

### Avaya Solution & Interoperability Test Lab

Application Notes for BBX Vuesion Multichannel Contact Center with Avaya Aura® Communication Manager, Avaya Aura® Application Enablement Services, and Avaya Aura® Session Manager – Issue 1.0

### **Abstract**

These Application Notes describe the configuration steps required for BBX Vuesion Multichannel Contact Center to interoperate with Avaya Aura® Communication Manager, Avaya Aura® Application Enablement Services, and Avaya Aura® Session Manager. BBX Vuesion Multichannel Contact Center is a contact center management solution.

In the compliance testing, BBX Vuesion Multichannel Contact Center provided routing, announcements, screen pop, call control, and call reporting by using the Telephony Services Application Programming Interface from Avaya Aura® Application Enablement Services, and the SIP User interface from Avaya Aura® Session Manager.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

### 1. Introduction

These Application Notes describe the configuration steps required for BBX Vuesion Multichannel Contact Center to interoperate with Avaya Aura® Communication Manager, Avaya Aura® Application Enablement Services, and Avaya Aura® Session Manager. BBX Vuesion Multichannel Contact Center is a contact center management solution, and the compliance testing focused on the voice channel integration.

In the compliance testing, BBX Vuesion Multichannel Contact Center provided routing, announcements, screen pop, call control, and call reporting by using the Telephony Services Application Programming Interface (TSAPI) from Avaya Aura® Application Enablement Services, and the SIP User interface from Avaya Aura® Session Manager.

The SIP User interface was used by BBX Vuesion Multichannel Contact Center to register virtual SIP users with Avaya Aura® Session Manager. The virtual SIP users were configured in a hunt group on Avaya Aura® Communication Manager, with incoming ACD calls routed over an available virtual SIP user to BBX Vuesion Multichannel Contact Center for IVR treatments such as announcements, digit collections, and routing actions. SIP REFER was used to route incoming ACD calls to available call answering station users (hereafter referred to as agents) on Avaya Aura® Communication Manager.

The TSAPI interface was used by BBX Vuesion Multichannel Contact Center to monitor VDNs, virtual SIP users, and agent users on Avaya Aura® Communication Manager, to provide call control via the agent desktops, and to provide screen pop and call reporting features. The agents have desktop computers running the Vuesion Client application, with BBX Vuesion Multichannel Contact Center providing all ACD related features, such as work modes and availability for ACD calls. Call related actions such as answering of incoming calls can be initiated via the agent telephone, or via the agent desktops.

## 2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the Vuesion application, the application used TSAPI to request monitoring on VDNs, virtual SIP user stations, and agent user stations. For the manual part of the testing, calls were made to the VDNs. Manual call controls from both the agent telephones and agent desktop computers were exercised.

The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet connection to the Vuesion server.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

## 2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on Vuesion:

- Handling of SIP messages in areas of registration, codec negotiation, media shuffling, session refresh, hold/reconnect, inbound DTMF, and transfer.
- Handling of TSAPI messages in areas of event notification and call control.
- Handling of various call scenarios including internal, external, inbound, outbound, answer, hold/resume, drop, blind/attended transfer, blind/attended conference, voicemail coverage, ACD queue, multiple agents, and multiple calls.
- Reporting of basic call scenarios including inbound, outbound, hold/resume, and drop.

The serviceability testing focused on verifying the ability of Vuesion to recover from adverse conditions, such as disconnecting and reconnecting the Ethernet connection to the Vuesion server or to the Vuesion Client.

#### 2.2. Test Results

All test cases were executed and verified. The following was an observation on Vuesion from the compliance testing:

• This release does not support transfer and conference actions from the Vuesion Client application. In the compliance testing, all transfer and conference actions were initiated from the agent telephones, including subsequent drops. Note that when an agent used Vuesion Client to drop from a conference, then all remaining parties will also be dropped per current design.

## 2.3. Support

Technical support on Vuesion can be obtained through the following:

Phone: (800) 930-4229, option 4Email: bbxservice@bbxtech.com

• Web: www.bbxtech.com

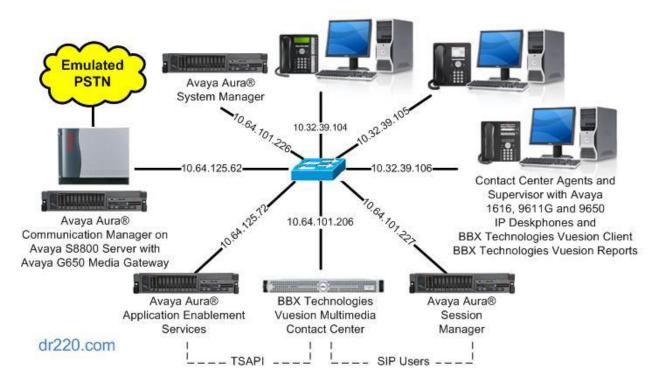
## 3. Reference Configuration

The configuration used for the compliance testing is shown in **Figure 1**. The Vuesion solution consisted of the Vuesion server, Vuesion Client, and Vuesion Reports. The Vuesion Client application was running on the agent desktops, and the Vuesion Reports application was running on the supervisor desktop.

The detailed administration of basic connectivity between Communication Manager, Application Enablement Services, System Manager, and Session Manager are not the focus of these Application Notes and will not be described. The applicable domain name was "dr220.com".

In the compliance testing, Vuesion monitored all VDN and station extensions shown in the table below. The supervisor and agent stations were pre-existing. The VDNs, IVR hunt group, and virtual SIP stations were created new and shown in subsequent sections.

Device Type	Extension				
VDN	65500, 65501, 65502, 65599				
IVR Hunt Group	65551				
Virtual SIP Station	66991, 66992				
Supervisor Station	65000				
Agent Station	65001, 65002				



**Figure 1: Compliance Testing Configuration** 

# 4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Communication Manager on Avaya S8800 Server with Avaya G650 Media Gateway	6.3.6 (R016x.03.0.124.0-21591)
Avaya Aura® Application Enablement Services	6.3.3 (6.3.3.0.10-0)
Avaya Aura® Session Manager	6.3.8
Avaya Aura® System Manager	6.3.8
Avaya 1616 IP Deskphone (H.323)	1.350B
Avaya 9611G IP Deskphone (H.323)	6.4014
Avaya 9650 IP Deskphone (H.323)	3.230A
BBX Vuesion Multichannel Contact Center on Windows Server 2012 R2 Standard	9.4
Avaya TSAPI Windows Client (csta32.dll)	6.3.1.502
BBX Vuesion Client	9.4
BBX Vuesion Reports	9.4

## 5. Configure Avaya Aura® Communication Manager

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

- Verify license
- Administer CTI link
- Administer system parameters features
- Administer IP codec set
- Administer hunt group
- Administer vectors and VDNs

### 5.1. Verify License

Log into the System Access Terminal (SAT) to verify that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the "display system-parameters customer-options" command to verify that there is sufficient capacity for SIP users by comparing the **Maximum Off-PBX Telephones - OPS** field value with the corresponding value in the **USED** column.

The license file installed on the system controls the maximum permitted. If there is insufficient capacity, contact an authorized Avaya sales representative to make the appropriate changes.

```
display system-parameters customer-options
OPTIONAL FEATURES

G3 Version: V16
Location: 2
Platform: 28

System ID (SID): 1
Module ID (MID): 1

USED

Platform Maximum Ports: 65000 162
Maximum Stations: 41000 20
Maximum XMOBILE Stations: 41000 0

Maximum Off-PBX Telephones - EC500: 41000 1
Maximum Off-PBX Telephones - OPS: 41000 4
Maximum Off-PBX Telephones - PBFMC: 41000 0
```

Navigate to **Page 3**, and verify that the **Computer Telephony Adjunct Links** customer option is set to "y". If this option is not set to "y", then contact the Avaya sales team or business partner for a proper license file.

```
display system-parameters customer-options
                                                              Page
                                                                     3 of 11
                               OPTIONAL FEATURES
   Abbreviated Dialing Enhanced List? y
                                                Audible Message Waiting? y
                                                Authorization Codes? y
       Access Security Gateway (ASG)? n
       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
                                                            DCS (Basic)? y
         ARS/AAR Dialing without FAC? n
         ASAI Link Core Capabilities? n
                                                      DCS Call Coverage? y
         ASAI Link Plus Capabilities? n
                                                      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
```

Navigate to **Page 6**, and verify that the **Vectoring (Basic)** customer option is set to "y".

```
display system-parameters customer-options
                                                                      6 of 11
                                                               Page
                        CALL CENTER OPTIONAL FEATURES
                         Call Center Release: 6.0
                               ACD? y
                                                               Reason Codes? y
                      BCMS (Basic)? y
                                        Service Level Maximizer? n
Service Observing (Basic)? y
        BCMS/VuStats Service Level? y
 BSR Local Treatment for IP & ISDN? y
                                        Service Observing (Remote/By FAC)? y
                                         Service Observing (VDNs)? y
                 Business Advocate? n
                                                                  Timed ACW? y
                   Call Work Codes? y
     DTMF Feedback Signals For VRU? y
                                                          Vectoring (Basic)? y
                                                Vectoring (G3V4 Enhanced)? y
                                                     Vectoring (Prompting)? y
                  Dynamic Advocate? n
      Expert Agent Selection (EAS)? y
                           EAS-PHD? y
                                                  Vectoring (3.0 Enhanced)? y
```

#### 5.2. Administer CTI Link

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

```
add cti-link 2

CTI LINK

CTI Link: 2

Extension: 60100

Type: ADJ-IP

COR: 1

Name: AES CTI Link
```

### 5.3. Administer System Parameters Features

Use the "change system-parameters features" command, and set **Music (or Silence) on Transferred Trunk Calls** to "call-wait". This setting will apply music, if administered, to the trunk caller, while waiting for the transfer-to station to answer.

```
change system-parameters features
                                                                Page
                                                                       1 of 20
                            FEATURE-RELATED SYSTEM PARAMETERS
                              Self Station Display Enabled? n
                                   Trunk-to-Trunk Transfer: all
              Automatic Callback with Called Party Queuing? n
   Automatic Callback - No Answer Timeout Interval (rings): 3
                      Call Park Timeout Interval (minutes): 10
       Off-Premises Tone Detect Timeout Interval (seconds): 20
                                AAR/ARS Dial Tone Required? y
             Music (or Silence) on Transferred Trunk Calls? call-wait
             DID/Tie/ISDN/SIP Intercept Treatment: attendant
   Internal Auto-Answer of Attd-Extended/Transferred Calls: transferred
                 Automatic Circuit Assurance (ACA) Enabled? n
            Abbreviated Dial Programming by Assigned Lists? n
      Auto Abbreviated/Delayed Transition Interval (rings): 2
                    Protocol for Caller ID Analog Terminals: Bellcore
   Display Calling Number for Room to Room Caller ID Calls? n
```

#### 5.4. Administer IP Codec Set

Use the "change ip-codec-set n" command, where "n" is the codec set number used by the pre-existing SIP trunk to Session Manager. Update the audio codec types in the **Audio Codec** fields as necessary to include G.729, which is the only codec variant supported by Vuesion for the virtual SIP users.

```
change ip-codec-set 1
                                                      Page
                                                           1 of
                                                                  2
                     IP Codec Set
   Codec Set: 3
   Audio
            Silence
                       Frames
                                Packet
  Codec
            Suppression Per Pkt Size(ms)
1: G.711MU
                         2
              n
                                  2.0
2: G.729
                          2
                                  20
                  n
3:
```

### 5.5. Administer Hunt Group

Proceed to **Section 7** to configure Session Manager. After the new virtual SIP users for use by Vuesion have been added in Session Manager, return to this section to configure a hunt group for routing of calls to Vuesion.

Add a hunt group using the "add hunt n" command, where "n" is an available hunt group number. For **Group Name**, enter a descriptive name. For **Group Extension**, enter an available extension number. For **Group Type**, enter "circ".

```
add hunt-group 551

Group Number: 551

Group Name: BBX IVR Pilot

Group Extension: 65551

Group Type: circ Coverage Path:

TN: 1 Night Service Destination:

COR: 1 MM Early Answer? n

Security Code: Local Agent Preference? n
```

Navigate to **Page 3**, and enter all SIP user extensions from **Section 7.2**, as shown below.

```
add hunt-group 551
                                                                3 of
                                                          Page
                                                                     60
                              HUNT GROUP
       Group Number: 551 Group Extension: 65551 Group Type: circ
 Member Range Allowed: 1 - 1500 Administered Members (min/max): 0
                                     Total Administered Members: 0
GROUP MEMBER ASSIGNMENTS
     Ext Name (19 characters)
                                      Ext
                                                     Name (19 characters)
  1: 66991
                                     14:
  2: 66992
                                      15:
                                      16:
```

#### 5.6. Administer Vectors and VDNs

Administer a set of vectors and VDNs for routing of calls to Vuesion. The number of VDNs and vectors, and the detailed vector steps may vary based on customer needs. In the compliance testing, four VDNs and one vector were created.

The Sales and Support VDNs were used for routing of ACD calls from the PSTN, and the Tenant and IVR Pilot VDNs were used for routing of internal administrative function calls such as retrieval of group announcements and change of emergency announcements.

VDN	Vector	Purpose
65500	501	For delivering Tenant calls to Vuesion
65501	501	For delivering Sales calls to Vuesion
65502	501	For delivering Support calls to Vuesion
65599	501	For delivering IVR Pilot calls to Vuesion

Modify a vector using the "change vector n" command, where "n" is an available vector number. Enter a descriptive **Name** and add a **route-to number** step. Use the hunt group extension from **Section 5.5** as the **route-to number** destination, as shown below.

Add a VDN using the "add vdn n" command, where "n" is an available extension, in this case "65500". Associate this VDN with the newly added vector from above.

• Name: A descriptive name.

• **Destination:** "Vector Number" along with the vector number from above.

add vdn 65500

VECTOR DIRECTORY NUMBER

Extension: 65500

Name\*: BBX Tenant

Destination: Vector Number

Attendant Vectoring? n

Meet-me Conferencing? N

COR: 1

TN\*: 1

Measured: none

Repeat this section to add all desired VDNs. In the compliance testing, four VDNs were added, as shown below.

list vdn 65500 count	4								
	VECTOR DIRE	ECTORY	y NUI	MBER	S				
									Evnt
		VDN			Vec		(	Orig	Noti
Name (22 characters)	Ext/Skills	Ovr	COR	TN	PRT	Num	Meas 2	Annc	Adj
BBX Tenant	65500	n	1	1	V	501	none		
BBX Sales	65501	n	1	1	V	501	none		
BBX Support	65502	n	1	1	v	501	none		
BBX IVR Pilot	65599	n	1	1	v	501	none		

## 6. Configure Avaya Aura® Application Enablement Services

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

- Launch OAM interface
- Verify license
- Administer TSAPI link
- Disable security database
- Restart TSAPI service
- Obtain Tlink name
- Administer Vuesion user

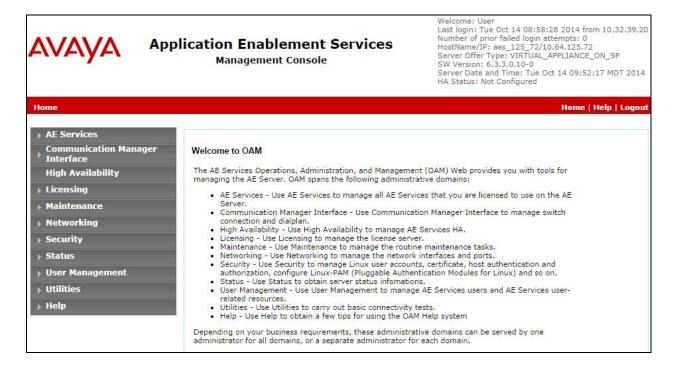
#### 6.1. Launch OAM Interface

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

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



The **Welcome to OAM** screen is displayed next.



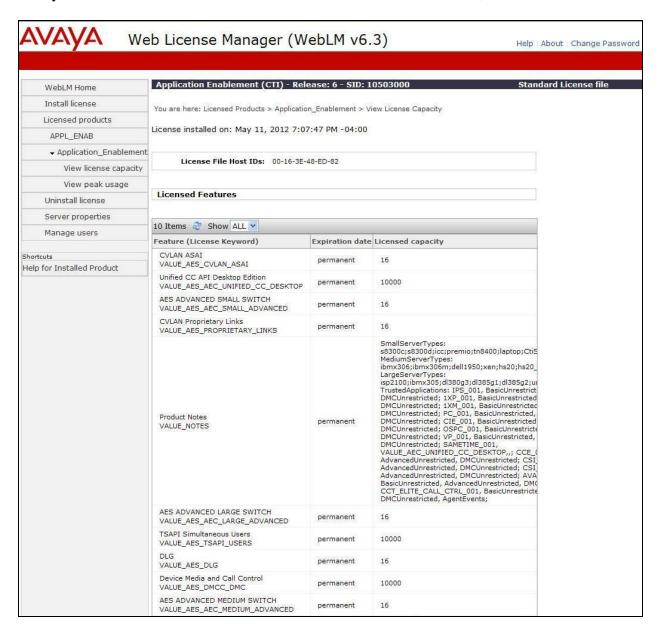
### 6.2. Verify License

Select Licensing  $\rightarrow$  WebLM Server Access in the left pane, to display the Web License Manager pop-up screen (not shown), and log in using the appropriate credentials.



The Web License Manager screen below is displayed. Select Licensed products  $\rightarrow$  APPL\_ENAB  $\rightarrow$  Application\_Enablement in the left pane, to display the Application Enablement (CTI) screen in the right pane.

Verify that there are sufficient licenses for **TSAPI Simultaneous Users**, as shown below.



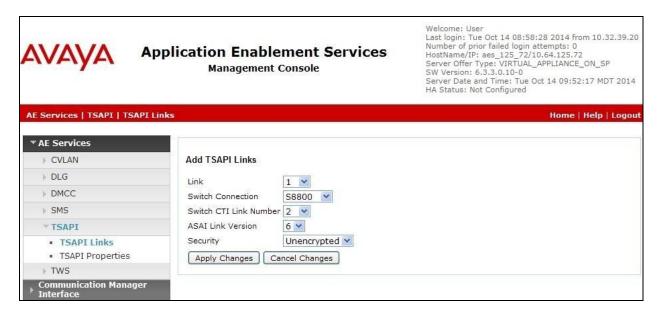
#### 6.3. Administer TSAPI Link

To administer a TSAPI link, select **AE Services** → **TSAPI Links** from the left pane of the **Management Console**. The **TSAPI Links** screen is displayed, as shown below. Click **Add Link**.



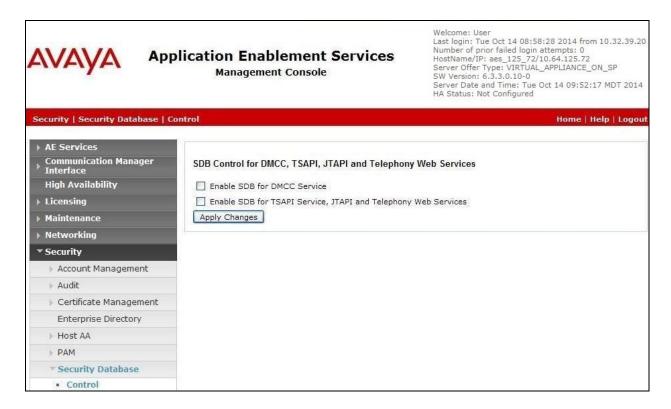
The **Add TSAPI Links** screen is displayed next.

The **Link** field is only local to the Application Enablement Services server, and may be set to any available number. For **Switch Connection**, select the relevant switch connection from the drop-down list. In this case, the existing switch connection "S8800" is selected. For **Switch CTI Link Number**, select the CTI link number from **Section 5.2**. Retain the default values in the remaining fields.



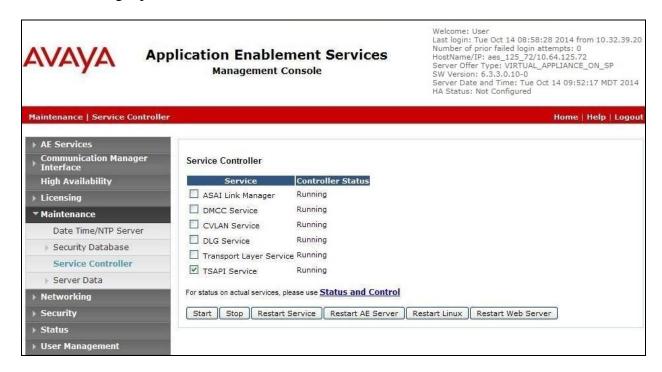
## 6.4. Disable Security Database

Select Security  $\rightarrow$  Security Database  $\rightarrow$  Control from the left pane, to display the SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services screen in the right pane. Uncheck both fields below.



#### 6.5. Restart TSAPI Service

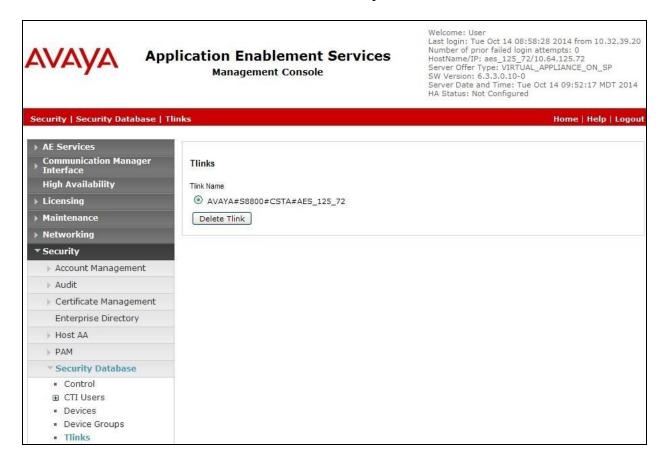
Select Maintenance  $\rightarrow$  Service Controller from the left pane, to display the Service Controller screen in the right pane. Check TSAPI Service, and click Restart Service.



#### 6.6. Obtain Tlink Name

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

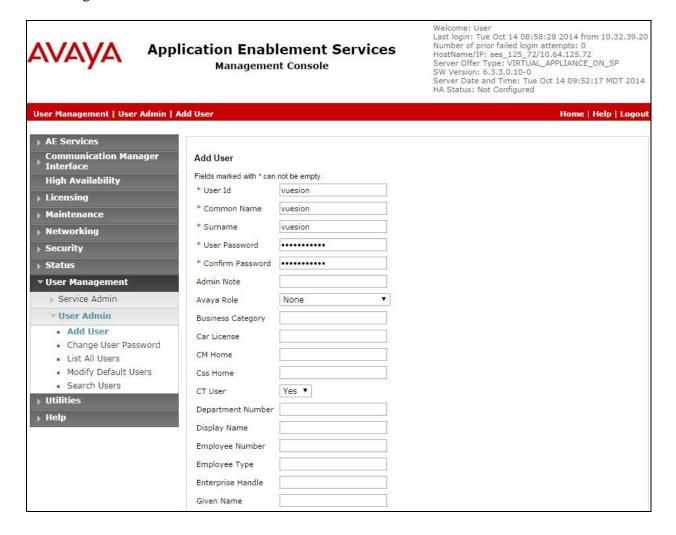
In this case, the associated Tlink name is "AVAYA#S8800#CSTA#AES\_125\_72". Note the use of the switch connection "S8800" from Section 6.3 as part of the Tlink name.



#### 6.7. Administer Vuesion User

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

Enter desired values for **User Id**, **Common Name**, **Surname**, **User Password**, and **Confirm Password**. For **CT User**, select "Yes" from the drop-down list. Retain the default value in the remaining fields.



## 7. Configure Avaya Aura® Session Manager

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

- Launch System Manager
- Administer users

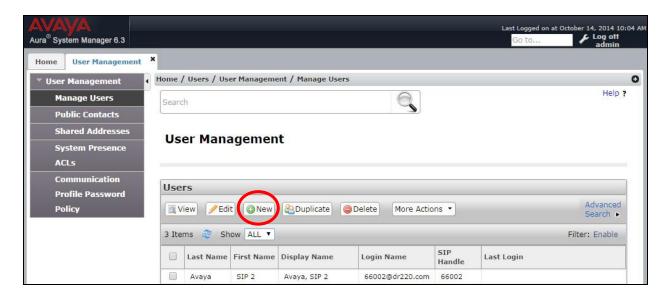
## 7.1. Launch System Manager

Access the System Manager web interface by using the URL "https://ip-address" in an Internet browser window, where "ip-address" is the IP address of System Manager. Log in using the appropriate credentials.



#### 7.2. Administer Users

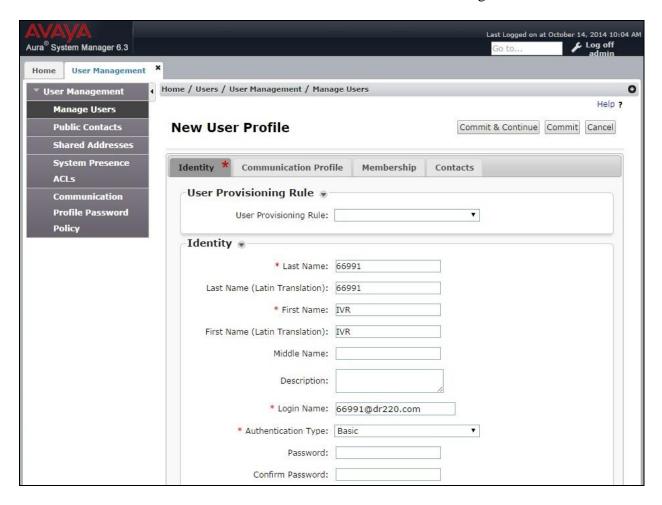
In the subsequent screen (not shown), select Users → User Management → Manage Users to display the User Management screen below. Click New to add a user.



### 7.2.1. Identity

The **New User Profile** screen is displayed. For **Last Name**, enter a desired user extension as required by Vuesion, in this case "66991". For **First Name**, enter "IVR", as shown below.

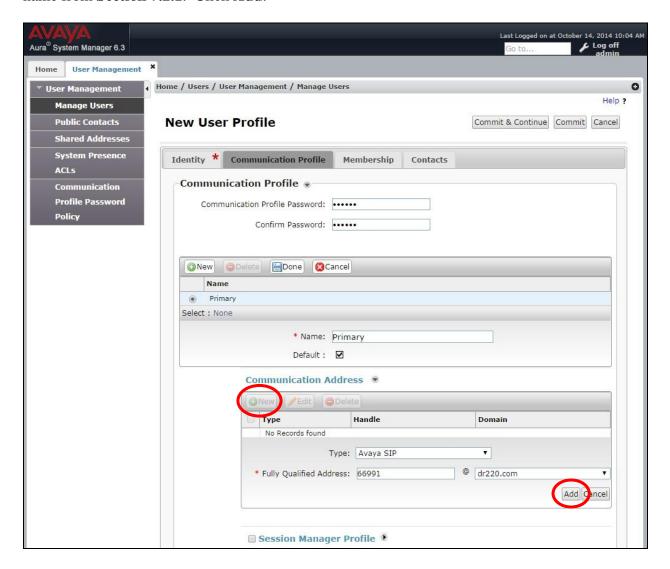
For **Login Name**, enter "x@y", where "x" is the same user extension and "y" is the applicable domain name from **Section 3**. Retain the default values in the remaining fields.



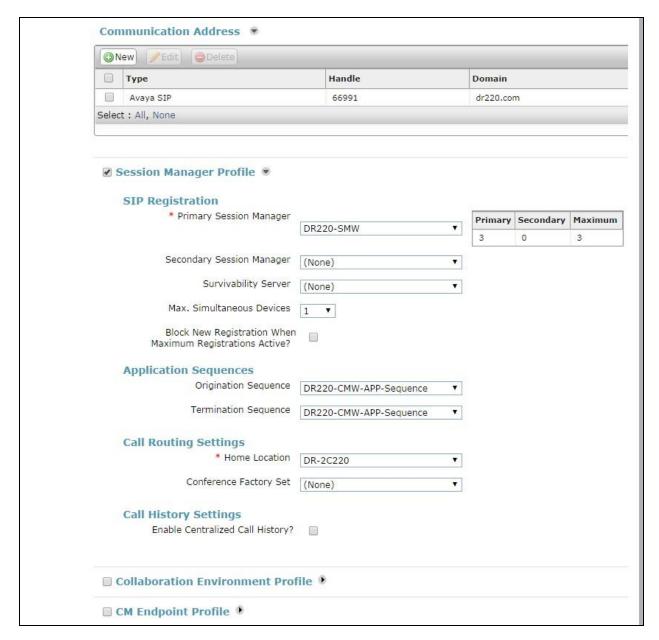
#### 7.2.2. Communication Profile

Select the **Communication Profile** tab. For **Communication Profile Password** and **Confirm Password**, enter the password as "VRx" where "x" is the same user extension, as required by Vuesion for the SIP user to use for registration. In this case, the password for SIP user "66991" is "VR66991".

In the **Communication Address** sub-section, click **New** to add a new address. The sub-section is updated with additional fields, as shown below. For **Type**, retain "Avaya SIP". For **Fully Qualified Address**, enter and select the SIP user extension and domain name to match the login name from **Section 7.2.1**. Click **Add**.

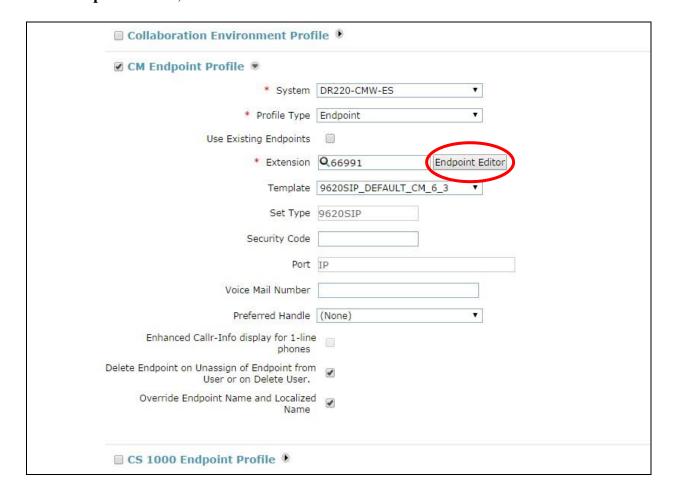


Scroll down to check and expand **Session Manager Profile**. For **Primary Session Manager**, **Origination Sequence**, **Termination Sequence**, and **Home Location**, select the values corresponding to the applicable Session Manager and Communication Manager. Retain the default values in the remaining fields.



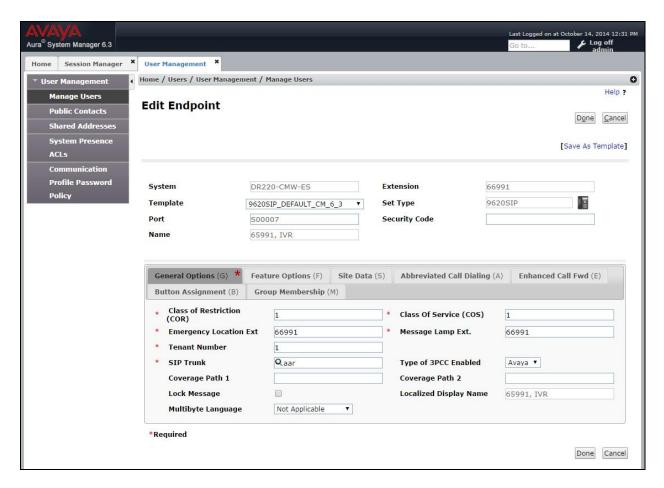
Scroll down to check and expand **CM Endpoint Profile**. For **System**, select the value corresponding to the applicable Communication Manager. For **Extension**, click and select the SIP user extension from **Section 7.2.1**. For **Template**, select "9620SIP\_DEFAULT\_CM\_6\_3". Retain the default values in the remaining fields.

#### Click **Endpoint Editor**, as shown below.



The **Edit Endpoint** screen is displayed. For **Type of 3PCC Enabled**, select "Avaya" from the drop-down list as shown below. Retain the default values in the remaining fields.

Repeat **Section 7.2** to add the desired number of SIP users. In the compliance testing, two SIP users with extensions "66991" and "66992" were created.



## 8. Configure BBX Vuesion Multichannel Contact Center

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

- Launch Vuesion Manager
- Administer communication setup
- Administer Switch.txt
- Start services
- Administer VMAIL extensions
- Administer local extensions
- Administer ACD members
- Administer ACD groups
- Administer tenants
- Restart services

The configuration of Vuesion server is typically performed by BBX technicians. The procedural steps are presented in these Application Notes for informational purposes. In addition to the shown procedural steps, the application requires the auto attendant and class of service for agents and supervisors be configured by following reference [2].

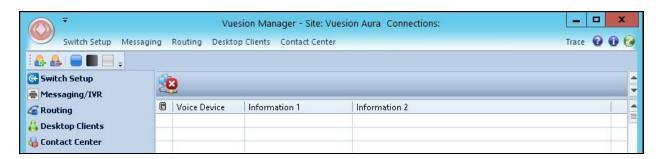
### 8.1. Launch Vuesion Manager

From the Vuesion server, double-click the **VuesionManager.exe** icon, which was created as part of installation.



## 8.2. Administer Communication Setup

The **Vuesion Manager** screen is displayed. Select **Switch Setup** → **Communication Setup** from the top menu.



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

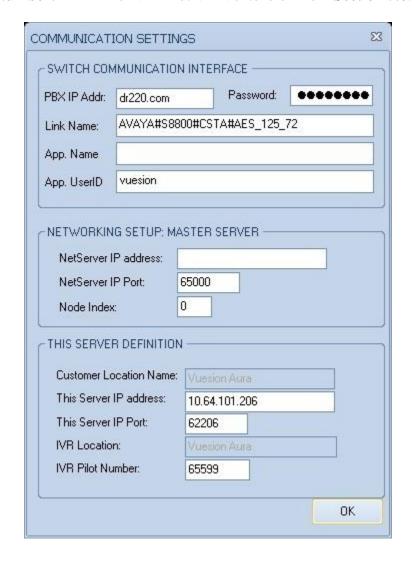
PBX IP Addr: The applicable domain name from Section 3.
 Password: The Vuesion user credential from Section 6.7.

• **Link Name:** The Tlink name from **Section 6.6**.

• **App. UserID:** The Vuesion user credential from **Section 6.7**.

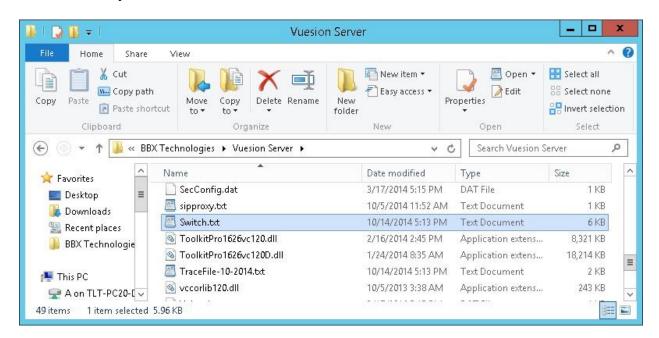
• This Server IP address: IP address of the Vuesion server.

This Server IP Port: A unique port number in the range of 62000-62999.
 IVR Pilot Number: The IVR Pilot VDN extension from Section 5.6.



#### 8.3. Administer Switch.txt

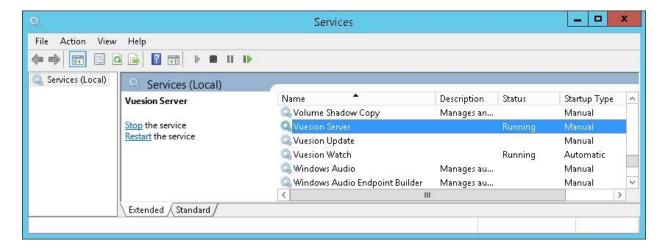
From the Vuesion server, navigate to the C:\Program Files (x86)\BBX Technologies\Vuesion Server directory to locate the Switch.txt file shown below.



Open the **Switch.txt** file with the Notepad application. Navigate to the **SIP IVR INFORMATION** sub-section. Set **SIPPROXYADDRESS** to the IP address of the Session Manager signaling interface. Set **SIPMYIPADDRESS** to the IP address of the Vuesion server. Retain the default values in the remaining fields.

#### 8.4. Start Services

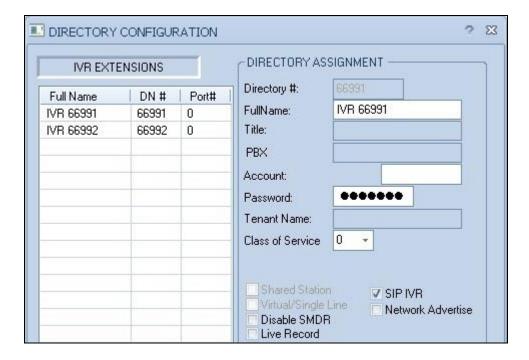
Select Start → Control Panel → Administrative Tools → Services, to display the Services screen. Navigate to the Vuesion Server entry, right-click on the entry and select Start.



#### 8.5. Administer VMAIL Extensions

Follow the procedures in **Section 8.1** to launch Vuesion Manager. From the **Vuesion Manager** screen shown in **Section 8.2**, select **Messaging VMAIL Extensions** from the top menu, to display the **DIRECTORY CONFIGURATION** screen below.

Follow reference [2] to create an entry for each virtual SIP user from **Section 7.2**. For **FullName**, enter the SIP user name from **Section 7.2.1**. For **Password**, enter the SIP user password from **Section 7.2.2**. Check **SIP IVR**.

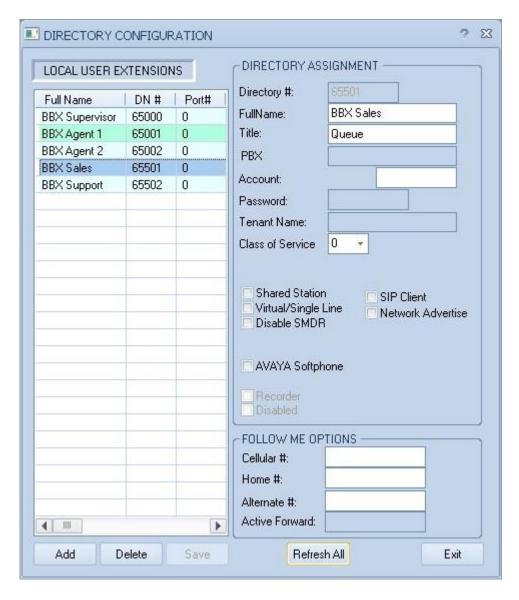


#### 8.6. Administer Local Extensions

From the **Vuesion Manager** screen shown in **Section 8.2**, select **Switch Setup**  $\rightarrow$  **Local Extensions** from the top menu, to display the **DIRECTORY CONFIGURATION** screen below.

Follow reference [2] to create an entry for each PSTN reachable VDN from **Section 5.6**, in this case the Sales and Support VDNs, and for each supervisor and agent station extension from **Section 3**, as shown below.

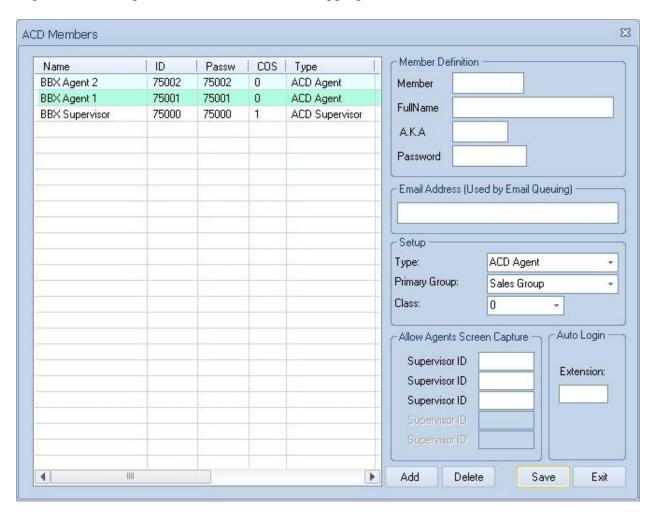
For **Title**, use "Queue" for the entries associated with VDNs.



#### 8.7. Administer ACD Members

From the **Vuesion Manager** screen shown in **Section 8.2**, select **Contact Center**  $\rightarrow$  **ACD Members** from the top menu, to display the **ACD Members** screen. Follow reference [2] to create an entry for each agent and supervisor user from **Section 3**.

For **ID**, use unique values for each user. For **Type**, use "ACD Agent" for agents and "ACD Supervisor" for supervisors. For **COS**, use the appropriate class of service.

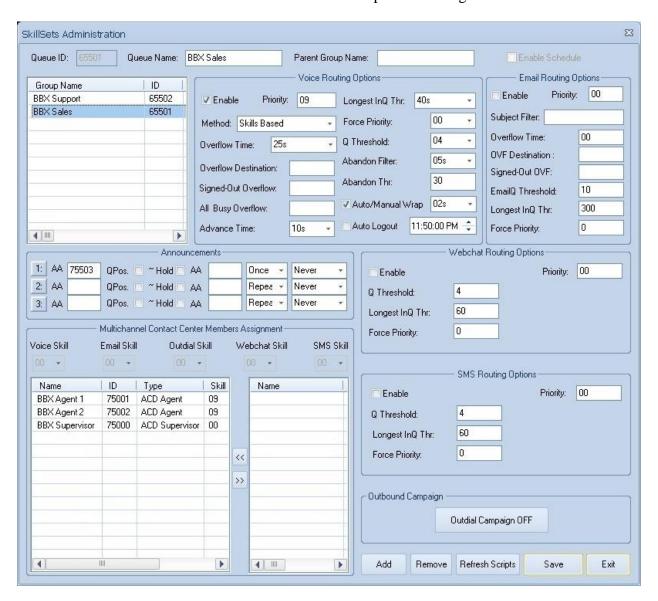


### 8.8. Administer ACD Groups

From the Vuesion Manager screen shown in Section 8.2, select Contact Center → ACD Groups from the top menu, to display the SkillSets Administration screen. Follow reference [2] to create an entry for each PSTN reachable VDN from Section 5.6. Note that the Queue ID and Queue Name must match the VDN extension and name exactly from Section 5.6.

The **Voice Routing Options** sub-section defines parameters used for routing of ACD calls. The **Multichannel Contact Center Members Assignment** sub-section defines the members and their skills level. The **Announcements** sub-section defines the announcement treatments.

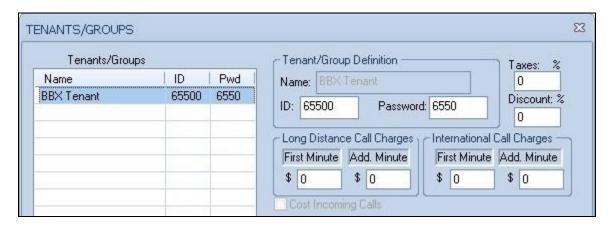
The screenshot below shows the values used in the compliance testing.



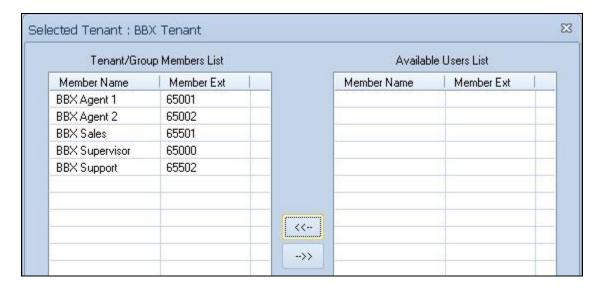
#### 8.9. Administer Tenants

From the **Vuesion Manager** screen shown in **Section 8.2**, select **Messaging** → **Tenants** from the top menu, to display the **TENANTS/GROUPS** screen.

Follow reference [2] to create an entry for the Tenant VDN from **Section 5.6**. For **Name**, enter the Tenant VDN name from **Section 5.6**. For **ID** and **Password**, enter the Tenant VDN extension, and a desired 4-digits password respectively. Retain the default values in the remaining fields, and click **Edit Members** toward the bottom of the screen (not shown below).



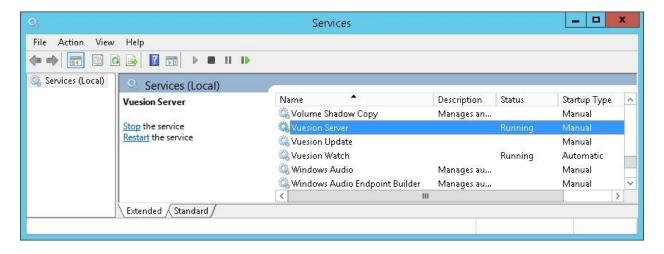
The **Selected Tenant** screen is displayed next. Select entries associated with agents, supervisors, and PSTN reachable VDNs from the **Available User List** and move to the **Tenant/Group Members List**, as shown below.



#### 8.10. Start Services

Select Start → Control Panel → Administrative Tools → Services, to display the Services screen. Stop the Vuesion Watch service, followed by Vuesion Server.

After both services are stopped, start the **Vuesion Server** service, which will automatically start the **Vuesion Watch** service.



## 9. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager, Application Enablement Services, Session Manager, and Vuesion.

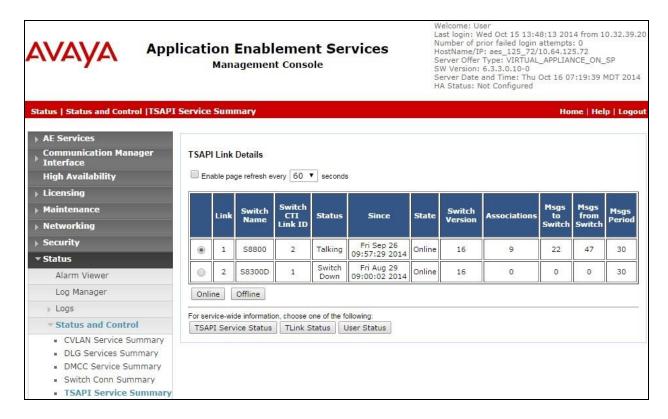
## 9.1. Verify Avaya Aura® Communication Manager

On Communication Manager, verify the status of the administered CTI link by using the "status aesvcs cti-link" command. Verify that the **Service State** is "established" for the CTI link number administered in **Section 5.2**, as shown below.

statu	s aesvcs	cti-li	nk				
AE SERVICES CTI LINK STATUS							
CTI Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd	
2	6	no	aes_125_72	established	47	22	

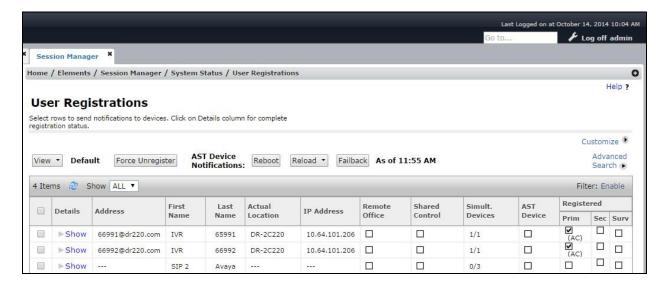
## 9.2. Verify Avaya Aura® Application Enablement Services

On Application Enablement Services, verify the status of the TSAPI link by selecting Status > Status and Control > TSAPI Service Summary from the left pane. The TSAPI Link Details screen is displayed. Verify the Status is "Talking" for the TSAPI link administered in Section 6.3, and that the Associations column reflects the total number of monitored VDN and station extensions from Section 3.



## 9.3. Verify Avaya Aura® Session Manager

From the System Manager Web interface, select **Elements** → **Session Manager** → **System Status** → **User Registrations** to display the **User Registrations** screen. Verify that all SIP users from **Section 7.2** are registered, as shown below with a check in the **Registered Prim** column.

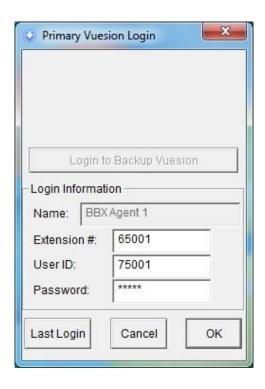


## 9.4. Verify BBX Vuesion Multichannel Contact Center

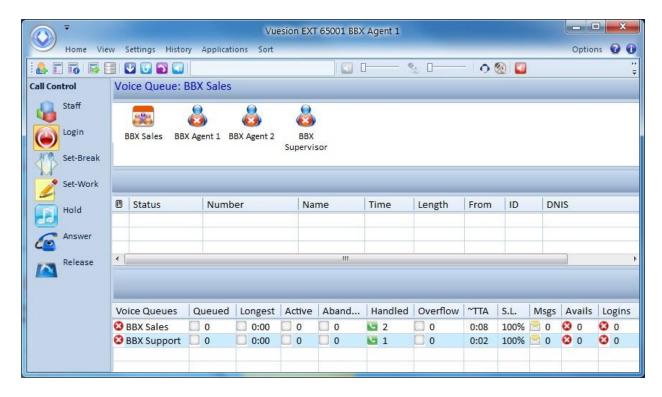
From the agent user PC running Vuesion Client, double-click on the **VuesionClient.exe** icon shown on the desktop, which was created as part of installation.



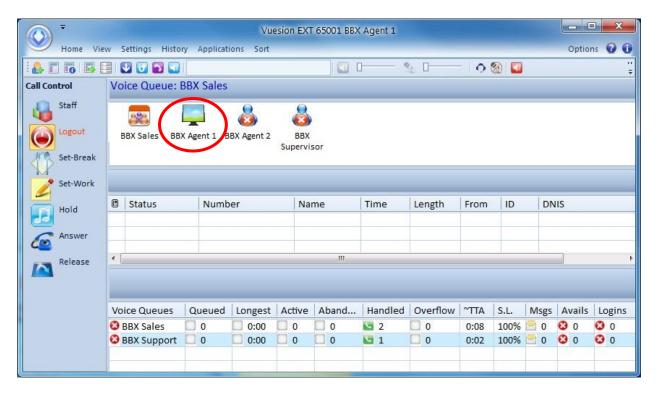
The **Primary Vuesion Login** screen is displayed. Log in using an appropriate agent credentials from **Section 8.7**. For **Extension #,** enter the relevant agent station extension, in this case "65001".



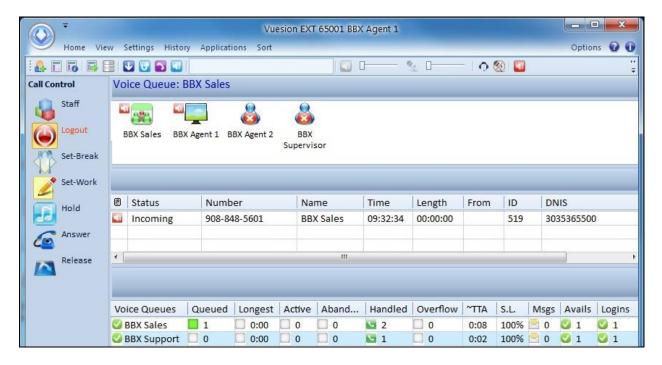
The **Vuesion** screen below is displayed. Click on the **Login** icon from the left pane.



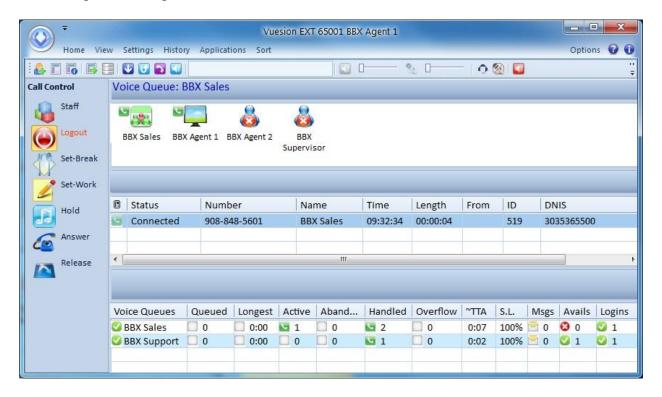
Verify the applicable agent icon is updated in the right pane, as shown below.



Make an incoming ACD call from the PSTN to the Sales VDN, and verify that the agent screen is updated to reflect a ringing call, as shown below. Also verify that the entry shown in the middle right pane reflects proper information for the call. Click on the **Answer** icon in the left pane to answer the call.



Verify the agent telephone is connected to the caller with two-way talk paths, and that the agent screen is updated to reflect the call being connected, as shown below. Click on the **Release** icon in the left pane to complete the call.



From the supervisor PC running Vuesion Reports, double-click on the **VuesionReports.exe** icon shown on the desktop, which was created as part of installation. In the compliance testing, Vuesion Reports was running on the supervisor PC.



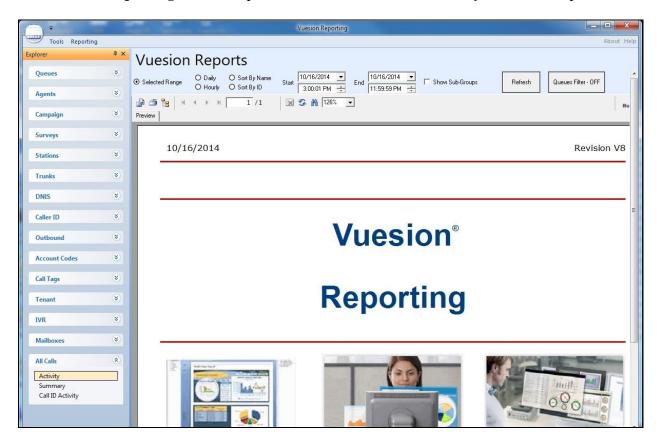
The **Vuesion Reporting** screen is displayed. For **Server IP/Name**, enter the IP address of the Vuesion server. For **TCP/Port**, enter the Vuesion server IP port from **Section 8.2**. For **Supervisor ID** and **Password**, enter the applicable credentials for the supervisor from **Section 8.7**, as shown below.



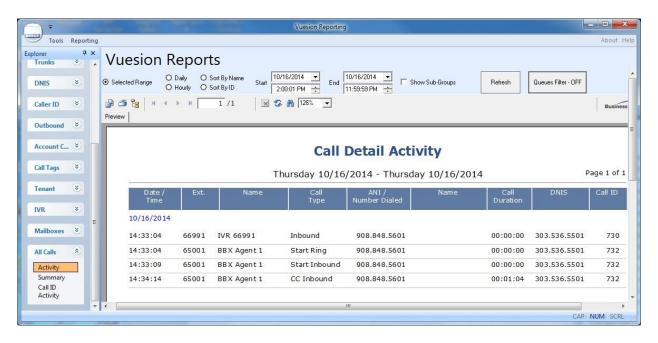
The **Vuesion Reporting** screen below is displayed. Retain the default values, and click **View Reports** to view reports for the current day.



The **Vuesion Reporting** screen is updated. Select **All Calls**  $\rightarrow$  **Activity** from the left pane.



The **Vuesion Reporting** screen is updated with the **Call Detail Activity** report. Verify that there are entries reflecting the last call with proper information, as shown below.



### 10. Conclusion

These Application Notes describe the configuration steps required for BBX Vuesion Multichannel Contact Center to successfully interoperate with Avaya Aura® Communication Manager, Avaya Aura® Application Enablement Services, and Avaya Aura® Session Manager. All feature and serviceability test cases were completed with an observation noted in **Section 2.2**.

### 11. Additional References

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

- **1.** Administering Avaya Aura® Communication Manager, Document 03-300509, Issue 10, Release 6.3, June 2014, available at http://support.avaya.com.
- **2.** Avaya Aura® Application Enablement Services Administration and Maintenance Guide, Release 6.3, 02-300357, June 2014, available at <a href="http://support.avaya.com">http://support.avaya.com</a>.
- **3.** Administering Avaya Aura® Session Manager, Release 6.3, Issue 3, October 2013, available at <a href="http://support.avaya.com">http://support.avaya.com</a>.
- **4.** *Vuesion Application Server Contact Center Configuration Guide*, 01/2014 Release V9, available upon request to BBX Support.

#### ©2014 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and TM are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at <a href="mailto:devconnect@avaya.com">devconnect@avaya.com</a>.