



Avaya Solution & Interoperability Test Lab

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

Abstract

These Application Notes describe the configuration steps required for BBX Technologies Vuesion Multimedia Contact Center to interoperate with Avaya IP Office. In the compliance testing, BBX Technologies Vuesion Multimedia Contact Center provided skill based routing, announcements, and call reporting by using the SIP User, TAPI, and DevLink interfaces from Avaya IP Office.

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 to interoperate with Avaya IP Office. In the compliance testing, BBX Technologies Vuesion Multimedia Contact Center provided skill based routing, announcements, and call reporting by using the SIP User, TAPI, and DevLink interfaces from Avaya IP Office.

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 DevLink interface was used by Vuesion to obtain real-time call events for call reporting purposes.

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

2. General Test Approach and Test Results

The feature test cases were performed both automatically and 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. Manual call controls from both the agent telephones and the agent desktops were exercised to verify remaining features such as answering and transferring of calls.

The verification of tests included using the Vuesion server logs for proper message exchanges, the Vuesion Client application for proper call controls, and the Vuesion Reports application for proper call reporting.

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:

- Proper registration of virtual SIP users.
- Use of TAPI functions to monitor users and hunt groups, route incoming calls, support call control via agent desktops, set call forwarding and message waiting indicator (MWI).
- Proper handling of call scenarios including incoming calls to main hunt group, hold/reconnect, blind/attended transfer, drop, queue, park/unpark, coverage, call forwarding, supervisor monitor, outgoing call, account code, outpulse of DTMF digits, multiple agents, and simultaneous calls.
- Use of real-time DevLink events to monitor calls with proper reporting of calls.

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 were observations on BBX Technologies Vuesion Multimedia Contact Center from the compliance testing:

- Outgoing calls with account codes can only be placed via the phone, and the reported entry showed the first seven numeric digits in the account code with alphanumeric shown as blank.
- Inbound ACD calls that covered to the agent's voicemail do not show up in the reports.
- In the blind transfer scenario, two reporting entries were reported. The entry associated with the transfer-from agent included the duration of the call at the transfer-from agent, and the entry associated with the transfer-to agent included the duration of the entire call.
- In the attended transfer scenario, only one reporting entry was reported against the transfer-to agent and included the duration of the entire call.
- After a recovery of the link between the Vuesion server and IP Office, the Vuesion Client can no longer control the call via the desktop. The workaround is to manually control the call via the phone, and the Vuesion Client will continue to show an active call until the next call is delivered.
- This release does not support the conference feature.

2.3. Support

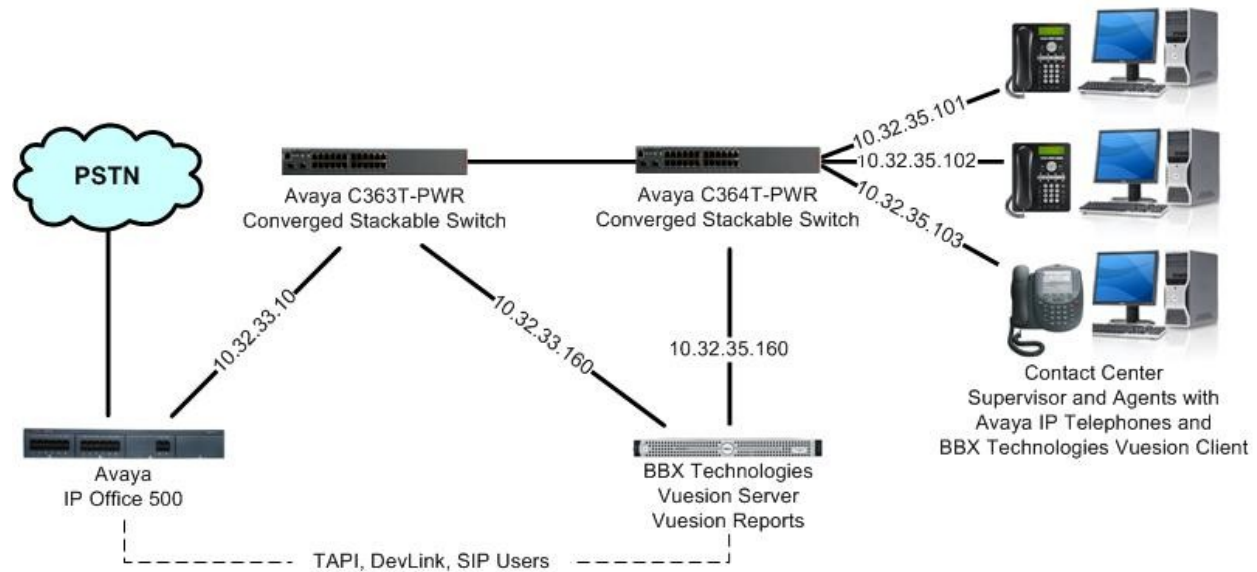
Technical support on BBX Technologies Vuesion Multimedia Contact Center can be obtained through the following:

- **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 shown below. The Avaya IP Office Voicemail Pro was used for the voicemail call scenarios.

In the compliance testing, the Vuesion Server and Vuesion Reports software were running on the Vuesion server, and the Vuesion Client software was running on the supervisor and on the agent desktops.



4. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office 500	6.1 (5)
Avaya IP Office Voicemail Pro	6.1 (15)
Avaya 16xx Series IP Telephones (H.323)	1.3
Avaya 96xx Series IP Telephone (H.323)	3.11
BBX Technologies Vuesion Server on Windows 2008 Server Standard with Service Pack 2 <ul style="list-style-type: none">Vuesion ReportsAvaya TAPI (tspi2w.tsp)Avaya DevLink (devlink.dll)	13.0.0.0 13.0.0.0 1.0.0.35 1.0.0.5
BBX Technologies Vuesion Client	13.0.0.0

5. Configure Avaya IP Office

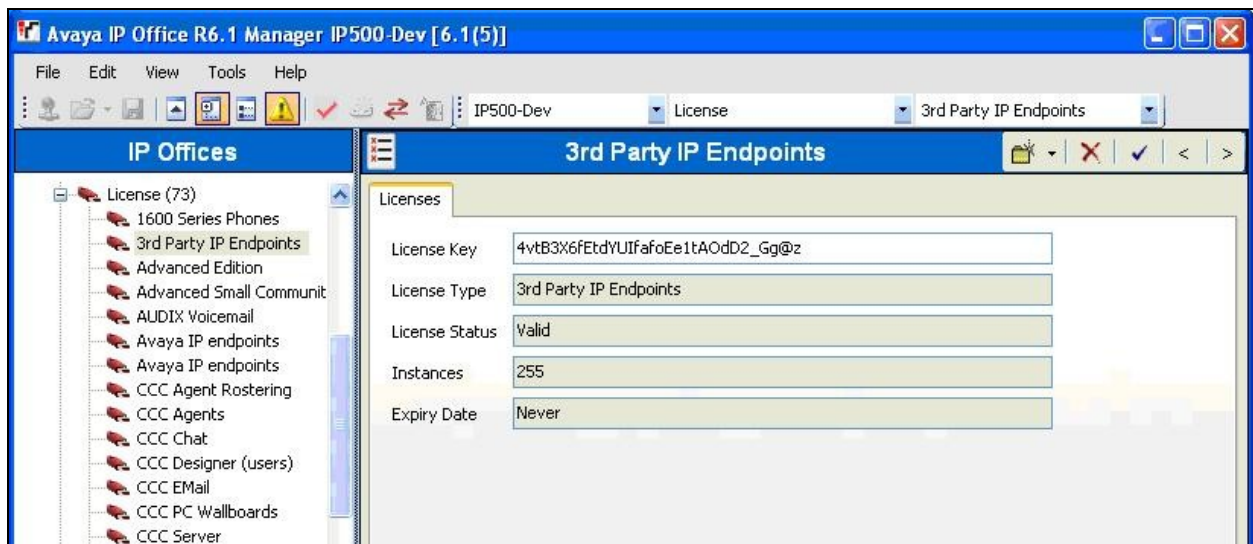
This section provides the procedures for configuring Avaya IP Office. The procedures include the following areas:

- 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

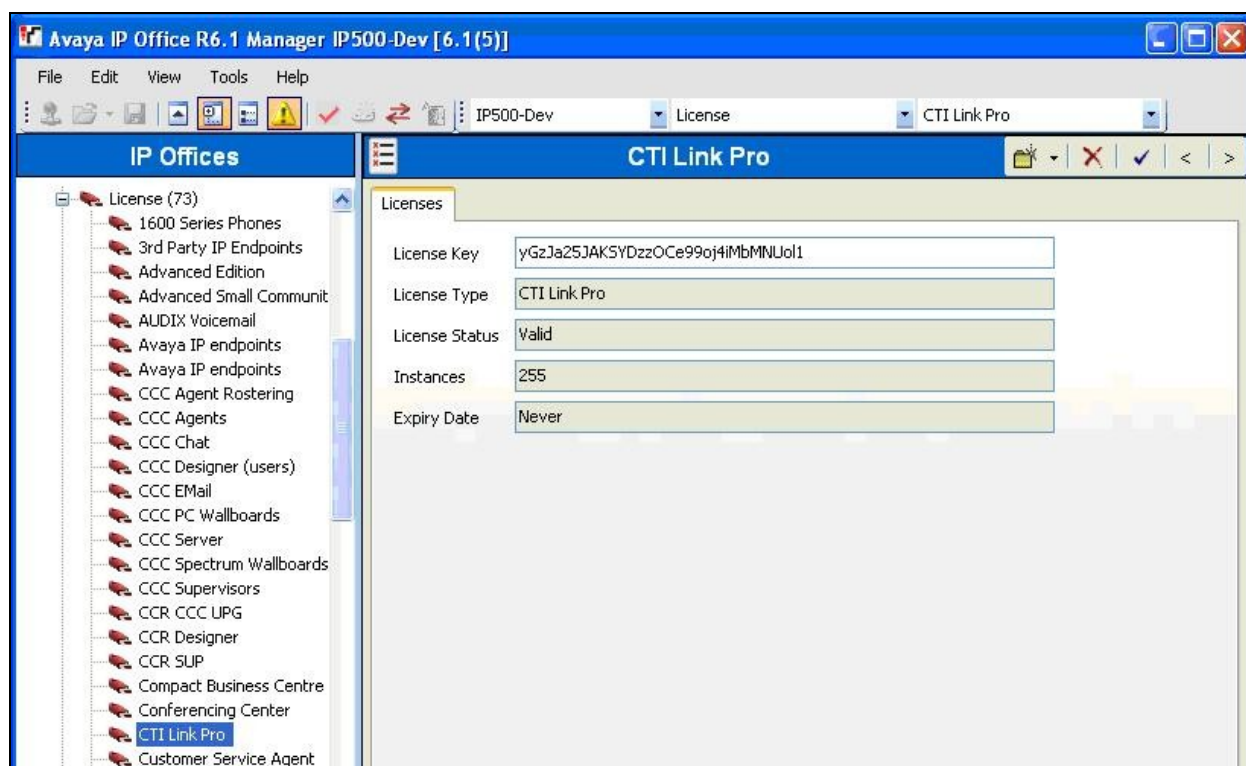
5.1. Verify IP Office License

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 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”.

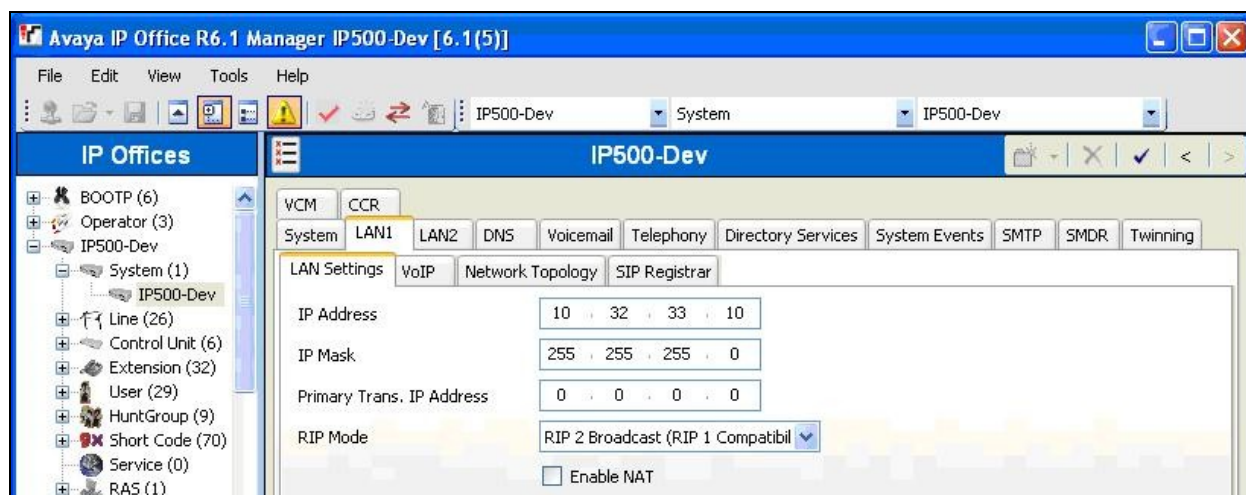


Scroll down the left pane and select **License > CTI Link Pro**, to display the **CTI Link Pro** screen in the right pane. Verify that the **License Status** is “Valid”.



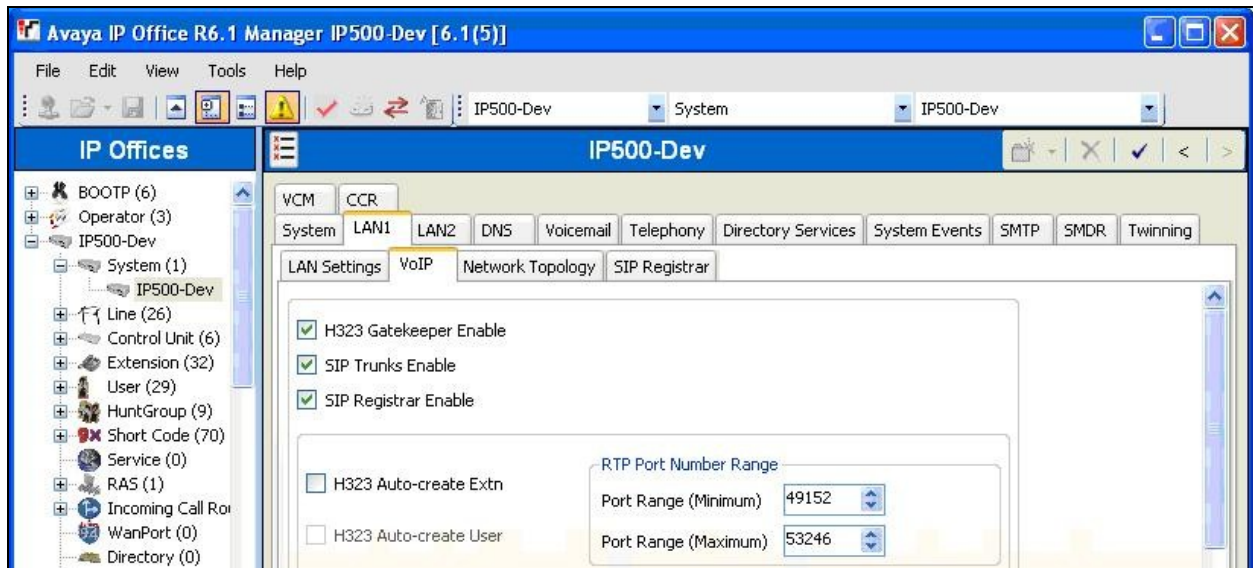
5.2. Obtain LAN IP Address

From the configuration tree in the left pane, select **System** to display the **IP500-Dev** 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.

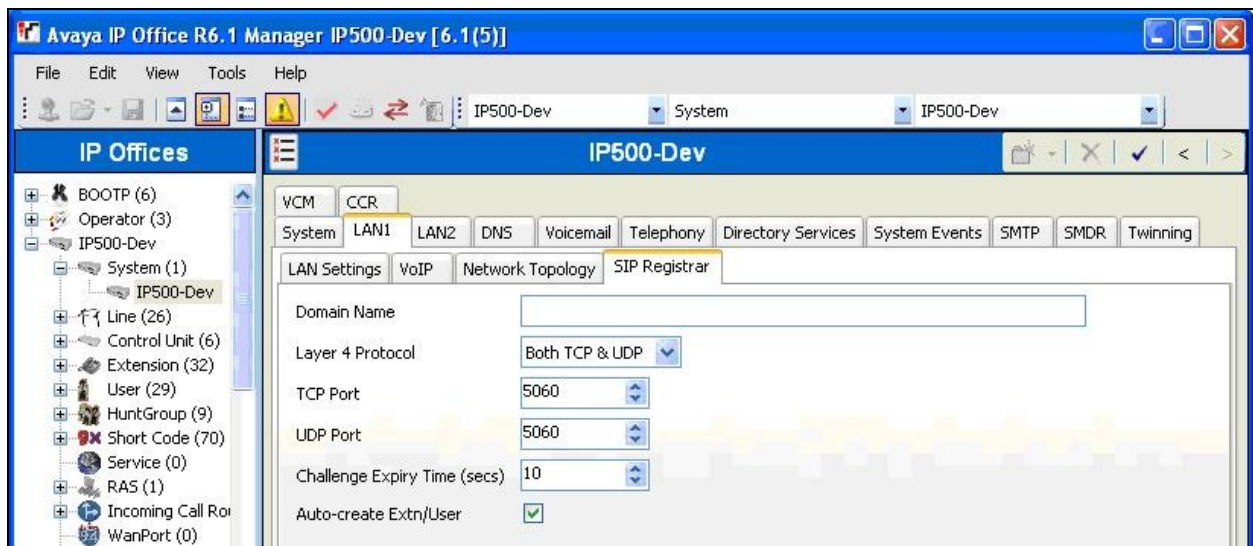


5.3. Administer SIP Registrar

Select the **VoIP** sub-tab. Make certain that **SIP Registrar Enable** is checked, as shown below.

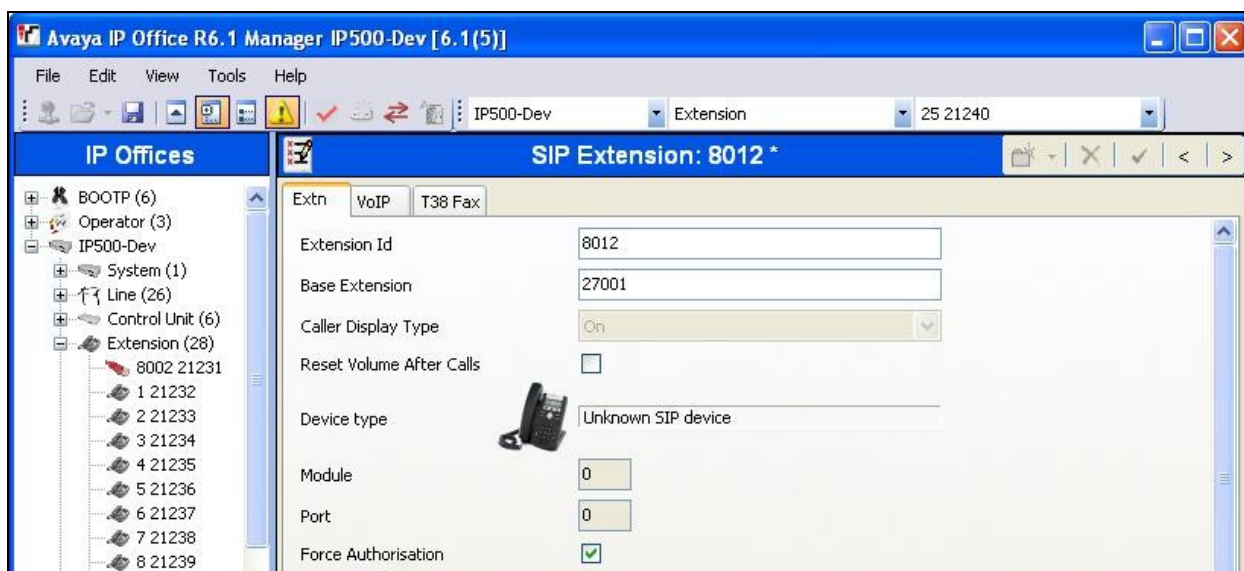


Select the **SIP Registrar** sub-tab, and enter a valid **Domain Name** for SIP endpoints to use for registration with IP Office. In the compliance testing, the **Domain Name** was left blank, so the LAN IP address was used for registration.



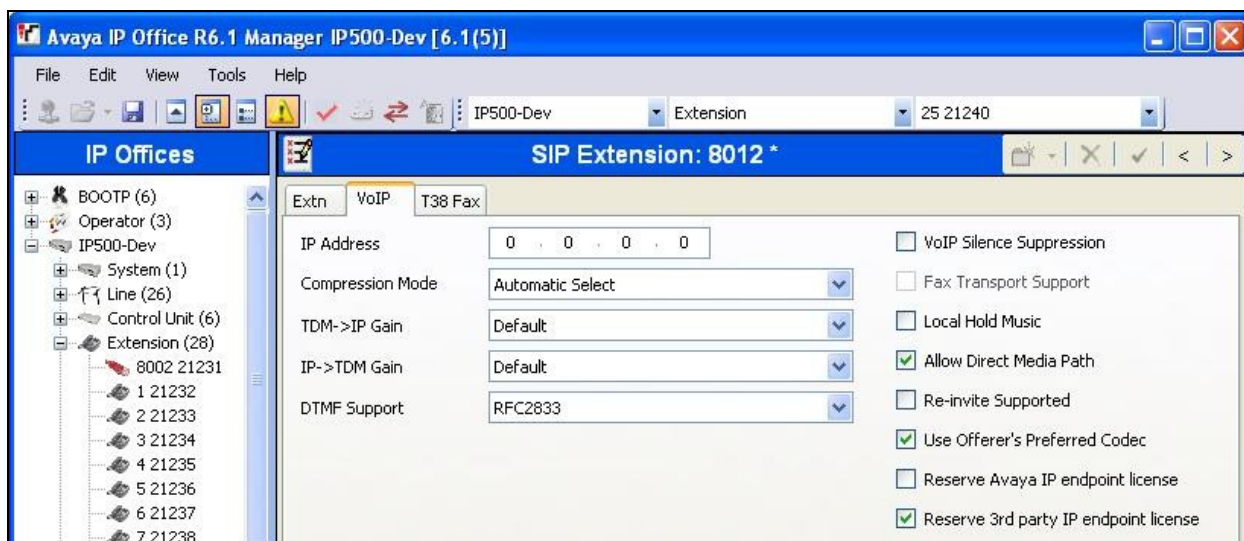
5.4. Administer SIP Extensions

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.



Select the **VoIP** tab. Uncheck **Re-invite Supported**, and check **Use Offerer's Preferred Codec** and **Reserve 3rd party IP endpoint license**, as shown below. Retain the default values in the remaining fields.

Repeat this section to add the desired number of SIP extensions. In the compliance testing, four SIP extensions with base extensions of 27001-27004 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**.

Avaya IP Office R6.1 Manager IP500-Dev [6.1(5)]

File Edit View Tools Help

IP500-Dev User 25002 agent2

IP Offices

- System (1)
- Line (26)
- Control Unit (6)
- Extension (30)
- User (23)
 - NoUser
 - 25001 agent1
 - 25002 agent2
 - 21231 Extn21231
 - 21233 Extn21233
 - 21234 Extn21234
 - 21235 Extn21235
 - 21236 Extn21236
 - 21237 Extn21237
 - 21238 Extn21238
 - 21239 Extn21239
 - 21241 Extn21241
 - 21243 Extn21243
 - 21245 Extn21245
 - 21250 Extn21250
 - 21251 Extn21251
 - 21252 Extn21252
 - 21253 Extn21253
 - 21254 Extn21254

<User:0> *

Button Programming Menu Programming Mobility Phone Manager Options Hunt Group Membership

Announcements Personal Directory

User Voicemail DND ShortCodes Source Numbers Telephony Forwarding Dial In Voice Recording

Name IVR 27001

Password

Confirm Password

Full Name IVR 27001

Extension 27001

Locale

Priority 5

System Phone Rights None

Profile Basic User

☐ Receptionist

☐ Enable SoftPhone

☐ Enable one-X Portal Services

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

Avaya IP Office R6.1 Manager IP500-Dev [6.1(5)]

File Edit View Tools Help

IP500-Dev User 25002 agent2

IP Offices

- System (1)
- Line (26)
- Control Unit (6)
- Extension (30)
- User (23)
 - NoUser
 - 25001 agent1
 - 25002 agent2
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 - 21233 Extn21233
 - 21234 Extn21234
 - 21235 Extn21235
 - 21236 Extn21236
 - 21237 Extn21237
 - 21238 Extn21238
 - 21239 Extn21239

<User:0> *

Button Programming Menu Programming Mobility Phone Manager Options Hunt Group Membership

Announcements Personal Directory

User Voicemail DND ShortCodes Source Numbers Telephony Forwarding Dial In Voice Recording

Voicemail Code

Confirm Voicemail Code

Voicemail Email

☐ Voicemail On

☐ Voicemail Help

☐ Voicemail Ringback

☐ Voicemail Email Reading

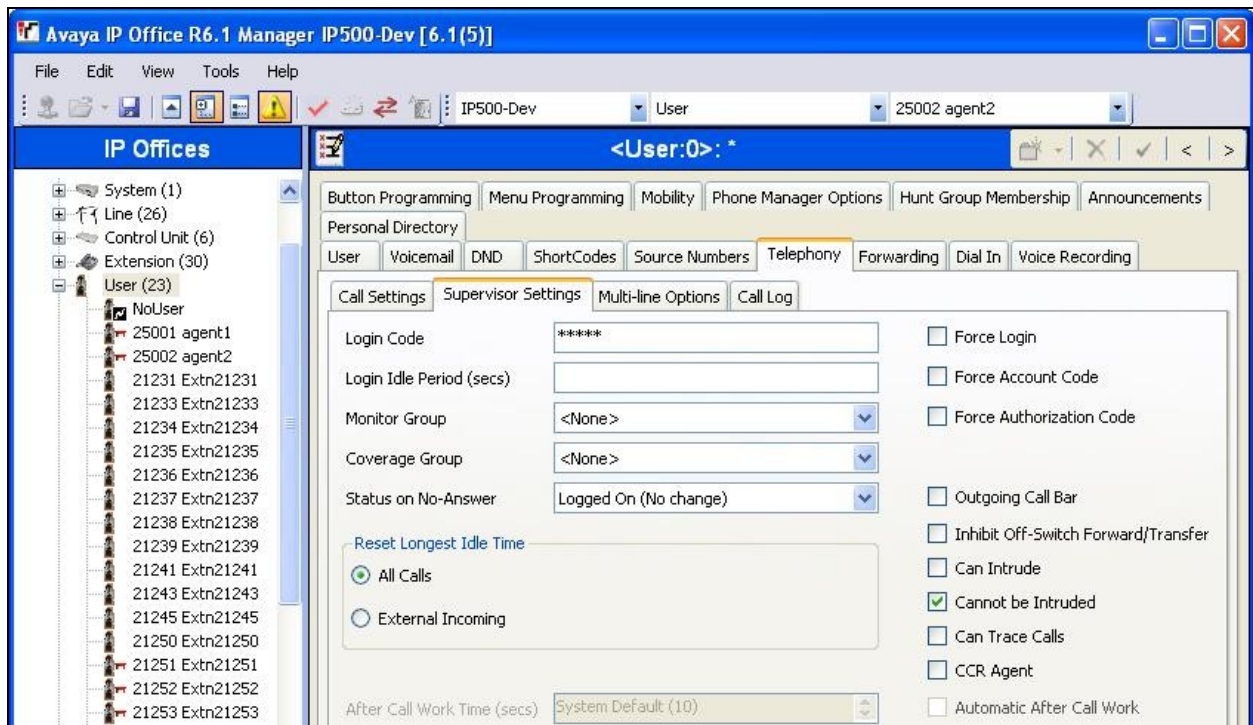
☐ UMS Web Services

Voicemail Email

☒ Off ☐ Copy ☐ Forward ☐ Alert

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, four users with extensions of 27001-27004 were created.



5.6. Administer Hunt Groups

Administer three hunt groups for the following purposes:

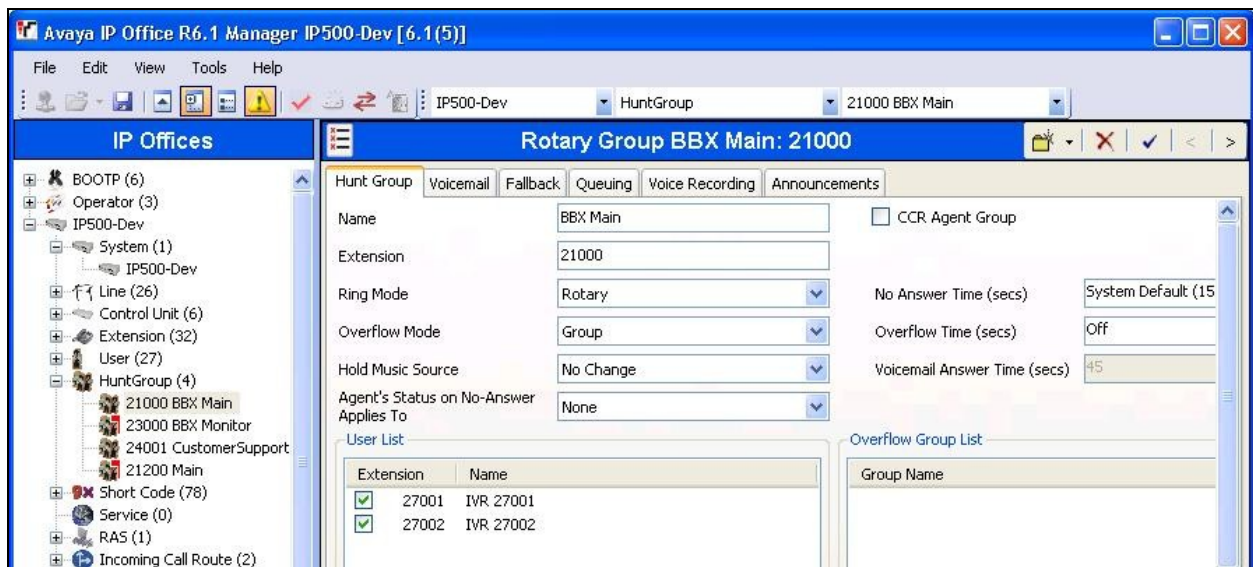
- Main hunt group for delivering of incoming trunk calls to Vuesion.
- Monitor hunt group for supervisor monitoring of agents.
- Transfer hunt group for use by Vuesion for internal transfers.

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, 27001 and 27002 were added as members as shown below.



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



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

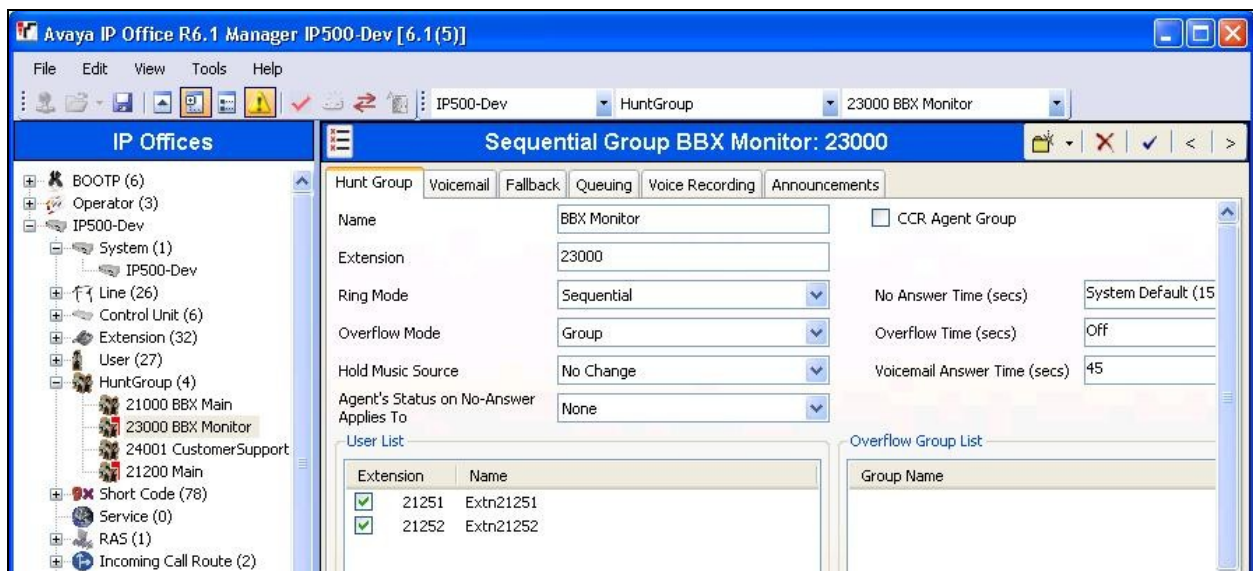


5.6.2. Administer Monitor Hunt Group

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.

In the **User List** section, add the agent users as members. In the compliance testing, 21251 and 21252 were added as members as shown below.



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**, and 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, 27001 and 27002 were added as members as shown below.

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

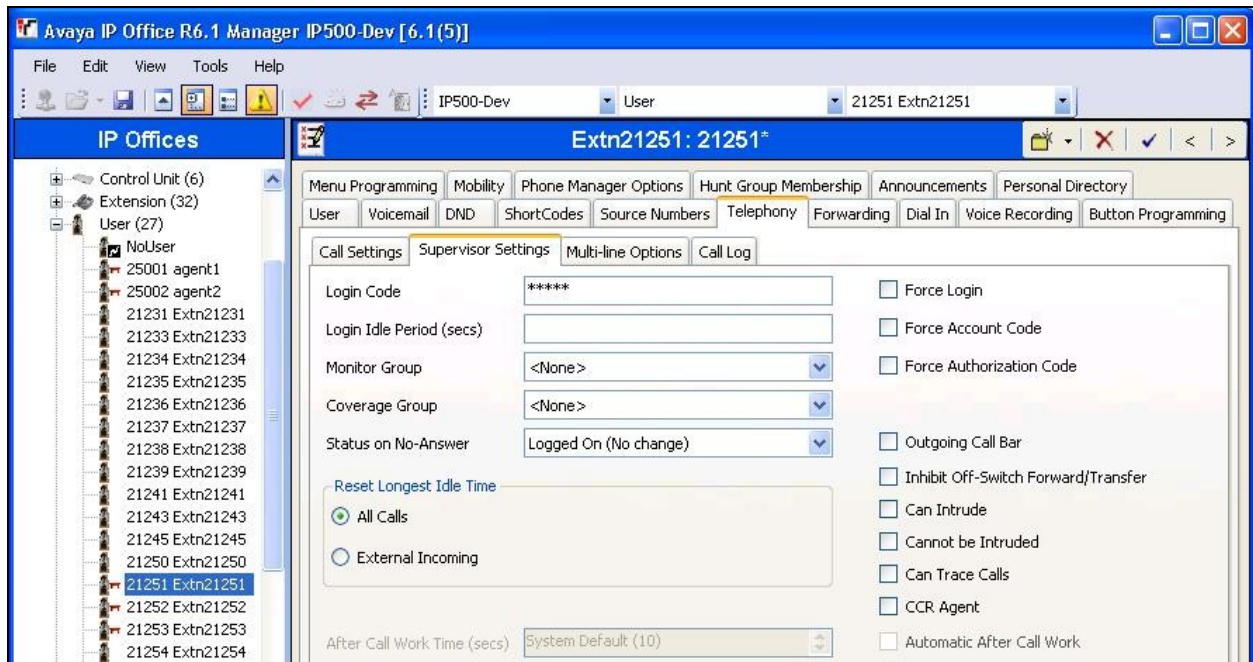


5.7. Administer Agents

From the configuration tree in the left pane, select the first agent user, in this case “21251”.

Select the **Telephony** tab, followed by the **Supervisor Settings** sub-tab. Uncheck **Cannot be Intruded**, as shown below.

Repeat this section for all agent users. In the compliance testing, two agent users with extensions 21251 and 21252 were configured.

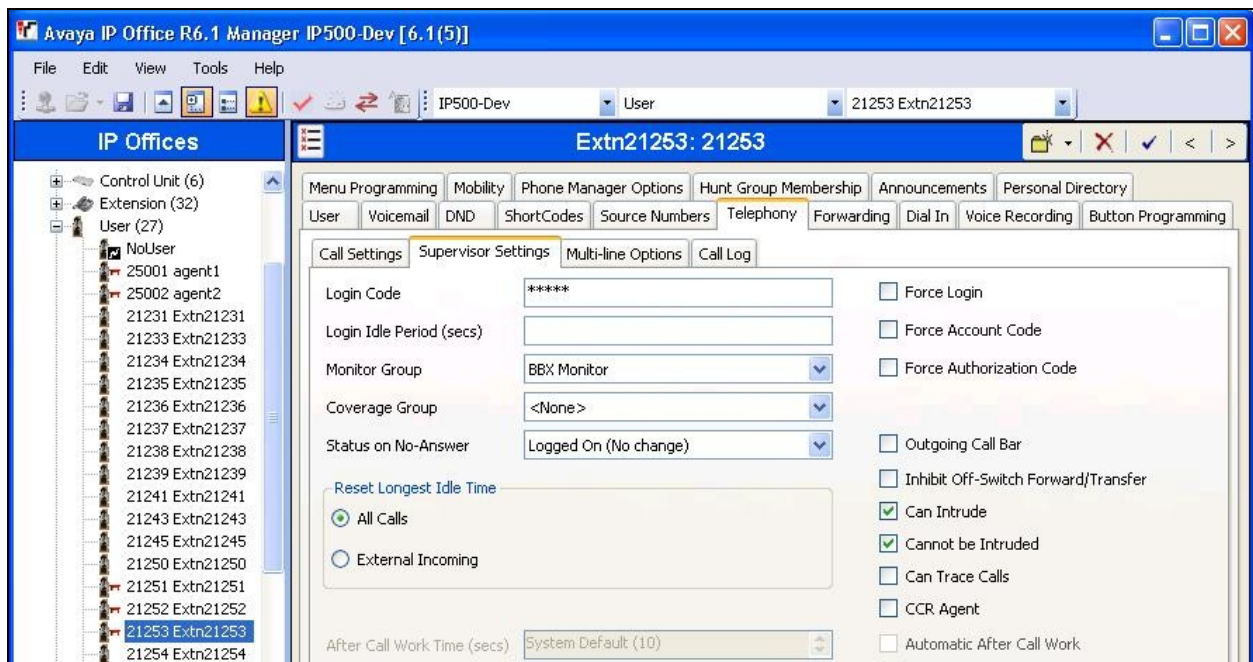


5.8. Administer Supervisors

From the configuration tree in the left pane, select the first supervisor user that will be monitoring agents, in this case “21253”.

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**.

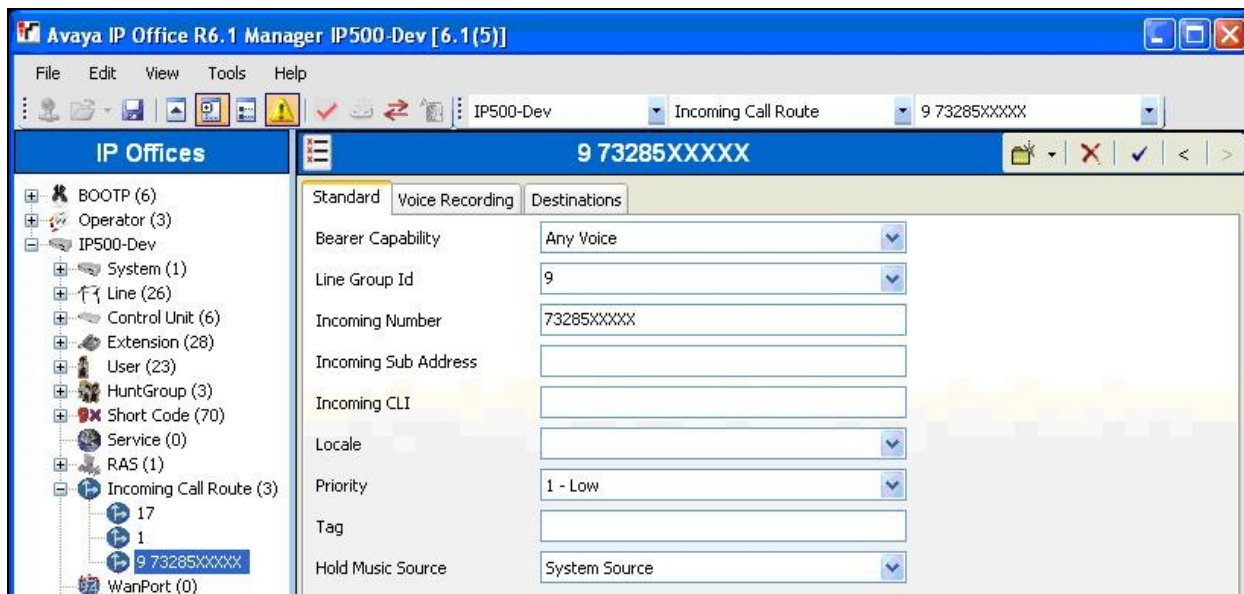
Repeat this section for all supervisors that will be monitoring agents. In the compliance testing, one supervisor user with extension 21253 was configured, as shown below.



5.9. Administer Incoming Call Route

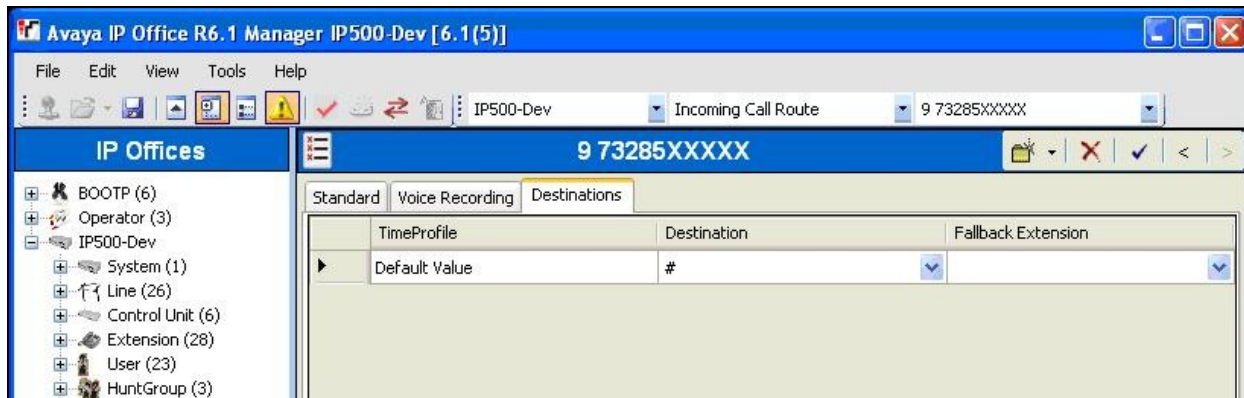
If necessary, create an incoming call route to route incoming calls to the Main hunt group. In the compliance testing, the existing incoming call route for the ISDN PRI line can route to any five digit extensions on IP Office.

As shown in the screen below, the **Incoming Number** for the ISDN PRI line “9” is “73285XXXXX”, which uses five single digit wildcards “X” allowing the last five digits to be any number.



In the **Destinations** tab, the use of “#” in the **Destination** field enables the routing to be based on the “XXXXXX” from the **Incoming Number** field from above. Therefore, incoming calls to “7328521000” will be routed to the Main hunt group configured in **Section 5.6.1**.

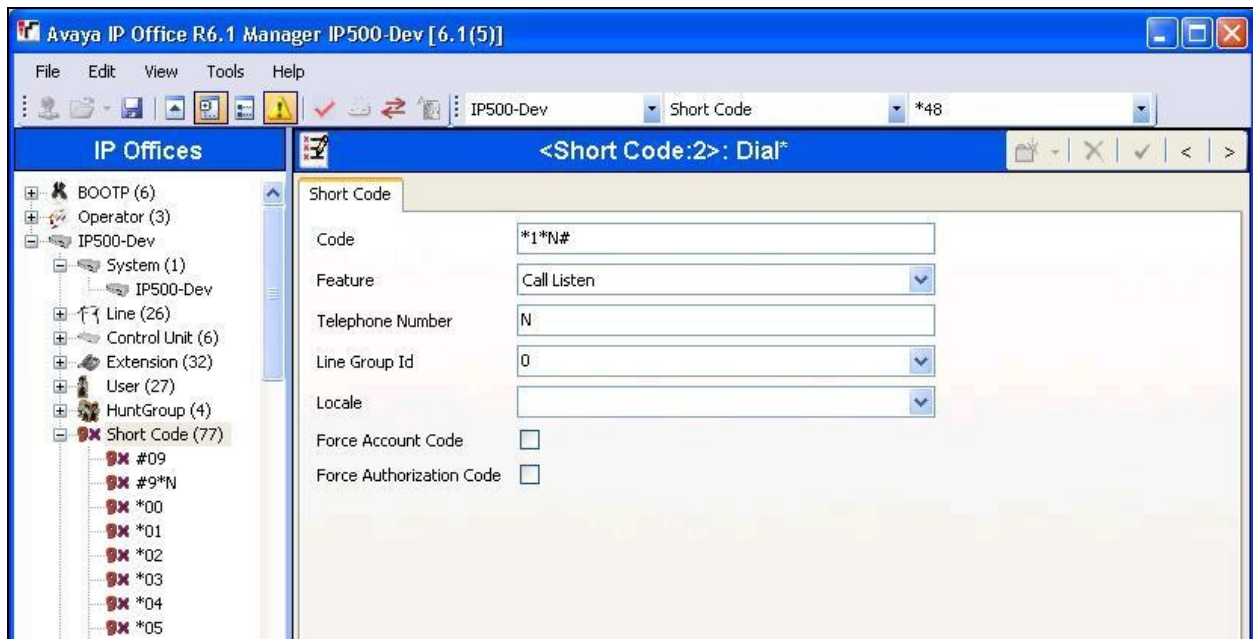
If desired, the Main hunt group can be selected from the **Destination** drop-down to route all incoming trunk calls to Vuesion.



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 Call Listen. Configure the fields as shown below in the right pane.

Note that the short code has to be “*1”, as required by Vuesion. This short code will be used by the Vuesion server to support supervisor monitoring of agents.



6. Configure BBX Technologies Vuesion Multimedia Contact Center

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

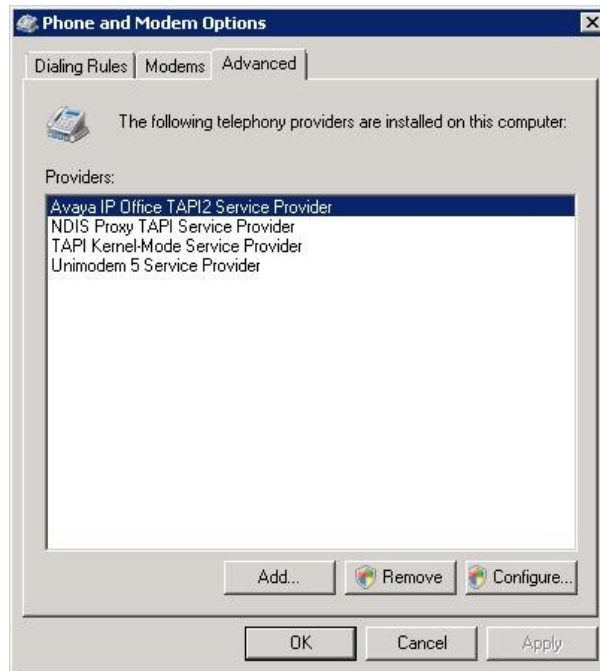
- Administer TAPI driver
- Administer Switch.txt
- Stop service
- Launch Vuesion Manager
- Administer communication settings
- Administer local extensions
- Administer tenants
- Administer VMAIL extensions
- Administer queues sizing
- Administer ACD members
- Administer ACD groups
- Administer trunks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

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.

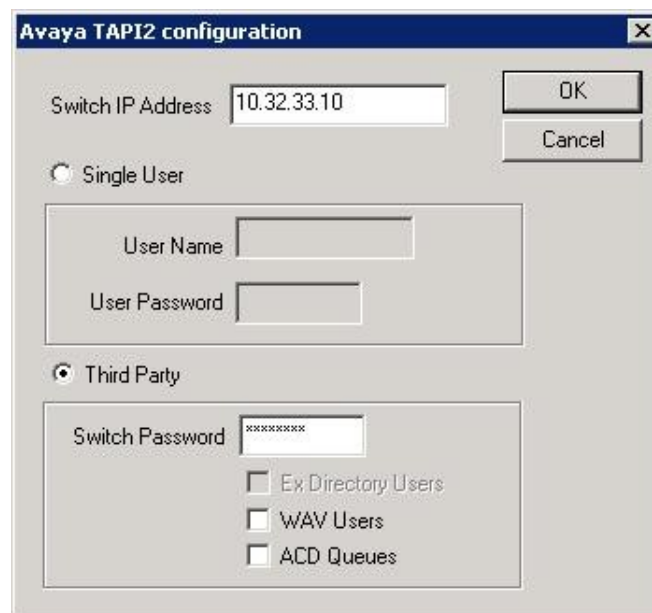
In addition to the shown procedural steps, the application also requires the auto attendant, and the class of service for the agents and supervisors be configured by following reference [2].

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**.

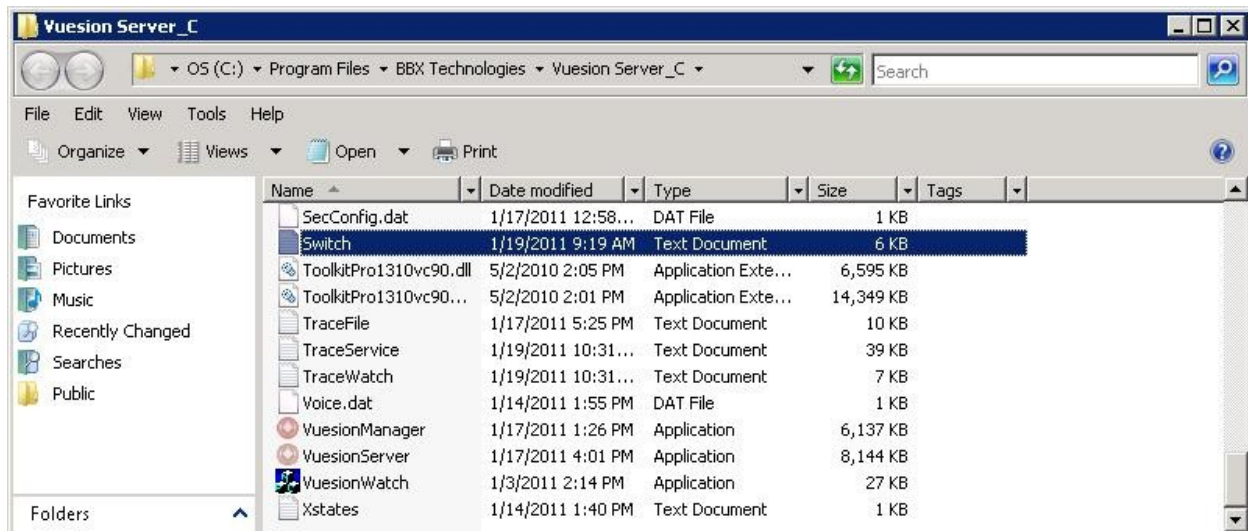


The **Avaya TAPI2 configuration** screen is displayed. For **Switch IP Address**, enter the IP address of Avaya IP Office. Select the radio button for **Third Party**, and enter the IP Office password into the **Switch Password** field. Reboot the Vuesion server.

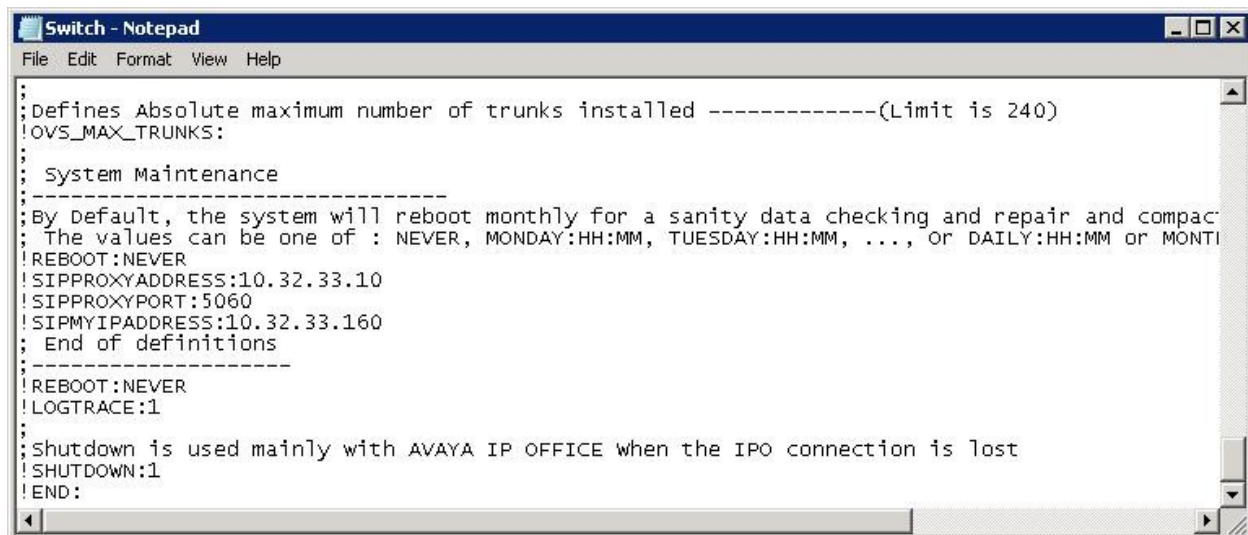


6.2. Administer Switch.txt

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

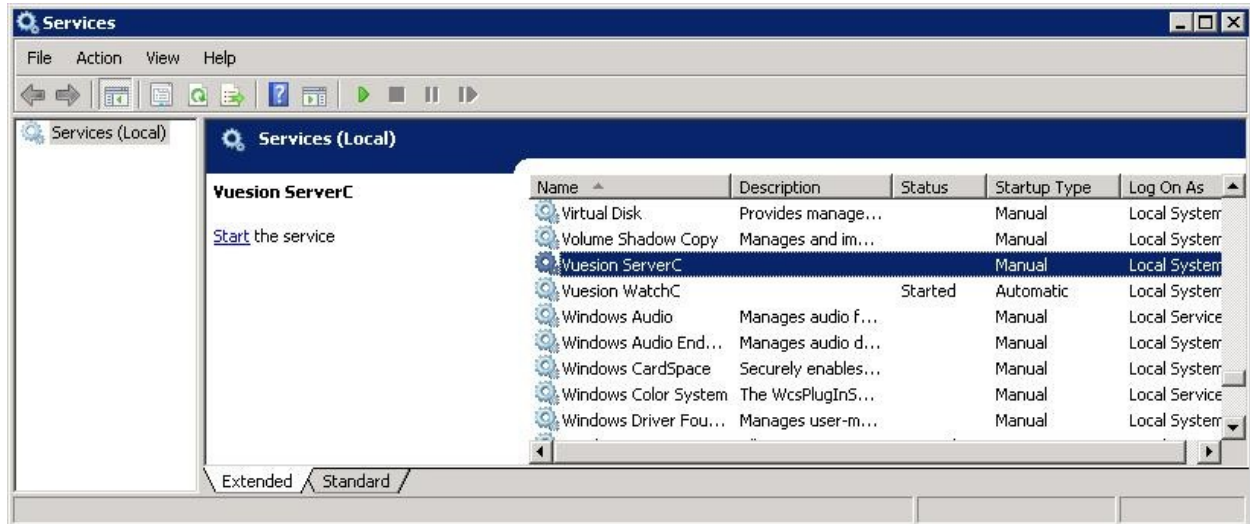


Open the **Switch** text file with the NotePad application. For **SIPPROXYADDRESS**, enter the IP address of IP Office from **Section 5.2**. For **SIPPROXYPORT**, enter the UDP port number from **Section 5.3**. For **SIPMYIPADDRESS**, enter the IP address of the local Ethernet interface used for connectivity with IP Office, in this case "10.32.33.160".



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**.



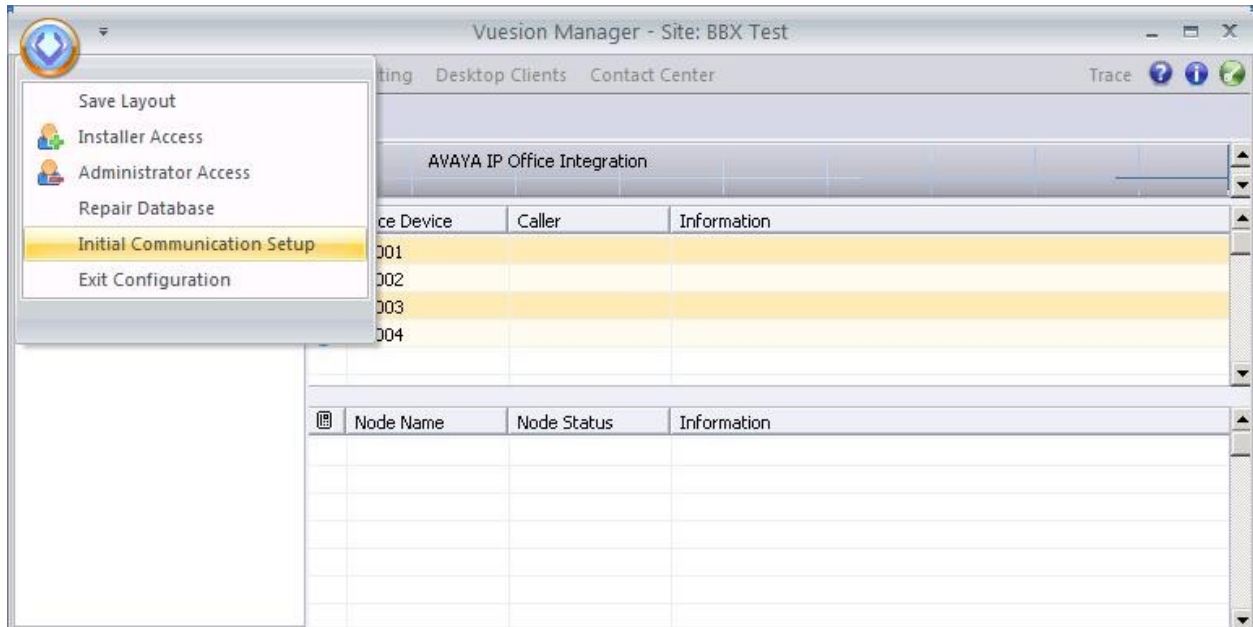
6.4. Launch Vuesion Manager

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**, and retain the default values in the remaining fields.

COMMUNICATION SETTINGS

SWITCH COMMUNICATION

RS232 Port #: COM1 BaudRate: 9600

☒ IP Enabled

PBX IP Addr: 10.32.33.10

PBX Password: [Masked]

PBX SMDR IP Address: [Empty]

PBX SMDR TCP Port: 0

NETWORKING SETUP: MASTER SERVER

NetServer IP address: [Empty]

NetServer IP Port: 60030

THIS SERVER DEFINITION

Customer Location Name: [Empty]

This Server IP address: 10.32.35.160

This Server IP Port: 60029

VoiceMail Location: [Empty]

VoiceMail Pilot Number: [Empty]

OK

6.6. Administer Local Extensions

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

Vuesion Manager - Site: BBX Test

Switch Setup Messaging Routing Desktop Clients Contact Center

Trace ? ? ?

Switch Setup

- Communication
- Local Extensions
- Off Premise Extensions
- Phantom Extensions
- Park Orbits
- Hold Extensions
- Area Paging
- Trunks
- Reload Switch Info

Messaging/IVR

Routing

Desktop Clients

Contact Center

AVAYA IP Office Integration

Voice Device	Caller	Information

Node Name	Node Status	Information

The **DIRECTORY CONFIGURATION** screen is displayed. Follow reference [2] to create 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 5.6.3**, as shown below.

Update the **Full Name** field as desired, and retain the default values in the remaining fields. Note that the port numbers are automatically assigned by the system subsequently.

The screenshot shows the 'DIRECTORY CONFIGURATION' window. It features a table titled 'LOCAL USER EXTENSIONS' with columns 'Full Name', 'DN #', and 'Port#'. The table contains four entries: 'BBX Agent 1' (DN 21251, Port 17), 'BBX Agent 2' (DN 21252, Port 29), 'BBX Supervisor 1' (DN 21253, Port 18), and 'CustomerSupport' (DN 24001, Port 0). To the right of the table is the 'DIRECTORY ASSIGNMENT' section, which includes fields for 'Directory #', 'FullName', 'Title', 'Account Code', 'Password', and 'Tenant Name'. Below these are several checkboxes: 'Shared Station', 'Virtual/Single Line', 'Disable SMDR', 'SIP', 'Network Advertise', 'Reserved', 'Recorder', 'Disabled', 'Guest Telephone', 'Music On Hold', and 'Nurse/CareGiver'. At the bottom right is the 'FOLLOW-ME OPTIONS' section with fields for 'Mobile #', 'Home #', 'Alternate #', and 'Active Forward'. At the bottom of the window are buttons for 'Add', 'Delete', 'Save', 'Refresh All', and 'Exit'.

Full Name	DN #	Port#
BBX Agent 1	21251	17
BBX Agent 2	21252	29
BBX Supervisor 1	21253	18
CustomerSupport	24001	0

DIRECTORY ASSIGNMENT

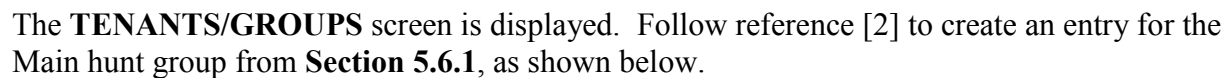
Directory #:
FullName:
Title:
Account Code:
Password:
Tenant Name:
Class of Service:
☐ Shared Station ☐ SIP
☐ Virtual/Single Line ☒ Network Advertise
☐ Disable SMDR
☐ Reserved
☐ Recorder
☐ Disabled
☐ Guest Telephone
☐ Music On Hold
☒ Nurse/CareGiver

FOLLOW-ME OPTIONS

Mobile #:
Home #:
Alternate #:
Active Forward:

Add Delete Save Refresh All Exit

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

[illegible]

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 below. In this case, all entries were selected.

[illegible]

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. Follow reference [2] to create an entry for each virtual SIP user from **Section 5.5**, as shown below.

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**. Check **Announce/Notify** for a subset of the virtual SIP users, in this case users 27003 and 27004. Note that the port numbers are automatically assigned by the system subsequently.

DIRECTORY CONFIGURATION

IVR EXTENSIONS

Full Name	DN #	Port#
IVR 27001	27001	25
IVR 27002	27002	26
IVR 27003	27003	27
IVR 27004	27004	28

DIRECTORY ASSIGNMENT

Directory #: 27004

FullName: IVR 27004

Title:

Account:

Password: xxxxxx

Tenant Name:

Class of Service: 0

☐ Shared Station
☐ Virtual/Single Line
☐ Disable SMDR
☐ Live Record
☒ Announce/Notify
☐ Reserved
☒ SIP
☐ Network Advertise
☐ Recorder
☐ Disabled
☐ Guest Telephone
☐ Music On Hold
☐ Nurse/CareGiver

6.9. Administer Queues Sizing

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

Vuesion Manager - Site: BBX Test

Switch Setup Messaging Routing Desktop Clients Contact Center Trace

AVAYA IP Office Integration

Voice Device	Caller	Information
27001		
27002		
27003		
27004		

Node Name	Node Status	Information

The **DIRECTORY CONFIGURATION** screen is displayed. Follow reference [2] to create the desired number of entries for queuing of incoming ACD calls, as shown below.

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

CALL CENTER QUEUE		
Full Name	DN #	Port#
Queue	25551	0
Queue	25552	0
Queue	25553	0
Queue	25554	0
Queue	25555	0
Queue	25556	0
Queue	25557	0
Queue	25558	0
Queue	25559	0
Queue	25560	0

DIRECTORY ASSIGNMENT
Directory #: [Text Box]
FullName: [Text Box]
Title: [Text Box]
Power-Up Destination: [Text Box]
Password: [Text Box]
Tenant Name: [Text Box]
Class of Service: [Dropdown Menu]
☐ Shared Station ☐ SIP
☐ Virtual/Single Line ☒ Network Advertise
☐ Disable SMDR

☐ Reserved

☐ Recorder
☐ Disabled
☐ Guest Telephone
☐ Music On Hold
☐ Nurse/CareGiver

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. Follow reference [2] to create an entry for each agent user from **Section 5.7**, and for each supervisor user from **Section 5.8**, as shown 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 6.6**. For **Class**, select the appropriate class of service.

Name	ID	Passw	COS	Type	Def. Ext	Status
BBX Agent-1	50001	50001	0	ACD Agent		
BBX Agent-2	50002	50002	0	ACD Agent		
BBX Supervisor-1	50003	50003	1	ACD Supervisor		

Add Member **Delete Member**

Member Definition

Member ID: 50002
FullName: BBX Agent-2
Password: 50002

Setup

Type: ACD Agent
Primary Group: CustomerSupport
Class: 0

Auto Login - Special Devices Only

Default Extension:

Screen Capture Supervisors IDs

Supervisor ID 1:
Supervisor ID 2:
Supervisor ID 3:
Supervisor ID 4:
Supervisor ID 5:

Save **Exit**

6.11. Administer ACD Groups

From the **Vuesion Manager** screen shown in **Section 6.9**, select **Switch Setup > ACD Groups** from the left pane, to display the **SkillSets Administration** screen. Follow reference [2] to create an entry for the Transfer hunt group from **Section 6.6**, 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.

SkillSets Administration

Group ID: 24001, Group Name: CustomerSupport, Routing Method: Round Robin

Group Name	ID
CustomerSupport	24001

Voice Routing Options

Enable: ☒ Priority: 00

Overflow Time: 01 Min

Overfl. Destination: 24001

Signed-Out OVF: 24001

All Busy Overflow:

Longest InQ Thr: 45 Sec

Force Priority: 00

Calls Queued Thr: 08

☐ Auto WrapUp @ 15 Sec

☐ Ringback on Queue

Email Routing Options

Enable: ☐ Priority: 00

Subject Filter:

Overflow Time: 00

OVF Destination:

Signed-Out OVF:

EmailQ Threshold: 10

Longest InQ Thr: 300

Force Priority: 0

Fax Routing Options

Enable: ☐ Priority: 00

Overflow Time: 00

OVF Destination:

Signed-Out OVF:

FaxQ Threshold: 10

Longest InQ Thr: 300

Force Priority: 0

Miscellaneous

☐ Auto Logout @ 11:50:00 PM

Advance Time: 10 Sec

☐ Follow Me (Non Call Center)

Outbound Campaign

☐ Enable Campaign Campaign Priority: 00

ODBC - DSN:

Table: Password:

Login:

Name Field:

Phone Field:

Contact:

Priority Field:

Comment Field:

Resolution Field:

Restricted Hours During Schedule (Format: 12:00-13:00,...)

☐ Enable Schedule

Start Date/Time: 12/30/ 8:00:00 AM TZ

Stop Date/Time: 3/11/ 1:06:52 PM

M T W T F S S

Import Records Restart Campaign

Multimedia Contact Center Members Assignment

VoiceSkill: 09 EmailSkill: 09 FaxSkill: 09 OutdialSkill: 00

HandleVoice: ☒ HandleEmails: ☐ HandleFax: ☐ HandleOutdial: ☐

Name	ID	Type
BBX Agent-1	500...	ACD Agent
BBX Agent-2	500...	ACD Agent
BBX Supervisor-1	500...	ACD Supervisor

Announcements

ID	QPosition	~ Hold	AA	Once	Frequency
1: AA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	AA	Once	Frequency
2: AA	<input type="checkbox"/>	<input type="checkbox"/>	AA	Repeat	30 Se
3: AA	<input type="checkbox"/>	<input type="checkbox"/>	AA	Repeat	

Add Group Remove Group Save Exit

6.12. Administer Trunks

From the **Vuesion Manager** screen shown in **Section 6.9**, select **Contact Center > ACD Groups** from the left pane, to display the **DIRECTORY CONFIGURATION** screen. Follow reference [2] to create sufficient entries for the ISDN PRI line from **Section 5.9**, as shown below.

For **Directory #**, use the value “xy”, where “x” is the ISDN PRI line number and “y” is the ISDN PRI channel number specified in two-digits. In this case, the ISDN PRI line number is “9”, and the channel numbers are “01-23”. Retain the default values in the remaining fields.

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

The screenshot shows the 'DIRECTORY CONFIGURATION' window. It contains a table of 'TRUNK NUMBERS' and a 'DIRECTORY ASSIGNMENT' section.

Full Name	DN #	Port#
Trunk901	901	
Trunk902	902	
Trunk903	903	
Trunk904	904	
Trunk905	905	
Trunk906	906	
Trunk907	907	
Trunk908	908	
Trunk909	909	
Trunk910	910	
Trunk911	911	
Trunk912	912	
Trunk913	913	
Trunk914	914	
Trunk915	915	
Trunk916	916	
Trunk917	917	
Trunk918	918	
Trunk919	919	
Trunk920	920	
Trunk921	921	
Trunk922	922	
Trunk923	923	

The 'Trunk923' row is highlighted in blue. Below the table are 'Add', 'Delete', and 'Save' buttons.

The 'DIRECTORY ASSIGNMENT' section includes the following fields and options:

- Directory #: 923
- FullName: Trunk923
- Title: (empty)
- Account: (empty)
- Password: (empty)
- Tenant Name: (empty)
- Class of Service: 0
- ☐ Shared Station
- ☐ Virtual/Single Line
- ☐ Disable SMDR
- ☐ SIP
- ☒ Network Advertise
- ☐ Reserved
- ☐ Recorder
- ☐ Disabled
- ☐ Guest Telephone
- ☐ Music On Hold
- ☐ Nurse/CareGiver

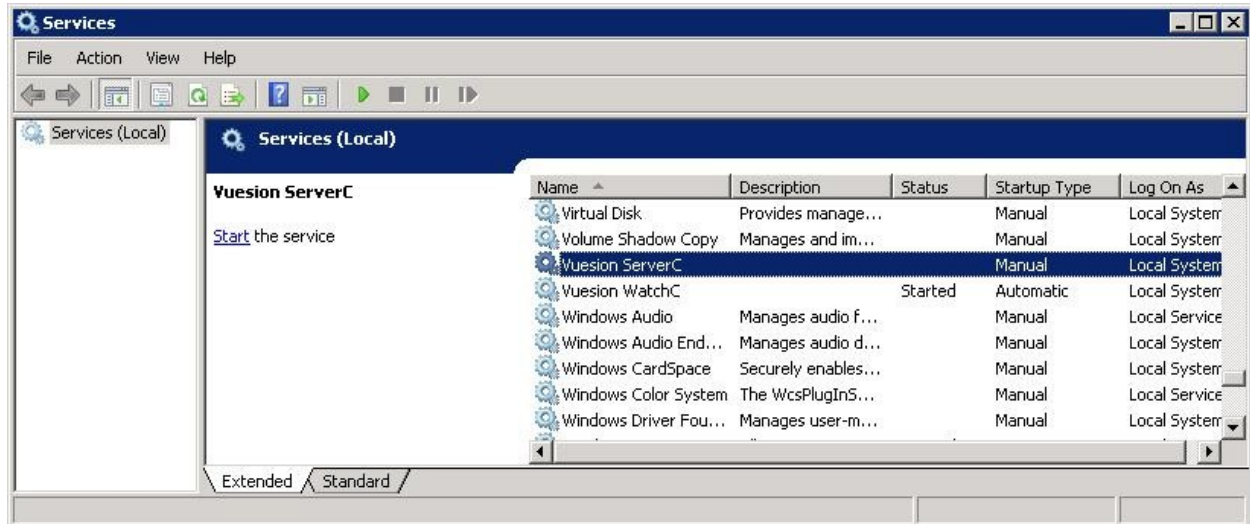
The 'FOLLOW ME OPTIONS' section includes the following fields:

- Cellular #: (empty)
- Home #: (empty)
- Alternate #: (empty)
- Active Forward: (empty)

At the bottom right are 'Refresh All' and 'Exit' buttons.

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

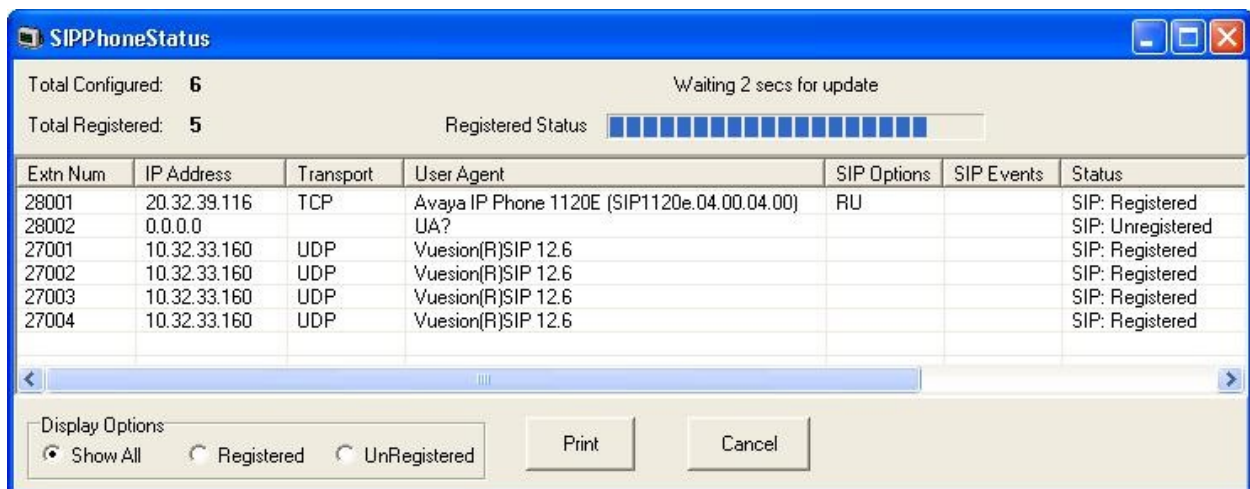
This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and BBX Technologies Vuesion Multimedia Contact Center.

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 R6 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(R)SIP”, and that the **Status** is “SIP: Registered”, as shown below.



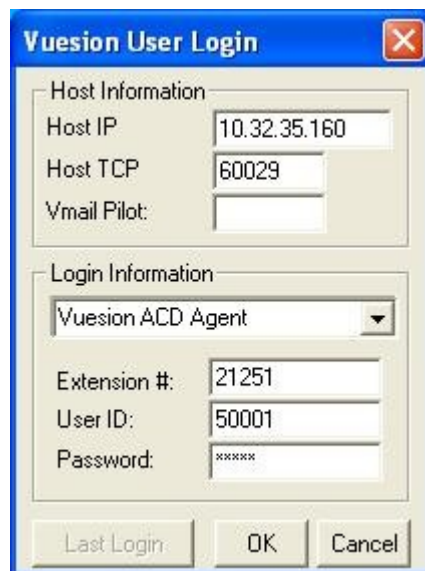
7.2. Verify BBX Technologies Vuesion Multimedia Contact Center

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.

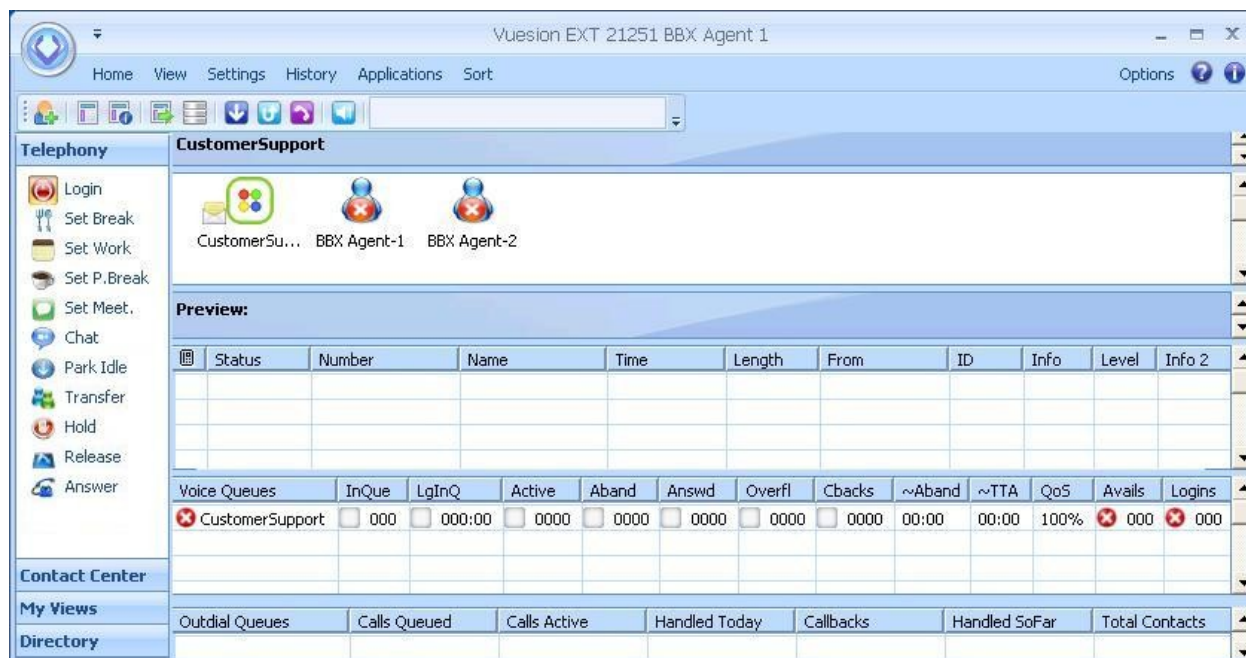


The **Vuesion User Login** screen is displayed. For **Host IP**, enter the IP address of the Ethernet interface on the Vuesion server used for connectivity with clients, in this case “10.32.35.160”. For **Host TCP**, enter “60029”. For **Login Information**, select “Vuesion ACD Agent” from the drop-down list.

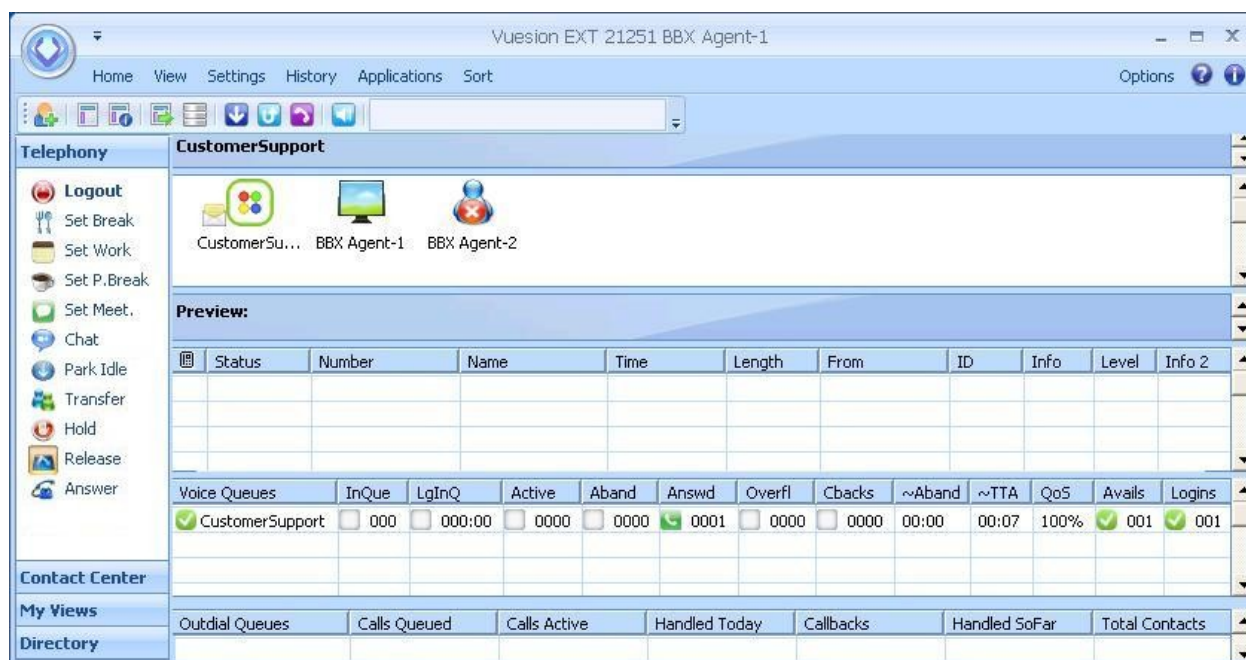
For **Extension #**, enter the extension number of the first agent user from **Section 6.6**. For **User ID** and **Password**, enter the corresponding credentials for the first agent user from **Section 6.10**, as shown below.

The image shows a screenshot of the 'Vuesion User Login' dialog box. The dialog box has a blue title bar with the text 'Vuesion User Login' and a red 'X' button. It contains two main sections: 'Host Information' and 'Login Information'. In the 'Host Information' section, there are three text boxes: 'Host IP' with the value '10.32.35.160', 'Host TCP' with the value '60029', and 'Vmail Pilot' which is empty. In the 'Login Information' section, there is a drop-down menu with 'Vuesion ACD Agent' selected, and three text boxes: 'Extension #' with the value '21251', 'User ID' with the value '50001', and 'Password' with the value 'xxxxx'. At the bottom of the dialog box, there are three buttons: 'Last Login', 'OK', and 'Cancel'.

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



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



Make an incoming trunk call to the Main hunt group, and verify that the screen is updated to reflect a ringing call. Also verify that the entry shown in the **Preview** pane reflects the proper information for the call.

Click on the **Answer** icon in the left pane to answer the call.

The screenshot shows the Vuesion EXT 21251 BBX Agent-1 interface. The left pane contains a 'Telephony' section with icons for Logout, Set Break, Set Work, Set P.Break, Set Meet, Chat, Park Idle, Transfer, Hold, Release, and Answer. The main area displays 'CustomerSupport' with icons for CustomerSupport, BBX Agent-1, and BBX Agent-2. The 'Preview' pane shows a table with the following data:

Status	Number	Name	Time	Length	From	ID	Info	Level	Info 2
Incoming	908-848-6006	9088486006	13:40:23	00:00:05	9088486006				

Below the preview table is a 'Voice Queues' table:

Voice Queues	InQue	LgInQ	Active	Aband	Answd	Overfl	Cbacks	~Aband	~TTA	QoS	Avails	Logins
CustomerSupport	001	000:00	0000	0000	0000	0000	0000	00:00	00:00	100%	001	001

The bottom section of the interface includes 'Contact Center', 'My Views', and 'Directory' tabs.

Verify the agent's telephone is connected to the caller, and that the agent screen is updated to show the call being connected, as shown below. Click on the **Release** icon to complete the call.

The screenshot shows the Vuesion EXT 21251 BBX Agent-1 interface after the call has been answered. The 'Preview' pane now shows the call as 'Connected'.

Status	Number	Name	Time	Length	From	ID	Info	Level	Info 2
Connected	908-848-6006	CustomerSupport	13:40:23	00:00:35	9088486006				

The 'Voice Queues' table is also updated:

Voice Queues	InQue	LgInQ	Active	Aband	Answd	Overfl	Cbacks	~Aband	~TTA	QoS	Avails	Logins
CustomerSupport	000	000:00	0001	0000	0000	0000	0000	00:00	00:00	100%	000	001

The interface layout remains the same as in the previous screenshot, with the 'Answer' icon now disabled and the 'Release' icon highlighted.

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



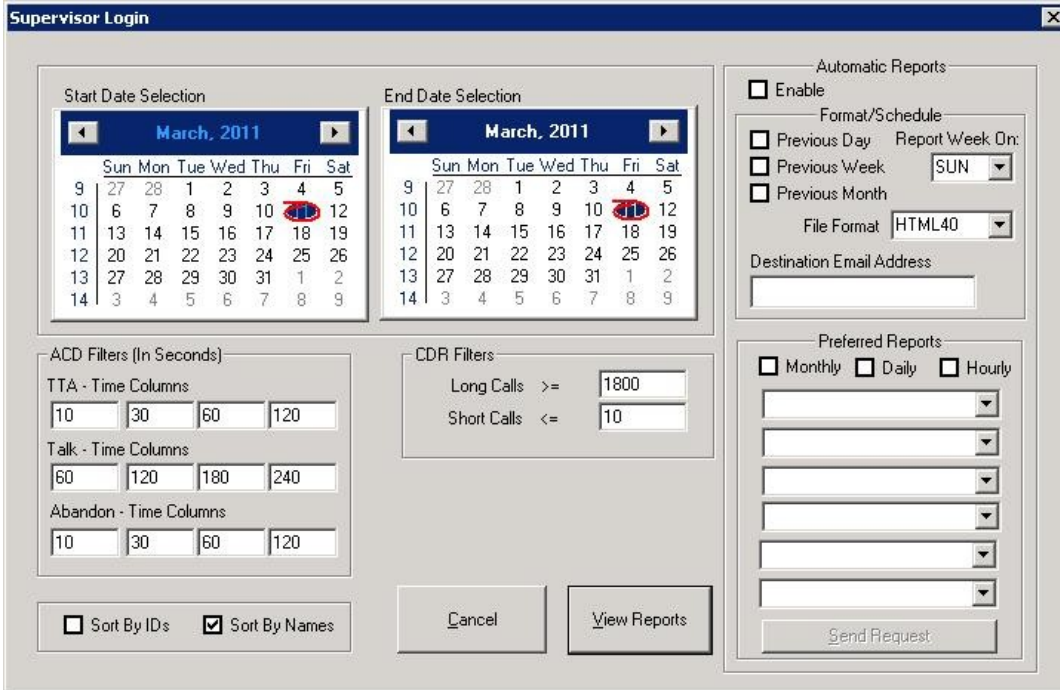
The **Vuesion Reports Login** screen is displayed. For **Server IP/Name**, enter the IP address of the Ethernet interface on the Vuesion server used for connectivity with clients, in this case “10.32.35.160”. For **TCP/Port**, enter “60029”. For **Which Reports**, select “Current Reports” from the drop-down list.

For **Supervisor ID** and **Password**, enter the corresponding credentials for the supervisor from **Section 6.10**, as shown below.

A screenshot of the 'Vuesion Reports Login' dialog box. It has a title bar with 'Vuesion Reports Login' and a close button. The dialog is divided into two sections: 'Vuesion Server - Authorization' and 'Supervisor Access'. In the first section, 'Server IP/Name' is '10.32.35.160', 'TCP/Port' is '60029', and 'Which Reports' is a dropdown menu set to 'Current Reports'. In the second section, 'Supervisor ID' is '50003' and 'Password' is masked with 'xxxxxx'. At the bottom right are 'Login' and 'Cancel' buttons.

Vuesion Reports Login	
Vuesion Server - Authorization	
Server IP/Name:	10.32.35.160
TCP/Port:	60029
Which Reports:	Current Reports
Supervisor Access	
Supervisor ID:	50003
Password:	xxxxxx
Login Cancel	

The **Supervisor Login** screen is displayed. Retain the default values, and click **View Reports**.



Supervisor Login

Start Date Selection: March, 2011

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
9	27	28	1	2	3	4	5
10	6	7	8	9	10	11	12
11	13	14	15	16	17	18	19
12	20	21	22	23	24	25	26
13	27	28	29	30	31	1	2
14	3	4	5	6	7	8	9

End Date Selection: March, 2011

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
9	27	28	1	2	3	4	5
10	6	7	8	9	10	11	12
11	13	14	15	16	17	18	19
12	20	21	22	23	24	25	26
13	27	28	29	30	31	1	2
14	3	4	5	6	7	8	9

ACD Filters (In Seconds)

TTA - Time Columns

10	30	60	120
----	----	----	-----

Talk - Time Columns

60	120	180	240
----	-----	-----	-----

Abandon - Time Columns

10	30	60	120
----	----	----	-----

CDR Filters

Long Calls >= 1800

Short Calls <= 10

☐ Sort By IDs ☒ Sort By Names

Cancel View Reports

Automatic Reports

☐ Enable

Format/Schedule

☐ Previous Day Report Week On: ☐ Previous Week ☐ Previous Month

File Format: HTML40

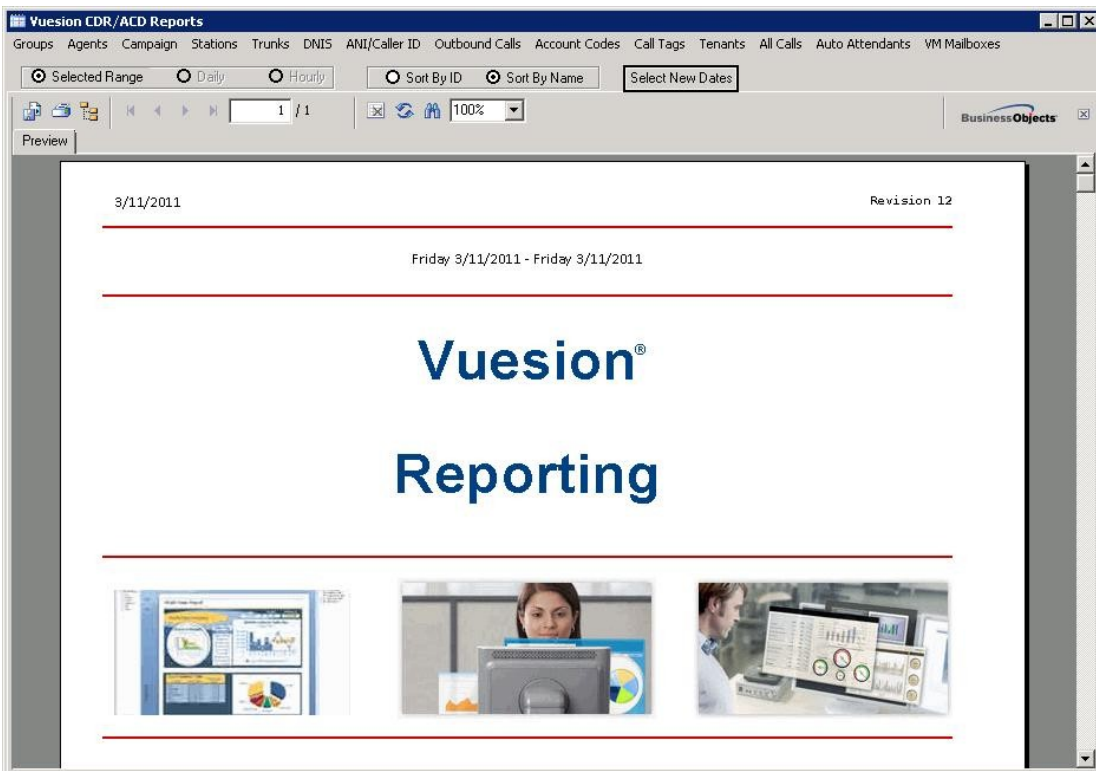
Destination Email Address:

Preferred Reports

☐ Monthly ☐ Daily ☐ Hourly

Send Request

The **Vuesion CDR/ACD Reports** screen is displayed next. Select **Agents > Activity** from the top menu.



Vuesion CDR/ACD Reports

Groups Agents Campaign Stations Trunks DNIS ANI/Caller ID Outbound Calls Account Codes Call Tags Tenants All Calls Auto Attendants VM Mailboxes

☒ Selected Range ☐ Daily ☐ Hourly ☐ Sort By ID ☒ Sort By Name Select New Dates

Preview

3/11/2011 Revision 12

Friday 3/11/2011 - Friday 3/11/2011

Vuesion® Reporting

Three small images showing call center activity and reports.

The **Vuesion CDR/ACD Reports** screen is updated with the **Agent Activity** report. Verify that there is an entry reflecting the last call with proper information, as shown below.

The screenshot shows the Vuesion CDR/ACD Reports application window. The title bar is "Vuesion CDR/ACD Reports". The menu bar includes Groups, Agents, Campaign, Stations, Trunks, DNIS, ANI/Caller ID, Outbound Calls, Account Codes, Call Tags, Tenants, All Calls, Auto Attendants, and VM Mailboxes. The toolbar has buttons for "Selected Range", "Daily", "Hourly", "Sort By ID", "Sort By Name", and "Select New Dates". The status bar shows "1 / 1" and "100%". The main content area is titled "Agent Activity" and shows data for "BBX Agent-1" on "03/11/2011" for the period "Friday 3/11/2011 - Friday 3/11/2011".

Date / Time	Skillset Group Name	Call Type	Duration	Call TTA	Speed to Answer	Caller ID Name	ANI / Number Dialed	DNIS	Hung up First	Xfered From	Trunk	Call Tag
03/11/2011	BBX Agent-1	ID: 50001										
00:00:06	Customer Support	Ready	13:34:46									Caller
13:34:52	Customer Support	Logout	#####									Caller
13:39:57	Customer Support	Login	00:00:00									Caller
13:39:57	Customer Support	Ready	00:02:09									Caller
13:40:16	Customer Support	CC Inbound	00:01:43	00:00:07	00:00:07	9088486006	[908] 848-6006	[732] 852-1000			412	Caller
13:42:07	Customer Support	Wrap up	00:00:16									Caller
03/11/2011	BBX Agent-2	ID: 50002										
00:00:06	Customer Support	Break	13:37:48									Caller
13:37:54	Customer Support	Logout	#####									Caller

8. Conclusion

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

9. Additional References

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

1. *IP Office 6.1 Documentation CD*, November 2010, available at <http://support.avaya.com>.
2. *Vuesion Application Server Contact Center Configuration Guide*, 05/2010 Release 12, available upon request to BBX Technologies Support.

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