Avaya Solution & Interoperability Test Lab

Application Notes for BBX Technologies Vuesion Multimedia Contact Center Networking Module with Avaya IP Office 8.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for BBX Technologies Vuesion Multimedia Contact Center Networking module to interoperate with Avaya IP Office. In the compliance testing, BBX Technologies Vuesion Multimedia Contact Center provided skill based routing and announcements using the SIP User, TAPI, and DevLink interfaces from Avaya IP Office 8.0. The Networking module facilitates routing of Automatic Call Distribution calls between multiple Avaya IP Offices.

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 Technologies Vuesion Multimedia Contact Center Networking module to interoperate with Avaya IP Office. In the compliance testing, BBX Technologies Vuesion Multimedia Contact Center provided skill based routing and announcements by using the SIP User, TAPI, and DevLink interfaces from Avaya IP Office. The Networking module facilitates routing of Automatic Call Distribution (ACD) calls between multiple Avaya IP Office systems.

The SIP User interface was used by Vuesion to register virtual SIP users and to route incoming calls via an available SIP user in a hunt group to the Vuesion server. The TAPI interface was used by Vuesion to monitor and control the virtual SIP and physical agent and supervisor users, and to provide call control via the agent and supervisor desktops. The Networking module routes ACD calls to agents on either the Main or Remote IP Office based on the routing method configured on the Vuesion server.

The BBX Technologies Vuesion Multimedia Contact Center consisted of the Vuesion Server and Vuesion Client software.

2. General Test Approach and Test Results

The feature test cases were performed manually. Upon start of the BBX Technologies Vuesion Multimedia Contact Center application, the application automatically registers the virtual SIP users to Avaya IP Office.

For the manual part of the testing, incoming calls were made to the main hunt group. The Vuesion server used the TAPI event messages to track agent states, and specified calls to be redirected to available agents. Since the testing concentrated on the Networking module, agents were logged in at both the Main and Remote IP Office. A call was then made into the main hunt group and call was routed to one of the Avaya IP Offices based on the routing method configured on 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 BBX Technologies Vuesion Multimedia Contact Center Networking module:

- Proper registration of virtual SIP users.
- Verify if call is being presented to an available agent on Main or Remote site based on Routing method defined in the Vuesion Server.
- Verify the above with Distributed, Best Effort and On Busy routing method.
- Verify agents call controls at both site are functioning correctly.

The serviceability testing focused on verifying the ability of BBX Technologies Vuesion Multimedia Contact Center to recover from adverse conditions, such as disconnecting and reconnecting the Ethernet cables to the Vuesion server and to the Vuesion client.

2.2. Test Results

All test cases were executed and passed. The following observations were made on BBX Technologies Vuesion Multimedia Contact Center Networking module from the compliance testing:

- If the Ethernet connection is lost before a customer calls in, then the call is presented to the failover group. This call is missing in the reports.
- If the Ethernet connection is lost before a customer selects a skill set, this call is lost.

2.3. Support

Technical support on BBX Technologies Vuesion Multimedia Contact Center can be obtained through the following:

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

3. Reference Configuration

The configuration used for the compliance testing is as shown in **Figure 1** below.

In the compliance testing, the Vuesion Manager, Vuesion Reports and Vuesion Client software were running on the one Vuesion server and another copy of the same was running on the same server using VMWare. One was connected to the main site Avaya IP Office and the other was connected to the remote site Avaya IP Office. The two Avaya IP Offices were connected to each other using H.323 Line (Trunk).

Avaya IP Office Manager was hosted on another server. During compliance testing two Vuesion clients were loged in on the same server where one was connected to the Desktop agent and the other to the Desktop Supervisor agent. The same was repeated on the VMWare. Emulated PSTN was used to make inbound/outbound calls to the main site Avaya IP Office.

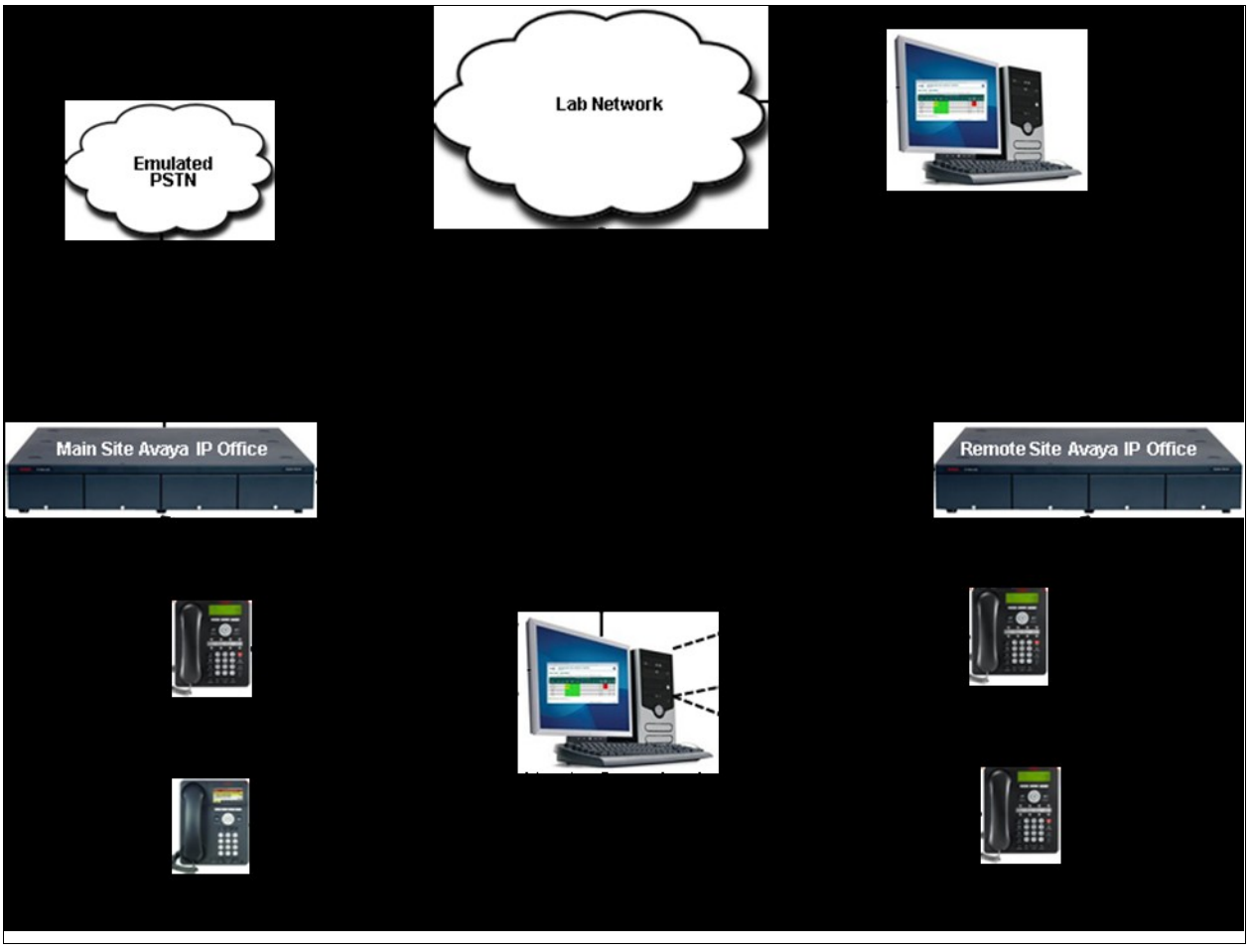


Figure 1: Compliance Test Lab Configuration

4. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office 500	8.0 (18)
Avaya IP Office Manager	10.0 (18)
Avaya 9650 IP Telephone (H.323)	3.186a
Avaya 1608 IP Telephone (H.323)	1.300B
BBX Technologies Vuesion Server on Windows 2008 Server R2 Standard • Avaya TAPI (tspi2w.tsp) • Avaya DevLink (devlink.dll)	V7.03 1.0.0.35 1.0.0.5
BBX Technologies Vuesion Client	V7.03

5. Configure Avaya IP Office

This section provides the procedures for configuring Avaya IP Office. The procedures include the following areas:

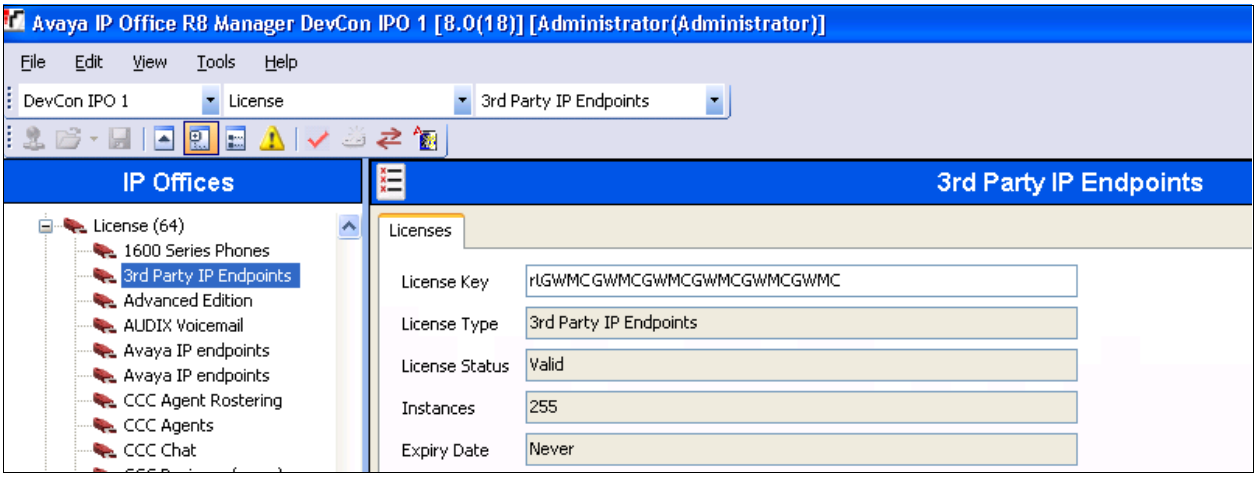
- Verify IP Office license.
- Obtain LAN IP address.
- Administer SIP Registrar.
- Administer SIP extensions.
- Administer SIP users.
- Administer hunt groups.
- Administer agents.
- Administer supervisors.
- Administer incoming call route.
- Administer short code.
- Administer H323 Line.

Most of the above procedures have to be repeated for the remote site Avaya IP Office.

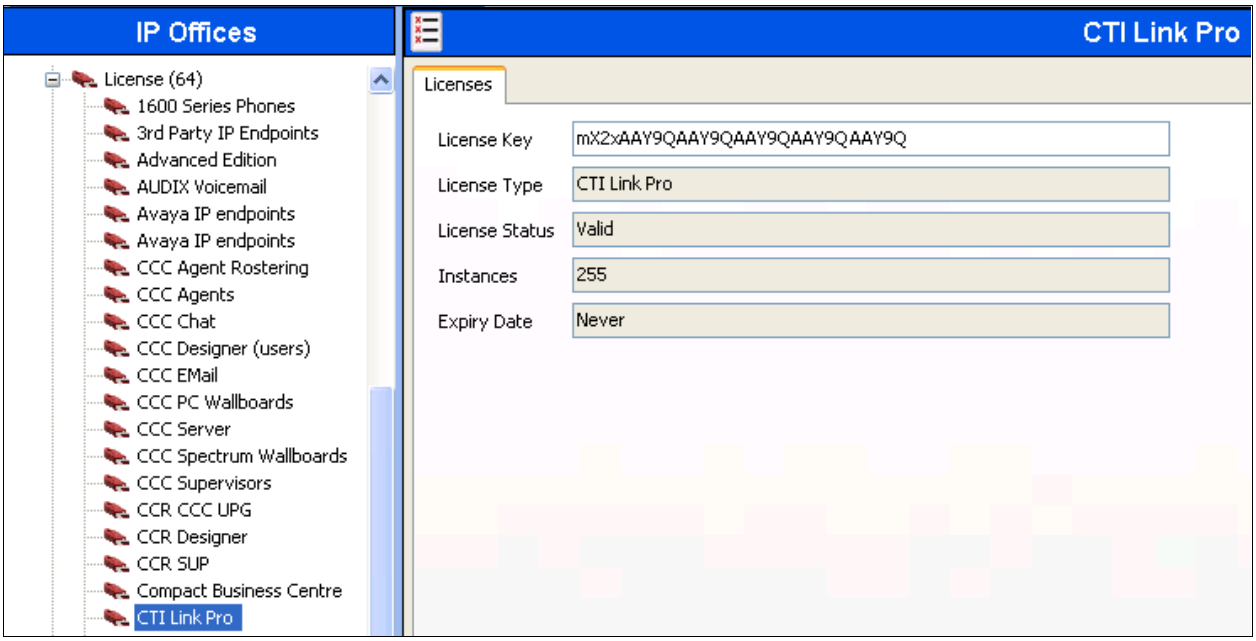
5.1. Verify IP Office License

From a PC running the Avaya IP Office Manager application, select **Start → Programs → IP Office → Manager** to launch the Manager application. Select the proper IP Office system, and log in with the appropriate credentials.

The **Avaya IP R8 Office Manager** screen is displayed. From the configuration tree in the left pane, select **License → 3rd Party IP End-points** to display the **3rd Party IP End-points** screen in the right pane. Verify that the **License Status** is "Valid".

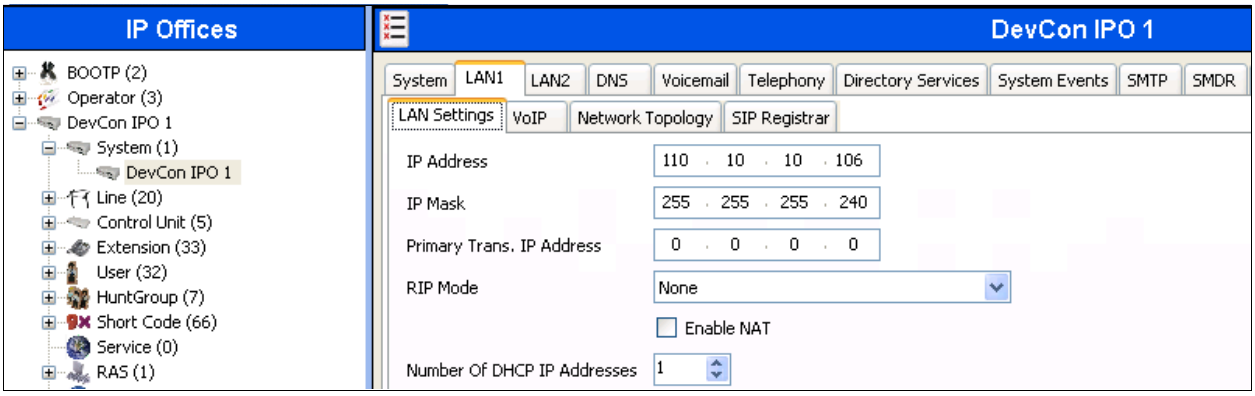


Scroll down the left pane and select **License → CTI Link Pro**, to display the **CTI Link Pro** screen in the right pane. Verify that the **License Status** is "Valid".



5.2. Obtain LAN IP Address

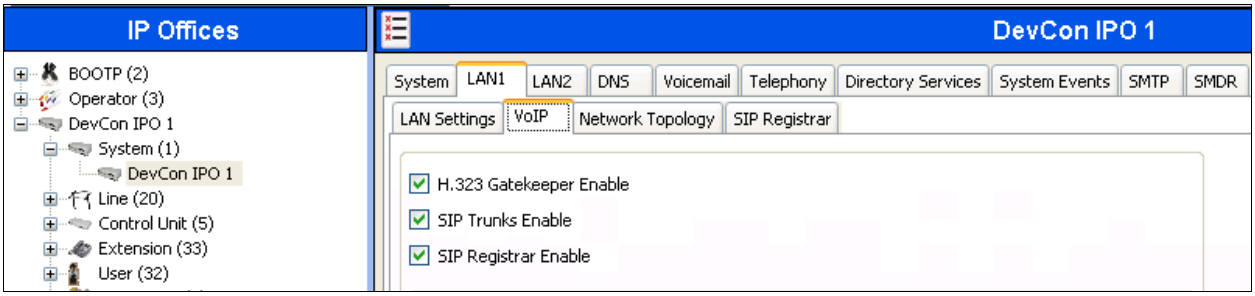
From the configuration tree in the left pane, select **System** to display the **DevCon IPO 1** screen in the right pane. Select the **LAN1** tab, followed by the **LAN Settings** sub-tab in the right pane. Make a note of the **IP Address**, which will be used later to configure Vuesion. Note that IP Office can support SIP on the LAN1 and/or LAN2 interfaces, and the compliance testing used the LAN1 interface.



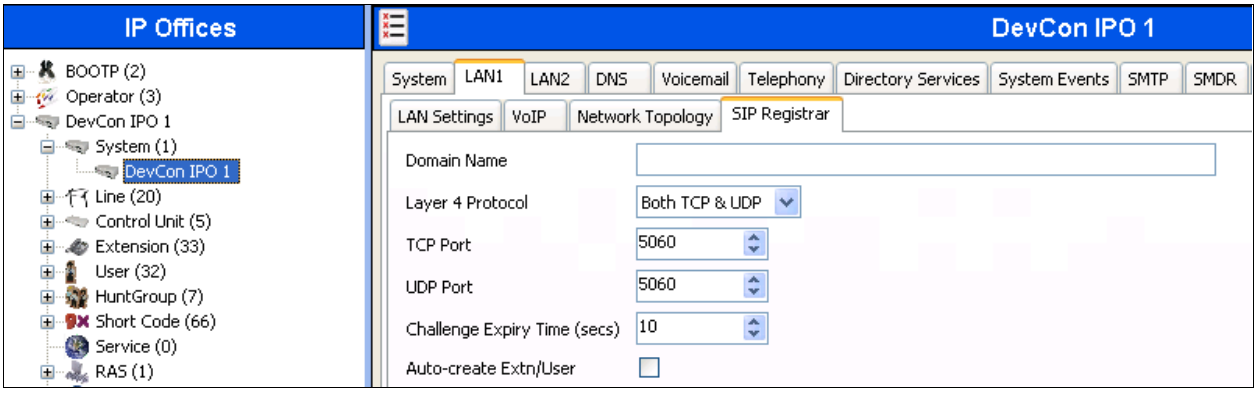
IP address of the remote site IP Office is 110.10.10.109 which will be used later to configure remote site Vuesion server.

5.3. Administer SIP Registrar

Select the **VoIP** sub-tab. Make certain that **SIP Registrar Enable** is checked, as shown below. Retain default values for the remaining fields.

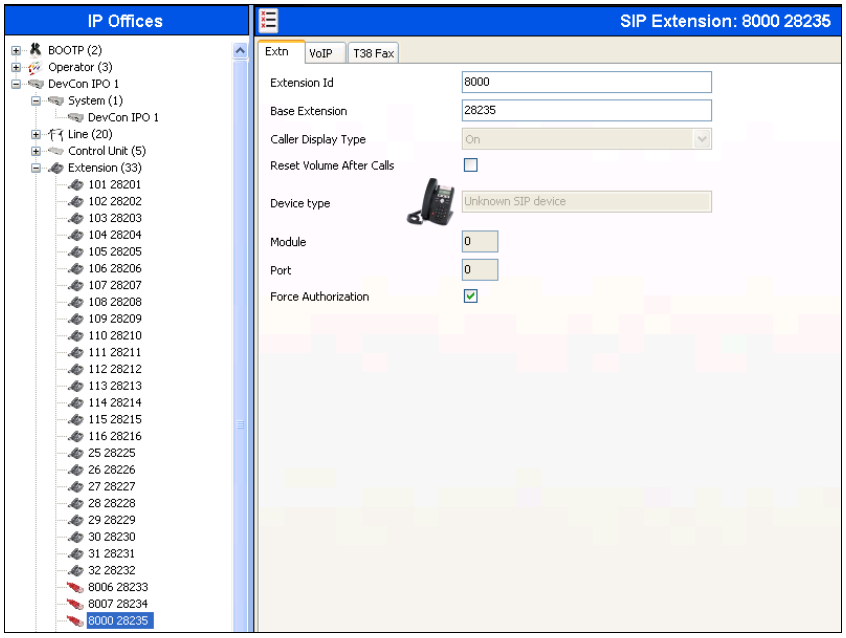


Select the **SIP Registrar** sub-tab, and enter a valid **Domain Name** for SIP endpoints to use for registration with IP Office. In the compliance testing, the **Domain Name** was left blank, so the LAN IP address was used for registration.



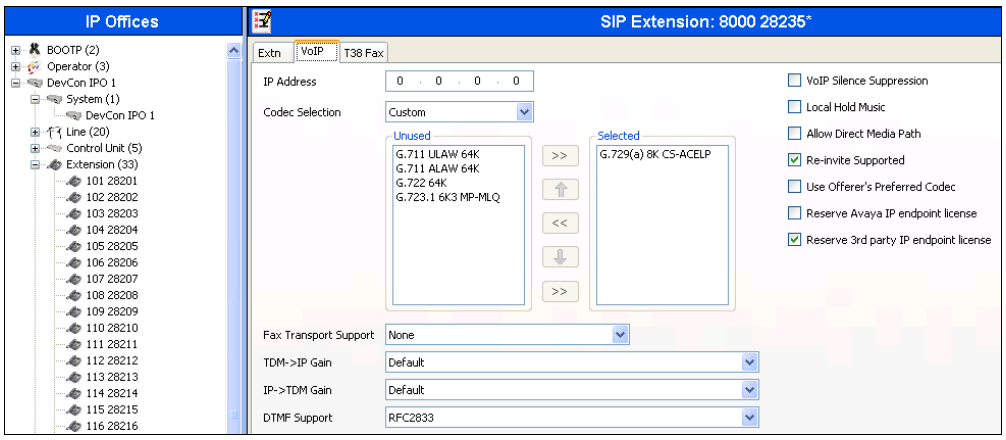
5.4. Administer SIP Extensions

From the configuration tree in the left pane, right-click on **Extension**, and select **New → SIP Extension** from the pop-up list to add a new SIP extension. Enter the desired digits for **Base Extension**, and retain the default values in the remaining fields. The screen below shows the added SIP extension.



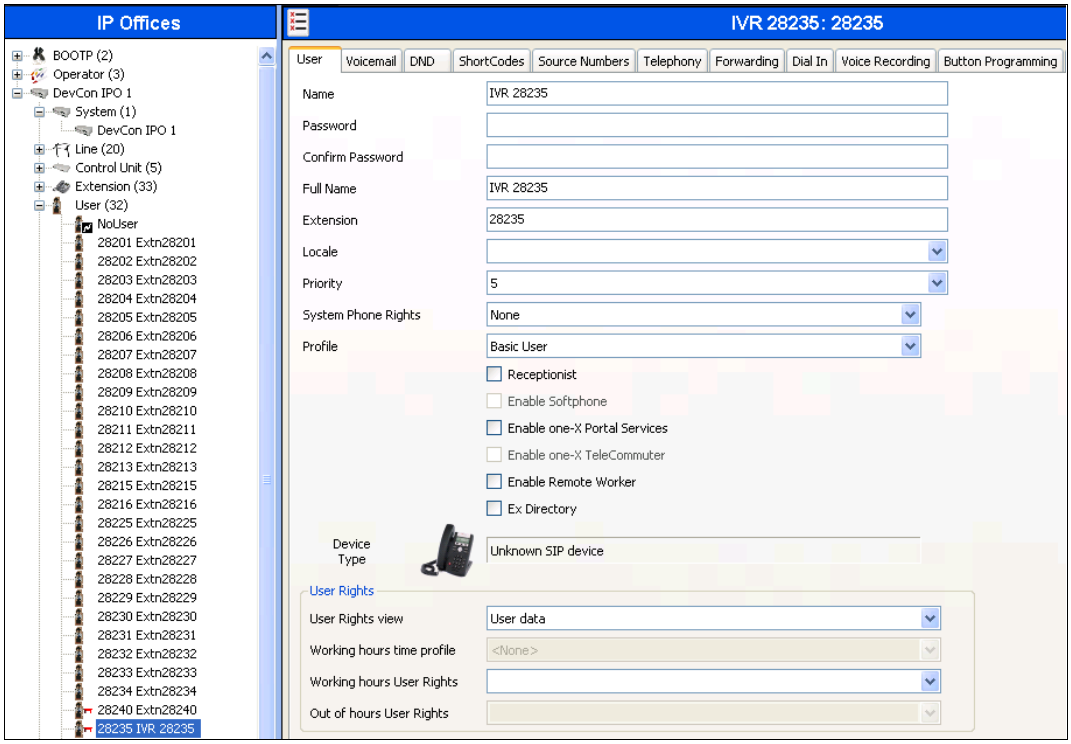
Select the **VoIP** tab. Check **Re-invite Supported**, and **Reserve 3rd party IP endpoint license**, as shown below. Uncheck **Allow Direct Media Path**. Select "Custom" from **Codec Selection** drop down box and move "G.729 (a) 8K CS-ACELP" to the **Selected** column. Retain the default values in the remaining fields.

Repeat this section to add the desired number of SIP extensions. In the compliance testing, five SIP extensions with base extensions of 28235-28239 were created. On the remote site base extensions of 29228-29232 were created.

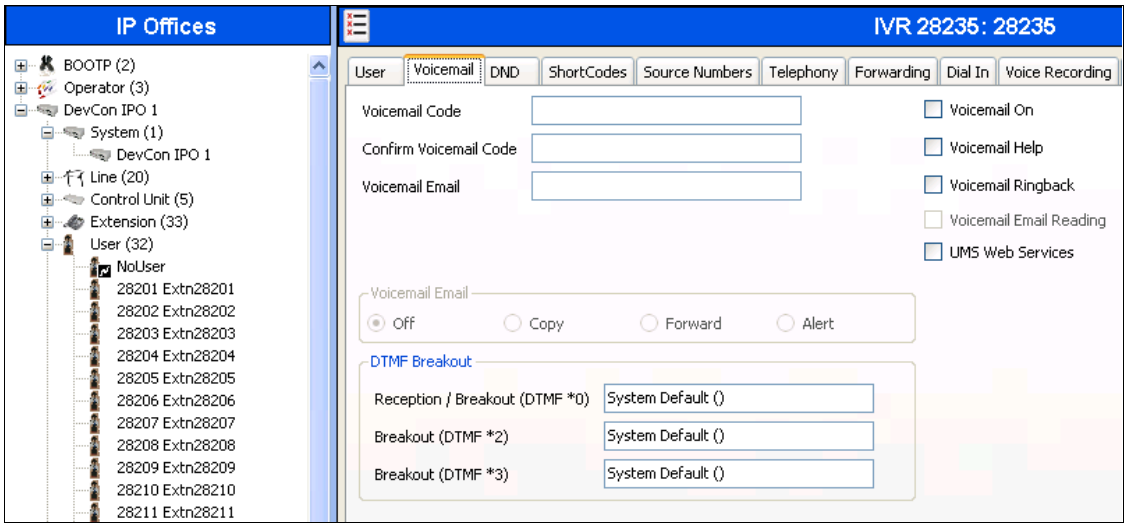


5.5. Administer SIP Users

From the configuration tree in the left pane, right-click on **User**, and select **New** from the pop-up list. For **Name** and **Full Name**, enter the same desired value prefixed with "IVR", as required by Vuesion. For **Extension**, enter the first SIP base extension from **Section 5.4**. Retain the default values in the remaining fields. The screen below shows the added SIP user.

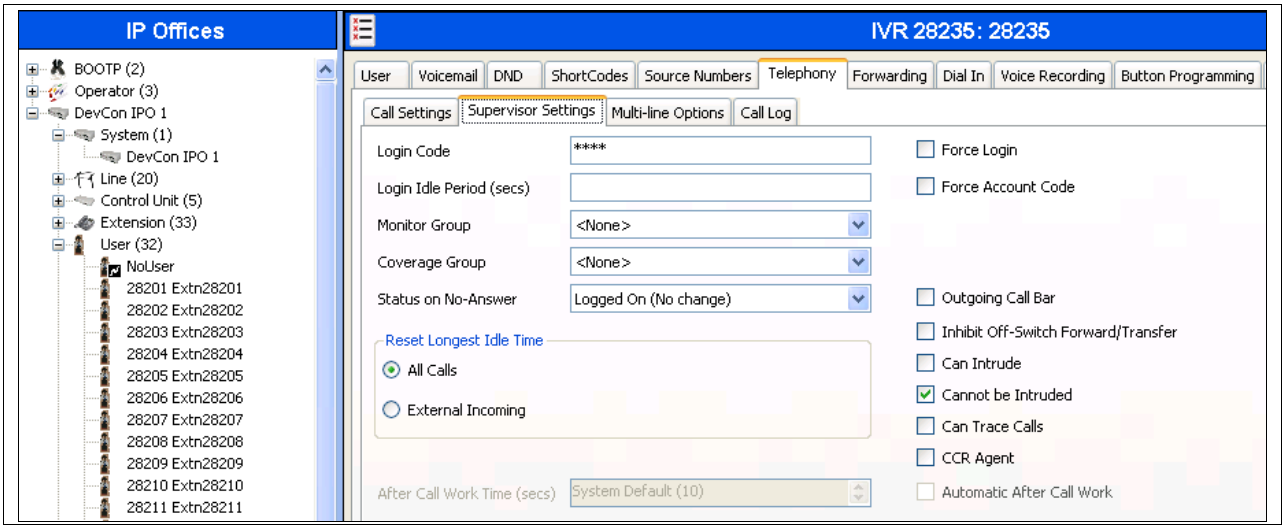


Select the **Voicemail** tab, and uncheck **Voicemail On**, as shown below.



Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab. Enter a desired **Login Code**.

Repeat this section to add a new user for each SIP extension from **Section 5.4**. In the compliance testing, five users with extensions of 28235-28239 were created. In the remote site five users with extensions of 29228-29232 were created.



5.6. Administer Hunt Groups

Administer five hunt groups for the following purposes:

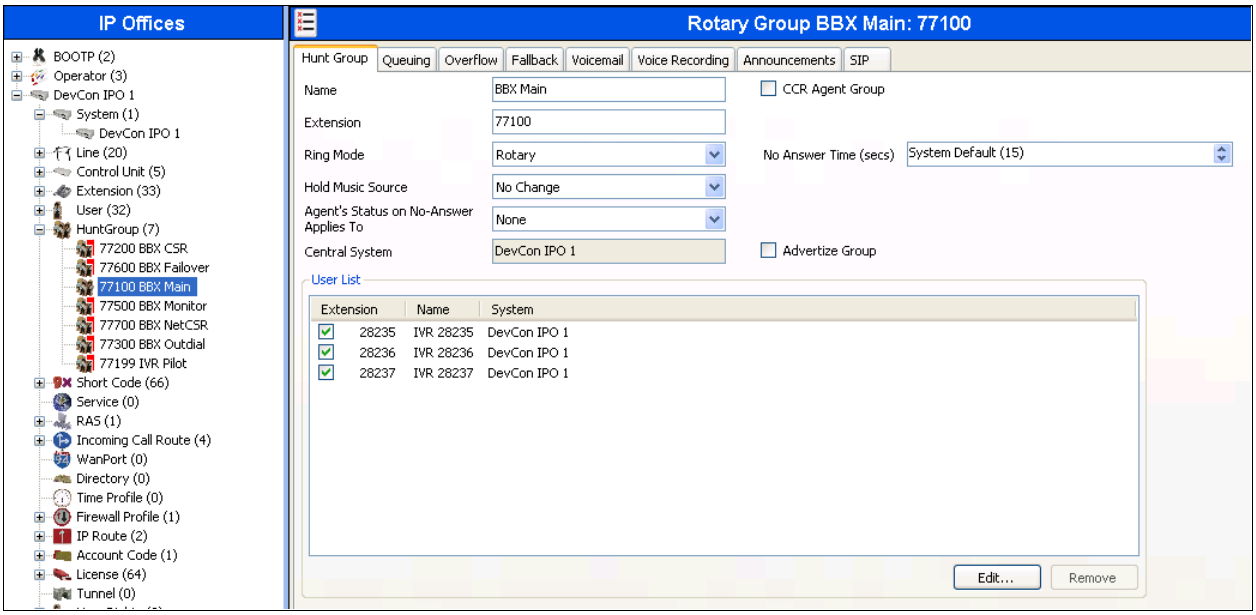
- Main hunt group for delivering of incoming trunk calls to Vuesion.
- Monitor hunt group for supervisor monitoring of agents.
- Transfer hunt group for use by Vuesion for internal transfers.
- Network hunt group for use by main site Vuesion server to add members from remote site.
- Failover hunt group for use by Vuesion to redirect calls during network disruption.

5.6.1. Administer Main Hunt Group

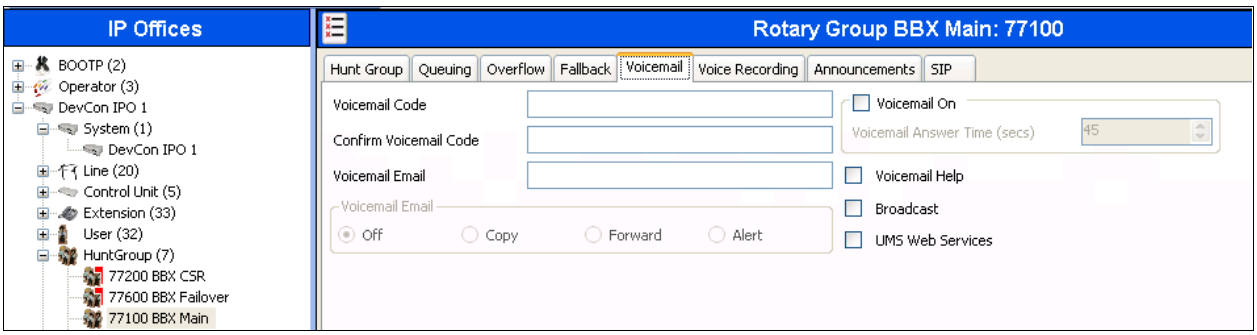
From the configuration tree in the left pane, right-click on **HuntGroup** and select **New** from the pop-up list to add a new hunt group. This hunt group will be used to deliver incoming trunk calls to Vuesion.

Enter desired values for **Name** and **Extension**. For **Ring Mode**, select "Rotary" from the drop-down list. Retain the default values in the remaining fields

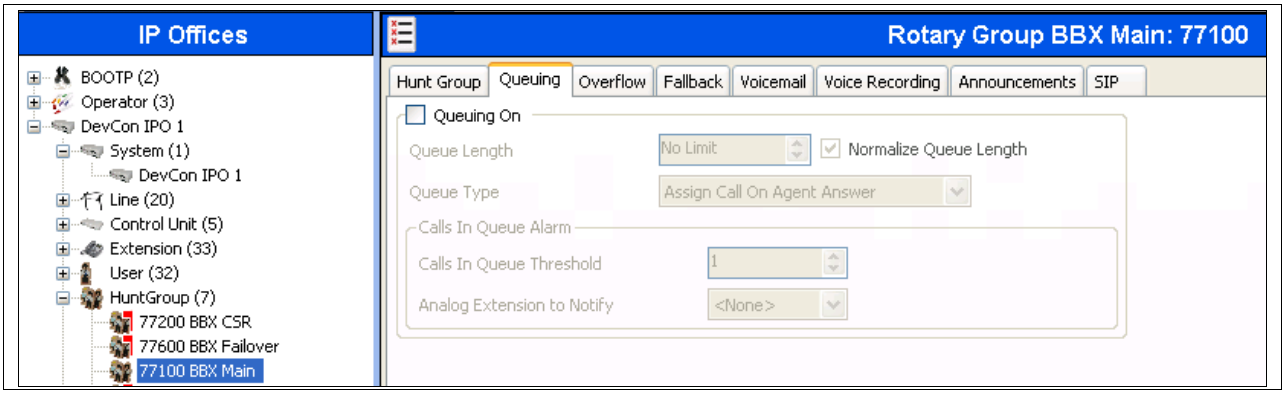
In the **User List** section, add the desired number of virtual SIP users from **Section 5.5** as members. In the compliance testing, 28235 to 28237 were added as members as shown below. In the remote site 29228 to 29230 were added as members.



Select the **Voicemail** tab, and uncheck **Voicemail On**.



Select the **Queuing** tab, and uncheck **Queuing On**.



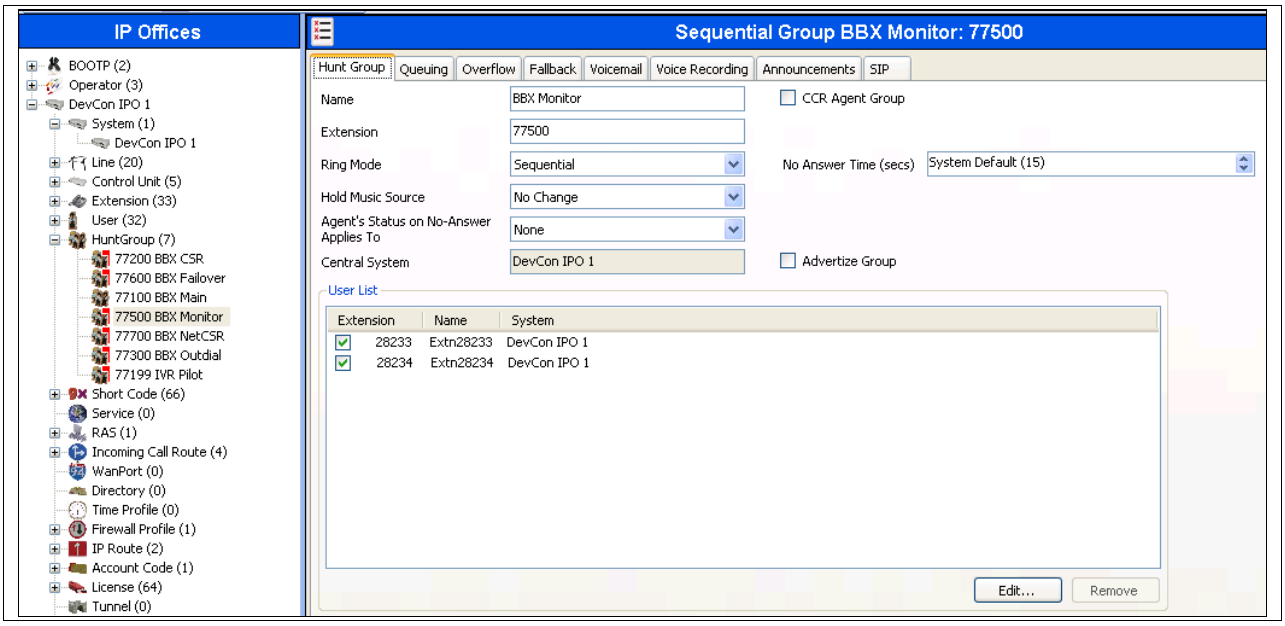
5.6.2. Administer Monitor Hunt Group

From the configuration tree in the left pane, right-click on **HuntGroup** and select **New** from the pop-up list to add a new hunt group. This hunt group will be used for supervisor monitoring of agents.

Enter desired values for **Name** and **Extension**, and retain the default values in the remaining fields.

Follow the procedures in **Section 5.6.1** to uncheck **Voicemail On**.

In the **User List** section, add the agent users as members. In the compliance testing, 28233 and 28234 were added as members as shown below. In the remote site 29225 and 29226 were added as members.



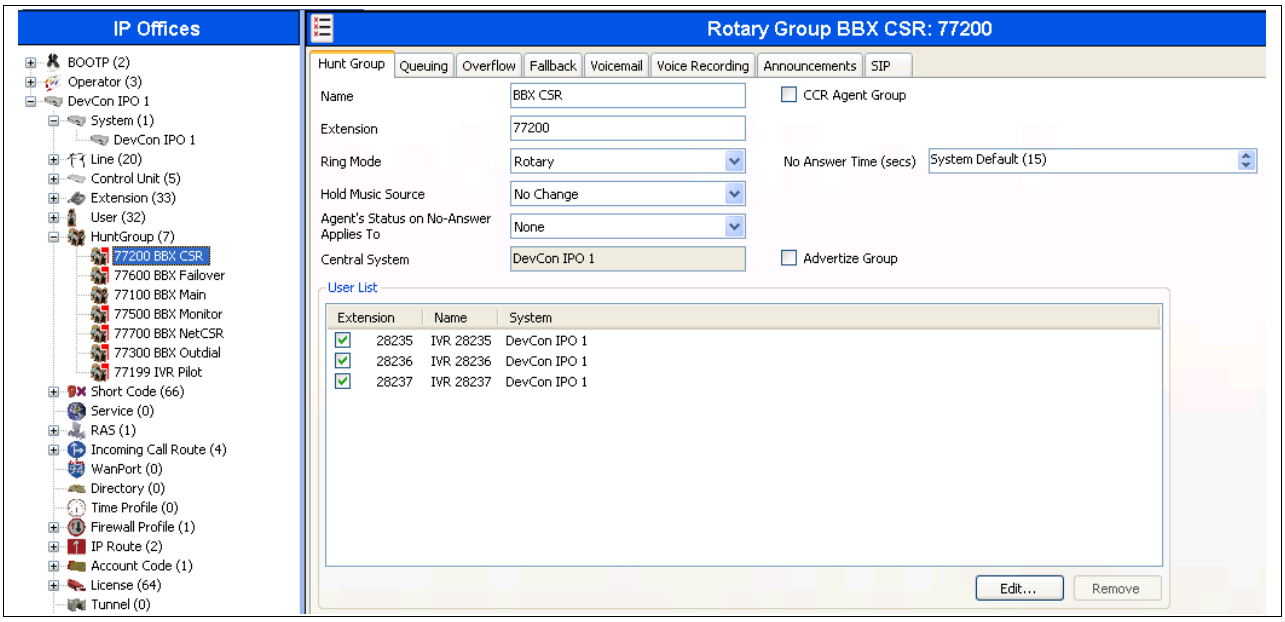
5.6.3. Administer Transfer Hunt Group

From the configuration tree in the left pane, right-click on **HuntGroup** and select **New** from the pop-up list to add a new hunt group. This hunt group will be used by Vuesion for internal transfers.

Enter desired values for **Name** and **Extension**. For **Ring Mode**, select "Rotary" from the drop-down list. Retain the default values in the remaining fields.

In the **User List** section, add the desired number of virtual SIP users from **Section 5.5** as members. In the compliance testing, 28235 to 28237 were added as members as shown below. In the remote site 29228 to 29230 were added as members.

Follow the procedures in **Section 5.6.1** to uncheck **Voicemail On** and **Queuing On**.

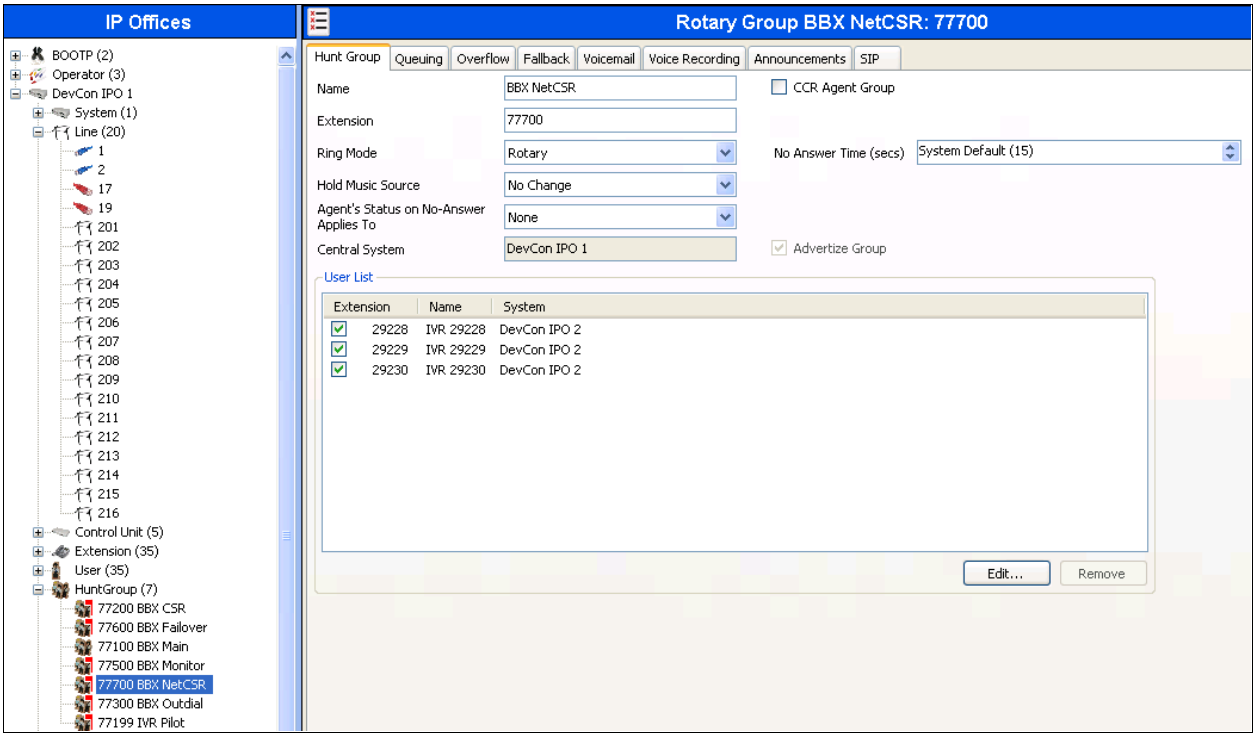


5.6.4. Administer Network Hunt Group

From the configuration tree in the left pane, right-click on **HuntGroup** and select **New** from the pop-up list to add a new hunt group. This hunt group will be used by main to make transfers to remote site Vuesion.

Enter desired values for **Name** and **Extension**. For **Ring Mode**, select "Rotary" from the drop-down list. Retain the default values in the remaining fields.

In the **User List** section, add the desired number of virtual SIP users from **Section 5.5** as members from remote site. In the compliance testing, 29228 to 29230 were added as members from the remote site as shown below.



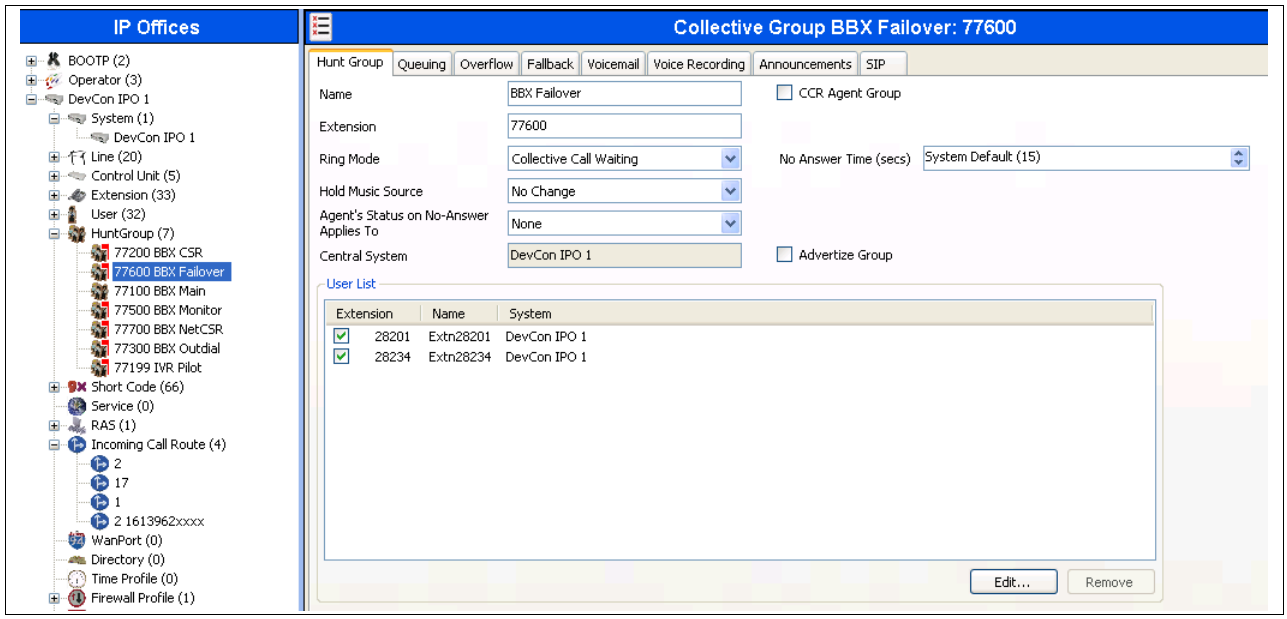
5.6.5. Administer Failover Hunt Group

From the configuration tree in the left pane, right-click on **HuntGroup** and select **New** from the pop-up list to add a new hunt group. This hunt group will be used by Vuesion to route calls during any network failures.

Enter desired values for **Name** and **Extension**. For **Ring Mode**, select "Collective Call Waiting" from the drop-down list. Retain the default values in the remaining fields.

In the **User List** section, add the agent users as members. In the compliance testing, 28201 and 28234 were added as members as shown below. In the remote site 29210 and 29226 were added as members.

Follow the procedures in **Section 5.6.1** to uncheck **Voicemail On** and **Queuing On**.

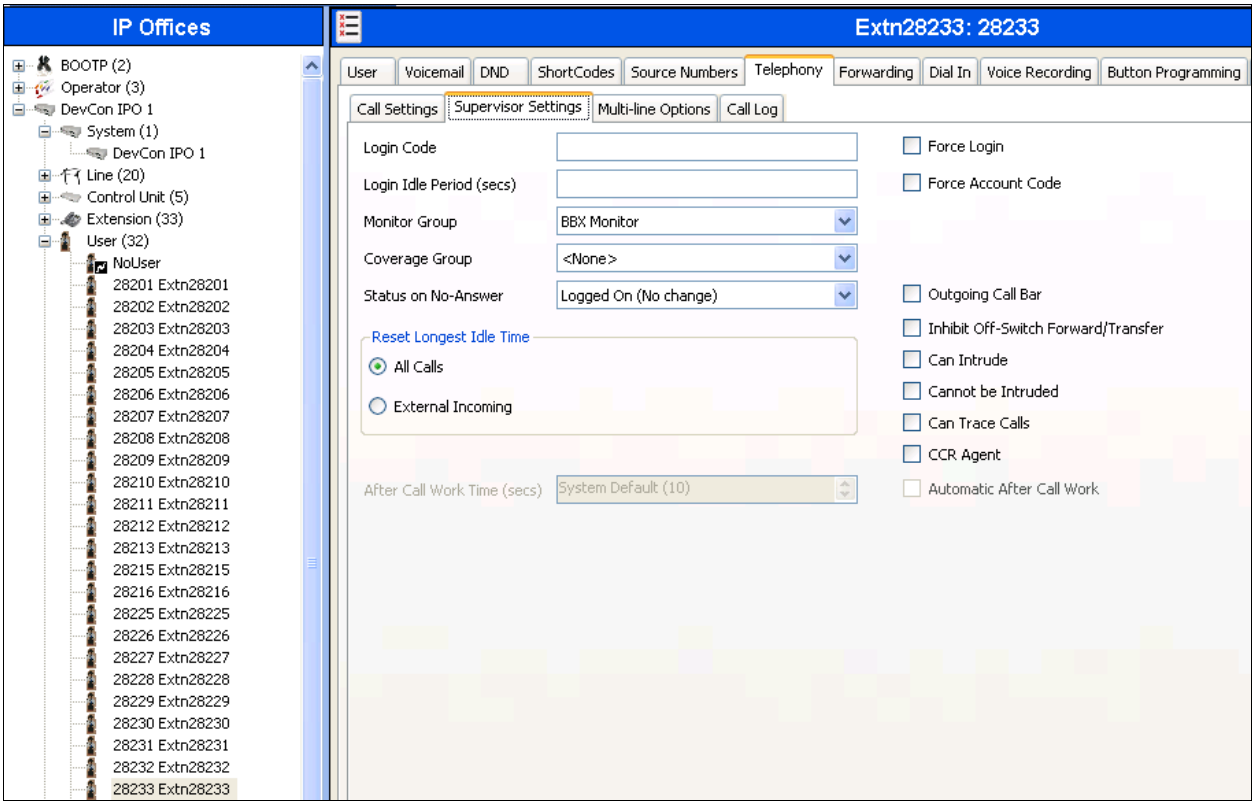


5.7. Administer Agents

From the configuration tree in the left pane, select the first agent user, in this case "28233". In the remote site agent user is 29226.

Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab. Uncheck **Cannot be Intruded**, as shown below. If this agent needs to be monitored then select the required monitoring group from the **Monitor Group** drop down menu.

Repeat this section for all agent users.

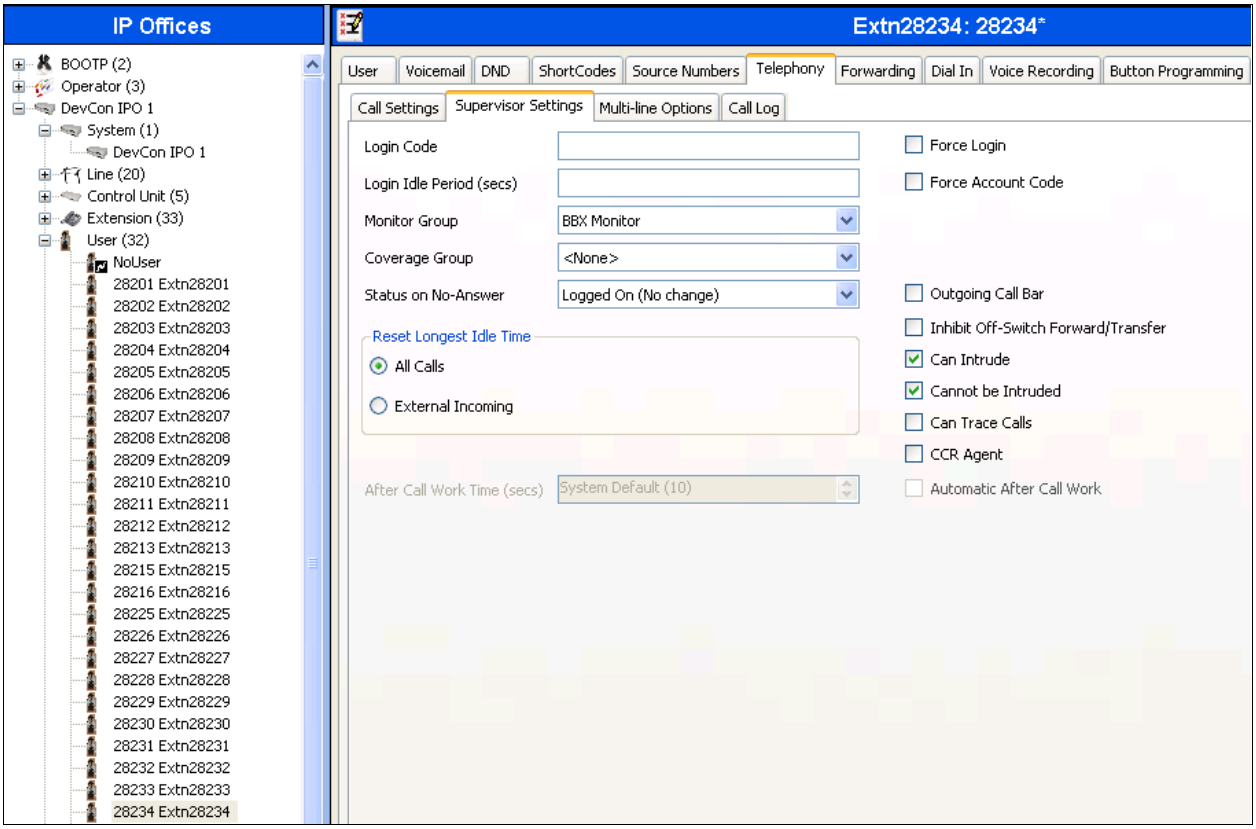


5.8. Administer Supervisors

From the configuration tree in the left pane, select the first supervisor user that will be monitoring agents, in this case "28234". In the remote site the supervisor user is 29225.

Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab. For **Monitor Group**, select the Monitor hunt group from **Section 5.6.2**. Check **Can Intrude** and **Cannot be Intruded**.

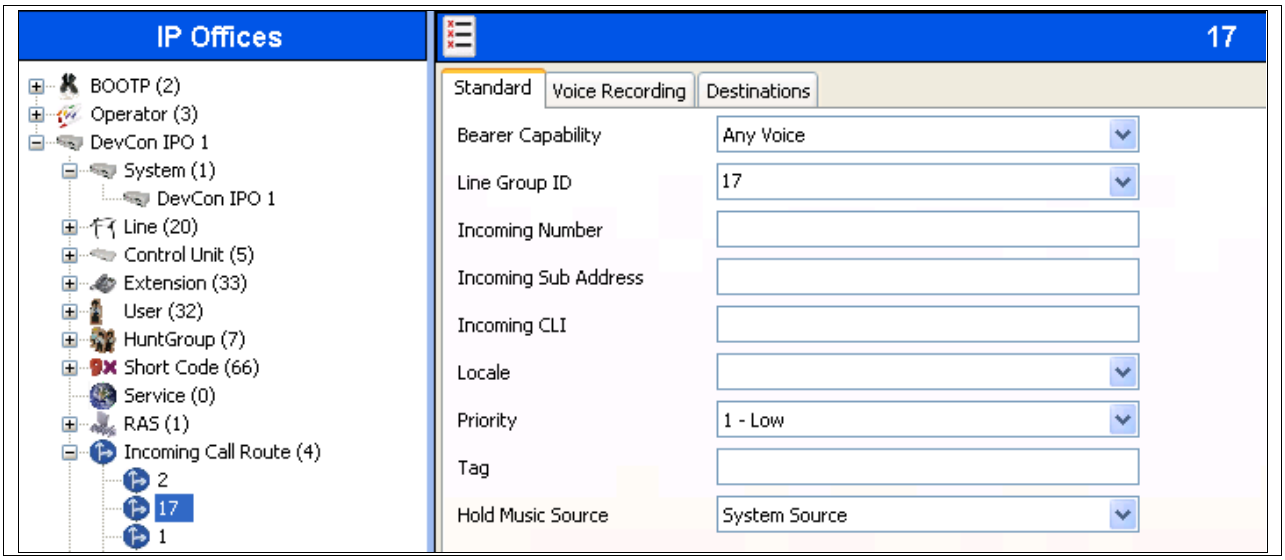
Repeat this section for all supervisors that will be monitoring agents. In the compliance testing, one supervisor user with extension 28234 was configured, as shown below.



5.9. Administer Incoming Call Route

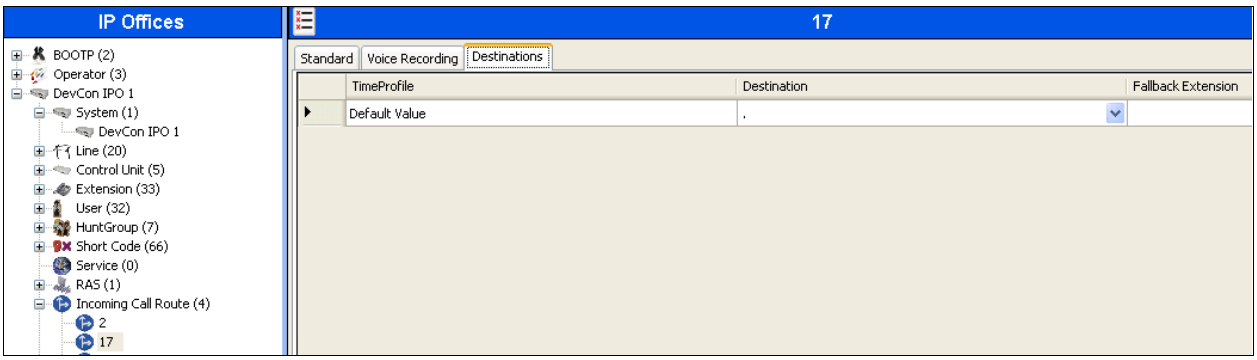
If necessary, create an incoming call route to route incoming calls to the Main hunt group. In the compliance testing, a SIP line "17" was created for incoming route

As shown in the screen below, the **Line Group ID** of "17" is selected.



In the **Destinations** tab, the use of "." in the **Destination** field enables the routing to reach all extensions in the IP Office.

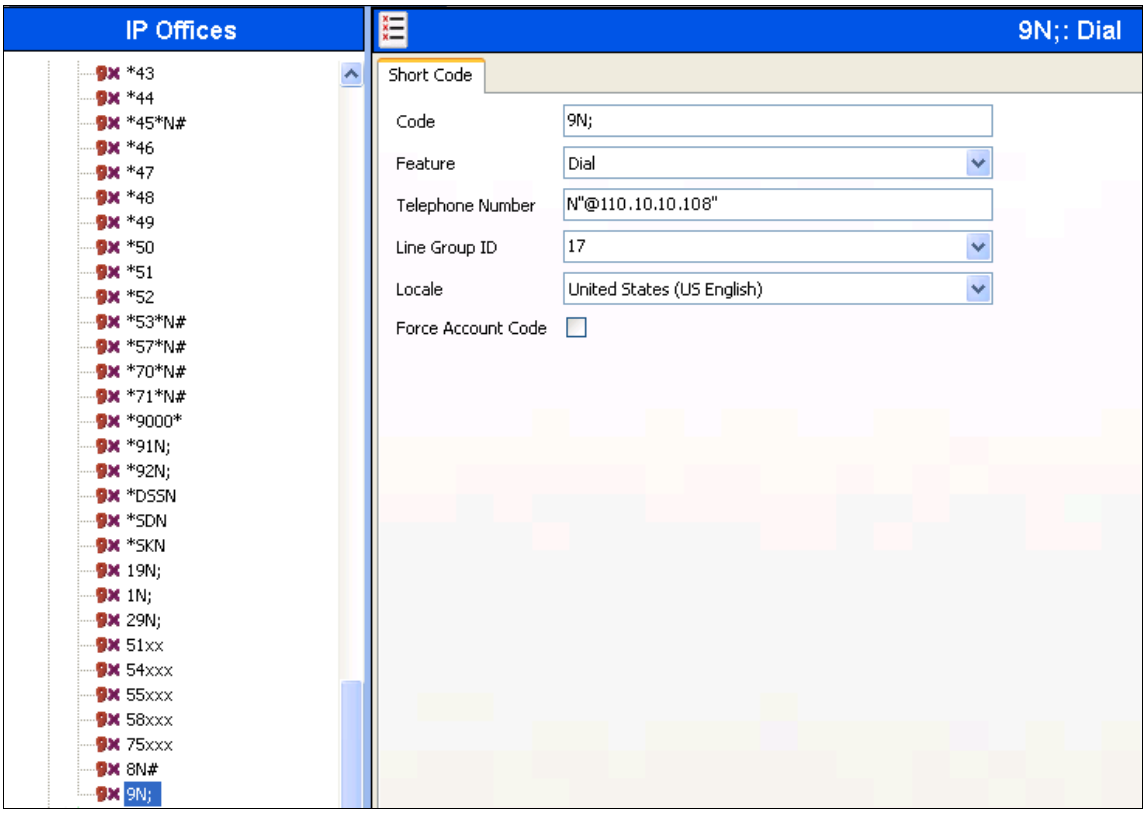
If desired, the Main hunt group can be selected from the **Destination** drop-down to route all incoming trunk calls to Vuesion.



5.10. Administer Short Code

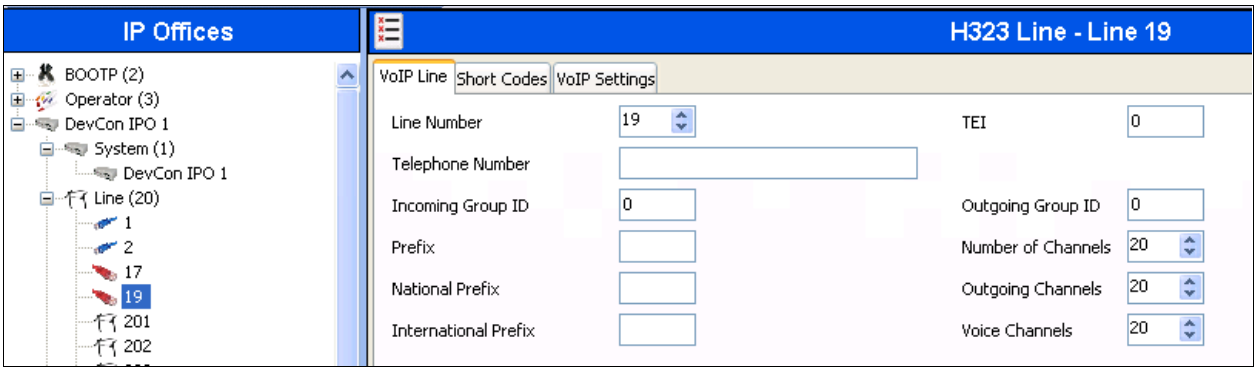
From the configuration tree in the left pane, right-click on **Short Code** and select **New** from the pop-up list to add a new short code for Outbound dialing. Configure the fields as shown below in the right pane.

Note that the short code **9N;** was used during compliance testing for making outbound calls. Outbound calls were routed using **Line Group ID** "17", which is a SIP Line created on IP Office.

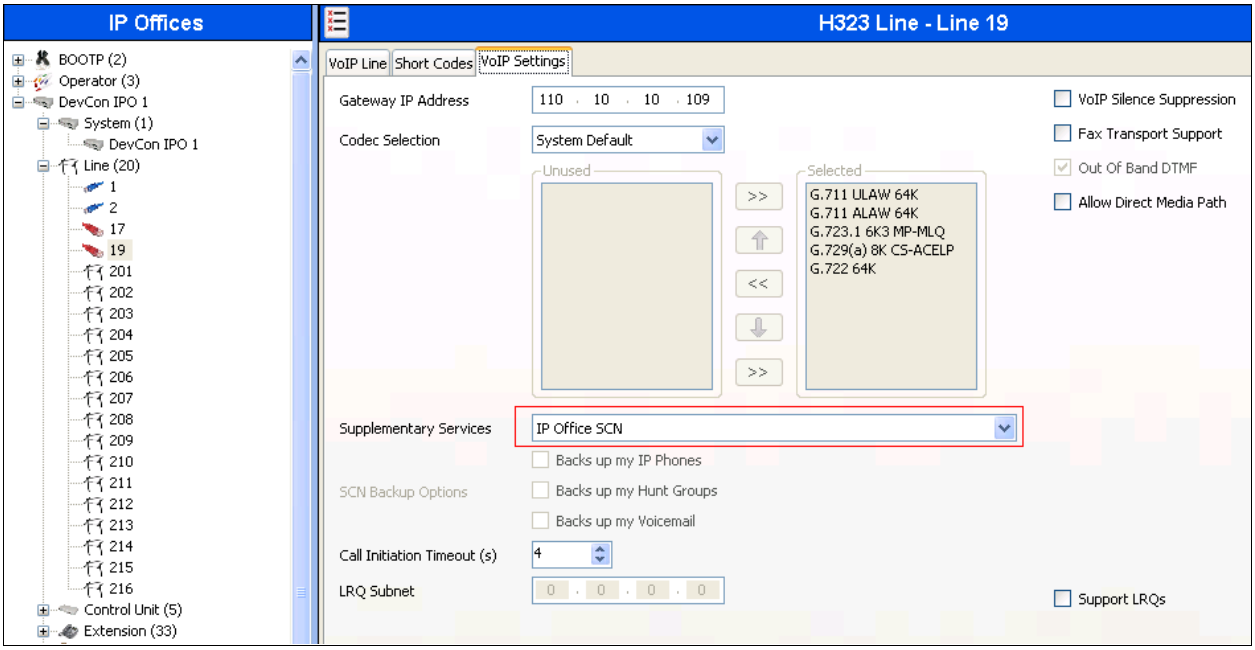


5.11. Administer H323 Line

From the configuration tree in the left pane, right-click on **Line** and select **New** from the pop-up list to add a new H323 Line for connection between the main and remote site Avaya IP Offices. Configure the fields as shown below in the right pane. During compliance testing **Line Number** was selected to be "19". Retain default values for the rest of the fields.



In the **VoIP Settings** tab enter the IP address of the remote Avaya IP Office for the **Gateway IP Address** field. Select "IP Office SCN" from the drop down list for the **Supplementary Services** field as shown on screen below. Retain default values for all remaining fields.



On the remote site Line Number 17 was configured as H323 Line with Gateway IP Address of the main site IP Office of 110.10.10.106.

6. Configure BBX Technologies Vuesion Multimedia Contact Center

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

- Administer TAPI driver.
- Administer Switch.txt.
- Stop service.
- Launch Vuesion Manager.
- Administer communication settings.
- Administer local extensions.
- Administer tenants.
- Administer VMAIL extensions.
- Administer queues sizing.
- Administer ACD members.
- Administer ACD groups.
- Administer ACD network.
- Start service.

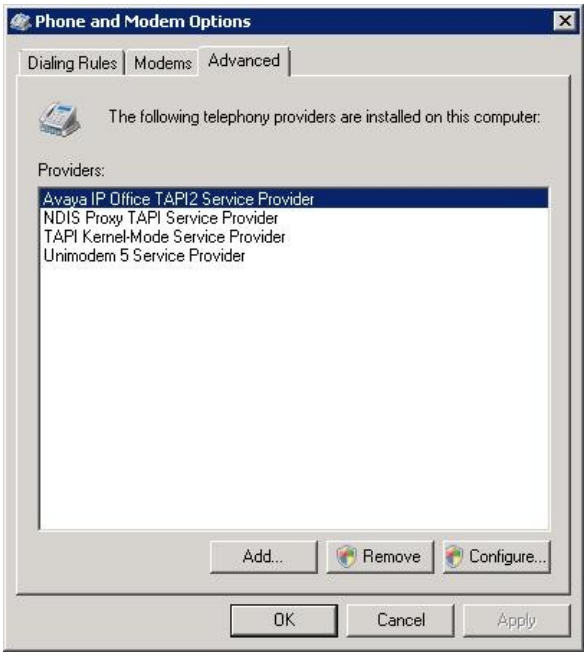
All the above procedures have to be repeated for the remote Vuesion Server running on VMWare which will be communicating with the remote site Avaya IP Office.

The configuration of the Vuesion server is typically performed by BBX Technologies technicians. The procedural steps are presented in these Application Notes for informational purposes.

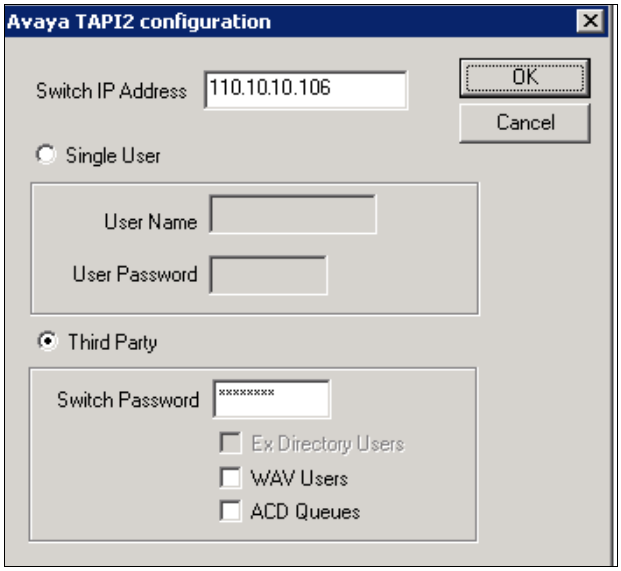
In addition to the shown procedural steps, the application also requires the auto attendant, and the class of service for the agents and supervisors be configured by following reference in **Section 9 [2]**.

6.1. Administer TAPI Driver

From the Vuesion server, select **Start → Control Panel**, and click on the **Phone and Modem** icon (not shown below). In the **Phone and Modem Options** screen, select the **Advanced** tab. Select the **Avaya IP Office TAPI2 Service Provider** entry, and click **Configure**.

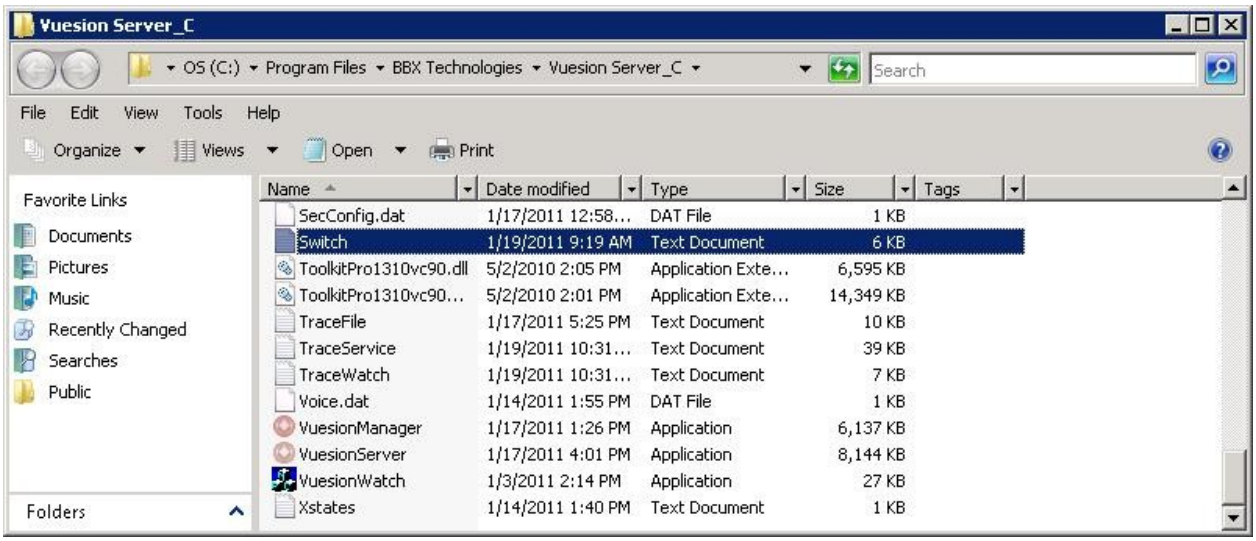


The **Avaya TAPI2 configuration** screen is displayed**.** For **Switch IP Address**, enter the IP address of Avaya IP Office. Select the radio button for **Third Party**, and enter the IP Office password into the **Switch Password** field. Reboot the Vuesion server.

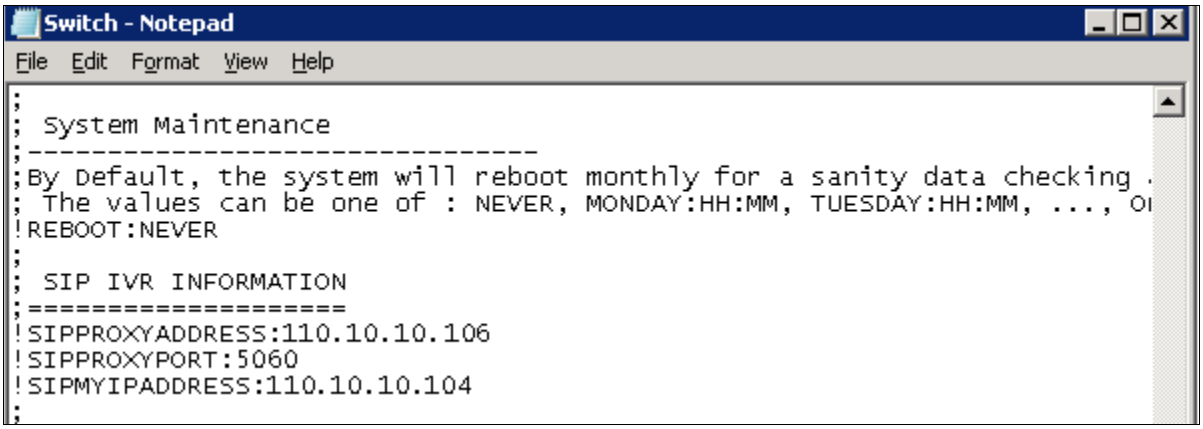


6.2. Administer Switch.txt

Navigate to the **C:\Program Files\BBX Technologies\Vuesion Server_C** directory to locate the **Switch** text file shown below.



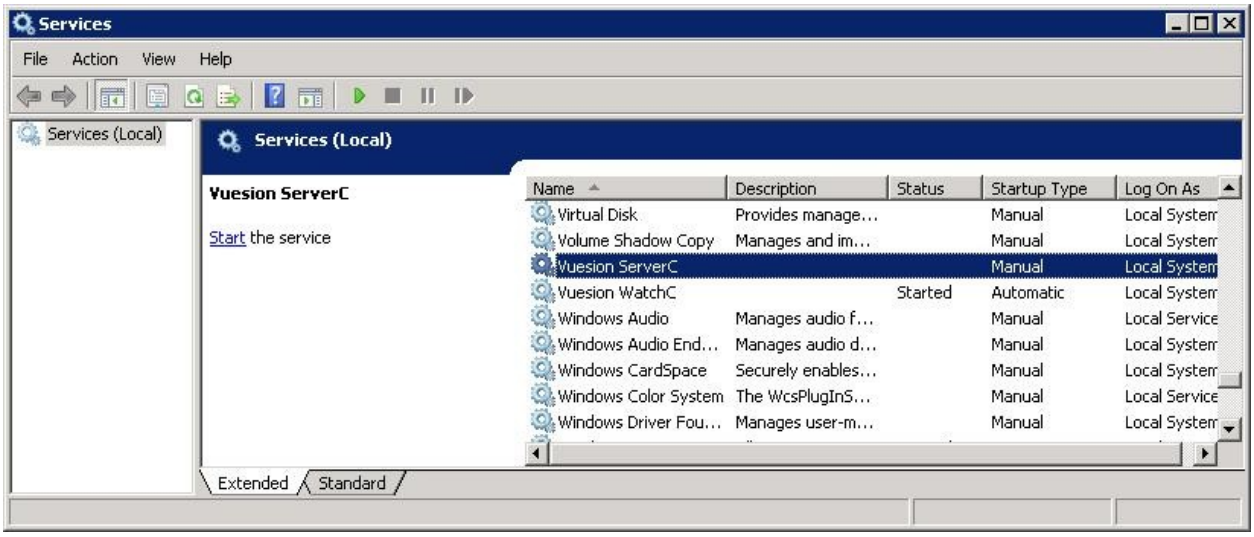
Open the **Switch** text file with the NotePad application. For **SIPPROXYADDRESS**, enter the IP address of IP Office from **Section 5.2**. For **SIPPROXYPORT**, enter the UDP port number from **Section 5.3**. For **SIPMYIPADDRESS**, enter the IP address of the local Ethernet interface used for connectivity with IP Office, in this case "110.10.10.104".



On the remote site Vuesion, the SIPPROXYADDRESS is 110.10.10.109 and SIPMYIPADDRESS is 110.10.10.107.

6.3. Stop Service

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

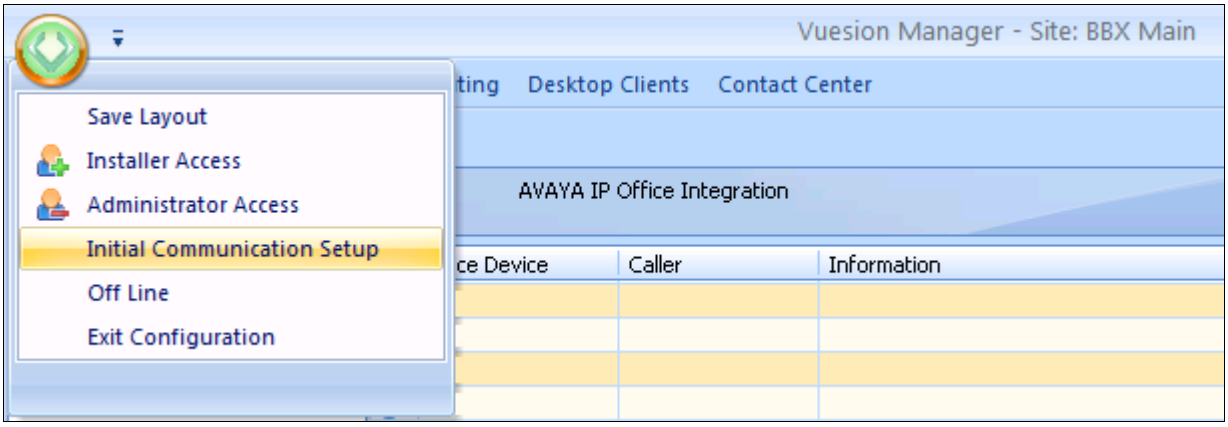


6.4. Launch Vuesion Manager

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

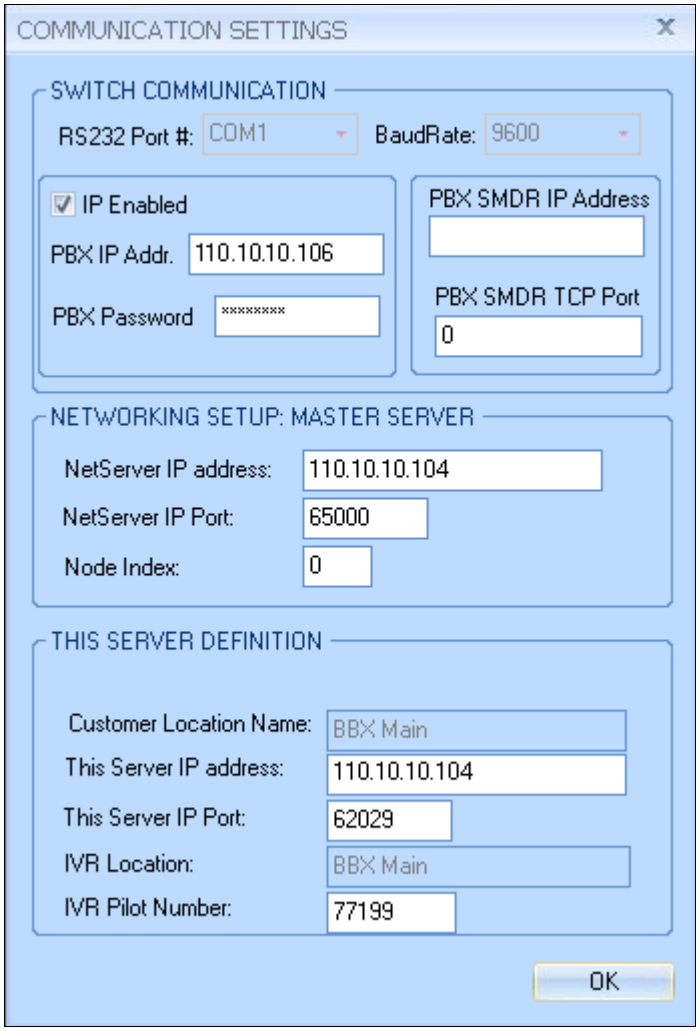
6.5. Administer Communication Settings

The **Vuesion Manager** screen is displayed. Click on the icon in the top left corner, and select **Initial Communication Setup** from the drop-down list.

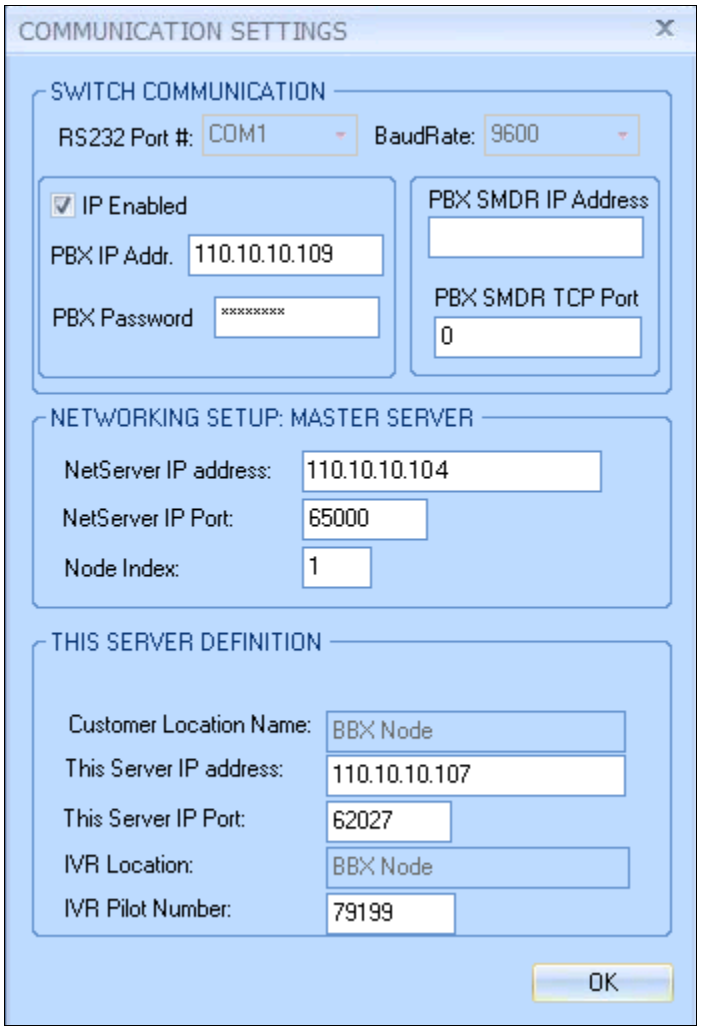


The **VuesionServer** dialog box is displayed, click **OK**

The **COMMUNICATION SETTINGS** screen is displayed next. Check **IP Enabled**. Enter the IP address and password for IP Office in **PBX IP Addr** and **PBX Password.** Enter the **NetServer IP address**, **IP Port** and **Node Index** of the Master Server. This IP address is the IP address of the main server which communicates with the main site Avaya IP Office. **IVR Pilot Number** should be a unique number and therefore use available extension numbers on IP Office. Retain the default values in the remaining fields.

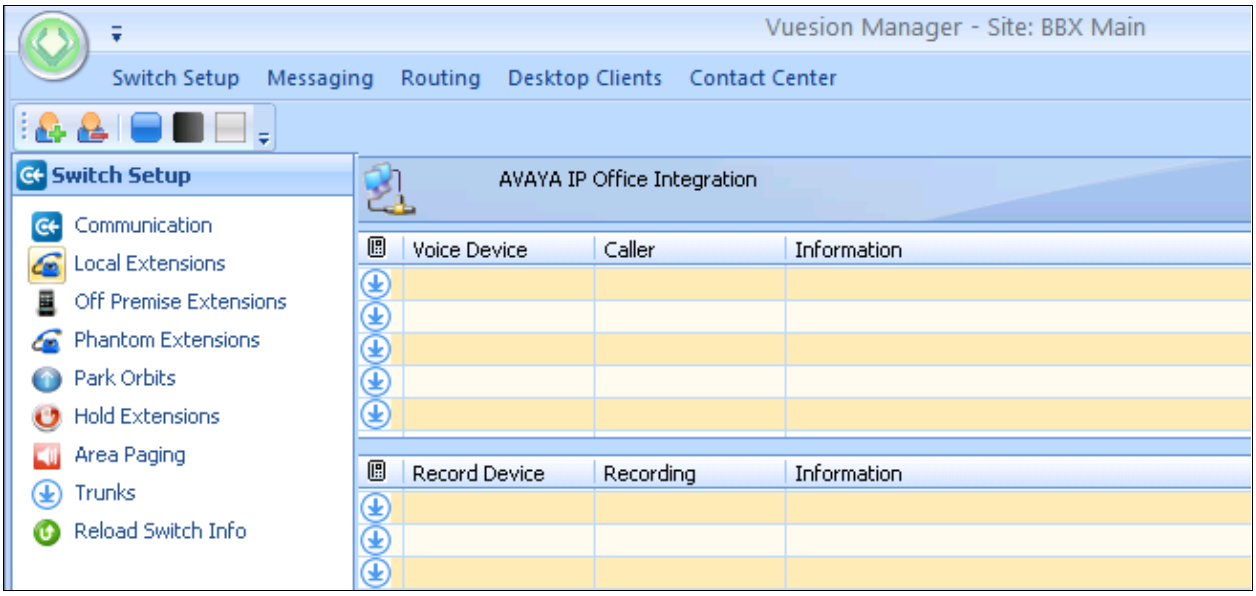


Similarly **COMMUNICATION SETTINGS** screen for the remote site Vuesion server is shown below. Check **IP Enabled**. Enter the IP address and password for the remote site IP Office in **PBX IP Addr** and **PBX Password.** Enter the **NetServer IP address**, **IP Port** and **Node Index** of the Master Server. This IP address is the IP address of the main server which communicates with the main site Avaya IP Office. **IVR Pilot Number** should be a unique number and therefore use available extension numbers on remote site IP Office. Retain the default values in the remaining fields.

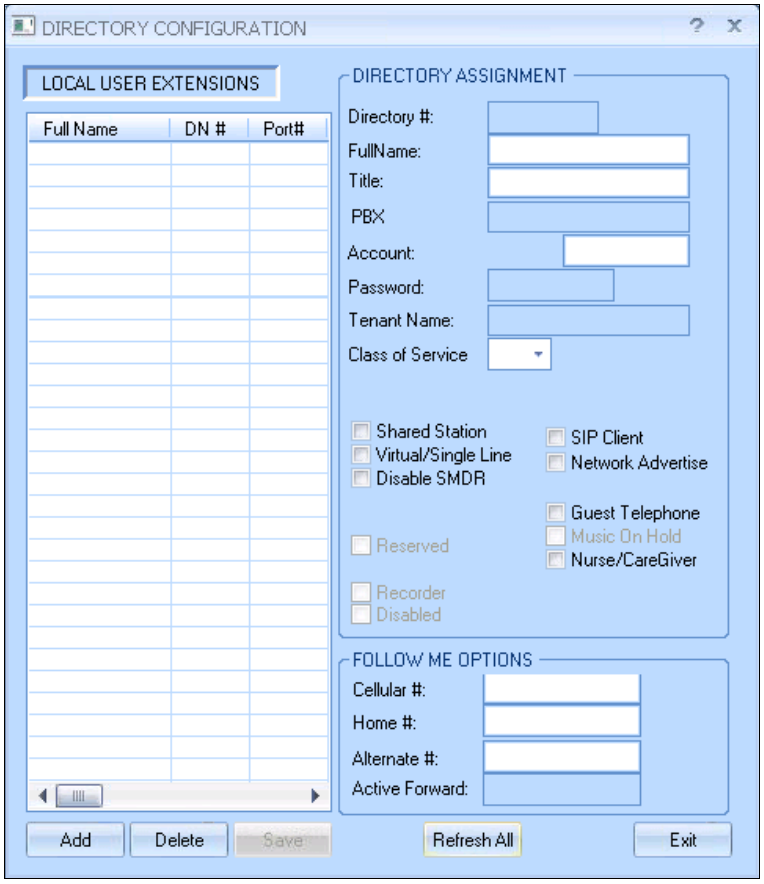


6.6. Administer Local Extensions

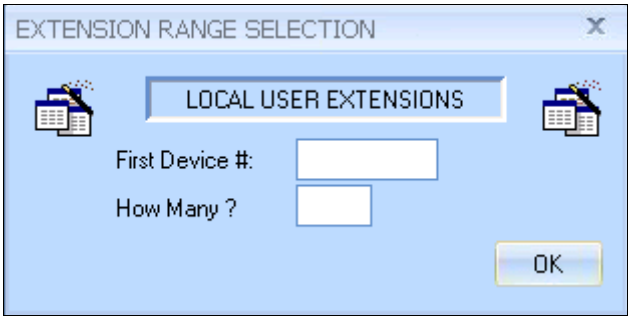
The **Vuesion Manager** screen is displayed again. Select **Switch Setup → Local Extensions** from the left pane.



The **DIRECTORY CONFIGURATION** screen is displayed as shown below. Click on **Add** to start adding required agents, supervisors and hunt groups.

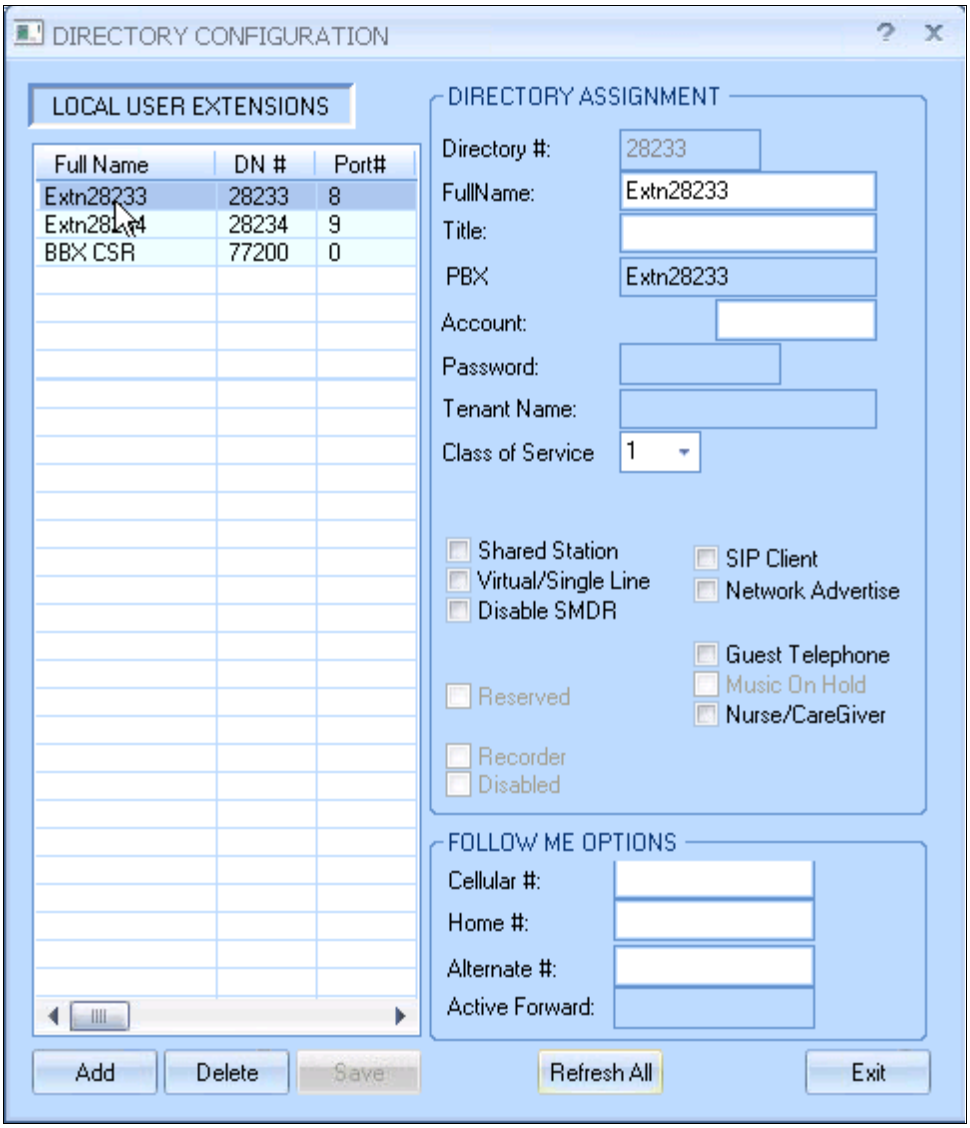


The **Extension Range Selection** screen is shown below where Local User Extensions can be added and if required a range can be provided too.



The screen below shows an entry for each agent user from **Section 5.7**, each supervisor user from **Section 5.8**, and for the Transfer hunt group from **Section 5.6.5**.

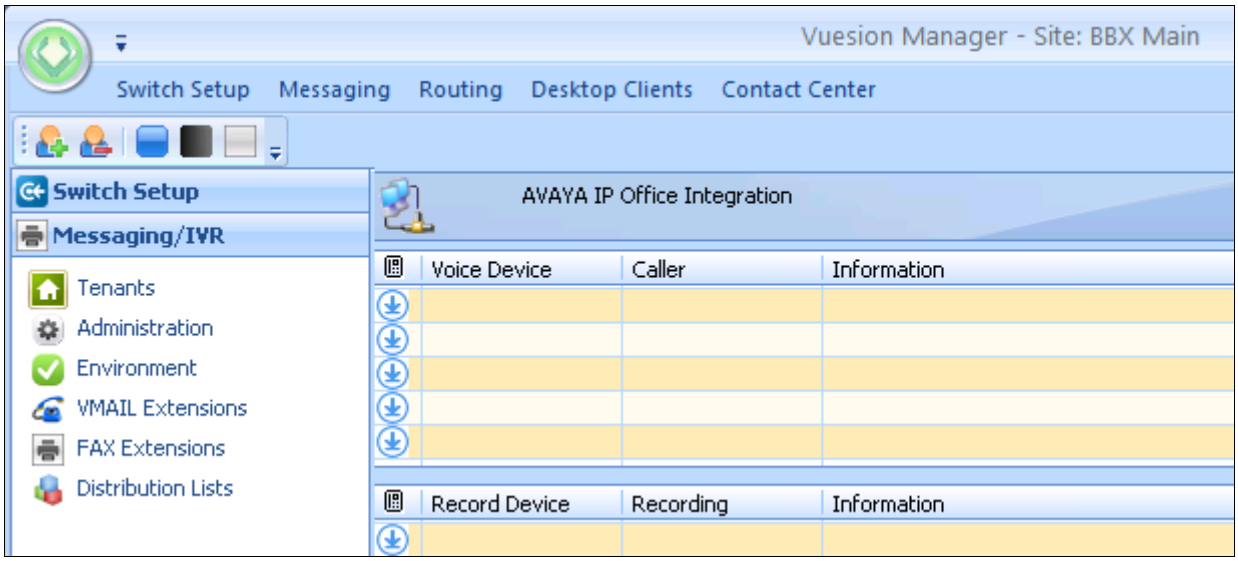
Update the **Full Name** field as desired, and retain the default values in the remaining fields. **Class of Service** can be set from the drop down menu depending on each user's requirement. Note that the port numbers are automatically assigned by the system subsequently.



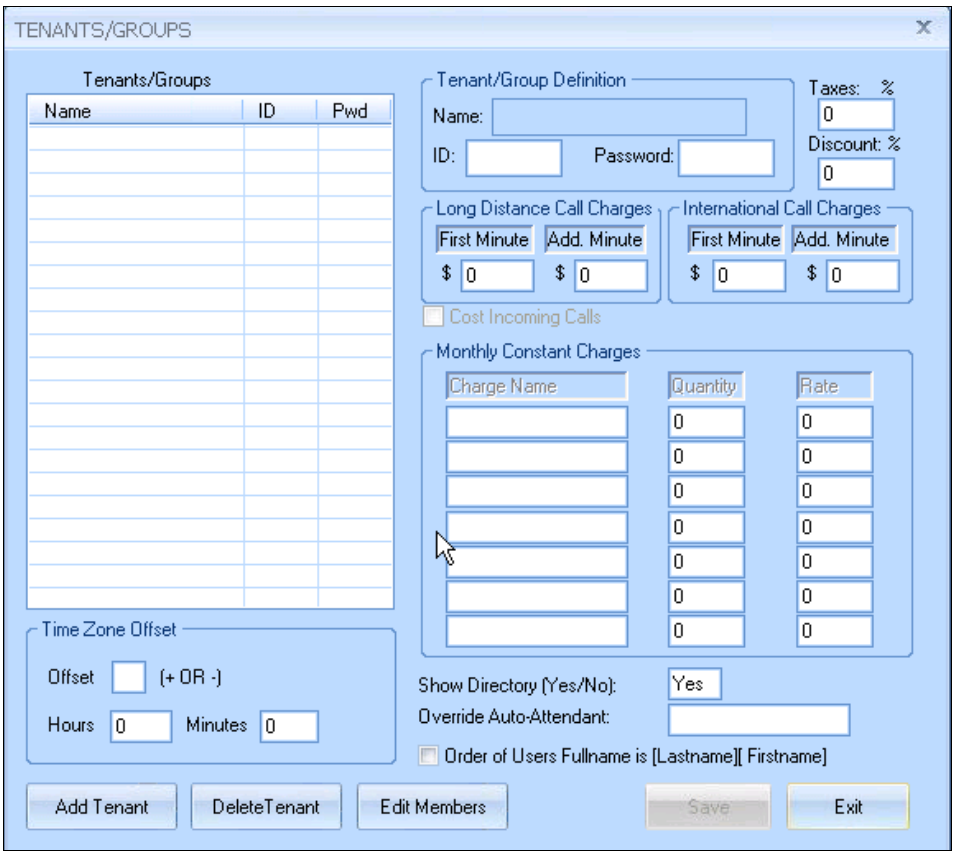
Extn 29225, Extn 29226 and BBX NodeCSR are configured on the remote site Vuesion.

6.7. Administer Tenants

From the **Vuesion Manager** screen, select **Messaging/IVR → Tenants** from the left pane.

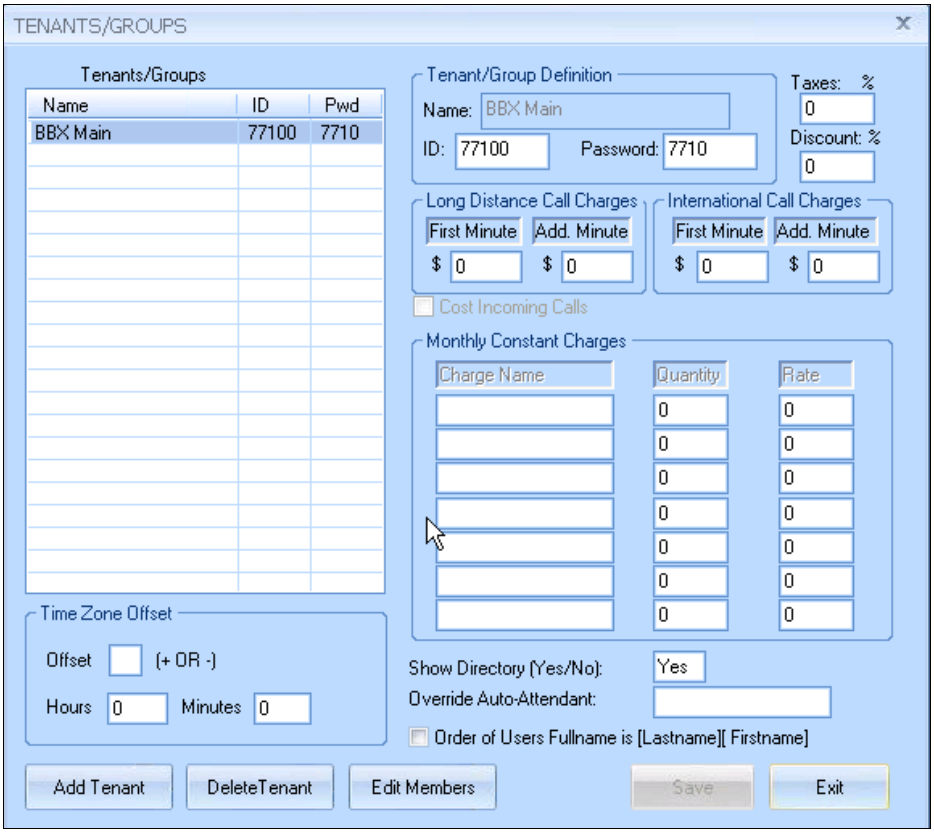


The **TENANTS/GROUPS** screen is displayed as shown below. Click on **Add Tenant**.



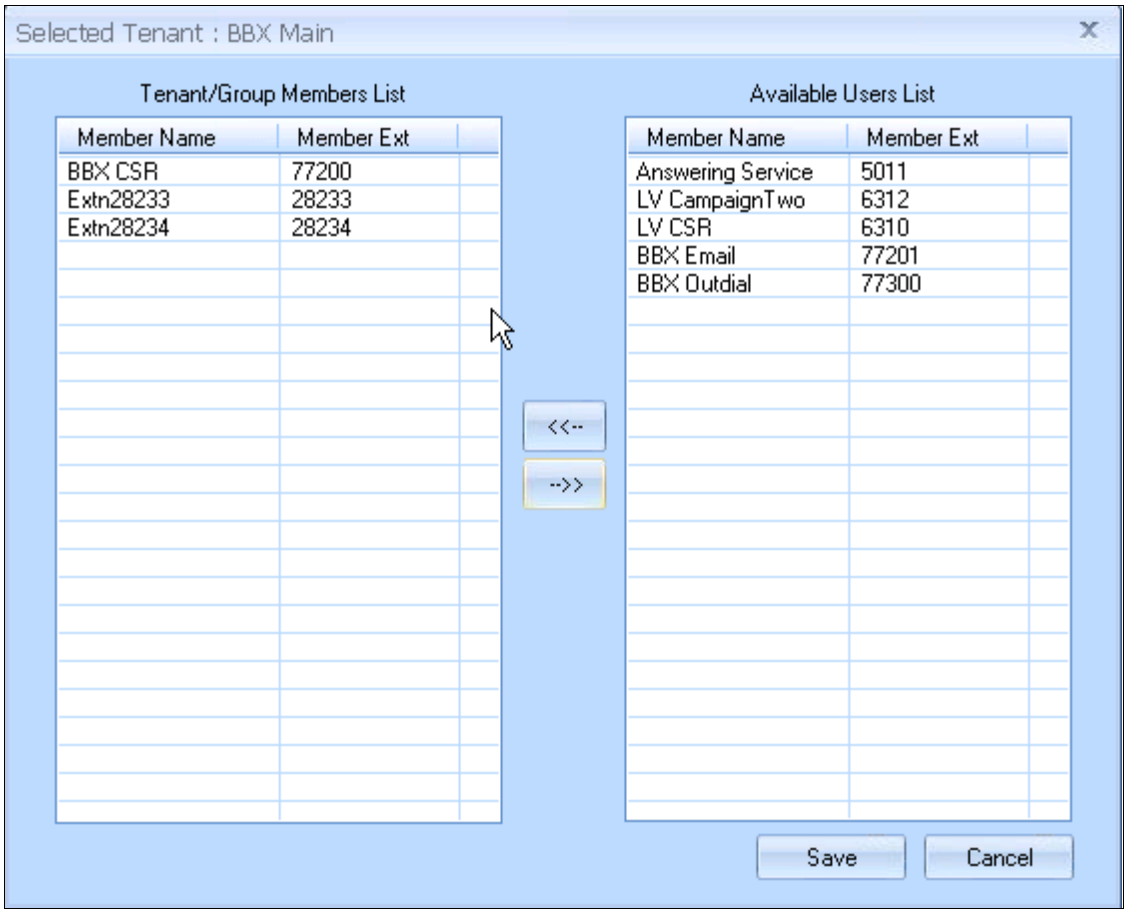
The **Tenants/Group** screen is shown as below. Create an entry for the Main hunt group from **Section 5.6.1**, as shown below.

For **Name**, enter the Main hunt group name from **Section 5.6.1**. For **ID** and **Password**, enter the Main hunt group extension from **Section 5.6.1**. Retain the default values in the remaining fields, and click **Edit Members**.



BBX Node 79100 is created on the remote site Vuesion server.

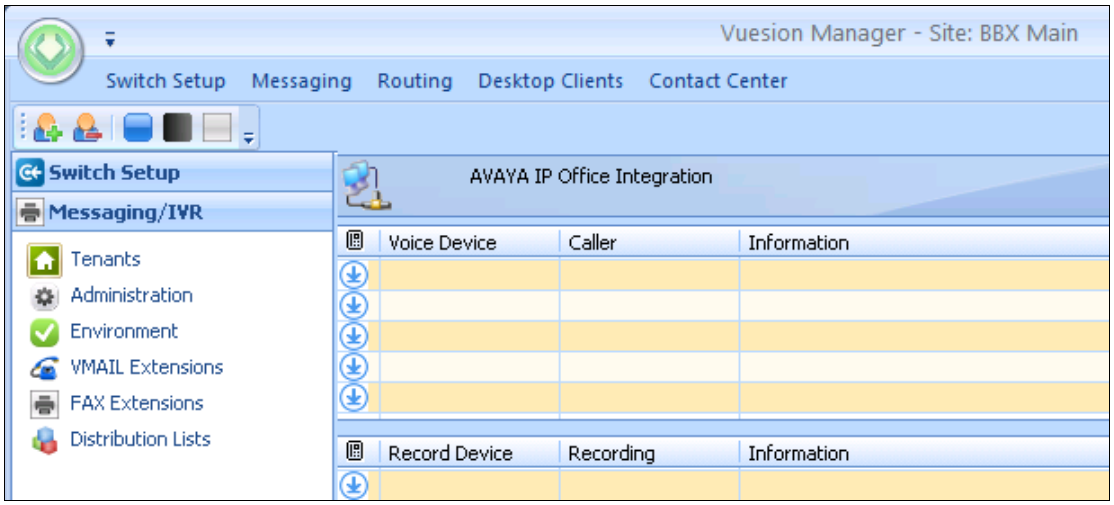
The **Selected Tenant** screen is displayed. Select the applicable entries in the **Available User List** section, and click the double-left-arrow to move the entries to the **Tenant/Group Members List** section, as shown in screen below. Click on **Save** to complete the selection.



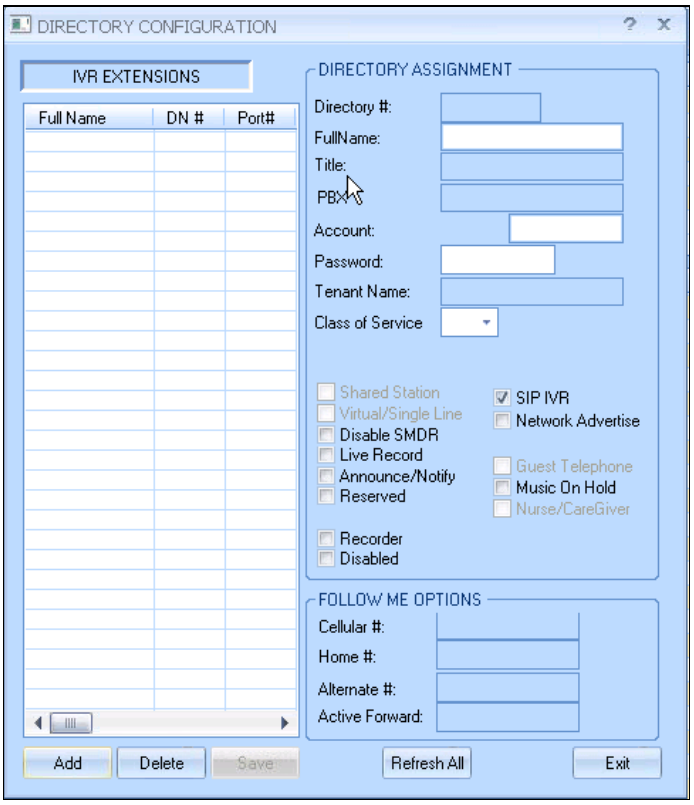
BBX NodeCSR, Extn 29225 and Extn29226 are selected in the remote site Vuesion server.

6.8. Administer VMAIL Extensions

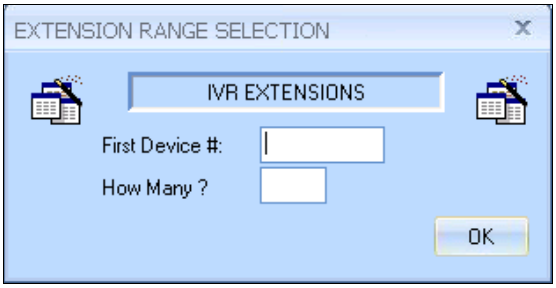
From the **Vuesion Manager** screen, select **Messaging/IVR → VMAIL Extensions** from the left pane.



The **DIRECTORY CONFIGURATION** screen is displayed as shown below. Click on **Add** to start adding IVR Extensions.

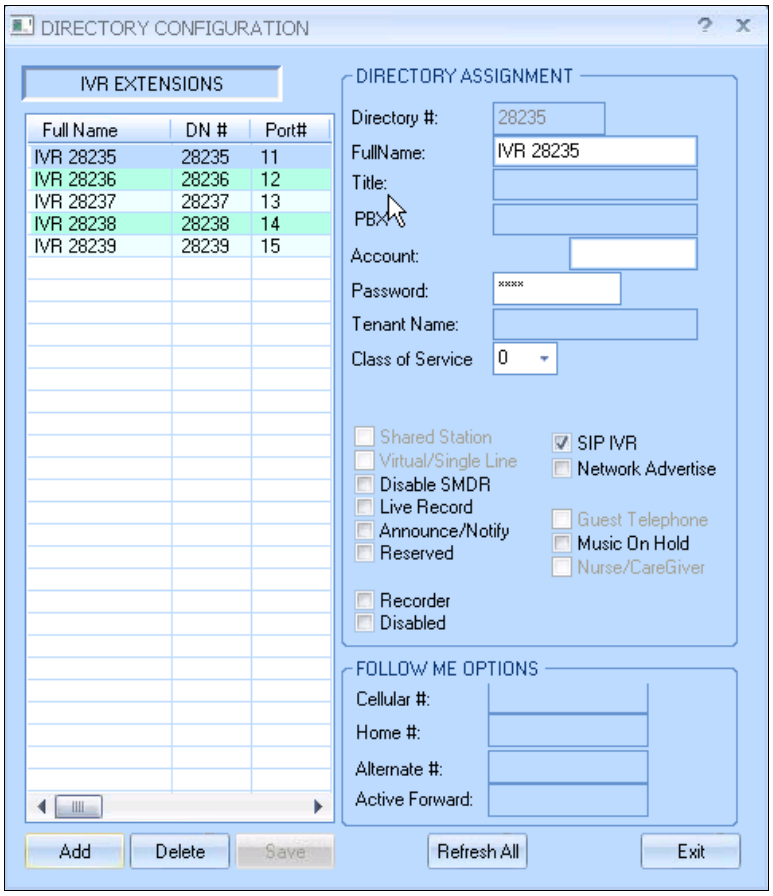


The **Extension Range Selection** screen is shown below where IVR Extensions can be added and if required a range can be provided too.



The **DIRECTORY CONFIGURATION** screen is displayed with entry for each virtual SIP user from **Section 5.5**.

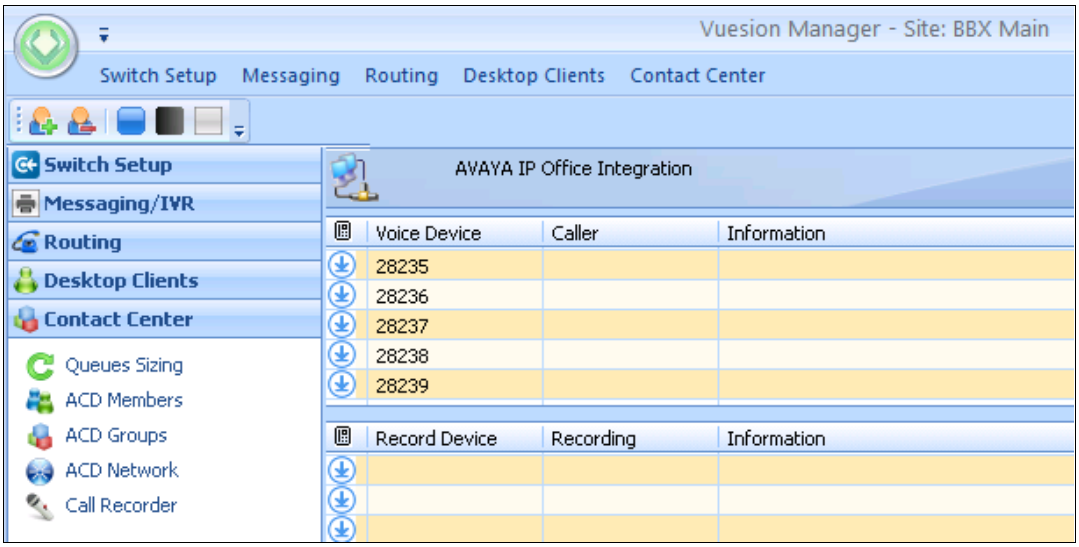
For **Full Name**, enter the SIP user name from **Section 5.5**. For **Password**, enter the SIP user login code from **Section 5.5**. Check **SIP IVR**. Retain the default values in the remaining fields. Note that the port numbers are automatically assigned by the system subsequently.



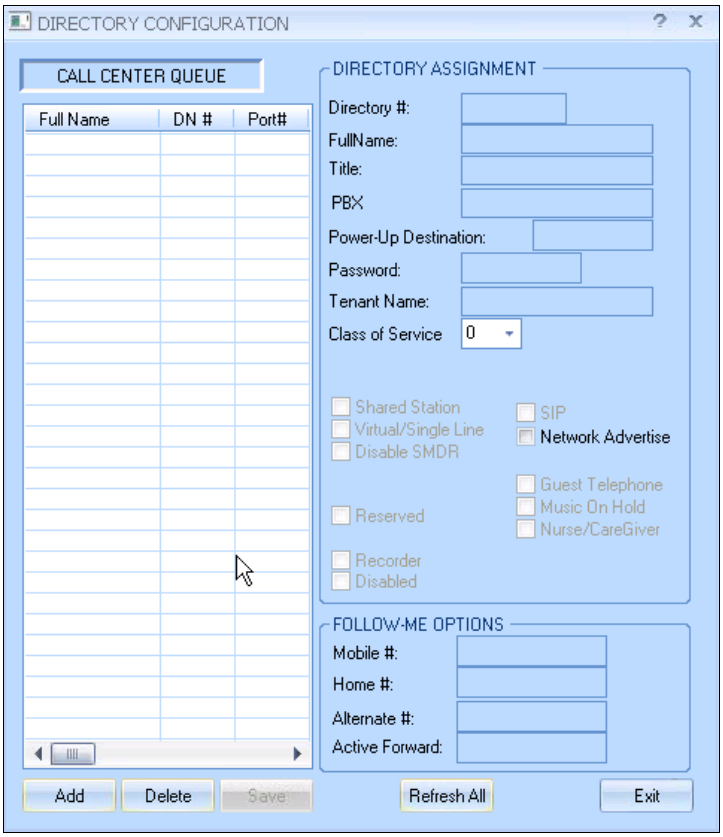
IVR 29228 to IVR 29232 are added in the remote site Vuesion server.

6.9. Administer Queues Sizing

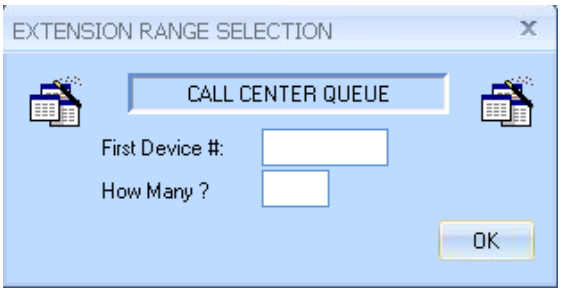
From the **Vuesion Manager** screen, select **Contact Center → Queues Sizing** from the left pane.



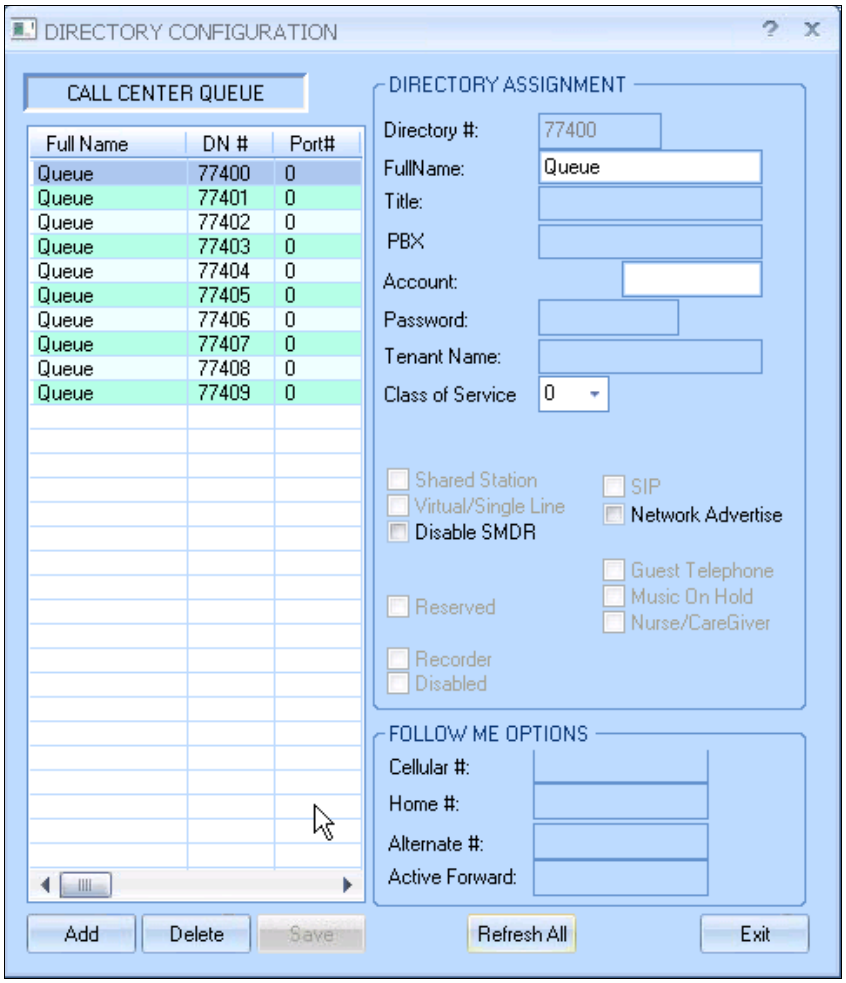
The **DIRECTORY CONFIGURATION** screen is displayed. Click on **Add** to start adding Call Center Queue.



The **Extension Range Selection** screen is shown below where Call Center Queue numbers can be added and if required a range can be provided too.



Screen below shows the desired number of entries for queuing of incoming ACD calls used for compliance testing.

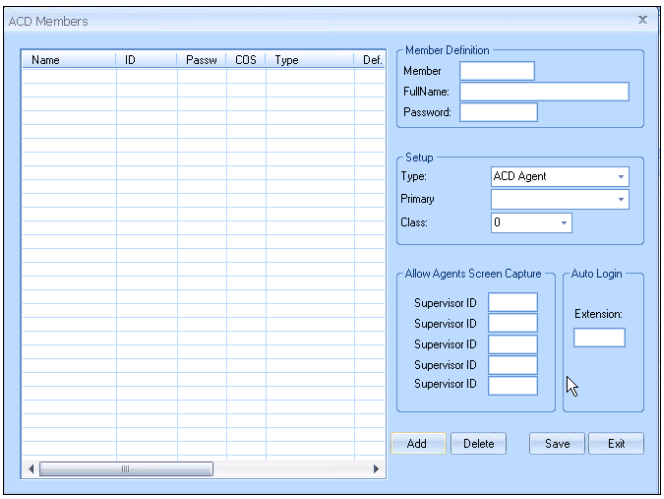


The **DN #** are used by Vuesion to park and unpark the queued calls on IP Office, therefore use available extension numbers on IP Office. 79300 to 79309 are added on the remote site Vuesion server.

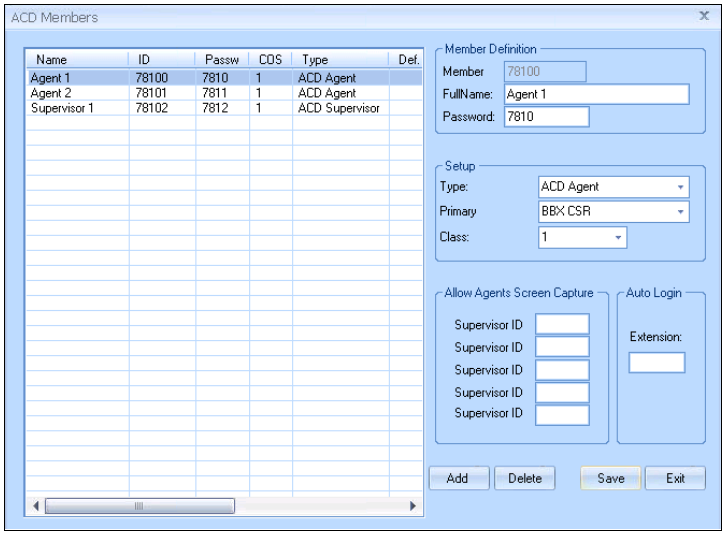
6.10. Administer ACD Members

From the **Vuesion Manager** screen shown in **Section 6.9**, select **Contact Center → ACD Members** from the left pane.

The **ACD Members** screen is displayed as shown below. Click on **Add** to start adding ACD Members.



Create an entry for each agent user from **Section 5.7**, and for each supervisor user from **Section 5.8**, as shown in screen below. Enter the desired **FullName**. For **Member ID**, enter a unique value for each agent and supervisor. The recommendation is to use available extension numbers on IP Office. For **Password**, enter desired values. In the compliance testing, the same values are used for member ID and password for simplicity. For **Type**, select "ACD Agent" for agents and "ACD Supervisor" for supervisors. For **Primary Group**, select the Transfer hunt group name from **Section 5.6.3**. For **Class**, select the appropriate class of service.



Similarly ACD Members are added to the remote Vuesion.

6.11. Administer ACD Groups

From the **Vuesion Manager** screen shown in **Section 6.9**, select **Contact Center → ACD Groups** from the left pane, to display the **SkillSets Administration** screen. Create an entry for the Transfer hunt group from **Section 5.6.3**, as shown below.

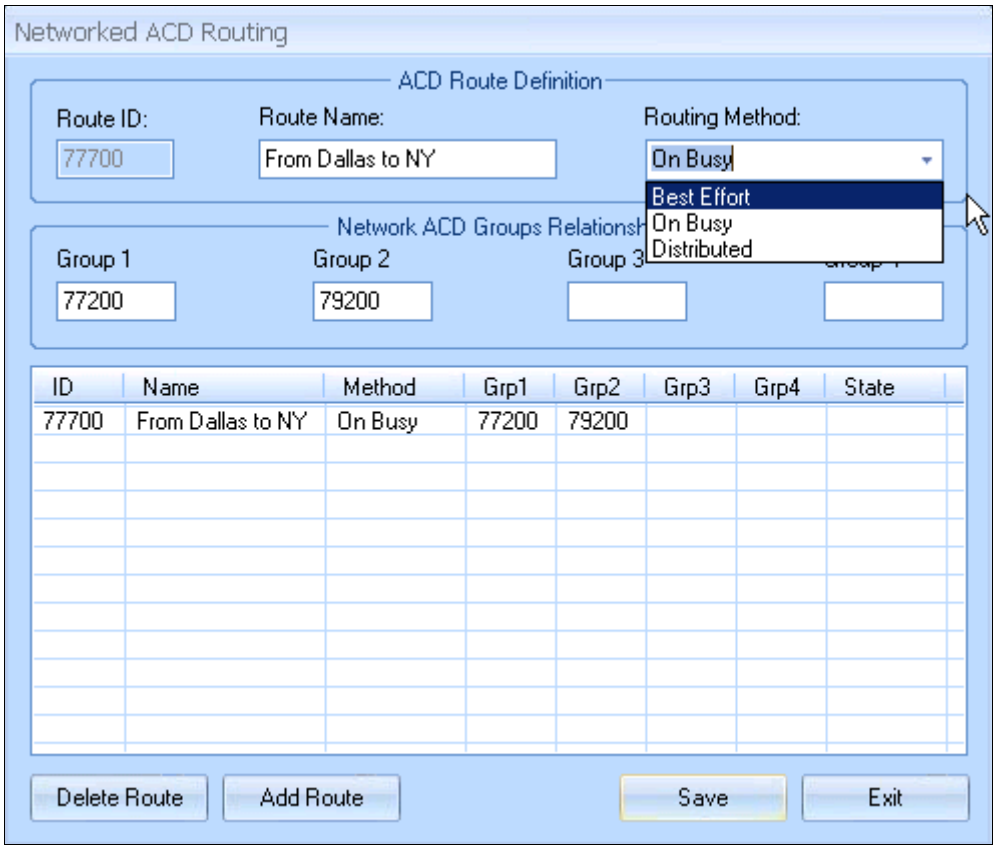
The **Voice Routing Options** section defines the parameters used for routing of ACD calls. The **Multimedia Contact Center Members Assignment** section defines the members and their skills level. The **Announcements** section defines the announcement treatments.

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

Similarly BBX NodeCSR 79200 is configured on the remote Vuesion.

6.12. Administer ACD Network

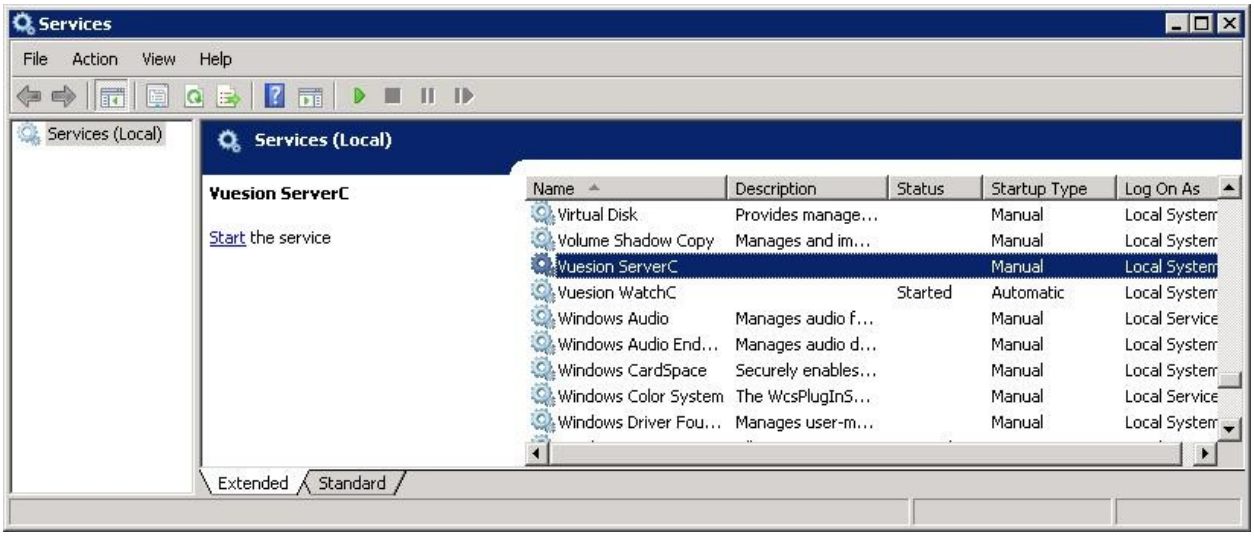
From the **Vuesion Manager** screen shown in **Section 6.9**, select **Contact Center → ACD Network** from the left pane, to display the **Networked ACD Routing** screen. Enter a **Route ID** number which should be a unique number and therefore select available extension from the IP Office. Select a **Routing Method** from the drop down list. Enter the Transfer Hunt group number configured from **Section 5.6.3** in the **Group 1** and **Group 2** fields where **Group 1** is the Transfer Hunt group created on the main site IP Office and **Group 2** is the Transfer Hunt group created on the remote site IP Office.



The above needs to be configured only on the main site Vuesion server.

6.13. Start Service

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



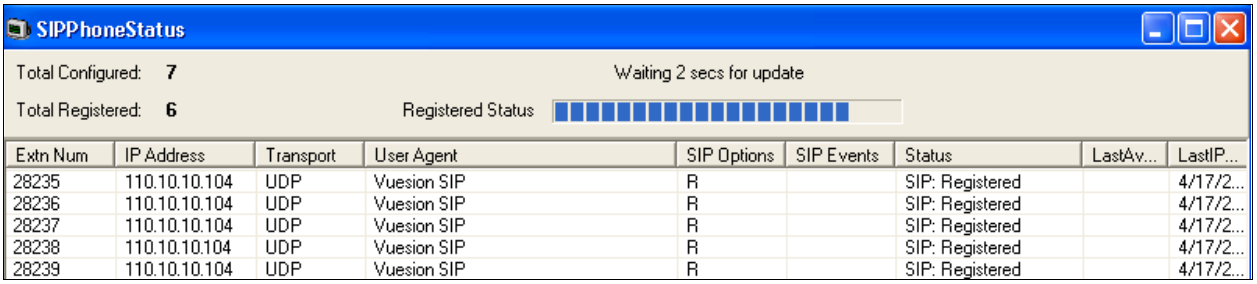
7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and BBX Technologies Vuesion Multimedia Contact Center Networking module.

7.1. Verify Avaya IP Office

From a PC running the Avaya IP Office Monitor application, select **Start → Programs → IP Office → Monitor** to launch the application. The **Avaya IP Office R8 SysMonitor** screen is displayed, as shown below. Select **Status → SIP Phone Status** from the top menu.

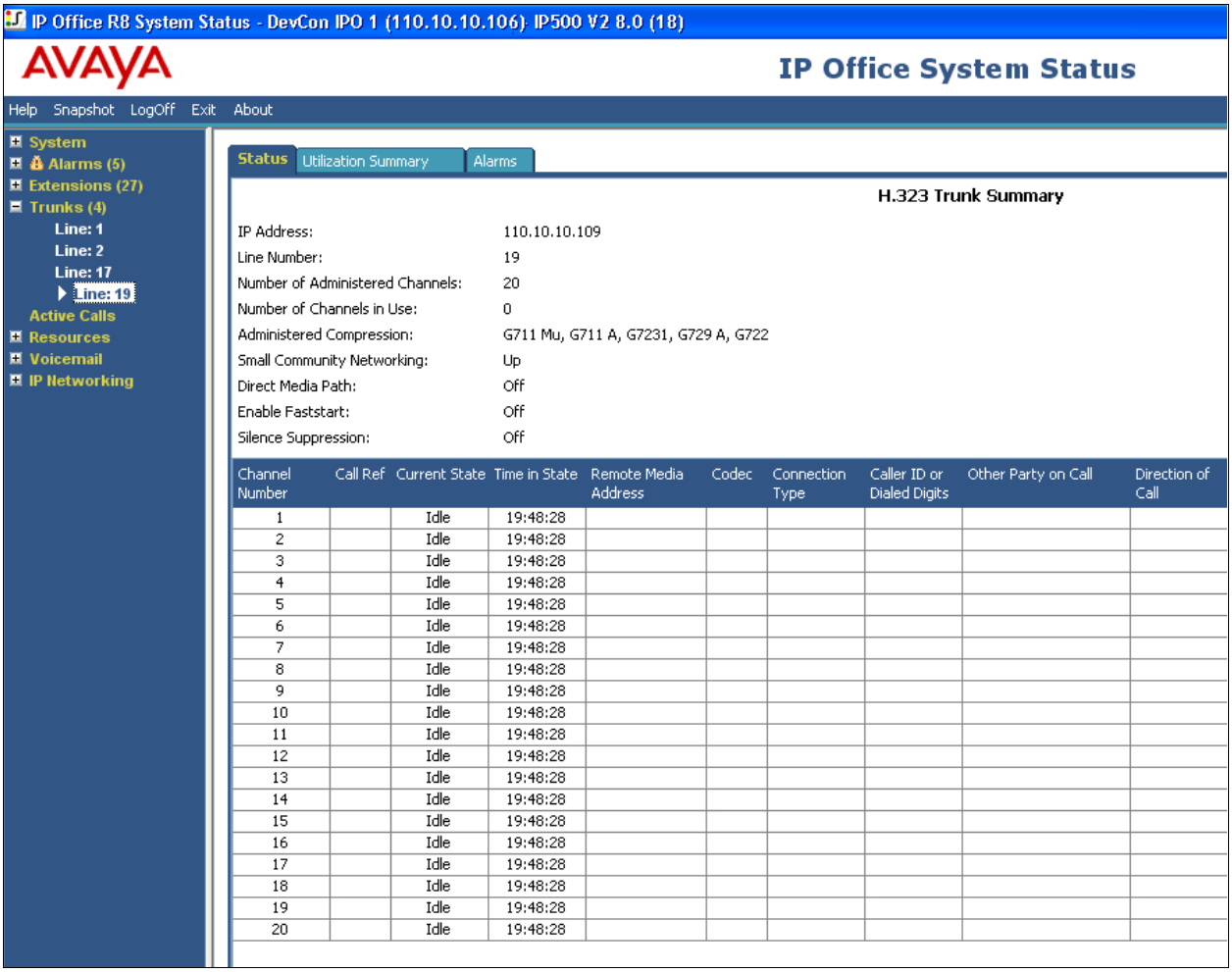
The **SIPPhoneStatus** screen is displayed. Verify that there is an entry for each virtual SIP user from **Section 5.5**, that the **User Agent** contains "Vuesion SIP", and that the **Status** is "SIP: Registered", as shown below.



Extn Num	IP Address	Transport	User Agent	SIP Options	SIP Events	Status	LastAv...	LastIP...
28235	110.10.10.104	UDP	Vuesion SIP	R		SIP: Registered		4/17/2...
28236	110.10.10.104	UDP	Vuesion SIP	R		SIP: Registered		4/17/2...
28237	110.10.10.104	UDP	Vuesion SIP	R		SIP: Registered		4/17/2...
28238	110.10.10.104	UDP	Vuesion SIP	R		SIP: Registered		4/17/2...
28239	110.10.10.104	UDP	Vuesion SIP	R		SIP: Registered		4/17/2...

From a PC running the Avaya IP Office System Status application, select **Start → Programs → IP Office → System Status** to launch the application.

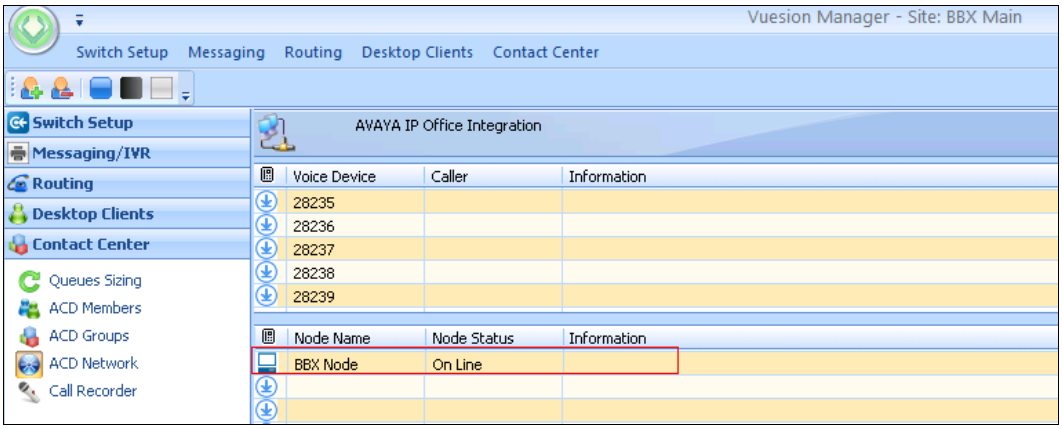
The **IP Office System Status** screen is displayed, as shown below. Select **Trunks → Line: 19** from the left window pane menu to display the status of the H323 Line connection from the Main site to the Remote site.



Channel Number	Call Ref	Current State	Time in State	Remote Media Address	Codec	Connection Type	Caller ID or Dialed Digits	Other Party on Call	Direction of Call
1		Idle	19:48:28						
2		Idle	19:48:28						
3		Idle	19:48:28						
4		Idle	19:48:28						
5		Idle	19:48:28						
6		Idle	19:48:28						
7		Idle	19:48:28						
8		Idle	19:48:28						
9		Idle	19:48:28						
10		Idle	19:48:28						
11		Idle	19:48:28						
12		Idle	19:48:28						
13		Idle	19:48:28						
14		Idle	19:48:28						
15		Idle	19:48:28						
16		Idle	19:48:28						
17		Idle	19:48:28						
18		Idle	19:48:28						
19		Idle	19:48:28						
20		Idle	19:48:28						

7.2. Verify BBX Technologies Vuesion Multimedia Contact Center

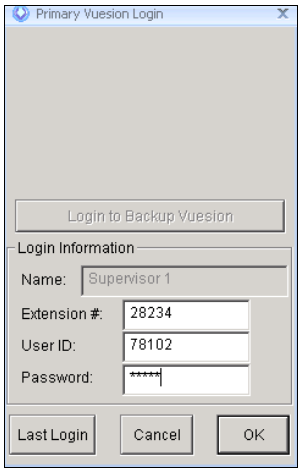
Verify that the BBX Node status in online as shown in screen below after the **ACD Network** route is configured per **Section 6.12**.



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

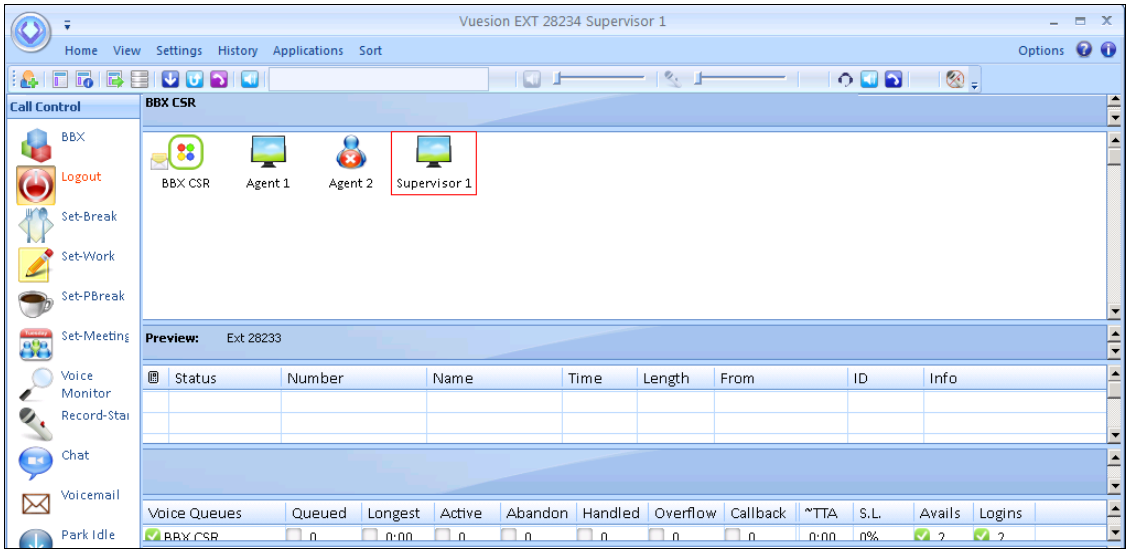
The **Vuesion User Login** screen is displayed. The screen shows the "Supervisor 1" **Login Information**.

For **Extension #**, enter the extension number of the supervisor from **Section 6.6**. For **User ID** and **Password**, enter the corresponding credentials for the supervisor from **Section 6.10**, as shown below. During compliance testing this client was run from the Vuesion server.



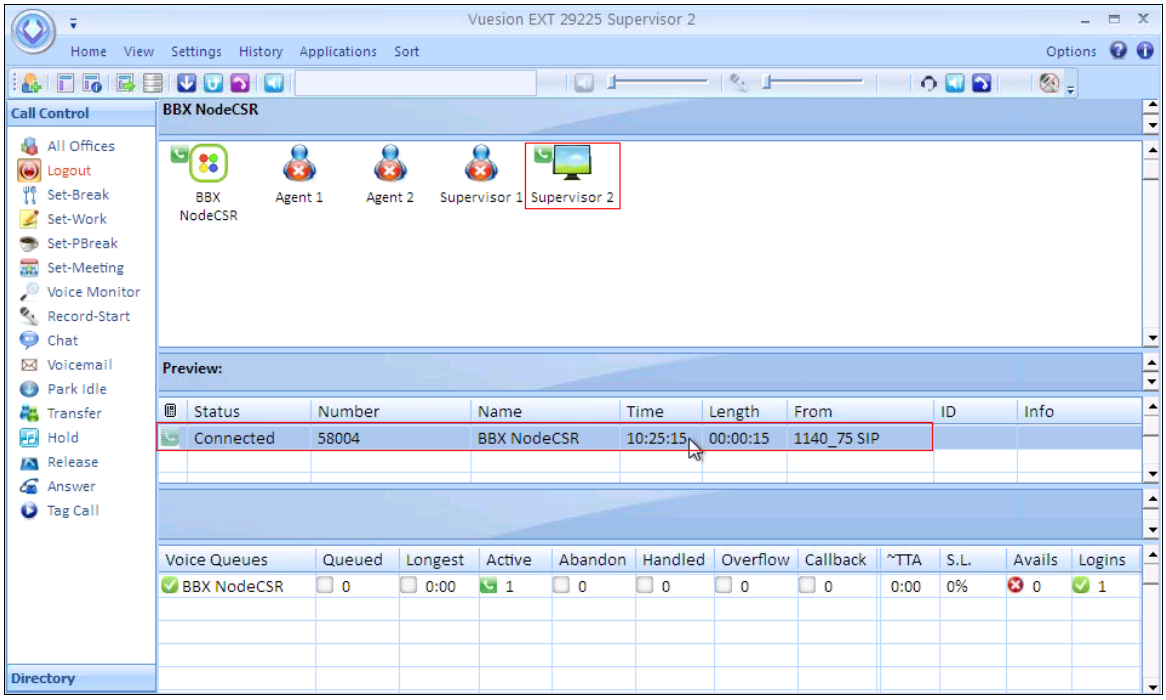
The **Vuesion** screen is displayed. Click on the **Login** icon from the left pane (not shown).

The screen is updated in the right pane, as shown below.



Similarly log in to the agents on the remote site Vuesion.

To verify Networking module, make an incoming trunk call to the Main hunt group while agents are not available to take a call on the main site. Screen below shows that the call is routed to an available agent on the remote site.



8. Conclusion

These Application Notes describe the configuration steps required for BBX Technologies Vuesion Multimedia Contact Center Networking module to successfully interoperate with Avaya IP Office. All test cases were successfully completed. Observations are noted in **Section 2.2**

9. Additional References

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

1. *IP Office KnowledgeBase 8.0 Documentation CD,* December 2011, available at http://support.avaya.com.

2. *Vuesion Application Server Contact Center Configuration Guide*, available upon request from BBX Technologies Support.

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 devconnect@avaya.com.