

Avaya Solution & Interoperability Test Lab

Application Notes for NICE Engage Platform R7.3 with Avaya Aura® Communication Manager R10.1 and Avaya Aura® Application Enablement Services R10.1 using DMCC Multiple Registration for Stereo Recording - Issue 1.0

Abstract

These Application Notes describe the configuration steps for the NICE Engage Platform to interoperate with Avaya Aura® Communication Manager R10.1, Avaya Aura® Session Manager R10.1, and Avaya Aura® Application Enablement Services R10.1 using DMCC Multiple Registration to record telephone calls.

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 NICE Engage Platform R7.3 to interoperate with Avaya Aura® Communication Manager R10.1, Avaya Aura® Session Manager R10.1, and Avaya Aura® Application Enablement Services R10.1. NICE Engage Platform uses Avaya Aura® Communication Manager Multiple Registration feature via the Avaya Aura® Application Enablement Services (AES) Device, Media, and Call Control (DMCC) interface and the Telephony Services Application Programming Interface (TSAPI) to capture the audio and call details for call recording on various Communication Manager H.323, SIP and Digital endpoints, listed in **Section 4**.

Device Media Call Control (DMCC) allows software vendors to create soft phones, in memory on a recording server, and use them to monitor and record other phones. This is purely a software solution and does not require telephony boards or any wiring beyond a typical network infrastructure.

NICE Engage Platform provides the ability to record multi-channel interactions across the organization for regulatory compliance and to utilize these interactions for multiple business applications in order to extract insights and gain value. The platform tightly integrates with the telephony environment via CTI, APIs and SIP and stores the metadata in a single recording platform to ensure regulatory adherence and standardized workforce optimization processes across multiple channels. It provides comprehensive search tools and media retrieval, as well as a wide variety of Real-Time capabilities for PCI compliance and advanced applications.

The NICE Engage Platform uses the Multiple Registration method to record the calls, using the TSAPI connection to monitor the events necessary to start and stop the recordings. The application uses the AES DMCC service to register itself as a recording device at the target extension. When the target extension joins a call, the application automatically receives the call's aggregated RTP media streams via the recording device and records the call, in stereo.

2. General Test Approach and Test Results

The interoperability compliance testing evaluated the ability of the NICE Engage Platform to carry out call recording in a variety of scenarios using DMCC Multiple Registration. 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.

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 Avaya systems and NICE Engage Platform did not include use of any specific encryption features as requested by NICE.

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.
- **Feature calls** Test call recording for calls that are parked or picked up using Call Park, Call Pickup, Bridged Appearance and Service Observing.
- Calls to Elite Agents Test call recording for calls to Communication Manager agents logged into Avaya Agent for Desktop.
- **Serviceability testing** The behavior of NICE Engage Platform under different simulated failure conditions.

2.2. Test Results

Most functionality and serviceability test cases were completed successfully. The following observations were noted.

- Observing a station/user/extension that is not monitored from a station/user/extension that is monitored can cause no CTI events on the observer. Recordings will appear in NICE Business Analyser (NBA), according to pre-configured Total Recording Solution (TRS) insertion time out (default 5h). During testing, NICE decreased time out to get stored recordings.
- An issue was observed with calling from a SIP phone with a Bridged Appearance call button configured. There were no call start events from TSAPI to allow the call to be logged. This only happens with Bridged Appearance from a SIP phone, if a Bridged Appearance was configured on a H.323 phone the events were sent and the call was recorded. Since the call was recorded, a workaround is to have TRS applied similar to above. Avaya are aware of the issue, and this has been raised previously.

2.3. Support

Technical support can be obtained for NICE Engage Platform from the website https://www.nice.com/contact-us

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3. Reference Configuration

The configuration in **Figure 1** was used to compliance test NICE Engage Platform with the Avaya solution using DMCC Multiple Registration to record calls. The NICE Application Server is set up for DMCC Multiple Registration and connects to AES.

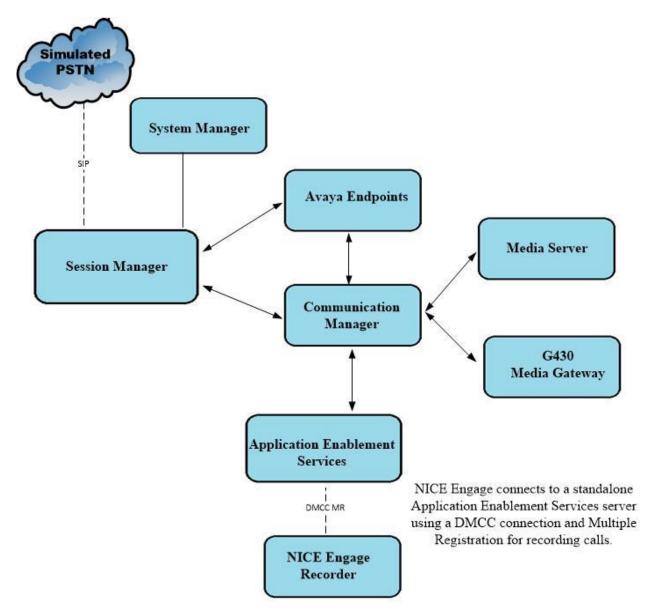


Figure 1: Connection of NICE Engage Platform R7.3 with Avaya Aura® Communication Manager R10.1, Avaya Aura® Session Manager R10.1 and Avaya Aura® Application Enablement Services R10.1

4. Equipment and Software Validated

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

Avaya Equipment / Software	Release / Version
Avaya Aura® System Manager	System Manager 10.1.0.2 Build No. – 10.1.0.0.537353 Software Update Revision No: 10.1.0.2.0715160 Service Pack 2
Avaya Aura® Session Manager	Session Manager R10.1 Build No. – 10.1.0.2.1010219
Avaya Aura® Communication Manager	R10.1.0.2.0 – SP2 R020x.01.0.974.0 Update ID 01.0.974.0-27607
Avaya Aura® Application Enablement Services	10.1.0 Build 10.1.0.2.0.12-0
Avaya Aura® Media Server	10.1.0.101
Avaya G430 Media Gateway	42.7.0 /2
Avaya 9404 Digital Phones	17.0
Avaya J100 Series Phones (SIP)	7.1.2.0.14
Avaya J100 Series Phones (H.323)	7.0.14.0.7
Avaya Agent for Desktop (SIP)	2.0.6.23.3005
Avaya Workplace (SIP)	3.26.0.64
Avaya Session Border Controller for Enterprise (to facilitate simulated PSTN)	10.1.0
NICE Equipment / Software	Release / Version
 NICE Engage Platform NICE Engage Application Server NICE Advanced Interactions Recording Server NICE Engage NDM Server 	7.3

All Equipment is running on virtual servers on VMware.

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 4**, ensure that **Computer Telephony Adjunct Links?** is set to **y** as shown below.

```
4 of 12
display system-parameters customer-options
                                                              Page
                                OPTIONAL FEATURES
    Abbreviated Dialing Enhanced List? y
                                                 Audible Message Waiting? y
                                                  Authorization Codes? y
        Access Security Gateway (ASG)? 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? y
ASAI Link Plus Capabilities? y
          ASAI Link Core Capabilities? y
                                                        DCS Call Coverage? y
                                                        DCS with Rerouting? y
      Async. Transfer Mode (ATM) PNC? n
 Async. Transfer Mode (ATM) Trunking? n Digital Loss Plan Modification? y
             ATM WAN Spare Processor? n DS1 MSP? y
ATMS? y DS1 Echo Cancellation? y
                  Attendant Vectoring? y
        (NOTE: You must logoff & login to effect the permission changes.)
```

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

Display the Communication Manager (procr) IP address by using the command **display nodenames ip** and note the IP address for the **procr** and the AES.

display node-na	Page	1 of	2		
		IP NODE NAMES			
Name	IP Address				
SM100	10.10.40.12				
aespri101x	10.10.40.16				
default	0.0.0.0				
g450	10.10.40.15				
procr	10.10.40.13				

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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 0.
- Local Port: Retain the default value of 8765.

IP SERVICESServiceEnabledLocalLocalRemoteTypeNodePortNodeAESVCSyprocr8765	Remote Port	e	

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 aespri101x.
- **Password:** Enter a password to be administered on AES.
- Enabled: Set to y.

Note: The password entered for **Password** field must match the password on AES in **Section 6.2**. The **AE Services Server** should 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-serv		Services Adminis	stration	Page 4 of	4
Server ID	AE Services Server	Password	Enabled	Status	
1: 2: 3:	aespri101x	*****	У	in use	

5.4. Configure CTI Link for TSAPI Service

Add a CTI link using the **add cti-link n** command. 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: 1
      CTI LINK

      Extension: 1990
      Variable

      Type: ADJ-IP
      COR: 1

      Name: aespri101x
      COR: 1
```

5.5. Configure H.323 Stations for Multiple Registration

All endpoints that are to be monitored by NICE will need to have **IP Softphone** set to y. IP Softphone must be enabled for Multiple Registration 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 during the NICE Recorder setup in **Section 7.1**. Note the **Security Code** and ensure that **IP SoftPhone** is set to **y**.

change station 1001	Page	1 of	6
Extension: 1001	Lock Messages? n	BCC:	0
Type: 9608	Security Code: 1234	TN:	1
Port: S00101	Coverage Path 1:	COR:	1
Name: Extension	Coverage Path 2:	COS:	1
	Hunt-to Station:		
STATION OPTIONS			
	Time of Day Lock Table:		
Loss Group:	19 Personalized Ringing Pattern:	1	
	Message Lamp Ext:	1001	
Speakerphone:	2-way Mute Button Enabled?	У	
Display Language: Survivable GK Node Name:	english		
Survivable COR:	internal Media Complex Ext:		
Survivable Trunk Dest?	y IP SoftPhone?	У	
	IP Video Softphone?	n	
	Short/Prefixed Registration Allowed:	default	
	IP Video Softphone?	n	
	Short/Prefixed Registration Allowed:		

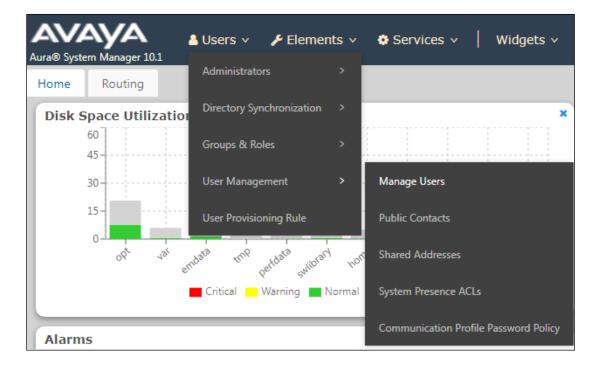
5.6. Configure SIP Stations for Multiple Registration

Each Avaya SIP endpoint or station that needs to be monitored for call recording will need to have "Type of 3PCC Enabled" set to "Avaya" and "Softphone" set to "Yes". Changes to SIP phones on Communication Manager must be carried out from System Manager. Access the System Manager using a Web Browser by entering http://<FQDN >/network-login, where <FQDN> is the fully qualified domain name of System Manager or the IP address of System Manager can be used as an alternative to the FQDN. Log in using appropriate credentials.

Note: The following shows changes a SIP extension and assumes that the SIP extension has been programmed correctly and is fully functioning.

System Manager × +	V -	- 0
> C A Not secure https://10.10.40.10/network-login/	ピ ☆	
Recommended access to System Manager is via FQDN.		
Go to central login for Single Sign-On	User ID:	
If IP address access is your only option, then note that authentication will fail in the following cases:	Password:	
First time login with "admin" account Expired/Reset passwords	Log On Cancel	
Use the "Change Password" hyperlink on this page to change the password manually, and then login.	Change Password	
Also note that single sign-on between servers in the same security domain is not supported when accessing via IP address.		
	Supported Browsers: Firefox (minimum version 93.0), Chrome (minimum version 91.0) or Edge (minimum version 93.0).	
This system is restricted solely to authorized users for legitimate business purposes only. The actual or attempted unauthorized access, use, or modification of this system is strictly prohibited.		
Unauthorized users are subject to company disciplinary procedures and or criminal and civil penalties under state, federal, or other applicable domestic and foreign laws.		

From the home page, click on Users \rightarrow User Management \rightarrow Manage Users, as shown below.



Management ^ Home	命 / Users	8 / Manage Users				
Manage Users	earch		Q			
Public Contacts	⊚ View		為 Duplicate	More Actions V		Options
Shared Addresses		First Name 🖨 🛛	Surname 🛊 🛛	Display Name 🖨 🛛	Login Name 🖨 🖓	SIP Handle 🛛
System Presence ACLs		Agent One	Workspaces	Agent One Workspaces	3101@greaneyp.sil6.ava ya.com	3101
Communication Profile		Ascom	DECT_3181	DECT_3181, Ascom	3181@greaneyp.sil6.ava ya.com	3181
		Ascom	DECT_3182	DECT_3182, Ascom	3182@greaneyp.sil6.ava ya.com	3182
		admin	admin	Default Administrator	admin	
		J179	H323	H323, J179	3001@greaneyp.sil6.ava ya.com	
		Vantage01	K175	K175, Vantage01	3115@greaneyp.sil6.ava ya.com	3115
		Paul	Greaney	Paul Greaney	paul@greaneyp.sil6.avay a.com	
<		AAfD	SIP	SIP, AAfD	3111@greaneyp.sil6.ava va.com	3111

Click on Manager Users in the left window. Select the station to be edited and click on Edit.

Click on the **CM Endpoint Profile** tab in the left window. Click on **Endpoint Editor** to make changes to the SIP station.

e☆ / Users ႙ / Manage L	Jsers					Hel
lser Profile Edit	3101@g	reaneyp.sil6.avaya.co	m	🗈 Commit & Continue	🖻 Commit	⊗ Cancel
Identity Communica	ation Profile	Membership Conta	cts			
Communication Profile Pass	word					
PROFILE SET : Primary	~	* System :	cm101x ~	* Profile Type :	Endpoint	Editor
Communication Address		Use Existing Endpoints :		* Extension :	3101	
PROFILES						
Session Manager Profile		Template :	Start typing Q	* Set Type :	9641SIPCC	
Avaya Breeze® Profile		Security Code:	Enter Security Code	Port:	S000003	Q
CM Endpoint Profile		Voice Mail Number :	6667	Preferred Handle :	Select	
			0007		Select	~
		Calculate Route Pattern:		Sip Trunk :	aar	

In the **General Options** tab ensure that **Type of 3PCC Enabled** is set to **Avaya** as is shown below. Click on **Done**, at the bottom of the screen, once this is set, (not shown).

System	cm101x		Extension	3101
Template	Select	~	Set Type	9641SIPCC
Port	S000003		Security Code	
Name	Agent One Worksp	aces		
General Options (G) * Fo	eature Options (F)	Site Data (S)	Abbreviated Call Dialing (A)	Enhanced Call Fwd (E)
Button Assignment (B)	Profile Settings (P)	Group Member	r ship (M)	
* Class of Restriction (CO	R) 1		* Class Of Service (COS)	1
* Emergency Location Ext	3101		* Message Lamp Ext.	3101
* Tenant Number	1			
* SIP Trunk	Q aar		Type of 3PCC Enabled	Avaya 🗸
Coverage Path 1			Coverage Path 2	
Lock Message			Localized Display Name	Agent One Workspaces
Multibyte Language	Not Applicable	\checkmark	Enable Reachability for Station Domain Control	system 🗸
SIP URI				
⊢ Primary Session Manag	jer			
IPv4:	10.10.40.12		IPv6:	

Click on the **Feature Options** tab and ensure that **IP Softphone** is ticked as shown. Click on **Done** at the bottom of the screen once this is set.

General Options (G) *	Feature Options (F)	Site Data (S) Abbreviated Call Dialin	g (A) Enhanced Call Fwd (E)
Button Assignment (B)	Profile Settings (P)	Group Membership (M)	
Active Station Ringing	single 🗸	Auto Answer	none 🗸
MWI Served User Type	None 🗸	Coverage After Forwarding	system 💙
Per Station CPN - Send Calling Number	None 💙	Display Language	english 🗸
IP Phone Group ID		Hunt-to Station	
Remote Soft Phone Emergency Calls	as-on-local 💙	Loss Group	19
LWC Reception	spe 🗸	Survivable COR	internal 🗸
AUDIX Name	None 🗸	Time of Day Lock Table	None 🗸
Short/Prefixed Registration Allowed	default 🗸		
Voice Mail Number	6667	Music Source	
Bridging Tone for This Extension	no 🗸		
Features			
Always Use		Idle Appearance Providence Pro	reference
IP Audio Hairping	ning	IP SoftPhone	
Bridged Call Aler	ting	LWC Activation	
Bridged Idle Line	Preference	CDR Privacy	
Coverage Messag	ge Retrieval	Precedence Call W	aiting

The buttons were set as shown below but these are not critical to the overall operation of the call recording. Click on **Done** at the bottom of the screen (not shown).

Click on **Commit** to save the changes.

User Pro	file Edit 310	1@greaneyp.sil6.avay	🖻 Commit & Continue	Commit Cancel	
Identity	Communication F	Profile Membership	Contacts		
	tion Profile Password ET : Primary ~	* Sys	stem: cm101x	Profile Type	Endpoint v
Communic	ation Address	Use Existing Endpo	oints:	* Extension	3101 🖵 💆
PROFILES					
Session Ma	anager Profile		plate: Start typing	Q * Set Type	9641SIPCC
Avaya Bree	eze® Profile	Security C	Code: Enter Security Code	Port	S000003 Q
CM Endpo	int Profile	Voice Mail Num	mber: 6667	Preferred Handle	Select ~
		Calculate Route Pat	ttern:	Sip Trunk	aar

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
- Configure Networking Ports
- Create CTI User
- Configure Security
- Restart AE Server

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.

AVAYA	Application Enablement Services Management Console	
		Help
	Please login here: Username Continue	
	Copyright © 2009-2022 Avaya Inc. All Rights Reserved.	

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

VLAN	AE Services				
DLG					
▶ DMCC	IMPORTANT: AE Services must be restart Changes to the Security Database do not	ed for administrative changes to fully take eff require a restart.	ect.		
SMS TSAPI	Service	Status	State	License Mode	Cause*
	ASAI Link Manager	N/A	Running	N/A	N/A
TWS	CVLAN Service	OFFLINE	Running	N/A	N/A
mmunication Manager terface	DLG Service	OFFLINE	Running	N/A	N/A
gh Availability	DMCC Service	ONLINE	Running	NORMAL MODE	N/A
	TSAPI Service	ONLINE	Running	NORMAL MODE	N/A
ensing	Transport Layer Service	N/A	Running	N/A	N/A
ntenance	AE Services HA	Not Configured	N/A	N/A	N/A
etworking	For status on actual services, please use Stat	us and Control			
curity					
atus	* For more detail, please mouse over the Cau	ise, you'll see the tooltip, or go to help page.			
er Management	License Information You are licensed to run Application Enablement	(CTI) release 8 x			
tilities					

The TSAPI and DMCC licenses are user licenses issued by the Web License Manager to which the Application Enablement Services server is pointed to. From the left window open **Licensing** and click on **WebLM Server Access** as shown below.

Licensing	
 AE Services Communication Manager Interface 	Licensing
High Availability	If you are setting up and maintaining the WebLM, you need to use the following:
▼ Licensing	WebLM Server Address
WebLM Server Address	If you are importing, setting up and maintaining the license, you need to use the following: • WebLM Server Access
WebLM Server Access	
Reserved Licenses	If you want to administer TSAPI Reserved Licenses or DMCC Reserved Licenses, you need to use the following:
Maintenance	Reserved Licenses
Networking	NOTE: Please disable your pop-up blocker if you are having difficulty with opening this page
> Security	
▶ Status	
▶ User Management	
Utilities	
▶ Help	

The following screen shows the available licenses for **TSAPI** and **DMCC** users.

 Application_Enablement 	License File Host IDs:				
View license capacity					
View peak usage	Licensed Features	the second free bases			
ASBCE					
Session_Border_Controller_E_AE	10 Items 🔮 Show All 🗸				
AVAYA_OCEANA	Feature (License Keyword)	Expiration data	Licensed capacity		
▶Avaya_Oceana	Unified CC API Desktop Edition	expiration date	cicensed capacity		
CCTR	VALUE_AES_AEC_UNIFIED_CC_DESKTOP	permanent	44		
▶ ContactCenter	CVLAN ASAI VALUE_AES_CVLAN_ASAI	permanent	44		
CE	Device Media and Call Control	permanent	44		
COLLABORATION_ENVIRONMENT	VALUE_AES_DMCC_DMC	permanent			
COLLABORATION_DESIGNER	AES ADVANCED SMALL SWITCH VALUE_AES_AEC_SMALL_ADVANCED	permanent	4		
 Collaboration_Designer 	DLG	permanent	44		
COLLABORATIVE_BROWSING_SNAP-IN	VALUE_AES_DLG				
Collaborative_Browsing_Snap_In	TSAPI Simultaneous Users VALUE_AES_TSAPI_USERS	permanent	44		
COMMUNICATION_MANAGER	AES ADVANCED LARGE SWITCH	permanent	4		
▶ Call_Center	VALUE_AES_AEC_LARGE_ADVANCED				
Communication Manager	CVLAN Proprietary Links VALUE AES PROPRIETARY LINKS	permanent	44		

6.2. Create Switch Connection

Typically, the connection between the AES and Communication Manager is set up as part of the initial installation and would not usually be outlined in these Application Notes. Due to the nature of this particular setup with two connections from Communication Manager to two separate AES's the switch connection will be displayed on this section. From the AES Management Console navigate to **Communication Manager Interface** \rightarrow **Switch Connections**, the connection to Communication Manager should be present as shown below but if one is not present one can be added by clicking on **Add Connection**.

AVAYA	Application Enablement Services Management Console			5		Number of prior f HostName/IP: ae Server Offer Type SW Version: 10.1	p 9 17:54:25 2022 from 192.168.40.240 failed login attempts: 0 sprilo1X/10.10.40.16 a: VIRTUAL_APPLIANCE_ON_VMWARE L.0.1.0.7-0 Time: Tue Sep 20 15:52:43 IST 2022
Communication Manager Interface	e Switch Connection	s					Home Help Logout
AE Services Communication Manager Interface Switch Connections	Switch Connectio		nnection				
Dial Plan	Connectio	n Name	Processor Ethernet		Msg Peri	od Numb	per of Active Connections
High Availability	● cm101x	Yes			30	1	
▶ Licensing	Edit Connection	Edit PE/CLAN IPs	Edit Signaling Details	Delet	te Connection	Survivability Hierarchy	
▶ Maintenance		·					2
Networking							

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** Error! Reference source not found.. A connection from the NICE server to the AES could not be made with **Secure H323 Connection** ticked and so this was left unticked, as shown below. Click **Apply** to save changes.

Communication Manager Interface Switch Connections					
AE Services					
Communication Manager Interface	Connection Details - cm101x				
Switch Connections	Switch Password	•••••]		
▶ Dial Plan	Confirm Switch Password	•••••]		
High Availability	Msg Period	30	Minutes (1 - 72)		
▶ Licensing	Provide AE Services certificate to switch				
▶ Maintenance	Secure H323 Connection				
 Networking 	Processor Ethernet				
	Enable TLS Certificate Validation				
Security	Apply Cancel				
▶ Status					
Vser Management					

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 0** that will be used for the AES connection and select the **Add/Edit Name or IP** button.

Communication Manager Interface Switch Connections Home Help Logout					
AE Services					
Communication Manager Interface	Edit Processor Ethernet IP - cm101x				
Switch Connections	10.10.40.13 Add/Edit Name or IP				
Dial Plan	Name or IP Address	Status			
High Availability	10.10.40.13	In Use			
▶ Licensing	Back				
▶ Maintenance					

AVAYA	Application Enab Manageme			Welcome: User cust Last login: Fri Sep 9 17:54:25 2022 from 192.168.40.240 Number of prior failed login attempts: 0 HostName/IP: aespri101x/10.10.40.16 Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE SW Version: 10.1.0.10.7-0 Server Date and Time: Tue Sep 20 15:52:43 IST 2022 HA Status: Not Configured
Communication Manager Interfac	ce Switch Connections			Home Help Logout
AE Services Communication Manager Interface Switch Connections	Switch Connections	dd Connection		
Dial Plan	Connection Name	Processor Ethernet	Msg Period	Number of Active Connections
High Availability	• cm101x	Yes	30	1
 Licensing Maintenance Networking 	Edit Connection Edit PE/CLA	N IPs Edit Signaling Details Details	elete Connection	Survivability Hierarchy

Clicking on **Edit Signaling Details** below brings up the H.323 Gatekeeper page.

The IP address of Communication Manager is set for the **H.323 Gatekeeper**, as shown below.

Communication Manager Interface Switch Connections				
▶ AE Services				
Communication Manager Switch Connections				
Switch Connections	Edit H.323 Gatekeeper - cm101x			
▶ Dial Plan	Add Name or IP			
High Availability	Name or IP Address			
▶ Licensing	10.10.40.13			
Maintenance	Delete IP			
▶ Networking				

6.3. Administer TSAPI link

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

AE Services TSAPI TSAPI Links	
▼ AE Services	
▶ CVLAN	TSAPI Links
▶ DLG	Link Switch Connection
▶ DMCC	Add Link Edit Link Delete Link
▶ SMS	
▼ TSAPI	
TSAPI Links	
 TSAPI Properties 	

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 cm101x, 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: 12** was used for compliance testing but the latest version available can be chosen).
- Security: This can be left at the default value of **both**. An unencrypted TSAPI link was used.

Once completed, select Apply Changes.

AE Services TSAPI TSAPI Links	
AE Services CVLAN	Edit TSAPI Links
▶ DLG	Link 1
▶ DMCC	Switch Connection cm101x V Switch CTI Link Number 1 V
▶ SMS	ASAI Link Version 12 V
TSAPITSAPI Links	Security Both ~
 TSAPI Properties 	Apply Changes Cancel Changes Advanced Settings
 TWS Communication Manager Interface 	

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

Apply Changes to Link
Warning! Are you sure you want to apply the changes? These changes can only take effect when the TSAPI server restarts.
Please use the Maintenance -> Service Controller page to restart the TSAPI server.
Apply Cancel

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

TSAPI Links				
Link	Switch Connection	Switch CTI Link #	ASAI Link Version	Security
O 1	cm101x	1	12	Both
Add Link Edit Link Delete Link				

6.4. Identify Tlinks

Navigate to **Security** \rightarrow **Security Database** \rightarrow **Tlinks**. Verify the value of the **Tlink Name**. This will be needed to configure NICE Inform Recorder in **Section 7.1**. The Tlink for the unencrypted TSAPI link was used.

Security Security Database Tlink	S
AE Services Communication Manager	Tlinks
Interface	
High Availability	Tlink Name
▶ Licensing	AVAYA#CM101X#CSTA#AESPRI101X
▶ Maintenance	O AVAYA#CM101X#CSTA-S#AESPRI101X
▶ Networking	Delete Tlink
Security	
Account Management	
▶ Audit	
Certificate Management	
Enterprise Directory	
▶ Host AA	
▶ PAM	
Security Database	
 Control 	
🗄 CTI Users	
 Devices 	
 Device Groups 	
 Tlinks 	
 Tlink Groups 	
 Worktops 	

6.5. Configure Networking Ports

To ensure that TSAPI ports are enabled, navigate to **Networking** \rightarrow **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**.

letworking Ports				
AE Services				
Communication Manager Interface	Ports			
High Availability	CVLAN Ports			Enabled Disabled
Licensing		Unencrypted TCP Port	9999	•
Maintenance		Encrypted TCP Port	9998	•
r Networking	DLG Port	TCP Port	5678	
AE Service IP (Local IP)	TSAPI Ports			Enabled Disabled
Network Configure	TSAPI PORS	TSAPI Service Port	450	
Ports		Local TLINK Ports	450	
TCP/TLS Settings		TCP Port Min	1024	
Security		TCP Port Max	1039	
Status		Unencrypted TLINK Ports		
		TCP Port Min	1050	
User Management		TCP Port Max	1065	
Utilities		Encrypted TLINK Ports		
Help		TCP Port Min	1066	
		TCP Port Max	1081	
	DMCC Server Ports			Enabled Disabled
		Unencrypted Port	4721	•
		Encrypted Port	4722	•
		TR/87 Port	4723	•
	H.323 Ports			
		TCP Port Min	20000	
		TCP Port Max	29999	
		Local UDP Port Min	20000	
		Local UDP Port Max	29999	
				Enabled Disabled
		Server Media		•

6.6. Create CTI User

A User ID and password needs to be configured for the NICE Engage Platform to communicate with the Application Enablement Services server. Navigate to the User Management \rightarrow User Admin screen then choose the Add User option.

User Management User Admin	
AE Services	
Communication Manager	User Admin
High Availability	User Admin provides you with the following options for managing AE Services users:
▶ Licensing	Add User
▶ Maintenance	Change User Password List All Users
▶ Networking	Modify Default User Search Users
▶ Security	
▶ Status	
🕶 User Management	
Service Admin	
▼ User Admin	
 Add User 	
 Change User Password 	
 List All Users 	
 Modify Default Users 	
 Search Users 	
▶ Utilities	
▶ Help	

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

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

High Availability	* User Id	nice1
▶ Licensing	* Common Name	nice1
▶ Maintenance	* Surname	nice1
▶ Networking	User Password	•••••
► Security	Confirm Password	•••••
▶ Status	Admin Note	
	Avaya Role	None 🗸
▼User Management	Business Category	
Service Admin	Car License	
▼User Admin	CM Home	
 Add User 	Css Home	
 Change User Password 	CT User	Yes 🗸
List All UsersModify Default Users	Department Number	
 Search Users 	Display Name	
► Utilities	Employee Number	
▶ Help	Employee Type	
	Enterprise Handle	

Scroll down and click on Apply Changes (not shown).

6.7. Configure Security

The CTI user permissions and the database security are set under Security Database.

6.7.1. Configure Database Control

The security database can be set differently depending on the requirements of the customer in question. For compliance testing, the DevConnect lab was setup as shown below, however this may be changed by opening **Control** and ticking the boxes shown.

Note: Since the CTI user was given unrestricted access, as per **Section 6.7.2**, these values set here do not impact the overall setup.

AE Services	
Communication Manager Interface	SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services
High Availability	Enable SDB for DMCC Service
▶ Licensing	Enable SDB for TSAPI Service, JTAPI and Telephony Web Services
▶ Maintenance	Apply Changes
▶ Networking	
▼ Security	
Account Management	
▶ Audit	
Certificate Management	
Enterprise Directory	
▶ Host AA	
▶ PAM	
Security Database	
Control CTI Users	

Note: The AES Security Database (SDB) provides the ability to control a user's access privileges. The SDB stores information about Computer Telephony (CT) users and the devices they control. The DMCC service, the TSAPI service, and Telephony Web Services use this information for permission checking. Please look to **Section** Error! Reference source not found. for more information on this.

6.7.2. Associate Devices with CTI User

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

 AE Services Communication Manager Interface 	CTI Users			
High Availability	User ID	Common Name	Worktop Name	Device ID
▶ Licensing	nice1	nice1	NONE	NONE
Maintenance				
▶ Networking	O paul1	paul1	NONE	NONE
▼ Security	O paul2	paul2	NONE	NONE
Account Management	O sytel	Sytel	NONE	NONE
Audit	Edit List All			I
Certificate Management				
Enterprise Directory				
Host AA				
▶ PAM				
Security Database				
 Control 				
CTI Users				
 List All Users 				
 Search Users 				

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

Edit CTI User		
User Profile:	User ID	nice1
	Common Name	nice1
	Worktop Name	NONE 🗸
	Unrestricted Access	<
Call and Device Control:	Call Origination/Termination and Device Status	None \checkmark
Call and Device Monitoring:	Device Monitoring	None 🗸
	Calls On A Device Monitoring	None \checkmark
	Call Monitoring	
Routing Control:	Allow Routing on Listed Devices	None 🗸
Apply Changes Cancel Changes		

6.8. Restart AE Server

Once everything is configured correctly, it is best practice to restart AE Server (if possible), this will ensure that the new connections are brought up correctly. Click on the **Restart AE Server** button at the bottom of the screen.

Maintenance Service Controller					
► AE Services					
Communication Manager Interface	Service Controll	er			
High Availability	Service	e Con	troller Status		
▶ Licensing	🗌 ASAI Link Ma	nager Run	ning		
✓ Maintenance	DMCC Servic	e Run	ning		
Date Time/NTP Server	CVLAN Servic DLG Service	e Runi Runi	-		
Security Database		ver Service Run	-		
Service Controller	TSAPI Servic				
Server Data	For status on actual	services, please i	use Status and Co	atrol	
▶ Networking		services, piease (<u></u>	
▹ Security	Start Stop R	estart Service	Restart AE Server	Restart Linux	Restart Web Server
▶ Status					

A message confirming the restart will appear, click on **Restart** to proceed.

Maintenance Service Controller	
 AE Services Communication Manager Interface High Availability Licensing Maintenance 	Restart AE Server Warning! Are you sure you want to restart? Restarting will cause all existing connections to be dropped and associations lost. Restart Cancel
Date Time/NTP Server Security Database Service Controller	
 Server Data 	

7. Configure NICE Engage Platform

The installation of NICE Engage Platform is usually carried out by an engineer from NICE and is outside the scope of these Application Notes. For information on the installation of the NICE Engage Platform, contact NICE as per the information provided in **Section 2.3**.

The following sections will outline the process involved in connecting the NICE Engage Platform to the Avaya Solution.

All configuration of the NICE Engage Platform for connection with the AES is performed using a web browser connecting to the NICE Engage Application Server. Open a web browser as shown navigate to http://<NICEEngageApplicationServerIP>/Nice as shown below and enter the proper credentials and click on Login.

← → G http://niceappwin2012/NiceApplications/Desktop/XbapApplications/NiceDesk	outbap 🔎 – 🕈 🏈 niceappwin2012 🛛 🗙 👘
Welcome	
to NICE Eng	ge Solutions
Userr	
Pass	show password
	Forgot your password?
Сору	ht © 2004-2014 NICE Systems Ltd. All rights reserved.

Once logged in, expand the **Administration** dropdown menu and click on **System Administrator** as highlighted.

Before any changes can be made, switch to **Technician Mode** by clicking into **Settings** at the top of the screen as shown below.

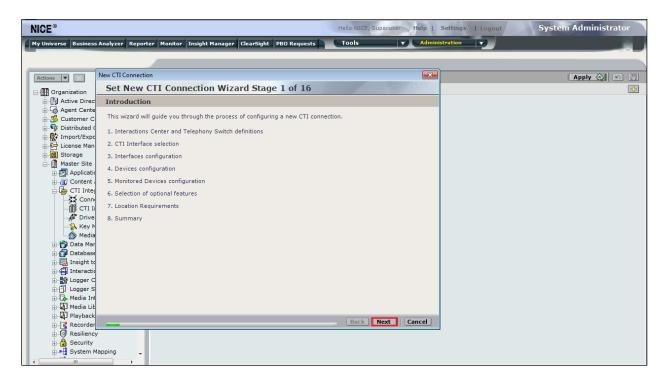
Hello NICE, Superuser Help Sett	ings Logout	System Administrator
Tools 🗸 Administrat	Change Password	
	Technician Mode	
		s e

7.1. New CTI Connection

Navigate to Master Site \rightarrow CTI Integration in the left window then right-click on CTI Integration and select New CTI Connection as shown below.

NICE®					Hello NICE, S	uperuser Help	Settings	Logout
My Universe Business Analyzer	Reporter Monito	r Insight Manager	ClearSight	PBO Requests	Tools	Admi	nistration	
Actions 🔻	M							
⊡ 🎹 Organization	Sumn	ary Resource	es 🔪 Diagr	am				
🕀 🎁 Active Directory								
🕀 🞝 Agent Center								
E Customer Center								
Distributed Cache								
⊕ 🕵 Import/Export ⊕ 🖙 License Manager								
⊕								
And the storage								
Applications								
🕀 🙀 Content Analysis								
	v CTI Connection	_						
-]↔[Conned	V CTI Connection							
CTI Interfaces	=							
Drivers								
Key Managers 👘 Media Provider C	Cont							
E Povider C	John							
Database Servers								

The **New CTI Connection Wizard** is opened, and this will go through the 16 steps required to set up the connection to the AES for DMCC Multiple Registration type of call recording. Click on **Next** to continue.



The value for **Regular Interactions Center** (**IC**) is a value that was already created during the installation of the NICE Engage platform. This value is therefore pre-chosen for the CTI connection being created below.

The **Telephony Switch** must be selected, and this will be **Avaya CM**. Enter a suitable name for this **Switch Name**. Click on **Next** to continue.

New CTI Connection	
Set New CTI Connection Wiza	rd Stage 2 of 16
Interactions Center Switch	
Attach CTI to Interactions Center Server:	
Regular Interactions Center:	IC
O Interactions Center Cluster:	· · · · · · · · · · · · · · · · · · ·
O Use existing Telephony Switch:	
Optime new Telephony Switch:	
Switch Type:	Avaya CM 🗸
Switch Name:	DevConnectCM
	Advanced >>
	Back Next Cancel

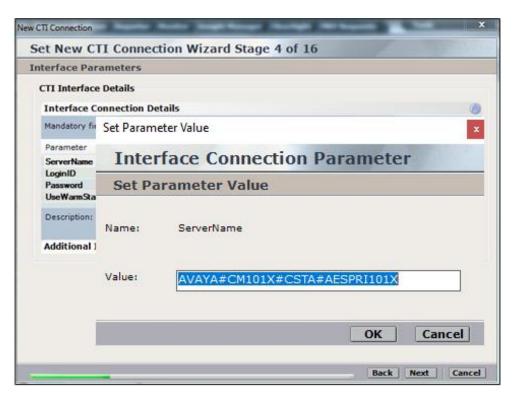
Select **AES TSAPI** for **Avaya CM CTI Interface**, ensure that **Active Recording** is ticked and select the **DMCC** (**Advanced Interaction Recorder**) from the dropdown menu. Click on **Next** to continue.

New CTI Connection					
Set New CTI Connec	Set New CTI Connection Wizard Stage 3 of 16				
Interface Type					
CTI Interface Type					
Avaya CM CTI Interface:	AES TSAPI				
	Avaya Communication Manager Avaya Application Enablement Services (AES) / Avaya CT - TSAPI				
VoIP Mapping:	AES SMS *				
Additional VoIP Mapping:	Generic SIP Mapper *				
Active Recording:	DMCC (Advanced Interaction Recorder)				
Active Necoluting.	Avaya Communication Manager Device Media and Call Control				
	Back Next Cancel				

Each of the values below must be filled in. Double-click on each **Parameter** to enter a value for that parameter.

New CTI Connection	
Set New CTI Connection Wi	zard Stage 4 of 16
Interface Parameters	
CTI Interface Details	
Interface Connection Details	
Mandatory fields are marked in bold	
Parameter	Value
ServerName	
LoginID Password	
UseWarmStandBy	No
Description: Server connection name.	
Additional Interface Parameters	S
	Back Next Cancel

Double-click on ServerName and enter the TSAPI Tlink Value from Section 6.4.



Double-click on **LoginID** and enter the username that was created in **Section 6.6**. Click on **OK**.

New CTI Connection		8
Set New C	TI Connectio	on Wizard Stage 4 of 16
Interface Par	ameters	
CTI Interface	Details	
Interface C	onnection Deta	ils
Mandatory fie	Set Paramete	r Value
Parameter ServerName	Interfa	ace Connection Parameter
LoginID Password	Set Para	meter Value
UseWarmStar		
Description:	Name:	PrimaryAESUserName
Additional 1		S
	Value:	nice1
		OK Cancel
		Back Next Cancel

Double-click on password and enter the value for the password that was created in Section 6.6.

New	CTI Connection					8
S	et New C	LI C	onnectio	n Wizard Stage 4 of 16		
In	iterface Par	ame	ters			
۲	CTI Interface	e Deta	nils			
	Interface C			-		
	Mandatory fie	lds ar	Set Parameter	Value 🛛 🖸		
	Parameter			ace Connection Parameter		
	ServerName LoginID		Set Para	ameter Value		
	Password UseWarmStar	ndBy	Name:	Password		
	Description:	User	Value:	*****		
	Additional I	nterf				8
				OK Cancel		
_				Back	Next	Cancel

Click on **Next** once these values are all filled in.

General Interface	(nfo			
Interface Connection	Details			8
Display Read Only In	formation Mar	ndatory fields are marked in bold	X Add	
Parameter		Value		
ServerName		AVAYA#CM101X#CSTA#AESPRI101X		
LoginID		nice1		
Password				
UseWarmStandBy		No		
Description: Server con	nection name.			
Additional Interface	Parameters			8

The values below must be filled in by double-clicking on each **Parameter**.

v CTI Connection		
Set New CTI Connection	on Wizard Stage 8 of 16	
Active Recording		
Active Recording Interface D	etails	
Interface Connection Detai	ils	0
Mandatory fields are marked in	bold	
Parameter	Value	
PrimaryAESServerAddress PrimaryAESDMCCPort PrimaryAESUserName		
PrimaryAESPassword		
Description: Additional Interface Param	eters	
Media Provider Controllers - L		e e

Enter the **Value** for the **AESServerAddress**, note this is the IP address of the AES server. Click on **OK**.

New CTI Connection	X
Set New CTI C	onnection Wizard Stage 8 of 16
Active Recording	
Active Recording 1	Interface Details
Interface Conne	ction Details 🛞
Mandatory fields a	Set Parameter Value
Parameter	Interface Connection Parameter
PrimaryAESServer/ PrimaryAESDMCCF	Set Parameter Value
PrimaryAESUserNa PrimaryAESPasswo	Name: PrimaryAESServerAddress
Description: AES	
Description All	Value: 10.10.40.16
Additional Inter	
Media Provider Co	OK Cancel
-	Back Next Cancel

Enter the **Value** for the **PrimaryAESDMCCPort**, note this will be the same port that was configured in **Section** Error! Reference source not found.. In this example the unencrypted port **4721** is entered.

New CTI Connection	n			X
Set New C	TI Co	nnection Wizard Stage 8	of 16	
Active Recor	ding			
Active Reco	rding Iı	erface Details		
Interface	Connec	on Details		8
Mandatory fi	ields arr			
		t Parameter Value	×	
Parameter		Interface Connection Pa	arameter	<u>^</u>
PrimaryAESS PrimaryAESI		Set Parameter Value		E
PrimaryAESU				
PrimaryAESE		Name: PrimaryAESDMCCPort		.
Description:				
Description		/alue: 4721		
Additional	Interf			8
Media Provid	ler Col		OK Cancel	8
	-			I
_			Back	Next Cancel

As before, enter the username that was created in **Section 6.6** and click on **OK**.

New CTI Connection		83
Set New CTI C	onnection V	Vizard Stage 8 of 16
Active Recording		
Active Recording I	nterface Details	5
Interface Conne	ction Details	(a)
Mandatory fields ar	Set Paramete	r Value x
Parameter PrimaryAESDMCCP	Interfa	ace Connection Parameter
PrimaryAESUserNa PrimaryAESPasswor	Set Para	meter Value
PrimaryAESSecured	Name:	PrimaryAESUserName
Additional Inter		
Media Provider Co	Value:	nice1
		OK Cancel
		Back Next Cancel

Enter the password that was created in **Section 6.6** and click on **OK**.

New CTI Connection			
Set New CTI C	onnectio	n Wizard Stage 8 of 16	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Active Recording			
Active Recording	Interface De	tails	
Interface Conne	ction Detail	5	
Mandatory fields ar	Set Parameter	Value 🖬	
Parameter		ace Connection Parameter	^
PrimaryAESDMCCP PrimaryAESUserNar	Sof Dara	ameter Value	E
PrimaryAESPasswo PrimaryAESSecured		PrimaryAESPassword	
Description: Pass	Value:	*****	
Additional Inter			S
Media Provider Co		OK Cancel	8
			J
		Back	Next Cancel

Because the unencrypted port was chosen, select False for the

PrimaryAESSecuredConnection. Click on OK and then Next (not shown) to continue.

Set New CTI Connection Wizard Stage 8 of 16 Active Recording Active Recording Interface Details Interface Connection Details Mandatory fields ar Set Parameter Value Parameter PrimaryAESDMCCP Set Parameter Value Name: PrimaryAESSecuree PrimaryAESS	New CTI Connection				×
Active Recording Interface Details Interface Connection Details Mandatory fields ar Parameter PrimaryAESDMCCP PrimaryAESDMCCP PrimaryAESDSecured Name: PrimaryAESSecuredConnection PrimaryAESSECUREC	Set New CTI C	onnectio	n Wizard Stage 8 o	f 16	and the states
Interface Connection Details Image: Set Parameter Value Parameter Interface Connection Parameter PrimaryAESDMCCP Set Parameter Value PrimaryAESUserNar Set Parameter Value PrimaryAESDsecured Name: PrimaryAESSecured Name: PrimaryAESSecured Name: PrimaryAESSecured Name: Value: FALSE Additional Inter Image: Set Parameter Value	Active Recording				
Mandatory fields ar Set Parameter Value Parameter Interface Connection Parameter PrimaryAESDMCCP Set Parameter Value PrimaryAESUserNar Set Parameter Value PrimaryAESPasswoi Name: PrimaryAESSecured Name: PrimaryAESSecured Name: Value: FALSE Additional Inter Image: Set Parameter Value	Active Recording	Interface De	tails		
Parameter Interface Connection Parameter PrimaryAESDMCCP Set Parameter Value PrimaryAESPasswoi Name: PrimaryAESSecuredConnection PrimaryAESSecured Name: PrimaryAESSecuredConnection Description: Indic Value: FALSE Additional Inter Set Parameter Value Set Parameter Value	Interface Conne	ction Detail	5		
Parameter Interface Connection Parameter PrimaryAESDMCCP Set Parameter Value PrimaryAESPasswoi Name: PrimaryAESSecuredConnection PrimaryAESSecured Name: PrimaryAESSecuredConnection Description: Indic Value: FALSE Additional Inter Set Parameter Value Set Parameter Value	Mandatory fields ar				
PrimaryAESDMCCP Set Parameter Value E PrimaryAESUserNar PrimaryAESSecured Name: PrimaryAESSecuredConnection PrimaryAESSecured Name: PrimaryAESSecuredConnection Image: PrimaryAESSecuredConnection Description: Indic Value: FALSE Image: PrimaryAESSecuredConnection					
PrimaryAESUserNar Set Parameter Value PrimaryAESPasswor PrimaryAESSecured PrimaryAESSecured Name: PrimaryAESSecured PrimaryAESSecuredConnection UseACONterror Value: FALSE Value:			ace Connection Par	ameter	
PrimaryAESSecured Name: PrimaryAESSecuredConnection Description: Indic Value: FALSE		Sof Dara	ameter Value		
Description: Indic Value: FALSE Additional Interf					
Additional Inter		Name:	PrimaryAESSecuredConnection		
Additional Interf	Description: India				on must be set)
			FALSE	•	
Media Provider Co	Additional Inter				Sector 1
	Media Provider Co			OK Cancel	8
					3
Back Next Cancel				Bac	k Nevt Cancel

Click on Media Provider Controllers – Location to expand.

New CTI Connection		×
Set New CTI Connection	Wizard Stage 8 of 16	
Active Recording		
Active Recording Interface Det	ails	
Interface Connection Details		8
Additional Interface Paramet	ters	<u> </u>
Mandatory fields are marked in bo	bld	
Parameter	Value	^
EnableNATManipulation	no	Ξ
ObservationCode		
LinkFIFOSize	500	
ResourceCleanup Delay	0	.
Description:		
Media Provider Controllers - Lo	ocation	۲
		Back Next Cancel

Enter the **IP/Hostname** of the Nice Advanced Interactions Server, then click on the + icon to add this.

New CTI Connection					×
Set New CTI Conne	ction Wizar	d Stage 8 of	f 16		
Active Recording					
Active Recording Interfa	ce Details				
Interface Connection I Additional Interface Pa					8
Media Provider Controlle	rs - Location				8
- Media Provider Location					
Server IP/Hostname	NICEActive2012				
Connection Manager Port:	62094				
Media Provider Controllers:					
IP/Hostname	(CM Port			- 🔁
				Back Next	Cancel

Click on **Next** to continue.

New CTI Connection		×
Set New CTI Connection	Wizard Stage 8 of	f 16
Active Recording		
Active Recording Interface Deta	ils	
Interface Connection Details		S
Additional Interface Paramete	ers	
Media Provider Controllers - Loc	ation	Additional Interface Parameters
Media Provider Location		
Server IP/Hostname		
Connection Manager Port: 62094		
Media Provider Controllers:		Q
IP/Hostname	CM Port	
NICEActive2012	62094	•
		Back Next Cancel

On the following screen, click on Add, to add the Communication Manager devices.

New CTI Connection					×	
Set New CTI Connection Wizard Stage 10 of 16						
Devices						
Available Devices Provide telephony switch available de	evices				6	
0 devices			dd Add Range	Add From	m Switch	
Device Number/IP	CTI Trunk ID		Туре			
			Back	Next		

The **Device Type** should be **Extension** and insert the extension number of a phoneset that is to be recorded the example below showing extension **1001**. Expand **Advanced Device Parameters** and ensure that the **Value** for **Observation Type** is set to Non-**Resourced-Based**. Click on **OK** to continue.

New Switch	Available Device			x	×
Set New CTI In				14.7	
Switch Devices Con	Add Device				
Set Devices com Available Devices Provide telephony sv 0 devices Device Number	Name Device Type: Device Numbe	:r: *	Extension 1001	•	e Add From Switch
	Advanced Dev	ice Paramete	ers		
	Display Read	Only Informatio	n I	Ø	
	Name		/alue	~	
	Observation Typ SymbolicName Password CodecsList FncAlol ist Description:	0 Observation		~	
				ancel	Cancel

Enter the correct **Value** for **SymbolicName**. Double-click on **SymbolicName** to set the value. This should be the same as the switch name entered in **Section 6.2**.

10	Available Device		(<u>0</u>)	
lew CTI Connection				83
Set New CTI C	Add Device			
Devices				
Available Devices	Set Parameter Value	1000		
Provide telephony swil	Device Additio	nal Parameter		
0 devices	Set Parameter Va	lue		e Add From Switch
Device Number/IP	Name: SymbolicNam			
	Value: cm101x			
_		ОК	Cancel	
	Name	Value	<u>^</u>	
	ObservationType SymbolicName	Non-Resource-Based		
	Password	0		
	Description: Symbo	dic Name.	2	
				k Next Cancel
		OK	Cancel	

Enter the correct **Password** and note this is the password for the extension that is being added here. This is the station password which was entered during the creation of the station found in **Section 5.5** of these Application Notes.

100	Available Device		(B)	
New CTI Connection				8
Set New CTI Co	Add Device			
Devices				
Available Devices Provide telephony swite	Name Device Type:	* Edension		
0 devices	Set Parameter Value		E	pe Add From Switch
Device Number/IP	Driver Addition	al Parameter		
	Set Parameter Valu	ie.		
	Name: Password			
	Value:			
		OK	Cancel	
	SymbolicName Password CodecsList FncMol ist	cm101x 0	,	
	Description: Registre	ition password.	0	
		ОК	Cancel	k Next Cancel
12	0			

Double-click on **CodecsList** and ensure that all the values are ticked as shown below. Click on **OK** to continue.

	Available	e Device				8	
New CTI Connection		Set Parame	ter Values		X		8
Set New CTI Co	Add	Code	ecsList		1 Standy		The second second
Devices		Set Pa	arameter	Values			
	Nar	List of su	pported cod	lecs.		h l	
Available Devices						Б	(a)
Provide telephony swite	De						
0 devices	Der	Name V G711A					ange Add From Switch
Device Number/IP	IP:	🔽 G711U					
		G729					
		 G729A G723 					
		V 0725					
	Adv						
	D			ОК	Cancel	1	
	Nan	ne		Value		*	
	Pas	sword		••••			
		ecsList		0		=	
	Enc	AlgList		0		-	
	Dese	ription:	List of sup	ported codecs		*	
							k Next Cancel
					OK Ca	ncel	

Double-click on **EncAlgList**. To cover all options, all types of encryptions were ticked. Click on **OK** to continue.

	Available Device	
New CTI Connection Set New C1	Set Parameter Values	8
Devices	EncAlgList	
Available Dev Provide telephor	Set Parameter Values	8
0 devices Device Number,	List of supported encryption algorithms.	ge Add From Switch
	Name	
	AES_128_COUNTER	
	✓ No_ENCRYPTION	
	AES_128_HMAC	
	OK Cancel	Next Cancel

Click on **Next** to continue.

evices		
Available Devices		
Provide telephony switch ava	ilable devices	
2 devices		Add Add Range Add From Switch
Device Number	CTI Trunk ID	Туре
1001		Extension
1050		Extension
1101		Extension
1110		Extension

Select the new extension and click on the >> icon as shown. Click on **Next** to continue.

New CTI Connection						x
Se	et New CTI Co	nnection Wizard	Stage 1	L of 16		
Мо	onitor					
Pl	ease select the device	s to be monitored				
Do	ouble click on a monito	ored device for further co	nfiguration			
	Available Devices:	0 devices		Monitored Devices:	1 devices	
	Device	Туре	\mathcal{P}	Device	Туре	
			>>	1001	Extension	
			>			
			\equiv			
			<			
			<<			
					Back Next Cancel	

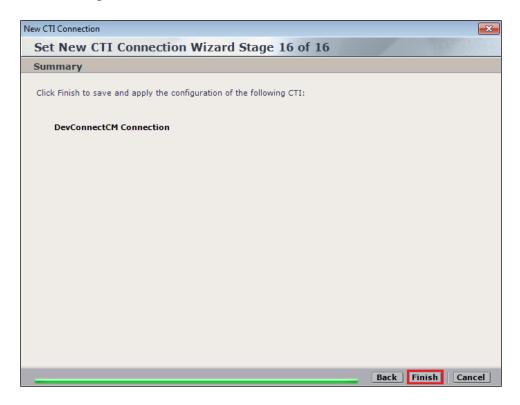
It is optional, but for better analysis tick on **Call Flow Analysis** and click on **Next** to continue.

New CTI Connection
Set New CTI Connection Wizard Stage 12 of 16
Optional
Select optional features relevant to integration. Some options may require further configuration.
SIP Trunk Correlation
Rejected Devices
Filter Calls Zall Flow Analysis
Back Next Cancel

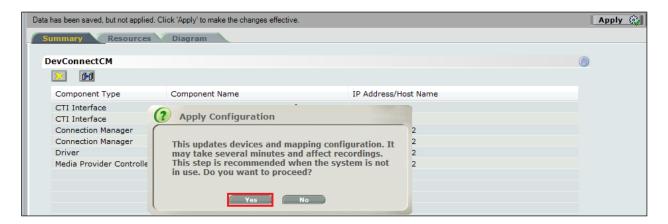
Select a different **Port** number as shown below **62095** is chosen simply because **62094** was already in use.

New CTI Connection	
Set New CTI Connection Wizard Stage 15 of 16	and the states
Requirements	
The Interactions Center server selected already has a Connection Manager. Create a new Connection Manager, or select an existing one.	
Create a new Connection Manager Port: 62095	
Select available Connection Manager Ports in use:	
62094	
	Back Next Cancel

Click on Finish to complete the New CTI Wizard.



Click on **Apply** at the top right of the screen to save the new connection and click on **Yes** to proceed



The following shows that the save was successful. Click on **OK** to continue.

Data has been	Data has been saved, but not applied. Click 'Apply' to make the changes effective.							
Summar	Summary Resources Diagram							
DevCon	nectCM							
<u>×</u>	0-0							
Comp	onent Type	Component Name	IP Address/Host Name					
CTI In	terface	DevConnectCM AES TSAPI Interface						
CTI In	terface 🥢	Apply Complete	8					
Conne	ection Manager 🛛 🎽	Apply complete	2					
Conne	ction Manager		2					
Driver		All components have been notified	2					
Media	Provider Controlle		2					

From the NICE Application Server, open **Services** and restart the **NICE Integration Dispatch Service**.

9,	5	Services			_		x	
File Action View Help								
♦ ♦ 🗖 🗍	Q 🕞 🛛 🖬 🕨 🔲 🛛							
🏩 Services (Local)	Name ^	Description	Status	Startup Type	Log On As		^	
	🔍 Network Location Awareness	Collects an	Running	Automatic	Network S		11	
	🔍 🔍 Network Store Interface Service	This service	Running	Automatic	Local Service			
	🔍 🔍 NICE AA Search Controller	Audio Anal	Running	Automatic	.\administr			
	🔍 🔍 NICE Agent Center	Monitors an	Running	Automatic	.\administr			
	🔍 NICE Audit Trail Service	Enables add	Running	Automatic	.\administr			
	🔍 Nice BSF Server	Enables the	Running	Automatic	.\administr			
	🔍 NICE Coaching Server	Manages C	Running	Automatic	.\administr			
	🔍 🔍 NICE Deployment Manager Agent	NICE Deplo	Running	Automatic	.\administr			
	Q NICE Enrollment Service	NICE Enroll	Running	Automatic	.\administr			
	🔍 🔍 NICE Evaluation Forms Server	Manages Ev	Running	Automatic	.\administr		≡	
	Q NICE FTF Query Server	Performs a	Runnina	Automatic	.\administr			
	SINCE Integration Dispatch Service	Launches a	Running	Automatic	.∖administr			
	Sa NICE Interactions Center Core	Acts as the	Running	Automatic	.\administr			
	🔍 🔍 NICE Interactions Center DBSrvr	Manages th	Running	Automatic	.\administr			
	🔍 🤹 NICE Interactions Center Monitor	Report failo	Running	Automatic	.\administr			
	🔍 🔍 NICE Interactions Center RCM	Responsible	Running	Automatic	.\administr			
	🔍 🔍 NICE Interactions Center TRS	Insert missi	Running	Automatic	.\administr			
	🔍 🔍 NICE Investigations Server	Manages an	Running	Automatic	.\administr			
	Since IP Phone Applications	Performs IP	Running	Automatic	.\administr			
	🔍 NICE Keep Alive Service	Nice Keep A	Running	Automatic	.\administr			
	Service NICE Logging Service	A service de	Running	Automatic	.\administr			
	🔍 NICE Media Provider Control Manager	An online re	Running	Automatic	Local Syste			
	Q NICE MediaCollectionServer	Manages an	Running	Automatic	.\administr			
	and the second second		<u> </u>				\sim	

7.2. System Mapping

From the web browser navigate to Master Site \rightarrow System Mapping \rightarrow Recorder Pools. In the main window click on New Pool.

NIOT ®									
NICE®				Hello NICE, Superu	iser Help [Settings Lo	gout		
My Universe Business Analyzer Report	rter Monitor I	nsight Manager ClearSight	PBO Requests	Tools	Admin	nistration 🗾 🔽			
Actions V	Data was save	ed but not applied. To complete	changes select the (CTI Integrations branch an	d click Apply.				
(TT)	Advanced Interaction Recorder Pool Summary								
Organization Active Directory	This system ha			License Type		able Licenses			
Agent Center	This system na	15:		License Type	Availa	ible Licenses			
Customer Center	Total Record	erpools: 0		Audio	94				
Solution Content Cont	Mappe			Screen	100				
Import/Export	Unmap	oped: 0		Encryption	100				
License Manager	Available Rec	corders: 0		Redundancy	100				
Storage									
🗄 🖓 Master Site	Advanced Intera	action Recorder Pools							
Applications									
🗑 🎢 Content Analysis	Group by: N	lone 👻 Find:		Clear		New Pool	I 📝 🔀		
CTI Integrations									
🗈 🏠 Data Marts	Mapped	Name			∆ Type	No. of Recorders			
Database Servers	Yes	AIR Act			Basic Basic		1		
Interactions Centers	Yes	pass PhisycPassive		Basic		1			
Logger Channel Mapping	Tes	Filisycrossive			Dasic		1		
I Logger Servers									
Media Interconnect									
Media Library Servers									
Playback									
Resiliency									
B Security									
System Mapping	AIR Act Properti	ies							
1. Recorder Pools	Pool type:	Basic							
3. Recording Profiles	Toto and in an o	Cartan IC							

Enter a suitable **Name** for the **Recorder Pool** and select the **AIR** from the list of **Available Recorders** and click on **Update** to continue.

Edit Advanced	Interaction Recorder Pool				×
Name:	AIR-ACTIVE				
Pool type:	Basic				
Interactions Center:	IC 🚽				
Availa	rs to the pool. A basic pool must		Selected	ər.	
AIR-real	I		AIR		-
		>			
		<			
				Update	Cancel

From the left navigation window select **Source Pools** and from the main window click on **New Pool**.

NICE®		Hello NICE, Superuser	Help Settings Logout
My Universe Business Analyzer Repor	ter Monitor Insight Manager ClearSight PBO Requests	Tools	Administration
Actions V 🔀	Data was saved but not applied. To complete changes select the C	TI Integrations branch and click <i>i</i>	Apply.
□	Source Pool Summary		
Active Directory	This system has:	License Type	Available Licenses
Agent Center	Total source pools: 0	Audio	94
	Mapped: 0	Screen	100
Import/Export	Unmapped: 0	Encryption	100
License Manager		Redundancy	100
Storage			
- Master Site	Source Pools		
Applications			
CTI Integrations	Group by: None - Find:	🔎 Clear	New Pool 📝 🔀
Data Marts	Mapped Name Media Type	Source Type	Switch
Database Servers	Mapped Marie Media Type	Source Type	Switch
Insight to Impact			
Interactions Centers			
🗄 擾 Logger Channel Mapping			
⊕ 🗍 Logger Servers			
Hedia Interconnect			
Security	1		
System Mapping	Properties		
모 모 2. Source Pools 모 모 3. Recording Profiles			

Click on **Next** to continue to add a new **Source Pool**.

토코 New Source Pool Wizard	×
Introduction	
This wizard helps you create a new source pool.	
Important: - In this wizard, screen sources can be defined. All audio sources must be defined before running this wizard. - When configuring the source pool, the switch must be associated with the same Interactions Center selected for the Recorder pool.	
1. Define the name, media type, switch, and source type.	
2. Select the relevant sources.	
3. Verify the summary and approve it.	
Nex	Cancel

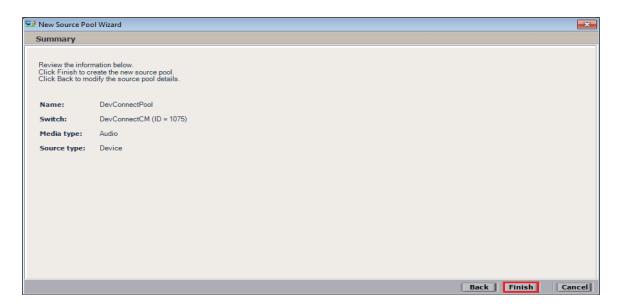
Enter a suitable **Name** and the other values were left as default. Click on **Next** to continue.

🛃 New Source Po	ol Wizard		X
Define Sourc	e Pool		
Define the source	pool details. After completing this wizard, the media type, switch, and source type cannot be changed.		
Name:	DevConnectPool		
Media type:	Audio		
Switch:	DevConnectCM (ID = 1075)		
Source type:	Device		
		Back Next Car	ncel

Select the extensions that were created in **Section 7.1**, note only one extension number is shown in the example below but this is not typical. Click on **Next** to continue.

🛃 New Source Pool Wizard			×
Select Sources			
Find: Clear		Selected:	1/1 Select All Clear Selection
Name	Device Number	Unique Device ID	IP Address
	1001		
			Back Next Cancel

Click on Finish to complete the New Source Pool Wizard.



To implement these new changes, navigate to **Master Site** \rightarrow **CTI Integrations** in the left window and in the main window click on **Apply** at the top right of the window.

						-		Name and Address of the Owner o		
NICE®						Hello NICE, S	Superuser	Help Setting	5 Logout	System Administrator
My Universe Business Analyze	er Report	er Monitor	Insight Manager	ClearSight	t PBO Requests	Tools		Administration		
		_								
ć										
Actions 🔻	H									Apply 😭 👘 🗒
□- III Organization		Summar	y Resource	es 🔪 Diag	gram					
Active Directory										
Agent Center		DevCor	nectCM							
🗈 🗳 Customer Center										
Distributed Cache										
Import/Export Import/Export Import/Export										
Master Site										
Applications										
Content Analysis										
CTI Integrations										
Data Marts										
insight to Impact										
Interactions Cent										

The following screen shows the changes were saved correctly. Click on **OK** to continue.

		Apply
Summary Resource	es Diagram	
DevConnectCM		
	Apply Complete	
	All components have been notified	
	An components have been notified	
	Сок	

From the left window navigate to Master Site \rightarrow System Mapping \rightarrow Recording Profiles and in the main window click on New Profile.

NICE®		Hello NICE, Superuse	Help Settings Logout
My Universe Business Analyzer Repor	rter Monitor Insight Manager ClearSight PBO Re	equests Tools	Administration
Actions V K	Data was saved but not applied. To complete change	es select the CTT Integrations branch and cl	ick Apply.
	Recording Profile Summary		
Active Directory	This system has:	License Type	Available Licenses
Agent Center	Number of recording profiles: 0	Audio	94
🗄 🍰 Customer Center		Screen	94 100
🖶 🖓 Distributed Cache		Encryption	100
Import/Export		Redundancy	100
🕀 🔤 License Manager		riedundancy	100
⊕ 🛅 Storage	Recording Profiles		
🖾 🔝 Master Site	Recording Fromes		
Applications	Group by: None - Find:	(Clear	New Profile
Content Analysis	Group by: None - Find:		
	Name Δ Recording Type	Capture Type Sour	rce Pool Recorder Pool
Insight to Impact			
Interactions Centers			
E B Logger Channel Mapping			
Media Interconnect			
Media Library Servers			
Playback			
Recorders			
Resiliency			
Security	Properties		
System Mapping			
무및 2. Source Pools			
<mark></mark>			

Click on Next to continue with the New Recording Profile Wizard.

📮 New Recording Profile Wizard 🧰 🗾
Introduction
This wizard helps you map a recording profile. Important:
Before configuring the recording profile, verify that the Interaction Center that was selected in the Recorder pool is associated with the switch selected in the source pool.
Recording type and capture type cannot be changed after completing this wizard.
1. Define the recording profile name.
2. Map the source pool to the Recorder pool.
Select the relevant recording type and the capture type. Select the relevant compression, summation and encryption options.
4. Verify the summary and approve it.
Next Cancel

Enter a suitable **Name** for the Recording profile.

💭 New Recording Profile Wizard	×
Define the Recording Profile Name	
Enter a meaningful recording profile name. After completing this wizard, the mapping and the recording type cannot be changed.	
Name: DevConnectRecording	
Back	Next Cancel

Select the correct **source pool** and **Recorder pool**, and then click **Next** to continue.

📜 New Recording Profile Wizard	—
Define Mapping	
Select one source pool and then select the r	elevant Recorder pool.
DevConnectPool	AIR Act
Available source pools	Available Recorder pools
DevConnectPool	AIR Act
	PhisycPassive
	Back Next Cancel

For total recording i.e., the recording of all calls, select **Total** as the **Recording type**. For **Capture type** ensure that **Active DMCC MR Stereo** and **By Device** is selected beside it. **Audio Compression** is selected as default and can be left like this. Click on **Next** to continue.

🕎 New Recording Profile Wiz	ard	Х
Define Recording Profi	le	
Define the recording profile type cannot be changed.	details. After completing this wizard, the recording type and capture	
Recording type:	Total ~	
Allocated licenses:	Determined by the number of sources in the source pool	
Capture type:	Active DMCC MR Stereo V C By Call © By Device	
	Secondary capture type:	
Select all applicable option	5:	
Audio Compression		
Audio Summation		
Encryption		
Audio Loss Detection		
	Back Next C	ancel

Note: Avaya would recommend that **Total** "recording type" is used as it is not recommended to have recorders registering and unregistering to cope with an "interaction-based" type of recording.

Interaction-based recording can be configured by selecting **Interaction-based** as the **Recording type** and **Active DMCC MR Stereo** as the **Capture type** and **By Device** is selected beside it. **Audio Compression** is selected as default and can be left like this. Click on **Next** to continue.

🕎 New Recording Profile Wiz	zard	\times
Define Recording Profi	le	
Define the recording profile type cannot be changed.	details. After completing this wizard, the recording type and capture	
Recording type:	Interaction-based	
Allocated licenses:	5 🛨	
Capture type:	Active DMCC MR Stereo V C By Call C By Device	
	Secondary capture type:	
Select all applicable option	IS:	
Audio Compression		
Audio Summation		
Encryption		
Audio Loss Detection		
	Back Next Ca	ncel

Click on **Finish** to complete the **New Recording Profile Wizard**. The screen below shows that for Total recording.

📮 New Recording Profile W	lizard	×
Summary		
	formation below. he new recording profile. e recording profile details.	
Name:	DevConnectRecording	
Source pool:	DevConnectPool	
Recorder pool:	AIR Act	
Recording type:	Total	
Capture type:	Active DMCC MR	
No. of allocated licer	nses: Determined by the number of sources in the source pool	
Compression		
Summation		
Encryption		
	Back Finish	Cancel

Navigate to Master Site \rightarrow CTI Integrations and from the main window click on Apply. Click on Yes to proceed.

NICE®			Hello NICE, Superus	er Help Settings	Logout	System Administrator
My Universe Business Analyzer Report	rter Monitor Insight Manager	ClearSight PBO Requests	Tools	Administration		
Actions V						Apply 😥 🗈 🖺
	Summary Resource	s Diagram				
Active Directory						2
🗄 🧔 Agent Center	Avaya PC / PDS					S
🗄 🧏 Customer Center	Avaya CM					
Distributed Cache						
		~				
Ecense Manager		Apply Configuration	on			
- A Master Site		(
Applications		This updates devices	and mapping configur	ation. It		
😨 🔐 Content Analysis		This step is recomme	nutes and affect record inded when the system	ings. is not		
🖂 🌆 CTI Integrations		in use. Do you want t				
⊡ ∰ Connection Managers]⊕[Avaya CM NICEAc						
		- Yes	No			
→ Avaya Chi niceapp						
⊕ D CTI Interfaces						

This concludes the setup of the NICE Application Server for DMCC Multiple Registration recording.

8. Verification Steps

This section provides the steps that can be taken to verify correct configuration of the NICE Engage Platform, Communication Manager, and Application Enablement Services.

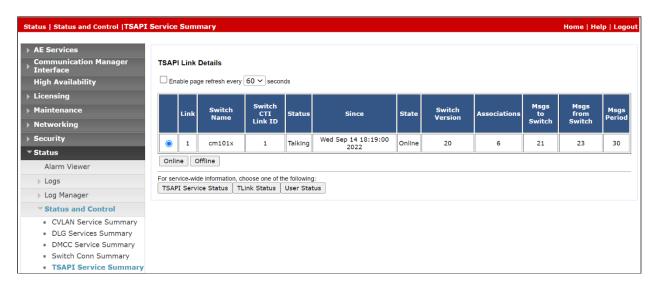
8.1. Verify Avaya Aura® Communication Manager CTI Service State

Before the connection between the NICE Engage Platform and the AES is checked, 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**.

statu	s aesvcs ct	i-link				
			AE SERVICES CTI 1	LINK STATUS		
CTI Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd
1	12	no	aespri101x	established	865	865

8.2. Verify TSAPI Link

On the AES Management Console verify the status of the TSAPI link by selecting Status \rightarrow Status and Control \rightarrow 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.



Clicking on **User Status** from the screen on the previous page should display something similar to that shown below, where the NICE user and corresponding **Tlink Name** are shown.

I User Status Enable page refresh every 60 ~	seconds		
CTI Users All Users Open Streams 3	✓ Submit		
Closed Streams 24			
	Time Opened	Time Closed	Tlink Name
ppen Streams	Time Opened Fri 09 Sep 2022 06:27:34 PM IST	Time Closed	Tlink Name AVAYA#CM101X#CSTA#AESPR1101X
ppen Streams Name	•	Time Closed	

8.3. Verify DMCC link on AES

Verify the status of the DMCC link by selecting Status \rightarrow Status and Control \rightarrow DMCC Service Summary to display the DMCC Service Summary – Session Summary screen. The screen below shows that the user NICE is connected from the IP address 10.10.40.126, which is the NICE Application server.

Status Status and Control DMCC	Service Summary					Home Help Logout
 > AE Services Communication Manager Interface High Availability Licensing > Maintenance > Networking > Security * Status 	DMCC Service Summary - Session Summary Please do not use back button Enable page refresh every 60 v seconds session Summary Device Summary Generated on Wed Feb 08 18 22:58 GMT 2023 Service Uptime: 5 days, 23 Number of Active Sessions: 1 Number of Existing Devices: 10	3 hours 7 minu	tes			
Alarm Viewer	Number of Devices Created Since Service Boot: 316					
Logs	Session ID	<u>User</u>	Application	<u>Far-end Identifier</u>	Connection Type	<u># of Associated Devices</u>
Log Manager	36EC35B84917CF010 3E3957E5DD007DC-1	nice1		10.10.40.126	XML Unencrypted	10
Status and Control	Terminate Sessions Show Terminated Sessions					
CVLAN Service Summary DLG Services Summary DMCC Service Summary	Item 1-1 of 1 1Go					
 Switch Conn Summary 						
TSAPI Service Summary						
User Management						
Utilities						
→ Help						

8.4. Verify Calls are being Recorded

From any of the monitored Avaya endpoints make a series of inbound and outbound calls. Once these calls are completed, they should be available for playback through a web browser to the NICE Application Server.

Open a browser session to the NICE Application Server as is shown below. Enter the proper credentials and click on **Login**.

← → 🥝 http://niceappwin2012/NiceApplications/Desktop	p/XbapApplications/NiceDesktop.xbap	요 두 호 🧭 niceappwin2012	×	÷+ ☆	- 0
	Welcome				
	to NICE Engage	Solutions	NICE		
	User name:	nice			
	Password:	*****			
		Show password			
			då mannand i		
	Copyright erzt	104-2014 NICE Systems Ltd. All hgi	ns reserved.		
	User name: Password:	nice ******** • Show password			

Click on **Business Analyser** at the top of the screen. Select **Interactions** from the left window and then navigate to **Queries** \rightarrow **Public**.

NICE®							Hello LICE	uperuser	Help Settings	Logout		Business	Analyzer
My Universe	Business Analyzer	Reporter	Monitor I	nsight Mana	iger ClearSight	PBO Requests	Tools		Administration				
	Interactions				Table View	Graph View							KICE
	New 🔻 📝 🔀				Search for wo	ds	D Search	Exact Phr	as 🔻 Min. Certair	nty 75 % [Vithin results		
Interactions	🗆 🛱 Queries			2	Results for	Query:						🛋 🗂 🖯	Preferences
	Public	lete - Last :	24 hours	ç	Group By:		-	() 🖪 💷 👰	ra 💀 🐼 🤇	N 🛃 🗹 🥂	3 📝 🌃	É 🗈 🔎 🖪
Evaluations		lete - Last		Quick Query								📮 🚢 (II 🖸 🖼 🕚
,Q		ent - Last 2	to calibrate 4 hours	Ţ									
Audit Trail	- 😽 Segm	ent - Last 7	' days ' days Calls	pot ovalu									
Clips	Private		days Calls	not evalu									
Packages													
Feedback													

Click on **Complete – Last 24 hours**. This should reveal all the recordings that took place over the previous 24 hours. Select the required recording from the list and double-click on this to play the recording. The NICE player is opened, and the recording is presented for playback. Click on the **Play/Pause** icon highlighted below to play back the recording.

Note: The recording below shows two separate streams in stereo, with the **Customer** on one side and the **Agent** on the other.

Results for	Query:	Complete - Las	t 24 hour	S									
Group By:	None	~ 25	Records f	ound								< <u>1</u>	** •• •• • • • • • • • •
Туре	Flag	Full Name	Comp	lete ID	Complete	Start Time ∇	Complete Stop Ti	ime C	omplete Dur	Complet	Direction Ty	HangUp Side Description	Participant Phone Number
4		SIP, 3101	719784897	76168648969	08/02/2	023 18:10:15	08/02/2023 18:11:	:22	00:01:08	2	Outgoing	CUSTOMER	35391847001
4		H323, 3001	719784856	58146755843	08/02/2	023 18:08:43	08/02/2023 18:10:	:00	00:01:17	2	Outgoing	AGENT	35391847001
4	Þ	Workplace, 3110	719784721	15232057598	08/02/2	023 18:03:22	08/02/2023 18:03:	:44	00:00:21	2	Outgoing	CUSTOMER	35391847001
4		H323, 3001	7197847069203169522		08/02/2	023 18:02:56	08/02/2023 18:03:	:33	00:00:37	2	Outgoing	CUSTOMER	5321
4		SIP, 3101	719784709	90678006006	08/02/2	023 18:02:56	08/02/2023 18:03:	:31	00:00:36	2	Outgoing	CUSTOMER	5350
4	Þ	Workplace, 3110	719784659	96756766959	08/02/2	023 18:00:58	08/02/2023 18:01:	:10	00:00:13	2	Outgoing	AGENT	35391847001
4		SIP, 3101	719784643	37842977004	08/02/2	023 18:00:25	08/02/2023 18:00:	:41	00:00:16	2	Outgoing	AGENT	35391847001
4		H323, 3001	719784633	39058729193	08/02/2	023 18:00:02	08/02/2023 18:00:	:17	00:00:15	2	Outgoing	AGENT	35391847001
4	Þ	H323, 3001	719784586	52317359333	08/02/2	023 17:58:09	08/02/2023 17:58:	:23	00:00:14	2	Incoming	AGENT	35391847001
4		SIP, 3101	719784579	93597882595	08/02/2	023 17:57:50	08/02/2023 17:58:	:00	00:00:10	2	Incoming	AGENT	35391847001
4		Workplace, 3110	71978		Status:	Stop							35391847001
⊈ €	Þ	Workplace, 3110	71978	ICE" 📃		ocated-playing to s						– a ×	35391847001
4		SIP, 3101	71978		ootportun	ooatoo playingtoo							35391847001
4		H323, 3001	71978 St	art-08/02/20	23 18-10-15	End: 08/02/2	02318-11-22			Q	Add 00-00-	00/00:01:07	35391847001
4		SIP, 3101	71978	un. 00/02/20/									
4		H323, 3001	71978 Ela	apsed Time	<u>.</u>	00:10	00:20	00:30	00:40		50 01:00		
4	Þ	SIP, 3101	71978										
4		H323, 3001	71978	mmed	1101-010	AND INC.		والتحكيل الد	1.00000		-	Made dat I	
4		H323, 3001	71978	mmed	number.	1	Constant of the Pr	a Prair	1	unite 11 lucas	Negati Ale		
4	Þ	H323, 3001	71978 Ev	ents									
4		SIP, 3101	71978 👲	Customer	100-100	A DECK		BARK			ALL ALL	and the second sec	
4		Workplace, 3110		outoiniti	1.001.000	5. AU		1.00			WARTER WE		
4		Workplace, 3110	71978	Events									
4		SIP, 3101	71978 🖸	Agent	Lis mittle		With the lite		1. 2020	and a state		Shidh dat	
4		H323, 3001	71978		a state	THE LEFT	THE REPORT OF THE PARTY OF THE		1			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
				Events									
			Tin	ne 1	8:10:15	18:10:28	18:10	:41	18:10:	55	18:11:08	18:11:22	
			Cur	stomer	T	_					_		
				2. 3101									
			SIP	, 5101									
4				≡ I e I T		a a	iee < (× W ×		-1.		
Preview		Segments					144 <		~ m - *	X0.5 X1.0	X2.0	•	
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rype riag	SIP, 310					08/02/2023 18:11			101	Outgoing		35391847001	35391847001
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8.5. Verify NICE Services

If these recordings are not present or cannot be played back, the NICE services may not be running or may need to be restarted. There are two separate servers as a part of this NICE Engage Platform. The NICE Application Server and the NICE Advanced Interactions Recorder Server can be logged into and checked to ensure all services beginning with NICE are running correctly. As a last resort both servers may need a reboot after the initial configuration.

				Sei	rvices	_ 0
le Action View						
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Services (Local)	Name	Description	Status	Startup Type	Log On As	
	Search Controller	Audio Anal	Running	Automatic	.\administr	
	🔍 NICE Agent Center	Monitors an	Running	Automatic	.\administr	
	🔍 NICE Audit Trail Service	Enables add	Running	Automatic	.\administr	
	Server	Enables the	Running	Automatic	.\administr	
	Server Que Coaching Server	Manages C	Running	Automatic	.\administr	
	🔍 NICE Deployment Manager Agent	NICE Deplo	Running	Automatic	.\administr	
	🔍 NICE Enrollment Service	NICE Enroll	Running	Automatic	.\administr	
	🔍 NICE Evaluation Forms Server	Manages Ev	Running	Automatic	.\administr	
	🔍 NICE FTF Query Server	Performs q	Running	Automatic	.\administr	
	🔍 NICE Integration Dispatch Service	Launches a	Running	Automatic	.\administr	
	🔍 NICE Interactions Center Core	Acts as the	Running	Automatic	.\administr	
	🔍 NICE Interactions Center DBSrvr	Manages th	Running	Automatic	.\administr	
	🔍 NICE Interactions Center Monitor	Report failo	Running	Automatic	.\administr	
	SINCE Interactions Center RCM	Responsible	Running	Automatic	Aadministr	
	🔍 NICE Interactions Center TRS	Insert missi	Running	Automatic	.\administr	
	🛸 NICE Investigations Server	Manages an	Running	Automatic	.\administr	
	S NICE IP Phone Applications	Performs IP	Running	Automatic	.\administr	
	🔍 NICE Keep Alive Service	Nice Keep A	Running	Automatic	.\administr	
	🔍 NICE Logging Service	A service de	Running	Automatic	.\administr	
	🔍 NICE Media Provider Control Manager	An online re	Running	Automatic	Local Syste	
	Since MediaCollectionServer	Manages an	Running	Automatic	.\administr	
	Q NICE Monitor Server	Performs pl	Running	Automatic	.\administr	
	🔍 NICE MyUniverse	Host for My	Running	Automatic	.\administr	
	Q NICE NBA	Performs q	Running	Automatic	.\administr	
	NICE Notification Service		Running	Automatic	.\administr	
	Since Playback Administration	Manages A	Running	Automatic	.\administr	
	S NICE Playback Streaming	-	Running	Automatic	Aadministr	
	🔍 NICE Reporter Engine	Nice Report	Running	Automatic	Aadministr	
	Q NICE Reporter Scheduler	Nice Report	Running	Automatic	Aadministr	
	S NICE Retention Service	Performs re	Running	Automatic	Aadministr	
	NICE Rule Engine	Perform rul	Running	Automatic	.\administr	Activate Windows
	Since France Engine NICE Rules Manager Service	Manages wr	Running	Automatic	Aadministr	Go to System in Control Panel to activate
	NICE Storage Center Service	Nice Service	Running	Automatic	\administr	Windows
	Extended Standard					
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9. Conclusion

These Application Notes describe the configuration steps required for NICE Engage Platform R7.3 to successfully interoperate with Avaya Aura® Communication Manager R10.1 using Avaya Aura® Application Enablement Services R10.1 to connect to using DMCC Multiple Registration to record calls in stereo. All feature functionality and serviceability test cases were completed successfully with observations noted in **Section 2.2**.

10. Additional References

This section references the Avaya and NICE 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® System Manager. Release 10.1.x, Issue 6, June 2022.
- [2] Administering Avaya Aura® Session Manager. Release 10.1.x, Issue 3, April 2022.
- [3] Administering Avaya Aura® Communication Manager. Release 10.1, Issue 1, December 2021.
- [4] Administering Avaya Aura® Application Enablement Services. Release 10.1.x, Issue 4, April 2022.
- [5] *Implementing and Administering Avaya Aura*® *Media Server*. Release 10.1.x, Issue 2, July 2022.
- [6] RFC 3261 SIP: Session Initiation Protocol, http://www.ietf.org/
- [7] *RFC 2833 RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals,* <u>http://www.ietf.org/</u>

Product documentation for NICE products may be found at: https://www.extranice.com/

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