

Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Avaya Contact Recorder R10.1 with Avaya Aura® Communication Manager R6.0.1 and Avaya Aura® Contact Center 6.2 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to successfully integrate Avaya Contact Recorder 10.1 with Avaya Aura® Contact Center 6.2 and Avaya Aura® Communication Manager 6.0.1.

The Avaya Contact Recorder interfaces with Avaya Aura® Contact Center CCT Web Services to receive CTI information for all agent related call events and agent events from Avaya Aura® Contact Center 6.2. The recorder then invokes SIP recording Start/Stop requests via Web Services for Avaya Aura® Contact Center agents.

To implement the call recording solution, Avaya Aura® Contact Center specific configurations are done on the Contact Center Interface page of the Avaya Contact Recorder. The Voice URI of the required agents are added under the Conference Mode recording in Avaya Contact Recorder. Recording filters can be set based on the Avaya Aura® Contact Center CDN and Skill set information.

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1 Introduction

These Application Notes describe the configuration steps required to successfully integrate Avaya Contact Recorder 10.1with Avaya Aura® Contact Center 6.2 and Avaya Aura® Communication Manager 6.0.1.

The Avaya Contact Recorder interfaces with Avaya Aura® Contact Center CCT Web Services to receive CTI information for all agent related call events and agent events from Avaya Aura® Contact Center 6.2. The recorder then invokes SIP recording Start/Stop requests via Web Services for agents.

To implement the call recording solution the following configuration is done:

- Configuration on Contact Center Interface page of the Avaya Contact Recorder.
- Voice URI of the required agents are added under the Conference Mode recording in Avaya Contact Recorder
- Recording filters are set based on the Avaya Aura® Contact Center CDN and Skill set information.

To receive the CTI information for all the Agent Related Call and agent events from Avaya Aura® Contact Center, Avaya Contact Recorder interfaces with CCT webservices of Avaya Aura® Contact Center. Avaya Contact Recorder invokes SIP recording Start/Stop requests via Web Services for agents.

In this environment, the recorder also maintains a direct link into Communication Manager via the Application Enablement Services (AES) component using the DMCC/TSAPI protocols. This enables recorder to retain the ability to record agent calls that are associated with Communication Manager.

1.1 Solution Overview

The following section describes the components of the solution under test.

1.1.1 Avaya Aura® Communication Manager

Avaya Aura® Communication Manager software is the open, highly-reliable and extensible IP Telephony foundation on which Avaya delivers Unified Communications solutions to enterprises large and small. It delivers rich voice and video capabilities and provides for a resilient, distributed network of gateways and analog, digital and IP-based communication devices. In addition, Avaya Aura® Communication Manager boasts robust PBX features, high reliability and scalability, and multi-protocol support. It includes advanced mobility features, built-in conference calling and contact center applications.

1.1.2 Avaya Contact Recorder

Avaya Contact Recorder is a call recording solution capable of capturing audio from Communication Manager and Avaya Aura® Contact Center using a variety of integration mechanisms. Avaya Contact Recorder uses CCT Web Services of Avaya Aura® Contact Center to receive CTI information for all agent related call events and agent events. The recorder then invokes SIP recording Start/Stop requests via Web Services for agents. The recorded calls can be searched and played back from the Avaya Contact Recorder Replay webpage.

1.1.3 Avaya Aura® Contact Center

Avaya Aura® Contact Center uses industry standard SIP and CSTA (TR/87 over SIP) interfaces to communicate with the Avaya Aura® infrastructure. Avaya Aura® Contact Center represents the next generation of contact center software. Avaya Aura® Contact Center is a collection of software components that addresses the business requirements of sophisticated contact center environments. Avaya Aura® Contact Center enables multi-modal communication between customers and agents (Voice, IM and Email) over SIP infrastructure.

1.2 Test Scenarios and Results

The test scenarios included feature, serviceability and reliability testing of an integrated configuration using Avaya Aura® Communication Manager, Avaya Contact Recorder and Avaya Aura® Contact Center.

The tests focused on verifying the following Avaya Contact Recorder capabilities in an Avaya Aura® Contact Center environment.

- Handling of real-time agent states and call events from Avaya Aura® Contact Center.
- Proper recording, logging, and playback of calls for scenarios involving inbound, outbound, hold, redirect transfer, conference.
- Proper recording, logging, and playback of calls for Avaya Aura® Contact Center agents logged in all three modes (My Computer, Desk Phone & Telecommuter mode).
- Proper recording, logging, and playback of calls for Avaya Aura® Contact Center agents handling simultaneous Voice and Multimedia contacts.
- Impact on Call recording during Avaya Aura® Contact Center service observer/ barge-in and Communication Manager service observer/ barge-in.

Testing also focused on verifying the ability of the products to recover from adverse conditions, such as network outages, server reboot, AES failover etc. All testcases were executed manually. During the test, inbound calls were placed by simulating customer calls over a simulated PSTN trunk which is then routed to Avaya Aura® Contact Center.

All test cases were executed and passed based on expected results.

1.3 Assumptions

These Application Notes do not provide any configuration details for the following list of assumptions:

- Avaya Contact Recorder is installed and is configured with AES and Communication Manager to record calls for agents on Avaya Aura® environment (Communication Manager).
- Avaya Aura® Communication Manager has been installed and is operational.
- Avaya Aura® Contact Center has been installed and is operational.

Acronyms

ACD Automatic Call Distributor ARS Alternative Routing Service (Routing on Avaya Aura® Communication Manager) CM Avaya Aura® Communication Manager – Evolution Server CCT Communication Control Toolkit CDN Control Directory Number DCP Digital Communications Protocol DNIS Dialed Number Identification Service DNS Domain Naming Resolution DTMF Dual Tone Multi Frequency ESS Enterprise Survivable Server FQDN Fully Qualified Domain Name (hostname for Domain Naming Resolution) IP Internet Protocol IPS1 IP-services interface (Control Card in Communication Manager) LAN Local Area Network PSTN Public Switched Telephone Network RTP Real Time Protocol SAT System Access Terminal (Avaya Aura® Communication Manager Administration Interface) SIL Solution Interoperability Lab SIP Session Initiation Protocol SMR Avaya Aura® System Manager SMGR Avaya Aura® System Manager SNMP Simple Network Management	cronyms				
CM	ACD	Automatic Call Distributor			
CM	ARS	Alternative Routing Service (Routing on Avaya Aura® Communication Manager)			
CCT Communication Control Toolkit CDN Control Directory Number DCP Digital Communications Protocol DNIS Dialed Number Identification Service DNS Domain Naming Resolution DTMF Dual Tone Multi Frequency ESS Enterprise Survivable Server FQDN Fully Qualified Domain Name (hostname for Domain Naming Resolution) IIP Internet Protocol IPSI IP-services interface (Control Card in Communication Manager) LAN Local Area Network PSTN Public Switched Telephone Network RTP Real Time Protocol SAT System Access Terminal (Avaya Aura® Communication Manager Administration Interface) SIL Solution Interoperability Lab SIP Session Initiation Protocol SM Avaya Aura® Session Manager SMGR Avaya Aura® System Manager SMGR Simple Network Management Protocol SRE SIP Routing Element SSH Secure Socket Layer TAC Trunk Access Code (Avaya Aura® Communication Manager Trunk Access) TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	CM				
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LANLocal Area NetworkPSTNPublic Switched Telephone NetworkRTPReal Time ProtocolSATSystem Access Terminal (Avaya Aura® Communication Manager Administration Interface)SILSolution Interoperability LabSIPSession Initiation ProtocolSMAvaya Aura® Session ManagerSMGRAvaya Aura® System ManagerSNMPSimple Network Management ProtocolSRESIP Routing ElementSSHSecure Socket LayerTACTrunk Access Code (Avaya Aura® Communication Manager Trunk Access)TCPTransmission Control ProtocolTCP/IPTransmission Control Protocol/Internet ProtocolTLSTransport Layer SecurityURLUniform Resource LocatorVDNVector Directory NumberWANWide Area NetworkWFMAvaya Workforce ManagementWFOAvaya Workforce Optimization	IP	Internet Protocol			
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SAT System Access Terminal (Avaya Aura® Communication Manager Administration Interface) SIL Solution Interoperability Lab SIP Session Initiation Protocol SM Avaya Aura® Session Manager SMGR Avaya Aura® System Manager SNMP Simple Network Management Protocol SRE SIP Routing Element SSH Secure Shell SSL Secure Socket Layer TAC Trunk Access Code (Avaya Aura® Communication Manager Trunk Access) TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	PSTN	Public Switched Telephone Network			
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SIL Solution Interoperability Lab SIP Session Initiation Protocol SM Avaya Aura® Session Manager SMGR Avaya Aura® System Manager SNMP Simple Network Management Protocol SRE SIP Routing Element SSH Secure Shell SSL Secure Socket Layer TAC Trunk Access Code (Avaya Aura® Communication Manager Trunk Access) TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	SAT	System Access Terminal (Avaya Aura® Communication Manager Administration			
SIP Session Initiation Protocol SM Avaya Aura® Session Manager SMGR Avaya Aura® System Manager SNMP Simple Network Management Protocol SRE SIP Routing Element SSH Secure Shell SSL Secure Socket Layer TAC Trunk Access Code (Avaya Aura® Communication Manager Trunk Access) TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization		Interface)			
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SNMP Simple Network Management Protocol SRE SIP Routing Element SSH Secure Shell SSL Secure Socket Layer TAC Trunk Access Code (Avaya Aura® Communication Manager Trunk Access) TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	SM	Avaya Aura® Session Manager			
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SSH Secure Shell SSL Secure Socket Layer TAC Trunk Access Code (Avaya Aura® Communication Manager Trunk Access) TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	SNMP	Simple Network Management Protocol			
SSL Secure Socket Layer TAC Trunk Access Code (Avaya Aura® Communication Manager Trunk Access) TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	SRE	SIP Routing Element			
TAC Trunk Access Code (Avaya Aura® Communication Manager Trunk Access) TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	SSH	Secure Shell			
TCP Transmission Control Protocol TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	SSL	Secure Socket Layer			
TCP/IP Transmission Control Protocol/Internet Protocol TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	TAC	Trunk Access Code (Avaya Aura® Communication Manager Trunk Access)			
TLS Transport Layer Security URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	TCP	Transmission Control Protocol			
URL Uniform Resource Locator VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	TCP/IP	Transmission Control Protocol/Internet Protocol			
VDN Vector Directory Number WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	TLS	Transport Layer Security			
WAN Wide Area Network WFM Avaya Workforce Management WFO Avaya Workforce Optimization	URL				
WFM Avaya Workforce Management WFO Avaya Workforce Optimization	VDN	Vector Directory Number			
WFO Avaya Workforce Optimization	WAN	Wide Area Network			
	WFM	Avaya Workforce Management			
XML eXtensible Markup Language	WFO	Avaya Workforce Optimization			
	XML	eXtensible Markup Language			

2 Reference Configuration

The following is the Lab configuration used for testing.

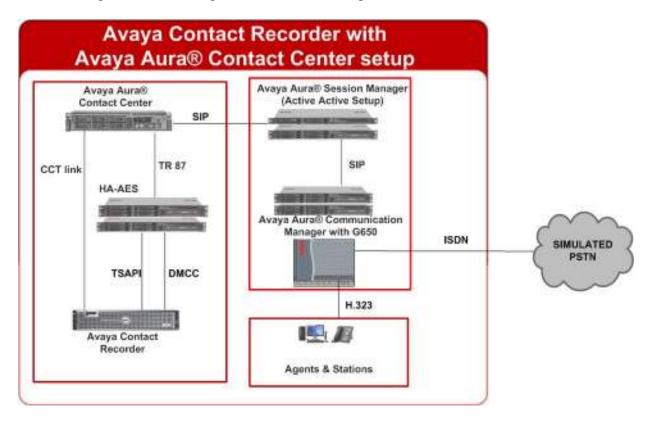


Figure 1: Lab Configuration Overview

3 Equipment and Software Validated

The following equipment and software were used for the sample configuration.

Equipment/Software	Software Version
Avaya S8800 Server with G650 Media	Avaya Aura® Communication Manager
Gateway	6.0.1 (R016x.00.1.510.1 SP2)
Avaya S8800 Server	Avaya Aura® Session Manager 6.1
Avaya S8800 Server	Avaya Aura® System Manager 6.1
Avaya S8800 Server	Avaya Aura® Application Enablement
	Service r6-1-1-30-0
Dell 1950	Avaya Contact Recorder 10.1 build 2
Dell 1950	Avaya Aura® Contact Center 6.2 SP4
Avaya 96X1 – H.323	R6.0 SP2
Avaya 96XX- H.323	R3.1 SP1

4 Configure Avaya Aura® Communication Manager

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

- Verify Communication Manager License
- Administer Agent Stations
- Administer Virtual IP Softphones
- Administer Codec Set.
- Administer Network Region

4.1 Verify Avaya Aura® Communication Manager License

Log in to the System Access Terminal (SAT) to verify that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the **display system-parameters customer-options** to display options. Navigate to **Page 4.** Verify that the **Enhanced Conferencing** and **Media Encryption Over IP** customer options are set to **y** on **Page 4**.

```
display system-parameters customer-options
                                                                Page 4 of 11
                               OPTIONAL FEATURES
  Emergency Access to Attendant? y
                                                                 IP Stations? y
        Enable 'dadmin' Login? y
                                                   ISDN Feature Plus? n
          Enhanced Conferencing? y
                                    ISDN Feature Plus? n
ISDN/SIP Network Call Redirection? y
              Enhanced EC500? y
   Enterprise Survivable Server? n
                                                            ISDN-BRI Trunks? y
     Enterprise Wide Licensing? n
                                                                   ISDN-PRI? y
                                                Local Survivable Processor? n
          ESS Administration? y
        Extended Cvg/Fwd Admin? y
                                                     Malicious Call Trace? y
    External Device Alarm Admin? y
                                                  Media Encryption Over IP? y
 Flexible Billing? n
  Forced Entry of Account Codes? y
                                                   Multifrequency Signaling? y
Global Call Classification? y Multimedia Call Handling (Basic)? y
Hospitality (Basic)? y Multimedia Call Handling (Enhanced)? y
Hospitality (G3V3 Enhancements)? y Multimedia IP SIP Trunking? y
                                       Multimedia Call Handling (Basic)? y
                     IP Trunks? v
          IP Attendant Consoles? y
        (NOTE: You must logoff & login to effect the permission changes.)
```

4.2 Administer Agent Stations

Use the **add station n** command, where **n** is the station extension, to add the station that would be used as Voice URI by the Avaya Aura® Contact Center agent. Enter the following values for the specified fields, and retain the default values for the remaining fields.

Type: Enter station type 9620
Name: A descriptive name
Security Code: Enter a valid code

• IP SoftPhone: y

```
add station 3020
                                                                  Page 1 of 5
                                      STATION
                                                                          BCC: 0
Extension: 3020
                                     Security Code: 1234
Coverage Path 1:
Coverage Path 2:
Hunt-to State
                                           Lock Messages? n
     Type: 9620
                                                                         COR: 1
                                                                           TN: 1
     Port: S10103
     Name: AACC_Extn_20
                                                                           cos: 0
                                        Hunt-to Station:
STATION OPTIONS
                                           Time of Day Lock Table:
                Location:
              Location: Time of Day Lock Table:
Loss Group: 19 Personalized Ringing Pattern: 1
                                                   Message Lamp Ext: 3020
        Display Language: english
                                              Mute Button Enabled? y
Survivable GK Node Name:
         Survivable COR: internal
                                                 Media Complex Ext:
   Survivable Trunk Dest? y
                                                       IP SoftPhone? y
                                                 IP Video Softphone? n
                               Short/Prefixed Registration Allowed: default
                                                Customizable Labels? y
```

Navigate to **Page 2** and enter the following values for the specified fields, and retain the default values for the remaining fields.

• Restrict Last Appearance: y

```
add station 3020
                                                               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: In
Redirect Notification? y
Per Button Ring Control? n
                                                         Data Restriction? n
                                             Idle Appearance Preference? n
                                           Bridged Idle Line Preference? 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
Multimedia Mode: enhanced
                                                       EC500 State: enabled
                                                  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: 3011 Always Use? n IP Audio Hairpinning? n
```

Navigate to **Page 4** and only assign two **call-appr**.

```
add station 3020
                                                                      4 of
                                                              Page
                                      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
                                          4:
2: call-appr
                                          5:
                                          6:
    voice-mail Number:
```

4.3 Administer Virtual IP Softphone

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

Type: Enter station type 4624
 Name: A descriptive name
 Security Code: Enter a valid code

• IP SoftPhone: y

```
add station 20010
                                                       Page 1 of
                                  STATION
Extension: 20010
                                                                 BCC: 0
                                     Lock Messages? n
   Type: 4624
                                     Security Code: 123456
                                                                  TN: 1
                                   Coverage Path 1:
    Port: S08455
                                                                 COR: 4
                                  Coverage Path 2:
                                                                 COS: 2
    Name: acrsscsor10
                                  Hunt-to Station:
STATION OPTIONS
              Location:
                                     Time of Day Lock Table:
            Loss Group: 19 Personalized Ringing Pattern: 1
          Speakerphone: 2-way
                                            Message Lamp Ext: 20010
                                         Mute Button Enabled? y
       Display Language: english
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
```

Navigate to **Page 4**. Enter button type conf-dsp to the **Button 4** field and serv-obsrv to the **Button 5** field. Empty the value in the **Button 3** field.

```
add station 20010
                                                            Page 4 of
                                   STATION
SITE DATA
                                                       Headset? n
     Room:
     Jack:
                                                       Speaker? n
                                                     Mounting: d
     Cable:
     Floor:
                                                   Cord Length: 0
  Building:
                                                     Set Color:
ABBREVIATED DIALING
                              List2:
    List1:
                                                        List3:
BUTTON ASSIGNMENTS
                                        7:
1: call-appr
2: call-appr
                                        8:
                                        9:
3:
4: conf-dsp
                                       10:
5: serv-obsrv
                                       11:
 6:
                                       12:
```

4.4 Administer Codec Set

Enter the **change ip-codec-set n** command where **n** is the codec set to be used by the network region for the virtual IP softphones. Enter **G.711MU** and **G.729A** to the **Audio Codec** field and **6** to the **Frames Per Pkt** field. Retain the values of other fields. Add **aes** to the **Media Encryption** table in row 2.

*Note: G.729A is an audio data compression algorithm which preserves network bandwidth.

4.5 Administer Network Region

Enter the **change ip-network-region n** command where **n** is the network region for the virtual IP softphones. Set the **Codec Set** field to the codec set value administered in **Section 4.4.** Set the two IP-IP **Direct Audio** options to **No.** Set IP **Audio Hairpinning to n**.

```
Page 1 of 20
change ip-network-region 50
                              IP NETWORK REGION
 Region: 50
              Authoritative Domain: 10.0.1.159
Location: 1
     Codec Set: 3 Intra-region IP-IP Direct Audio: no
P Port Min: 2048
P Port Man 2048
  Name: acr
MEDIA PARAMETERS
  UDP Port Min: 2048
  UDP Port Max: 3329
DIFFSERV/TOS PARAMETERS
Call Control PHB Value: 46
       Audio PHB Value: 46
       Video PHB Value: 26
802.1P/Q PARAMETERS
Call Control 802.1p Priority: 6
      Audio 802.1p Priority: 6
       Video 802.1p Priority: 5 AUDIO RESOURCE RESERVATION PARAMETERS
H.323 IP ENDPOINTS
                                                       RSVP Enabled? n
 H.323 Link Bounce Recovery? y
Idle Traffic Interval (sec): 20
  Keep-Alive Interval (sec): 5
           Keep-Alive Count: 5
```

On the 4th Page of ip-network-region, set the **Codec Set** field to the codec set value administered in **Section 4.4**

```
Change ip-network-region 50

Source Region: 50

Inter Network Region Connection Management

G A t

dst codec direct WAN-BW-limits Video Intervening

Dyn A G c

rgn set WAN Units Total Norm Prio Shr Regions

CAC R L e

1 3 y NoLimit

2
```

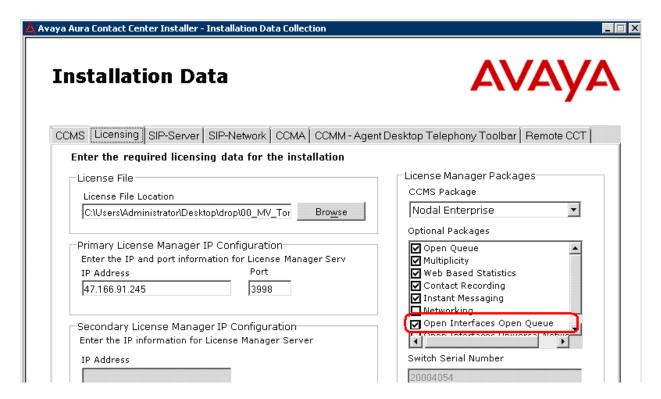
5 Configure Avaya Aura® Contact Center

This section provides the procedures for configuring Avaya Aura® Contact Center. The procedures include the following areas:

- Verification of Package installed on Avaya Aura® Contact Center
- Contact Center server Configuration
- Vérification of Avaya Aura® Contact Center License Manager
- CCT Console configuration
- Avaya Aura® Contact Center Agent configuration
- CCT administration

5.1 Verification of Package on Avaya Aura® Contact Center

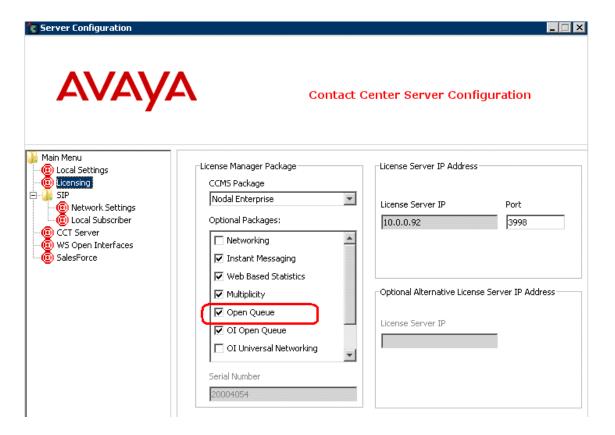
On the "Installation Data" page of the installer, under the Licensing tab, verify that for SIP Call Recording "Open Interfaces Open Queue" optional package is selected. Open Queue is required as it provides an underlying link between the CCT and CCMS components within Avaya Aura® Contact Center.



5.2 Contact Center Server Configuration

On the Avaya Aura® Contact Center server navigate to Start→ Programs→ Avaya → Contact Center → Manager Server → Server Configuration.

Under Licensing Page make sure that "Open Queue" is selected.



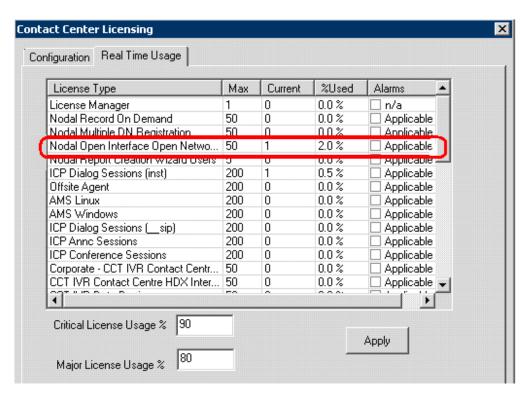
Under WS Open Interfaces Page if 'SOA ENABLED' is selected AND if CCMS is co-resident with CCT, then ensure that the ports used by SOA and CCT Web Services are not using the same port range. Avaya Contact Recorder uses port 9080 to connect to the CCT web service of the Avaya Aura® Contact Center. Ensure that the port range used SOA does not include 9080. Leave the other field as default.



5.3 Verification of License Manager

On the Avaya Aura® Contact Center server navigate to Start→ Programs→ Avaya → License Manager → Configuration

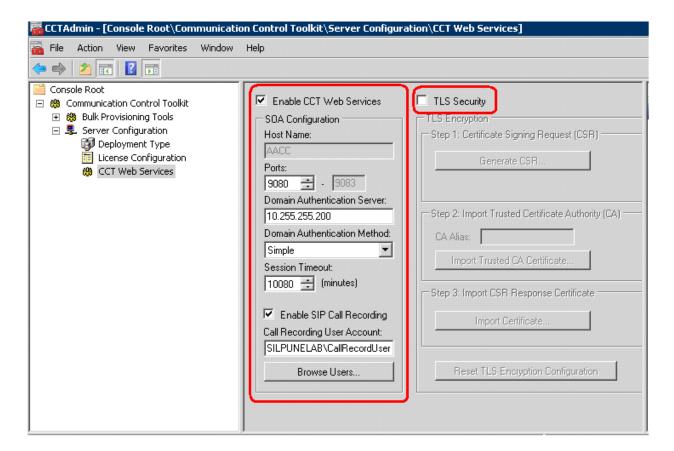
Under license manager ensure that the CCT Web Services are available – this is listed as **Nodal Open Interface Open Networking**



5.4 CCT Console configuration

On the Avaya Aura® Contact Center server navigate to Start→ Programs→ Avaya → Contact Centre → Communication Control Toolkit → CCT Console. From the right hand pane of the CCT console, select Communications Control Toolkit→ Server Configuration → CCT Web Services. On the CCT web services page Check for the following Values:

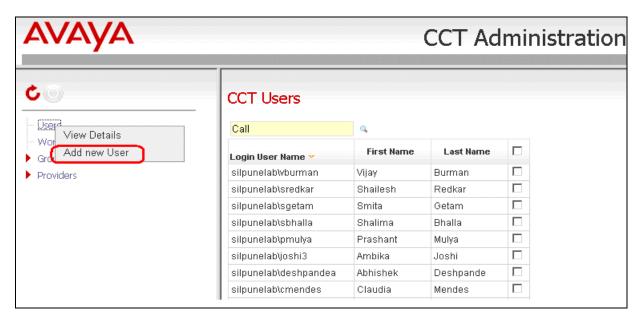
- Ensure the Tab **Enable CCT Web Services** is enabled
- Ensure that **TLS** is disabled. TLS is currently not supported by Avaya Contact Recorder
- Increase the **Session Timeout** to a value that suits the deployment. The default is 2 hours, but suggest this should be increased. This parameter signifies the time after which the SSO token is revoked for the call recorder if the system is completely idle. So if it is expected that no calls occur overnight, recommend this parameter should be set to a longer period (e.g. 24x7x60 = 10080)
- Ensure that the **Enable SIP Call Recording** is checked.
- On Avaya Contact Recorder 10.1.2 user ID that is used to connect to the CCT web service is currently hard coded to the value **CallRecordUser** same must be used Under **CallRecordingUserAccount**. Note if the user is created on the Domain server make sure that the user details mentioned as domainname\username
- **Domain Authentication Server** is the actual server name of the Server that is running the Domain Controller Software.
- For Domain Authentication Method, use **Simple**. (If the alternative "Digest-MD5" is used, this then requires that the "reversible encryption" option is enabled on the Domain Controller for the **CallRecordUser** account).



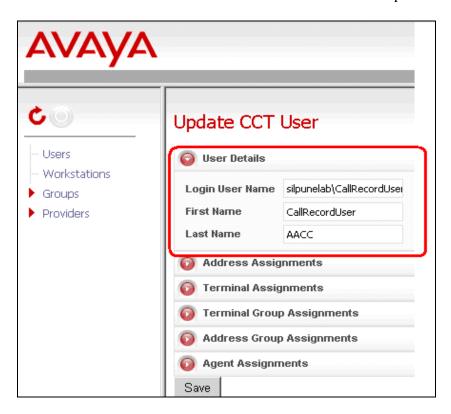
5.5 CCT User Administration

Add a new User with User name 'CallRecordUser' (user used by Avaya Contact Recorder to connect to the CCT web service) to the CCT administration. To add this user:

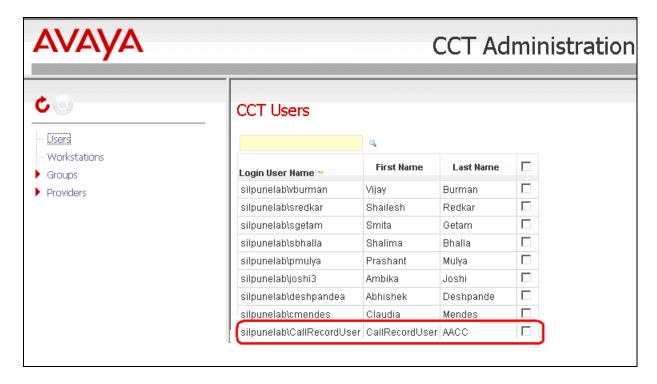
- Access the CCT administration page using the link http://aacchostname>:8081/WebAdmin/
- Right Click on the User link and click 'Add new user'.



• Fill in the user for details for CallRecordUser as required and Save



• Once saved the CallRecordUser will be listed under the CCT administration.



5.6 Avaya Aura® Contact Center Agent Configuration.

Log in to Avaya Aura® Contact Center web page using http://<hostname>.



The following screen is displayed after a successful login. Click on Contact Center Management on the Launchpad.



In the left pane, click the Contact Center Manager to which the agent is to be added. On the menu, select **Add Agent**. The following highlighted fields were configured on **New Agent Details** Window under **User Details** section:

User Type: Select Agent as User Type
 First Name: Type a first name for the agent
 Last Name: Type a last name for the agent

• **Login ID:** The number the agent enters to logon to the phone. In this

case the field is set to the extension (3020)

• **Primary Supervisor:** Select Default Supervisor from the list

• **Voice URI:** The SIP address of the TR87-controlled terminal dedicated

to this agent, in the format sip:agent (use

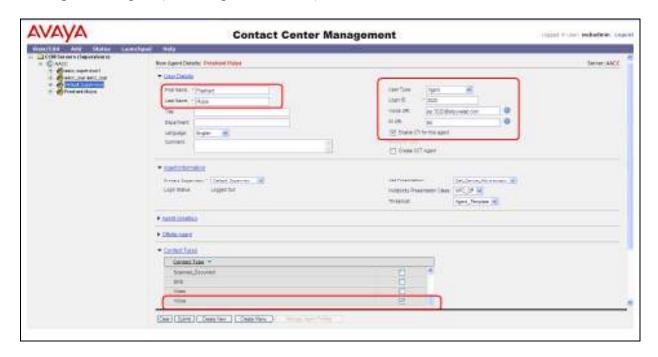
Extension@SIPdomain, where SIPdomain is the CCMS

Local SIP Subscriber Domain name. For example;

sip:3020@silpunelab.com). Voice URI would be added in Avaya Contact Recorder for recording of agent Calls.

• Enable CTI for this agent: Check the check box

Click **Contact Types**, which is then expanded. Select the check box beside each **Contact Type** to assign to the agent (for example, Voice, IM).



6 Configure Avaya Contact Recorder

This section provides the procedures for configuring Avaya Contact Recorder. The procedures include the following areas:

- Access Avaya Contact Recorder
- Administering Avaya Aura® Contact Center Information on Avaya Contact Recorder
- Administer conference mode

6.1 Launch Avaya Contact Recorder

Launch a web browser and enter "http://<IP address of Avaya Contact Recorder>:8080" in the URL field. Log in using proper credentials.



The following screen is displayed after a successful login.



6.2 Administer Avaya Aura® Contact Center Information

Navigate to General Setup -> Contact Center Interface tab and set the following fields:

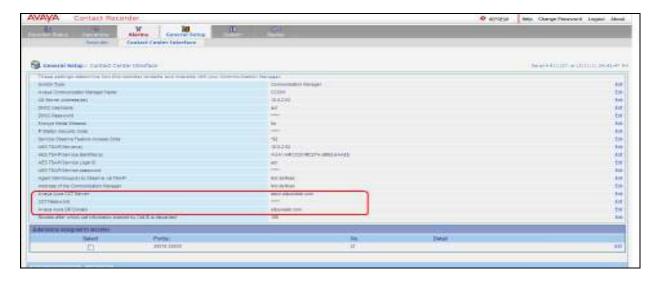
• Avaya Aura CCT Server Set this to the IP address or Hostname of the

CCT server

• CCT Password CallRecordUser Password configured in **Section**

5.5

• Avaya Aura SIP Domain Set this to Domain server IP or hostname.



6.3 Administer Conferenced Mode

Navigate to **Operations** →**Conferenced** tab and set the following fields:

• Audio format Set this to **G.729A (8kbps).**

• (AACC) Filter calls by CDN Set appropriate filter based on the recording

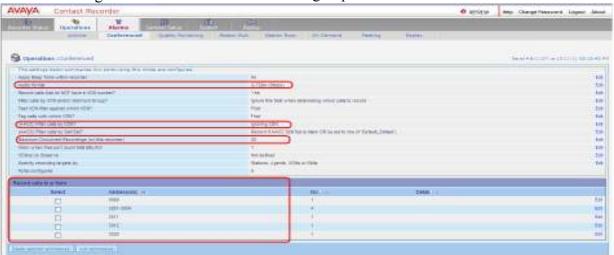
requirement.

• Record calls to or from Use Add address(es) to add the recording

station. Set this to the Voice URI station assigned to the agent in **section 5.6**

• Maximum Concurrent Set this based on Maximum Concurrent

recording required.



7 Verification

Recording

7.1 Verify Avaya Contact Recorder

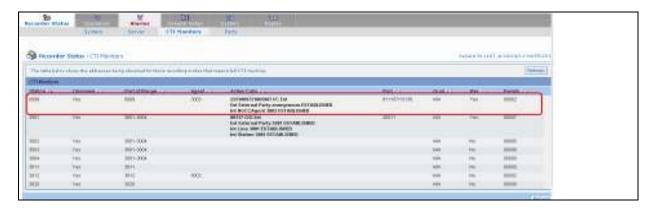
From the Avaya Contact Recorder screen, navigate to Recorder Status > Server. The following screen is displayed. Verify that Link to http://<IP address or Hostname of CCT server>:9080 field shows "UP".



7.2 Verify Avaya Contact Recorder Active Call status

From the Avaya Contact Recorder screen, navigate to Recorder Status → CTI Monitors. Once the call is established at the agent and is under recording, the status would be displayed as in the screen below.

- The **Agent** field displays the Avaya Aura® Contact Center agent ID
- The **Active Calls** field will show up the Call events and details received from the Avaya Aura® Contact Center for an ongoing call on the agent.
- The **Port** field displayed for the call is not one in the range mentioned under the Contact Center Interface page → Extensions assigned to recorder
- The **Rec** field displays as **Yes**



7.3 Verify Avaya Contact Recorder Recording Playback

Select **Replay** from the Avaya Contact Recorder menu bar.



Specify the search criteria in the left pane. Click **SEARCH** to update the screen with call recordings. Verify that the recording entries reflect the calls supposed to be recorded and displayed. Click the radio button to select an entry and click the play button (green triangle) to

listen to the playback. Verify that the content of the recording matches the content of the call.



8 Additional References

Avaya references are available at http://support.avaya.com.

- 1. Avaya Contact Recorder Release 10.1 Planning, Installation and Administration Guide.
- 2. Application Notes to Integrate Avaya Aura® Communication Manager R6.0.1, Avaya Aura® Application Enablement Services R6.1 and Avaya Contact Recorder 10.1 using Service Observing.
- 3. Application Notes to Integrate Avaya Aura® Communication Manager R6.0.1, Avaya Aura® Application Enablement Services R6.1 and Avaya Contact Recorder 10.1 using Single Step Conferencing.
- 4. Application Note for Configuring Avaya Aura® Contact Center 6.1 with Avaya Aura® Communication Manager 5.2, Avaya Aura® Application Enablement Server 5.2.1 and Avaya Aura® SIP Enablement Services 5.2.1 Issue 1.0

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