

Avaya Solution & Interoperability Test Lab

Application Notes for TelStrat Engage 5.7 with Avaya Aura® Communication Manager 7.1 and Avaya Aura® Application Enablement Services 7.1 and Avaya 9600 Series IP Deskphones for On-Demand Recording – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for TelStrat Engage 5.7 to interoperate with Avaya Aura® Communication Manager 7.1, Avaya Aura® Application Enablement Services 7.1, and Avaya 9600 Series IP Deskphones for on-demand recording. TelStrat Engage is a call recording solution.

In the compliance testing, TelStrat Engage used the Telephony Services Application Programming Interface and Device, Media, and Call Control .NET interface from Avaya Aura® Application Enablement Services to monitor skill groups and agent stations on Avaya Aura® Communication Manager, and to capture the media associated with the monitored agents with Avaya 9600 Series IP Deskphones for on-demand call recording. TelStrat Engage also used the Web and Push interfaces from the Avaya 9600 Series IP Deskphones for agents to activate and deactivate on-demand call recording options.

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 TelStrat Engage 5.7 to interoperate with Avaya Aura® Communication Manager 7.1, Avaya Aura® Application Enablement Services 7.1, and Avaya 9600 Series IP Deskphones for on-demand recording. Engage is a call recording solution.

In the compliance testing, Engage used the Telephony Services Application Programming Interface (TSAPI) and Device, Media, and Call Control (DMCC) .NET interface from Application Enablement Services to monitor skill group and agent stations on Communication Manager, and to capture the media associated with the monitored agents with 9600 Series IP Deskphones for on-demand call recording. Engage also used the Web and Push interfaces from the 9600 Series IP Deskphones for agents to activate and deactivate on-demand call recording options.

The TSAPI interface is used by Engage to monitor skill groups and agent stations on Communication Manager, and for adding virtual IP softphones to active calls using the Single Step Conference method. The DMCC interface is used by TelStrat Engage to register virtual IP softphones, and to obtain the media for recording. The Web and Push interfaces are used by Engage to provide activation and deactivation of call recording options via the agents' 9600 Series IP Deskphones.

Upon notified of an active call at the monitored agent via TSAPI events, Engage adds a virtual IP softphone to the active call via the Single Step Conference method to obtain the media, and pushes recording options to the agent's 9600 Series IP Deskphone. The conversation associated with the entire call or with only specific portions of the call can be recorded depending on the option selected by the user.

2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the Engage application, the application automatically requested monitoring on skill groups and agent stations, performed device queries using TSAPI, and registered virtual IP softphones using DMCC.

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, and with manual actions to activate/deactivate recording options. Necessary user actions such as hold and resume were performed from the user telephones to test the different call scenarios. The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet connection to Engage.

The verification of tests included use of Engage logs for proper message exchanges and use of the Engage web interface for proper logging and playback of calls.

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 these DevConnect Application Notes 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 these Application Notes, the interface between Application Enablement Services and Engage did not include use of any specific encryption features as requested by TelStrat.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on Engage:

- Use of DMCC registration services to register and un-register virtual IP softphones.
- Handling of TSAPI messages in areas of event notification and value queries.
- Use of TSAPI call control services and DMCC monitoring services to activate Single Step Conference for virtual IP softphones to obtain media for call recording.
- Proper recording, logging, and playback of calls for agent scenarios involving inbound, outbound, internal, external, ACD, non-ACD, hold, resume, G.711 and G.729 codec, service observing, long duration, multiple calls, multiple agents, conference, and transfer.
- Proper display and operation of recording options on the agent phones with SIP and H.323 firmware.

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

2.2. Test Results

All test cases were executed, and the following were observations on Engage:

- By design, conversation cannot be saved while the call is on hold with an error displayed on phone when attempted.
- In the attended transfer and conference scenarios, there are at most two recording entries for the from-user, and the from-user needs to select Conversation Save during the private conversation with the to-user if that conversation is desired to be saved.
- For an active call that experienced an Ethernet disruption to Engage, as well as a call that had Conversation Save activated but later abandoned by caller while on hold, the phone display will continue to show the last set of recording options until arrival of the next call.
- With the phone refresh timer set to four seconds, it can take up to four seconds for the proper recording option screen to appear on the phone.
- In the long duration call scenario where the duration of a call was over an hour, the playback log showed 00:26 for Rec Duration instead of the expected 60:26. Upon playing the recording entry, the Media Player section did reflect end of recording being 60:26.

2.3. Support

Technical support on Engage can be obtained through the following:

- **Phone:** (972) 633-4548
- Email: <u>support@telstrat.com</u>

3. Reference Configuration

The configuration used for the compliance testing is shown in **Figure 1**. The configuration of Session Manager is performed via the web interface of System Manager. The detailed administration of basic connectivity between Communication Manager, Application Enablement Services, System Manager, Session Manager, and of call center devices are not the focus of these Application Notes and will not be described.

In the compliance testing, Engage monitored the skill groups and agent stations show below.

Device Type	Extension
VDN	60001, 60002
Skill Group	61001, 61002
Agent ID	65881, 65882
Agent Station	65001 (H.323), 66002 (SIP)

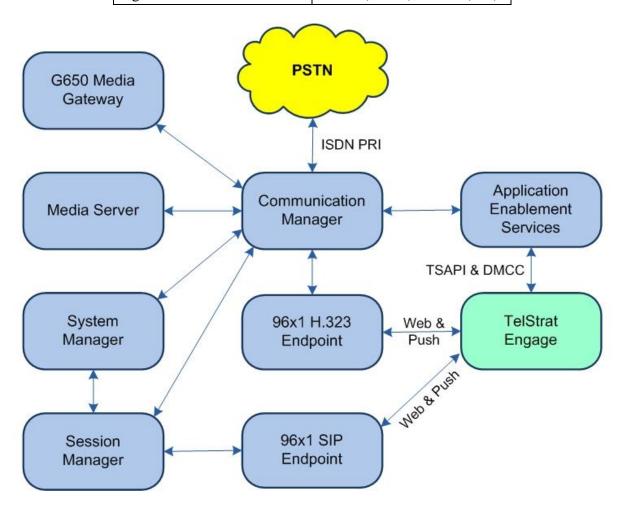


Figure 1: Compliance Testing Configuration

Solution & Interoperability Test Lab Application Notes ©2019 Avaya Inc. All Rights Reserved.

4. Equipment and Software Validated

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

Equipment/Software	Release/Version	
Avaya Aura® Communication Manager in Virtual Environment	7.1 (7.1.3.3.0.532.25082)	
Avaya G450 Media Gateway	39.5.0	
Avaya Aura® Media Server in Virtual Environment	8.0.0.150	
Avaya Aura® Application Enablement Services in Virtual Environment	7.1 (7.1.3.2.0.2-0)	
Avaya Aura® Session Manager in Virtual Environment	7.1 (7.1.3.3.713307)	
Avaya Aura® System Manager in Virtual Environment	7.1 (7.1.3.3.069127)	
Avaya 9611G & 9641G IP Deskphones (H.323)	6.8202	
Avaya 9611G IP Deskphone (SIP)	7.1.6.1.3	
 TelStrat Engage on Windows Server 2016 Recorder Avaya Phone Services Web Microsoft SQL Server 2016 Avaya TSAPI Windows Client (csta32.dll) Avaya DMCC .NET (ServiceProvider.dll) 	5.7.2 Standard 5.7.2.5 5.7.2.6 5.7.2.4 13.0.5026.0 7.1.1.32 7.0.0.33	

5. Configure Avaya Aura® Communication Manager

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

- Verify license
- Administer CTI link
- Administer virtual IP softphones

5.1. Verify License

Log in to the System Access Terminal 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 4**. If this option is not set to "y", then contact the Avaya sales team or business partner for a proper license file.

```
4 of 12
display system-parameters customer-options
                                                              Page
                               OPTIONAL FEATURES
   Abbreviated Dialing Enhanced List? y
                                                Audible Message Waiting? y
       Access Security Gateway (ASG)? n
                                                 Authorization Codes? v
       Analog Trunk Incoming Call ID? y
                                                             CAS Branch? n
A/D Grp/Sys List Dialing Start at 01? y
                                                                CAS Main? n
Answer Supervision by Call Classifier? y
                                                       Change COR by FAC? n
                                ARS? y Computer Telephony Adjunct Links? y
                ARS/AAR Partitioning? y Cvg Of Calls Redirected Off-net? y
         ARS/AAR Dialing without FAC? y
                                                            DCS (Basic)? y
                                                      DCS Call Coverage? y
         ASAI Link Core Capabilities? y
         ASAI Link Plus Capabilities? y
                                                      DCS with Rerouting? y
      Async. Transfer Mode (ATM) PNC? n
                                        Digital Loss Plan Modification? y
 Async. Transfer Mode (ATM) Trunking? n
             ATM WAN Spare Processor? n
                                                                DS1 MSP? y
                                                  DS1 Echo Cancellation? y
                               ATMS? y
                 Attendant Vectoring? y
```

5.2. 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: 58001
Type: ADJ-IP
COR: 1
Name: AES 7.0.1
```

Solution & Interoperability Test Lab Application Notes ©2019 Avaya Inc. All Rights Reserved.

5.3. Administer Virtual IP Softphones

Add a virtual IP softphone using the "add station n" command, where "n" is an available extension number. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **Extension:** The available extension number.
- **Type:** Any IP telephone type, such as "9620".
- Name: A descriptive name.
- Security Code: Enter same value as Extension, as required by Engage.
- IP SoftPhone: "y"

add station 65991 5 Page 1 of STATION Extension: 65991 Lock Messages? n BCC: 0 Lock Messages? n
Security Code: 65991 Type: 9620 TN: 1 Coverage Path 1: COR: 1 Port: IP Name: Engage Virtual 1 Coverage Path 2: COS: 1 Hunt-to Station: Tests: y STATION OPTIONS Time of Day Lock Table: Loss Group: 19 Personalized Ringing Pattern: 1 Message Lamp Ext: 65991 Speakerphone: 2-way Display Language: english Mute Button Enabled? y Survivable GK Node Name: Survivable COR: internal Media Complex Ext: Survivable Trunk Dest? y IP SoftPhone? y IP Video Softphone? n Short/Prefixed Registration Allowed: default Customizable Labels? Y

Repeat this section to administer the desired number of virtual IP softphones, using sequential extension numbers. In the compliance testing, two virtual IP softphones were administered as shown below, to allow for simultaneous recording of two monitored agents in **Section 3**.

list station	65991 cc	ount 2				
		STATION	S			
Ext/ Hunt-to	Port/ Type	Name/ Surv GK NN	Move	Room/ Data Ext	Cv1/ COR/ Cable/ Cv2 COS TN Jack	
65991	S00081 9620	Engage Virtual 1	no		1	
65992	S00084 9620	Engage Virtual 2	no		1 1	

6. Configure Avaya Aura® Application Enablement Services

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

- Launch OAM interface
- Verify license
- Administer TSAPI link
- Administer H.323 gatekeeper
- Administer Engage user
- Administer security database
- Administer ports
- Restart services
- Obtain Tlink name

6.1. Launch OAM Interface

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

The Please login here screen is displayed. Log in using the appropriate credentials.

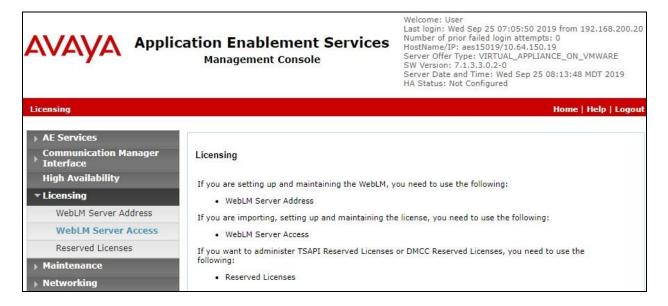
Please login here: Username Password Login Reset
Login Reset

The Welcome to OAM screen is displayed next.

	cation Enablement Services Management Console	Welcome: User Last login: Wed Sep 25 07:05:50 2019 from 192.168.200.20 Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Wed Sep 25 08:13:48 MDT 2019 HA Status: Not Configured
Home		Home Help Logout
AF Services		
Communication Manager	Welcome to OAM	
High Availability	The AE Services Operations, Administration, and Ma	encoment (OAM) Web provides you with tools for
▶ Licensing	managing the AE Server. OAM spans the following a	
▶ Maintenance	 AE Services - Use AE Services to manage all AE Server. 	AE Services that you are licensed to use on the
▶ Networking	Communication Manager Interface - Use Con	nmunication Manager Interface to manage switch
► Security	connection and dialplan. • High Availability - Use High Availability to ma	
▶ Status	 Licensing - Use Licensing to manage the licent Maintenance - Use Maintenance to manage t 	
User Management	 Networking - Use Networking to manage the Security - Use Security to manage Linux use 	
	authorization, configure Linux-PAM (Pluggab	le Authentication Modules for Linux) and so on.
Vtilities	 Status - Use Status to obtain server status in User Management - Use User Management to 	
⊧ Help	user-related resources.	
	 Utilities - Use Utilities to carry out basic conr Help - Use Help to obtain a few tips for using 	
	Depending on your business requirements, these ad administrator for all domains, or a separate adminis	dministrative domains can be served by one

6.2. Verify License

Select Licensing \rightarrow WebLM Server Access in the left pane, to display the applicable WebLM server log in screen (not shown). Log in using the appropriate credentials and navigate to display installed licenses (not shown).



Solution & Interoperability Test Lab Application Notes ©2019 Avaya Inc. All Rights Reserved. Select Licensed products \rightarrow APPL_ENAB \rightarrow Application_Enablement in the left pane, to display the Application Enablement (CTI) screen in the right pane.

Verify that there are sufficient licenses for **Device Media and Call Control** and **TSAPI Simultaneous Users** as shown below. Note that the DMCC license is used for virtual IP softphones, and that the TSAPI license is used for device monitoring and call control.

ra [®] Syster	m Manager 7. I			Last Logged on at Septer 2019 Go
Home	User Management * Sessi	on Manager * Routing * Lice	enses ×	
_				D. 10702000 Charl
-	WebLM Home	Application Enablement (CTI) - R	(elease: 7 - 511	D: 10503000 Stand
-	Install license	You are here: Licensed Products > Application	_Enablement > Viev	w License Capacity
1	Licensed products	License installed on: August 22, 2017	4.03.37 PM +0	0.00
	APPL_ENAB	License installed on. Adgust 22, 2017	4.05.57 PH 10	
	 Application_Enablement 	License File Host IDs: VB-C3-E3	92-78-8D-01	
	View license capacity		-02-70-00-01	
	View peak usage			
-	ASBCE	Licensed Features		
	Session_Border_Controller_E_AE			
	CE	13 Items 🍣 Show All 🔻		
	► COLLABORATION_ENVIRONMENT	Feature (License Keyword)	Expiration date	Licensed capacity
	COMMUNICATION_MANAGER	Device Media and Call Control VALUE_AES_DMCC_DMC	permanent	1000
	▶Call_Center	AES ADVANCED LARGE SWITCH VALUE_AES_AEC_LARGE_ADVANCED	permanent	16
	Communication_Manager	AES HA LARGE	permanent	16
	PRESENCE_SERVICES	VALUE_AES_HA_LARGE	permanent	10
	▶ Presence_Services	AES ADVANCED MEDIUM SWITCH VALUE_AES_AEC_MEDIUM_ADVANCED	permanent	16
	SYSTEM_MANAGER	Unified CC API Desktop Edition	permanent	1000
	▶System_Manager	VALUE_AES_AEC_UNIFIED_CC_DESKTOP	permanent	1000
	SessionManager	CVLAN ASAI VALUE_AES_CVLAN_ASAI	permanent	16
	▶SessionManager	AES HA MEDIUM	permanent	16
	Utility_Services	VALUE_AES_HA_MEDIUM		
	▶Utility_Services	AES ADVANCED SMALL SWITCH VALUE_AES_AEC_SMALL_ADVANCED	permanent	16
-	Uninstall license	DLG VALUE_AES_DLG	permanent	16
	Server properties	TSAPI Simultaneous Users VALUE_AES_TSAPI_USERS	permanent	1000

6.3. Administer TSAPI Link

Select AE Services \rightarrow TSAPI \rightarrow TSAPI Links from the left pane of the Management Console, to administer a TSAPI link. The TSAPI Links screen is displayed, as shown below. Click Add Link.

AVAYA	Application Er Manage	oplication Enablement Services Management Console			Welcome: User Last login: Fri Sep 27 14:44:24 2019 from 192.168.200.20 Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Fri Sep 27 14:55:47 MDT 2019 HA Status: Not Configured		
AE Services TSAPI T	SAPI Links				Hom	e Help Logout	
* AE Services							
▶ CVLAN	TSAPI Lin	ks					
> DLG	Link	Switch Connection	Switch (CTI Link #	ASAI Link Version	Security	
▶ DMCC	Add Link			nindin Rossinian And State			
> SMS	1.						
▼ TSAPI							
TSAPI Links TSAPI Properties	s						

The Add 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 "cm15014" is selected. For **Switch CTI Link Number**, select the CTI link number from **Section 5.2**. Retain the default values in the remaining fields.

AVAYA App	Dication Enablement Service Management Console	Welcome: User Last login: Wed Sep 25 07:05:50 2019 from 192.168.200.20 Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Wed Sep 25 08:13:48 MDT 2019 HA Status: Not Configured
AE Services TSAPI TSAPI	Links	Home Help Logout
AE Services CVLAN	Add TSAPI Links	
> DLG		
> DMCC	Link 1 V Switch Connection Cm15014 V	
▶ SMS	Switch CTI Link Number 1 V	
* TSAPI	ASAI Link Version 8 🔻	
TSAPI Links TSAPI Properties	Security Unencrypted Apply Changes Cancel Changes	
TWS Communication Manage Interface		

Solution & Interoperability Test Lab Application Notes ©2019 Avaya Inc. All Rights Reserved.

6.4. Administer H.323 Gatekeeper

Select Communication Manager Interface \rightarrow Switch Connections from the left pane. The Switch Connections screen shows a listing of the existing switch connections.

Locate the connection name associated with the relevant Communication Manager, in this case "cm15014", and select the corresponding radio button. Click **Edit H.323 Gatekeeper**.

avaya	Application Enablement Services Management Console					Number of HostName/I Server Offer SW Version Server Date	Wed Sep 25 07:05:50 prior failed login atter P: aes15019/10.64.1 r Type: VIRTUAL_APP : 7.1.3.3.0.2-0	
Communication Manage	r Interface S	witch Connections	5					Home Help Logout
AE Services Communication Ma Interface Switch Connecti		Switch Connectio	ns	Add Cor	nection			
Dial Plan		Connection Na	me	Processor		Msg Perio	od Number of	Active Connections
High Availability		• cm15014		Yes		30	1	
 Licensing Maintenance Networking 		Edit Connection	Edit	PE/CLAN IPs	Edit H.323	Gatekeeper	Delete Connection	Survivability Hierarchy

The **Edit H.323 Gatekeeper** screen is displayed next. Enter the IP address of a C-LAN circuit pack or the Processor C-LAN on Communication Manager to use as the H.323 gatekeeper, in this case "10.64.150.14" as shown below. Click **Add Name or IP**.

	pplication Enableme Management Cons	ent Services ^{sole}	Welcome: User Last login: Wed Sep 25 07:05:50 2019 from 192.168.200.20 Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Wed Sep 25 08:13:48 MDT 2019 HA Status: Not Configured
Communication Manager In	iterface Switch Connections		Home Help Logout
AE Services			
Communication Manage Interface	Edit H.323 Gatekeeper - G	cm15014	
Switch Connections	10.64.150.14	Add Name or IP	
Dial Plan	Name or IP Address		
High Availability	Delete IP Back		
Licensing			
Maintenance			
Networking			

6.5. Administer Engage User

Select User Management \rightarrow User Admin \rightarrow Add User from the left pane, to display the Add User screen in the right pane.

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.

	Cation Enable Management (Welcome: User Last login: Wed Sep 25 07:05:50 2019 from 192.168.200.20 Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Wed Sep 25 08:13:48 MDT 2019 HA Status: Not Configured	
User Management User Admin /	Add User		Home Help Logou
AE Services	2 -		
Communication Manager	Add User		
High Availability	Fields marked with * can	and the second states of the s	
▶ Licensing	* User Id	engage	
► Maintenance	* Common Name	engage	
Networking	* Surname	engage	
> Security	* User Password	•••••	
> Status	* Confirm Password Admin Note	••••••	
v User Management	Admin Note Avaya Role	None 🔻	
Service Admin	Business Category	None	
	Car License		
✓ User Admin	CM Home		
 Add User Change User Password 	Css Home		
List All Users	CT User	Yes V	
 Modify Default Users 	Department Number		
 Search Users 	Display Name		
▶ Utilities	Employee Number		
⊧ Help	Employee Type		
	Enterprise Handle		
	Given Name		

6.6. Administer Security Database

Select Security \rightarrow Security Database \rightarrow Control from the left pane, to display the SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services screen in the right pane. Make certain that both parameters are unchecked, as shown below.

In the case that the security database is used by the customer with parameters already enabled, then follow reference [2] to configure access privileges for the Engage user from **Section 6.5**.

	cation Enablement Services Management Console	Welcome: User Last login: Wed Sep 25 07:05:50 2019 from 192.168.200.20 Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Wed Sep 25 08:13:48 MDT 2019 HA Status: Not Configured
Security Security Database Cor	ntrol	Home Help Logout
AE Services		
Communication Manager Interface	SDB Control for DMCC, TSAPI, JTAPI and Telep	phony Web Services
High Availability	Enable SDB for DMCC Service	
▶ Licensing	Enable SDB for TSAPI Service, JTAPI and Telep	hony Web Services
Maintenance	Apply Changes	
Networking		
▼ Security		
Account Management		
▶ Audit		
Certificate Management		
Enterprise Directory		
▶ Host AA	1	
▶ PAM		
 Security Database 		
Control		

6.7. Administer Ports

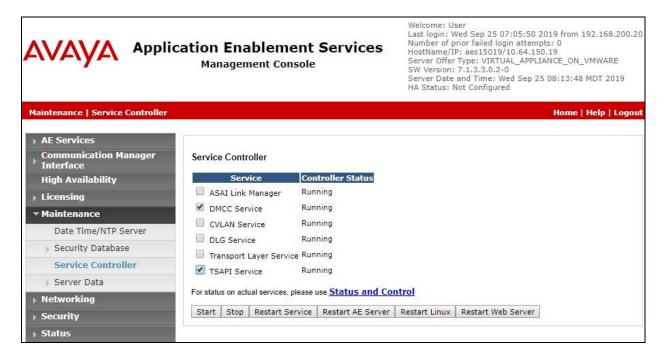
Select **Networking** \rightarrow **Ports** from the left pane, to display the **Ports** screen in the right pane.

In the **DMCC Server Ports** section, select the radio button for **Unencrypted Port** under the **Enabled** column, as shown below. Retain the default values in the remaining fields.

AVAYA Appli	ication Enab Managemen	Welcome: User Last login: Wed Sep 25 07:05:50 2019 from 192.168.200. Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Wed Sep 25 08:13:48 MDT 2019 HA Status: Not Configured		
Networking Ports				Home Help Logou
 AE Services Communication Manager Interface High Availability 	Ports CVLAN Ports			Enabled Disabled
▶ Licensing		Unencrypted TCP Port	9999	• •
▶ Maintenance		Encrypted TCP Port	9998	• •
✓ Networking	DLG Port	TCP Port	5678	
AE Service IP (Local IP)	TSAPI Ports			Enabled Disabled
Network Configure Ports TCP/TLS Settings		TSAPI Service Port Local TLINK Ports	450	ی ا
Security		TCP Port Min TCP Port Max Unencrypted TLINK Ports	1024 1039	
▶ Status		TCP Port Min	1050	
User Management		TCP Port Max	1065	
Vtilities		Encrypted TLINK Ports		
▶ Help		TCP Port Min	1066	
		TCP Port Max	1081	
	DMCC Server Po	orts		Enabled Disabled
		Unencrypted Port	4721	• •
		Encrypted Port	4722	• •
		TR/87 Port	4723	

6.8. Restart Services

Select Maintenance \rightarrow Service Controller from the left pane, to display the Service Controller screen in the right pane. Check DMCC Service and TSAPI Service and click Restart Service.



6.9. Obtain Tlink Name

Select Security \rightarrow Security Database \rightarrow 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 Engage.

In this case, the associated Tlink name is "AVAYA#CM15014#CSTA#AES15019". Note the use of the switch connection "CM15014" from Section 6.3 as part of the Tlink name.

AVAYA Applica	tion Enablement Services Management Console	Welcome: User Last login: Wed Sep 25 07:05:50 2019 from 192.168.200.20 Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Wed Sep 25 08:13:48 MDT 2019 HA Status: Not Configured
Security Security Database Tlinks		Home Help Logou
AE Services		
Communication Manager Interface	Tlinks	
High Availability	Tlink Name	
▶ Licensing	AVAYA#CM15014#CSTA#AES15019	
▶ Maintenance	Delete Tlink	
Networking		
✓ Security		
Account Management		
▶ Audit		
Fertificate Management		
Enterprise Directory		
Host AA		
▶ PAM		
* Security Database		
Control		
CTI Users		
 Devices 		
 Device Groups 		
 Tlinks 		

7. Configure Avaya Aura® Session Manager

This section provides the procedures for configuring Session Manager, which is performed via the web interface of System Manager. The procedures include the following areas:

- Launch System Manager
- Administer users

7.1. Launch 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.

Recommended access to System Manager is via FQDN. Go to central login for Single Sign-On If IP address access is your only option, then note that authentication will fail in the following cases: • First time login with "admin" account • Expired/Reset passwords Use the "Change Password" hyperlink on this page to change the password	User ID: Password: Log On Cancel Change Password
manually, and then login. Also note that single sign-on between servers in the same security domain is	

7.2. Administer Users

In the subsequent screen (not shown), select Users \rightarrow User Management. Select User Management \rightarrow Manage Users from the left pane to display the screen below. Select the entry associated with the first SIP agent station from Section 3, in this case "66002", and click Edit.

ra [®] System Manager 7.1	_	_	_			_	Last Log Go	gged on at September 2019 4:46
Home User Management	× Sess	ion Manag	jer <mark>×</mark> Ro	outing * Lice	nses ×			
* User Management	Home	/ Users /	User Mana	gement / Manag	ge Users			
Manage Users	Sear	ch			\bigcirc			Help
Public Contacts	locar				~			
Shared Addresses								
System Presence ACLs User Management								
System Presence ACLs	US	er ma	nagen	ient				
System Presence ACLs Communication Profile	US	er ma	nagen	ient				
	_		nagen	ient				
Communication Profile	User		nagen	ient				
Communication Profile	User				Delete More Actions	•	_	Advanced Search •
Communication Profile	User	rs /iew //Edi			Delete More Actions	. •		Advanced Search • Filter: Enable
Communication Profile	User	rs /iew //Edi	t ONew	😤 Duplicate 🕘	Delete More Actions	s • SIP Handle	Last Login	
Communication Profile	User User 16 Ite	rs /iew //Edi ems & St	it New	😤 Duplicate 🕘			Last Login	

Solution & Interoperability Test Lab Application Notes ©2019 Avaya Inc. All Rights Reserved. The User Profile Edit screen is displayed. Select the Communication Profile tab, followed by expanding CM Endpoint Profile as shown below.

Click on the **Endpoint Editor** icon.

▼ User Management 4	me / Users / User Management / Manage Users 0
Manage Users	Help ?
Public Contacts	User Profile Edit: 66002@avaya.com Commit & Continue Commit Cancel
Shared Addresses	
System Presence ACLs Communication Profile	Identity * Communication Profile Membership Contacts
Password Policy	Communication Desfiles
· · · · · · · · · · · · · · · · · · ·	Communication Profile
	Communication Profile Password: ••••••••••••••••••••••••••••••••••••
	Onew Oblete Done Cancel
	Name
	Primary
	Select : None
	* Name: Primary
	Default : 🗹
	Communication Address 💌
	Type Handle Domain
	Avaya SIP 66002 avaya.com
	Select : All, None
	and an internet the second sec
	Session Manager Profile 🕑
	🔲 Avaya Breeze Profile 🖲
	CM Endpoint Profile 💌
	* System cm15014 V
	* Profile Type Endpoint
	Use Existing Endpoints
	Display Extension Ranges
	* Extension 66002 Endpoint Editor

In the updated screen, locate the **Type of 3PCC Enabled** parameter and select "Avaya" from the drop-down list as shown below. Retain the existing values in the remaining fields.

AVAVA Aura [®] System Manager 7.1				Last Logged on at September 24, 2019 4:46 PM
	* Session Manager * Ro	uting [×] Licenses [×]		Go 🖌 Flog off admin
👻 User Management 🕢 📢	Home / Users / User Manag	jement / Manage Users		0
Manage Users				Help ?
Public Contacts	Edit Endpoint			
Shared Addresses				Done Cancel
System Presence ACLs				
Communication Profile				[Save As Template]
Password Policy				
	System cm3	5014	Extension	66002
		1SIPCC_DEFAULT_CM_7_1 V	Set Type	9611SIPCC
	501	061	Security Code	
		7, SIP2		
	General Options (G)	* Feature Options (F)	Site Data (S) Abbre	viated Call Dialing (A)
	Enhanced Call Fwd (E	Button Assignment (B) Profile Settings (P)	Group Membership (M)
	 Class of Restriction (COR) 	1	* Class Of Service (COS)	1
	* Emergency Location Ex	t 66002	* Message Lamp Ext.	66002
	* Tenant Number	1		
	* SIP Trunk	Qaar	Type of 3PCC Enabled	Avaya 🔻
	Coverage Path 1		Coverage Path 2	
	Lock Message		Localized Display Name Enable Reachability for	
	Multibyte Language	Not Applicable 🔹	Station Domain Control	system •
	SIP URI			
	*Required			Done Cancel

Repeat this section to configure all SIP agents from Section 3.

8. Configure Avaya 9600 Series IP Deskphones

This section provides the procedures for configuring 9600 Series IP Deskphones. The procedures include the following areas:

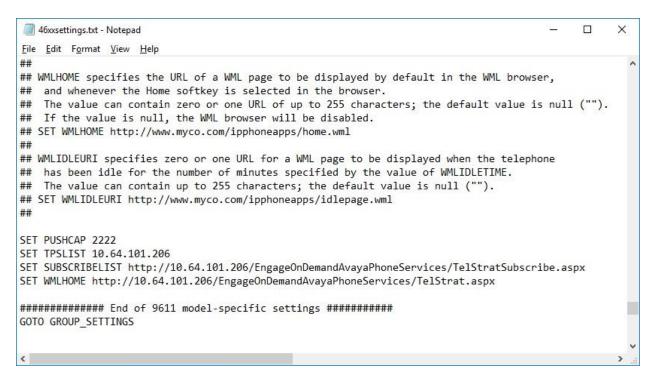
- Administer phone parameters
- Reboot telephones

8.1. Administer Phone Parameters

From the file server serving the 9600 Series IP Deskphones, locate and open the **46xxsettings.txt** file. Navigate to the relevant phone parameters sub-section, in this case **SETTINGS9611** (not shown).

Under the **WMLIDLEURI** sub-section, set **PUSHCAP**, **TPSLIST**, **SUBSCRIBELIST**, and **WMLHOME** parameters as shown below, where "10.64.101.206" is the IP address of the Engage server running the Web server component.

Repeat this section for all relevant 9600 Series IP Deskphone types. In the compliance testing, the **SETTINGS9611** and **SETTINGS9641** sub-sections were configured, to correspond to the 9611G and 9641G IP Deskphones used by agents for activation/deactivation of recording options.



8.2. Reboot Telephones

After the Engage server has been configured in **Section 9**, manually reboot the 9600 Series IP Deskphones to pick up the new phone settings.

TLT; Reviewed:	Solution & Interoperability Test Lab Application Notes	22 of 40
SPOC 11/19/2019	©2019 Avaya Inc. All Rights Reserved.	Engage-Demand71

9. Configure TelStrat Engage

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

- Administer Web.config
- Launch VoIP engine
- Administer CTI
- Administer OnDemand
- Administer ACD groups
- Administer softphones
- Administer device port mappings
- Restart service

This section assumes the TSAPI client is already installed on the Engage server along with the IP address of the Application Enablement Services server configured as part of the installation, and that the on-demand recording schedule has already been configured.

9.1. Administer Web.config

From the Engage server, navigate to the C:\Program Files (x86)\TelStrat\Engage\ OnDemandAvayaPhoneServices directory to locate the Web.config file shown below.

→ * ↑ <mark>-</mark> «	TelStr	at > Engage > OnDemandAvayaPhoneS	ervices >	v ∂	Search OnD	emandAvayaPho	. 1
		Name	Date modified	Type		Size	
📌 Quick access				1 anora			
Desktop	*	App_Data	9/25/2019 12:08 PM	File fol			
Downloads	*	bin	9/23/2019 12:24 PM	File fol	lder		
×		TraceLogs	9/25/2019 10:37 AM	File fol	lder		
Documents	\$	EngageAvayaCallEventPush.aspx	9/19/2018 9:01 AM	ASP.N	ET Server Pa	1 KB	
Pictures	\$	EngageAvayaCallEventPushTest.aspx	9/19/2018 9:01 AM	ASP.N	ET Server Pa	5 KB	
Logs	1	🐙 Global.asax	9/19/2018 9:01 AM	ASP,N	ET Server A	1 KB	
TelStrat	*	PhoneMappings.aspx	9/19/2018 9:01 AM	ASP.N	ET Server Pa	6 KB	
		TelStrat.aspx	9/19/2018 9:01 AM	ASP.N	ET Server Pa	1 KB	
This PC		TelStratInitiateSubscribe.aspx	9/19/2018 9:01 AM	ASP.N	ET Server Pa	3 KB	
Network		TelStratSubscribe.aspx	9/19/2018 9:01 AM	ASP.N	ET Server Pa	1 KB	
		TelStratSubscribePushResponse.aspx	9/19/2018 9:01 AM	ASP.N	ET Server Pa	1 KB	
		🖓 Web.config	9/25/2019 12:05 PM	XML C	onfiguratio	4 KB	

Open the **Web.config** file with the desired application. Scroll down to the **applicationSettings** sub-section. For **PhoneTimer**, enter the desired value. In the compliance testing, the default **30** was changed to **40**, which corresponded to a refresh rate of 4 seconds for the phone display.

	Web.co	onfig - No	tepad		1000	×
<u>F</u> ile	<u>E</u> dit	F <u>o</u> rmat	View	Help		
		<appli< td=""><td>catio</td><td>onSettings></td><td></td><td>^</td></appli<>	catio	onSettings>		^
			<er< td=""><td>ngageAvayaPhoneServices.Properties.Settings></td><td></td><td></td></er<>	ngageAvayaPhoneServices.Properties.Settings>		
				<setting name="TraceFileSizeInMB" serializeas="String"></setting>		
				<value>50</value>		
				<pre><setting name="TraceFileCount" serializeas="String"></setting></pre>		
				<pre><setting name="EnableVerboseFileTrace" serializeas="String"></setting></pre>		
				<pre><setting name="EnableCallFileTrace" serializeas="String"></setting></pre>		
				<pre><setting name="WebServerIPAddress" serializeas="String"></setting></pre>		
				<pre><setting name="PhoneTimer" serializeas="String"></setting></pre>		
				<setting name="PhonePushEnabled" serializeas="String"></setting>		<u> </u>
<						>

9.2. Launch VoIP Engine

From the Engage server, select Start \rightarrow TelStrat Engage \rightarrow VOIP Engine Configuration, to display the Engage VoIPEngine Config Console screen below. Select Config.



9.3. Administer CTI

The **VoIP Configuration** screen is displayed, along with the **Avaya ACM** tab, as shown below. Enter the following values for the specified fields and retain the default values for the remaining fields.

- **CTI Option:** "Avaya ACM"
- AES Server: The IP address of the Application Enablement Services server.
- **DMCC Port:** The unencrypted DMCC server port from **Section 6.7**.
- **TSAPI APP ID:** The Tlink name from **Section 6.9**.
- User ID: The Engage user credentials from Section 6.5.
- **Password:** The Engage user credentials from **Section 6.5**.

CTI Option	AES Server	10.64.150.19			
Avaya ACM 💌		TSAPI APP ID			
Recording Board ID	2300	User ID	engage	Pass	word
alls To Record		C 0 1 0 1 1		SoftPhone	OnDemand
All Trunk/Internal Calls	All Trunk Calls	C Calls Selecter	ByDN	More	ACD Groups
ort Mapping Image: March and Strength and Strengeh and Strengeh and Strength and Strength and Stren	Device ID	Mac A	ddress	DN	Record With
	Device ID	MacA		UN	necola with

9.4. Administer OnDemand

From the **VoIP Configuration** screen shown in **Section 9.3**, click on **OnDemand** to display the **OnDemand Configuration** screen below.

Check **OnDemand Feature**. For **PUSH Server Name**, enter the IP address of the Engage server, as shown below.

OnDe	emand Configuration	>
	OnDemand Feature	
	Post Account	
	User ID	
	User Password	
	PUSH Server Name 10.64.101.206	
	OK Canc	el

9.5. Administer ACD Groups

From the **VoIP Configuration** screen shown in **Section 9.3**, click on **ACD Groups** to display the **ACD Group Numbers** screen (not shown). 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 3, in this case "61001".

ACD Group Number Configuration			×
ACD Group Number	61001		
	C ACD Group Number	C VDN	
Add		Cancel	
Add		Cancel	

Repeat this section to add all remaining skill groups. In the compliance testing, two skill groups were configured as shown below.

ACD Group Number/VDN	Туре	6
61001 61002	ACD Group Number ACD Group Number	

9.6. Administer Softphones

From the **VoIP Configuration** screen shown in **Section 9.3**, click on **SoftPhone** to display the **Softphone Station Configuration** screen below.

Enter the following values for the specified fields and retain the default values for the remaining fields.

- CMServer: The IP address of the H.323 gatekeeper from Section 6.4.
- **From:** The extension of the first virtual IP softphone from **Section 5.3**.
- To: The extension of the last virtual IP softphone from Section 5.3.

SoftPhone Station Config	uration	×
Certificate Name		
Service Observe Access Code		
CM Server	10.64.101.14	
From	65991	
То	65992	
_ Soft	Phone Station IP	
	OK Cancel	

9.7. Administer Device Port Mappings

From the **VoIP Configuration** screen shown in **Section 9.3**, right-click in the empty bottom pane and select **ADD**. The **Device And CommSrv Port Mapping** screen is displayed.

For **Device ID**, enter the first agent station extension from Section 3.

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

For **Recording Channel**, enter an available port, which begins with "0". Retain the default values in the remaining fields.

Device And Comn	nSrv Port Mapping	×
Device ID	65001	
MAC		
DN	65001	
Recording Chai ⊢Calls To Re	10	1
C Trunk/I Recording Stre	nternal Calls C Trunk Calls	
STC Stream	am Warning Tone Inherited	3
L HotDesk	< DN	

Solution & Interoperability Test Lab Application Notes ©2019 Avaya Inc. All Rights Reserved. Repeat this section to create device port mappings for all agents in Section 3.

In the compliance testing, one entry was created for each agent as shown below.

	CTI Option	4	AES Server 10.64.150	.19 DM	CC Port 4721
	Avaya ACM	TS4		M15014‡	
	Recording Board ID	2300	User ID engage	Passv	vord ********
	o Record			SoftPhone	OnDemand
	II Trunk/Internal Calls 🛛 🤇 A	ll Trunk Calls 🦳 C	alls Selected By DN	More	ACD Groups
ort Ma	pping Recording Channel	Device ID	Mac Address		Record With
000	The stange shares	65001 66002	Mac Madicov	65001 66002	STC Stream STC Stream

9.8. Restart Service

Select Start \rightarrow Control Panel \rightarrow Administrative Tools \rightarrow Services to display the Services screen. Restart the TelStrat Engage VoIP Engine Service shown below.

⊨ → 🗖 🛱 🦉	🗟 🛃 🚺 📷 🕨 🔳 II 🕪						
🔍 Services (Local)	O Services (Local)						
	TelStrat Engage VoIP Engine Service	Name	Description	Status	Startup Type	Log On As	
	Stop the service Restart the service	TelStrat Engage Voice Recording Ser TelStrat Engage VolP Configuration		Running Running	Automatic Automatic	Local System Local System	
	Restart the service	TelStrat Engage VolP Engine Service	TelStrat Vol	Running	Automatic	Local System	
	Description:	TelStrat Engage Web Service Themes	Service prov Provides us	Running Running	Automatic Automatic	Local System Local System	
	TelStrat VolP Recording Service	Tile Data model server Time Broker	Tile Server f Coordinates	Running Running	Automatic Manual (Trig	Local System Local Service	
		Touch Keyboard and Handwriting P Update Orchestrator Service for Win			Manual (Trig Manual	Local System Local System	
		UPnP Device Host	Allows UPn This service	Running	Manual Automatic (D	Local Service Local System	

10. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager, Application Enablement Services, 9600 Series IP Deskphones, and Engage.

10.1. 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 5.2**, as shown below.

```
status aesves eti-linkAE SERVICES CTI LINK STATUSCTI<br/>LinkVersion<br/>BusyMnt<br/>ServerAE Services<br/>ServerMsgs<br/>SentMsgs<br/>Revd18noaes15019established4346
```

Verify the registration status of the virtual IP softphones by using the "list registered-ip-stations" command. Verify that all virtual IP softphone extensions from **Section 5.3** are displayed along with the IP address of the Application Enablement Services server, as shown below.

REGISTERED IP STATIONS Station Ext Set Type/ Prod ID/ TCP Station IP Address/ or Orig Port Net Rgn Release Skt Gatekeeper IP Address 65000 1616 IP_Phone y 192.168.200.142 1 1.3120 10.64.150.14 65001 9641 IP_Phone y 192.168.200.143 1 6.8202 10.64.150.14 65991 9620 IP_API_A y 10.64.150.19 1 3.2040 10.64.150.19 10.64.150.19 1 3.2040 10.64.150.19 10.64.150.14	list registered-ip-stations								
or Orig Port Net Rgn Release Skt Gatekeeper IP Address 65000 1616 IP_Phone y 192.168.200.142 1 1.3120 10.64.150.14 65001 9641 IP_Phone y 192.168.200.143 1 6.8202 10.64.150.14 65991 9620 IP_API_A y 10.64.150.19 1 3.2040 10.64.150.14 65992 9620 IP_API_A y 10.64.150.19			REGISTI	ERED	IP STATIONS				
1 1.3120 10.64.150.14 65001 9641 IP_Phone y 192.168.200.143 1 6.8202 10.64.150.14 65991 9620 IP_API_A y 10.64.150.19 1 3.2040 10.64.150.14 65992 9620 IP_API_A y 10.64.150.19									
1 6.8202 10.64.150.14 65991 9620 IP_API_A y 10.64.150.19 1 3.2040 10.64.150.14 65992 9620 IP_API_A y 10.64.150.19	65000	1616 1		У					
1 3.2040 10.64.150.14 65992 9620 IP_API_A y 10.64.150.19	65001	9641 1	_	У					
	65991	9620 1		У					
	65992	9620 1		У					

10.2. Verify Avaya Aura® Application Enablement Services

On Application Enablement Services, verify the status of the TSAPI link by selecting Status \rightarrow Status and Control \rightarrow TSAPI Service Summary from the left pane. The TSAPI Link Details screen is displayed.

Verify the **Status** is "Talking" for the TSAPI link administered in **Section 6.3**, and that the **Associations** column reflects the total number of monitored skill groups and agent stations from **Section 3**.

Application Enablement Services Management Console							Welcome: User Last login: Thu Sep 26 06:53:21 2019 from 192.168.200.2 Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Thu Sep 26 07:01:33 MDT 2019 HA Status: Not Configured					
Status Status and Control TSAPI	Service	Sum	mary							Но	me Hel	lp Logoi
 AE Services Communication Manager Interface High Availability 		8,0008000	D <mark>etails</mark> ge refresh ev	ery 60 V	seconds							
 Licensing Maintenance Networking 		Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
⊧ Security ▼ Status	۲	1	cm15014	1	Talking	Thu Sep 19 15:35:28 2019	Online	17	4	17	29	30
Alarm Viewer Logs Log Manager Status and Control	provide and a second se	vice-wi	Offline de informatio ice Status	n, choose TLink St		following: ser Status						
 Status and Control CVLAN Service Summary DLG Services Summary DMCC Service Summary Switch Conn Summary TSAPI Service Summary 												

Verify the status of the DMCC link by selecting Status \rightarrow Status and Control \rightarrow DMCC Service Summary from the left pane. The DMCC Service Summary – Session Summary screen is displayed.

Verify the **User** column shows an active session with the Engage user name from **Section 6.5**, and that the **# of Associated Devices** column reflects the total number of softphone extensions from **Section 9.6**.

	ation Enablement Management Console	Services	Welcome: User Last login: Thu Sep 26 06:53:21 2019 from 192.168.200. Number of prior failed login attempts: 0 HostName/IP: aes15019/10.64.150.19 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 7.1.3.3.0.2-0 Server Date and Time: Thu Sep 26 07:00:42 MDT 2019 HA Status: Not Configured				
Status Status and Control DMC	C Service Summary				Home	e Help Logo	
AE Services							
Communication Manager Interface	DMCC Service Summary - S	ession Summar	Y				
High Availability	Please do not use back button						
Licensing	Enable page refresh every 60) 🔻 seconds					
Maintenance	Session Summary Device Sum	mary					
	Generated on Thu Sep 26 06:59:57						
Networking	Service Uptime:		Contraction and a second	ours 23 minutes			
Security	Number of Active Sessions: Number of Sessions Created S	lines Convice Root	1				
▼ Status	Number of Existing Devices:	Since Service Bool	3				
Alarm Viewer	Number of Devices Created Si	nce Service Boot:	50709		_		
▶ Logs	Session ID	User	Application	Far-end	Connection	<u># of</u> Associated	
Log Manager		<u>0-201</u>	- ppresention	<u>Identifier</u>	<u>Type</u>	Devices	
 Status and Control 	E44B0B23C86494656 FC630DA7A0E1E90-11	engage	Engage	10.64.101.206	XML Unencrypted	2	
CVLAN Service Summary	Terminate Sessions Show T	Ferminated Session	ns				
 DLG Services Summary 							
DMCC Service Summary	Item 1-1 of 1						
 Switch Conn Summary 							
 TSAPI Service Summary 							

10.3. Verify Avaya 9600 Series IP Deskphones

Log an agent into the skill group to answer an ACD call.

From the agent's 9600 Series IP Deskphone, press the **HOME** key to display the screen below. Verify that the **Browser** option is included in the listing, as shown below on a 9611G IP Deskphone running the SIP firmware.

Use the navigational keys or the key to the right of the **Browser** option to select the option.



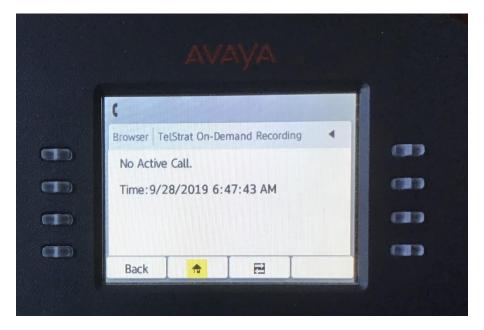
Verify that a list of recording options is displayed as shown below. Use the navigational keys or the key to the right of the **Conversation Save Off** option to select the option.

	C 19089532103 Use button to select Delete Off	B
8	Conversation Save Off Record Off	
	Pause Off Back	

Verify that the display is updated to show **Conversation Save On**, which is indication that the current conversation will be saved.

AVAVA	
€ 19089532103 Browser TelStrat On-Demand Recording	
Delete Off Conversation Save On	(3)
Pause Off Time: 9/28/2019 6:38:42 AM	
Back 🔶 🖻	

Complete the ACD call. Verify that the display is updated to **No Active Call** as shown below.



10.4. Verify TelStrat Engage

While there is an active call at the agent, use the Wireshark application to capture exchanges between Engage and the agent phone. Note that web page with aspx extension is not explicitly supported by Avaya and can be supported only if returns strictly WML/XML as content.

Verify that the Engage response associated with the aspx web page HTTP GET request from the phone contained XML content, as shown below in the **Protocol** column with "HTTP/XML".

		X 🖸 ९ 👄 🔿			
p.a	addr == 192.168.200.1	./1	1		Expression
-	Time	Source	Destination		Length Info
	66 1.336968	192.168.200.171		HTTP	413 GET /EngageOnDemandAvayaPhoneServices/TelStrat.aspx HTTP/1.1
	67 1.341274	10.64.101.206	192.168.200.171	HTTP/XML	720 HTTP/1.1 200 OK
	68 1.392307	192.168.200.1/1		TCP	60 54390 → 80 [ACK] Seq=360 ACK=667 Win=7184 Len=0
	229 5.502976	192.168.200.171		TCP	60 54390 → 80 [FIN, ACK] Seq=360 Ack=667 Win=7184 Len=0
	230 5.503029	10.64.101.206	192.168.200.171	TCP	54 80 → 54390 [FIN, ACK] Seq=667 Ack=361 Win=66048 Len=0
	231 5.512465	192.168.200.171		TCP	66 54391 → 80 [SYN] Seq=0 Win=5840 Len=0 MSS=1350 SACK_PERM=1 W
	232 5.512513	10.64.101.206	192.168.200.171	TCP	66 80 → 54391 [SYN, ACK] Seq=0 Ack=1 Win=8192 Len=0 MSS=1460 WS
	233 5.551162	192.168.200.171		TCP	60 54390 → 80 [ACK] Seq=361 Ack=668 Win=7184 Len=0
	234 5.560361	192.168.200.171		TCP	60 54391 → 80 [ACK] Seq=1 Ack=1 Win=5840 Len=0
	235 5.562376	192.168.200.171		HTTP	413 GET /EngageOnDemandAvayaPhoneServices/TelStrat.aspx HTTP/1.1
	236 5.566513	10.64.101.206	192.168.200.171	HTTP/XML	720 HTTP/1.1 200 OK
Et En Fr	chernet II, Src: iternet Protocol	Vmware_ab:48:ce (0 Version 4, Src: 10 rol Protocol, Src F	00:50:56:ab:48:ce) 0.64.101.206, Dst:	, Dst: Avaya 192.168.200	0 bits) on interface 0 a3:a2:1e (90:fb:5b:a3:a2:1e) 0.171 q: 1, Ack: 360, Len: 666
-	(tensible Markup	CARSA STRATEGICS			
		00			

Solution & Interoperability Test Lab Application Notes ©2019 Avaya Inc. All Rights Reserved. Complete the active ACD call. Access the Engage web-based interface by using the URL "http://ip-address/engage" in an Internet browser window, where "ip-address" is the IP address of the Engage server.

	engage
	Forgot Password
Logon Dialog User ID Password Windows Integrated Logon Ok Clear	
Languag	English 👻

The Logon Dialog screen below is displayed. Log in using the appropriate credentials.

The screen is updated with a list of call recordings. Verify that there is an entry reflecting the ACD call with the agent, with proper values in the relevant fields.

	ack	Active Calls									
Rece Call	nt		1anage Play emarks	Email De Calls	ownload Combin Calls Downl	ne & Downlo		ite Coachir Activitie			
P	Playback Log Drag a column header and drop it here to group by that column										
*	4	Date 🛛 🗑	Start Time 🟹	End Time 🛛 🏹	Rec Duration $\overline{\mathcal{T}}$	User First 🟹	User Last 🟹	Agent ID7	Extension $\overline{\mathbb{V}}$	CLID 7	Dialed Number
		9/25/2019	11:53:08 AM	11:57:36 AM	04:27	CM7	Agent2	65882	66002	19089532103	60001

Reco	ordings	Evaluatio	n Reports	Coaching &	E-Learning Ad	ministration	Recorder A	dmin Da	ishboard	Welcome,	adm adm 🔻 (
Play	back	Active Calls									
Red	Cent alls		Manage Play Jemarks	Email C Calls	Download Combi Calls Downl		ad Evalua	ate Coachir Activitie			
	Playb	yback Log Drag a column header and drop it here to group by that column Results: 1 No of Records: 200								Go 🛐	
alls	77	Date 📆	Start Time 🟹	End Time 🛛	Rec Duration 🟹	User First 🟹	User Last	Agent ID	Extension \overline{V}	CLID 7	Dialed Number
saved calls		9/25/2019	11:53:08 AM	11:57:36 AM	04:27	CM7	Agent2	65882	66002	19089532103	60001
		ng Comments		ems per page							
all	Media F Start at 3:08 A	t 9/25/2019,									
	*		0:07 11:53:15 Call ID 1909	AM	J2300001						4:27
eleas	se 5.7.	2 - Copyright	© 2012 - 2019	TelStrat Intern	ational Ltd.					enga	90 15:01

Double click on the entry and verify that the call recording can be played back.

11. Conclusion

These Application Notes describe the configuration steps required for TelStrat Engage 5.7 to successfully interoperate with Avaya Aura® Communication Manager 7.1, Avaya Aura® Application Enablement Services 7.1, and Avaya 9600 Series IP Deskphones for on-demand recording. All feature and serviceability test cases were completed with observations noted in **Section 2.2**.

12. Additional References

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

- **1.** *Administering Avaya Aura*® *Communication Manager*, Release 7.1.3, Issue 8, August 2019, available at <u>http://support.avaya.com</u>.
- **2.** Administering and Maintaining Aura® Application Enablement Services, Release 7.1.3, Issue 6, August 2019, available at http://support.avaya.com.
- **3.** Administering Avaya Aura® Session Manager, Release 7.1.3, Issue 5, July 2018, available at http://support.avaya.com.
- **4.** Administering Avaya 9601/9608/9611G/9621G/9641G/9641GS IP Deskphones SIP, Release 7.0.1, January 2017, available at http://support.avaya.com.
- **5.** Administering Avaya 9608/9608G/9611G/9621G/9641G/9641GS IP Deskphones H.323, Release 6.8.2, June 2019, available at http://support.avaya.com.
- 6. *Config Guide Avaya ACM On Demand Recording*, Release 5.7, Issue 1.0, available at <u>http://esupport.telstrat.com</u>.
- 7. *Engage Recorder Administration Guide*, Release 5.7, Issue 1.0, available at <u>http://esupport.telstrat.com</u>.

©2019 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by \mathbb{R} and TM 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 <u>devconnect@avaya.com</u>.