



Avaya Solution & Interoperability Test Lab

Application Notes for configuring inContact Call Recording from inContact to interoperate with Avaya Aura® Communication Manager R7.0 and Avaya Aura® Application Enablement Services R7.0 using DMCC Service Observe to record calls - Issue 1.0

Abstract

These Application Notes describe the configuration steps for inContact Call Recording to interoperate with the Avaya solution consisting of an Avaya Aura® Communication Manager R7.0, an Avaya Aura® Session Manager R7.0, and Avaya Aura® Application Enablement Services R7.0 using Service Observe.

Readers should pay attention to Section 2, in particular the scope of testing as outlined in Section 2.1 as well as the 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 for the inContact Call Recording R16.2 from inContact to interoperate with the Avaya solution consisting of an Avaya Aura® Communication Manager R7.0, an Avaya Aura® Session Manager R7.0, and Avaya Aura® Application Enablement Services R7.0. inContact Call Recording uses Communication Manager's Service Observe (SO) feature via the Application Enablement Services (AES) Device, Media, and Call Control (DMCC) interface and the Telephony Services API (TSAPI) to capture the audio and call details for call recording on various Communication Manager endpoints, listed in **Section 4**.

DMCC works by allowing software vendors to create soft phones on a recording server and use them to monitor and record Avaya phonesets. This is purely a software solution and does not require telephony boards or any wiring beyond a typical network infrastructure. The DMCC API associated with the AES server monitors the digital and VoIP extensions. The application uses the Communication Manager feature "Service Observe" to observe a call on an extension and record the conversation.

inContact Call Recording is just one part of inContact's Call suite designed to improve the contact center's operational performance. Call recording provides the flexibility, efficiency and strength to handle all recording needs in terms of audio and screen/desktop capture. inContact Call Recording interface allows for simple configurations and flexibility to make changes within the product. The Hybrid recording compatibility with various telephony platforms allows for a seamless integration with the Avaya solution.

Note: The recording of SIP phones is currently not supported.

2. General Test Approach and Test Results

The interoperability compliance testing evaluated the ability of the inContact Call Recording to carry out call recording in a variety of scenarios using DMCC SSC with AES and Communication Manager. A range of Avaya endpoints were used in the compliance testing all of which are listed in **Section 4**.

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 both feature functionality and serviceability testing. The feature functionality testing focused on placing and recording calls in different call scenarios with good quality audio recordings and accurate call records. The tests included:

- **Inbound/Outbound calls** – Test call recording for inbound and outbound calls to the Communication Manager to and from PSTN callers.
- **Hold/Transferred/Conference calls** – Test call recording for calls transferred to and in conference with PSTN callers.
- **Forwarded calls** - Test call recording for calls that were forwarded to various endpoints.
- **Feature calls** - Test call recording for calls that are parked or picked up using Call Park and Call Pickup.
- **Calls to Elite Agents** – Test call recording for calls to Communication Manager agents logged into one-X® Agent.
- **Serviceability testing** - The behavior of inContact Call Recording under different simulated failure conditions.

2.2. Test Results

All functionality and serviceability test cases were completed successfully, except for the following feature tests which had an issue as follows.

1. **Call Park.** The un-parked call is not being recorded. It appears that there are no events being sent for un-parking a call by Communication Manager. Modification Report [CM-9860] has been raised with the Communication Manager support team. A fix for this issue will be implemented for release 7.1 of Communication Manager.
2. **The Recording of SIP telephones is currently not supported.** There were issues observed when SIP telephones were involved in conference or transfer scenarios, therefore these endpoints cannot be supported.

2.3. Support

Technical support can be obtained for inContact Call Recording from the website <http://www.uptivity.com/contact> or from the following.

Telephone

Toll-free: 888-922-5526

Direct/International: 614-340-3346

Fax: 614-340-4840

Support: 888-922-5526, option 2

Email

support@uptivity.com

3. Reference Configuration

The configuration in **Figure 1** was used to compliance test inContact Call Recording with the Avaya solution using DMCC SO to record calls. The inContact server is setup for DMCC Service Observe mode and connects to the AES.

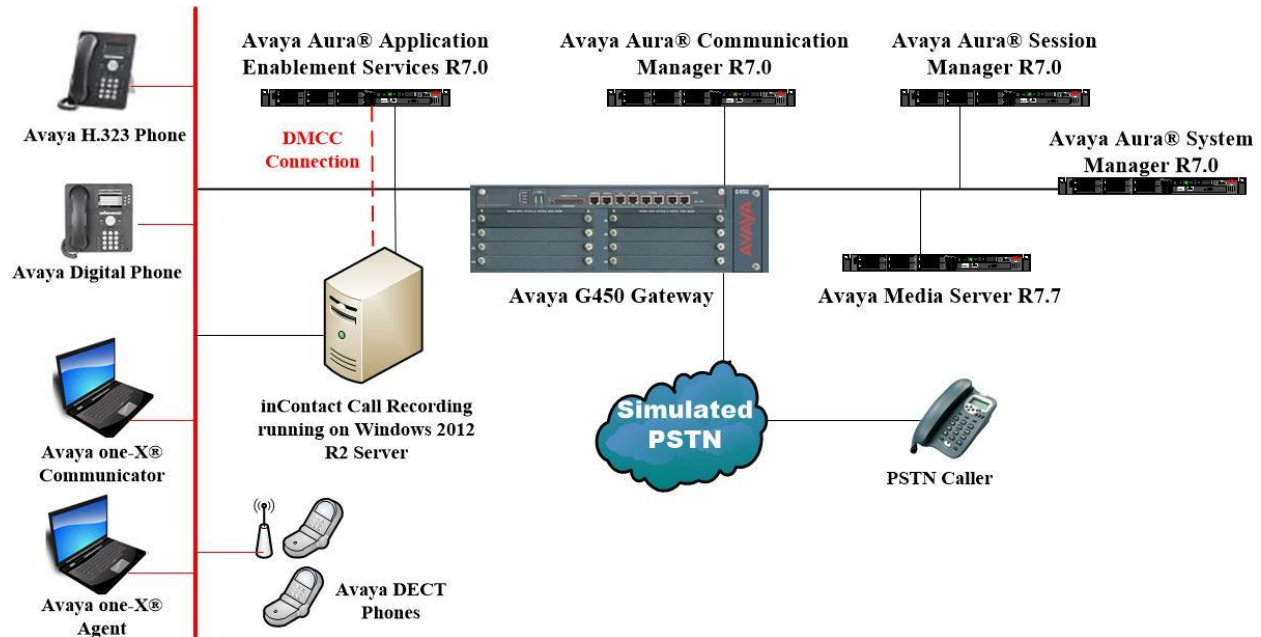


Figure 1: Connection of inContact Call Recording R16.2 from inContact with Avaya Aura® Communication Manager R7.0, Avaya Aura® Session Manager R7.0 and Avaya Aura® Application Enablement Services R7.0

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® System Manager running on a virtual server	System Manager 7.0.1.1 Build No. - 7.0.0.0.16266 Software Update Revision No: 7.0.1.1.065378 Service Pack 1
Avaya Aura® Session Manager running on a virtual server	Session Manager R7.0 SP1 Build No. – 7.0.1.1.701114
Avaya Aura® Communication Manager running on a virtual server	R7.0 R017x.00.0.441.0 00.0.441.0-23169
Avaya Aura® Application Enablement Services running on a virtual server	R7.0 Build No – 7.0.1.0.2.15-0
Avaya Media Server running on a virtual server	Media Server SYSTEM R7.7.0.8 Media Server R7.7.0.200
Avaya G450 Gateway	37.19.0 /1
Avaya 9608 H323 Deskphone	96x1 H323 Release 6.6.028
Avaya 9620 H323 Deskphone	9600 H323 S3.220A
Avaya 9408 Digital Deskphone	V2.0
Avaya one-X® Communicator H.323	R6.2.4.07-FP4
Avaya one-X® Agent	R 2.5.50022.0
Avaya DECT Handsets	3725 DH4 (R3.3.11) 3720 DH3 (R3.3.11)
inContact Call Recording running Windows 2012 Server R2	R16.2

5. Configure Avaya Aura® Communication Manager

The information provided in this section describes the configuration of Communication Manager relevant to this solution. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 10**.

The configuration illustrated in this section was performed using Communication Manager System Administration Terminal (SAT).

5.1. Verify System Features

Use the **display system-parameters customer-options** command to verify that Communication Manager has permissions for features illustrated in these Application Notes. On **Page 3**, ensure that **Computer Telephony Adjunct Links?** is set to **y** as shown below.

display system-parameters customer-options		Page	3 of 11
OPTIONAL FEATURES			
Abbreviated Dialing Enhanced List?	y	Audible Message Waiting?	y
Access Security Gateway (ASG)?	n	Authorization Codes?	y
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
ASAI Link Core Capabilities?	n	DCS Call Coverage?	y
ASAI Link Plus Capabilities?	n	DCS with Rerouting?	y
Async. Transfer Mode (ATM) PNC?	n	Digital Loss Plan Modification?	y
Async. Transfer Mode (ATM) Trunking?	n	DS1 MSP?	y
ATM WAN Spare Processor?	n	DS1 Echo Cancellation?	y
ATMS?	y		
Attendant Vectoring?	y		

5.2. Note procr IP Address for Avaya Aura® Application Enablement Services Connectivity

Display the procr IP address by using the command **display node-names ip** and noting the IP address for the **procr** and AES (**aes70vmpg**).

display node-names ip		Page	1 of 2
IP NODE NAMES			
Name	IP Address		
SM100	10.10.40.12		
aes70vmpg	10.10.40.26		
default	0.0.0.0		
G450	10.10.40.15		
procr	10.10.40.13		

5.3. Configure Transport Link for Avaya Aura® Application Enablement Services Connectivity

To administer the transport link to AES use the **change ip-services** command. On **Page 1** add an entry with the following values:

- **Service Type:** Should be set to **AESVCS**.
- **Enabled:** Set to **y**.
- **Local Node:** Set to the node name assigned for the procr in **Section 5.2**
- **Local Port:** Retain the default value of **8765**.

change ip-services					Page	1 of	4
IP SERVICES							
Service	Enabled	Local	Local	Remote	Remote		
Type		Node	Port	Node	Port		
AESVCS	y	procr	8765				

Go to **Page 4** of the **ip-services** form and enter the following values:

- **AE Services Server:** Name obtained from the AES server, in this case **aes70vmpg**.
- **Password:** Enter a password to be administered on the AES server.
- **Enabled:** Set to **y**.

Note: The password entered for **Password** field must match the password on the AES server in **Section 6.2**. The **AE Services Server** must match the administered name for the AES server; this is created as part of the AES installation and can be obtained from the AES server by typing **uname -n** at the Linux command prompt.

change ip-services				Page	4	of	4
AE Services Administration							
Server ID	AE Services Server	Password	Enabled	Status			
1:	aes70vmpg	*****	y	idle			
2:							
3:							

5.4. Configure CTI Link for TSAPI Service

Add a CTI link using the **add cti-link n** command, where **n** is the cti-link number. In the example shown below this is **1**. Enter an available extension number in the **Extension** field. 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: 7999			
Type: ADJ-IP			
		COR: 1	
Name: aes70vmpg			

5.5. Configure Communication Manager for Service Observation

Type **display cor x**, where x is the COR number in the screen above, to check the existing Class of Restriction. Ensure that **Can be Service Observed** is set to **y**, if not type **change cor x** to make a change to the Class or Restriction. This value needs to be enabled in order for Service Observe to work for call recording. Also set **Can Be A Service Observer** to **y** to allow the virtual stations to record the calls.

display cor 1		Page 1 of 23
CLASS OF RESTRICTION		
COR Number: 1		
COR Description:		
FRL: 0		
APLT? y		
Can Be Service Observed? y		
Calling Party Restriction: all-toll		
Can Be A Service Observer? y		
Called Party Restriction: none		
Time of Day Chart: 1		
Forced Entry of Account Codes? n		
Priority Queuing? n		
Direct Agent Calling? y		
Restriction Override: all		
Facility Access Trunk Test? n		
Restricted Call List? n		
Can Change Coverage? n		
Unrestricted Call List: 1		
Access to MCT? y		
Fully Restricted Service? n		
Group II Category For MFC: 7		
Hear VDN of Origin Annc.? n		
Send ANI for MFE? n		
Add/Remove Agent Skills? n		
MF ANI Prefix:		
Automatic Charge Display? n		
Hear System Music on Hold? y		
PASTE (Display PBX Data on Phone)? n		
Can Be Picked Up By Directed Call Pickup? y		
Can Use Directed Call Pickup? y		
Group Controlled Restriction: inactive		

Type **change system-parameters features**, on **Page 11** ensure that **Allow Two Observes in Same Call** is set to **y**.

change system-parameters features		Page 11 of 19
FEATURE-RELATED SYSTEM PARAMETERS		
CALL CENTER SYSTEM PARAMETERS		
EAS		
Expert Agent Selection (EAS) Enabled? y		
Minimum Agent-LoginID Password Length:		
Direct Agent Announcement Extension:		
Delay:		
Message Waiting Lamp Indicates Status For: station		
VECTORIZING		
Converse First Data Delay: 0		
Second Data Delay: 2		
Converse Signaling Tone (msec): 100		
Pause (msec): 70		
Prompting Timeout (secs): 10		
Interflow-qpos EWT Threshold: 2		
Reverse Star/Pound Digit For Collect Step? n		
Available Agent Adjustments for BSR? n		
BSR Tie Strategy: 1st-found		
Store VDN Name in Station's Local Call Log? n		
SERVICE OBSERVING		
Service Observing: Warning Tone? y		
or Conference Tone? n		
Service Observing/SSC Allowed with Exclusion? n		
Allow Two Observers in Same Call? y		

Type **change feature-access-codes** to access the feature codes on Communication Manager. Scroll to **Page 5** in order to view or change the **Service Observing** access codes. Note the **Service Observing Listen Only Access Code** is **#43**; this will be required in **Section 7.1** during the setup of inContact Call Recording.

change feature-access-codes	Page 5 of 10
FEATURE ACCESS CODE (FAC)	
Call Center Features	
AGENT WORK MODES	
After Call Work Access Code:	#36
Assist Access Code:	
Auto-In Access Code:	#38
Aux Work Access Code:	#39
Login Access Code:	#40
Logout Access Code:	#41
Manual-in Access Code:	#42
SERVICE OBSERVING	
Service Observing Listen Only Access Code:	#43
Service Observing Listen/Talk Access Code:	#44
Service Observing No Talk Access Code:	
Service Observing Next Call Listen Only Access Code:	
Service Observing by Location Listen Only Access Code:	
Service Observing by Location Listen/Talk Access Code:	
AACC CONFERENCE MODES	
Restrict First Consult Activation:	Deactivation:
Restrict Second Consult Activation:	Deactivation:

5.6. Configure Virtual Stations for Service Observe

Add virtual stations to allow inContact Call Recording to record calls using Service Observe. Type **add station x** where x is the extension number of the station to be configured. Also note this extension number for configuration required in **Section 7.1**. Note the **Security Code** and ensure that **IP SoftPhone** is set to **y**. Note also the **COR** for the stations, this will be set to that configured in **Section 5.5**.

add station 58900	Page 1 of 6
STATION	
Extension: 58900	Lock Messages? n
Type: 4624	Security Code: 1234
Port: S00101	Coverage Path 1:
Name: Recorder	Coverage Path 2:
	Hunt-to Station:
STATION OPTIONS	
Loss Group: 19	Time of Day Lock Table:
Speakerphone: 2-way	Personalized Ringing Pattern: 1
Display Language: english	Message Lamp Ext: 58900
Survivable GK Node Name:	Mute Button Enabled? y
Survivable COR: internal	Media Complex Ext:
Survivable Trunk Dest? y	IP SoftPhone? y
	IP Video Softphone? n
	Short/Prefixed Registration Allowed: default

5.7. Configure H323 Stations for Service Observe

All endpoints that are to be monitored by Service Observe must have the correct Class of Restriction for Service Observe to work. Type **change station x** where x is the extension number of the station to be monitored also note this extension number for configuration required in **Section 7.3**. Ensure that the **COR** is set to that configured in **Section 5.5**.

change station x	Page 1 of 6
STATION	
Extension: x	Lock Messages? n
Type: 9608	Security Code: 1234
Port: S00101	Coverage Path 1:
Name: Extension	Coverage Path 2:
	Hunt-to Station:
	BCC: 0
	TN: 1
	COR: 1
	COS: 1
STATION OPTIONS	
Loss Group: 19	Time of Day Lock Table:
Speakerphone: 2-way	Personalized Ringing Pattern: 1
Display Language: english	Message Lamp Ext:
Survivable GK Node Name:	Mute Button Enabled? y
Survivable COR: internal	Media Complex Ext:
Survivable Trunk Dest? y	IP SoftPhone? y
	IP Video Softphone? n
	Short/Prefixed Registration Allowed: default

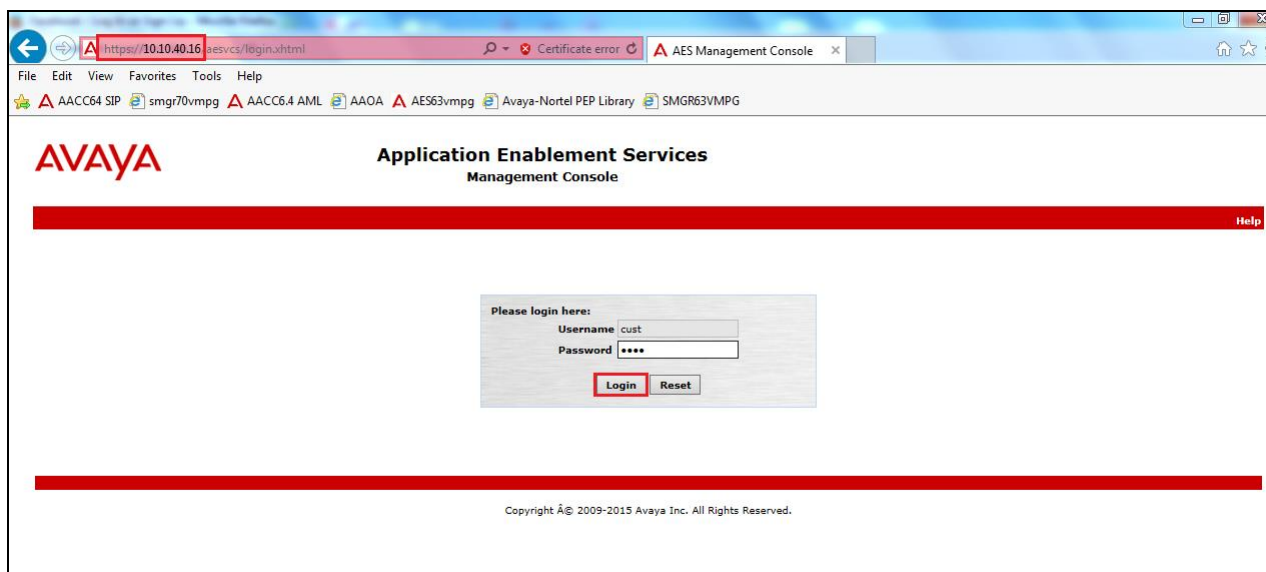
6. Configure Avaya Aura® Application Enablement Services

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

- Verify Licensing
- Create Switch Connection
- Administer TSAPI link
- Identify Tlinks
- Enable TSAPI and DMCC Ports
- Create CTI User
- Associate Devices with CTI User

6.1. Verify Licensing

To access the AES Management Console, enter **https://<ip-addr>** as the URL in an Internet browser, where <ip-addr> is the IP address of AES. At the login screen displayed. Log in with the appropriate credentials and then select the **Login** button.



The Application Enablement Services Management Console appears displaying the **Welcome to OAM** screen (not shown). Select **AE Services** and verify that both the TSAPI and DMCC Service is licensed by ensuring that **TSAPI Service** is in the list of **Services** and that the **License Mode** is showing **NORMAL MODE** and the same for the **DMCC Service**. If not, contact an Avaya support representative to acquire the proper license for your solution.

AVAYA Application Enablement Services Management Console

Home | Help | Logout

AE Services

▼ AE Services

- CVLAN
- DLG
- DMCC
- SMS
- TSAPI
- TWS
- Communication Manager Interface
- High Availability
- Licensing
- Maintenance
- Networking
- Security
- Status

AE Services

IMPORTANT: AE Services must be restarted for administrative changes to fully take effect. Changes to the Security Database do not require a restart.

Service	Status	State	License Mode	Cause*
ASAI Link Manager	N/A	Running	N/A	N/A
CVLAN Service	OFFLINE	Running	N/A	N/A
DLG Service	OFFLINE	Running	N/A	N/A
DMCC Service	ONLINE	Running	NORMAL MODE	N/A
TSAPI Service	ONLINE	Running	NORMAL MODE	N/A
Transport Layer Service	N/A	Running	N/A	N/A
AE Services HA	Not Configured	N/A	N/A	N/A

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

* -- For more detail, please mouse over the Cause, you'll see the tooltip, or go to help page.

6.2. Create Switch Connection

From the AES Management Console navigate to **Communication Manager Interface** → **Switch Connections** to set up a switch connection. Enter a name for the switch connection to be added and click the **Add Connection** button.

AVAYA Application Enablement Services Management Console

Home | Help | Logout

Communication Manager Interface | Switch Connections

▼ Communication Manager Interface

- Switch Connections
- Dial Plan
- High Availability
- Licensing
- Maintenance
- Networking
- Security
- Status
- User Management
- Utilities
- Help

Switch Connections

cm70vmppg x Add Connection

Connection Name	Processor Ethernet	Msg Period	Number of Active Connections

Edit Connection Edit PE/CLAN IPs Edit H.323 Gatekeeper Delete Connection Survivability Hierarchy

In the resulting screen enter the **Switch Password**; the Switch Password must be the same as that entered into Communication Manager AE Services Administration screen via the **change ip-services** command, described in **Section 5.3**. The remaining fields should be set as shown below. Click **Apply** to save changes.

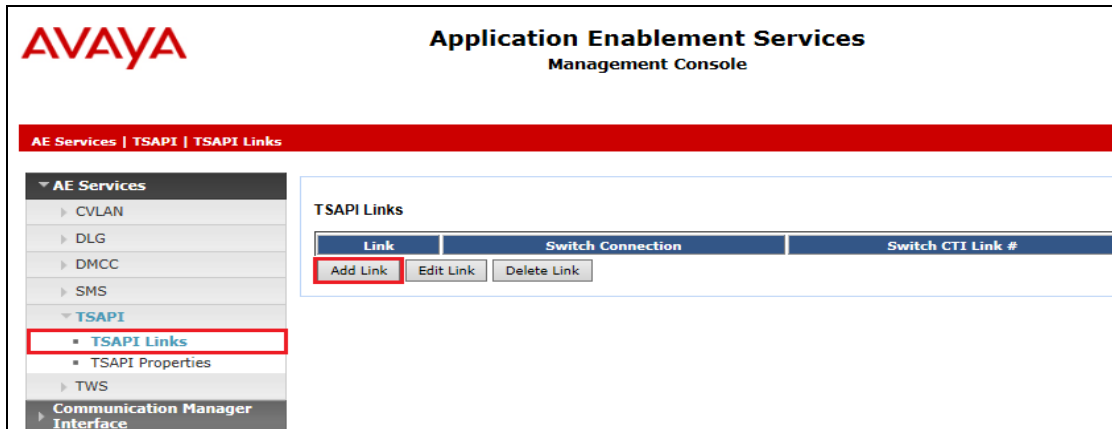
The screenshot shows the Avaya Application Enablement Services Management Console. The left sidebar contains a navigation menu with the following items: AE Services, Communication Manager Interface (selected), Switch Connections (highlighted with a red box), Dial Plan, High Availability, Licensing, Maintenance, Networking, Security, Status, User Management, Utilities, and Help. The main content area is titled 'Connection Details - cm70vmppg' and contains the following fields: Switch Password (password field), Confirm Switch Password (password field), Msg Period (30 Minutes (1 - 72)), Provide AE Services certificate to switch (checkbox), Secure H323 Connection (checkbox), and Processor Ethernet (checked checkbox). The 'Apply' button is highlighted with a red box.

From the **Switch Connections** screen, select the radio button for the recently added switch connection and select the **Edit PE/CLAN IPs** button (not shown, see screen at the bottom of the previous page). In the resulting screen, enter the IP address of the procr as shown in **Section 5.2** that will be used for the AES connection and select the **Add/Edit Name or IP** button.

The screenshot shows the Avaya Application Enablement Services Management Console. The left sidebar is the same as the previous screenshot. The main content area is titled 'Edit Processor Ethernet IP - cm70vmppg' and contains a table with the following data: 10.10.40.13. The 'Add/Edit Name or IP' button is highlighted with a red box. Below the table is a 'Back' button.

6.3. Administer TSAPI link

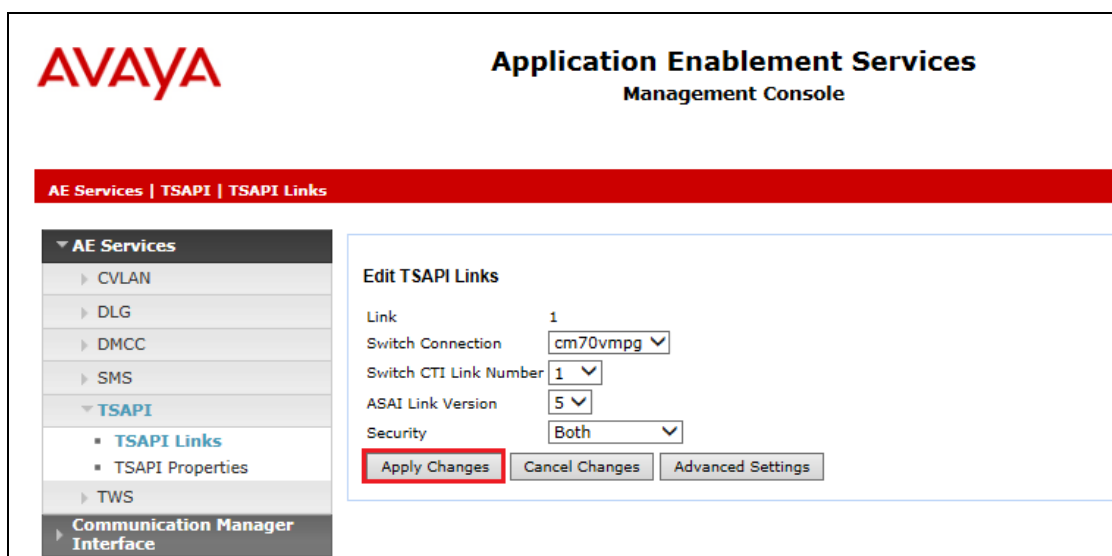
From the Application Enablement Services Management Console, select **AE Services** → **TSAPI** → **TSAPI Links**. Select **Add Link** button as shown in the screen below.



On the **Add TSAPI Links** screen (or the **Edit TSAPI Links** screen to edit a previously configured TSAPI Link as shown below), enter the following values:

- **Link:** Use the drop-down list to select an unused link number.
- **Switch Connection:** Choose the switch connection **cm70vmppg**, which has already been configured in **Section 6.2** from the drop-down list.
- **Switch CTI Link Number:** Corresponding CTI link number configured in **Section 5.4** which is **1**.
- **ASAI Link Version:** This can be left at the default value of **5**.
- **Security:** This can be left at the default value of **both**.

Once completed, select **Apply Changes**.



Another screen appears for confirmation of the changes made. Choose **Apply**.

The screenshot shows the Avaya Application Enablement Services Management Console. On the left is a navigation menu with options like CVLAN, DLG, DMCC, SMS, TSAPI (expanded), and Communication Manager Interface. The main area displays a confirmation dialog titled "Apply Changes to Link". The dialog contains a warning message: "Warning! Are you sure you want to apply the changes? These changes can only take effect when the TSAPI server restarts." Below the warning is a yellow triangle icon and the text: "Please use the Maintenance -> Service Controller page to restart the TSAPI server." At the bottom of the dialog are two buttons: "Apply" (highlighted with a red box) and "Cancel".

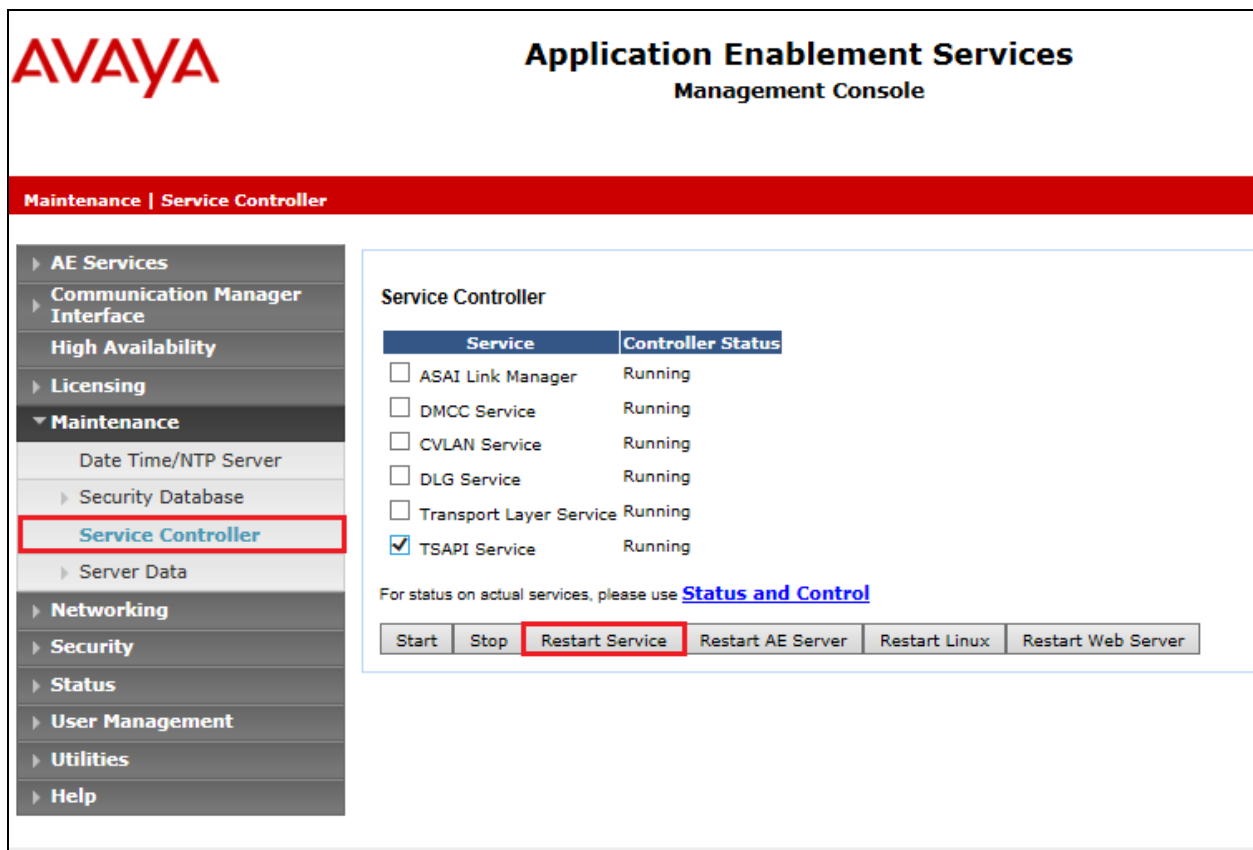
When the TSAPI Link is completed, it should resemble the screen below.

The screenshot shows the Avaya Application Enablement Services Management Console after the TSAPI link configuration. The top right corner displays system information: "Welcome! User: cust", "Last login: Tue Nov 17 10:07:45 2015 from 10.10.40.222", "Number of prior failed login attempts: 1", "HostName/IP: aes70vmppg", "Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE", "SW Version: 7.0.0.0.0.13-0", "Server Date and Time: Tue Nov 24 16:26:08 GMT 2015", and "HA Status: Not Configured". The navigation menu on the left is expanded to show "TSAPI Links" (highlighted with a red box). The main area displays a table titled "TSAPI Links" with the following data:

Link	Switch Connection	Switch CTI Link #	ASAI Link Version	Security
1	cm70vmppg	1	5	Both

Below the table are three buttons: "Add Link", "Edit Link", and "Delete Link".

The TSAPI Service must be restarted to effect the changes made in this section. From the Management Console menu, navigate to **Maintenance** → **Service Controller**. On the Service Controller screen, tick the **TSAPI Service** and select **Restart Service**.



AVAYA Application Enablement Services Management Console

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 Restart Web Server

6.4. Identify Tlinks

Navigate to **Security** → **Security Database** → **Tlinks**. Verify the value of the **Tlink Name**. This will be needed to configure the inContact Call Recording in **Section 7.3**.

The screenshot displays the Avaya Application Enablement Services Management Console. The top header features the Avaya logo and the title "Application Enablement Services Management Console". A red navigation bar contains the text "Security | Security Database | Tlinks". On the left, a sidebar menu lists various services, with "Security Database" and its sub-item "Tlinks" highlighted with red boxes. The main content area, titled "Tlinks", shows a "Tlink Name" section with two radio button options: "AVAYA#CM70VMPG#CSTA#AES70VMPG" (selected) and "AVAYA#CM70VMPG#CSTA-S#AES70VMPG". A "Delete Tlink" button is located below these options.

6.5. Enable TSAPI and DMCC Ports

To ensure that TSAPI ports are enabled, navigate to **Networking → Ports**. Ensure that the TSAPI ports are set to **Enabled** as shown below. Ensure that the **DMCC Server Ports** are also **Enabled** and take note of the **Unencrypted Port 4721** which will be used later in **Section 7.1**.

AVAYA Application Enablement Services Management Console

Networking | Ports

Ports

CVLAN Ports

			Enabled Disabled
Unencrypted TCP Port	9999		<input checked="" type="radio"/> <input type="radio"/>
Encrypted TCP Port	<input type="text" value="9998"/>		<input checked="" type="radio"/> <input type="radio"/>

DLG Port TCP Port 5678

TSAPI Ports

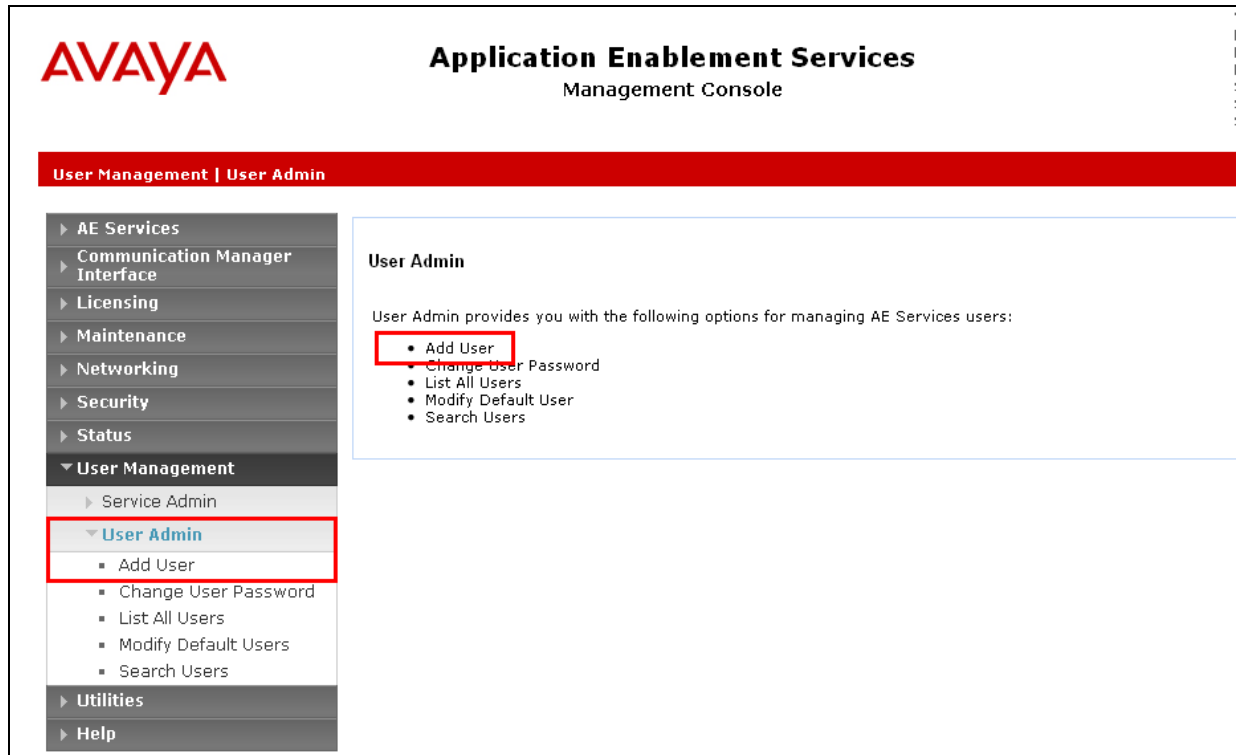
		Enabled Disabled
TSAPI Service Port	450	<input checked="" type="radio"/> <input type="radio"/>
Local TLINK Ports		
TCP Port Min	1024	
TCP Port Max	1039	
Unencrypted TLINK Ports		
TCP Port Min	<input type="text" value="1050"/>	
TCP Port Max	<input type="text" value="1065"/>	
Encrypted TLINK Ports		
TCP Port Min	<input type="text" value="1066"/>	
TCP Port Max	<input type="text" value="1081"/>	

DMCC Server Ports

		Enabled Disabled
Unencrypted Port	<input type="text" value="4721"/>	<input checked="" type="radio"/> <input type="radio"/>
Encrypted Port	<input type="text" value="4722"/>	<input checked="" type="radio"/> <input type="radio"/>
TR/87 Port	<input type="text" value="4723"/>	<input checked="" type="radio"/> <input type="radio"/>

6.6. Create CTI User

A User ID and password needs to be configured for the inContact Call Recording to communicate with the Application Enablement Services server. Navigate to the **User Management** → **User Admin** screen then choose the **Add User** option.



In the **Add User** screen shown below, enter the following values:

- **User Id** - This will be used by the inContact Call Recording setup in **Section 7.1** and **Section 7.3**.
- **Common Name** and **Surname** - Descriptive names need to be entered.
- **User Password** and **Confirm Password** - This will be used with inContact Call Recording setup in **Section 7.1** and **Section 7.3**.
- **CT User** - Select **Yes** from the drop-down menu.

Click on **Apply Changes** at the bottom of the screen.

AVAYA Application Enablement Services Management Console

User Management | User Admin | List All Users

Edit User

* User Id: incontact
* Common Name: incontact
* Surname: incontact

User Password:
Confirm Password:
Admin Note:
Avaya Role: None
Business Category:
Car License:
CM Home:
Csx Home:
CT User: Yes
Department Number:
Display Name:
Employee Number:
Employee Type:
Enterprise Handle:
Given Name:
Home Phone:
Home Postal Address:
Initials:
Labeled URI:
Mail:
MM Home:
Mobile:
Organization:
Pager:
Preferred Language: English
Room Number:
Telephone Number:

6.7. Associate Devices with CTI User

Navigate to **Security** → **Security Database** → **CTI Users** → **List All Users**. Select the CTI user added in **Section 6.6** and click on **Edit**.

The screenshot displays the Avaya Application Enablement Services Management Console. The left sidebar contains a navigation menu with the following items: AE Services, Communication Manager Interface, High Availability, Licensing, Maintenance, Networking, Security (expanded), Account Management, Audit, Certificate Management, Enterprise Directory, Host AA, PAM, Security Database (expanded), Control, CTI Users (expanded), and List All Users (highlighted with a red box). The main content area is titled 'CTI Users' and features a table with two columns: 'User ID' and 'Common Name'. The table lists two users: 'enghouse' and 'incontact'. The 'incontact' user is selected, indicated by a radio button. Below the table, there are two buttons: 'Edit' (highlighted with a red box) and 'List All'.

User ID	Common Name
<input type="radio"/> enghouse	enghouse
<input checked="" type="radio"/> incontact	incontact

[Edit](#) [List All](#)

In the main window ensure that **Unrestricted Access** is ticked. Once this is done click on **Apply Changes**.

AVAYA **Application Enablement Services** Management Console

Number of HostName Server Off SW Version Server Da HA Status

Security | Security Database | CTI Users | List All Users

AE Services

- Communication Manager Interface
- High Availability
- Licensing
- Maintenance
- Networking
- Security**
 - Account Management
 - Audit
 - Certificate Management
 - Enterprise Directory
 - Host AA
 - PAM
 - Security Database**

Edit CTI User

User Profile:

User ID incontact
Common Name incontact
Worktop Name NONE
Unrestricted Access ☒

Call and Device Control: Call Origination/Termination and Device Status None

Call and Device Monitoring: Device Monitoring None
Calls On A Device Monitoring None
Call Monitoring ☐

Routing Control: Allow Routing on Listed Devices None

Apply Changes Cancel Changes

7. Configure inContact Call Recording

Either from the inContact Call Recording server or from another PC, open a web session to the inContact Call Recording server's IP address, enter the proper credentials and click on **LOGIN**.

Discover

uptivity

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User Name: superuser

Password:

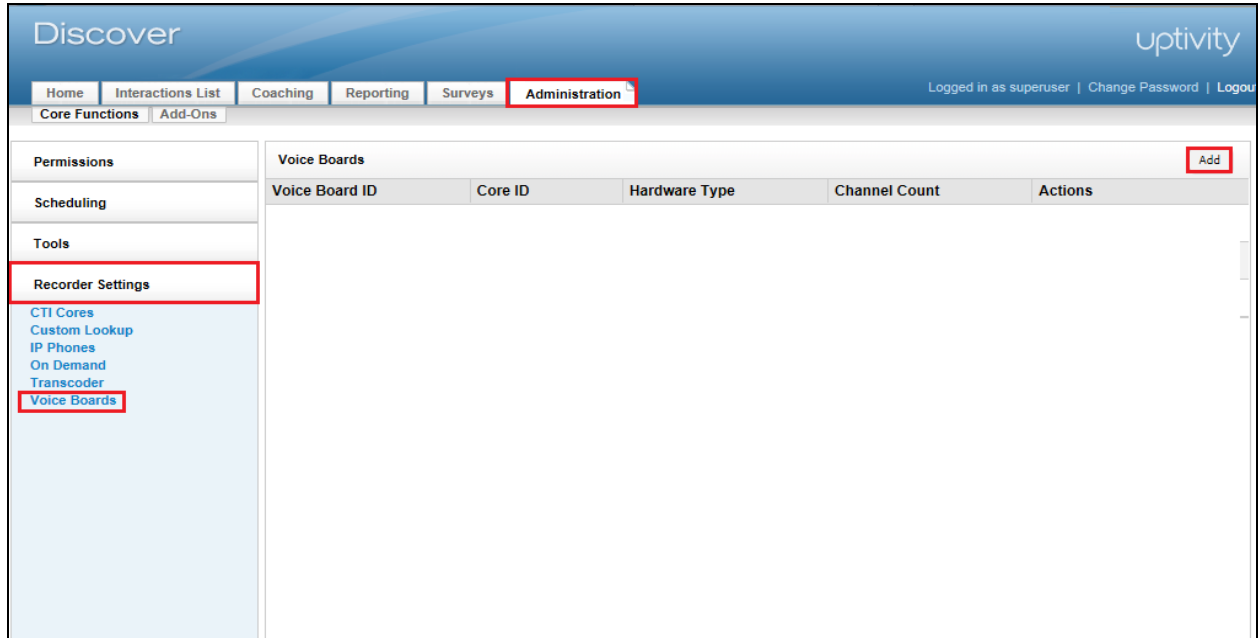
[Forgot your password?](#)

☐ Remember my username?

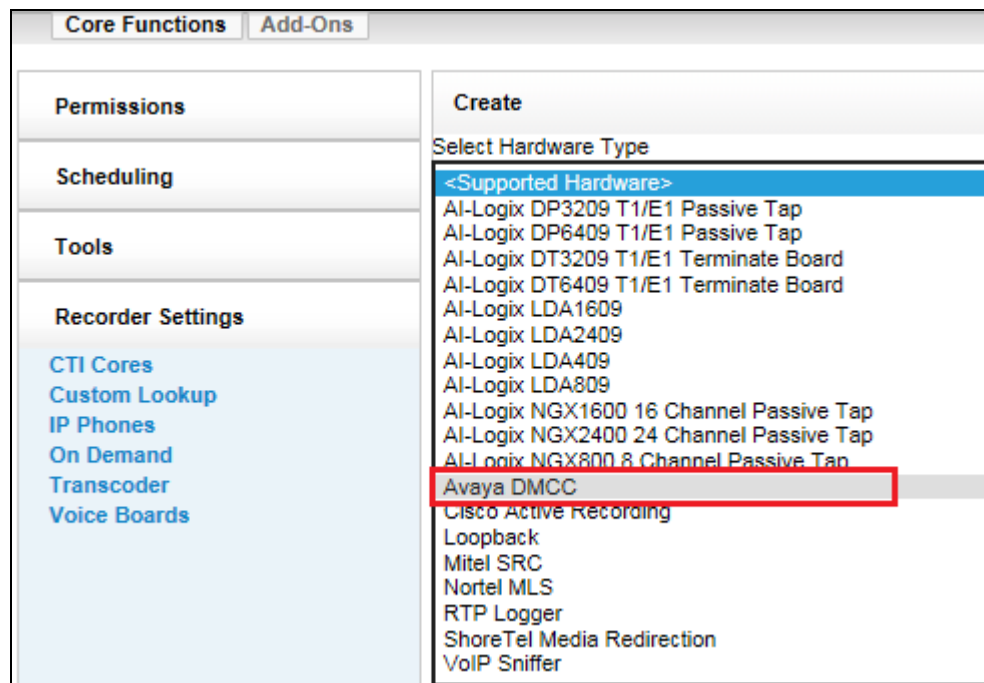
LOGIN

7.1. Create Voice Board

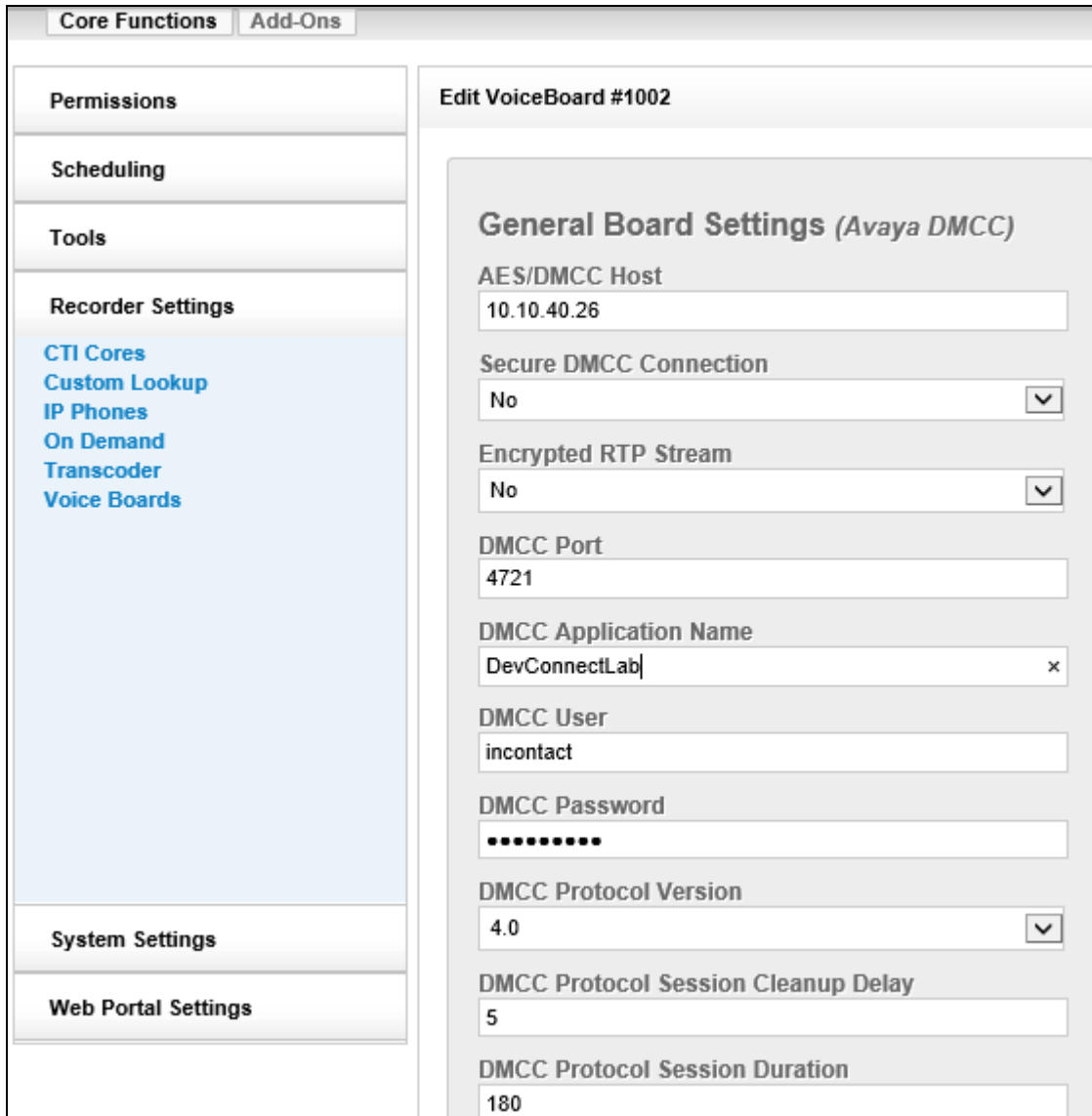
Click on the **Administration** tab and select **Recorder Settings** → **Voice Boards** in the left window, click on **Add** at the top right of the main window.



Select **Avaya DMCC** as the **Hardware Type**.



Enter the **AES/DMCC Host** information which will be the IP Address of the AES. The DMCC connection can be secure or unsecure, for compliance testing **Secure DMCC Connection** was set to **No**. The **DMCC Port** for an unsecure connection is set to **4721** and can be found in **Section 6.5**. Choose a suitable **DMCC Application Name** and enter the **DMCC User** and **Password** as per **Section 6.6**. All other values can be left as default, scroll down to the end.



The screenshot displays the 'Edit VoiceBoard #1002' configuration page. On the left, a sidebar lists navigation options: Permissions, Scheduling, Tools, Recorder Settings (highlighted), System Settings, and Web Portal Settings. Under Recorder Settings, there are links for CTI Cores, Custom Lookup, IP Phones, On Demand, Transcoder, and Voice Boards. The main content area is titled 'General Board Settings (Avaya DMCC)' and contains the following fields:

- AES/DMCC Host:** 10.10.40.26
- Secure DMCC Connection:** No (dropdown menu)
- Encrypted RTP Stream:** No (dropdown menu)
- DMCC Port:** 4721
- DMCC Application Name:** DevConnectLab (with a clear 'x' button)
- DMCC User:** incontact
- DMCC Password:** masked with dots
- DMCC Protocol Version:** 4.0 (dropdown menu)
- DMCC Protocol Session Cleanup Delay:** 5
- DMCC Protocol Session Duration:** 180

Scroll down to PBX Addresses and enter the IP Address for Communication Manager in the **Avaya Call Manager Host** field. The **DMCC Station Endpoint Host** will be the IP address of the inContact server, which in this case will be the localhost. The value for the **RTP Listening Interface (NIC)** can be obtained from either Wireshark or from the program cc_interfaceBrowser.exe as shown in **Appendix A**.

The image shows a configuration window for DMCC (Digital Media Control Center) with the following fields and values:

- DMCC Protocol Session Duration:** 180
- Avaya Call Manager Host:** 10.10.40.13
- DMCC Station Endpoint Host:** 10.10.40.51
- DMCC Codec:** G.711 - A-Law (selected from a dropdown menu)
- RTP Listening Interface (NIC):** 63B080F0-7951-4694-8B08-5035777FB1F7
- DMCC Station Endpoint Initial Port:** 7000
- Temp Recording Location:** c:\default_rec
- Use Voice Board Reloading:** No (selected from a dropdown menu)

Below the main configuration fields is a section titled **UNC Paths** with an **Add** button. Under this section, there are two tabs: **Local** and **Remote**.

Enter the **Number of Channels to Add**, this will determine the number of simultaneous devices that can be monitored. For compliance testing **9** were chosen allowing each virtual recorder be associated with a different Communication Manager extension. These virtual stations are created on Communication Manager as per **Section 5.6**.

Channels
Number of Channels to Add:
Add

Channel ID	Assign	Station	Password	Name	
17	<div>Anything ▼</div>	<input style="width: 80%;" type="text" value="58900"/>	<input style="width: 80%;" type="text" value="1234"/>	<input style="width: 80%;" type="text"/>	Delete
18	<div>Anything ▼</div>	<input style="width: 80%;" type="text" value="58901"/>	<input style="width: 80%;" type="text" value="1234"/>	<input style="width: 80%;" type="text"/>	Delete
19	<div>Anything ▼</div>	<input style="width: 80%;" type="text" value="58902"/>	<input style="width: 80%;" type="text" value="1234"/>	<input style="width: 80%;" type="text"/>	Delete
20	<div>Anything ▼</div>	<input style="width: 80%;" type="text" value="58903"/>	<input style="width: 80%;" type="text" value="1234"/>	<input style="width: 80%;" type="text"/>	Delete
21	<div>Anything ▼</div>	<input style="width: 80%;" type="text" value="58904"/>	<input style="width: 80%;" type="text" value="1234"/>	<input style="width: 80%;" type="text"/>	Delete
22	<div>Anything ▼</div>	<input style="width: 80%;" type="text" value="58905"/>	<input style="width: 80%;" type="text" value="1234"/>	<input style="width: 80%;" type="text"/>	Delete
23	<div>Anything ▼</div>	<input style="width: 80%;" type="text" value="58906"/>	<input style="width: 80%;" type="text" value="1234"/>	<input style="width: 80%;" type="text"/>	Delete
24	<div>Anything ▼</div>	<input style="width: 80%;" type="text" value="58907"/>	<input style="width: 80%;" type="text" value="1234"/>	<input style="width: 80%;" type="text"/>	Delete
25	<div>Anything ▼</div>	<input style="width: 80%;" type="text" value="58908"/>	<input style="width: 80%;" type="text" value="1234"/>	<input style="width: 80%;" type="text"/>	Delete

Scroll back up to the top again and click on **Save**, as highlighted below.

The screenshot shows the inContact Administration interface. The top navigation bar includes 'Home', 'Interactions List', 'Coaching', 'Reporting', 'Surveys', and 'Administration'. The 'Administration' tab is selected. On the left, there is a sidebar with 'Permissions', 'Scheduling', 'Tools', and 'Recorder Settings'. The 'Recorder Settings' section is expanded, showing 'CTI Cores', 'Custom Lookup', 'IP Phones', 'On Demand', 'Transcoder', and 'Voice Boards'. The main content area is titled 'Edit VoiceBoard #1002' and contains a 'General Board Settings (Avaya DMCC)' form. The form fields include: 'AES/DMCC Host' (10.10.40.26), 'Secure DMCC Connection' (No), 'Encrypted RTP Stream' (No), 'DMCC Port' (4721), 'DMCC Application Name' (DevConnectLab), 'DMCC User' (incontact), and 'DMCC Password' (masked). The 'Save' button is highlighted with a red box.

7.2. Create Schedule

Remain in the **Administration** tab and select **Scheduling** → **Create Schedule** in the left window. Click on **Create a Custom Schedule (Advanced)** in the main window.

The screenshot shows the inContact Administration interface. The top navigation bar includes 'Home', 'Interactions List', 'Coaching', 'Reporting', 'Surveys', and 'Administration'. The 'Administration' tab is selected. On the left, there is a sidebar with 'Permissions', 'Scheduling', and 'Tools'. The 'Scheduling' section is expanded, showing 'Create Schedule', 'Timed Schedules', and 'Find Schedule'. The 'Create Schedule' option is highlighted with a red box. The main content area is titled 'Schedule Wizard' and contains a list of three options: '1 Record All Calls For An Agent During A Time Range', '2 Create A Custom Schedule (Advanced)', and '3 Record The Next N Calls For An Agent'. The 'Create A Custom Schedule (Advanced)' option is highlighted with a red box.

Enter a suitable name for the schedule. For compliance testing the following were set,

- **Type** Set to **Percentage**
- **Target Percent** Set to **100**
- **Direction** Set to **both**
- **Schedule Requirements** **Voice Port Not Equal To 0**

The other values can be left as default. Click on **Save Schedule** to save this.

Core Functions

Add-Ons

Permissions

Scheduling

[Create Schedule](#)
[Timed Schedules](#)
[Find Schedule](#)

Tools

Recorder Settings

System Settings

Web Portal Settings

New Schedule

Save Schedule

Name : Avaya

Description :

Owner : CallCopy Admin

Never Expire : ☒

Type : Percentage

Target Percent : 100

Random Probability :

Direction : both

Priority : 50

Min Record Length (Sec) : 5

Max Record Length (Sec) : 6000

Max Record Silence(Sec) : 600

Retention Days : 365

Screen capture wrap length (Sec) : 0

Archive Action : Purge

Stop screen capture wrap on call start : No

Audio Capture : Yes

Screen Capture : No

Speech Analytics : Yes

Disk Location : C:\Recordings

Comparison : AND

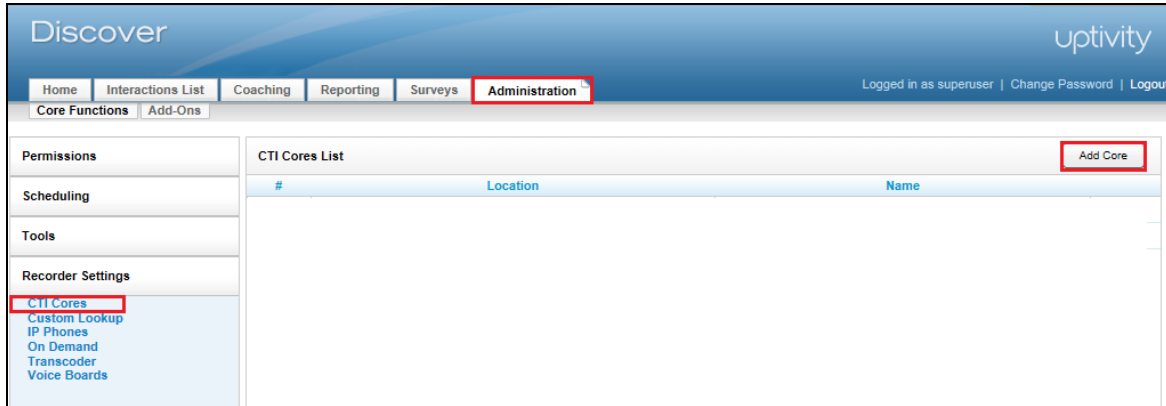
Blackout Remote Audio : ☐

Schedule Requirements

	Value Type	Comparison	Value	Case Sensitive
1	Voice Port	Not Equal To	0	<input type="checkbox"/>
2				<input type="checkbox"/>

7.3. Create Core

Remain in the **Administration** tab and select **Recorder Settings** → **CTI Cores** in the left window, click on **Add Core** at the top right of the main window.



Enter a suitable **Name**. The **Host** must be set to that of the inContact Call Recording server, in the case below this was the localhost or IP address for the localhost. The **Record Method** should be set to **Service Observe** and the **Enable Event interface** should be set to **Yes**. All other fields can be left as default. Scroll down to the bottom of the page.

The screenshot shows the 'Settings' form for a CTI Core. The left sidebar is the same as in the previous image, with 'CTI Cores' selected. The main form contains the following fields:

- Name: DMCC-SO
- Location: Default (dropdown)
- Host: 10.10.40.51 (highlighted with a red box)
- Port: 5685
- Monitor Reload Frequency: 300 (s)
- Record Method: Service Observe (dropdown, highlighted with a red box)
- Playback Method: - Select - (dropdown)
- Enable Event Interface: Yes (dropdown, highlighted with a red box)
- Api Commands To Script: No (dropdown)
- JCOM Timeout Interval: 300 (ms)
- JCOM Reconnect Interval: 300 (ms)
- Default Screen Capture Port: 5633
- Generate XML with recordings: Yes (dropdown)
- Transcode by Board: No (dropdown)
- Channel Selection: Round Robin (dropdown)
- Local Data Directory: c:\temp
- Use Media Server: No (dropdown)

Select the **Related Boards** and the **Related Schedules** as shown below by clicking on the add icon.

With the Board and Schedule selected click on the drop down menu highlighted and select **Avaya DMCC**, with this selected click on **Add CTI Module**.

From the drop down menu select **Avaya TSAPI** and click on **Add CTI Module**.

#	Name
1006	cc_AvayaDMCC

Each new CTI Module needs to be edited. Click on the edit icon as shown below and edit each CTI core starting with **cc_AvayaDMCC** as shown below.

#	Name
1006	cc_AvayaDMCC
1007	cc_AvayaTSAPIFx

Service Observe Code should be set to the configured value in **Section 5.5**, click on **Save** to get back to the Core screen above.

Avaya DMCC :: Settings

Service Observe Code : #43

Dial Digit Delay : 100 (ms)

Dial Service Observe by Alias : No

Register DMCC Monitors : No

Generate Phone Events : No

Back Save

Edit the **cc_AvayaTSAPIFx** module as shown below.

#	Name
1006	cc_AvayaDMCC
1007	cc_AvayaTSAPIFx

Enter the TLINK information (found from **Section 6.4**) into the **Server Name** box. Enter the CTI user and password as per **Section 6.6** for the **Server Username** and **Server Password**. The other information can be left as default. Scroll down to **Monitors**, each device that needs to be monitored can be added here, as shown below these are Communication Manager extensions ranging from **7000** to **7050**.

Server Name : AVAYA#CM70VMPG#CSTA#AES70VMPG

Server Username : incontact

Server Password :

Register Monitor Delay : 10

Number of AES Connection Attempts : 0

Private Data Type : ECS#2-7

TS Version : TS1-2

Query Info On Establish : No

Register DMCC by Agent Login : No

Use Dynamic Monitors : No

Monitor Devices by Group : No

Monitors:

Monitor Type: Device

Monitor Values :

Prefix :

Postfix :

Filter Monitors : All Monitors

ID	Monitor Type	
7000	device	
7001	device	
7010	device	
7011	device	
7020	device	
7021	device	
7050	device	

Scroll up to the top of the page and click on **Save**.

The screenshot shows the inContact WFO Administration interface. The top navigation bar includes links for Home, Interactions List, Coaching, Reporting, Surveys, and Administration. The user is logged in as a superuser. The left sidebar contains a 'Permissions' section with links for Users, Groups, and Roles, and a 'System Settings' section with links for Scheduling, Tools, Recorder Settings, and System Settings. The main content area is titled 'Avaya TSAPI :: Settings' and contains a form with the following fields:

- Server Name: AVAYA#CM70VMPG#CSTA#AES70VMPG
- Server Username: incontact
- Server Password: (masked with dots)
- Register Monitor Delay: 10
- Number of AES Connection Attempts: 0
- Private Data Type: ECS#2-7
- TS Version: TS1-2
- Query Info On Establish: No (dropdown)
- Register DMCC by Agent Login: No (dropdown)
- Use Dynamic Monitors: No (dropdown)
- Monitor Devices by Group: No (dropdown)

Below the main settings is a 'Monitors:' section with the following fields:

- Monitor Type: Device (dropdown with a green plus icon)
- Monitor Values: (text input with a red X icon)
- Prefix: (text input)

At the top right of the settings form, there are 'Back' and 'Save' buttons. The 'Save' button is highlighted with a red border.

8. Verification Steps

This section provides the steps that can be taken to verify correct configuration of the inContact Call Recording and Avaya Aura® Application Enablement Services.

8.1. Verify Avaya Aura® Communication Manager CTI Service State

Before checking the connection between the inContact Call Recording and AES, check the connection between Communication Manager and AES to ensure it is functioning correctly. Check the AESVCS link status by using the command **status aesvcs cti-link**. Verify the **Service State** of the CTI link is **established**.

status aesvcs cti-link							
AE SERVICES CTI LINK STATUS							
CTI Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd	
1	5	no	aes70vmppg	established	18	18	

8.2. Verify TSAPI Link

On the AES Management Console verify the status of the TSAPI link by selecting **Status** → **Status and Control** → **TSAPI Service Summary** to display the **TSAPI Link Details** screen. Verify the status of the TSAPI link by checking that the **Status** is **Talking** and the **State** is **Online**.

AVAYA

Application Enablement Services
Management Console

Welcome! User: Cost
Last login: Tue Nov 24 16:15:05 2015 from 10.10.40.222
Number of prior failed login attempts: 0
HostName/IP: aes70vmppg
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.0.13-0
Server Date and Time: Wed Nov 25 14:33:01 GMT 2015
HA Status: Not Configured

Status | Status and Control | TSAPI Service SummaryHome | Help | Logout

AE Services

Communication Manager Interface

High Availability

Licensing

Maintenance

Networking

Security

Status

- Alarm Viewer
- Log Manager
- Logs
- Status and Control
 - CVLAN Service Summary
 - DLG Services Summary
 - DMCC Service Summary
 - Switch Conn Summary
 - TSAPI Service Summary**
- User Management
- Utilities
- Help

TSAPI Link Details

☐ Enable page refresh every 60 seconds

	Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
<input checked="" type="radio"/>	1	cm70vmppg	1	Talking	Mon Nov 23 10:28:15 2015	Online	17	8	15	15	30

Online Offline

For service-wide information, choose one of the following:
TSAPI Service Status TLink Status User Status

8.3. Verify DMCC link on AES

Verify the status of the DMCC link by selecting **Status → Status and Control → DMCC Service Summary** to display the **DMCC Service Summary – Session Summary** screen. The screen below shows that the user **inContact** is connected from the IP address **10.10.40.51** which is the inContact Call Recording server.

AVAYA

Application Enablement Services
Management Console

Number of prior failed login attempts: 0
HostName/IP: aes70vmppg/10.10.40.26
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.1.0.2.15-0
Server Date and Time: Fri Sep 23 14:42:54 IST 2016
HA Status: Not Configured

Status | Status and Control | DMCC Service Summary

Home | Help | Logout

AE Services

Communication Manager Interface

High Availability

Licensing

Maintenance

Networking

Security

Status

Alarm Viewer

Log Manager

Logs

Status and Control

CVLAN Service Summary

DLG Services Summary

DMCC Service Summary

Switch Conn Summary

TSAPI Service Summary

DMCC Service Summary - Session Summary

Please do not use back button

☐ Enable page refresh every 60 seconds

Session Summary [Device Summary](#)

Generated on Fri Sep 23 14:42:54 IST 2016

Service Uptime: 8 days, 12 hours 49 minutes

Number of Active Sessions: 1

Number of Sessions Created Since Service Boot: 6

Number of Existing Devices: 10

Number of Devices Created Since Service Boot: 40

	Session ID	User	Application	Far-end Identifier	Connection Type	# of Associated Devices
<input type="checkbox"/>	9AA7E9586B2FEC173 799B8632E29D0CA-8	incontact	CallCopy	10.10.40.51	XML Unencrypted	10

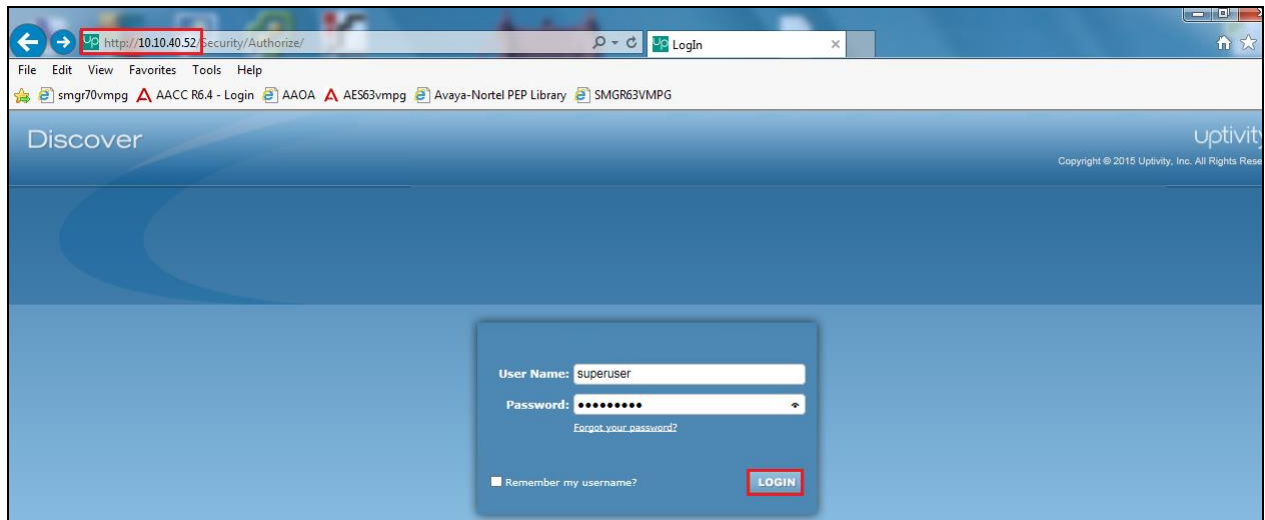
Item 1-1 of 1

1 Go

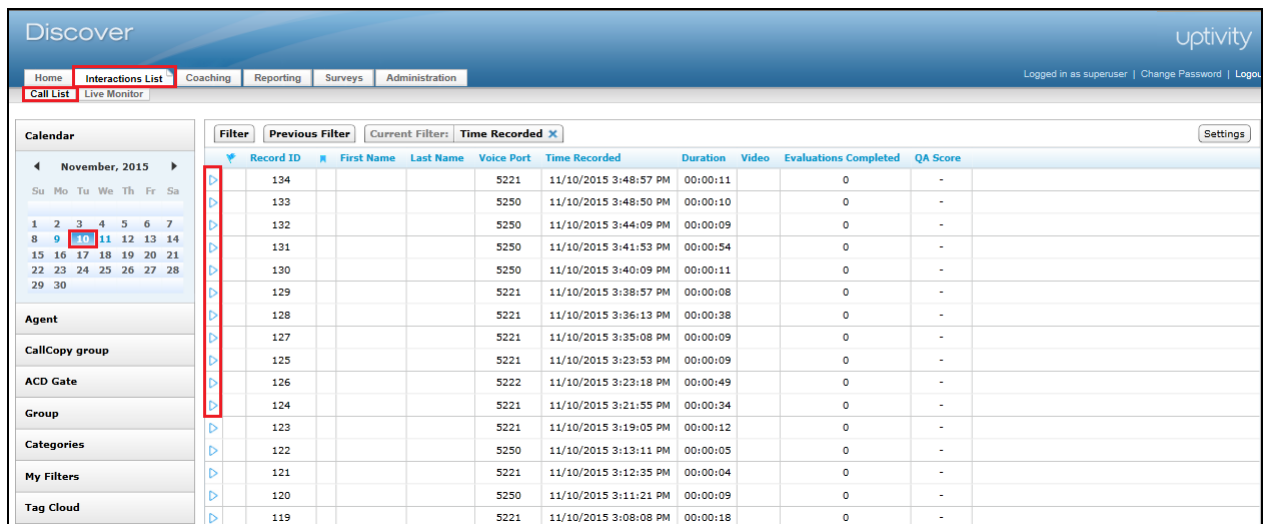
Terminate Sessions Show Terminated Sessions

8.4. Verify inContact Call Recording

From any PC that has a sound card and speakers, open a browser session and browse to the IP address of the inContact Call Recording server. Enter the proper credentials and click on **LOGIN**.



Select the **Interactions List** tab and within that tab select the **Call List** tab. Select the required date from the **Calendar** as shown below and this will display all the call recordings that were recorded on that particular date. Select any of the play icons highlighted to play back that particular recording.



Record ID	First Name	Last Name	Voice Port	Time Recorded	Duration	Video	Evaluations Completed	QA Score
134			5221	11/10/2015 3:48:57 PM	00:00:11		0	-
133			5250	11/10/2015 3:48:50 PM	00:00:10		0	-
132			5250	11/10/2015 3:44:09 PM	00:00:09		0	-
131			5250	11/10/2015 3:41:53 PM	00:00:54		0	-
130			5250	11/10/2015 3:40:09 PM	00:00:11		0	-
129			5221	11/10/2015 3:38:57 PM	00:00:08		0	-
128			5221	11/10/2015 3:36:13 PM	00:00:38		0	-
127			5221	11/10/2015 3:35:08 PM	00:00:09		0	-
125			5221	11/10/2015 3:23:53 PM	00:00:09		0	-
126			5222	11/10/2015 3:23:18 PM	00:00:49		0	-
124			5221	11/10/2015 3:21:55 PM	00:00:34		0	-
123			5221	11/10/2015 3:19:05 PM	00:00:12		0	-
122			5250	11/10/2015 3:13:11 PM	00:00:05		0	-
121			5221	11/10/2015 3:12:35 PM	00:00:04		0	-
120			5250	11/10/2015 3:11:21 PM	00:00:09		0	-
119			5221	11/10/2015 3:08:08 PM	00:00:18		0	-

In the example below a recording number **132** is played back to the user.

Calendar

November, 2015

Su

Mo

Tu

We

Th

Fr

Sa

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

Agent

CallCopy group

ACD Gate

Group

Categories

My Filters

Tag Cloud

Filter

Previous Filter

Current Filters

Time Recorded

Settings

Record ID	First Name	Last Name	Voice Port	Time Recorded	Duration	Video	Evaluations Completed	QA Score
134			5221	11/10/2015 3:48:57 PM	00:00:11		0	-
133			5250	11/10/2015 3:48:50 PM	00:00:10		0	-
132			5250	11/10/2015 3:44:09 PM	00:00:09		0	-
131			5250	11/10/2015 3:41:53 PM	00:00:54		0	-
130			5250	11/10/2015 3:40:09 PM	00:00:11		0	-
129			5221	11/10/2015 3:38:57 PM	00:00:08		0	-
128			5221	11/10/2015 3:36:13 PM	00:00:38		0	-
127			5221	11/10/2015 3:35:08 PM	00:00:09		0	-
125			5221	11/10/2015 3:23:53 PM	00:00:09		0	-
126			5222	11/10/2015 3:23:18 PM	00:00:49		0	-
124			5221	11/10/2015 3:21:55 PM	00:00:34		0	-
123			5221	11/10/2015 3:19:05 PM	00:00:12		0	-

Pages: 1 2 3 4 >

25 Items Per Page

Go To Page: 1 of 4 GO

Web Player

Layer Details

ID

Start

Stop

Type

Info

Playback Details

0:05 / 0:09

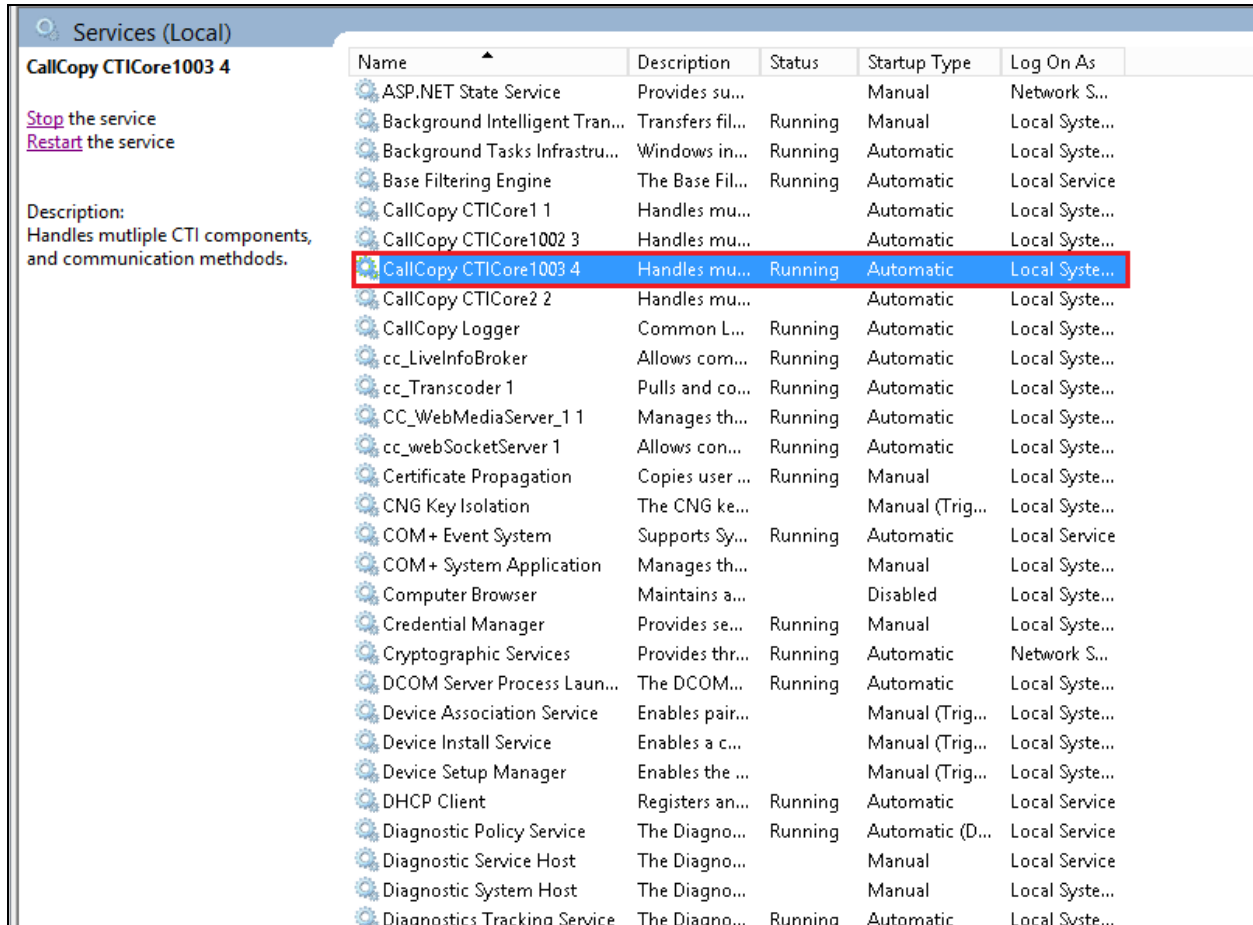
0:05

0:09

8.5. Verify inContact Services

If these recordings are not present or cannot be played back the **CallCopy CTICore** service may not be running or may need to be restarted. The inContact Call Recording server can be logged into and checked to ensure that the **CallCopy CTICore** service is running.

There may be a number of **CallCopy CTICore** services running depending on the number of connections to the PBX that are in place.



The screenshot shows the Windows Services console with the 'Services (Local)' window open. The 'CallCopy CTICore1003 4' service is selected and highlighted in blue. The service is running and has an automatic startup type. The left pane shows the service name and options to stop or restart it. The right pane shows a list of services with columns for Name, Description, Status, Startup Type, and Log On As.

Name	Description	Status	Startup Type	Log On As
ASP.NET State Service	Provides su...		Manual	Network S...
Background Intelligent Tran...	Transfers fil...	Running	Manual	Local Syste...
Background Tasks Infrastru...	Windows in...	Running	Automatic	Local Syste...
Base Filtering Engine	The Base Fil...	Running	Automatic	Local Service
CallCopy CTICore1 1	Handles mu...		Automatic	Local Syste...
CallCopy CTICore1002 3	Handles mu...		Automatic	Local Syste...
CallCopy CTICore1003 4	Handles mu...	Running	Automatic	Local Syste...
CallCopy CTICore2 2	Handles mu...		Automatic	Local Syste...
CallCopy Logger	Common L...	Running	Automatic	Local Syste...
cc_LiveInfoBroker	Allows com...	Running	Automatic	Local Syste...
cc_Transcoder 1	Pulls and co...	Running	Automatic	Local Syste...
CC_WebMediaServer_1 1	Manages th...	Running	Automatic	Local Syste...
cc_webSocketServer 1	Allows con...	Running	Automatic	Local Syste...
Certificate Propagation	Copies user ...	Running	Manual	Local Syste...
CNG Key Isolation	The CNG ke...		Manual (Trig...	Local Syste...
COM+ Event System	Supports Sy...	Running	Automatic	Local Service
COM+ System Application	Manages th...		Manual	Local Syste...
Computer Browser	Maintains a...		Disabled	Local Syste...
Credential Manager	Provides se...	Running	Manual	Local Syste...
Cryptographic Services	Provides thr...	Running	Automatic	Network S...
DCOM Server Process Laun...	The DCOM...	Running	Automatic	Local Syste...
Device Association Service	Enables pair...		Manual (Trig...	Local Syste...
Device Install Service	Enables a c...		Manual (Trig...	Local Syste...
Device Setup Manager	Enables the ...		Manual (Trig...	Local Syste...
DHCP Client	Registers an...	Running	Automatic	Local Service
Diagnostic Policy Service	The Diagno...	Running	Automatic (D...	Local Service
Diagnostic Service Host	The Diagno...		Manual	Local Service
Diagnostic System Host	The Diagno...		Manual	Local Syste...
Diagnostics Tracking Service	The Diagno...	Running	Automatic	Local Syste...

9. Conclusion

These Application Notes describe the configuration steps required for inContact Call Recording from inContact to successfully interoperate with Avaya Aura® Communication Manager R7.0 using Avaya Aura® Application Enablement Services R7.0 to connect to using DMCC Service Observe to record calls. All feature functionality and serviceability test cases were completed successfully with some issues and observations noted in **Section 2.2**.

10. Additional References

This section references the Avaya and inContact product documentation that are relevant to these Application Notes. Product documentation for Avaya products may be found at <http://support.avaya.com>.

- [1] *Administering Avaya Aura® Communication Manager*, Document ID 03-300509
- [2] *Avaya Aura® Communication Manager Feature Description and Implementation*, Document ID 555-245-205
- [3] *Avaya Aura® Application Enablement Services Administration and Maintenance Guide* Release 7.0

Technical support can be obtained for inContact Call Recording from the website <http://www.uptivity.com/contact> or from the following.

Telephone

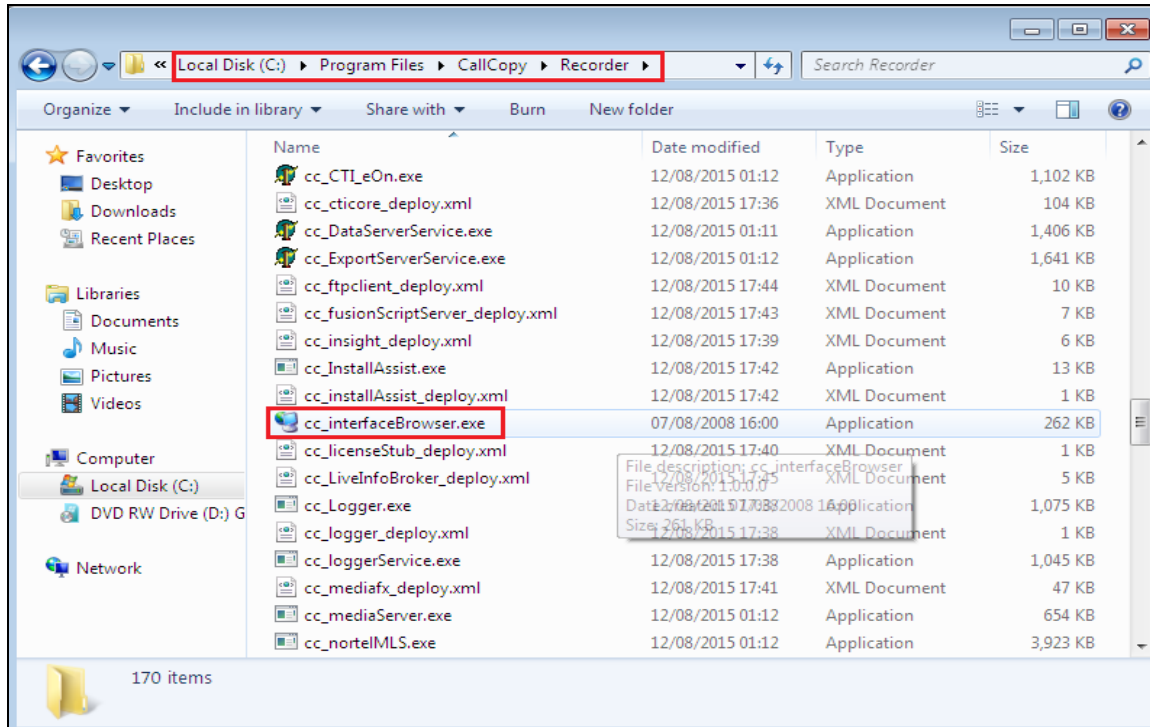
Toll-free: 888-922-5526
Direct/International: 614-340-3346
Fax: 614-340-4840
Support: 888-922-5526, option 2

Email

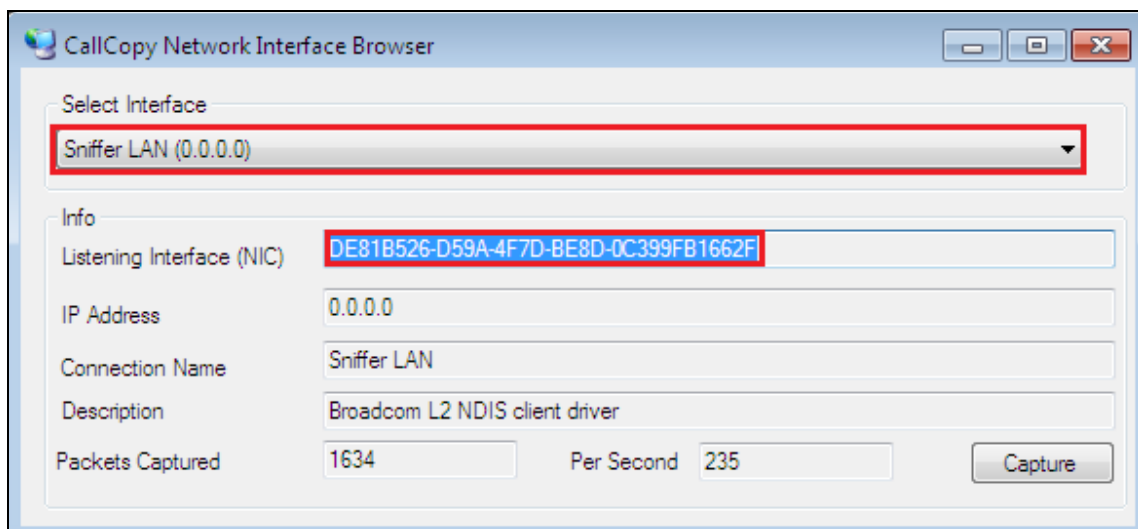
support@uptivity.com

Appendix A

Open the application called **cc_interfaceBrowser.exe**, this should be located in **Program Files** → **CallCopy** → **Recorder** folder.



Select the correct Network Interface which is used to capture the RTP from the data switch. The **Listening Interface** should then be populated and this is used for the setup of the inContact Call Recording server in **Section 7**.



Appendix B

Avaya one-X® Agent Softphone

This is a printout of the Avaya one-X® Agent softphone used during compliance testing.

display station 7011		Page 1 of 5
STATION		
Extension: 2100	Lock Messages? n	BCC: 0
Type: 9630	Security Code: *	TN: 1
Port: S00031	Coverage Path 1:	COR: 1
Name: one-X Agent1	Coverage Path 2:	COS: 1
	Hunt-to Station:	Tests? y
STATION OPTIONS		
Location:	Time of Day Lock Table:	
Loss Group: 19	Personalized Ringing Pattern: 1	
	Message Lamp Ext: 7011	
Speakerphone: 2-way	Mute Button Enabled? y	
Display Language: english	Button Modules: 0	
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	

display station 7011		Page 2 of 5
STATION		
FEATURE OPTIONS		
LWC Reception: spe	Auto Select Any Idle Appearance? n	
LWC Activation? y	Coverage Msg Retrieval? y	
LWC Log External Calls? n	Auto Answer: none	
CDR Privacy? n	Data Restriction? n	
Redirect Notification? y	Idle Appearance Preference? n	
Per Button Ring Control? n	Bridged Idle Line Preference? n	
Bridged Call Alerting? n	Restrict Last Appearance? y	
Active Station Ringing: single	EMU Login Allowed? n	
H.320 Conversion? n	Per Station CPN - Send Calling Number?	
Service Link Mode: as-needed	EC500 State: enabled	
Multimedia Mode: enhanced	Audible Message Waiting? n	
MWI Served User Type:	Display Client Redirection? n	
AUDIX Name:	Select Last Used Appearance? n	
	Coverage After Forwarding? s	
	Multimedia Early Answer? n	
Remote Softphone Emergency Calls: as-on-local	Direct IP-IP Audio Connections? y	
Emergency Location Ext: 7011	Always Use? n IP Audio Hairpinning? n	

display station 7011	STATION	Page 3 of 5
<p>Conf/Trans on Primary Appearance? n</p> <p>Bridged Appearance Origination Restriction? n</p>		
<p>Call Appearance Display Format: disp-param-default</p> <p>IP Phone Group ID:</p> <p>Enhanced Callr-Info Display for 1-Line Phones? n</p>		
ENHANCED CALL FORWARDING		
	Forwarded Destination	Active
Unconditional For Internal Calls To: 1000		n
External Calls To: 1000		n
Busy For Internal Calls To:		n
External Calls To:		n
No Reply For Internal Calls To:		n
External Calls To:		n
SAC/CF Override: n		

display station 7011	STATION	Page 4 of 5
SITE DATA		
Room:		Headset? n
Jack:		Speaker? n
Cable:		Mounting: d
Floor:		Cord Length: 0
Building:		Set Color:
ABBREVIATED DIALING		
List1:	List2:	List3:
BUTTON ASSIGNMENTS		
1: call-appr	5: manual-in	Grp:
2: call-appr	6: after-call	Grp:
3: call-appr	7: aux-work	RC: Grp:
4: auto-in	8:	
voice-mail		

Avaya 9608 H.323 Deskphone

This is a printout of the Avaya 9608 H.323 deskphone used during compliance testing.

display station 7000	Page 1 of 5	
STATION		
Extension: 7000	Lock Messages? n	BCC: 0
Type: 9608	Security Code: *	TN: 1
Port: S00000	Coverage Path 1: 1	COR: 1
Name: Ext2000	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: 7000	
Speakerphone: 2-way	Mute Button Enabled? y	
Display Language: english	Button Modules: 0	
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: yes	
	Customizable Labels? y	

display station 7000	Page 2 of 5
STATION	
FEATURE OPTIONS	
LWC Reception: spe	Auto Select Any Idle Appearance? n
LWC Activation? y	Coverage Msg Retrieval? y
LWC Log External Calls? n	Auto Answer: none
CDR Privacy? n	Data Restriction? n
Redirect Notification? y	Idle Appearance Preference? n
Per Button Ring Control? n	Bridged Idle Line Preference? n
Bridged Call Alerting? n	Restrict Last Appearance? y
Active Station Ringing: single	
	EMU Login Allowed? n
H.320 Conversion? n	Per Station CPN - Send Calling Number?
Service Link Mode: as-needed	EC500 State: enabled
Multimedia Mode: enhanced	Audible Message Waiting? n
MWI Served User Type: sip-adjunct	Display Client Redirection? n
	Select Last Used Appearance? n
	Coverage After Forwarding? s
	Multimedia Early Answer? n
Remote Softphone Emergency Calls: as-on-local	Direct IP-IP Audio Connections? y
Emergency Location Ext: 7000	Always Use? n IP Audio Hairpinning? n

display station 7000 Page 3 of 5

STATION

```

Conf/Trans on Primary Appearance? n
Bridged Appearance Origination Restriction? n    Offline Call Logging? y
Require Mutual Authentication if TLS? n

```

```

Call Appearance Display Format: disp-param-default
IP Phone Group ID:
Enhanced Callr-Info Display for 1-Line Phones? n

```

ENHANCED CALL FORWARDING

				Forwarded Destination	Active
Unconditional	For	Internal Calls To:			n
		External Calls To:			n
Busy	For	Internal Calls To:			n
		External Calls To:			n
No Reply	For	Internal Calls To:			n
		External Calls To:			n

SAC/CF Override: n

display station 7000 Page 4 of 5

STATION

SITE DATA

```

Room:                               Headset? n
Jack:                               Speaker? n
Cable:                             Mounting: d
Floor:                             Cord Length: 0
Building:                           Set Color:

```

ABBREVIATED DIALING

```
List1:      List2:      List3:
```

BUTTON ASSIGNMENTS

```
1: call-appr          5: call-park
2: call-appr          6:
3: call-appr          7:
4: extnd-call         8:
```

voice-mail

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