.5. Administer CTI User Permission



7. Configure Orange Softphone and Abandon Call Notification

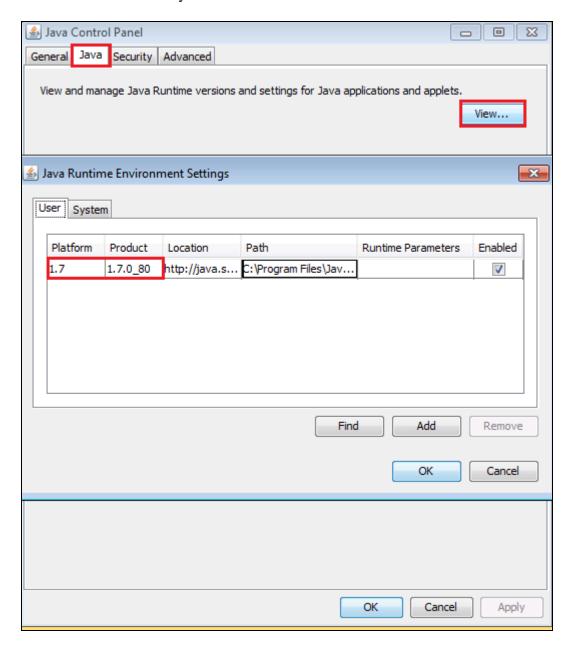
Configuration of Orange Softphone is documented in reference **Section 10 [3]** from earlier Application Notes and will not be detailed here.

This section highlights the configuration of Orange ABN which includes the following areas:

- Check the pre-requisites
- Configure Orange Abandon Call Notification

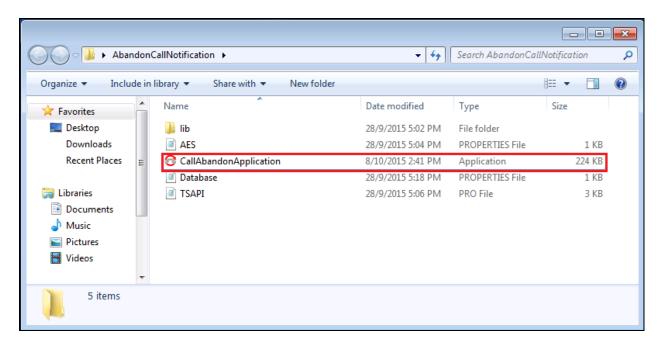
7.1. Check the pre-requisites

Orange ABN requires Java Runtime environment to be installed. On the server, click on **Windows Start** \rightarrow **Control Panel** (not shown) and double click on **Java**. Select the **Java** tab and click **View** button to verify that Java **1.7** is installed.



7.2. Configure Orange Abandon Call Notifications

Locate the Orange ABN application on the desktop. The properties files are located in the same place as well as shown below.



The following properties files are verified before deployment:

1. AES Properties

PrimaryLink

- Correspond to the unencrypted TLink name created by AES server shown in **Section 6.4**, **Step 4**

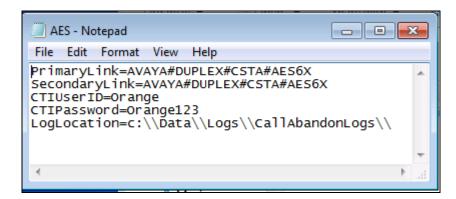
SecondaryLink CTIUserID CTI UserPassword

LogLocation

- Same as PrimaryLink since only one AES is setup

- CTI User name created in Section 6.1, Step 2
- CTI User password created in Section 6.1, Step 2

- Change as appropriate



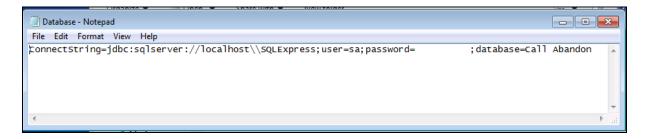
2. Database properties

ConnectString - Set as below with the location as local host

user - Database user set as sa

Password - Database password is blank out for security purpose.

database - Set as Call Abandon



3. TSAPI properties

Check that the AES server IP address (shown in **Figure 1**) and port as configured in **Section 6.4 Step 5** are as set below.

Double click the **CallAbandonApplication.exe** for executing the program after checking the properties files. A green arrow up icon will be shown on the button right taskbar if it is running properly.



To stop or restart the application, right click on the green arrow icon and select **Exit**. Double click on the **CallAbandonApplication.exe** application to restart.

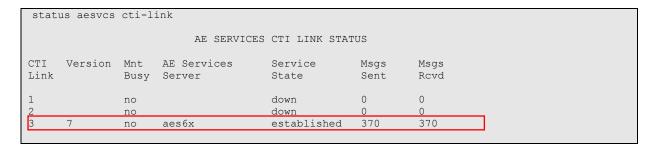


8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager, AES Server and Orange ABN.

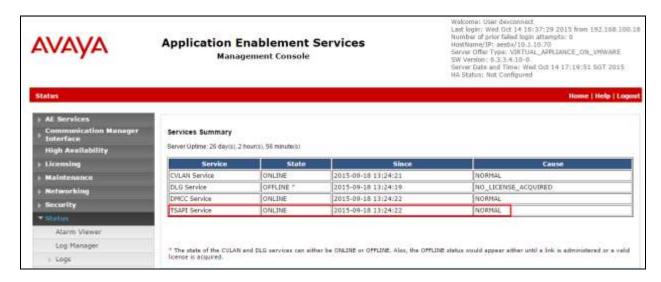
8.1. Verify Avaya Aura® Communication Manager

Verify the status of the administered TSAPI CTI link by using the **status aesvcs cti-link** command. The **Service State** field should display **established**.



8.2. Verify Avaya Aura® Application Enablement Services

From the Welcome to OAM web pages, verify the status of the TSAPI Service by selecting **Status**. The **State** field for the **TSAPI Service** should display **ONLINE**.



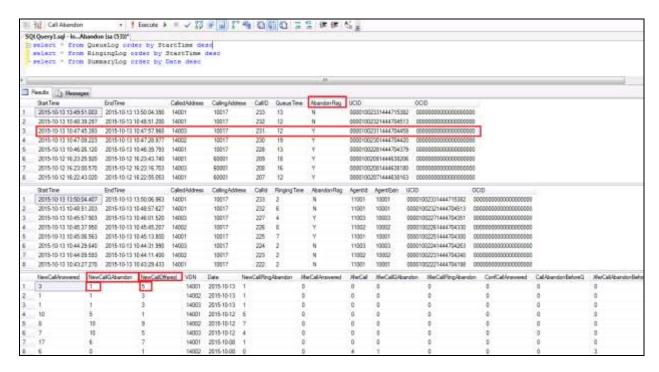
8.3. Verify Orange Abandon Call Notification

Verify that Orange ABN is up and running by checking the green arrow icon on the bottom right taskbar.



Make an incoming call to the monitored VDN by either abandoning the calls before queuing, during queuing or simply let the call be answered by one of the login agents. Use Microsoft SQL Server Management Studio to connect and query the database for the appropriate data parameters listed in [5].

Below is a sample call to verify Orange ABN is running. A caller 10017 reached the VDN 14001, queued for 12 seconds and then abandoned the call. The AbandonFlag column is set to Y in the QueueLog. In the SummaryLog, the NewCallOffered and NewCallQAbandon counts were observed to have gone up.



9. Conclusion

These Application Notes describe the configuration steps required for Orange Abandon Call Notification 1.0 to interoperate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services using the Telephony Services Application Programming Interface (TSAPI). All feature test cases were completed successfully with observations noted in **Section 2.2**.

10. Additional References

This section references the Avaya and Orange Business Services documentations that are relevant to these Application Notes.

The following Avaya product documentations can be found at http://support.avaya.com.

- [1] Avaya Aura® Application Enablement Services Administration and Maintenance Guide, Document Number 02—300357, Release 6.3, Jun 2014.
- [2] Avaya Aura® Avaya Communication Manager Feature Description and Implementation, Document Number 555-245-205, Release 6.3, Issue 12, Jun 2015.
- [3] Application Notes for Orange Softphone 1.0 with Avaya Aura® Communication Manager R6.3 and Avaya Aura® Application Enablement Services R6.3

The following product documentations are available from Orange Business Services.

- [4] Help for Orange Softphone Version 2.0
- [5] Manual for Abandon Call Notification Version 1.0
- [6] Troubleshooting User Guide for Abandon Call Notification Version 1.0

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