



Avaya Solution & Interoperability Test Lab

Application Notes for TelStrat Engage with Avaya Aura™ Communication Manager Using Avaya Aura™ Application Enablement Services – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for TelStrat Engage to interoperate with Avaya Aura™ Communication Manager using Avaya Aura™ Application Enablement Services. TelStrat Engage is a call recording solution. In the compliance testing, TelStrat Engage used the Telephony Services Application Programming Interface from Avaya Aura™ Application Enablement Services to monitor skill groups and agent telephone extensions on Avaya Aura™ Communication Manager, and used the port mirroring method to capture the media associated with the monitored agents for call recording.

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 TelStrat Engage to interoperate with Avaya Aura™ Communication Manager using Avaya Aura™ Application Enablement Services. TelStrat Engage is a call recording solution. In the compliance testing, TelStrat Engage used the Telephony Services Application Programming Interface (TSAPI) from Avaya Aura™ Application Enablement Services to monitor skill groups and agent telephone extensions on Avaya Aura™ Communication Manager, and used the port mirroring method to capture the media associated with the monitored agents for call recording.

The TSAPI interface is used by TelStrat Engage to monitor the skill groups and agent telephone extensions. When there is an active call on the monitored agent, TelStrat Engage is informed of the call via event reports from the TSAPI interface. TelStrat Engage starts the call recording by using the replicated media from the port mirroring method. The TSAPI event reports are also used to determine when to stop the call recordings.

1.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on TelStrat Engage:

- Handling of TSAPI messages in the areas of event notification and value queries.
- Proper recording, logging, and playback of calls for scenarios involving inbound, outbound, internal, external, ACD, non-ACD, hold, reconnect, simultaneous, conference, and transfer.

The serviceability testing focused on verifying the ability of TelStrat Engage to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable to the TelStrat Engage server.

1.2. Support

Technical support on TelStrat Engage can be obtained through the following:

- **Phone:** (972) 633-4548
- **Email:** support@telstrat.com

2. Reference Configuration

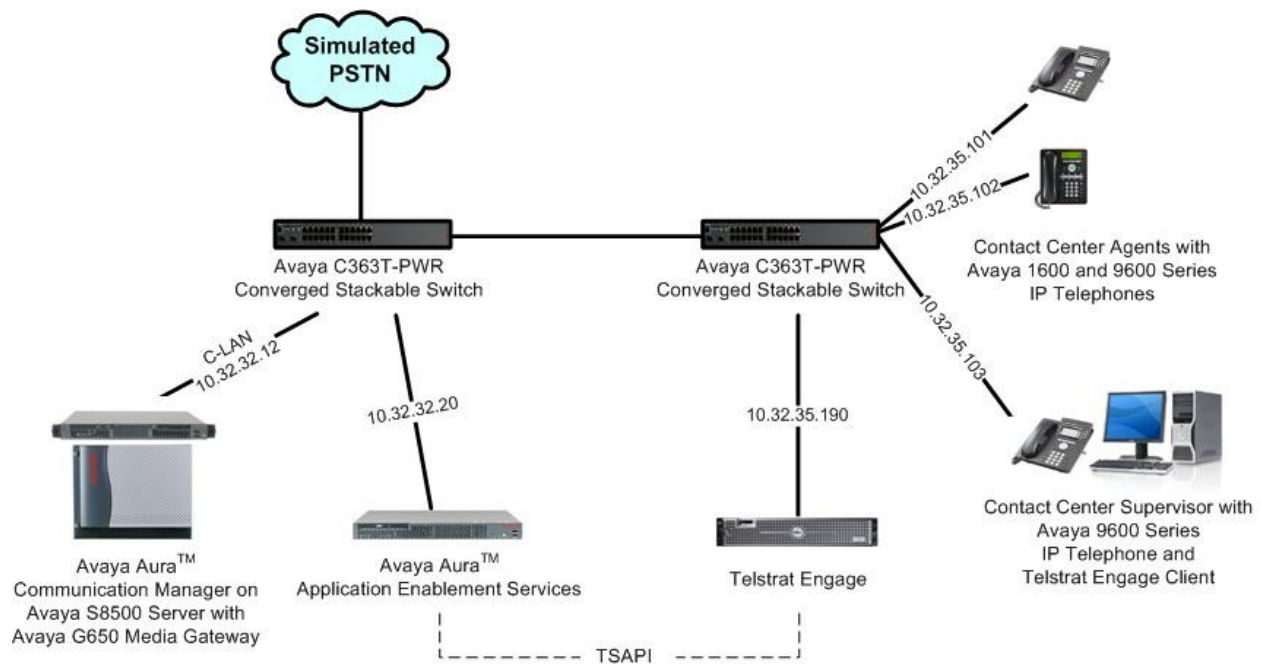
In the compliance testing, the RTP stream for agents with Avaya IP Telephones were mirrored from the layer 2 switch, and replicated over to TelStrat Engage.

TelStrat Engage also has an Engage Client application that can be used to review and playback the call recordings. In the compliance testing, the Engage Client application was installed on the supervisor PC.

The detailed administration of basic connectivity between Avaya Aura™ Communication Manager and Avaya Aura™ Application Enablement Services, and of contact center devices are not the focus of these Application Notes and will not be described. In addition, the port mirroring of the layer 2 switch is also outside the scope of these Application Notes and will not be described.

In the compliance testing, the contact center devices consisted of a skill group, a supervisor, and two agents shown in the table below. TelStrat Engage requested monitoring on the skill group and agent telephone extensions.

Device Type	Extension
Skill Group	65555
Supervisor	65000
Agent IDs	65881, 65882
Agent Telephone Extensions	65001, 65002



3. Equipment and Software Validated

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

Equipment	Software
Avaya Aura™ Communication Manager on Avaya S8500 Server	R015x.02.0.947.3
Avaya G650 Media Gateway <ul style="list-style-type: none">• TN799DP C-LAN Circuit Pack• TN2302AP IP Media Processor	HW01 FW032 HW20 FW120
Avaya Aura™ Application Enablement Services	4.2.3
Avaya 1600 Series IP Telephones (H.323)	1.21
Avaya 9600 Series IP Telephones (H.323)	3.1
TelStrat Engage on Windows 2003 Server with Service Pack 2 <ul style="list-style-type: none">• Database Server• Avaya TSAPI Windows Client	3.2 Microsoft SQL Server 2005 4.2.0.267
TelStrat Engage Client	3.2

4. Configure Avaya Aura™ Communication Manager

This section provides the procedures for configuring Avaya Aura™ Communication Manager. The procedures include the following areas:

- Verify Communication Manager License
- Administer IP codec set
- Administer CTI link

4.1. Verify Communication Manager License

Log in to the System Access Terminal (SAT) to verify that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the “display system-parameters customer-options” command to verify that the **Computer Telephony Adjunct Links** customer option is set to “y” on **Page 3**. If this option is not set to “y”, then contact the Avaya sales team or business partner for a proper license file.

display system-parameters customer-options		Page	3 of	11
OPTIONAL FEATURES				
Abbreviated Dialing Enhanced List?	y	Audible Message Waiting?	n	
Access Security Gateway (ASG)?	n	Authorization Codes?	n	
Analog Trunk Incoming Call ID?	y	CAS Branch?	n	
A/D Grp/Sys List Dialing Start at 01?	n	CAS Main?	n	
Answer Supervision by Call Classifier?	n	Change COR by FAC?	y	
ARS?	y	Computer Telephony Adjunct Links?	y	
ARS/AAR Partitioning?	y	Cvg Of Calls Redirected Off-net?	n	
ARS/AAR Dialing without FAC?	y	DCS (Basic)?	n	
ASAI Link Core Capabilities?	y	DCS Call Coverage?	n	
ASAI Link Plus Capabilities?	y	DCS with Rerouting?	n	
Async. Transfer Mode (ATM) PNC?	n			
Async. Transfer Mode (ATM) Trunking?	n	Digital Loss Plan Modification?	n	
ATM WAN Spare Processor?	n	DS1 MSP?	y	

4.2. Administer IP Codec Set

Use the “change ip-codec-set n” command, where “n” is an existing codec set number used for the agents. Enter the desired audio codec types in the **Audio Codec** fields. Note that TelStrat Engage only supports the G.711 and G.729 codec variants.

change ip-codec-set 7		Page	1 of	2
IP Codec Set				
Codec Set: 7				
Audio	Silence	Frames	Packet	
Codec	Suppression	Per Pkt	Size(ms)	
1: G.711MU	n	2	20	
2:				

4.3. Administer CTI Link

Add a CTI link using the “add cti-link n” command, where “n” is an available CTI link number. Enter an available extension number in the **Extension** field. Note that the CTI link number and extension number may vary. Enter “ADJ-IP” in the **Type** field, and a descriptive name in the **Name** field. Default values may be used in the remaining fields.

add cti-link 1	Page 1 of 3
CTI LINK	
CTI Link: 1	
Extension: 60100	
Type: ADJ-IP	
Name: Engage CTI Link	COR: 1

5. Configure Avaya Aura™ Application Enablement Services

This section provides the procedures for configuring Avaya Aura™ Application Enablement Services. The procedures include the following areas:

- Verify TSAPI license
- Launch OAM interface
- Administer TSAPI link
- Obtain Tlink name
- Administer Engage user
- Restart TSAPI service

5.1. Verify TSAPI License

Access the Web License Manager interface by using the URL “https://ip-address/WebLM/index.jsp” in an Internet browser window, where “ip-address” is the IP address of the Application Enablement Services server.

The **Web License Manager** screen is displayed. Log in using the appropriate credentials.



The **Web License Manager** screen is displayed. Select **Application_Enablement** in the left pane, to display the **Licensed Features**.

Feature (Keyword)	Expiration Date	Licensed	Acquired
Application Enablement Connections (VALUE_AEC_CONNECTIONS)	permanent	16	1
CVLAN ASAI (VALUE_CVLAN_ASAI)	permanent	50	0
CVLAN Proprietary Links (VALUE_PROPRIETARY_LINKS)	permanent	8	0
TSAPI Version (VALUE_TSAPI_VERSION)	permanent	4.2	Not counted
DMCC DMC (VALUE_DMCC_DMC)	permanent	50	0

Scroll down the screen, and verify that there is sufficient license for **TSAPI Simultaneous Users**, as shown below.

TSAPI Simultaneous Users (VALUE_TSAPI_USERS)	permanent	1000	0
Unified CC API Desktop Edition (VALUE_AEC_UNIFIED_CC_DESKTOP)	permanent	1000	0
AES ADVANCED MEDIUM SWITCH (VALUE_AEC_MEDIUM_ADVANCED)	permanent	3	0
CVLAN (VALUE_CVLAN)	permanent	1	0

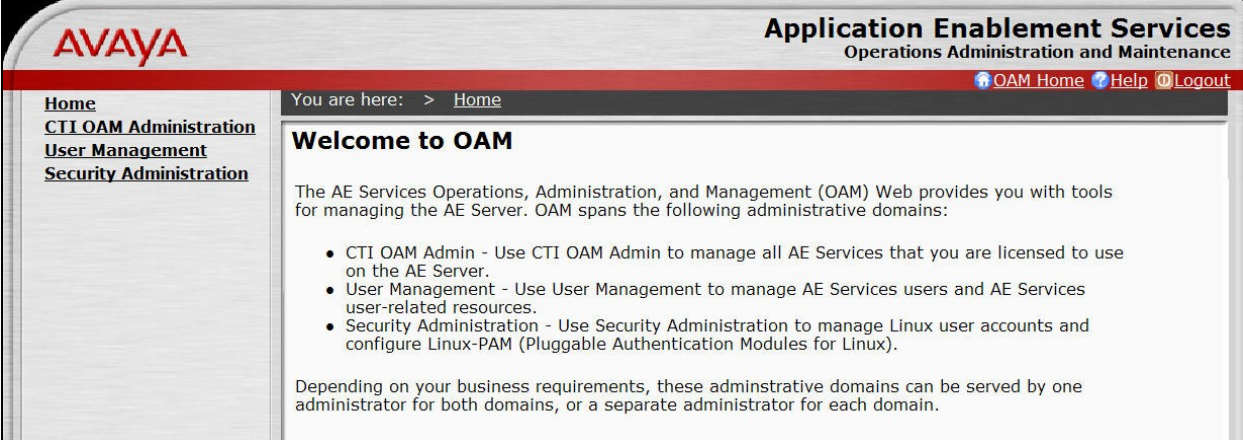
5.2. Launch OAM Interface

Access the OAM web-based interface by using the URL “https://ip-address/MVAP/ index.jsp” in an Internet browser window, where “ip-address” is the IP address of the Application Enablement Services server.

The **Please log on** screen is displayed. Log in using the appropriate credentials.

The image shows a web-based login interface for Avaya Application Enablement Services. At the top, the Avaya logo is displayed in red. Below it, a red banner contains the text "Application Enablement Services" and a "Help" link. The main content area has a light gray background with a rounded border. It contains the text "Please log on." followed by two input fields: "Logon:" and "Password:". Below these fields is a "Login" button.

The **Welcome to OAM** screen is displayed next. Select **CTI OAM Administration** from the left pane.

The image shows the "Welcome to OAM" screen of the Avaya Application Enablement Services. The header includes the Avaya logo and the text "Application Enablement Services Operations Administration and Maintenance". A navigation bar at the top right contains links for "OAM Home", "Help", and "Logout". On the left, a sidebar menu lists "Home", "CTI OAM Administration", "User Management", and "Security Administration". The main content area has a heading "Welcome to OAM" and a paragraph explaining the purpose of the OAM web interface. Below this, a bulleted list describes the administrative domains: CTI OAM Admin, User Management, and Security Administration. A final paragraph states that these domains can be managed by a single administrator or separate administrators.

The **Welcome to CTI OAM Screens** is displayed.

The screenshot shows the AVAYA Application Enablement Services (AES) Operations Administration and Maintenance (OAM) interface. The left sidebar contains a navigation menu with the following items: **CTI OAM Home**, **Administration**, **Status and Control**, **Maintenance**, **Alarms**, **Logs**, **Utilities**, and **Help**. The main content area displays the 'Welcome to CTI OAM Screens' page. At the top right, there are links for **OAM Home**, **Help**, and **Logout**. Below the header, a breadcrumb trail shows 'You are here: > CTI OAM Home'. The main content area includes a welcome message, a last login timestamp for user '[craft]' (Fri Feb 12 20:47:50 2010 from 10.32.35.10), an important note about restarting AE Services, and a table of service status.

Service	Status	State	Licenses Purchased
ASAI Link Manager	Running	N/A	N/A
DMCC Service	Running	ONLINE	Yes
CVLAN Service	Running	ONLINE	Yes
DLG Service	Running	OFFLINE	Yes
Transport Layer Service	Running	N/A	N/A
TSAPI Service	Running	ONLINE	Yes
SMS	N/A	N/A	Yes

For status on actual services, please use [Status and Control](#).

License Information

You are licensed to run Application Enablement (CTI) version 4.2.

5.3. Administer TSAPI Link

To administer a TSAPI link, select **Administration > CTI Link Admin > TSAPI Links** from the left pane. The **TSAPI Links** screen is displayed, as shown below. Click **Add Link**.

The screenshot shows the AVAYA Application Enablement Services (AES) Operations Administration and Maintenance (OAM) interface. The left sidebar contains a navigation menu with the following items: **CTI OAM Home**, **Administration**, **Network Configuration**, **Switch Connections**, **CTI Link Admin**, **TSAPI Links**, and **CVLAN Links**. The main content area displays the 'TSAPI Links' screen. At the top right, there are links for **OAM Home**, **Help**, and **Logout**. Below the header, a breadcrumb trail shows 'You are here: > Administration > CTI Link Admin > TSAPI Links'. The main content area includes a table with columns for 'Link', 'Switch Connection', and 'Switch CTI Link #'. Below the table, there are three buttons: **Add Link**, **Edit Link**, and **Delete Link**.

The **Add / Edit TSAPI Links** screen is displayed next. The **Link** field is only local to the Application Enablement Services server, and may be set to any available number. For **Switch Connection**, select the relevant switch connection from the drop-down list. In this case, the existing switch connection “S8500” is selected. For **Switch CTI Link Number**, select the CTI link number from **Section 4.3**. Retain the default values in the remaining fields, and click **Apply Changes**.

AVAYA Application Enablement Services
Operations Administration and Maintenance

You are here: > Administration > CTI Link Admin > TSAPI Links

Add / Edit TSAPI Links

Link: 1
Switch Connection: S8500
Switch CTI Link Number: 1
ASAI Link Version: 4
Security: Unencrypted

Apply Changes Cancel Changes

5.4. Obtain Tlink Name

Select **Administration > Security Database > Tlinks** from the left pane. The **Tlinks** screen shows a listing of the Tlink names. A new Tlink name is automatically generated for the TSAPI service. Locate the Tlink name associated with the relevant switch connection, which would use the name of the switch connection as part of the Tlink name. Make a note of the associated Tlink name, to be used later for configuring TelStrat Engage.

In this case, the associated Tlink name is “AVAYA#S8500#CSTA#AES-TEST”. Note the use of the switch connection “S8500” from **Section 5.3** as part of the Tlink name.

AVAYA Application Enablement Services
Operations Administration and Maintenance

You are here: > Administration > Security Database > Tlinks

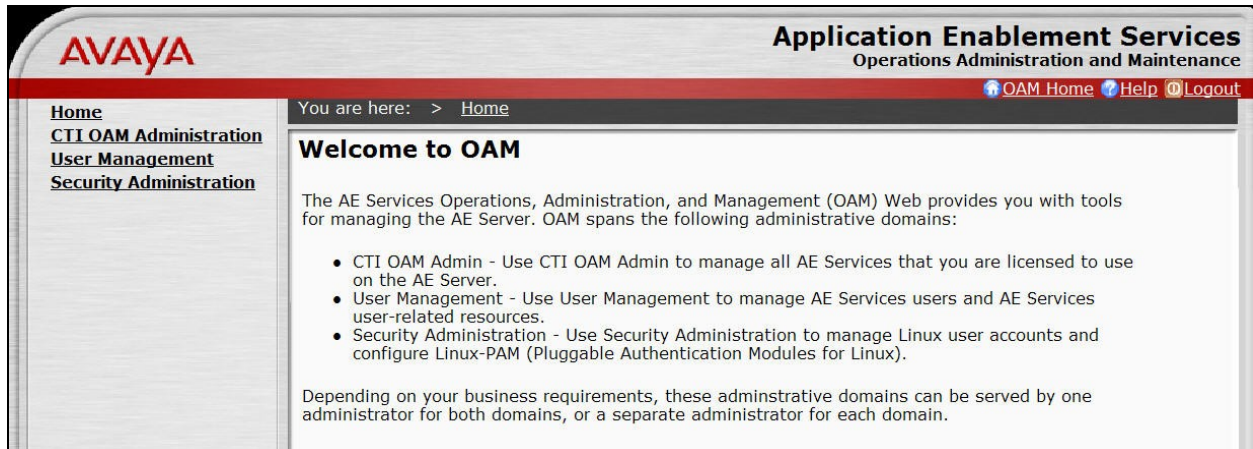
Tlinks

Tlink Name
AVAYA#S8500#CSTA#AES-TEST

Edit Tlink Delete Tlink

5.5. Administer Engage User

Administer a new user account for TelStrat Engage, which is created from the User Management web pages. Select **OAM Home**, located at the upper right corner of the screen, to display the **Welcome to OAM** screen below. Select **User Management** from the left pane.



The **Welcome to the User Management home page** screen is displayed next, as shown below.



Select **User Management > Add User** from the left pane. In the **Add User** screen shown below, enter desired values for **User Id**, **Common Name**, **Surname**, **User Password**, and **Confirm Password**.

For **CT User**, select “Yes” from the drop-down list. Retain the default value in the remaining fields. Click **Apply** at the bottom of the screen (not shown below).

AVAYA **Application Enablement Services**
Operations Administration and Maintenance

[QAM Home](#) [Help](#) [Logout](#)

User Management Home You are here: > [User Management](#) > [Add User](#)

Add User

Fields marked with * can not be empty.

* User Id

* Common Name

* Surname

* User Password

* Confirm Password

Admin Note

Avaya Role

Business Category

Car License

CM Home

Ccs Home

CT User

Department Number

5.6. Restart TSAPI Service

Return to the CTI OAM Administration web pages by selecting **OAM Home**, located at the upper right corner of the screen, to display the **Welcome to OAM** screen (shown in **Section 5.2**). Select **CTI OAM Administration** from the left pane to display the **Welcome to CTI OAM Screens** (shown in **Section 5.2**).

Select **Maintenance > Service Controller** from the left pane. The **Service Controller** screen is displayed, and shows a listing of the services and associated status. Check **TSAPI Service**, and click **Restart Service**.

AVAYA **Application Enablement Services**
Operations Administration and Maintenance

[OAM Home](#) [Help](#) [Logout](#)

You are here: > [Maintenance](#) > [Service Controller](#)

Service Controller

Service	Controller Status
<input type="checkbox"/> ASAI Link Manager	Running
<input type="checkbox"/> DMCC Service	Running
<input type="checkbox"/> CVLAN Service	Running
<input type="checkbox"/> DLG Service	Running
<input type="checkbox"/> Transport Layer Service	Running
<input checked="" type="checkbox"/> TSAPI Service	Running

For status on actual services, please use [Status and Control](#).

[Start](#) [Stop](#) [Restart Service](#) [Restart AE Server](#) [Restart Linux](#)

6. Configure Avaya IP Telephones

This section provides the procedures for obtaining the MAC addresses from the Avaya IP Telephones.

6.1. Obtain MAC Address

From the Avaya IP Telephone, press the **MENU** button to display the **Menu** screen (not shown).

From the **Menu** screen, navigate to **Network Information** > **Miscellaneous** to display the **Miscellaneous** screen (not shown).

From the **Miscellaneous** screen, page down as necessary to display the **MAC** parameter (not shown).

Make a note of the **MAC** address, which will be used later to configure TelStrat Engage. In the compliance testing, the MAC addresses associated with the two agents were “00040DFA0FBB” and “00040DECB8F2”.

Repeat this section for all Avaya IP Telephones used by the agents in **Section 2**.

7. Configure TelStrat Engage

This section provides the procedures for configuring TelStrat Engage. The procedures include the following areas:

- Administer VoIP engine
- Administer ACD groups
- Administer device port mappings

7.1. Administer VoIP Engine

From the Engage server, click the **VoIP Engine Server** icon from the system tray, as shown below.



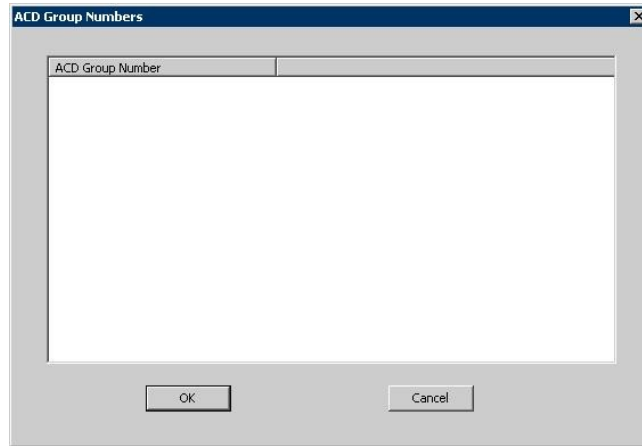
The **VoIP Configuration** screen is displayed. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **AES Server:** The IP address of the Application Enablement Services server.
- **DMCC Port:** “4721”
- **TSAPI APP ID:** The Tlink name from **Section 5.4**.
- **User ID:** The Engage user credentials from **Section 5.5**.
- **Password:** The Engage user credentials from **Section 5.5**.

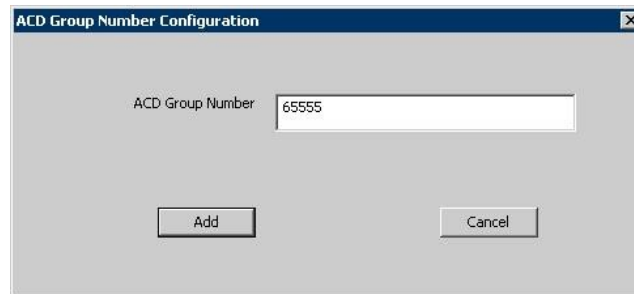
A screenshot of the 'VoIP Configuration' dialog box. The title bar says 'VoIP Configuration'. Inside, there's a tab labeled 'Avaya'. The 'CTI Option' is set to 'Avaya' in a dropdown menu. The 'Recording Board ID' is '2300'. The 'AES Server' is '10.32.32.20'. The 'DMCC Port' is '4721'. The 'TSAPI APP ID' is 'AVAYA#S8500#C'. The 'User ID' is 'engage'. The 'Password' is masked with 'XXXXXXXX'. There are buttons for 'SoftPhone', 'OnDemand', 'SIP/H.323', and 'ACD Groups'. Below these is a 'Calls To Record' section with three radio buttons: 'All Trunk/Internal Calls' (selected), 'All Trunk Calls', and 'Calls Selected By DN'. At the bottom is a 'Port Mapping' section with a table header: 'Recording Channel', 'Device ID', 'Mac Address', 'DN', and 'Record With'. The table body is empty.

7.2. Administer ACD Groups

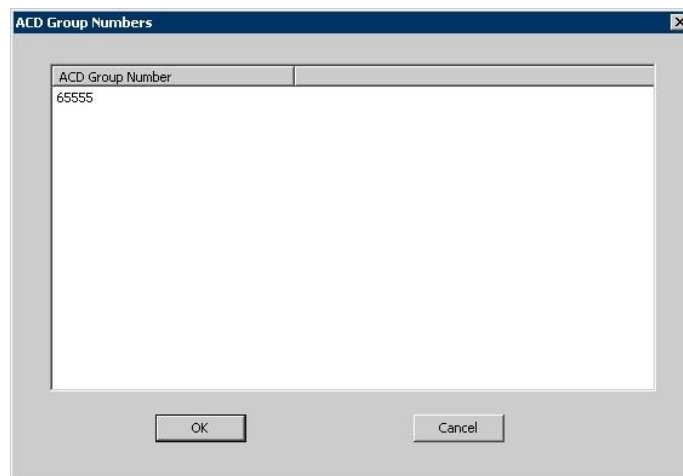
From the **VoIP Configuration** screen shown in **Section 7.1**, click on **ACD Groups** to display the **ACD Group Numbers** screen below. Right click in the empty pane and select **Add**.



The **ACD Group Number Configuration** screen is displayed next. Enter the first skill group extension from **Section 2**.



Repeat this section to add all remaining skill groups.

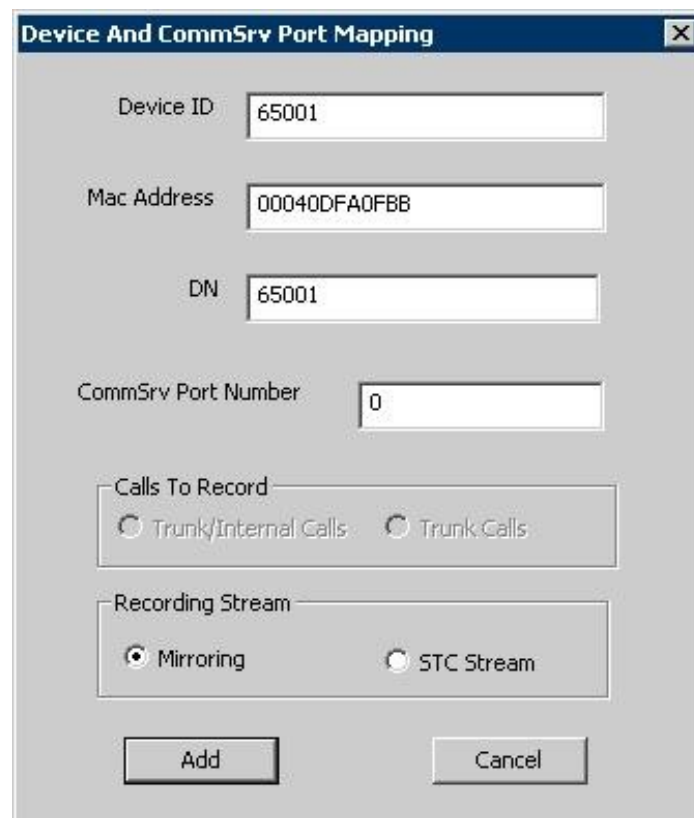


7.3. Administer Device Port Mappings

From the **VoIP Configuration** screen shown in **Section 7.1**, right-click in the empty pane and select **ADD**. The **Device And CommSrv Port Mapping** screen is displayed.

For **Device ID**, enter the first agent telephone extension from **Section 2**. Select the **Mirroring** radio button to enable the **Mac Address** field. For **Mac Address**, enter the MAC address of the first agent telephone from **Section 6.1**. For **CommSrv Port Number**, enter an available port, which begins with “0”.

For **DN**, enter the dialed number to reach the agent directly for personal calls (non-ACD). For calls originated inside the switch, this is usually the agent telephone extension, depending on the switch configuration. For calls originated outside the switch, the dialed number usually contains the dial plan prefix. Note that a device port mapping needs to be created for every possible dialed number that can reach the agent directly.



The image shows a dialog box titled "Device And CommSrv Port Mapping". It contains several input fields and radio buttons. The "Device ID" field is set to "65001". The "Mac Address" field is set to "00040DFA0FBB". The "DN" field is set to "65001". The "CommSrv Port Number" field is set to "0". There are two sections of radio buttons: "Calls To Record" with options "Trunk/Internal Calls" and "Trunk Calls", and "Recording Stream" with options "Mirroring" (selected) and "STC Stream". At the bottom are "Add" and "Cancel" buttons.

Field	Value
Device ID	65001
Mac Address	00040DFA0FBB
DN	65001
CommSrv Port Number	0
Calls To Record	<input type="radio"/> Trunk/Internal Calls <input type="radio"/> Trunk Calls
Recording Stream	<input checked="" type="radio"/> Mirroring <input type="radio"/> STC Stream

Repeat this section to create device port mappings for all agents in **Section 2**.

In the compliance testing, two entries were created for each agent. The incoming trunk calls directly to the agent will have a prefix of “90884”, as shown below.

VoIP Configuration

Avaya

CTI Option: Avaya

AES Server: 10.32.32.20

DMCC Port: 4721

TSAPI APP ID: AVAYA#S8500#C

Recording Board ID: 2300

User ID: engage

Password: XXXXXXXX

Calls To Record:
☒ All Trunk/Internal Calls
☐ All Trunk Calls
☐ Calls Selected By DN

SoftPhone
OnDemand
SIP/H.323
ACD Groups

Port Mapping

	Recording Channel	Device ID	Mac Address	DN	Record With
000		65001	00040DFA0FBB	65001	Mirroring
000		65001	00040DFA0FBB	9088465001	Mirroring
001		65002	00040DEC8F2	65002	Mirroring
001		65002	00040DEC8F2	9088465002	Mirroring

OK Cancel

8. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the TelStrat Engage application, the application automatically queries for the skill group and agent telephone extensions and requests monitoring using Avaya TSAPI.

For the manual part of the testing, each call was handled manually on the agent telephone with generation of unique audio content for the recordings. Necessary user actions such as hold and reconnect were performed from the agent telephones to test the different call scenarios. The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet cable to TelStrat Engage.

The verification of tests included using the TelStrat Engage logs for proper message exchanges, and using the Engage Client application for proper logging and playback of the calls.

All test cases were executed and passed. The following were the observations on TelStrat Engage from the compliance testing:

- In the attended conference scenarios, the first recording for the conference-from agent included silence for the period that the conference-from agent was conversing with the conference-to agent, and the second recording for the conference-from agent contained the conversation with the conference-to agent.
- For calls established before a link outage and stayed up during and after the link outage, the recordings will only contain the conversation up to the link disruption.

9. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Aura™ Communication Manager, Avaya Aura™ Application Enablement Services, and TelStrat Engage.

9.1. Verify Avaya Aura™ Communication Manager

On Communication Manager, verify the status of the administered CTI link by using the “status aesvcs cti-link” command. Verify that the **Service State** is “established” for the CTI link number administered in **Section 4.3**, as shown below.

status aesvcs cti-link						
AE SERVICES CTI LINK STATUS						
CTI Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd
1	4	no	AES-Test	established	29	29

9.2. Verify Avaya Aura™ Application Enablement Services

On Application Enablement Services, verify the status of the TSAPI link by selecting **Status and Control > Services Summary** from the left pane. Click on **TSAPI Service**, followed by **Details** (not shown below). The **TSAPI Link Details** screen is displayed. Verify the **Conn Status** is “Talking” for the TSAPI link administered in **Section 5.3**, as shown below.

Click **User Status** from the bottom of the screen.

AVAYA Application Enablement Services Operations Administration and Maintenance									
You are here: > Status and Control > Services Summary									
TSAPI Link Details									
	Link	Switch Conn Name	Switch CTI Link Number	Conn Status	Since	Service State	Switch Version	Number of Associations	ASAI Message Rate
	1	S8500	1	Talking	2010-03-15 11:20:30.0	Online	15	3	24

The **CTI User Status** screen is displayed. Verify that there is an open stream for the Engage user created in **Section 5.5**.

AVAYA **Application Enablement Services**
Operations Administration and Maintenance

You are here: > [Status and Control](#) > [Services Summary](#)

CTI User Status

CTI Users: All Users (dropdown) Refresh

Open Streams: 1
Closed Streams: 50

Name	Time Opened	Time Closed	Tlink Name
engage	2010-03-16 10:13:19	Open	AVAYA#S8500#CSTA#AES-TEST

Show Closed Streams Close All Opened Streams Back

9.3. Verify TelStrat Engage

Log an agent into the skill group to handle and complete an ACD call. From the PC running the Engage Client application, select **Start > All Programs > TelStrat Engage > Engage Client** to launch the application.

The **Engage: Logon Dialog** screen is displayed. Enter the appropriate credentials.

Engage: Logon Dialog

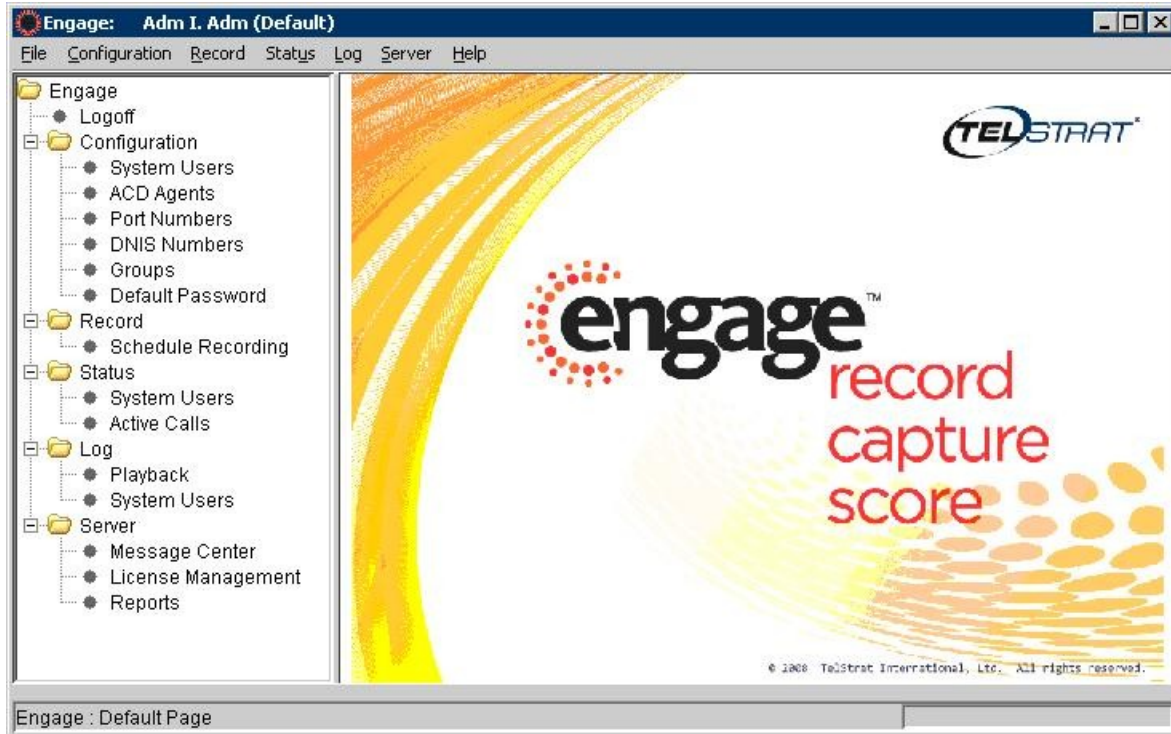
TelStrat Engage

UserID:
Password:
Server Name:

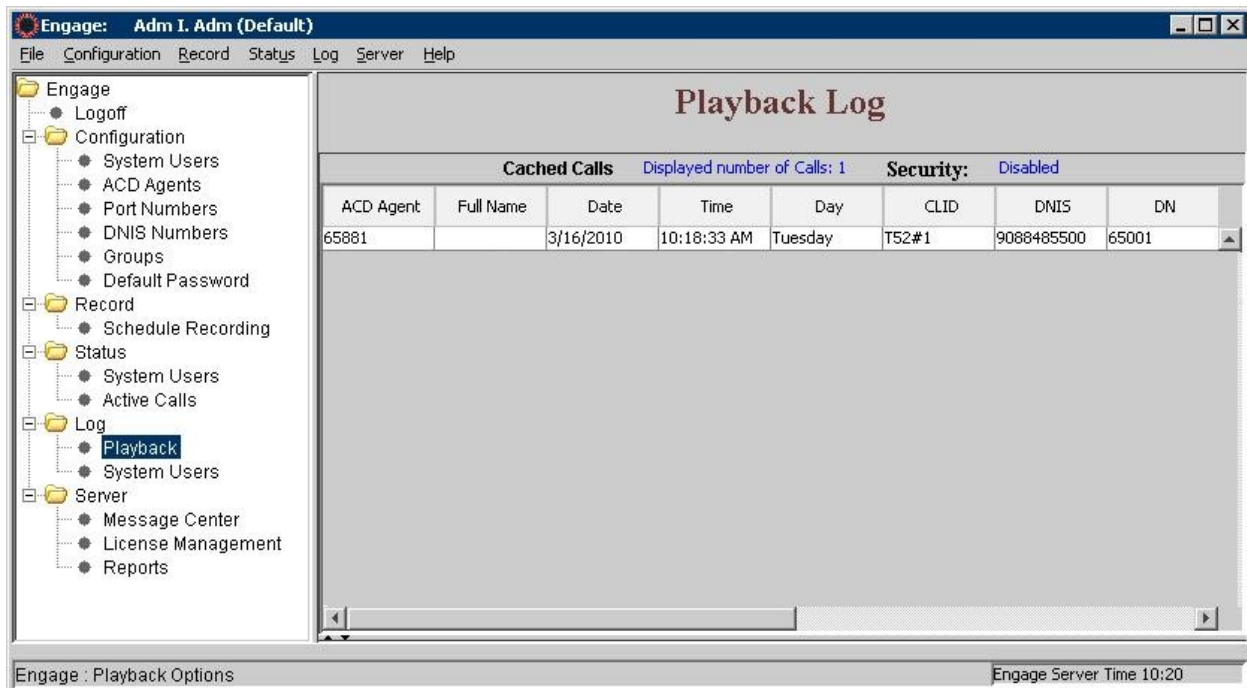
☐ Windows Integrated Logon

OK Cancel

The **Engage** screen below is displayed. Select **Engage > Log > Playback** from the left pane.



The **Engage** screen is updated with a list of the call recordings. Verify that there is an entry reflecting the last call, with proper values in the relevant fields. Double click on the entry and verify that the call recording is played back.



10. Conclusion

These Application Notes describe the configuration steps required for TelStrat Engage to successfully interoperate with Avaya Aura[™] Communication Manager using Avaya Aura[™] Application Enablement Services. All feature and serviceability test cases were completed with observations noted in **Section 8**.

11. Additional References

This section references the product documentation relevant to these Application Notes.

1. *Administrator Guide for Avaya Aura[™] Communication Manager*, Document 03-300509, Issue 5.0, Release 5.2, May 2009, available at <http://support.avaya.com>.
2. *Avaya MultiVantage Application Enablement Services Administration and Maintenance Guide*, Release 4.2, Document ID 02-300357, Issue 10, May 2008, available at <http://support.avaya.com>.
3. *Engage Contact Center Suite Installation Guide*, Product Release 3.2, March 2010, available on the installation CD.
4. *Engage Contact Center System Administration Guide*, Product Release 3.2, March 2010, available on the installation CD.

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