



## **Application Notes for BBX Vuesion Multichannel Contact Center 10.3 with Avaya Aura® Application Enablement Services 7.0 and Avaya Aura® Session Manager 7.0 – Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for BBX Vuesion Multichannel Contact Center 10.3 to interoperate with Avaya Aura® Communication Manager 7.0, Avaya Aura® Application Enablement Services 7.0, and Avaya Aura® Session Manager 7.0. 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 10.3 to interoperate with Avaya Aura® Communication Manager 7.0, Avaya Aura® Application Enablement Services 7.0, and Avaya Aura® Session Manager 7.0. 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 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 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 ACD group and agent related features, such as work modes and availability for ACD group calls. Call related actions such as answering of incoming calls can be initiated via the agent telephones, 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 desktops were exercised.

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

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, 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 conference actions from the Vuesion Client application. In the compliance testing, all conference actions were initiated from the agent telephones, including subsequent drop from the conference-from agent.
- In the blind conference scenario, the conference-to agent cannot answer the call using the desktop. The workaround is to use the telephone.
- In the conference scenarios, the conference-from agent desktop showed two call entries.
- In the blind transfer to group scenario, the blind transfer worked intermittently via the group icon on the desktop. The workaround is to use attended transfer to group via the Transfer icon.
- In general, mix use of agent desktop and telephone to perform call control actions is supported. For the transfer feature, however, all actions need to start and complete from the same source.

## 2.3. Support

Technical support on Vuesion can be obtained through the following:

- **Phone:** (800) 930-4229, option 4
- **Email:** [VuesionSupport@bbxtech.com](mailto:VuesionSupport@bbxtech.com)
- **Web:** [www.bbxtech.com](http://www.bbxtech.com)

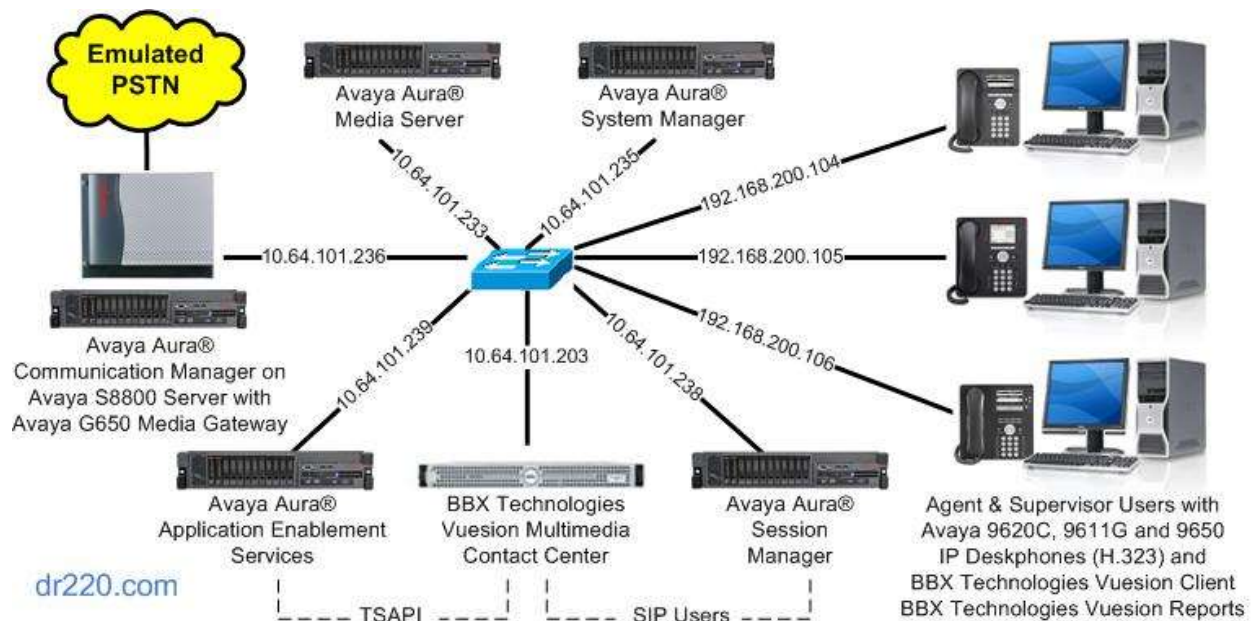
### 3. Reference Configuration

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 configuration of Session Manager is performed via the web interface of System Manager. The detailed administration of basic connectivity between Communication Manager, Application Enablement Services, System Manager, 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, 65588
IVR Hunt Group	65551
Virtual SIP Station	66881, 66882
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 in Virtual Environment	7.0 SP1 (7.0.0.1.0.441.22477)
Avaya G650 Media Gateway	NA
Avaya Aura® Media Server in Virtual Environment	7.7.0.236
Avaya Aura® Application Enablement Services in Virtual Environment	7.0 Patch 1 (7.0.0.0.1.13)
Avaya Aura® Session Manager in Virtual Environment	7.0 (7.0.0.0.0.700007)
Avaya Aura® System Manager in Virtual Environment	7.0 (7.0.0.0.0.4036)
Avaya 9611G IP Deskphone (H.323)	6.6029
Avaya 9620C & 9650 IP Deskphones (H.323)	3.250A
BBX Vuesion Multichannel Contact Center on Windows Server 2012 R2 Standard <ul style="list-style-type: none"><li>Avaya TSAPI Windows Client (csta32.dll)</li></ul>	10.3.1 6.3.1.502
BBX Vuesion Client	10.3
BBX Vuesion Reports	10.3

## 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
- Administer SIP trunk group

### 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                               Page 1 of 12
                                OPTIONAL FEATURES

G3 Version: V17                                     Software Package: Enterprise
Location: 2                                           System ID (SID): 1
Platform: 28                                         Module ID (MID): 1

                                USED
Platform Maximum Ports: 65000 195
Maximum Stations: 41000 20
Maximum XMOBILE Stations: 41000 0
Maximum Off-PBX Telephones - EC500: 41000 2
Maximum Off-PBX Telephones - OPS: 41000 2
Maximum Off-PBX Telephones - PBFMC: 41000 0
Maximum Off-PBX Telephones - PVFMC: 41000 0
Maximum Off-PBX Telephones - SCCAN: 0 0
Maximum Survivable Processors: 313 0
```

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

Navigate to **Page 7**, and verify that the **Vectoring (Basic)** customer option is set to “y”.

display system-parameters customer-options	Page 7 of 12
CALL CENTER OPTIONAL FEATURES	
Call Center Release: 7.0	
ACD? y	Reason Codes? y
BCMS (Basic)? y	Service Level Maximizer? n
BCMS/VuStats Service Level? y	Service Observing (Basic)? y
BSR Local Treatment for IP & ISDN? y	Service Observing (Remote/By FAC)? y
Business Advocate? n	Service Observing (VDNs)? y
Call Work Codes? y	Timed ACW? y
DTMF Feedback Signals For VRU? y	<b>Vectoring (Basic)? y</b>
Dynamic Advocate? n	Vectoring (Prompting)? y
Expert Agent Selection (EAS)? y	Vectoring (G3V4 Enhanced)? 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 1	Page 1 of 3
CTI LINK	
CTI Link: 1	
<b>Extension: 60111</b>	
<b>Type: ADJ-IP</b>	
COR: 1	
<b>Name: AES CTI Link</b>	



### 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 19
      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.711 and G.729 variants, which are the codec 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      n          2          20
2: G.729        n          2          20
3:
```

## 5.5. Administer Hunt Group

Proceed to **Section 7** to configure Session Manager. After the new virtual SIP users for Vuesion have been created in Session Manager, return to this section to configure a hunt group for routing of calls over the virtual SIP users 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		Page 1 of 60
HUNT GROUP		
Group Number: 551		
Group Name: <b>BBX IVR Pilot</b>		
Group Extension: 65551		
Group Type: <b>circ</b>		
Coverage Path:		
TN: 1	Night Service Destination:	
COR: 1	MM Early Answer? n	
Security Code:	Local Agent Preference? n	
ISDN/SIP Caller Display:		

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

add hunt-group 551		Page 3 of 60
HUNT GROUP		
Group Number: 551		Group Extension: 65551
		Group Type: circ
Member Range Allowed: 1 - 1500		Administered Members (min/max): 0 /0
Total Administered Members: 0		
GROUP MEMBER ASSIGNMENTS		
Ext	Name(19 characters)	Ext Name(19 characters)
1: 66881		14:
2: 66882		15:
3:		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 incoming 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
65588	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. Enter any additional desired steps based on customer needs.

```
change vector 501                                     Page 1 of 6
CALL VECTOR
Number: 501      Name: BBX Vector
Multimedia? n   Attendant Vectoring? n   Meet-me Conf? n   Lock? n
Basic? y        EAS? y   G3V4 Enhanced? y   ANI/II-Digits? y   ASAI Routing? y
Prompting? y    LAI? y   G3V4 Adv Route? y   CINFO? y   BSR? y   Holidays? y
Variables? y    3.0 Enhanced? y
01 route-to      number 65551              with cov n if unconditionally
02 stop
03
```

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                                     Page 1 of 2
                                         VECTOR DIRECTORY NUMBER
                                         Extension: 65500
                                         Name*: BBX Tenant
                                         Destination: Vector Number      501
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 DIRECTORY NUMBERS
                                         Evt
                                         Noti
                                         Adj
Name (22 characters)  Ext/Skills  VDN  Vec  Orig  Meas  Annc
Ovr COR TN  PRT Num
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      65588      n 1 1  V 501 none
```

## 5.7. Administer SIP Trunk Group

Use the “change trunk-group n” command, where “n” is the existing SIP trunk group number used for SIP user integration with Session Manager.

Navigate to **Page 4**. For **Telephone Event Payload Type**, enter “101”, as shown below. This value is needed for DTMF integration with Vuesion via the SIP users.

change trunk-group 66	<b>Page 4 of 21</b>
PROTOCOL VARIATIONS	
Mark Users as Phone? n	
Prepend '+' to Calling/Alerting/Diverting/Connected Number? n	
Send Transferring Party Information? n	
Network Call Redirection? n	
Send Diversion Header? n	
Support Request History? y	
<b>Telephone Event Payload Type: 101</b>	
Convert 180 to 183 for Early Media? n	
Always Use re-INVITE for Display Updates? n	
Identity for Calling Party Display: P-Asserted-Identity	
Block Sending Calling Party Location in INVITE? n	
Accept Redirect to Blank User Destination? n	
Enable Q-SIP? n	
Interworking of ISDN Clearing with In-Band Tones: keep-channel-active	
<b>Request URI Contents: may-have-extra-digits</b>	

## 6. Configure Avaya Aura® Application Enablement Services

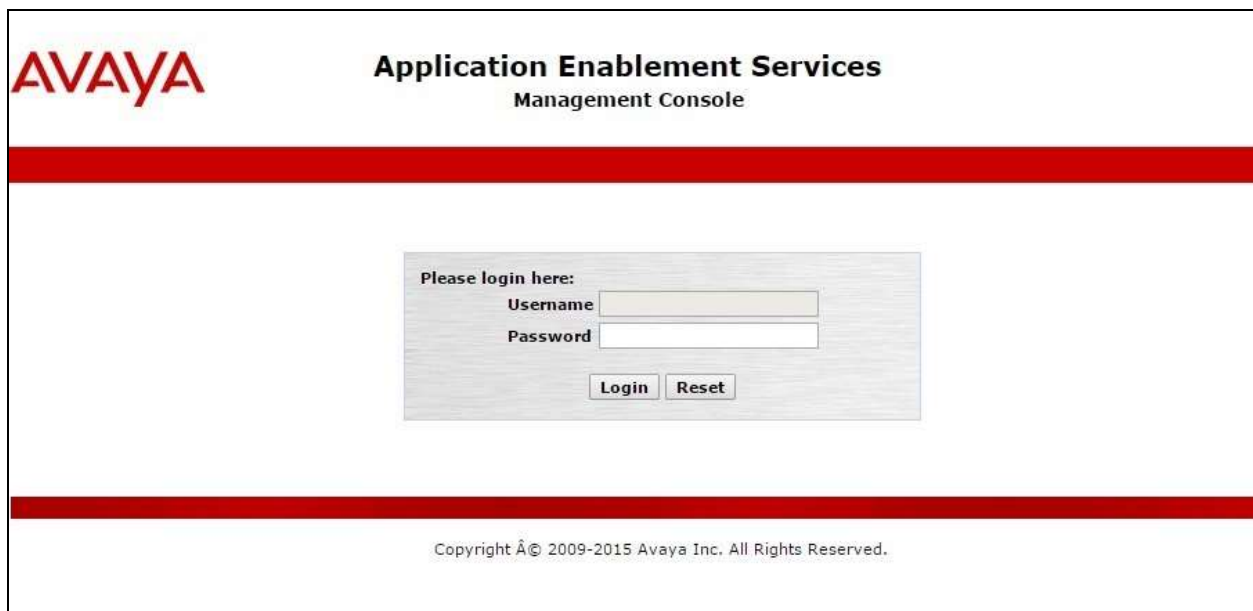
This section provides the procedures for configuring Application Enablement Services. The procedures include the following areas:

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

### 6.1. Launch OAM Interface

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

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



The screenshot shows the Avaya Application Enablement Services Management Console login interface. At the top left is the Avaya logo. To its right, the text "Application Enablement Services" is displayed in a large, bold font, with "Management Console" in a smaller font below it. A thick red horizontal bar separates the header from the main content area. In the center of the page is a login box with a light gray background. Inside this box, the text "Please login here:" is at the top. Below it are two input fields: "Username" and "Password". At the bottom of the login box are two buttons: "Login" and "Reset". Another thick red horizontal bar is located below the login box. At the very bottom of the page, centered, is the copyright notice: "Copyright © 2009-2015 Avaya Inc. All Rights Reserved."

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

The screenshot displays the Avaya Application Enablement Services Management Console. The top header includes the Avaya logo and the title "Application Enablement Services Management Console". On the right, a "Welcome: User" message provides system details: "Last login: Tue Jan 5 09:31:34 2016 from 192.168.200.20", "Number of prior failed login attempts: 0", "HostName/IP: aes7/10.64.101.239", "Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE", "SW Version: 7.0.0.0.1.13", "Server Date and Time: Tue Jan 05 09:57:01 EST 2016", and "HA Status: Not Configured". A red navigation bar at the top contains "Home", "Help", and "Logout" links. The left sidebar lists menu items: "AE Services", "Communication Manager Interface", "High Availability", "Licensing", "Maintenance", "Networking", "Security", "Status", "User Management", "Utilities", and "Help". The main content area, titled "Welcome to OAM", explains that the OAM Web provides tools for managing the AE Server and lists administrative domains: AE Services, Communication Manager Interface, High Availability, Licensing, Maintenance, Networking, Security, Status, User Management, Utilities, and Help. It also notes that these domains can be served by one administrator for all domains or a separate administrator for each domain.

## 6.2. Verify License

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

The screenshot displays the Avaya Application Enablement Services Management Console with the "Licensing" menu item selected in the left sidebar. The main content area, titled "Licensing", provides instructions for setting up and maintaining the WebLM. It lists three scenarios: 1) If setting up and maintaining the WebLM, use the "WebLM Server Address". 2) If importing, setting up, and maintaining the license, use the "WebLM Server Access". 3) If administering TSAPI Reserved Licenses or DMCC Reserved Licenses, use the "Reserved Licenses". The sidebar menu is expanded to show "WebLM Server Address", "WebLM Server Access", and "Reserved Licenses" under the "Licensing" category.

Select **Licensed products** → **APPL\_ENAB** → **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

**Application Enablement (CTI) - Release: 7 - SID: 10503000** **Standard**

You are here: Licensed Products > Application\_Enablement > View License Capacity

License installed on: October 12, 2015 2:21:49 PM -05:00

**License File Host IDs:** V1-19-37-80-8F-BF

**Licensed Features**

10 Items Show All

Feature (License Keyword)	Expiration date	Licensed capacity
CVLAN ASA1 VALUE_AES_CVLAN_ASA1	permanent	16
Unified CC API Desktop Edition VALUE_AES_AEC_UNIFIED_CC_DESKTOP	permanent	1000
AES ADVANCED SMALL SWITCH VALUE_AES_AEC_SMALL_ADVANCED	permanent	3
CVLAN Proprietary Links VALUE_AES_PROPRIETARY_LINKS	permanent	16
Product Notes VALUE_NOTES	permanent	SmallServerTypes: s8300c;s8300d;icc;premio;tn8400;laptop;Cti5 MediumServerTypes: ibmx306;ibmx306m;dell1950;xen;hs20;hs20_1 LargeServerTypes: isp2100;ibmx305;dl380g3;dl385g1;dl385g2;u TrustedApplications: IPS_001, BasicUnrestricted, DMCUnrestricted: IXP_001, BasicUnrestricted, DMCUnrestricted: IXM_001, BasicUnrestricted, DMCUnrestricted: PC_001, BasicUnrestricted, DMCUnrestricted: CTE_001, BasicUnrestricted, DMCUnrestricted: OSCP_001, BasicUnrestricted, DMCUnrestricted: VP_001, BasicUnrestricted, DMCUnrestricted: SAMETIME_001, VALUE_AES_001, CCE_001, BasicUnrestricted, AdvancedUnrestricted, CS1_T1_001, BasicUnrestricted, AdvancedUnrestricted, CS1_T2_001, BasicUnrestricted, AdvancedUnrestricted, AVAYAVERINT_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted: CCT_ELITE_CALL_CTRL_001, AdvancedUnrestricted, DMCUnrestricted, Agent BasicUnrestricted, AdvancedUnrestricted, DMC AgentEvents: UNIFIED_DESKTOP_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted, Agent BasicUnrestricted, AdvancedUnrestricted, DMC
AES ADVANCED LARGE SWITCH VALUE_AES_AEC_LARGE_ADVANCED	permanent	3
TSAPI Simultaneous Users VALUE_AES_TSAPI_USERS	permanent	1000
DLG VALUE_AES_DLG	permanent	16
Device Media and Call Control VALUE_AES_DMCC_DMC	permanent	1000
AES ADVANCED MEDIUM SWITCH VALUE_AES_AEC_MEDIUM_ADVANCED	permanent	3



### 6.3. Administer TSAPI Link

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

The screenshot shows the Avaya Management Console interface. The top header includes the Avaya logo, the title "Application Enablement Services Management Console", and a welcome message for the user. The left navigation pane shows "AE Services" expanded, with "TSAPI" selected, and "TSAPI Links" highlighted. The main content area displays the "TSAPI Links" screen, which includes a table with columns: Link, Switch Connection, Switch CTI Link #, ASAI Link Version, and Security. Below the table are buttons for "Add Link", "Edit Link", and "Delete 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 "cm7" is selected. For **Switch CTI Link Number**, select the CTI link number from **Section 5.2**. Retain the default values in the remaining fields.

The screenshot shows the "Add TSAPI Links" screen in the Avaya Management Console. The left navigation pane is the same as the previous screenshot. The main content area displays the "Add TSAPI Links" form, which includes fields for Link, Switch Connection, Switch CTI Link Number, ASAI Link Version, and Security. The Link field is set to 1, Switch Connection is set to cm7, Switch CTI Link Number is set to 1, ASAI Link Version is set to 7, and Security is set to Unencrypted. There are buttons for "Apply Changes" and "Cancel Changes".

## 6.4. Administer Vuesion User

Select **User Management** → **User Admin** → **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.

The screenshot displays the Avaya Application Enablement Services Management Console. The top header includes the Avaya logo, the title 'Application Enablement Services Management Console', and a welcome message with system details. A red navigation bar contains 'User Management | User Admin | Add User' and links for 'Home | Help | Logout'. The left sidebar lists various management categories, with 'User Management' expanded to show 'User Admin' and 'Add User' selected. The main content area is titled 'Add User' and contains a form with the following fields: 'User Id' (text), 'Common Name' (text), 'Surname' (text), 'User Password' (password), 'Confirm Password' (password), 'Admin Note' (text), 'Avaya Role' (dropdown), 'Business Category' (text), 'Car License' (text), 'CM Home' (text), 'Css Home' (text), 'CT User' (dropdown), 'Department Number' (text), 'Display Name' (text), 'Employee Number' (text), 'Employee Type' (text), 'Enterprise Handle' (text), and 'Given Name' (text). Fields marked with an asterisk are required.

Welcome: User  
Last login: Tue Jan 5 09:31:34 2016 from 192.168.200.20  
Number of prior failed login attempts: 0  
HostName/IP: aes7/10.64.101.239  
Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.0.0.0.1.13  
Server Date and Time: Tue Jan 05 09:57:01 EST 2016  
HA Status: Not Configured

User Management | User Admin | Add User Home | Help | Logout

AE Services  
Communication Manager Interface  
High Availability  
Licensing  
Maintenance  
Networking  
Security  
Status  
User Management  
Service Admin  
User Admin  
Add User  
Change User Password  
List All Users  
Modify Default Users  
Search Users  
Utilities  
Help

**Add User**

Fields marked with \* can not be empty.

\* User Id vuesion  
\* Common Name vuesion  
\* Surname vuesion  
\* User Password \*\*\*\*\*  
\* Confirm Password \*\*\*\*\*  
Admin Note  
Avaya Role None  
Business Category  
Car License  
CM Home  
Css Home  
CT User Yes  
Department Number  
Display Name  
Employee Number  
Employee Type  
Enterprise Handle  
Given Name

## 6.5. Disable Security Database

Select **Security** → **Security Database** → **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.

In the event that the security database is used by the customer with parameters already enabled, then follow reference [2] to configure access privileges for the Vuesion user from **Section 6.4**.

The screenshot displays the Avaya Application Enablement Services Management Console. The top header includes the Avaya logo, the title "Application Enablement Services Management Console", and a welcome message for the user. The main navigation pane on the left lists various services, with "Security" expanded to show "Security Database" and "Control". The right pane shows the "SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services" configuration page, which contains two unchecked checkboxes and an "Apply Changes" button.

**AVAYA Application Enablement Services Management Console**

Welcome: User  
Last login: Tue Jan 5 09:31:34 2016 from 192.168.200.20  
Number of prior failed login attempts: 0  
HostName/IP: aes7/10.64.101.239  
Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.0.0.0.1.13  
Server Date and Time: Tue Jan 05 09:57:01 EST 2016  
HA Status: Not Configured

**Security | Security Database | Control** [Home](#) | [Help](#) | [Logout](#)

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

**SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services**

☐ Enable SDB for DMCC Service  
☐ Enable SDB for TSAPI Service, JTAPI and Telephony Web Services  
[Apply Changes](#)

## 6.6. Restart TSAPI Service

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

**AVAYA** **Application Enablement Services**  
Management Console

Welcome: User  
Last login: Tue Jan 5 09:31:34 2016 from 192.168.200.20  
Number of prior failed login attempts: 0  
HostName/IP: aes7/10.64.101.239  
Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.0.0.0.1.13  
Server Date and Time: Tue Jan 05 09:57:01 EST 2016  
HA Status: Not Configured

Maintenance | Service ControllerHome | Help | Logout

▶ AE Services

▶ Communication Manager Interface

▶ High Availability

▶ Licensing

▼ Maintenance

▶ Date Time/NTP Server

▶ Security Database

▶ Service Controller

▶ Server Data

▶ Networking

▶ Security

▶ Status

Service Controller

Service	Controller Status
<input type="checkbox"/> ASAI Link Manager	Running
<input type="checkbox"/> DMCC Service	Running
<input type="checkbox"/> CVLAN Service	Running
<input type="checkbox"/> DLG Service	Running
<input type="checkbox"/> Transport Layer Service	Running
<input checked="" type="checkbox"/> TSAPI Service	Running

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

StartStopRestart ServiceRestart AE ServerRestart LinuxRestart Web Server

## 6.7. 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#CM7#CSTA#AES7”. Note the use of the switch connection “CM7” from **Section 6.3** as part of the Tlink name.

The screenshot displays the Avaya Application Enablement Services Management Console. The top header includes the Avaya logo, the title "Application Enablement Services Management Console", and a welcome message for the user. The main navigation bar shows "Security | Security Database | Tlinks" and links for "Home | Help | Logout". The left sidebar contains a tree view of the application's structure, with "Security" expanded to show "Security Database" and "Tlinks" selected. The main content area, titled "Tlinks", shows a single Tlink named "AVAYA#CM7#CSTA#AES7" with a "Delete Tlink" button.

Welcome: User  
Last login: Tue Jan 5 09:31:34 2016 from 192.168.200.20  
Number of prior failed login attempts: 0  
HostName/IP: aes7/10.64.101.239  
Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.0.0.0.1.13  
Server Date and Time: Tue Jan 05 09:55:57 EST 2016  
HA Status: Not Configured

Security | Security Database | Tlinks Home | Help | Logout

AE Services  
Communication Manager Interface  
High Availability  
Licensing  
Maintenance  
Networking  
Security  
Account Management  
Audit  
Certificate Management  
Enterprise Directory  
Host AA  
PAM  
Security Database  
Control  
CTI Users  
Devices  
Device Groups  
Tlinks

Tlinks  
Tlink Name  
AVAYA#CM7#CSTA#AES7  
Delete Tlink

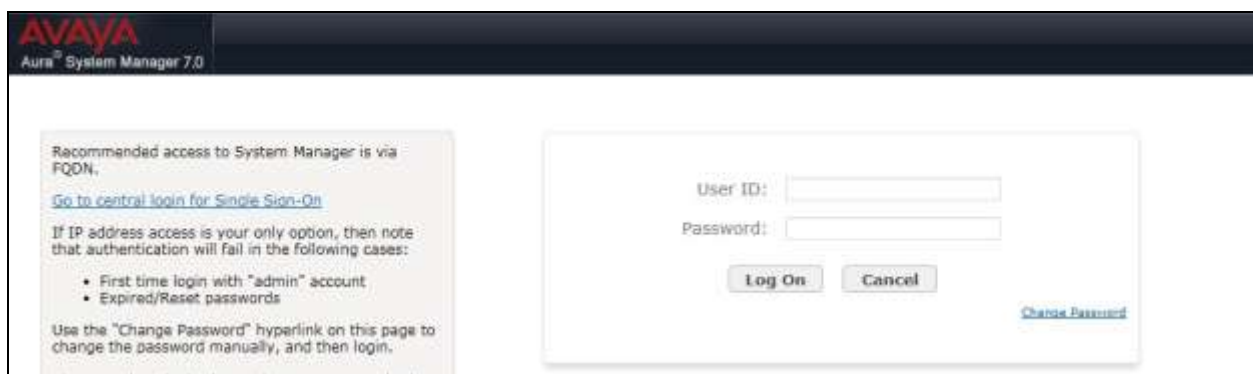
## 7. Configure Avaya Aura® Session Manager

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

- Launch System Manager
- Administer users

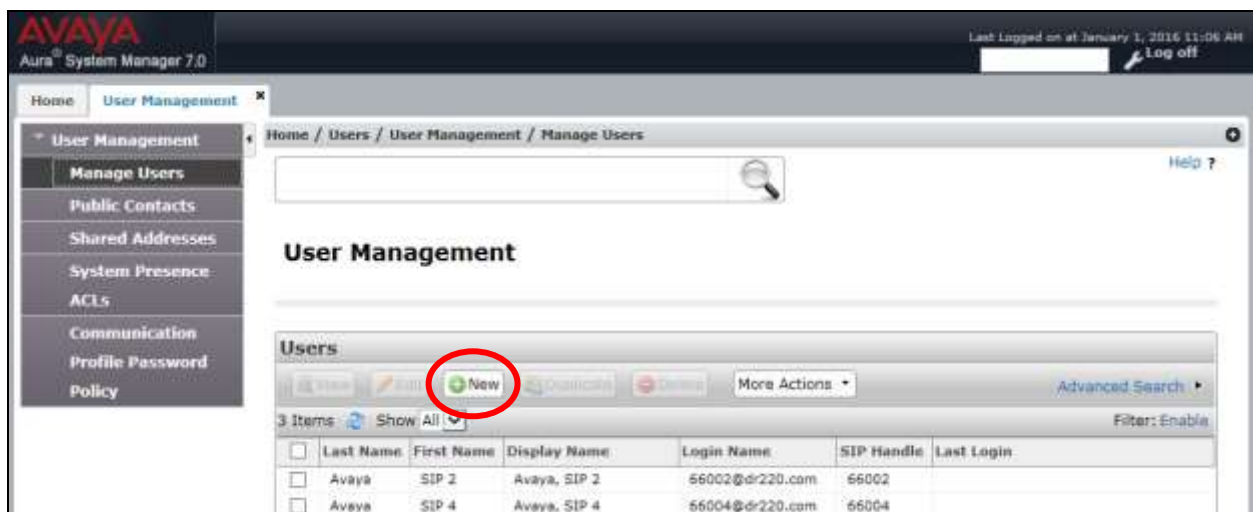
### 7.1. Launch System Manager

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, in this case “66881”. 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.

The screenshot displays the Avaya Aura System Manager 7.0 interface. The top header shows the Avaya logo and 'Aura System Manager 7.0'. The top right corner indicates 'Last Logged on at January 1, 2016 11:06 AM' and a 'Log off' button. The left sidebar contains a 'User Management' menu with options: 'Manage Users', 'Public Contacts', 'Shared Addresses', 'System Presence', 'ACLs', 'Communication', 'Profile Password', and 'Policy'. The main content area is titled 'New User Profile' and has a breadcrumb trail: 'Home / Users / User Management / Manage Users'. At the top right of the main area are buttons for 'Commit & Continue', 'Commit', and 'Cancel'. Below the title is a tabbed interface with 'Identity', 'Communication Profile', 'Membership', and 'Contacts'. The 'Identity' tab is selected and shows the 'User Provisioning Rule' dropdown set to 'User Provisioning Rule:'. Below this is the 'Identity' section with the following fields: 'Last Name' (66881), 'Last Name (Latin Translation)' (66881), 'First Name' (IVR), 'First Name (Latin Translation)' (IVR), 'Middle Name' (empty), 'Description' (empty), 'Login Name' (66881@dr220.com), 'Authentication Type' (Basic), 'Password' (empty), and 'Confirm Password' (empty).



### 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 from **Section 7.2.1**, as required by Vuesion for the SIP user to use for registration. In this case, the password for SIP user “66881” is “VR66881”.

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**.

The screenshot shows the 'New User Profile' form in the Avaya Aura System Manager 7.0 interface. The 'Communication Profile' tab is selected, displaying fields for 'Communication Profile Password' and 'Confirm Password'. Below this, the 'Communication Address' section is visible, featuring a 'New' button circled in red. The 'Fully Qualified Address' field is populated with '66881' and 'dr220.com', and the 'Add' button is also circled in red. The 'Type' field is set to 'Avaya SIP'. The 'Session Manager Profile' checkbox is unchecked at the bottom.



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.

**Communication Address**

New
Edit
Delete

Type	Handle	Domain
<input type="checkbox"/> Avaya SIP	66881	dr220.com

Select : All, None

☒ **Session Manager Profile**

**SIP Registration**

\* Primary Session Manager

Secondary Session Manager

Survivability Server

Max. Simultaneous Devices

Block New Registration When Maximum Registrations Active?
☐

Primary	Secondary	Maximum
5	0	5

**Application Sequences**

Origination Sequence

Termination Sequence

**Call Routing Settings**

\* Home Location

Conference Factory Set

**Call History Settings**

Enable Centralized Call History?
☐

☐ **CM Endpoint Profile**

Scroll down to check and expand **CM Endpoint Profile**. For **System**, select the value corresponding to the applicable Communication Manager. For **Extension**, enter the SIP user extension from **Section 7.2.1**. For **Template**, select “9620SIP\_DEFAULT\_CM\_7\_0”. Retain the default values in the remaining fields.

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

The screenshot displays the 'Call History Settings' configuration page. At the top, there is a section for 'Call History Settings' with a checkbox for 'Enable Centralized Call History?'. Below this is the 'CM Endpoint Profile' section, which is expanded. It contains several fields and checkboxes:

- \* System:** A dropdown menu set to 'DR220-CM7-ES'.
- \* Profile Type:** A dropdown menu set to 'Endpoint'.
- Use Existing Endpoints:** A checkbox that is unchecked.
- \* Extension:** A text input field containing '66881'. To its right is a button labeled 'Endpoint Editor', which is circled in red.
- \* Template:** A dropdown menu set to '9620SIP\_DEFAULT\_CM\_7\_0'.
- Set Type:** A text input field containing '9620SIP'.
- Security Code:** An empty text input field.
- Port:** A text input field containing 'IP'.
- Voice Mail Number:** An empty text input field.
- Preferred Handle:** A dropdown menu set to '(None)'.
- Calculate Route Pattern:** A checkbox that is unchecked.
- Sip Trunk:** A text input field containing 'aar'.
- Enhanced Callr-Info display for 1-line phones:** A checkbox that is unchecked.
- Delete Endpoint on Unassign of Endpoint from User or on Delete User:** A checkbox that is checked.
- Override Endpoint Name and Localized Name:** A checkbox that is checked.
- Allow H.323 and SIP Endpoint Dual Registration:** A checkbox that is unchecked.

The **New 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 “66881” and “66882” were created.

**AVAYA**  
Aura System Manager 7.0

Last Logged on at January 1, 2016 11:05 AM  
Log off

Home User Management

User Management  
Manage Users  
Public Contacts  
Shared Addresses  
System Presence  
ACLs  
Communication  
Profile Password  
Policy

Home / Users / User Management / Manage Users

### New Endpoint

Help ?

Done Cancel

[Save As Template]

\* System: 08220-CM7-ES \* Extension: 66881

\* Template: 9620SIP\_DEFAULT\_CM\_7\_0 Set Type: 9620SIP

\* Port: IP Security Code:

Name: 66881,TVR

General Options (G) \* Feature Options (F) Site Data (S) Abbreviated Call Dialing (A) Enhanced Call Fwd (E)

Button Assignment (B) Group Membership (M)

\* Class of Restriction (COR): 1 \* Class Of Service (COS): 1

\* Emergency Location Ext: 66881 \* Message Lamp Ext.: 66881

\* Tenant Number: 1

\* SIP Trunk: 66881

Coverage Path 1:

Lock Message: ☐

Multibyte Language: Not Applicable

Type of 3PCC Enabled: Avaya

Coverage Path 2:

Localized Display Name: 66881,TVR

Enable Reachability for Station Domain Control: ☐

\*Required

Done Cancel

## 8. Configure BBX Vuesion Multichannel Contact Center

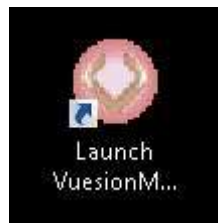
This section provides the procedures for configuring the Vuesion server. The procedures include the following areas:

- 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 to be configured by following reference [4].

### 8.1. Launch Vuesion Manager

From the Vuesion server, double-click the **LaunchVuesionManager.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 6.4**.
- **Link Name:** The Tlink name from **Section 6.7**.
- **App. UserID:** The Vuesion user credential from **Section 6.4**.
- **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**.

**COMMUNICATION SETTINGS**

**SWITCH COMMUNICATION INTERFACE**

PBX IP Addr:  Password:

Link Name:

App. Name:

App. UserID:

**NETWORKING SETUP: MASTER SERVER**

NetServer IP address:

NetServer IP Port:

Node Index:

**THIS SERVER DEFINITION**

Customer Location Name:

This Server IP address:

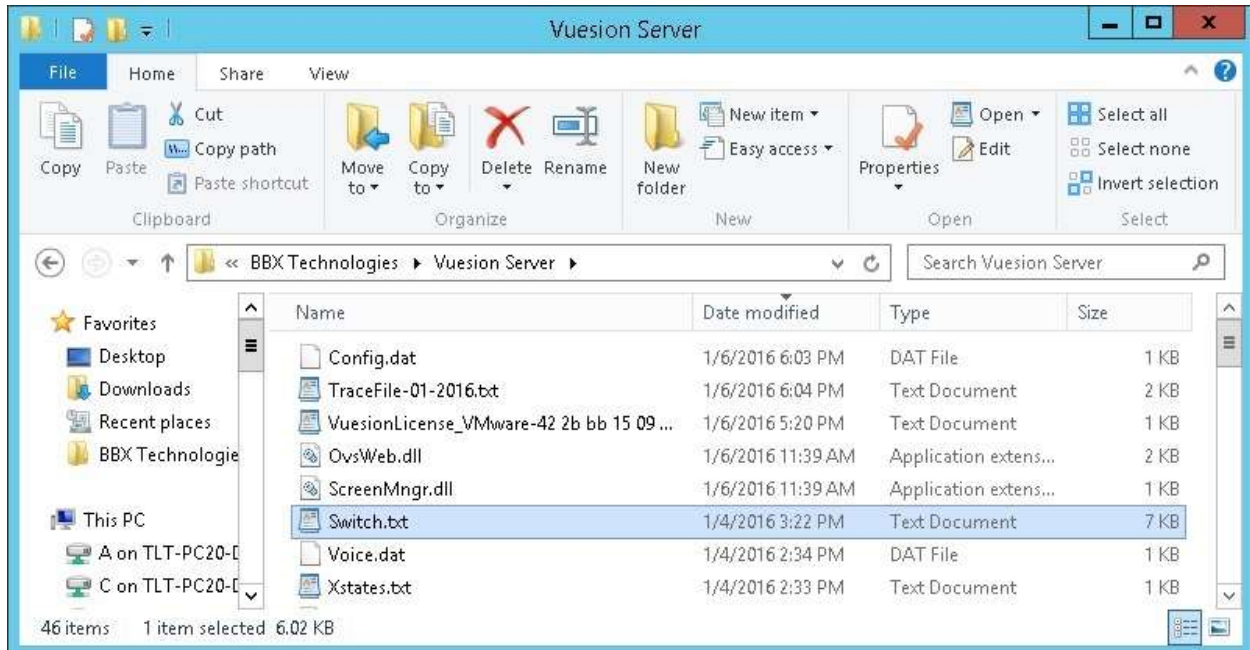
This Server IP Port:

IVR Location:

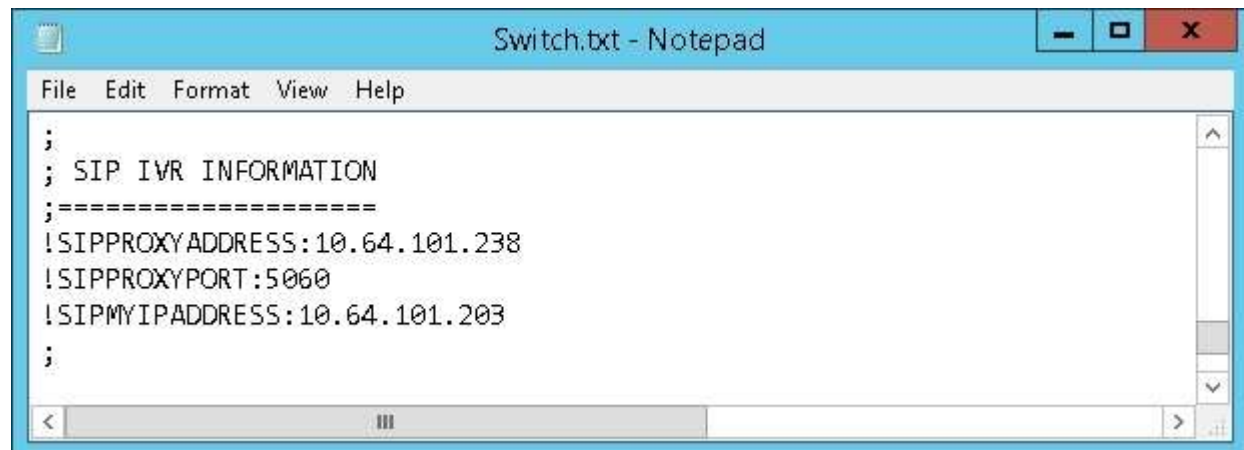
IVR Pilot Number:

### 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.





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**.



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 [4] to create an entry for each virtual SIP user from **Section 7.2**. For **FullName**, enter the first and last name of the SIP user from **Section 7.2.1**. For **Password**, enter the SIP user password from **Section 7.2.2**. Check **SIP IVR**, as shown below.

TLT; Reviewed:  
SPOC 3/22/2016

## 8.6. Administer Local Extensions

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

Follow reference [4] 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**, enter “Queue” for entries associated with VDNs, and retain the default value for the remaining entries.

The screenshot shows the 'DIRECTORY CONFIGURATION' window. On the left, the 'LOCAL USER EXTENSIONS' section contains a table with the following data:

Full Name	DN #	Port#
BBX Supervisor	65000	0
BBX Agent 1	65001	0
BBX Agent 2	65002	0
BBX Sales	65501	0
BBX Support	65502	0

On the right, the 'DIRECTORY ASSIGNMENT' section contains the following fields and options:

- Directory #: 65502
- FullName: BBX Support
- Title: Queue
- PBX: [Empty]
- Account: [Empty]
- Password: [Empty]
- Tenant Name: [Empty]
- Class of Service: 0
- ☐ Shared Station
- ☐ Virtual/Single Line
- ☐ Disable SMDR
- ☐ SIP Client
- ☐ Network Advertise
- ☐ AVAYA Softphone
- ☐ Dialer
- ☐ Disabled

Below these is the 'FOLLOW ME OPTIONS' section with the following fields:

- Cellular #: [Empty]
- Home #: [Empty]
- Alternate #: [Empty]
- Active Forward: [Empty]

At the bottom of the window are buttons for 'Add', 'Delete', 'Save', 'Refresh All', and 'Exit'.



## 8.7. Administer ACD Members

From the **Vuesion Manager** screen shown in **Section 8.2**, select **Contact Center → ACD Members** from the top menu, to display the **ACD Members** screen. Follow reference [4] 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 pre-existing class of service.

[illegible]

## 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 [4] 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 from **Section 5.6**.

Configure the remaining parameters as desired. 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.

The screenshot displays the 'SkillSets Administration' window with the following configuration details:

- Queue ID:** 65501, **Queue Name:** BBX Sales, **Parent Group Name:** (empty), **Enable Schedule:** (unchecked)
- Voice Routing Options:**
  - ☒ Enable, **Priority:** 09, **Longest InQ Thr:** 40s
  - Method:** Skills Based, **Force Priority:** 00
  - Overflow Time:** 25s, **Q Threshold:** 04
  - Overflow Destination:** (empty), **Abandon Filter:** 05s
  - Signed-Out Overflow:** (empty), **Abandon Thr:** 30
  - All Busy Overflow:** (empty), ☒ Auto/Manual Wrap, **10s**
  - Advance Time:** 10s, ☐ Auto Logout, **11:50:00 PM**
- Email Routing Options:**
  - ☐ Enable, **Priority:** 00
  - Subject Filter:** (empty)
  - Overflow Time:** 00
  - OVF Destination:** (empty)
  - Signed-Out OVF:** (empty)
  - EmailQ Threshold:** 10
  - Longest InQ Thr:** 300
  - Force Priority:** 0
- Announcements:**
  - 1: AA 75501, QPos. (empty), ~ Hold (empty), AA (empty), Repez (empty), 60s
  - 2: AA (empty), QPos. (empty), ~ Hold (empty), AA (empty), Repez (empty), Never
  - 3: AA (empty), QPos. (empty), ~ Hold (empty), AA (empty), Repez (empty), Never
- Multichannel Contact Center Members Assignment:**
  - Voice Skill:** 00, **Email Skill:** 00, **Outdial Skill:** 00, **Webchat Skill:** 00, **SMS Skill:** 00
  - | Name           | ID    | Type           | Skill |
|----------------|-------|----------------|-------|
| BBX Agent 1    | 75001 | ACD Agent      | 09    |
| BBX Agent 2    | 75002 | ACD Agent      | 09    |
| BBX Supervisor | 75000 | ACD Supervisor | 00    |
- Webchat Routing Options:**
  - ☐ Enable, **Priority:** 00
  - Q Threshold:** 4
  - Longest InQ Thr:** 60
  - Force Priority:** 0
- SMS Routing Options:**
  - ☐ Enable, **Priority:** 00
  - Q Threshold:** 4
  - Longest InQ Thr:** 60
  - Force Priority:** 0
- Outbound Campaign:** Outdial Campaign OFF
- Buttons:** Add, Remove, Refresh Scripts, Save, Exit

## 8.9. Administer Tenants

From the **Vuesion Manager** screen shown in **Section 8.2**, select **Messaging → Tenants** from the top menu, to display the **IDD\_TENANT** screen.

Follow reference [4] 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).

Tenants/Groups		
Name	ID	Pwd
BBX Tenant		

**Tenant/Group Definition**  
Name:   
ID:  Password:   
Taxes: %   
Discount: %   
**Long Distance Call Charges**  
First Minute  Add. Minute   
**International Call Charges**  
First Minute  Add. Minute   
☐ Cost Incoming Calls

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.

Tenant/Group Members List	
Member Name	Member Ext
BBX Agent 1	65001
BBX Agent 2	65002
BBX Sales	65501
BBX Supervisor	65000
BBX Support	65502

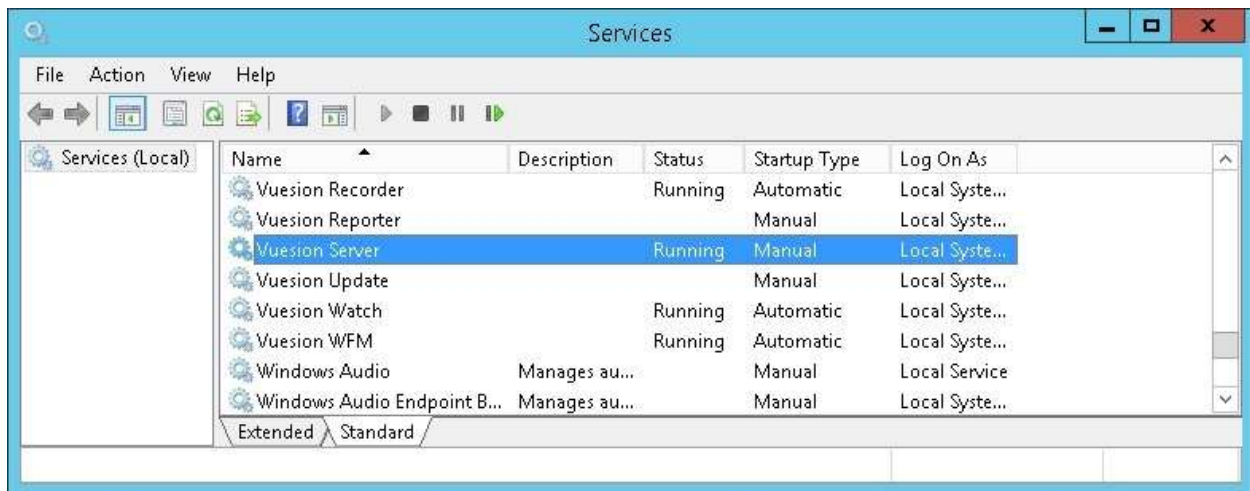
<<--  
-->>

Available Users List	
Member Name	Member Ext

## 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.

```
status aesvcs cti-link
```

AE SERVICES CTI LINK STATUS						
CTI Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd
1	7	no	aes7	established	61	61

### 9.2. Verify Avaya Aura® Application Enablement Services

On Application Enablement Services, verify 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**.

**Application Enablement Services**  
Management Console

Welcome: User  
Last login: Wed Jan 6 14:31:03 2016 from 192.168.200.20  
Number of prior failed login attempts: 0  
HostName/IP: aes7/10.64.101.239  
Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.0.0.0.1.13  
Server Date and Time: Wed Jan 06 14:51:47 EST 2016  
HA Status: Not Configured

Status | Status and Control | TSAPI Service Summary

Home | Help | Logout

AE Services

Communication Manager Interface

High Availability

Licensing

Maintenance

Networking

Security

Status

Alarm Viewer

Log Manager

Logs

Status and Control

CVLAN Service Summary

DLG Services Summary

DMCC Service Summary

Switch Conn Summary

TSAPI Service Summary

TSAPI Link Details

☐ Enable page refresh every 60 seconds

	Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
<input checked="" type="radio"/>	1	cm7	1	Talking	Fri Dec 18 17:38:27 2015	Online	17	9	61	61	30

Online Offline

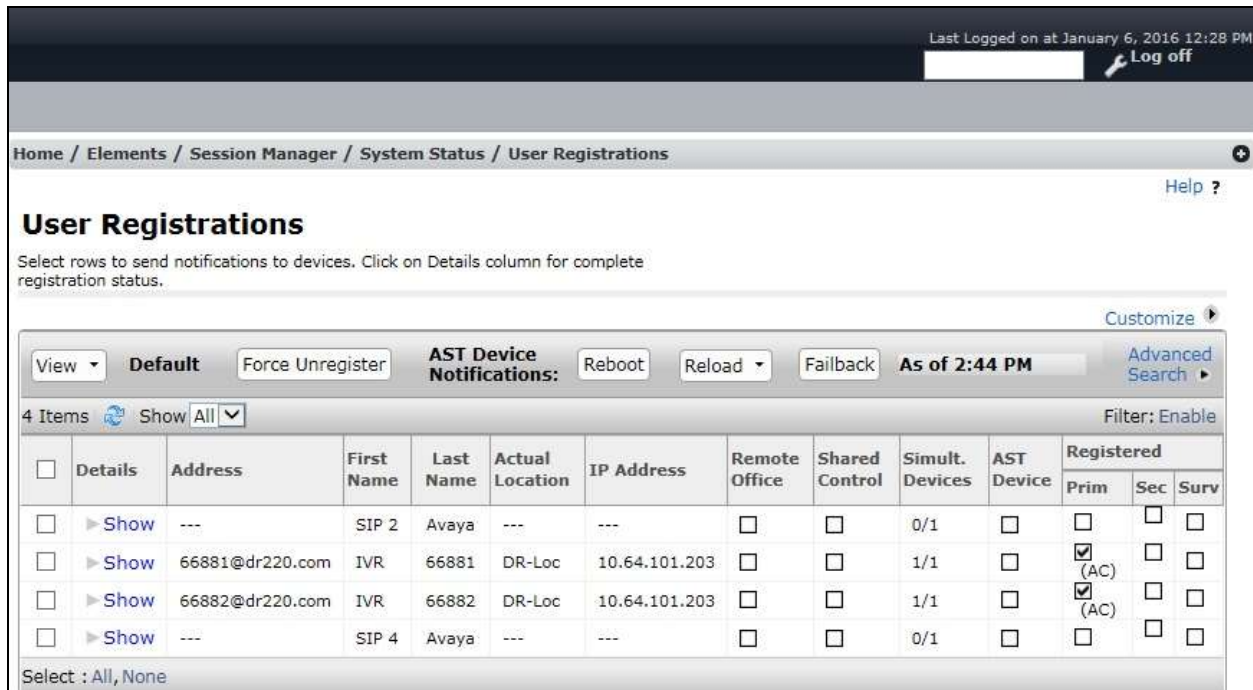
For service-wide information, choose one of the following:

TSAPI Service Status TLink Status User Status



### 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.



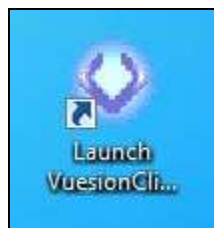
The screenshot displays the 'User Registrations' page in the Avaya Aura Session Manager web interface. The breadcrumb trail is 'Home / Elements / Session Manager / System Status / User Registrations'. The page title is 'User Registrations'. Below the title, there is a note: 'Select rows to send notifications to devices. Click on Details column for complete registration status.' The interface includes a 'Customize' button and a 'Filter: Enable' dropdown. The table below shows four registered users.

	Details	Address	First Name	Last Name	Actual Location	IP Address	Remote Office	Shared Control	Simult. Devices	AST Device	Registered		
											Prim	Sec	Surv
<input type="checkbox"/>	<a href="#">Show</a>	---	SIP 2	Avaya	---	---	<input type="checkbox"/>	<input type="checkbox"/>	0/1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<a href="#">Show</a>	66881@dr220.com	IVR	66881	DR-Loc	10.64.101.203	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<a href="#">Show</a>	66882@dr220.com	IVR	66882	DR-Loc	10.64.101.203	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<a href="#">Show</a>	---	SIP 4	Avaya	---	---	<input type="checkbox"/>	<input type="checkbox"/>	0/1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Select : All, None

### 9.4. Verify BBX Vuesion Multichannel Contact Center

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

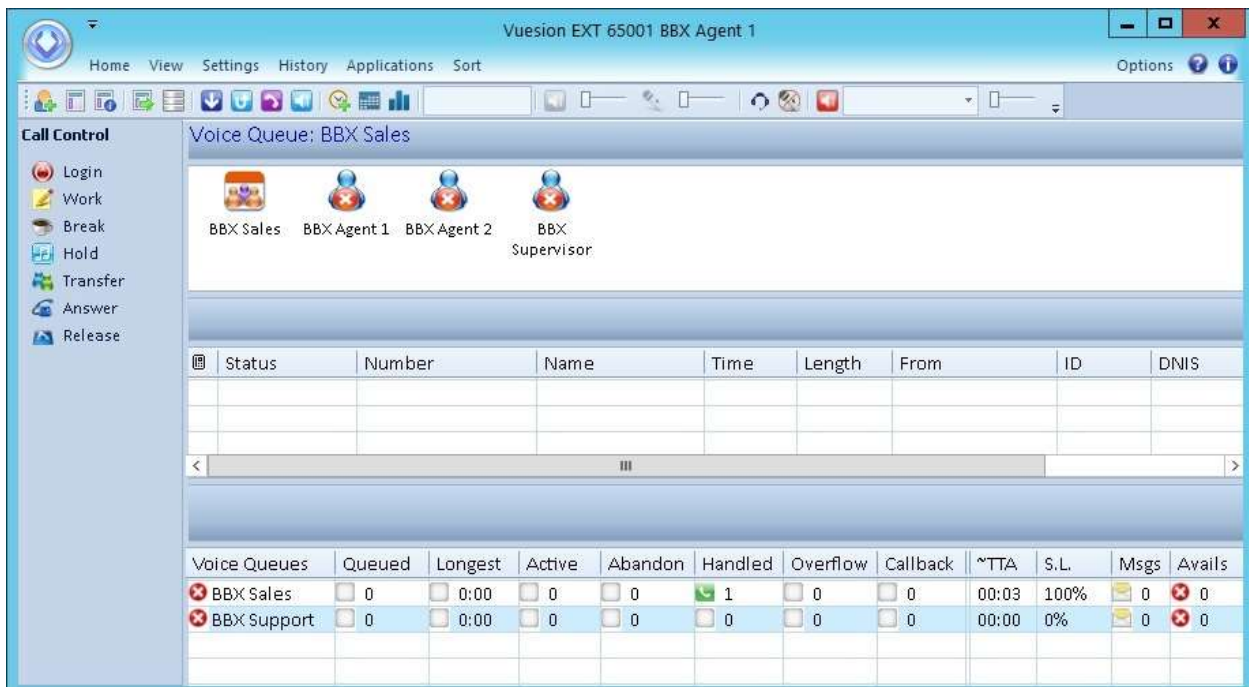


The **Primary Vuesion Login** screen is displayed. Log in using an appropriate agent credentials from **Section 8.7**. For **Extension #**, enter the relevant agent station extension from **Section 3**, in this case “65001”.



The image shows a 'Primary Vuesion Login' dialog box. It has a title bar with a close button. Below the title bar is a button labeled 'Login to Backup Vuesion'. Underneath is a section titled 'Login Information' containing four input fields: 'Name' (filled with 'BBX Agent 1'), 'Extension #' (filled with '65001'), 'User ID' (filled with '75001'), and 'Password' (filled with '\*\*\*\*\*'). At the bottom are three buttons: 'Last Login', 'Cancel', and 'OK'.

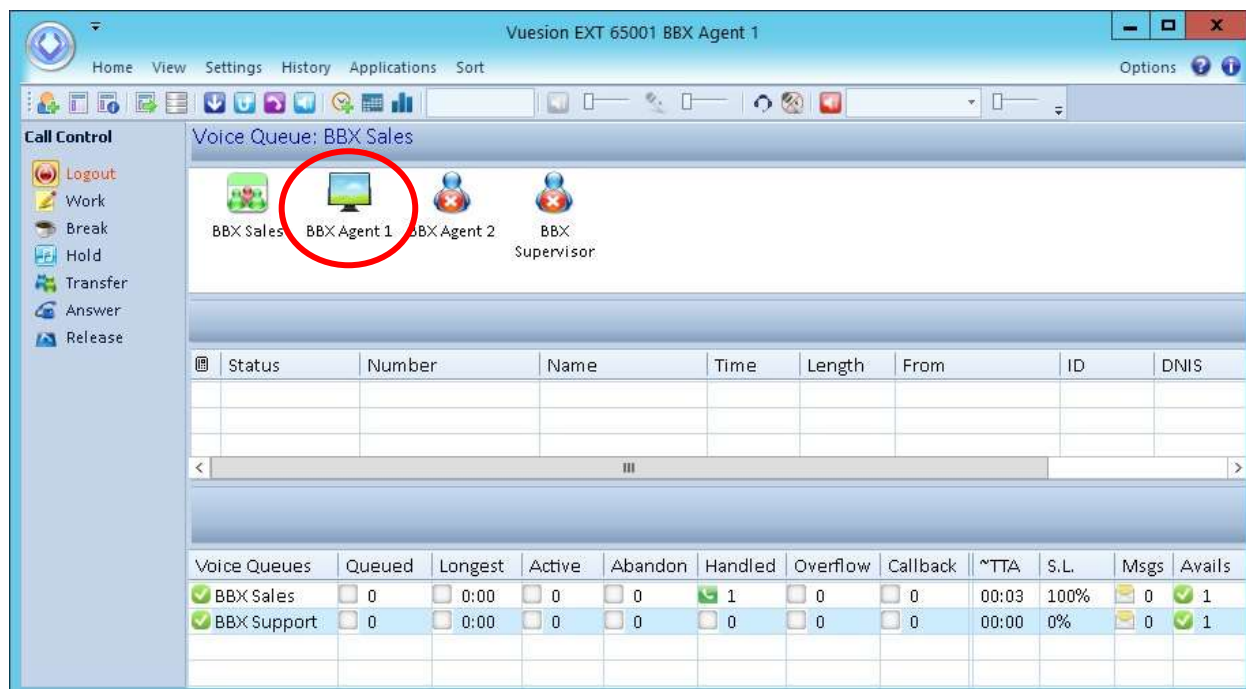
The **Vuesion** screen below is displayed. Click on the **Login** icon from the left pane.



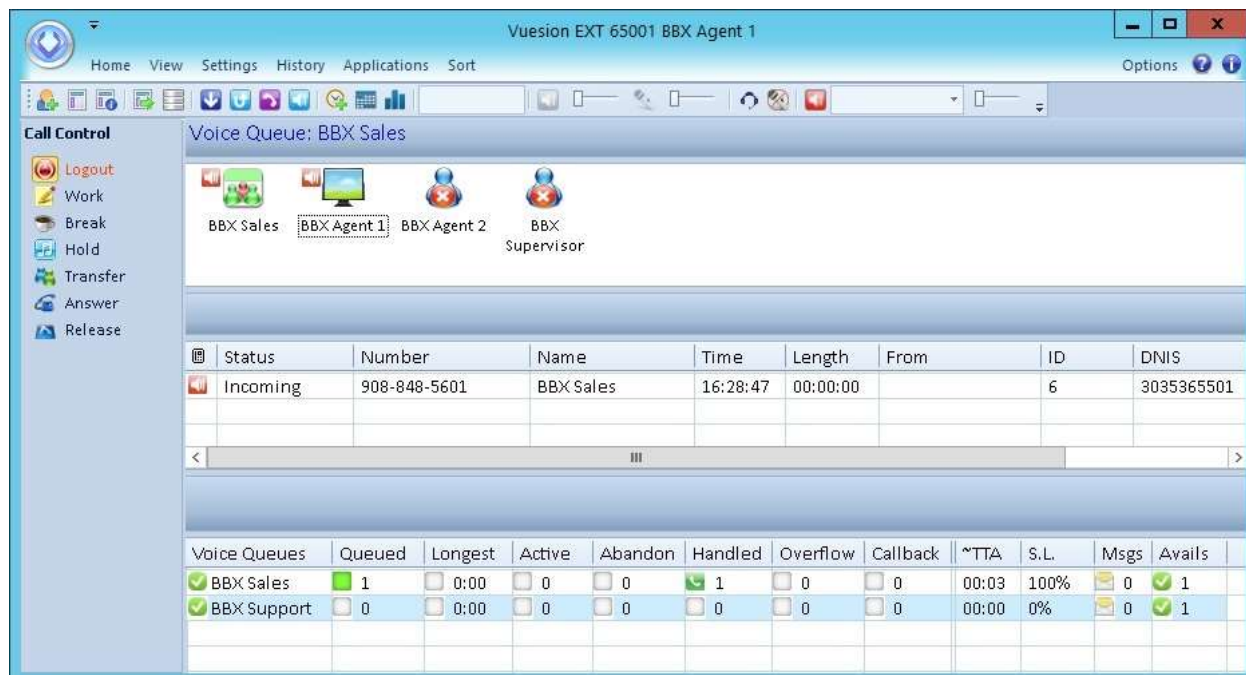
The image shows the 'Vuesion EXT 65001 BBX Agent 1' interface. The title bar includes the application name and standard window controls. Below the title bar is a menu bar with 'Home', 'View', 'Settings', 'History', 'Applications', and 'Sort'. A toolbar with various icons is located below the menu bar. On the left is a 'Call Control' sidebar with icons for 'Login', 'Work', 'Break', 'Hold', 'Transfer', 'Answer', and 'Release'. The main area is titled 'Voice Queue: BBX Sales' and displays four agent status icons: 'BBX Sales', 'BBX Agent 1', 'BBX Agent 2', and 'BBX Supervisor'. Below this is a table with columns: Status, Number, Name, Time, Length, From, ID, and DNIS. At the bottom is a 'Voice Queues' summary table.

Voice Queues	Queued	Longest	Active	Abandon	Handled	Overflow	Callback	~TTA	S.L.	Msgs	Avails
BBX Sales	0	0:00	0	0	1	0	0	00:03	100%	0	0
BBX Support	0	0:00	0	0	0	0	0	00:00	0%	0	0

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

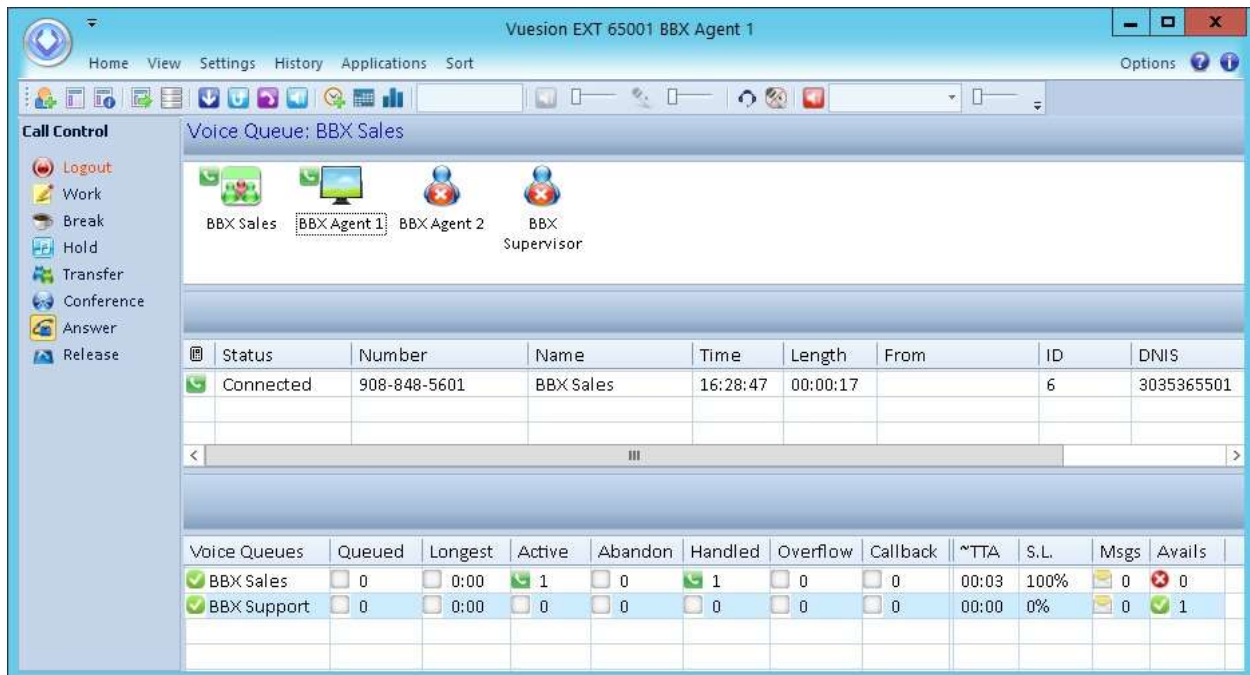


Make an incoming call from the PSTN to the Sales VDN, and verify that the agent screen is updated to reflect a ringing call, as shown below. Also verify that the entry shown in the middle right pane reflects proper information for the call. Click on the **Answer** icon in the left pane to answer the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

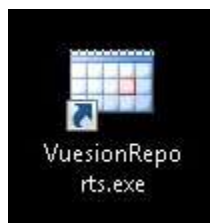




Verify the agent telephone is connected to the PSTN caller with two-way talk path, and that the agent screen is updated to reflect the call being connected, as shown below. Click on the **Release** icon in the left pane to complete the call.



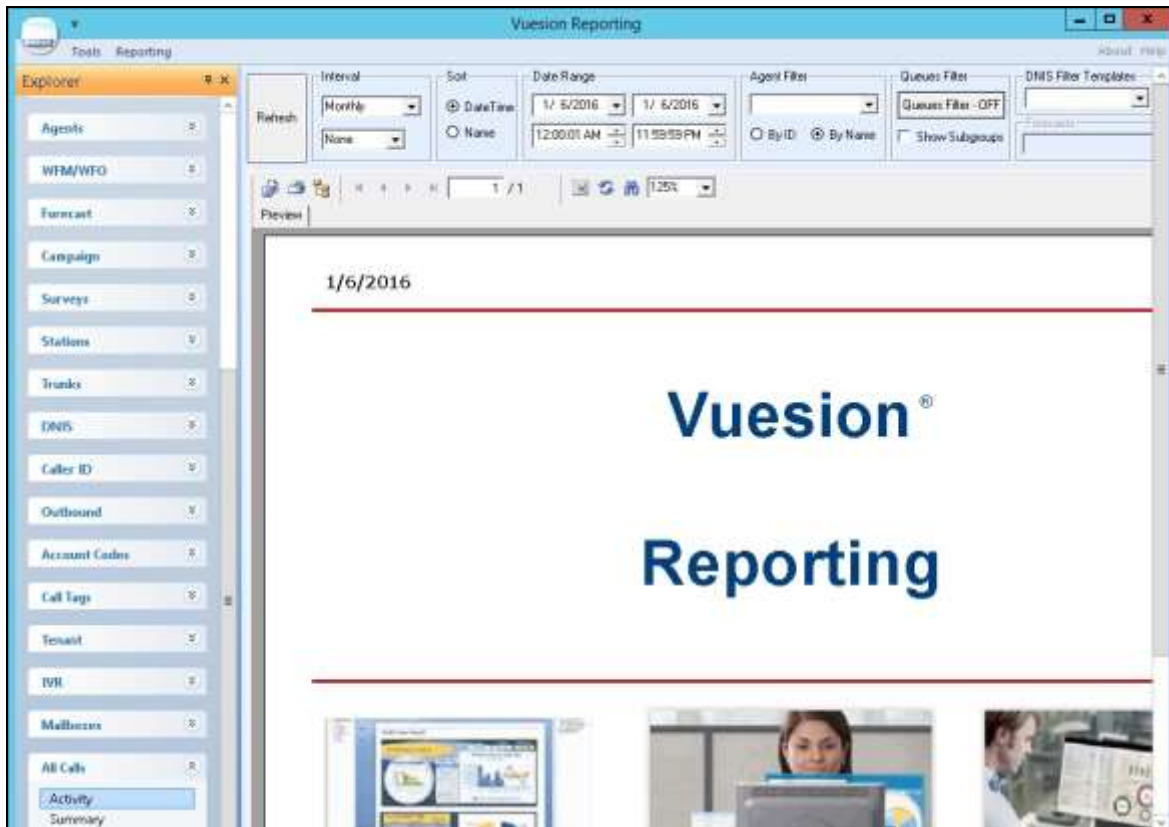
From the supervisor PC running Vuesion Reports, double-click on the **VuesionReports.exe** icon shown on the desktop, which was created as part of installation. In the compliance testing, Vuesion Reports was running on the supervisor PC.



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** → **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.

Date / Time	Ext.	Name	Call Type	ANI / Number Dialed	Name	Call Duration	DNIS
01/06/2016							
16:28:47	66081	IVR 66081	Start Ring	908.848.5601		00:00:00	
16:28:47	65001	BBX Agent 1	Start Ring	66081		00:00:00	
16:28:47	66081	IVR 66081	Inbound	908.848.5601		00:00:00	303.536.5501
16:28:47	65001	BBX Agent 1	Start Ring	908.848.5601		00:00:00	303.536.5501
16:28:52	65001	BBX Agent 1	Start Inbound	908.848.5601		00:00:00	303.536.5501
16:29:25	65001	BBX Agent 1	CC Inbound	908.848.5601		00:00:32	303.536.5501

## 10. Conclusion

These Application Notes describe the configuration steps required for BBX Vuesion Multichannel Contact Center 10.3 to successfully interoperate with Avaya Aura® Communication Manager 7.0, Avaya Aura® Application Enablement Services 7.0, and Avaya Aura® Session Manager 7.0. 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*, Release 7.0, Issue 1, August 2015, available at <http://support.avaya.com>.
2. *Administering and Maintaining Aura® Application Enablement Services*, Release 7.0, Issue 1, August 2015, available at <http://support.avaya.com>.
3. *Administering Avaya Aura® Session Manager*, Release 7.0, Issue 1, August 2015, available at <http://support.avaya.com>.
4. *Vuesion Application Server Contact Center Configuration Guide*, 01/2014 Release V9, available upon request to BBX Support.

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