



Avaya Solution & Interoperability Test Lab

Application Notes for Voistore Live with Avaya Interaction Center – Issue 1.0

Abstract

Voistore Live is an Enterprise-level voice recording solution for corporate applications and contact centers, providing continuous, high-quality digital recording and network archiving of telephone conversations. Voistore Live performs recording of Voice over IP (VoIP) calls and integrates with Avaya Interaction Center for call control.

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

The objective of this interoperability compliance testing is to verify that Voistore Live can interoperate with Avaya Interaction Center (IC). The current version of Voistore Live is designed to record IP calls only. Voistore Live performs recording of VoIP calls by collecting the voice packets bound for the agents' IP telephones or softphones. The Ethernet switch ports connected to the IP telephones or softphones are mirrored to a Switched Port Analyzer (SPAN) port, which is connected to one of the network cards on the Voistore Live server. As such, this solution requires the use of an Ethernet switch that supports multi-port mirroring. Voistore Live utilizes Avaya IC to provide the details such as Automatic Number Identification (ANI) information and agent IDs that are associated with the recorded calls. Note that in this solution, the application of call recording tones (in countries where this is required by law) is the responsibility of Voistore.

Figure 1 illustrates the test configuration used to verify the Voistore Live solution.

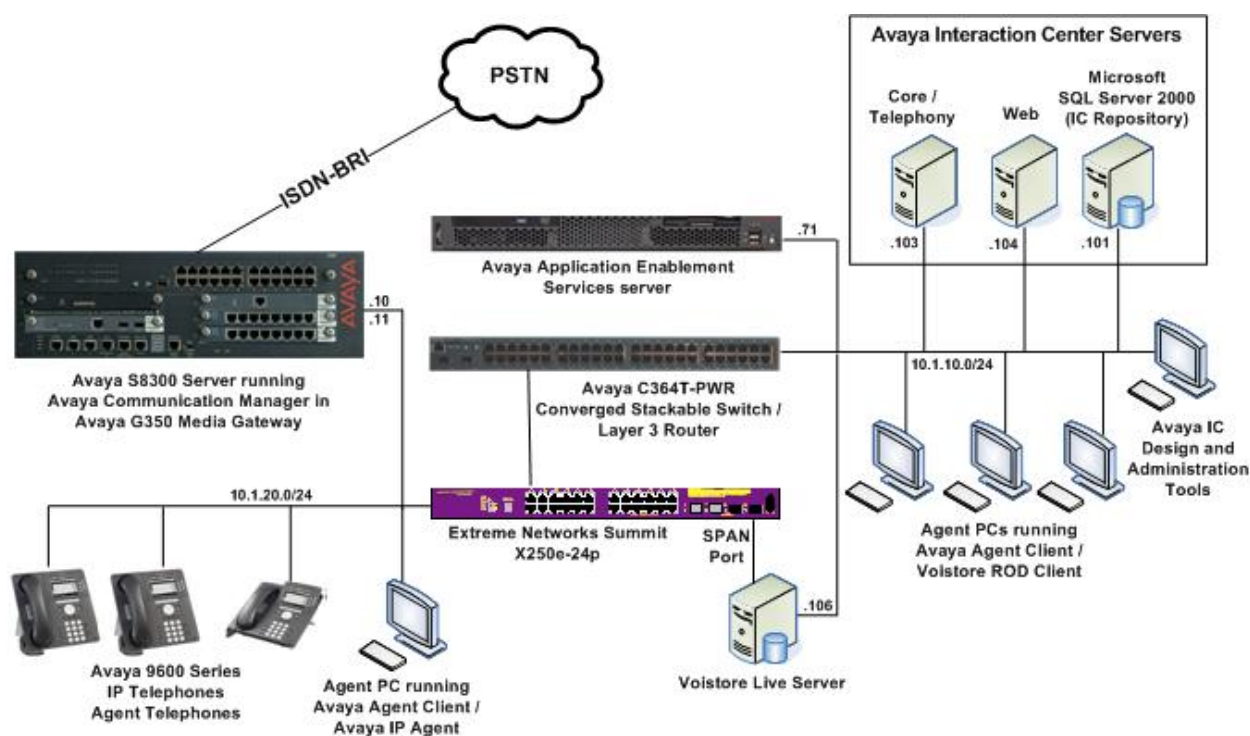


Figure 1: Test Configuration

The configuration utilized three servers to host Avaya IC components. The Agent PCs are running Avaya IC client applications. The Voistore Record-on-Demand (ROD) client application is also installed on the agent PC when on demand recording is required.

Avaya IC has a CallVisor LAN (CVLAN) Computer Telephony Integration (CTI) link to Avaya Application Enablement Services (AES) to enable call event reporting and third party call control of contact center devices on Avaya Communication Manager.

Voistore Live is installed on a server running Microsoft Windows Server 2003 with Service Pack 2. An Extreme Networks Summit X250e-24p Ethernet Switch provides connectivity to all the voice devices with all the ports mirrored to a Gigabit port, which functions as the SPAN port. An Avaya C364T-PWR Converged Stackable Switch provides connectivity to the servers and routing between the voice and data subnets.

2. Equipment and Software Validated

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

Equipment/Software	Version
Avaya S8300B Server	Avaya Communication Manager 4.0.1 (R014x.00.1.731.2)
Avaya G350 Media Gateway	26.33.0
Avaya Application Enablement Services	4.0.1 (r4-0-1-bld-51-0)
Avaya Interaction Center Servers on Dell PowerEdge 850	7.1.3 Microsoft Windows Server 2003, SP2
Avaya IC Agent clients with Voistore ROD clients on Dell PCs	7.1.3 3.2.7 Microsoft Windows XP Professional, SP2
Microsoft SQL Server	Microsoft SQL Server 2000, SP4
Avaya 9600 Series IP Telephones	1.5 (H.323)
Avaya IP Agent	7.0.22.110
Avaya C364T-PWR Converged Stackable Switch	4.5.18
Extreme Networks Summit X250e-24p	12.0.1.8
Voistore Live on Dell PowerEdge 850	3.2.7 Microsoft Windows Server 2003, SP2

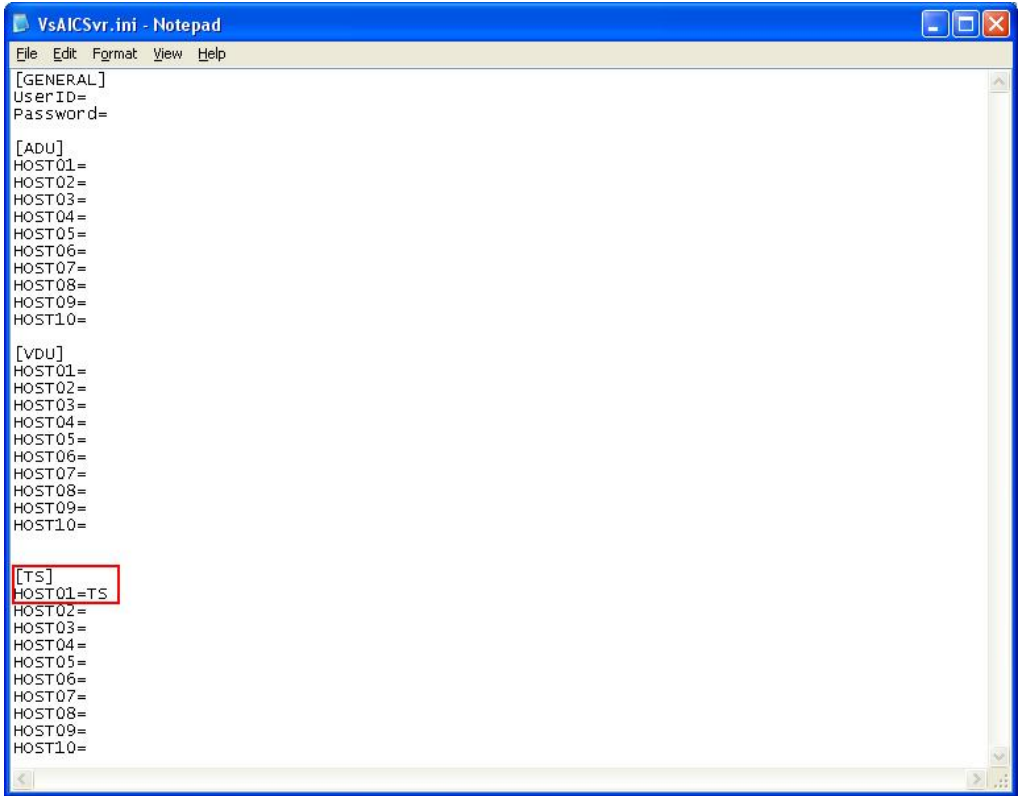
Table 1: Equipment/Software Validated

3. Configure Avaya Interaction Center

This document assumes that all Avaya products have been installed and configured as depicted in **Figure 1**. The installation and configuration administration of the CTI connectivity between Avaya IC, Avaya AES, and Avaya Communication Manager is not the focus of these Application Notes and will not be described. For administration of the CTI connectivity, refer to the appropriate documentation listed in **Section 9**.

It is assumed that the Avaya IC core server components have been installed with a secondary ORB server created as part of the installation. This section provides the procedures for adding the Voistore Live server into the Avaya IC environment.

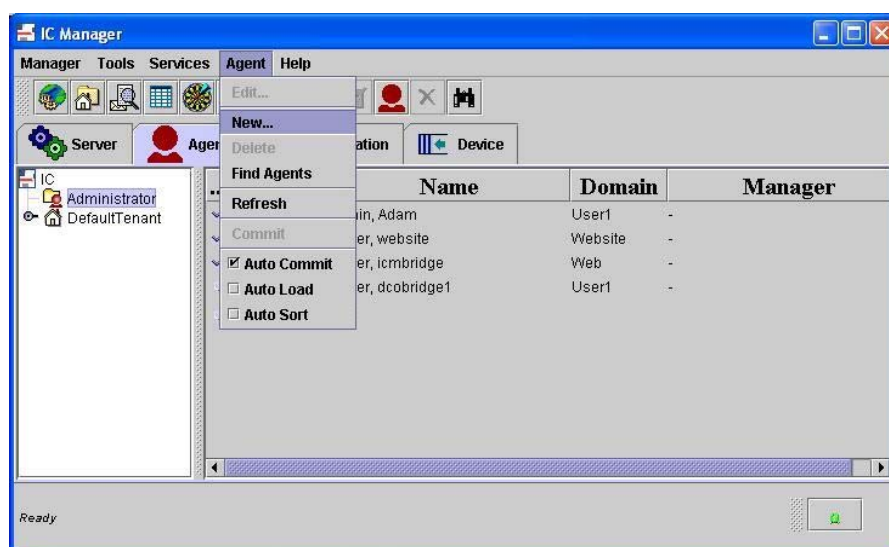
3.1. Install the Voistore Live VSREC Server

Step	Description
1.	From the Voistore Live server, copy the files VsAICSvr.exe and VsAICSvr.ini from the Voistore Live Installation CD-ROM to the \bin folder under the Avaya IC installation directory (e.g. C:\Program Files\Avaya\IC71\bin).
2.	Using Notepad, edit the file VsAICSvr.ini . In the [TS] section, verify that HOST01 has the value of TS . The remaining fields are not in use.  A screenshot of a Notepad window titled 'VsAICSvr.ini - Notepad'. The window shows the contents of the VsAICSvr.ini file. The file is organized into sections: [GENERAL], [ADU], [VDU], and [TS]. The [GENERAL] section contains 'UserID=' and 'Password='. The [ADU] and [VDU] sections each contain ten lines of 'HOST01=' through 'HOST10=' followed by an equals sign. The [TS] section contains 'HOST01=TS', which is highlighted with a red rectangular box. The remaining lines in the [TS] section are 'HOST02=' through 'HOST10=' followed by an equals sign. The Notepad window has a standard menu bar with 'File', 'Edit', 'Format', 'View', and 'Help'.

3.2. Launch IC Manager

Step	Description
1.	From the PC where the Avaya IC Design and Administration Tools have been installed, select Start > All Programs > Avaya Interaction Center 7.1 > IC Manager to launch the IC Manager.
2.	The IC Manager Login dialog box is displayed as shown below. Enter the appropriate credentials and click Ok . The IC Manager window is displayed on successful login. <div data-bbox="511 533 1182 909" data-label="Image"> <p>The image shows a Windows-style dialog box titled "IC Manager Login". It has a blue title bar with standard minimize, maximize, and close buttons. The main area is light gray and contains the text "Enter login id and password." above two input fields labeled "Login Id:" and "Password:". To the left of the input fields is a small square icon with the word "AVAYA" in red. At the bottom of the dialog are two buttons: "Ok" with a green checkmark icon and "Cancel" with a red X icon.</p> </div>

3.3. Administer IC Account for Voistore Live Server

Step	Description															
1.	<p>From the IC Manager window, click the Agent tab. The IC Manager screen is updated with agent account information. In the left pane, navigate to the directory where a placeholder agent account will be created. For the compliance testing, the agent account was created under IC > Administrator, as shown below. Select Agent > New from the menu to create an agent account.</p> <div data-bbox="404 1281 1287 1824"><table data-bbox="600 1442 1278 1591"><thead><tr><th>Name</th><th>Domain</th><th>Manager</th></tr></thead><tbody><tr><td>in, Adam</td><td>User1</td><td>-</td></tr><tr><td>er, website</td><td>Website</td><td>-</td></tr><tr><td>er, icmbridge</td><td>Web</td><td>-</td></tr><tr><td>er, dcobridge1</td><td>User1</td><td>-</td></tr></tbody></table></div>	Name	Domain	Manager	in, Adam	User1	-	er, website	Website	-	er, icmbridge	Web	-	er, dcobridge1	User1	-
Name	Domain	Manager														
in, Adam	User1	-														
er, website	Website	-														
er, icmbridge	Web	-														
er, dcobridge1	User1	-														

Step	Description
2.	<p>The Agent Editor screen is displayed. Select the General tab. Enter the following values for the specified fields, and retain the default values for the remaining fields.</p> <ul style="list-style-type: none"> • First Name: A descriptive first name, in this case “Voistore”. • Last Name: A descriptive last name, in this case “Admin”. • Preferred Name: A descriptive preferred name, in this case “Voistore”. • Login Id: A descriptive login id, in this case “voistore”. • Domain: Select the User1 domain. • Task Load: Use the down arrow to decrease the load to “0”. • Task Ceiling: Use the down arrow to decrease the ceiling to “0”.

Agent Editor

General Channels Security Properties Skills Advocate Miscellaneous

Title First Name * Middle Name Last Name *

Voistore Admin

Preferred Name : * Voistore Manager : ...

Employee Id : Is Manager : ☐

Agent Email Phone Address Notes History

System Information

Login Id : * voistore

Options : ...

Task Load : * 0

Task Ceiling : * 0

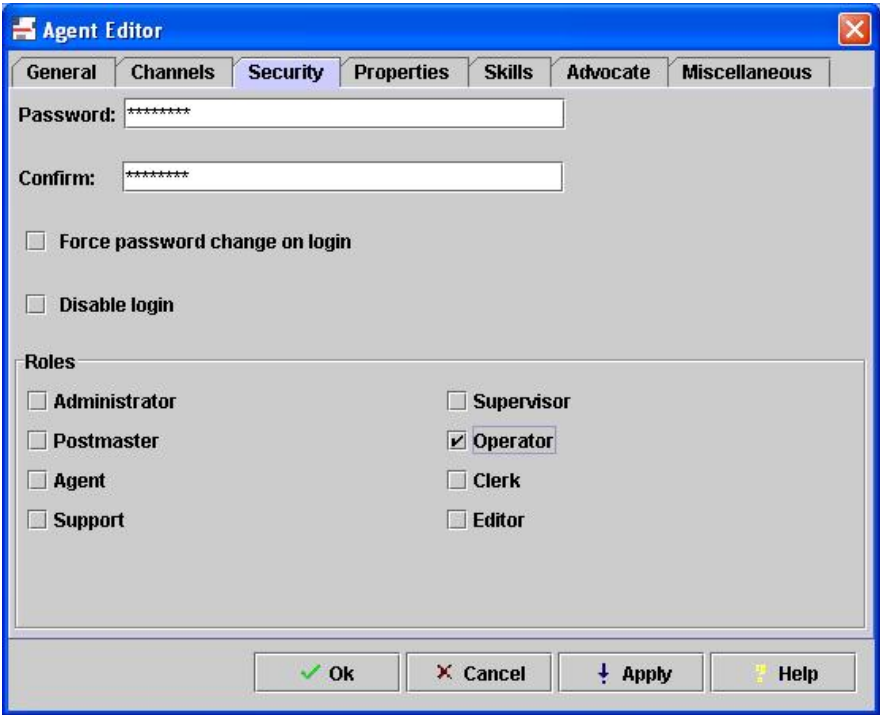
Membership Information

Domain : * User1

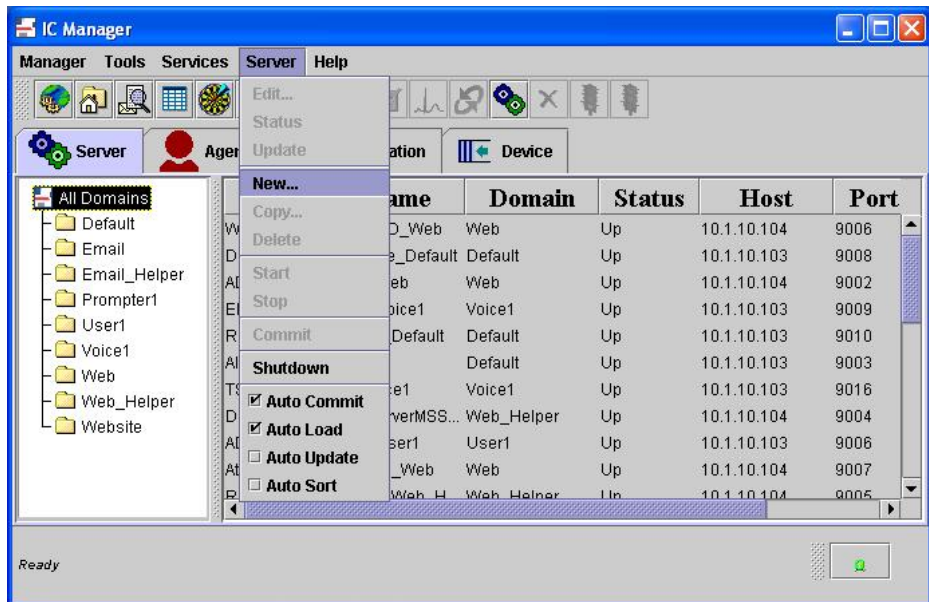
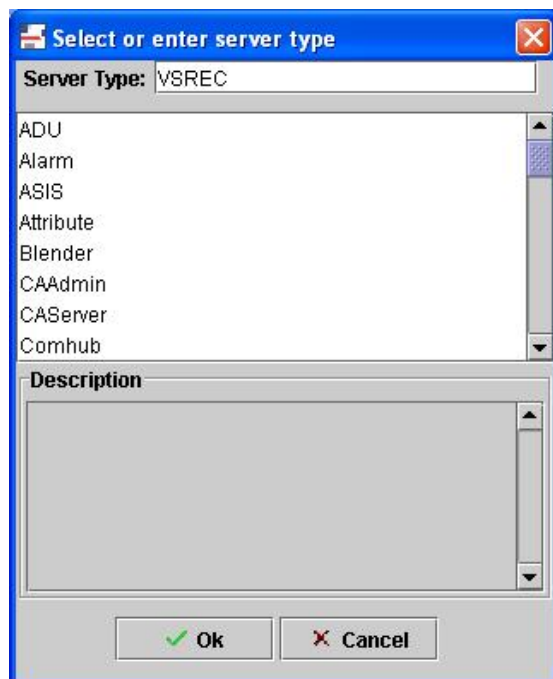
Workgroup : * ...


Site : * DefaultSite

Ok Cancel Apply Help

Step	Description
3.	<p>Select the Security tab. Enter the desired password into the Password and Confirm fields. Uncheck the Force password change on login field, and check the Operator field. Click Ok.</p>  <p>The screenshot shows the 'Agent Editor' window with the 'Security' tab selected. The 'Password' and 'Confirm' fields are both filled with '*****'. The 'Force password change on login' checkbox is unchecked, and the 'Disable login' checkbox is also unchecked. In the 'Roles' section, the 'Operator' checkbox is checked, while 'Administrator', 'Postmaster', 'Agent', 'Support', 'Supervisor', 'Clerk', and 'Editor' are all unchecked. At the bottom, there are buttons for 'Ok', 'Cancel', 'Apply', and 'Help'.</p>

3.4. Create the Voistore Live VSREC IC Server

Step	Description																																																												
1.	<p>From the IC Manager window, click the Server tab. Select Server > New from the main menu, as shown below.</p>  <p>The screenshot shows the IC Manager application window. The 'Server' tab is selected in the top menu bar. The 'New...' option is highlighted in the 'Server' menu. The main pane displays a list of servers with columns: Name, Domain, Status, Host, and Port.</p> <table><thead><tr><th>Name</th><th>Domain</th><th>Status</th><th>Host</th><th>Port</th></tr></thead><tbody><tr><td>D_Web</td><td>Web</td><td>Up</td><td>10.1.10.104</td><td>9006</td></tr><tr><td>a_Default</td><td>Default</td><td>Up</td><td>10.1.10.103</td><td>9008</td></tr><tr><td>eb</td><td>Web</td><td>Up</td><td>10.1.10.104</td><td>9002</td></tr><tr><td>oice1</td><td>Voice1</td><td>Up</td><td>10.1.10.103</td><td>9009</td></tr><tr><td></td><td>Default</td><td>Up</td><td>10.1.10.103</td><td>9010</td></tr><tr><td></td><td>Default</td><td>Up</td><td>10.1.10.103</td><td>9003</td></tr><tr><td>e1</td><td>Voice1</td><td>Up</td><td>10.1.10.103</td><td>9016</td></tr><tr><td>verMSS...</td><td>Web_Helper</td><td>Up</td><td>10.1.10.104</td><td>9004</td></tr><tr><td>ser1</td><td>User1</td><td>Up</td><td>10.1.10.103</td><td>9006</td></tr><tr><td>_Web</td><td>Web</td><td>Up</td><td>10.1.10.104</td><td>9007</td></tr><tr><td>Web_H</td><td>Web_Helper</td><td>Up</td><td>10.1.10.104</td><td>9005</td></tr></tbody></table>	Name	Domain	Status	Host	Port	D_Web	Web	Up	10.1.10.104	9006	a_Default	Default	Up	10.1.10.103	9008	eb	Web	Up	10.1.10.104	9002	oice1	Voice1	Up	10.1.10.103	9009		Default	Up	10.1.10.103	9010		Default	Up	10.1.10.103	9003	e1	Voice1	Up	10.1.10.103	9016	verMSS...	Web_Helper	Up	10.1.10.104	9004	ser1	User1	Up	10.1.10.103	9006	_Web	Web	Up	10.1.10.104	9007	Web_H	Web_Helper	Up	10.1.10.104	9005
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2.	<p>The Select or enter server type dialog box is displayed. Enter VSREC for the Server Type field and click Ok.</p>  <p>The screenshot shows the 'Select or enter server type' dialog box. The 'Server Type' field contains 'VSREC'. A list of server types is visible below the field, including ADU, Alarm, ASIS, Attribute, Blender, CAAdmin, CAServer, and Comhub. The 'Description' field is empty.</p>																																																												


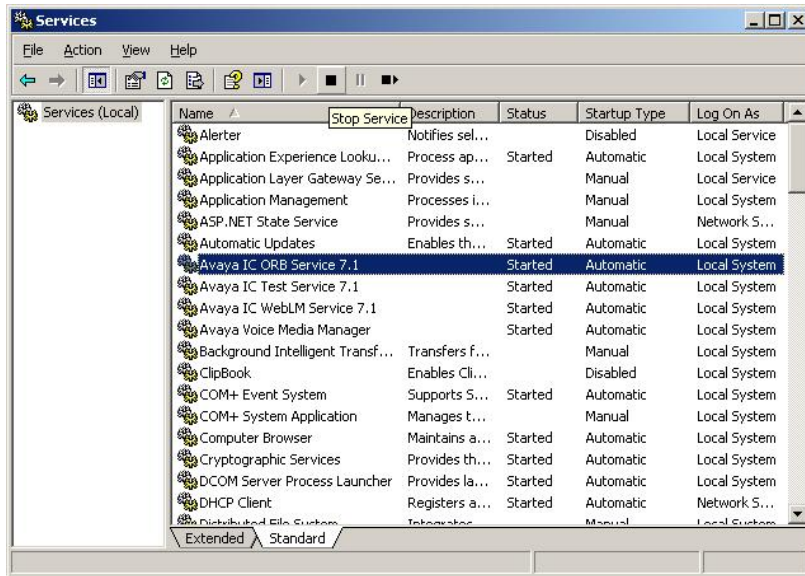
Step	Description
3.	<p>The Server Editor screen is displayed next. Select the General tab. For the Name field, enter a descriptive name. Select Voice1 from the Domain field drop down list. Select the IP address of the Voistore Live server (in this configuration, 10.1.10.106) from the Host field drop down list. Enter the full path to the VsAICSvr.exe file on the Voistore Live server for the Executable field. Leave all other fields with their default values and click Ok.</p> 

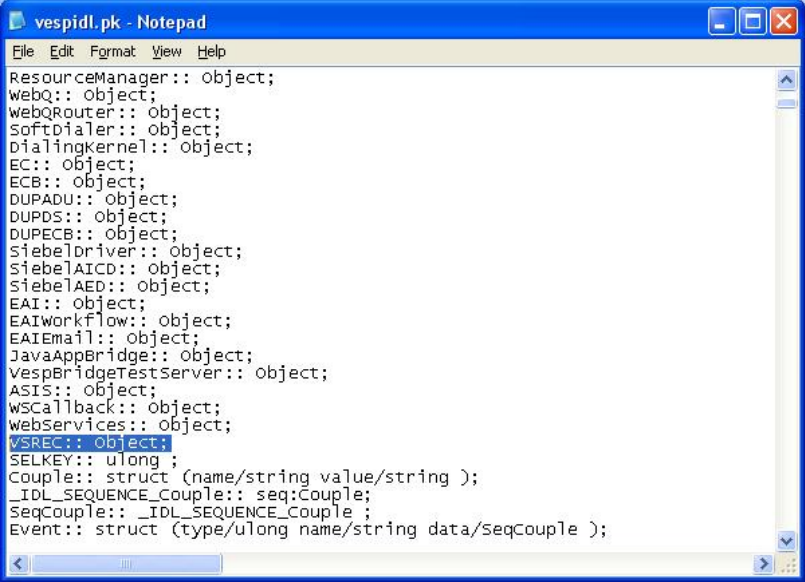
4. Configure Voistore Live

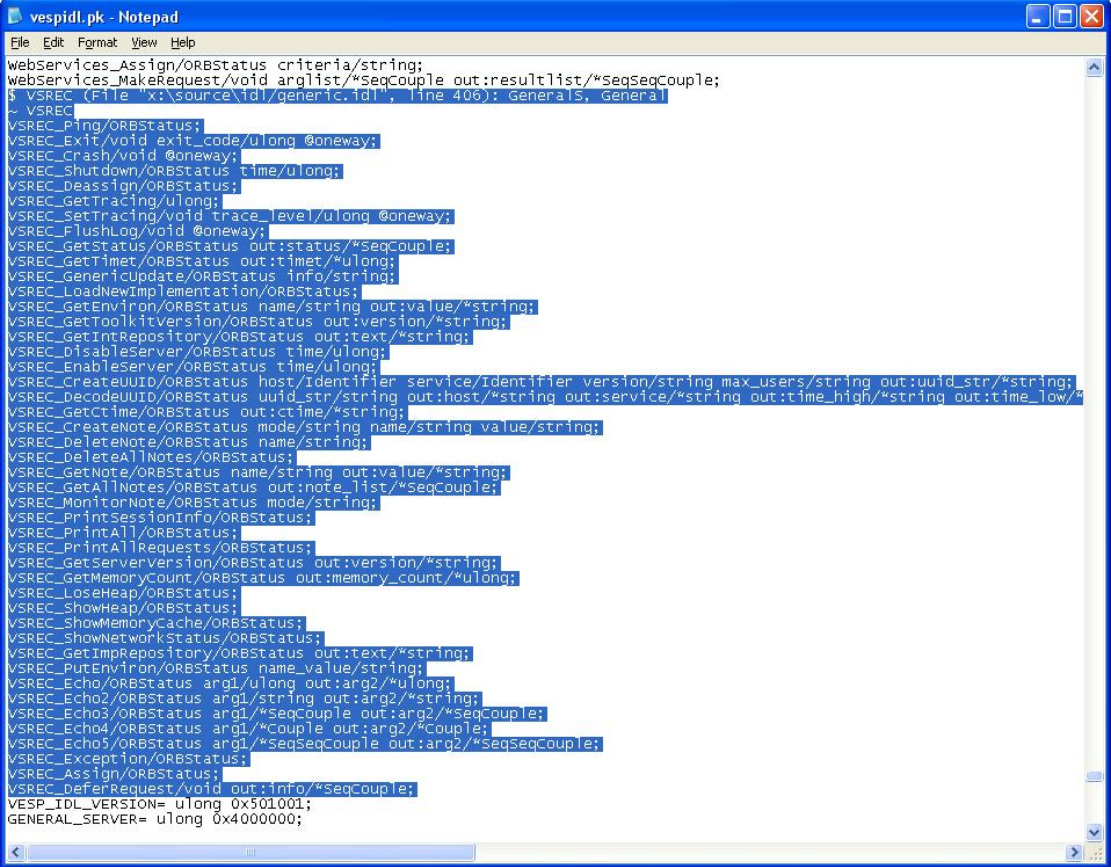
This section provides the procedures for configuring the Voistore Live server, which includes the following steps:

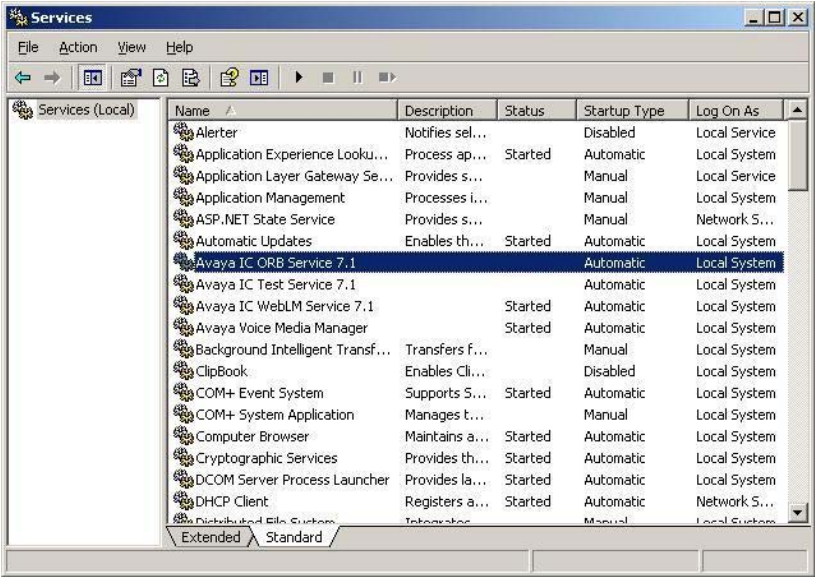
- Administer Voistore Live VSREC Server
- Administer VsCTIInterfacer
- Administer IP Telephone MAC Address
- Administer Phone Extensions

4.1. Administer Voistore Live VSREC Server

Step	Description
1.	<p>Logout all Avaya IC Agent clients. Select Server > Shutdown. Select the first system in the list and click Ok. Repeat again for the rest of the IC Server systems.</p> 
2.	<p>From the primary IC Server system, start Services from Start > All Programs > Administrative Tools. Stop the Avaya IC ORB Service 7.1 service. Repeat for all IC Server systems.</p> 

Step	Description
3.	<p>From the primary IC server system, use Notepad to edit the file vespidl.pk located in the C:\Program Files\Avaya\IC71\etc\ folder. Add the following lines to the end of the Object definition section of the file to add a new VSREC IC Server type:</p> <p style="text-align: center;">VSREC:: Object;</p> 

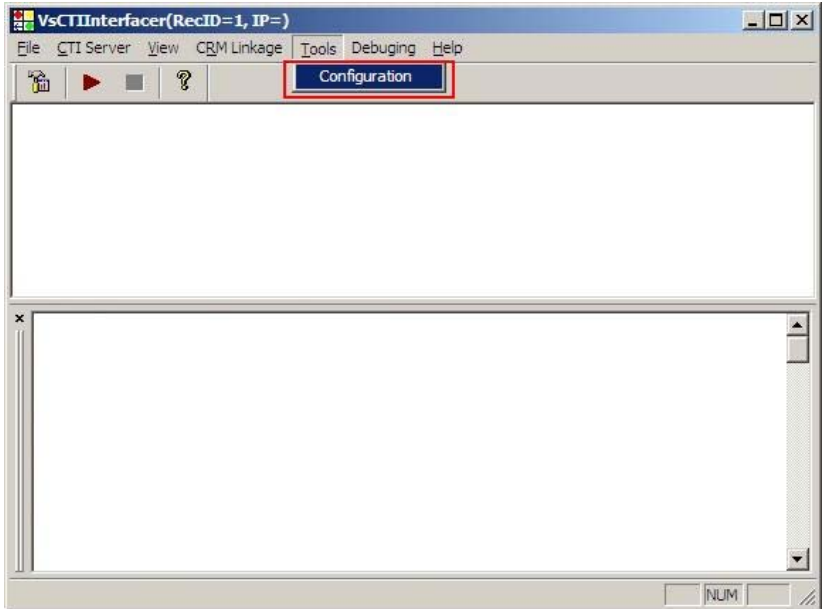
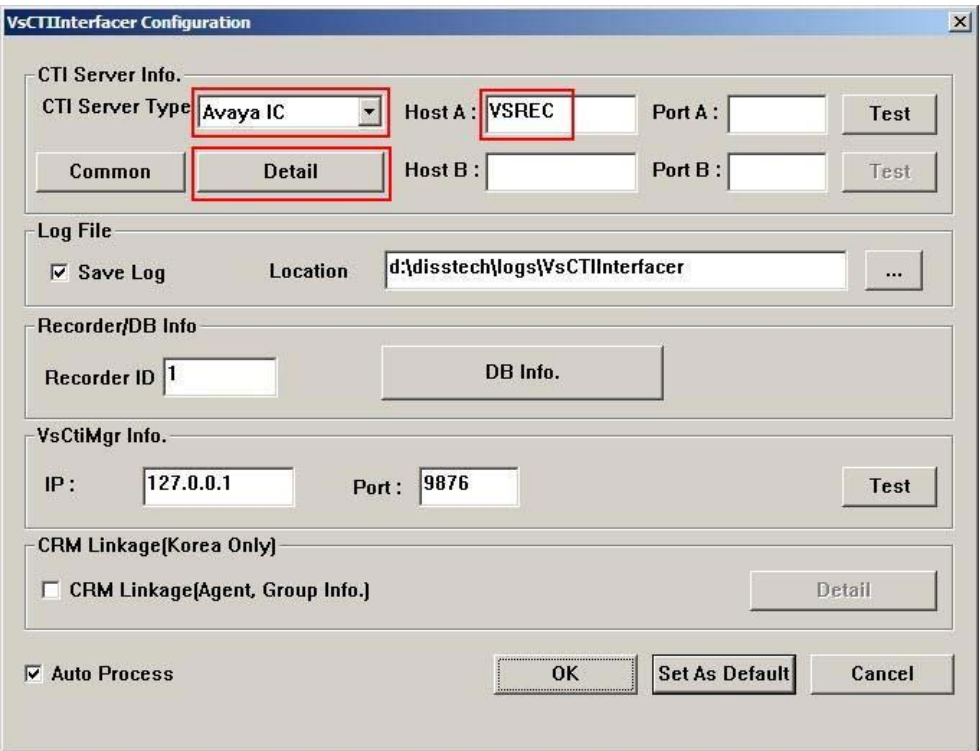
Step	Description
4.	<p>Add the lines that describe the capabilities of the VSREC IC Server to the end of the Interface definition section (See below for example). The lines to be added can be found in the Voistore VsCTIInterfacer Configuration Guide (see [8]). Select File > Save to save the file.</p> 
5.	<p>Copy the modified vespidl.pk file to the \etc folder under the Avaya IC installation directory (e.g. C:\Program Files\Avaya\IC71\etc) on all the IC Secondary Server systems.</p>

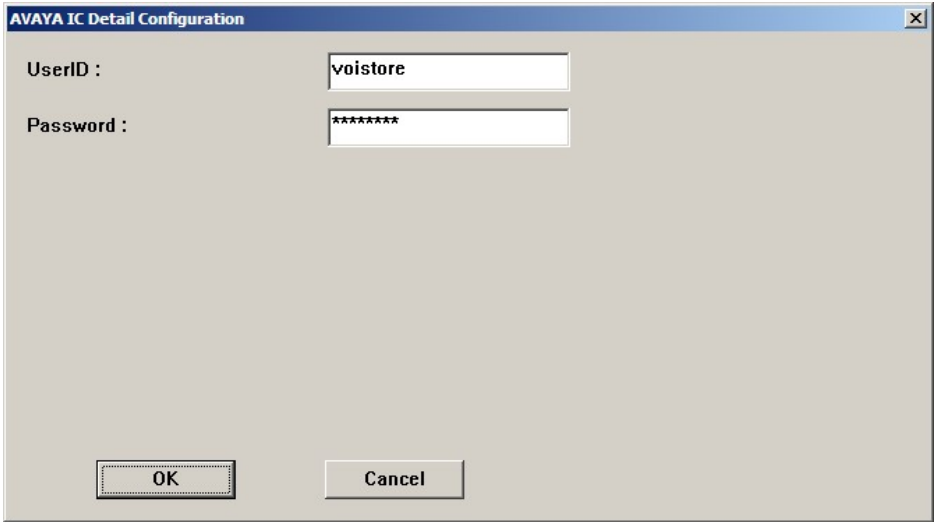
Step	Description
6.	<p>Start Services from Start > All Programs > Administrative Tools. Start the Avaya IC ORB Service 7.1 service. Repeat for all IC Server systems.</p> 

4.2. Administer VsCTIInterfacer

The VsCTIInterfacer translates the call and agent events received from the Avaya IC TS server. The translated information is then sent to Voistore Live. The station and agent extension lists are extracted from the Voistore Live database in order to perform the monitoring.

Step	Description
1.	<p>From the Voistore Live server, go to the C:\Disstech\bin\VsCTIInterfacer\ folder and double-click the file VsCTIInterfacer.exe file to launch the VsCTIInterfacer utility.</p>

Step	Description
2.	<p>From the VsCTIInterfacer window, click Tools > Configuration.</p>  <p>The screenshot shows the VsCTIInterfacer application window. The title bar reads 'VsCTIInterfacer(RecID=1, IP=)'. The menu bar includes 'File', 'CTI Server', 'View', 'CRM Linkage', 'Tools', 'Debugging', and 'Help'. The 'Tools' menu is open, and the 'Configuration' option is highlighted with a red rectangle. The main area of the window is empty.</p>
3.	<p>From the VsCTIInterfacer Configuration window, select Avaya IC from the drop-down list for the CTI Server Type field and enter VSREC for the Host A field. Keep all other default field values and click on the Detail button.</p>  <p>The screenshot shows the 'VsCTIInterfacer Configuration' dialog box. The 'CTI Server Info.' section has 'CTI Server Type' set to 'Avaya IC' (highlighted with a red rectangle) and 'Host A' set to 'VSREC' (highlighted with a red rectangle). The 'Detail' button is also highlighted with a red rectangle. Other fields include 'Port A', 'Port B', 'Host B', and 'Test' buttons. The 'Log File' section has 'Save Log' checked and 'Location' set to 'd:\disstech\logs\VsCTIInterfacer'. The 'Recorder/DB Info' section has 'Recorder ID' set to '1' and a 'DB Info.' button. The 'VsCtiMgr Info.' section has 'IP' set to '127.0.0.1' and 'Port' set to '9876'. The 'CRM Linkage(Korea Only)' section has 'CRM Linkage(Agent, Group Info.)' unchecked. At the bottom, there are 'Auto Process' (checked), 'OK', 'Set As Default', and 'Cancel' buttons.</p>

Step	Description
4.	<p>From the AVAYA IC Detail Configuration window, enter the information for the IC Account created in Section 3.3 in the UserID and Password fields. Click OK. Exit the VsCTIInterfacer utility.</p> 

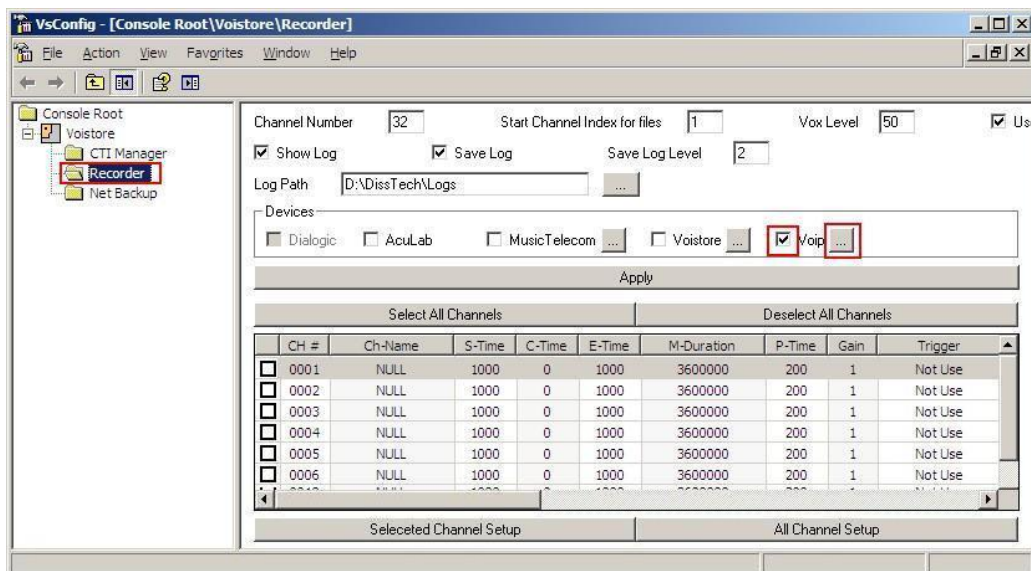
4.3. Administer IP Telephone MAC Address

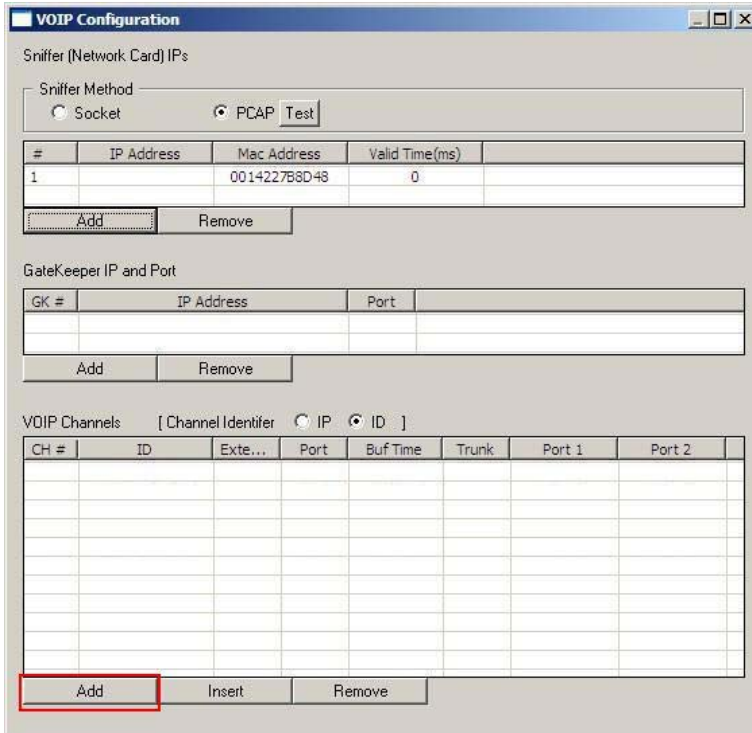
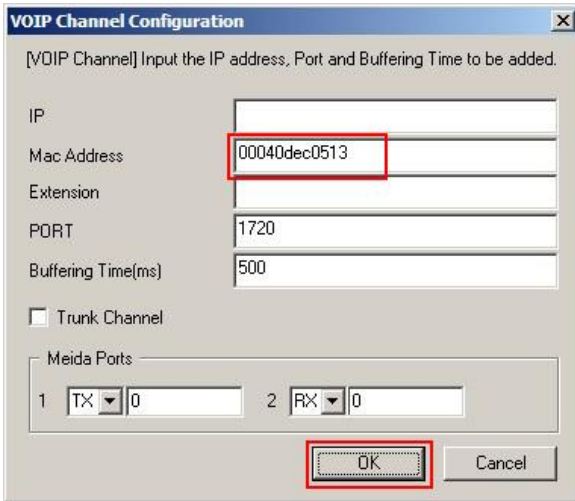
In an Avaya IP telephony environment where the IP telephones are assigned IP addresses dynamically using Dynamic Host Configuration Protocol (DHCP), the MAC addresses of the IP telephones is used to identify the IP telephone extensions. Each MAC address is then mapped to a channel number. In this test configuration, the following five extensions are configured for recording.

	Extension	MAC Address	Channel Number
1.	20001	00040dec0513	0
2.	20002	00040df0d04e	1
3.	20003	00096e1209ec	2
4.	20004	00188b82557e	3
5.	20005	00174233c18f	4

Table 2: Voistore Live Recording Extensions

Step	Description
1.	From the Voistore Live server, select Start > All Programs > Voistore Live > Configuration > Server Configuration Console to launch the VsConfig utility.
2.	From the VsConfig window, select Recorder on the left menu tree. Click on the check box beside the Voip field and click the ‘...’ button to configure the VOIP settings.

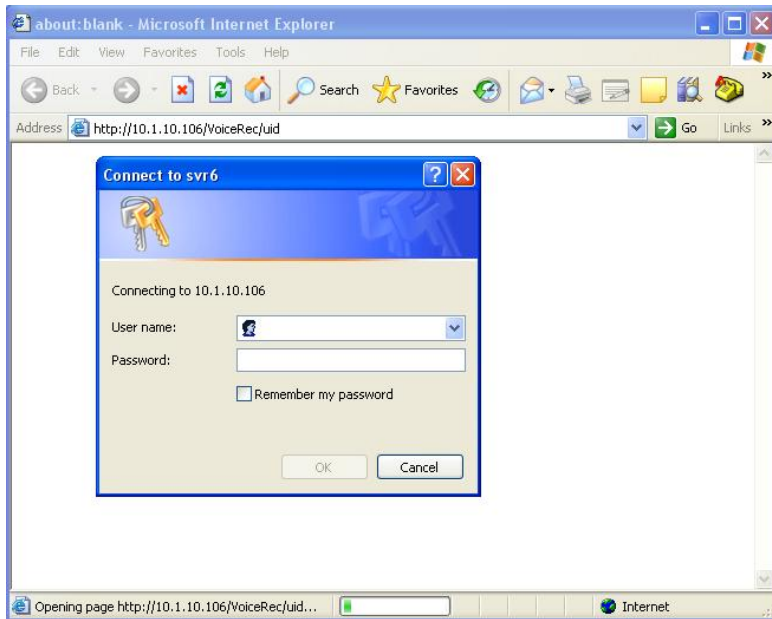
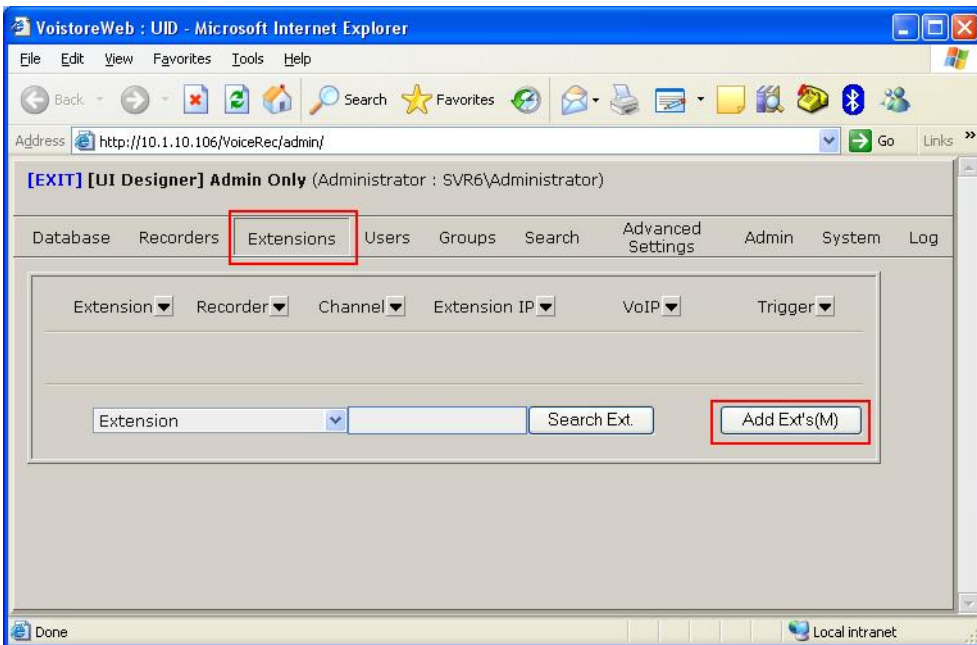


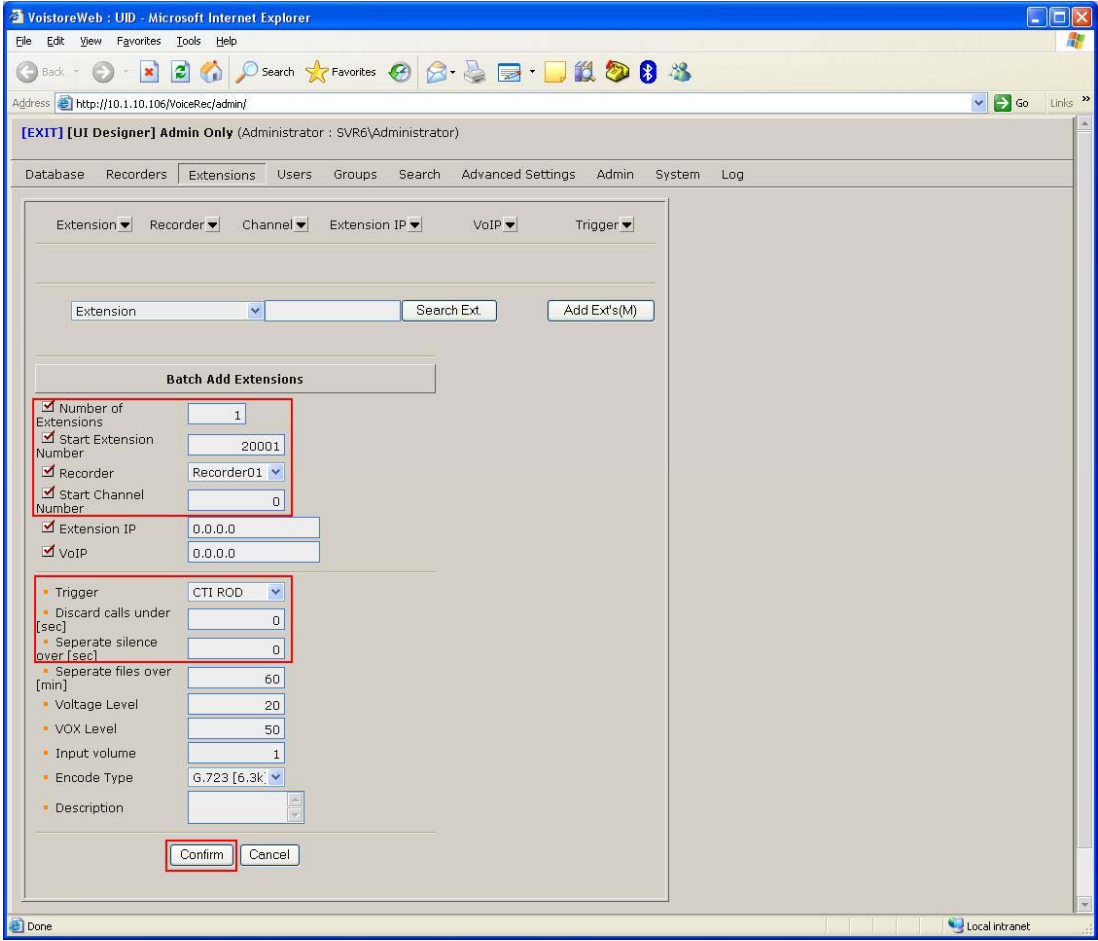
Step	Description
3.	<p>From the VOIP Configuration window, click the Add button from the VOIP Channels section.</p> 
4.	<p>From the VOIP Channel Configuration window, enter the MAC address of the IP telephone in the Mac Address field. Click OK. (Note in Step 5 that the next available Channel Number is automatically assigned.)</p> 

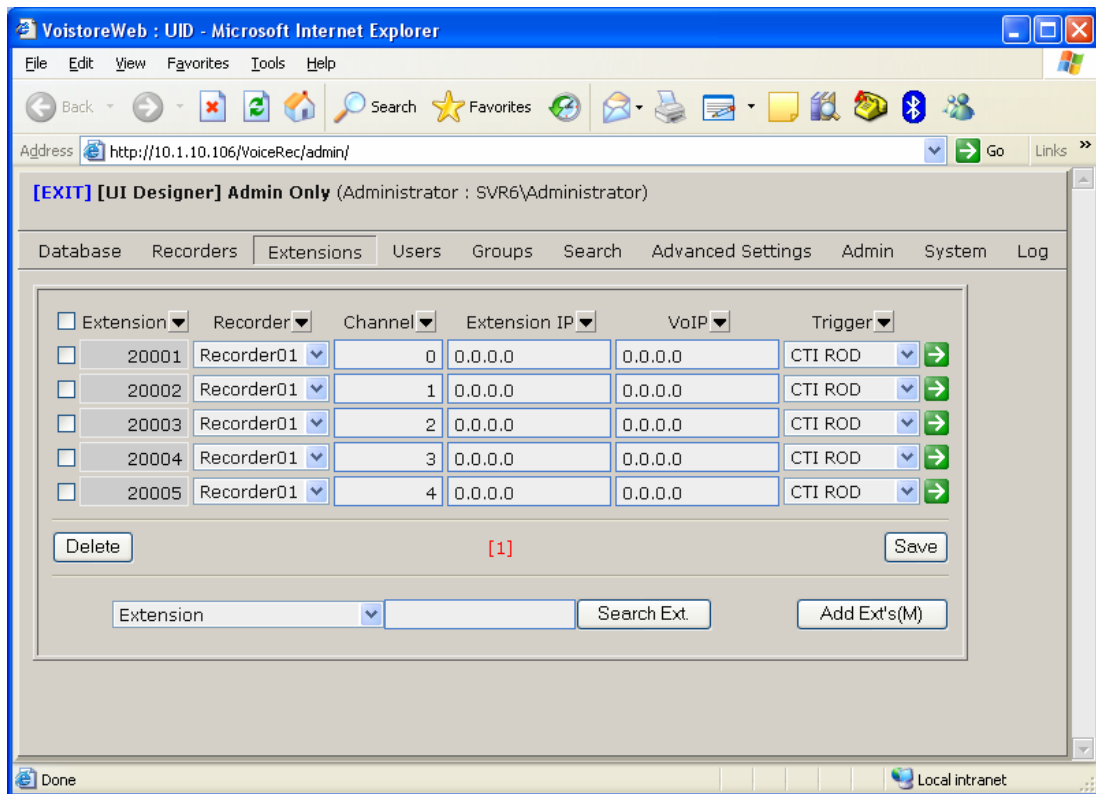
Step	Description																																																																																																						
5.	<p>Repeat Steps 3 and 4 to add the MAC addresses of the remaining four IP telephones to be recorded. When completed, there will be five new entries in the VOIP Channels section of the VOIP Configuration window. Exit the VsConfig utility.</p> <div><div><div><div>VOIP Configuration</div><div><div>Sniffer (Network Card) IPs</div><div><div>Sniffer Method</div><div><div><div>Socket</div><div>PCAP</div><div>Test</div></div></div><table><thead><tr><th>#</th><th>IP Address</th><th>Mac Address</th><th>Valid Time(ms)</th></tr></thead><tbody><tr><td>1</td><td></td><td>0014227B8D48</td><td>0</td></tr></tbody></table><div><div>Add</div><div>Remove</div></div></div><div><div>GateKeeper IP and Port</div><table><thead><tr><th>GK #</th><th>IP Address</th><th>Port</th></tr></thead><tbody><tr><td></td><td></td><td></td></tr></tbody></table><div><div>Add</div><div>Remove</div></div></div><div><div>VOIP Channels</div><div>[Channel Identifier <div><div>IP</div><div>ID</div></div>]</div><table><thead><tr><th>CH #</th><th>ID</th><th>Exte...</th><th>Port</th><th>Buf Time</th><th>Trunk</th><th>Port 1</th><th>Port 2</th></tr></thead><tbody><tr><td>0</td><td>00040dec0513</td><td></td><td>1720</td><td>500 ms</td><td></td><td>TX 0</td><td>RX 0</td></tr><tr><td>1</td><td>00040df0d04e</td><td></td><td>1720</td><td>500 ms</td><td></td><td>TX 0</td><td>RX 0</td></tr><tr><td>2</td><td>00096e1209ec</td><td></td><td>1720</td><td>500 ms</td><td></td><td>TX 0</td><td>RX 0</td></tr><tr><td>3</td><td>00188b82557e</td><td></td><td>1720</td><td>500 ms</td><td></td><td>TX 0</td><td>RX 0</td></tr><tr><td>4</td><td>00174233c18f</td><td></td><td>1720</td><td>500 ms</td><td></td><td>TX 0</td><td>RX 0</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table><div><div>Add</div><div>Insert</div><div>Remove</div></div></div></div></div></div></div>	#	IP Address	Mac Address	Valid Time(ms)	1		0014227B8D48	0	GK #	IP Address	Port				CH #	ID	Exte...	Port	Buf Time	Trunk	Port 1	Port 2	0	00040dec0513		1720	500 ms		TX 0	RX 0	1	00040df0d04e		1720	500 ms		TX 0	RX 0	2	00096e1209ec		1720	500 ms		TX 0	RX 0	3	00188b82557e		1720	500 ms		TX 0	RX 0	4	00174233c18f		1720	500 ms		TX 0	RX 0																																								
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4.4. Administer Phone Extensions

In this section, the extension numbers of the IP telephones are associated with the respective channels created in **Section 4.3**.

Step	Description
1.	<p>Browse to the URL http://<Voistore Live IP address>/VoiceRec/uid on the Voistore Live server. Enter an Administrator login and password to log in.</p> 
2.	<p>Click on the Extensions button and then click the Add Ext's (M) button.</p> 

Step	Description
3.	<p>Enter the following values for the specified fields, retain the default values for the remaining fields and click Confirm to continue. Refer to reference [6] for the explanation of the fields. (Note: This form can be used to add multiple consecutive extensions.)</p> <ul style="list-style-type: none"> • Number of Extensions: Set to “1” to configure one extension • Start Extension Number: The extension number to be configured • Recorder: Select the Voistore recorder to use, in this case “Recorder01” • Start Channel Number: The channel number to associate with this extension • Trigger: Select “CTI ROD” from the drop-down list • Discard calls under [sec]: Set to “0” • Separate silence over [sec]: Set to “0” <p>In this example, extension 20001 is associated with channel 0, which was configured in Section 4.3.</p> 

Step	Description																																				
4.	<p>Repeat Step 3 to add the remaining four extensions. The following shows the completed configuration for extensions 20001 to 20005.</p>  <p>The screenshot shows the VoistoreWeb administration interface in Microsoft Internet Explorer. The browser address bar shows 'http://10.1.10.106/VoiceRec/admin/'. The page title is '[EXIT] [UI Designer] Admin Only (Administrator : SVR6\Administrator)'. The navigation menu includes Database, Recorders, Extensions, Users, Groups, Search, Advanced Settings, Admin, System, and Log. The 'Extensions' tab is selected, displaying a table with the following data:</p> <table><thead><tr><th>Extension</th><th>Recorder</th><th>Channel</th><th>Extension IP</th><th>VoIP</th><th>Trigger</th></tr></thead><tbody><tr><td>20001</td><td>Recorder01</td><td>0</td><td>0.0.0.0</td><td>0.0.0.0</td><td>CTI ROD</td></tr><tr><td>20002</td><td>Recorder01</td><td>1</td><td>0.0.0.0</td><td>0.0.0.0</td><td>CTI ROD</td></tr><tr><td>20003</td><td>Recorder01</td><td>2</td><td>0.0.0.0</td><td>0.0.0.0</td><td>CTI ROD</td></tr><tr><td>20004</td><td>Recorder01</td><td>3</td><td>0.0.0.0</td><td>0.0.0.0</td><td>CTI ROD</td></tr><tr><td>20005</td><td>Recorder01</td><td>4</td><td>0.0.0.0</td><td>0.0.0.0</td><td>CTI ROD</td></tr></tbody></table> <p>Below the table, there is a 'Delete' button, a red '[1]' indicator, and a 'Save' button. At the bottom, there is a search bar with 'Extension' as the label, a 'Search Ext.' button, and an 'Add Ext's(M)' button.</p>	Extension	Recorder	Channel	Extension IP	VoIP	Trigger	20001	Recorder01	0	0.0.0.0	0.0.0.0	CTI ROD	20002	Recorder01	1	0.0.0.0	0.0.0.0	CTI ROD	20003	Recorder01	2	0.0.0.0	0.0.0.0	CTI ROD	20004	Recorder01	3	0.0.0.0	0.0.0.0	CTI ROD	20005	Recorder01	4	0.0.0.0	0.0.0.0	CTI ROD
Extension	Recorder	Channel	Extension IP	VoIP	Trigger																																
20001	Recorder01	0	0.0.0.0	0.0.0.0	CTI ROD																																
20002	Recorder01	1	0.0.0.0	0.0.0.0	CTI ROD																																
20003	Recorder01	2	0.0.0.0	0.0.0.0	CTI ROD																																
20004	Recorder01	3	0.0.0.0	0.0.0.0	CTI ROD																																
20005	Recorder01	4	0.0.0.0	0.0.0.0	CTI ROD																																
5.	Reboot the Voistore Live server for the configurations to become active.																																				

5. Interoperability Compliance Testing

The interoperability compliance testing included feature and serviceability testing. The feature testing evaluated the ability of Voistore Live to monitor and record calls placed to and from stations, agents and VDNs. The serviceability testing introduced failure scenarios to see if Voistore Live is able to resume recording after failure recovery.

5.1. General Test Approach

The general approach was to place various types of calls to and from stations, softphones, agents, and VDNs, monitor and record the calls using Voistore Live, and verify the recordings. For feature testing, the types of calls included internal calls, inbound trunk calls, outbound trunk calls, transferred calls, conference calls, service-observed calls and Avaya IC voice chat calls. For serviceability testing, failures such as network disruption and device resets were introduced.

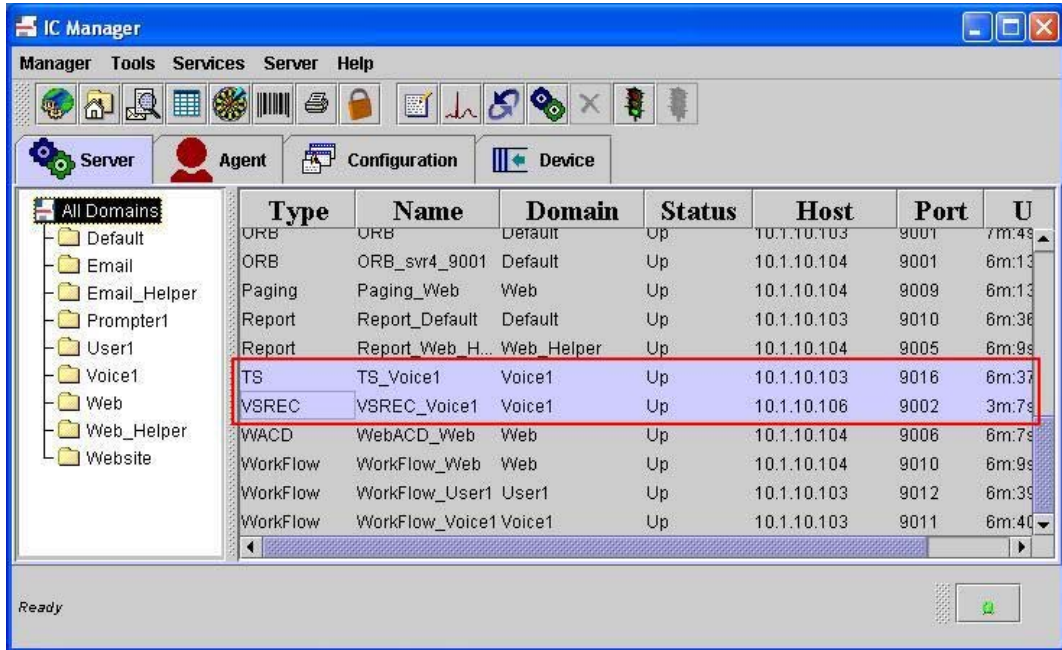
5.2. Test Results

Voistore Live monitored, recorded, stored, and played back the various types of calls discussed in **Section 5.1** successfully. For serviceability testing, Voistore Live was able to resume the recording of calls after restoration of network connectivity to the Avaya AES server and Voistore Live server, and after resets of the Voistore Live server and Avaya Communication Manager.

6. Verification Steps

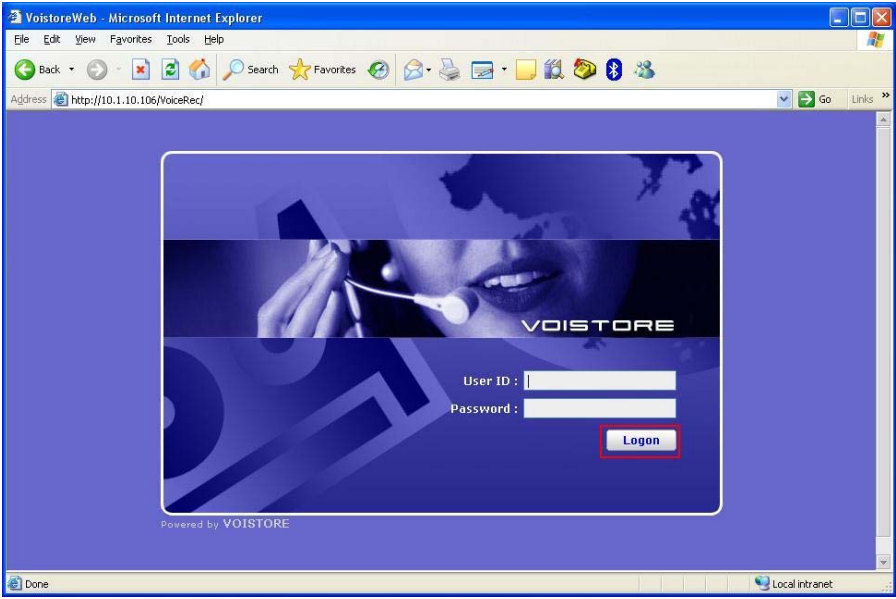
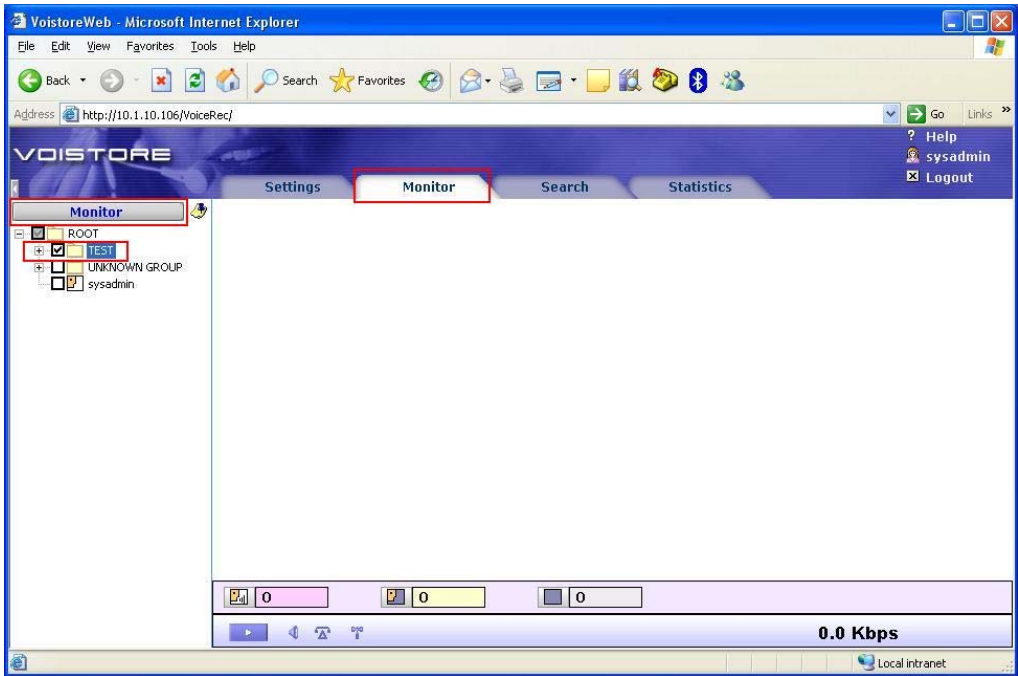
The following steps may be used to verify the configuration.

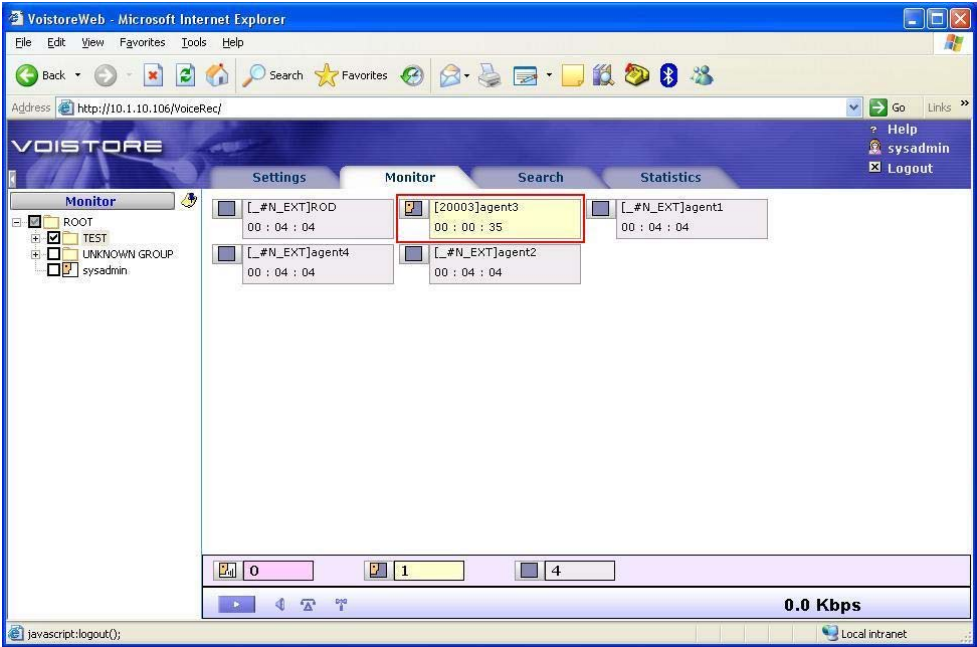
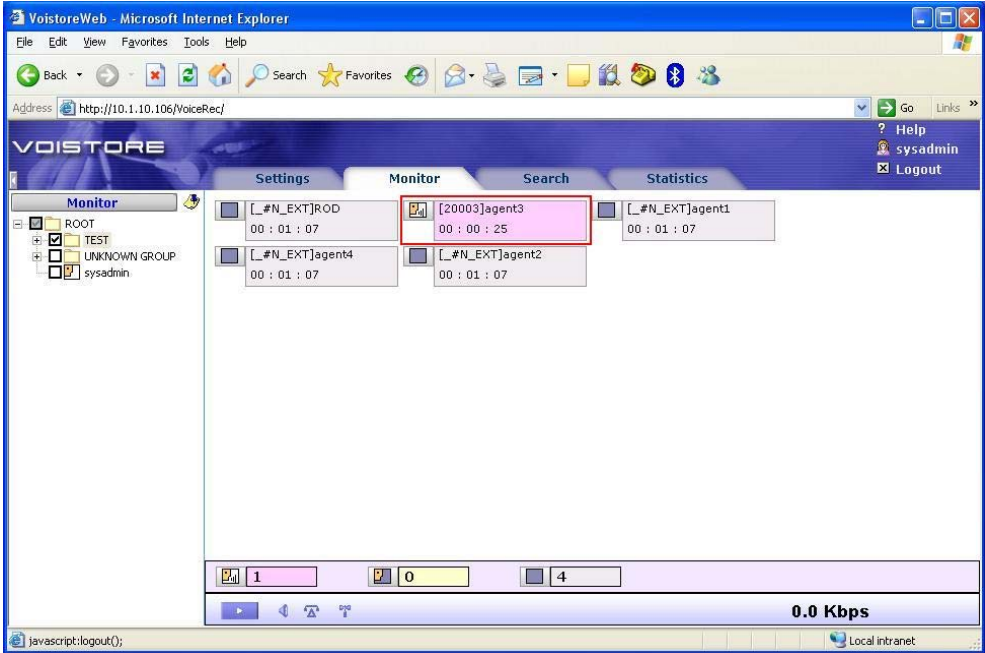
Step	Description
1.	<p>Launch the IC Manager from the PC where the Avaya IC Design and Administration Tools have been installed, click on the Server tab and select All Domains in the left pane. Verify that the Status field of the TS and VSREC servers shows Up.</p>

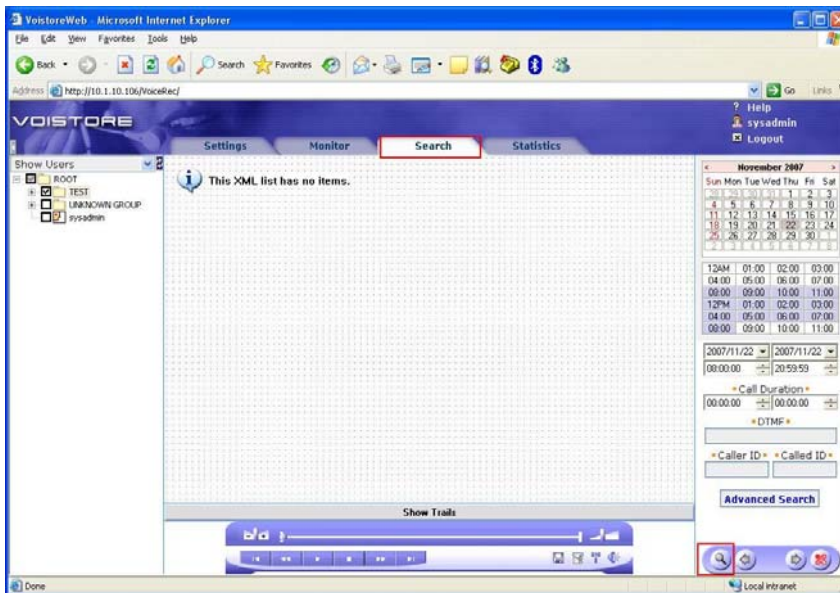
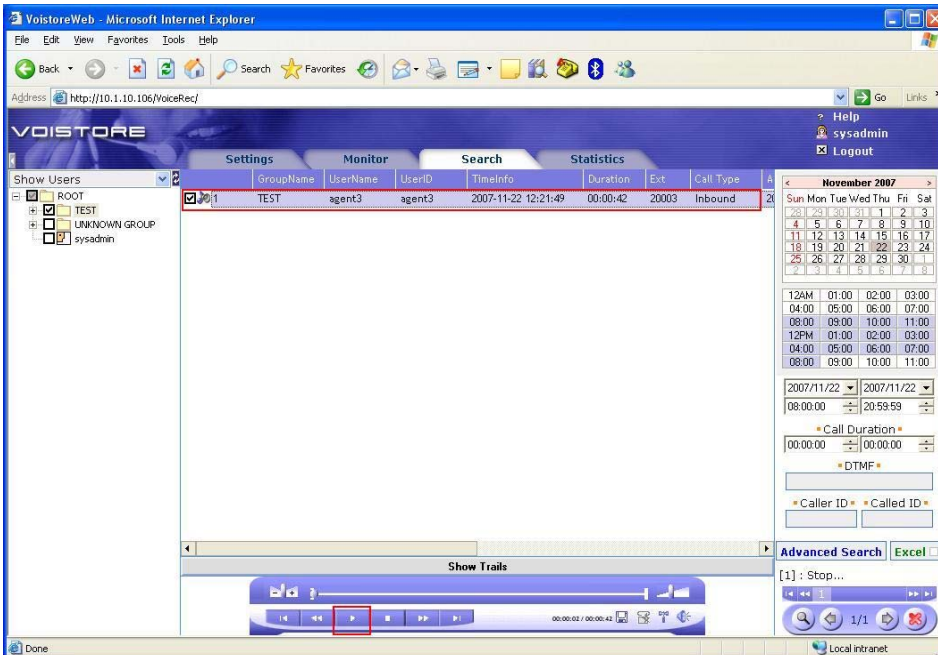


The screenshot shows the IC Manager application window. The 'Server' tab is selected, and 'All Domains' is chosen in the left-hand tree view. The main pane displays a table of server configurations. The 'TS' and 'VSREC' servers are highlighted in blue, indicating they are selected. Both show a status of 'Up'.

Type	Name	Domain	Status	Host	Port	U
ORB	ORB	Default	Up	10.1.10.103	9001	7m:48
ORB	ORB_svr4_9001	Default	Up	10.1.10.104	9001	6m:13
Paging	Paging_Web	Web	Up	10.1.10.104	9009	6m:13
Report	Report_Default	Default	Up	10.1.10.103	9010	6m:36
Report	Report_Web_H...	Web_Helper	Up	10.1.10.104	9005	6m:9s
TS	TS_Voice1	Voice1	Up	10.1.10.103	9016	6m:37
VSREC	VSREC_Voice1	Voice1	Up	10.1.10.106	9002	3m:7s
WACD	WebACD_Web	Web	Up	10.1.10.104	9006	6m:7s
WorkFlow	WorkFlow_Web	Web	Up	10.1.10.104	9010	6m:9s
WorkFlow	WorkFlow_User1	User1	Up	10.1.10.103	9012	6m:39
WorkFlow	WorkFlow_Voice1	Voice1	Up	10.1.10.103	9011	6m:40

Step	Description
2.	<p>Browse to the URL http://<Voistore Live IP address>/VoiceRec/ from a PC with a sound card and speakers. Enter the Voistore Live administrator User ID and password and click Logon.</p> 
3.	<p>Click on the Monitor tab to monitor the agents. In the left window pane, check the box next to the group where the agents are assigned and click the Monitor button. In this configuration, all agents are assigned to the TEST group.</p> 

Step	Description
4.	<p>Log in an agent using the Avaya Agent client. Verify that the Monitor window shows the agent extension correctly and that the color of the agent changes to yellow. In this example, the Avaya Agent “agent3” is logged in to extension 20003.</p>  <p>The screenshot shows the VoistoreWeb interface in a Microsoft Internet Explorer browser window. The address bar shows 'http://10.1.10.106/VoiceRec/'. The 'Monitor' tab is selected, displaying a list of agents. The agent '[20003]agent3' is highlighted in yellow, indicating it is logged in. Other agents shown include '[_#N_EXT]ROD', '[_#N_EXT]agent1', '[_#N_EXT]agent4', and '[_#N_EXT]agent2'. The status bar at the bottom shows '0.0 Kbps' and a 'Local intranet' icon.</p>
5.	<p>Place a call to the agent either through the VDN or directly to the agent extension. Verify that the color of the agent changes to pink, indicating that the agent is being recorded.</p>  <p>The screenshot shows the VoistoreWeb interface in a Microsoft Internet Explorer browser window. The address bar shows 'http://10.1.10.106/VoiceRec/'. The 'Monitor' tab is selected, displaying a list of agents. The agent '[20003]agent3' is highlighted in pink, indicating it is being recorded. Other agents shown include '[_#N_EXT]ROD', '[_#N_EXT]agent1', '[_#N_EXT]agent4', and '[_#N_EXT]agent2'. The status bar at the bottom shows '0.0 Kbps' and a 'Local intranet' icon.</p>

Step	Description
6.	<p>To retrieve the recording, click on the Search tab. Click on the Search button on the bottom right of the screen to display all the recordings for the day.</p> 
7.	<p>From the list of recordings, check the box next to the recording to be played back and click on the Play button at the bottom of the window. Verify that the recording is played back correctly. Verify also that the call information above the playback controls is correct for the recording.</p> 

7. Support

Technical support for Voistore Live can be obtained by contacting Voistore's Support Desk at +82 (2) 2025-9111, or sending an e-mail to support@voistore.com.

8. Conclusion

These Application Notes describe the procedures for configuring Voistore Live to interoperate with Avaya Interaction Center to monitor and record calls placed to and from IP stations and softphones on Avaya Communication Manager. The current version of Voistore Live is designed to record IP calls only. Voistore Live successfully passed the compliance testing.

9. Additional References

Avaya product documentation can be found at <http://support.avaya.com>.

- [1] *Administrator Guide for Avaya Communication Manager*, Issue 3, February 2007, Document Number 03-300509
- [2] *Avaya MultiVantage Application Enablement Services Administration and Maintenance Guide Release 4.0*, Issue 6, February 2007, Document Number 02-300357
- [3] *Avaya Interaction Center Release 7.1 Installation & Configuration*, May 2006, Document Number 07-300569
- [4] *Avaya Interaction Center Release 7.1 IC Administration Volume 1: Servers & Domains*, Release 7.1, Issue 3, May 2006, Document Number 07-300570

The following Voistore Live documentation is provided by Voistore.

- [5] *Voistore Administration guide*, Release 3.2.7
- [6] *Voistore UID Manual*, Release 3.2.7
- [7] *Voistore VsConfig Manual*, Release 3.2.7
- [8] *Voistore VsCTIInterfacer Configuration Guide*, Release 3.2.7

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