



Avaya Solution & Interoperability Test Lab

Application Notes for Verint Impact 360 with Avaya Proactive Contact and Avaya Communication Manager Using Service Observing – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Verint Impact 360 to interoperate with Avaya Proactive Contact and Avaya Communication Manager using Service Observing. Verint Impact 360 is a call recording solution for contact centers. In the compliance testing, the Verint Impact 360 used the Event Services interface from Avaya Proactive Contact to obtain information on agent states and outbound calls, and used the Avaya Communication Manager Service Observing feature via the Avaya Application Enablement Services Device, Media, and Call Control interface to capture the media associated with the outbound calls for call recording.

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 Verint Impact 360 to interoperate with Avaya Proactive Contact and Avaya Communication Manager using Service Observing. Verint Impact 360 is a call recording solution for contact centers. In the compliance testing, the Verint Impact 360 used the Event Services interface from Avaya Proactive Contact to obtain information on agent states and outbound calls, and used the Avaya Communication Manager Service Observing feature via the Avaya Application Enablement Services (AES) Device, Media, and Call Control (DMCC) interface to capture the media associated with the outbound calls for call recording.

The Avaya Proactive Contact Event Services interface is used by Verint Impact 360 to monitor the states and outbound calls for the agents. When the agent logs into Avaya Proactive Contact to service outbound calls, Verint Impact 360 receives the notification and initiates a Service Observing request to Avaya Communication Manager via the Avaya AES DMCC interface, to add a virtual IP softphone to the dedicated audio connection between the agent and Avaya Proactive Contact. The virtual IP softphone will stay connected to the agent until the agent logs out of Avaya Proactive Contact.

When an outbound call is delivered to the agent, the Verint Impact 360 is informed of the call via call events from the Avaya Proactive Contact Event Services interface, and therefore starts the call recording using the media from the virtual IP softphone that is connected to the agent. The call events from the Avaya Proactive Contact Event Services interface are also used to determine when to stop the call recording.

Verint Impact 360 only uses the Avaya Proactive Contact Event Services to record outbound calls, therefore the compliance test only covered the recording of outbound calls from Avaya Proactive Contact.

1.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on the Verint Impact 360:

- Handling of real-time agent states and call events from Avaya Proactive Contact.
- Use of Avaya AES DMCC registration services to register and un-register the virtual IP softphones.
- Use of Avaya AES DMCC physical device services to activate Service Observing for the virtual IP softphones.
- Use of Avaya AES DMCC monitoring services and media control events to obtain the media from the virtual IP softphones.
- Proper recording, logging, and playback of outbound calls for scenarios involving basic, hold, reconnect, simultaneous, conference, and transfer calls.

The serviceability testing focused on verifying the ability of Verint Impact 360 to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable to Verint Impact 360.

1.2. Support

Technical support on Verint Impact 360 can be obtained through the following:

- **Phone:** (800) 776-2462
- **Email:** contactcenter@verint.com

2. Reference Configuration

Verint Impact 360 can be configured on a single server or with components distributed across multiple servers. The compliance test configuration used two servers to host Verint Impact 360 components, as shown in **Figure 1**.

The detailed administration of basic connectivity between Avaya Communication Manager and Avaya AES, and between Avaya Communication Manager and Avaya Proactive Contact, are not the focus of these Application Notes and will not be described.

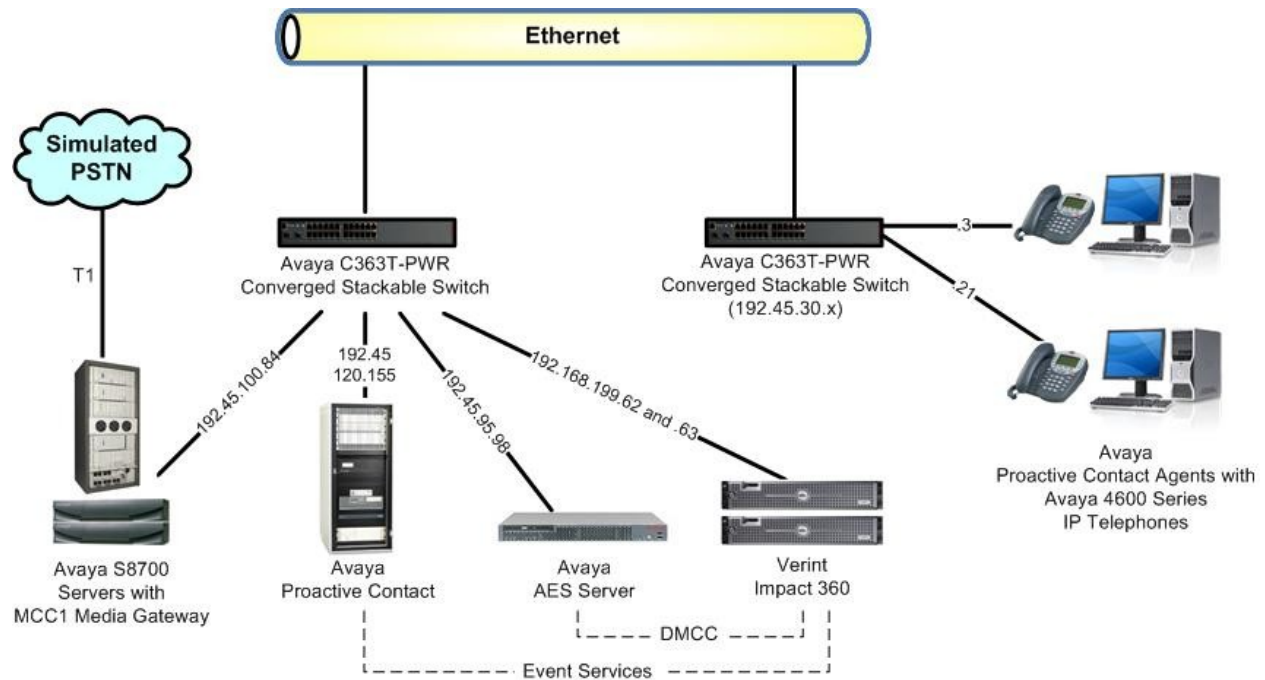


Figure 1: Verint Impact 360 with Avaya Proactive Contact and Avaya Communication Manager Using Service Observing

3. Equipment and Software Validated

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

Equipment	Software
Avaya S8700 Servers	Avaya Communication Manager 5.1.2, R015x.01.2.416.4
Avaya MCC1 Media Gateway <ul style="list-style-type: none">TN799DP C-LAN Circuit PackTN2302AP IP Media Processor	HW01 FW024 HW13 FW116
Avaya Application Enablement Services	4.2
Avaya Proactive Contact with PG230 Switch	4.0
Avaya 4600 Series IP Telephones (H.323)	2.9
Verint Impact 360 <ul style="list-style-type: none">Verint Impact 360 HUBVerint Impact 360 VoIP	ULTRA 10 SP3 ULTRA 10 SP3

4. Configure Avaya Communication Manager

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

- Verify Avaya Communication Manager License
- Administer DMCC CTI link
- Administer feature access codes
- Administer class of restriction
- Administer agent stations
- Administer virtual IP softphones

4.1. Verify Avaya Communication Manager License

Log into the System Access Terminal (SAT) to verify that the Avaya Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the “display system-parameters customer-options” command to verify that the **Service Observing (Basic)** customer option is set to “y” on **Page 6**. 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 6 of 11
CALL CENTER OPTIONAL FEATURES		
Call Center Release: 5.0		
ACD? y	Reason Codes? y	
BCMS (Basic)? y	Service Level Maximizer? y	
BCMS/VuStats Service Level? y	Service Observing (Basic)? y	
BSR Local Treatment for IP & ISDN? n	Service Observing (Remote/By FAC)? y	
Business Advocate? n	Service Observing (VDNs)? y	
Call Work Codes? y	Timed ACW? y	

Navigate to **Page 10**, and verify that there is sufficient **IP_Soft** license.

display system-parameters customer-options		Page 10 of 11
MAXIMUM IP REGISTRATIONS BY PRODUCT ID		
Product ID	Rel. Limit	Used
AgentSC	: 12000	0
IP_API_A	: 12000	0
IP_API_B	: 100	0
IP_API_C	: 100	0
IP_Agent	: 12000	0
IP_IR_A	: 100	0
IP_Phone	: 12000	4
IP_ROMax	: 12000	0
IP_Soft	: 12000	0
IP_eCons	: 128	0
oneX_Comm	: 12000	0
	: 0	0

4.2. Administer DMCC 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 15	Page 1 of 3
CTI LINK	
CTI Link: 15	
Extension: 24998	
Type: ADJ-IP	
Name: Verint DMCC Link	COR: 1

4.3. Administer Feature Access Codes

Use the “change feature-access-codes” command, to enter an available feature access code for the **Service Observing Listen Only Access Code** field.

change feature-access-codes	Page 5 of 10
FEATURE ACCESS CODE (FAC)	
Automatic Call Distribution Features	
After Call Work Access Code: *13	
Assist Access Code:	
Auto-In Access Code: *15	
Aux Work Access Code: *16	
Login Access Code: *17	
Logout Access Code: *20	
Manual-in Access Code: *12	
Service Observing Listen Only Access Code: *05	
Service Observing Listen/Talk Access Code: *06	
Service Observing No Talk Access Code: *07	
Add Agent Skill Access Code:	
Remove Agent Skill Access Code:	
Remote Logout of Agent Access Code:	

4.4. Administer Class of Restriction

Enter the “change cor n” command, where “n” is the class of restriction (COR) number used for integration with Verint Impact 360. Set the **Can Be Service Observed** and **Can Be A Service Observer** fields to “y”, as shown below. For the compliance testing, this COR was assigned to the physical stations used by the Avaya Proactive Contact agents and to the virtual IP softphones used by Verint Impact 360.

change cor 7		Page 1 of 22	
CLASS OF RESTRICTION			
COR Number: 7			
COR Description:			
FRL: 7		APLT? y	
Can Be Service Observed? y		Calling Party Restriction: none	
Can Be A Service Observer? y		Called Party Restriction: none	
Time of Day Chart: 1		Forced Entry of Account Codes? n	
Priority Queuing? n		Direct Agent Calling? y	
Restriction Override: none		Facility Access Trunk Test? n	
Restricted Call List? n		Can Change Coverage? y	

4.5. Administer Agent Stations

Modify each physical station used by the Avaya Proactive Contact agents to allow the station to be service observed. Change the agent station using the “change station n” command, where “n” is the station extension number. For the COR field, enter the COR from **Section 4.4**, which allows the station to be service observed.

Repeat this section for all agent stations. In the compliance testing, two physical agent stations with extensions of “22721” and “26614” were modified.

change station 22721		Page	1 of	5
STATION				
Extension: 22721	Lock Messages? n	BCC: 0		
Type: 4621	Security Code: *	TN: 1		
Port: S00011	Coverage Path 1:	COR: 7		
Name: Customer	Coverage Path 2:	COS: 1		
	Hunt-to Station:			
STATION OPTIONS				
	Time of Day Lock Table:			
Loss Group: 19	Personalized Ringing Pattern: 1			
	Message Lamp Ext: 22721			
Speakerphone: 2-way	Mute Button Enabled? y			
Display Language: english	Expansion Module? n			
Survivable GK Node Name:				
Survivable COR: internal	Media Complex Ext:			
Survivable Trunk Dest? y	IP SoftPhone? n			
	IP Video? n			
	Customizable Labels? y			

4.6. Administer Virtual IP Softphones

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

- **Type:** “4602+”
- **Name:** A descriptive name.
- **Security Code:** A desired value.
- **COR:** The class of restriction number from **Section 4.4**.
- **IP SoftPhone:** “y”

```

add station 22991
                                     Page 1 of 4
                                     STATION
Extension: 22991                    Lock Messages? n                    BCC: 0
  Type: 4602+                      Security Code: 12345                TN: 1
  Port: S00147                    Coverage Path 1:              COR: 7
  Name: Verint Virtual Softphone 1 Coverage Path 2:              COS: 1
                                     Hunt-to Station:
STATION OPTIONS
                                     Time of Day Lock Table:
      Loss Group: 19                Personalized Ringing Pattern: 1
                                     Message Lamp Ext: 22991
      Speakerphone: 1-way          Mute Button Enabled? y
      Display Language: english
      Survivable GK Node Name:
      Survivable COR: internal      Media Complex Ext:
      Survivable Trunk Dest? y      IP SoftPhone? y
                                     IP Video Softphone? n

```

Repeat this section to administer the desired number of virtual softphones, using sequential extension numbers and the same security code for all virtual softphones. For the compliance testing, two virtual softphones were administered as shown below, to allow for two simultaneous recordings.

```

list station 22991 count 2

```

STATIONS									
Ext/ Hunt-to	Port/ Type	Name/ Surv GK NN	Move	Room/ Data Ext	Cv1/ Cv2	COR/ COS	Cable/ Jack		
22991	S00147	Verint Virtual Softphone 1				7			
	4602+		no			1			
22992	S00139	Verint Virtual Softphone 2				7			
	4602+		no			1			

5. Configure Avaya Application Enablement Services

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

- Verify AES license
- Obtain H.323 gatekeeper
- Administer Verint user

5.1. Verify AES License

Access the AES OAM web-based interface by using the URL “https://ip-address:8443/MVAP” in an Internet browser window, where “ip-address” is the IP address of the AES server. The **Logon** screen is displayed as shown below. Log in with the appropriate credentials.

The image shows a web-based logon interface for Avaya Application Enablement Services (AES). At the top, the Avaya logo is displayed in red. Below it, a red banner contains the text "Application Enablement Services" and a "Help" link with a question mark icon. The main area of the page has a light gray background and contains the text "Please log on." followed by two input fields: "Logon:" and "Password:". A "Login" button is located at the bottom right of the form.

The **Welcome to OAM** screen is displayed next. Select **CTI OAM Administration** from the left pane.

AVAYA **Application Enablement Services**
Operations Administration and Maintenance

You are here: > [Home](#) [OAM Home](#) [Help](#) [Logout](#)

Welcome to OAM

The AE Services Operations, Administration, and Management (OAM) Web provides you with tools for managing the AE Server. OAM spans the following administrative domains:

- CTI OAM Admin - Use CTI OAM Admin to manage all AE Services that you are licensed to use on the AE Server.
- User Management - Use User Management to manage AE Services users and AE Services user-related resources.
- Security Administration - Use Security Administration to manage Linux user accounts and configure Linux-PAM (Pluggable Authentication Modules for Linux).

Depending on your business requirements, these administrative domains can be served by one administrator for both domains, or a separate administrator for each domain.

The **Welcome to CTI OAM Screens** is displayed. Verify that AES is licensed for the **DMCC Service**, as shown below. If the service is not licensed, contact the Avaya sales team or business partner for a proper license file.

AVAYA **Application Enablement Services**
Operations Administration and Maintenance

You are here: > [CTI OAM Home](#) [OAM Home](#) [Help](#) [Logout](#)

Welcome to CTI OAM Screens

[craft] Last login: Wed Feb 4 10:34:15 2009 from 192.168.199.73

IMPORTANT: AE Services must be restarted for administrative changes to fully take effect. Changes to the Security Database do not require a restart.

Service	Status	State	Licenses Purchased
ASAI Link Manager	Running	N/A	N/A
DMCC Service	Running	ONLINE	Yes
CVLAN Service	Running	ONLINE	Yes
DLG Service	Running	ONLINE	Yes
Transport Layer Service	Running	N/A	N/A
TSAPI Service	Running	ONLINE	Yes
SMS	N/A	N/A	Yes

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

License Information

You are licensed to run Application Enablement (CTI) version 4.2.

5.2. Obtain H.323 Gatekeeper

Select **Administration > Switch Connections** from the left pane. The **Switch Connections** screen shows a listing of the existing switch connections. Locate the connection name associated with the relevant Avaya Communication Manager, in this case “devcon2715”, and select the corresponding radio button. Click **Edit H.323 Gatekeeper**.

The screenshot shows the Avaya Application Enablement Services (AES) interface. The left pane contains a navigation menu with the following items: CTI OAM Home, Administration (selected), Network Configuration, Switch Connections (selected), CTI Link Admin, DMCC Configuration, TSAPI Configuration, Security Database, Certificate Management, Dial Plan, Enterprise Directory, Host AA, SMS Configuration, WebLM Configuration, Bridged Alert Config, Status and Control, Maintenance, and Alarms. The main pane displays the 'Switch Connections' screen. At the top, it says 'You are here: > Administration > Switch Connections'. Below this is a table with two columns: 'Connection Name' and 'Number of Active Connections'. The table lists several connections, with 'devcon2715' selected (indicated by a green radio button). Below the table are four buttons: 'Add Connection', 'Edit Connection', 'Edit CLAN IPs', and 'Edit H.323 Gatekeeper' (which is highlighted). The 'Delete Connection' button is also present.

Connection Name	Number of Active Connections
<input type="radio"/> devcon11	0
<input type="radio"/> devcon13	1
<input type="radio"/> devcon14	0
<input type="radio"/> devcon26	2
<input checked="" type="radio"/> devcon2715	2
<input type="radio"/> devcon32	0
<input type="radio"/> devcon33	0
<input type="radio"/> procurementlab	0

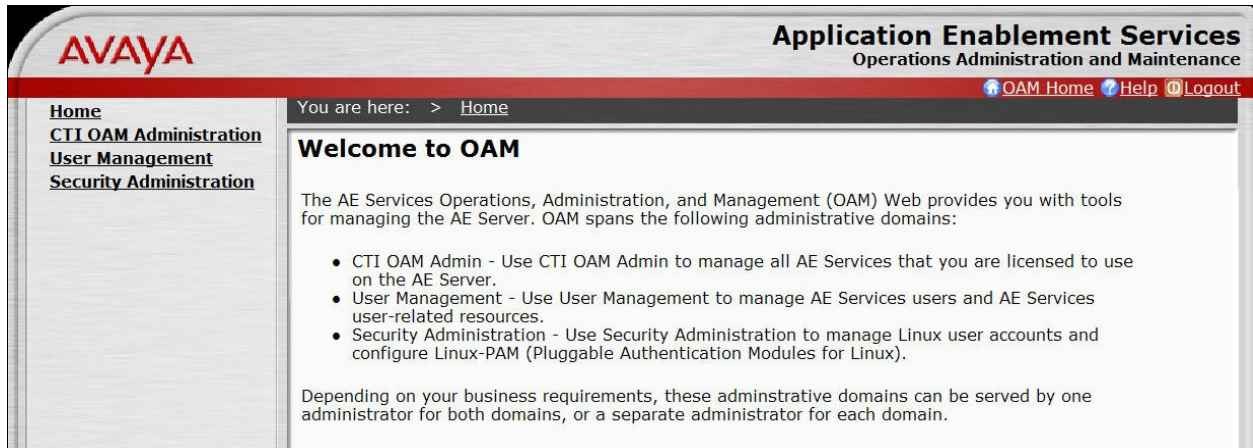
The **Edit H.323 Gatekeeper** screen is displayed. Note the IP address, for this value will be used later to configure the Verint Impact 360 server.

The screenshot shows the 'Edit H.323 Gatekeeper - devcon2715' screen. The left pane is the same as in the previous screenshot. The main pane displays the 'Edit H.323 Gatekeeper - devcon2715' screen. At the top, it says 'You are here: > Administration > Switch Connections'. Below this is a form with a 'Name or IP Address' field containing the value '192.45.100.84'. There is a 'Delete IP' button and an 'Add Name or IP' button.

Name or IP Address
<input checked="" type="radio"/> 192.45.100.84

5.3. Administer Verint User

Administer a new user account for Verint Impact 360, which is created from the AES User Management web pages. Select **OAM Home**, located at the upper right corner of the screen, to display the **Welcome to OAM** screen below. Select **User Management** from the left pane.



The **Welcome to the User Management home page** screen is displayed, as shown below.



Select **User Management > Add User** from the left pane. In the **Add User** screen shown below, enter descriptive values for the **User Id**, **Common Name**, **Surname**, **User Password**, and **Confirm Password** fields. For the **CT User** field, select “Yes” from the drop-down list. Retain the default value in the remaining fields. Click **Apply** at the bottom of the screen (not shown below).

AVAYA Application Enablement Services
Operations Administration and Maintenance

You are here: > [User Management](#) > [Add User](#)

Add User

Fields marked with * can not be empty.

* User Id

* Common Name

* Surname

* User Password

* Confirm Password

Admin Note

Avaya Role

Business Category

Car License

CM Home

Css Home

CT User

Department Number

Display Name

6. Configure Verint Impact 360

This section provides the procedures for configuring Verint Impact 360. The procedures include the following areas:

- Launch Configuration Manager
- Administer acquisition configuration
- Administer recording control
- Generate and distribute configuration
- Launch IntelliLink Configuration
- Administer Communication Manager connection
- Administer Proactive Contact connection

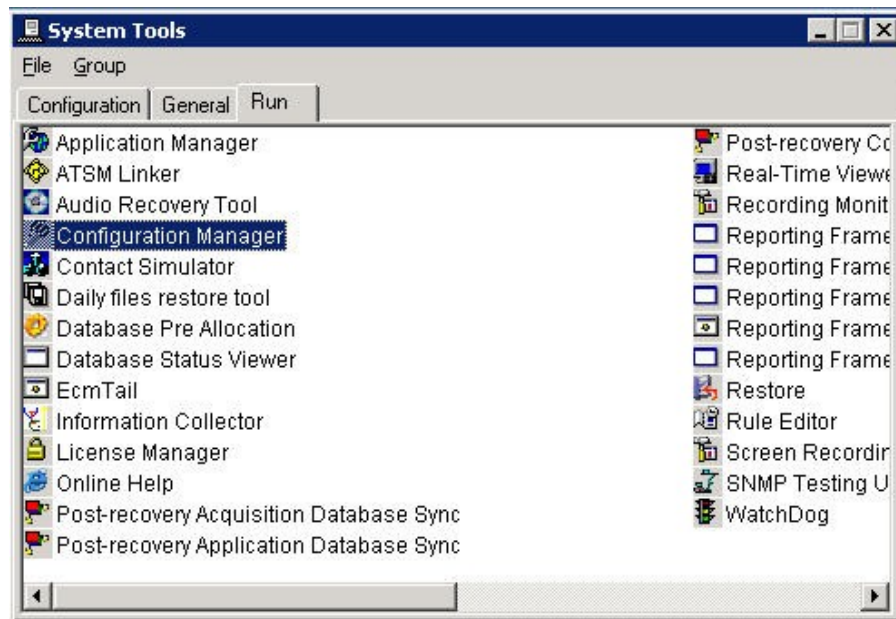
The configuration of Verint Impact 360 is performed by Verint technicians. The procedural steps are presented in these Application Notes for informational purposes.

6.1. Launch Configuration Manager

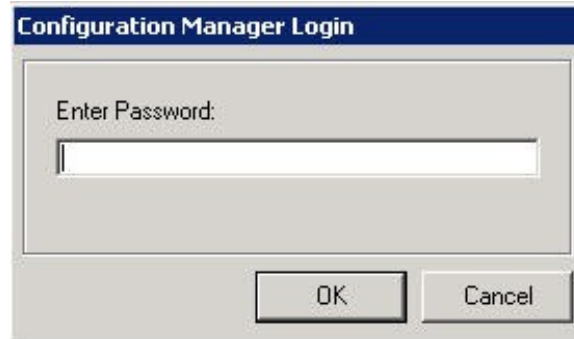
From the Verint Impact 360 server running the HUB component, double-click on the **System Tool** icon shown below, which is created as part of the installation.



The **System Tools** screen is displayed. Select the **Run** tab, followed by **Configuration Manager** to launch the application.

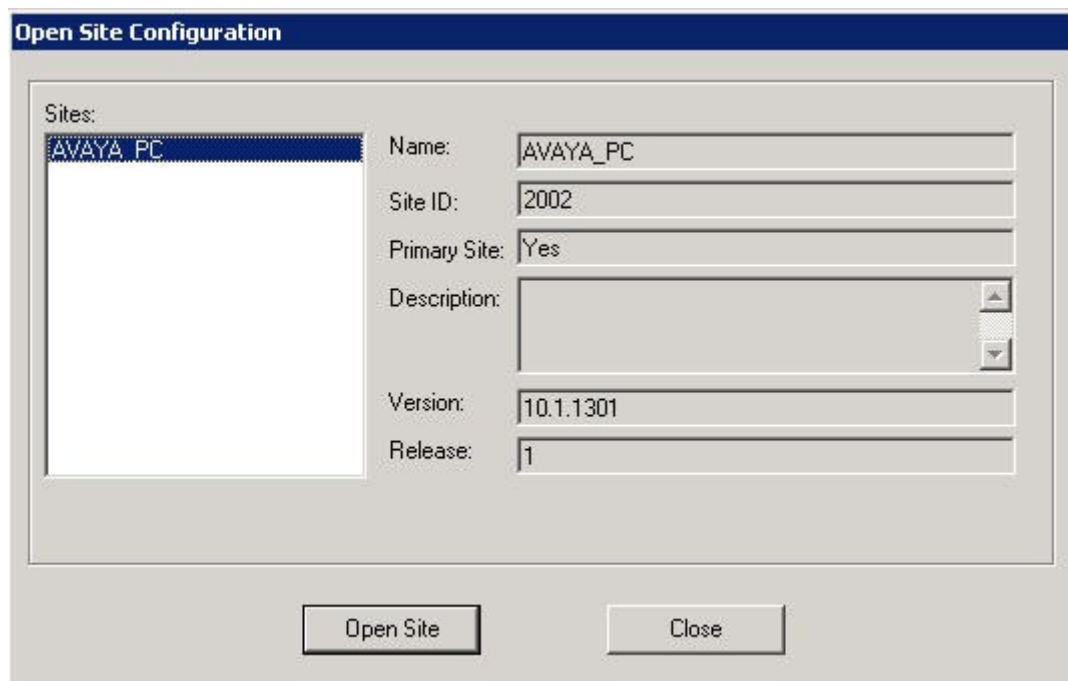


In the **Configuration Manager Login** screen, enter the appropriate credentials.



The image shows a dialog box titled "Configuration Manager Login". It has a light gray background and a blue title bar. Inside the dialog, there is a label "Enter Password:" followed by a single-line text input field. At the bottom right of the dialog, there are two buttons: "OK" and "Cancel".

The **Open Site Configuration** screen is displayed next. Select the appropriate site under **Sites** and click **Open Site**. Note that the applicable sites are created by the Verint technicians as part of the initial configuration.

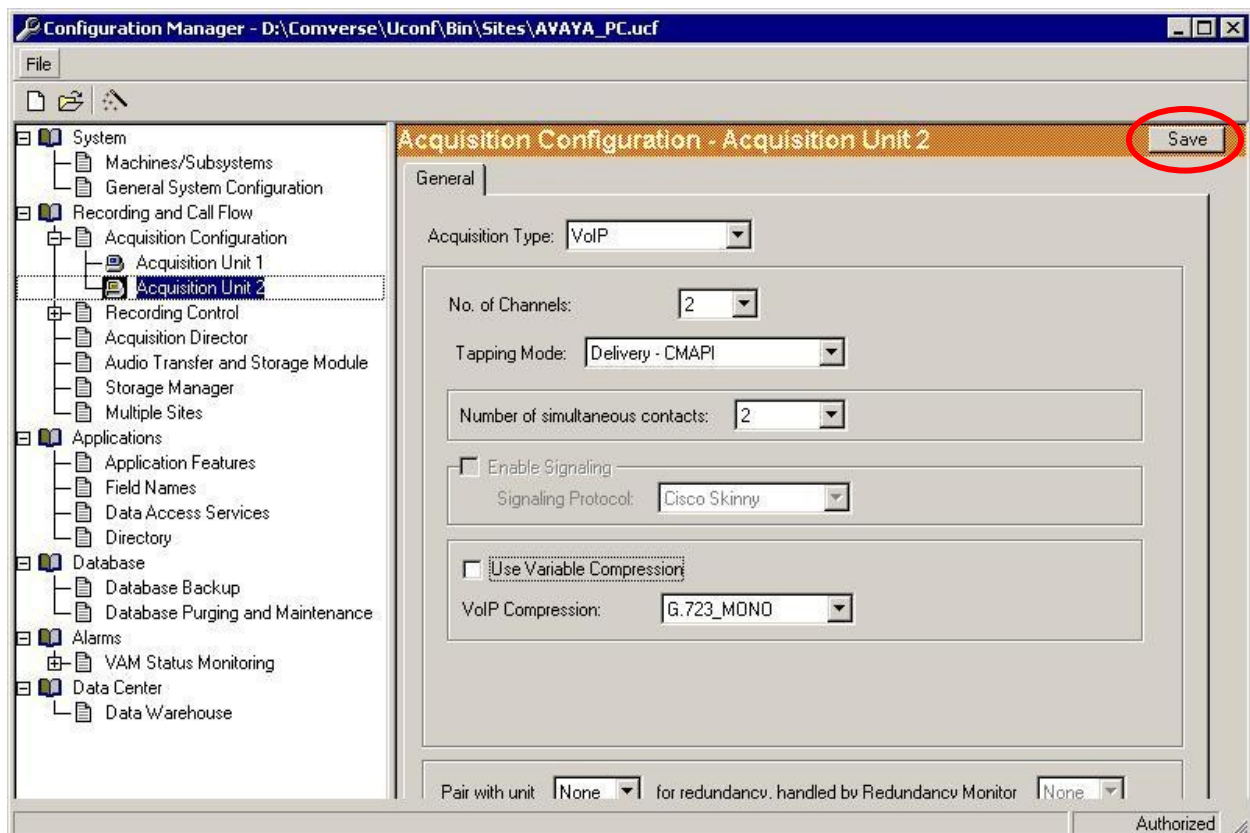


The image shows a dialog box titled "Open Site Configuration". It has a light gray background and a blue title bar. The dialog is divided into two main sections. On the left, there is a list box labeled "Sites:" containing one item, "AVAYA_PC", which is highlighted. On the right, there are several labeled text input fields: "Name:" with the value "AVAYA_PC", "Site ID:" with the value "2002", "Primary Site:" with the value "Yes", "Description:" with an empty field and scrollbars, "Version:" with the value "10.1.1301", and "Release:" with the value "1". At the bottom of the dialog, there are two buttons: "Open Site" and "Close".

6.2. Administer Acquisition Configuration

The **Configuration Manager** screen is displayed. Select **Recording and Call Flow > Acquisition Configuration > Acquisition Unit 2** from the left pane, to display the **Acquisition Configuration – Acquisition Unit 2** screen. Enter the following values for the specified fields, and retain the default values for the remaining fields. Click **Save**.

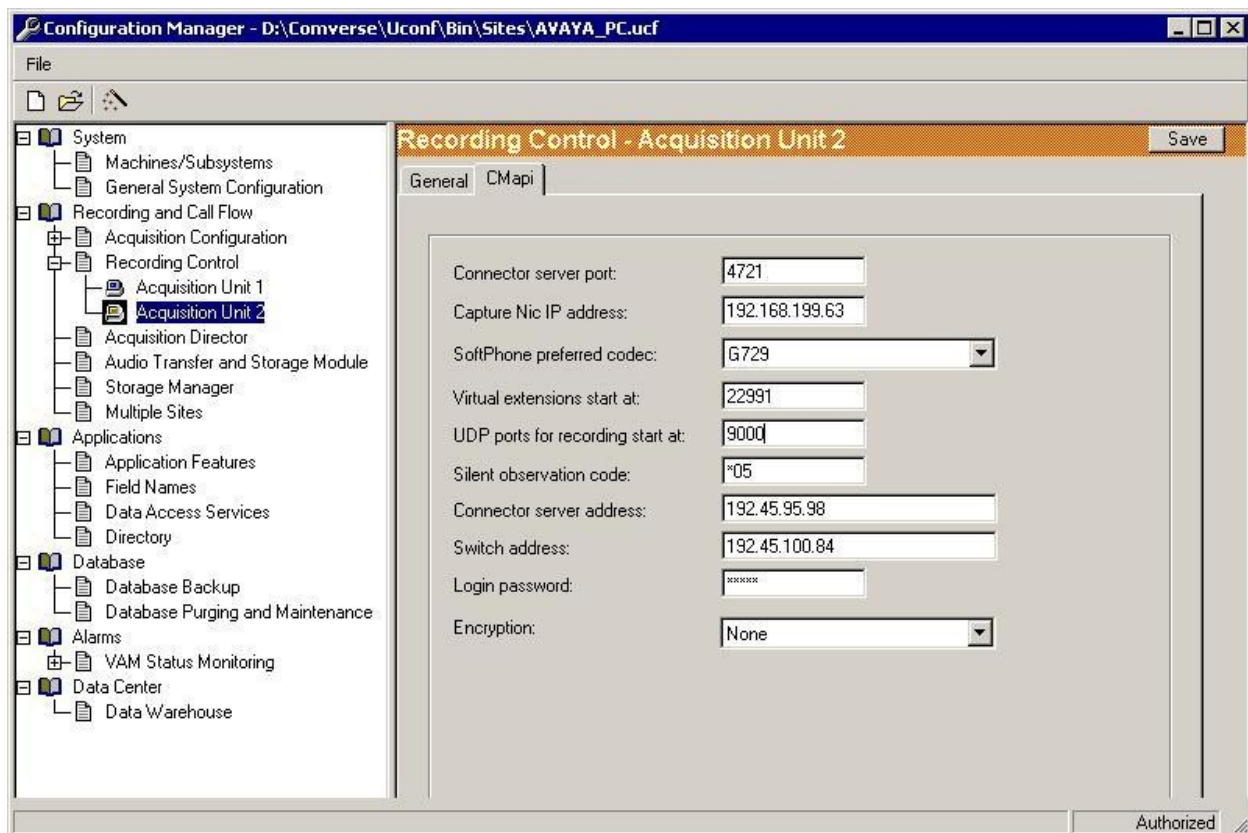
- **No. of Channels:** The number of virtual softphones from **Section 4.6**.
- **Tapping Mode:** “Delivery – CMAPI”
- **Number of simultaneous contacts:** The number of virtual softphones from **Section 4.6**.
- **VoIP Compression:** Select a desired VoIP compression.



6.3. Administer Recording Control

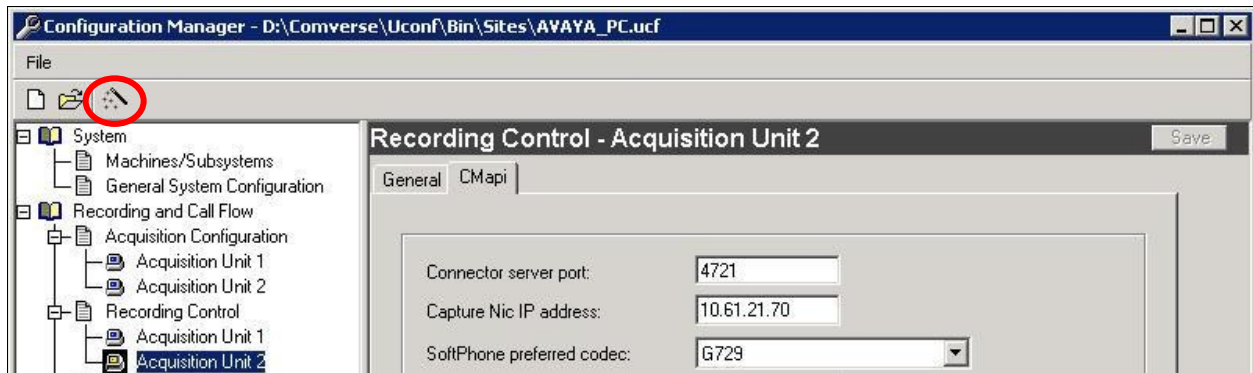
From the **Configuration Manager** screen, select **Recording and Call Flow > Recording Control > Acquisition Unit 2** from the left pane, to display the **Recording Control – Acquisition Unit 2** screen. Select the **CMapi** tab. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Virtual extensions start at:** The starting virtual softphone extension from **Section 4.6**.
- **Silent observation code:** The Service Observing Listen Only code from **Section 4.3**.
- **Connector server address:** The IP address of the Avaya AES server.
- **Switch address:** The IP address of the H.323 gatekeeper from **Section 5.2**.
- **Login password:** The password for the virtual softphones from **Section 4.6**.

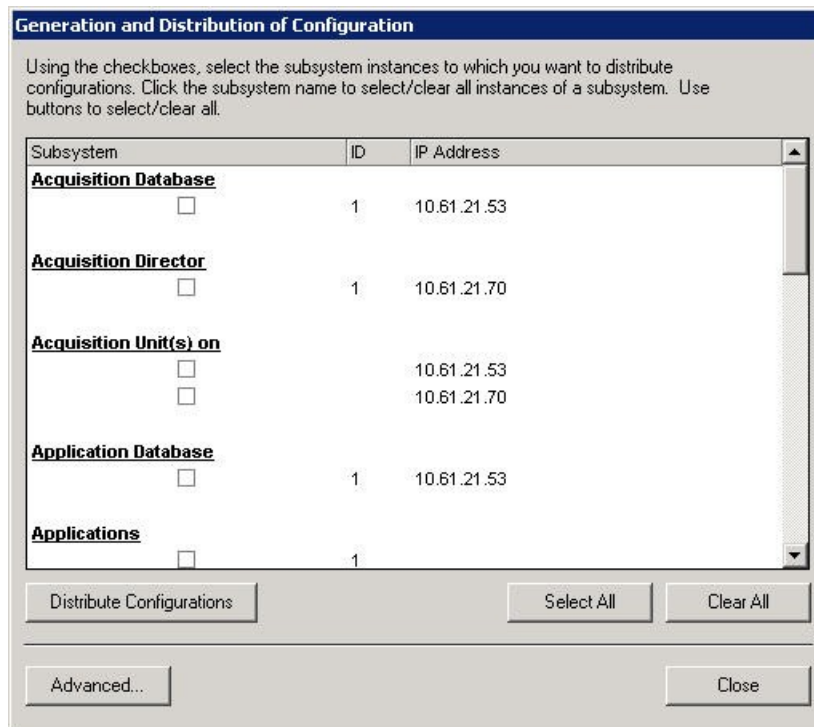


6.4. Generate and Distribute Configuration

Click on the **Generate and Distribute Configuration To Site** icon circled below.



The **Generation and Distribution of Configuration** screen is displayed. Click **Select All**, followed by **Distribute Configurations** to distribute the updated configuration to all components. Reboot all Verint Impact 360 servers.

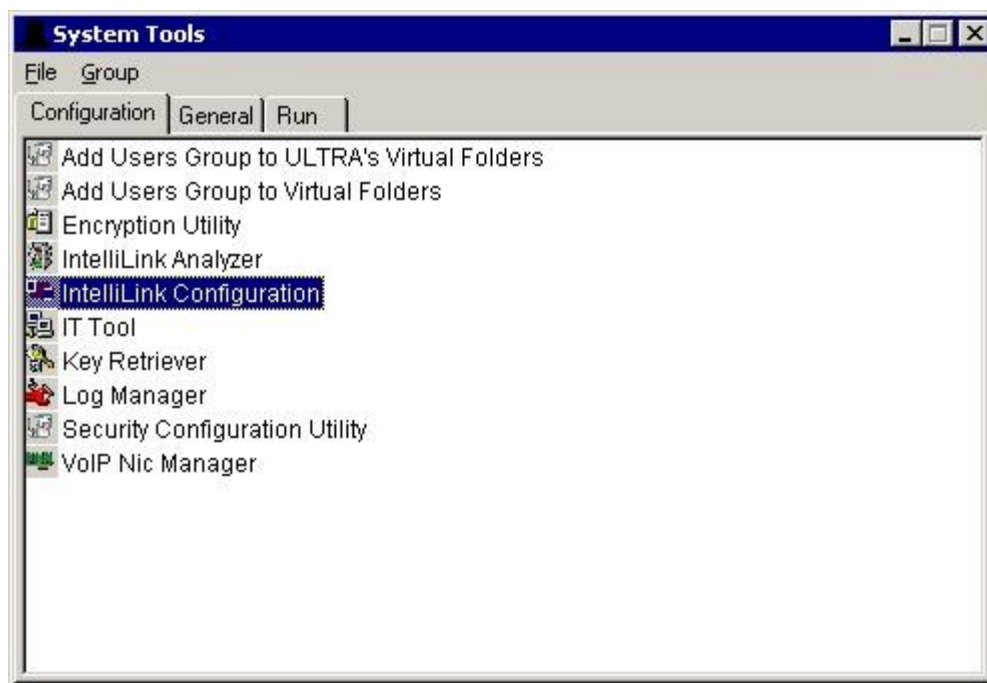


6.5. Launch IntelliLink Configuration

From the Verint Impact 360 server running the VoIP component, double-click on the **System Tool** icon shown below, which is created as part of the installation.

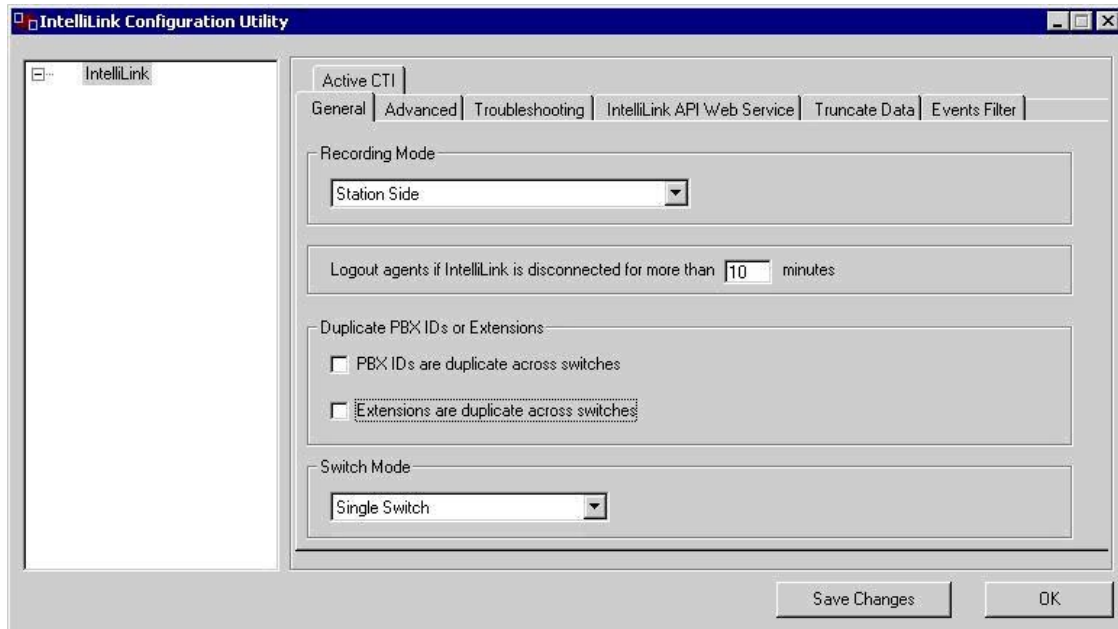


The **System Tools** screen is displayed. Select the **Configuration** tab, followed by **IntelliLink Configuration** to launch the application.



6.6. Administer Communication Manager Connection

The **IntelliLink Configuration Utility** screen is displayed. Right click on **IntelliLink** in the left pane, and select **New** to create a new switch connection.



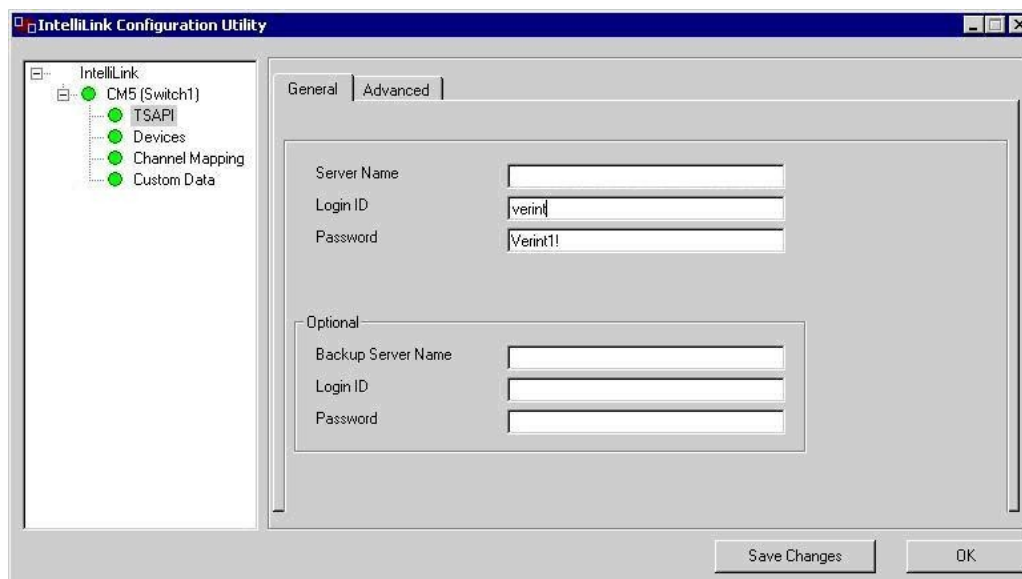
The **IntelliLink Configuration Wizard** screen is displayed (not shown). Select **Avaya Communication Manager**, and click **Next**.

In the subsequent screen (not shown), select **TSAPI** for protocol, and click **Next**. Note that the TSAPI selection includes the DMCC.

The screen below is displayed. Enter a desired name for **Switch Name**, and click **Next**.



The **IntelliLink Configuration Utility** screen is displayed again, and updated with the newly added switch connection shown in the left pane. Select **CM5 (Switch1) > TSAPI** from the left pane. Select the **General** tab in the right pane. For **Login ID** and **Password**, enter the Verint user credentials from **Section 5.3**. Click **Save Changes**.

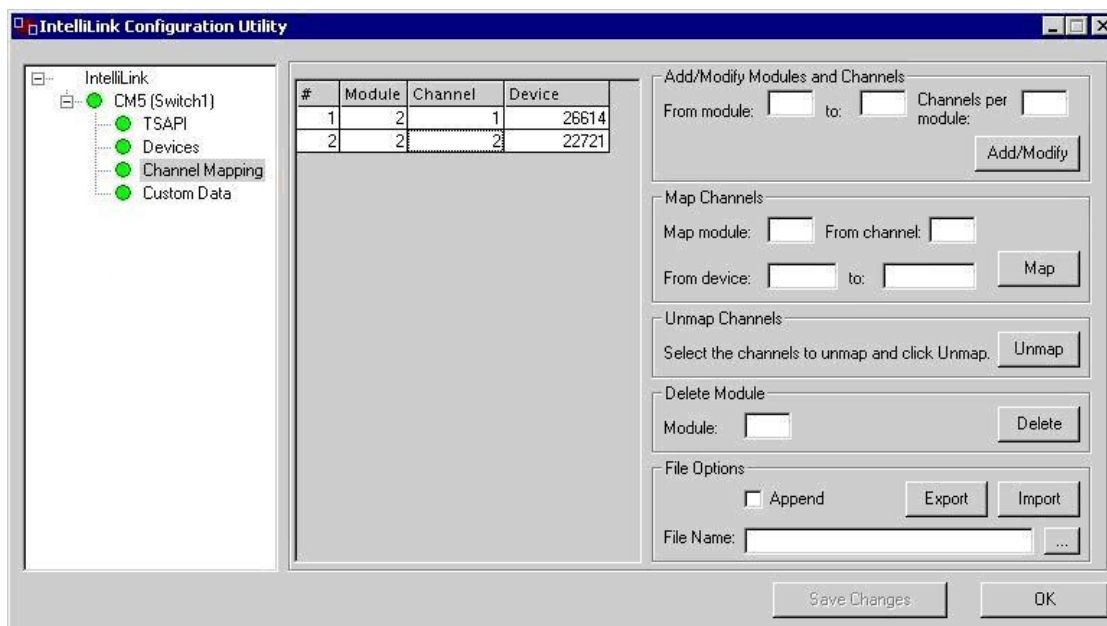


The screenshot shows the 'IntelliLink Configuration Utility' window with the 'General' tab selected. The left pane shows a tree view with 'IntelliLink' expanded, showing 'CM5 (Switch1)' selected, which has sub-items 'TSAPI', 'Devices', 'Channel Mapping', and 'Custom Data'. The right pane has two tabs: 'General' and 'Advanced'. The 'General' tab contains the following fields:

- Server Name: []
- Login ID: [verint]
- Password: [Verint1!]
- Optional section:
 - Backup Server Name: []
 - Login ID: []
 - Password: []

At the bottom right are 'Save Changes' and 'OK' buttons.

Select **CM5 (Switch1) > Channel Mapping** from the left pane. Use the **Add/Modify Modules and Channels** and the **Map Channels** sections to assign the physical agent stations from **Section 4.5** to relevant modules and channels. This will associate a virtual softphone with each physical agent station. In the compliance testing, two channels for module “2” were used, with module “2” denoting audio recording. The screen below is shown after entering the values and clicking **Save Changes**.



The screenshot shows the 'IntelliLink Configuration Utility' window with the 'Channel Mapping' tab selected. The left pane shows the same tree view as before, but 'Channel Mapping' is now selected. The right pane contains the following sections:

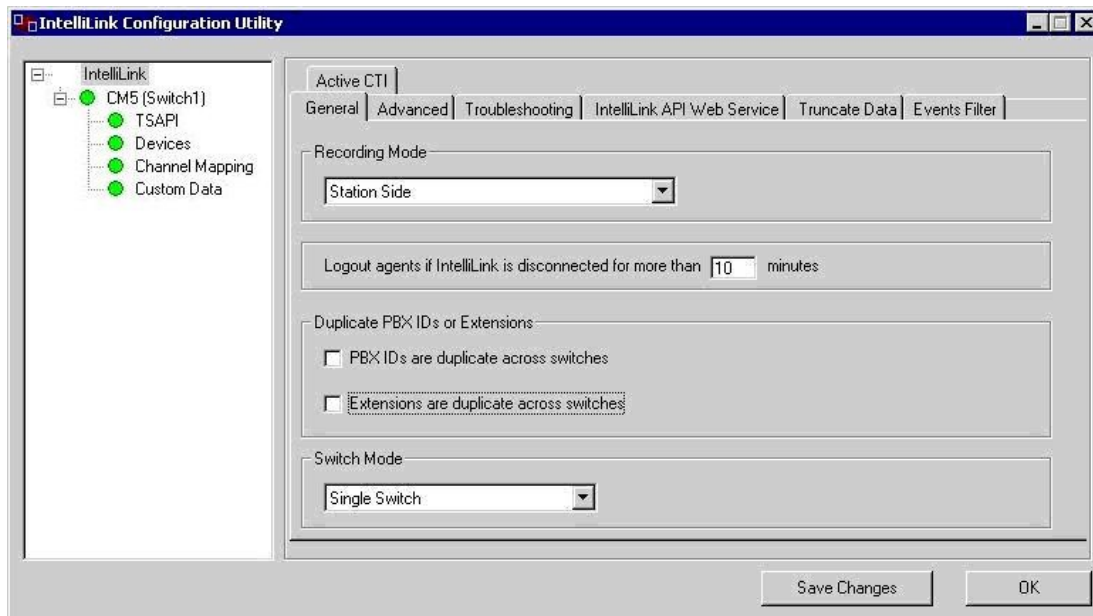
- Add/Modify Modules and Channels:**
 - From module: [] to: [] Channels per module: []
 - [Add/Modify] button
- Map Channels:**
 - Map module: [] From channel: []
 - From device: [] to: [] [Map] button
- Unmap Channels:**
 - Select the channels to unmap and click Unmap. [Unmap] button
- Delete Module:**
 - Module: [] [Delete] button
- File Options:**
 - ☐ Append [Export] [Import] buttons
 - File Name: [] [] button

At the bottom right are 'Save Changes' and 'OK' buttons.

#	Module	Channel	Device
1	2	1	26614
2	2	2	22721

6.7. Administer Proactive Contact Connection

From the **IntelliLink Configuration Utility** screen, right-click on **IntelliLink** in the left pane, and select **New** to create a new switch connection.



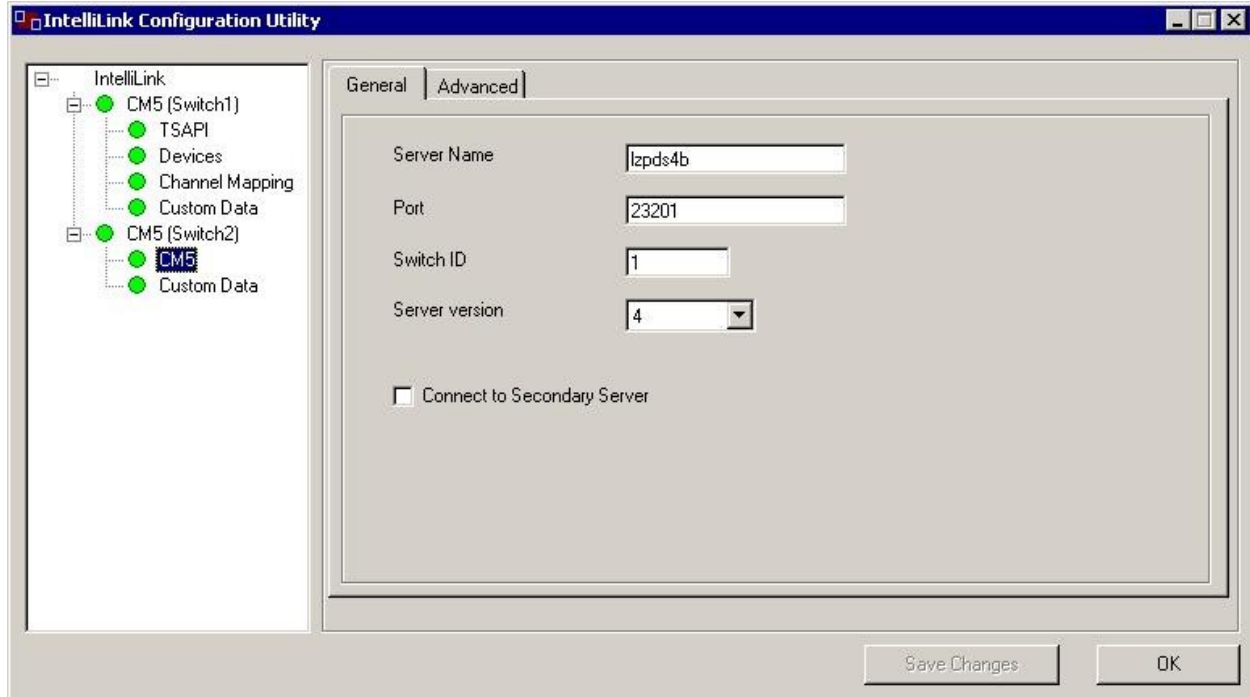
The **IntelliLink Configuration Wizard** screen is displayed (not shown). Select **Avaya PDS**, and click **Next**.

The screen below is displayed. For **Switch Name**, select the same switch name from **Section 6.6**, and click **Next**.



The **IntelliLink Configuration Utility** screen is displayed again, and updated with the newly added switch connection shown in the left pane. Select **CM5 (Switch2) > CM5** from the left pane. Select the **General** tab in the right pane. Enter the following values for the specified fields, and retain the default values for the remaining fields. Click **Save Changes**.

- **Server Name:** The host name of the Avaya Proactive Contact server.
- **Switch ID:** The switch number for the Communication Manager connection.
- **Server version:** “4”



7. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the Verint Impact 360 application, the application automatically registers the virtual IP softphones to Avaya Communication Manager using Avaya AES DMCC, obtains the current status on Avaya Proactive Contact using Event Services, and initiates Service Observing to add a virtual IP softphone to each logged in agent using Avaya AES DMCC.

For the manual part of the testing, each outbound call was handled manually on the agent with generation of unique audio content for the recordings. Necessary agent actions such as hold and reconnect were performed from the agent desktop to test the different call scenarios.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet cables to the Verint Impact 360 servers.

The verification of tests included using the Verint Impact 360 logs for proper message exchanges, and using the Verint Impact 360 web interface for proper logging and playback of the calls.

All test cases were executed and passed.

8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Communication Manager, Avaya AES, and Verint Impact 360.

Follow the procedures in **Section 6.5** to launch **System Tools** from the Verint Impact 360 server running the VoIP component, and select **IntelliLink Analyzer**.

The **IntelliLink Analyzer** screen is displayed. Verify that the **Running** and **Connected to CTI** status are “Yes”, as shown below. Also verify that the **Switch Specific Connection Status** section shows both switch connections to be “Connect”.

The screenshot shows the IntelliLink Analyzer application window. The title bar reads "IntelliLink Analyzer". The window is divided into several sections:

- IntelliLink Status:**
 - Running: Yes
 - Connected to CTI: Yes
 - Switch Specific Connection Status:
 - Switch 1 - Connect (PID 4200)
 - Switch 2 - Connect (PID 4412)
 - Segments per Hour: 0
 - Total Failed Devices: 0
 - Failed Devices:
- Queries:**
 - Find: Agent and Trunk
 - By: Extension
 - Extension: (empty text box)
 - Execute Query button
 - Quit button
- Query Results:**
 - Query: (empty text box)
 - Large empty area for results with a vertical scrollbar.
- IntelliLink Events:**
 - Hide Events (selected), Show Brief Events, Show Detailed Events, Expand Event Pane, Clear button.
 - Event log showing:
 - InfolinkClient::Init() returned FALSE, client's keep alive thread will take care of recovery...
 - 00:37:49 Connection Callback - Connection: OK
 - 00:37:51 Switch 1 - Connect (PID 4200)
 - 00:37:51 Switch 2 - Connect (PID 4412)

Launch an outbound job on Avaya Proactive Contact, and log an agent in to handle an outbound call. Launch the Verint Impact 360 web interface with the hostname or IP address of the Verint Impact 360 server running the VoIP component, and log in with the appropriate credentials.

The **Contacts** screen displays a list of the call recordings. Verify that the first entry reflects the last call, with proper values in the **Start Time**, **Duration**, **Dial To (DNIS)**, and **Extension** fields. Double click on the entry to view the details.

IMPACT 360

Contacts

Home | Search

Preferences | Help

Contacts: 1 - 50

Sorted By: Start Time

Next >

Save Search

Contacts

Start Time▼	Play	Duration	Agent			Dialed From (ANI)	Dialed To (DNIS)	Extension	Data
2/23/2009 5:25:48.2 PM		00:01:22					912025216781	22721	
2/23/2009 5:25:33.6 PM		00:00:20					912025216781	22721	
2/23/2009 5:20:42.3 PM		00:17:04						26614	
2/23/2009 5:18:05.4 PM		00:02:26					912025216783	26614	
2/23/2009 5:16:25.5 PM		00:09:08					912025216784	22721	
2/23/2009 5:14:59.8 PM		00:01:19					912025216785	22721	
2/23/2009 5:04:24.1 PM		00:13:46					912025216783	26614	
2/23/2009 5:04:23.5 PM		00:10:41					912025216785	22721	
2/11/2009 1:25:48.6 AM		00:00:31					912025216786	22721	
2/11/2009 1:23:12.5 AM		00:01:06					912025216782	22721	

Click the play icon highlighted below to verify the proper playback of the call recording.

IMPACT 360

Contacts

Home | Search | Back to list

Preferences | Help

Customer Xperience Flags

Send

Download

Contact (5:25:48 PM)

Segment 1

Segment 1/1 - (Start 5:25:48 PM)

PBX ID: agent1

Stopped 00:00 / 01:22

Segment Information

Acquisition Module	2
Channel	2
Start Time	2/23/2009 5:25:48 PM
End Time	2/23/2009 5:27:10 PM
Local Start Time	2/23/2009 5:25:48 PM
Local End Time	
Screen Acquisition Module	0
Dialed From (ANI)	
Dialed To (DNIS)	912025216781
Extension	22721
PBX ID	agent1
Switch	CMS
Switch Call ID	0020010541000000

Contact Information

Contact Analysis Exception	False
Contact ID	9103626435322002012
Contact duration	00:01:17
Number of Holds	0
Number of Transfers	0
Number of Conferences	0
Total Hold Time	00:00:00
Start Time	2/23/2009 5:25:48 PM

9. Conclusion

These Application Notes describe the configuration steps required for Verint Impact 360 to successfully interoperate with Avaya Proactive Contact and Avaya Communication Manager using Service Observing. All feature and serviceability test cases were completed.

10. Additional References

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

1. *Administrator Guide for Avaya Communication Manager*, Document 03-300509, Issue 4.0, Release 5.0, January 2008, available at <http://support.avaya.com>.
2. *Avaya MultiVantage Application Enablement Services Administration and Maintenance Guide*, Release 4.2, Document ID 02-300357, Issue 10, May 2008, available at <http://support.avaya.com>.
3. *Avaya Proactive Contact Release 4.0 Administering Avaya Proactive Contact*, January 2008, available at <http://support.avaya.com>.
4. Verint Impact 360 documentation is available upon request to Verint technical support.

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