



Avaya Solution & Interoperability Test Lab

Application Notes for the Spescom DataVoice Recording Solution for Avaya Proactive Contact using Avaya PG230 - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for the Spescom DataVoice Recording solution to successfully interoperate with Avaya Proactive Contact 4.0 using Avaya PG230 switch. The DataVoice Recording solution is capable of capturing audio from Avaya Communication Manager using a variety of integration mechanism. In this compliance test, the DataVoice Recording solution uses Avaya Proactive Contact Event Services to extract call event information and uses trunk side tapping to get the audio.

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 a compliance-tested configuration comprised of Avaya Proactive Contact 4.0.1 using Avaya PG230 switch (HardDialer) and the Spescom DataVoice Recording solution. The Spescom DataVoice Recording solution is comprised of the DataVoice Libra Recorder (Libra) version 5.0 and the DataVoice Avaya PC RC (RC) version 2.0. During the testing, these two components resided on the same host. The RC uses the Event Service of Avaya HardDialer to extract call event information that is used to control the recording functionality of the Libra. The Libra uses trunk side tapping to get the audio. The Avaya Proactive Contact using PG230 is a software and hardware solution. Libra Recorder records calls between CallConnected and CallEnded events.

Figure 1 shows the configuration used for this compliance testing.

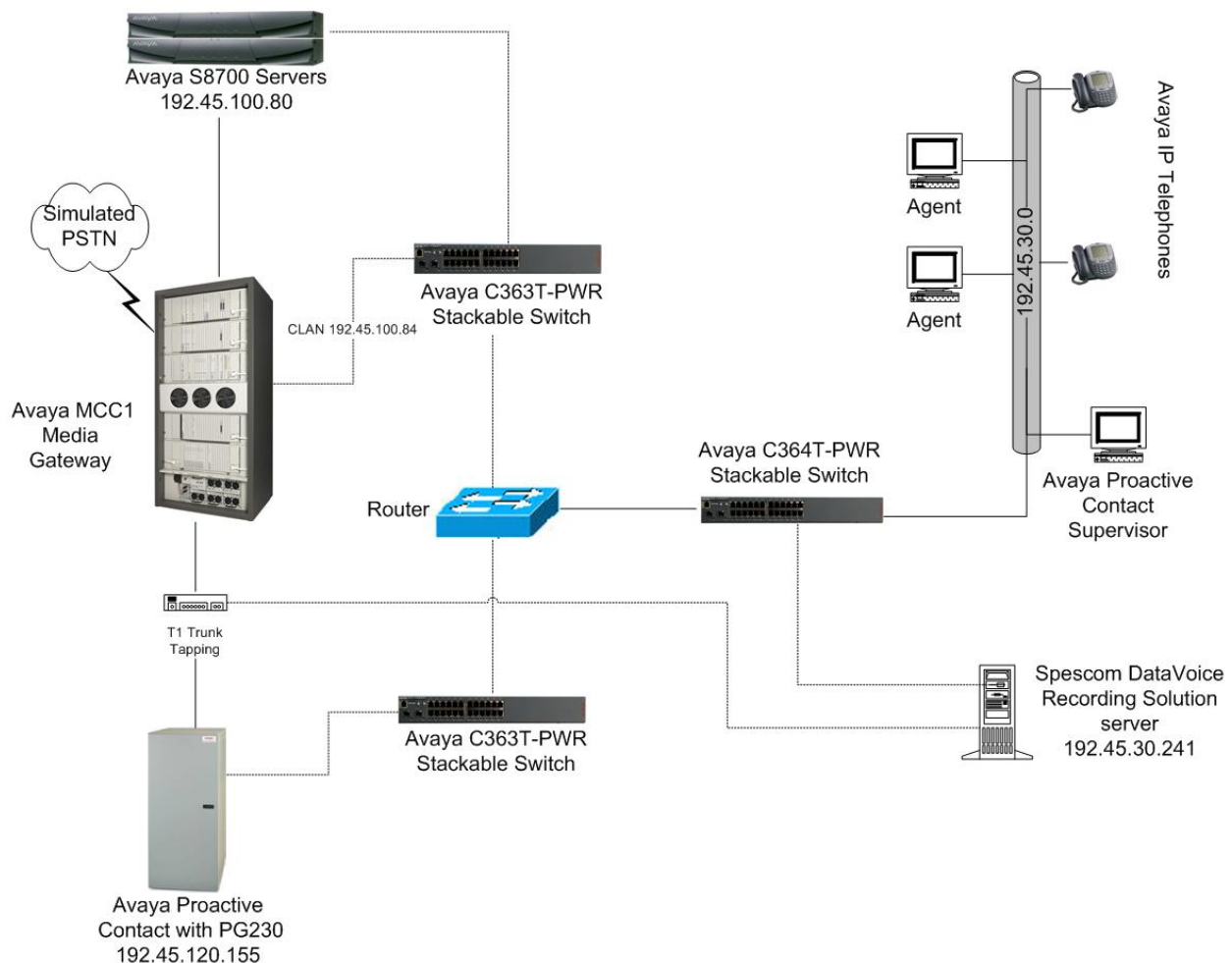


Figure 1: Avaya Proactive Contact, Avaya Communication Manager, and Spescom DataVoice Recording solution Configuration

2. Equipment and Software Validated

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

Equipment	Software
HP Proliant DL385G2	Avaya Proactive Contact 4.0.1 Build 105
Avaya S8700 Media Server	Avaya Communication Manager 4.0 (R014x.00.0.730.5)
Avaya MCC1 Media Gateway	
TN464 DS1 Interface	HW02, FW019
TN799DP C-LAN Interface	HW01 FW024
TN2302AP IP Media Processor	HW13 FW116
Avaya 4610 (H323)	2.1.3
Avaya C363T-PWR Converged Stackable Switch	4.5.14
Spescom DataVoice Libra Recorder	5.0.0.23
Spescom DataVoice Avaya PC RC	2.0.0.2

3. Configure Avaya Communication Manager

These application notes assume that Avaya Communication Manager is already configured and operational. Only configuration for the T1 link between Avaya Communication Manager and Avaya HardDialer to be tapped for audio recording on Libra Recorder is verified. These steps are performed from the Avaya Communication Manager System Access Terminal (SAT) interface and all changes are saved. Refer to [1, 5] for additional details.

Step	Description
1.	<p>Enter the display ds1 xxxxx command, where xxxxx is the location of the DS1 circuit pack and verify the following:</p> <ul style="list-style-type: none"> • Line Coding – set to ami-zcs. • Framing Mode – set to d4. <pre> display ds1 1a14 DS1 CIRCUIT PACK Location: 01A14 Name: PDS 1-21-1 Bit Rate: 1.544 Line Coding: ami-zcs Line Compensation: 1 Framing Mode: d4 Signaling Mode: robbed-bit Interface Companding: mulaw Idle Code: 11111111 Slip Detection? n Near-end CSU Type: other </pre>

4. Configure Avaya Proactive Contact

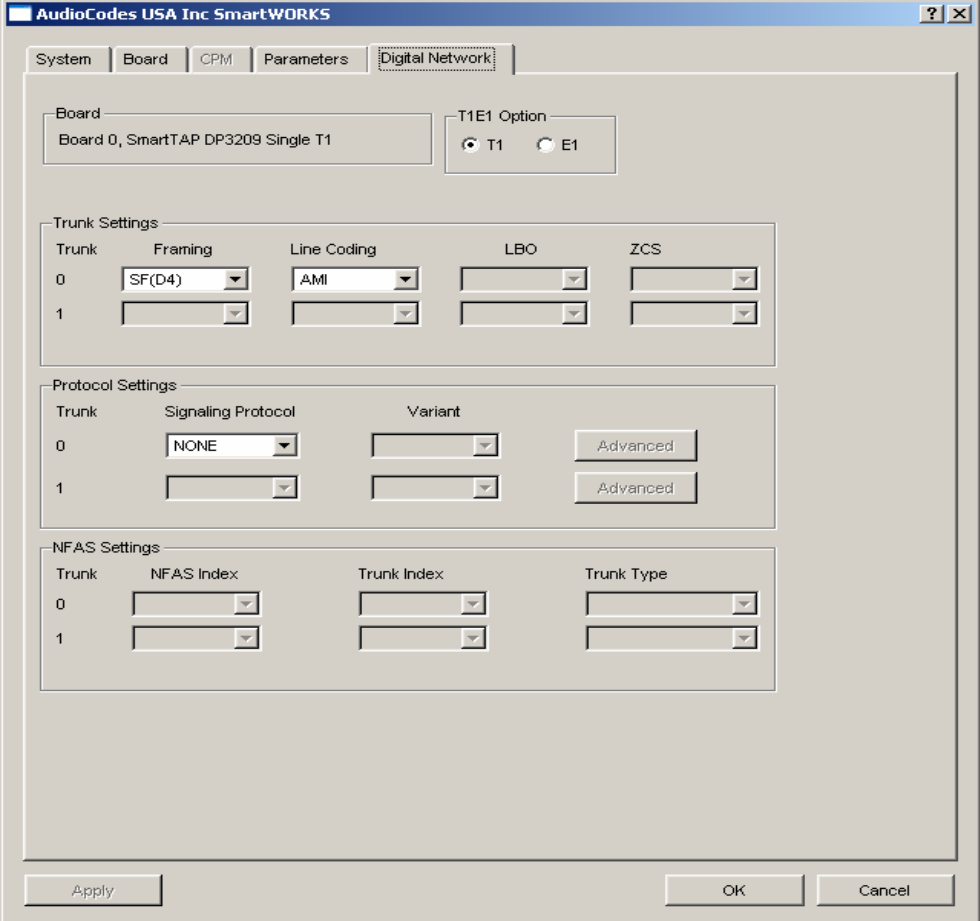
These Application Notes assume that the interfaces between the Avaya Proactive Contact and Avaya Communication Manager have been configured and are operational, and that a calling list has been successfully downloaded to Avaya HardDialer. Following configuration was verified on Avaya HardDialer.

Step	Description
1.	<p>Edit config/dgswitch.cfg file on Avaya HardDialer and verify that Headset Ports are defined. Values 1-8 are port/trunk ids and 264-271 are the timeslots to be used in Section 5.2, Step 13.</p> <pre> #Headset Ports H:1:264:0::#H:15:1:1-1-21-1-1 H:2:265:0::#H:15:1:1-1-21-1-2 H:3:266:0::#H:15:1:1-1-21-1-3 H:4:267:0::#H:15:1:1-1-21-1-4 H:5:268:0::#H:15:1:1-1-21-1-5 H:6:269:0::#H:15:1:1-1-21-1-6 H:7:270:0::#H:15:1:1-1-21-1-7 H:8:271:0::#H:15:1:1-1-21-1-8 </pre>

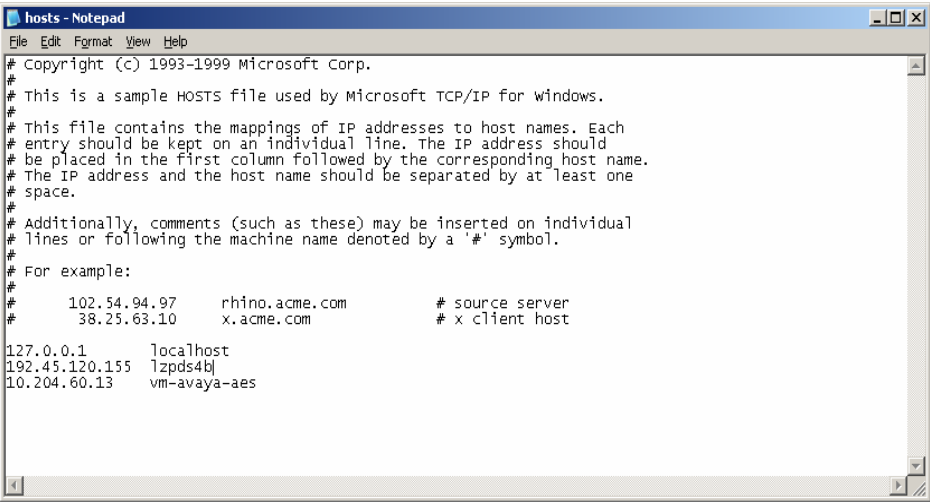
5. Configure DataVoice Libra Recorder

The following steps describe the configuration to integrate DataVoice Libra Recorder with Avaya HardDialer. Configuration in the following sections is only for the fields where a value needs to be entered or modified. Default values are used for all other fields. Refer to [7] for additional details.

5.1. Libra Recorder T1 Configuration

Step	Description
1.	<p>Navigate from Start->Control Panel->Smart Control to display the following screen by selecting Digital Network tab and configure T1 parameters as follows:</p> <ul style="list-style-type: none"> • Trunk Settings (Framing) – Set to SF(D4), similar to the configuration in Section 3.1, Step 1. • Trunk Settings (Line Coding) – Set to AMI, similar to the configuration in Section 3.1, Step 1. 

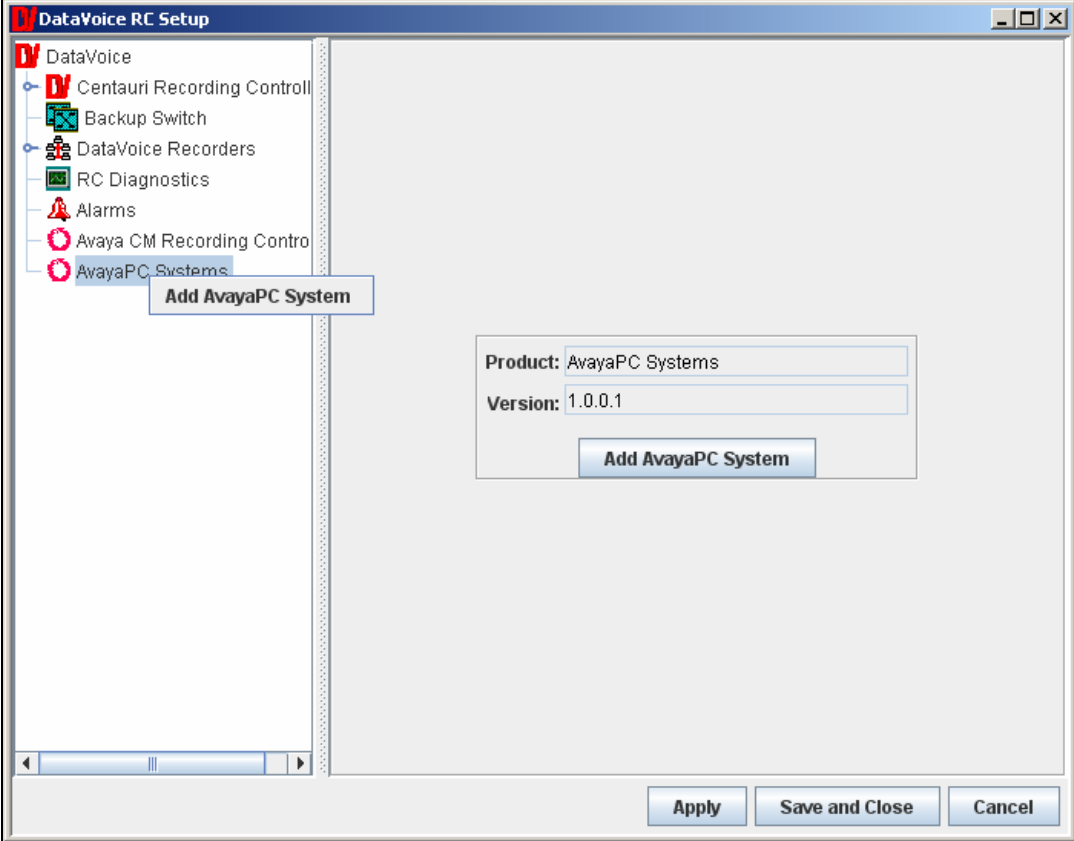
5.2. Libra Recorder System Administration

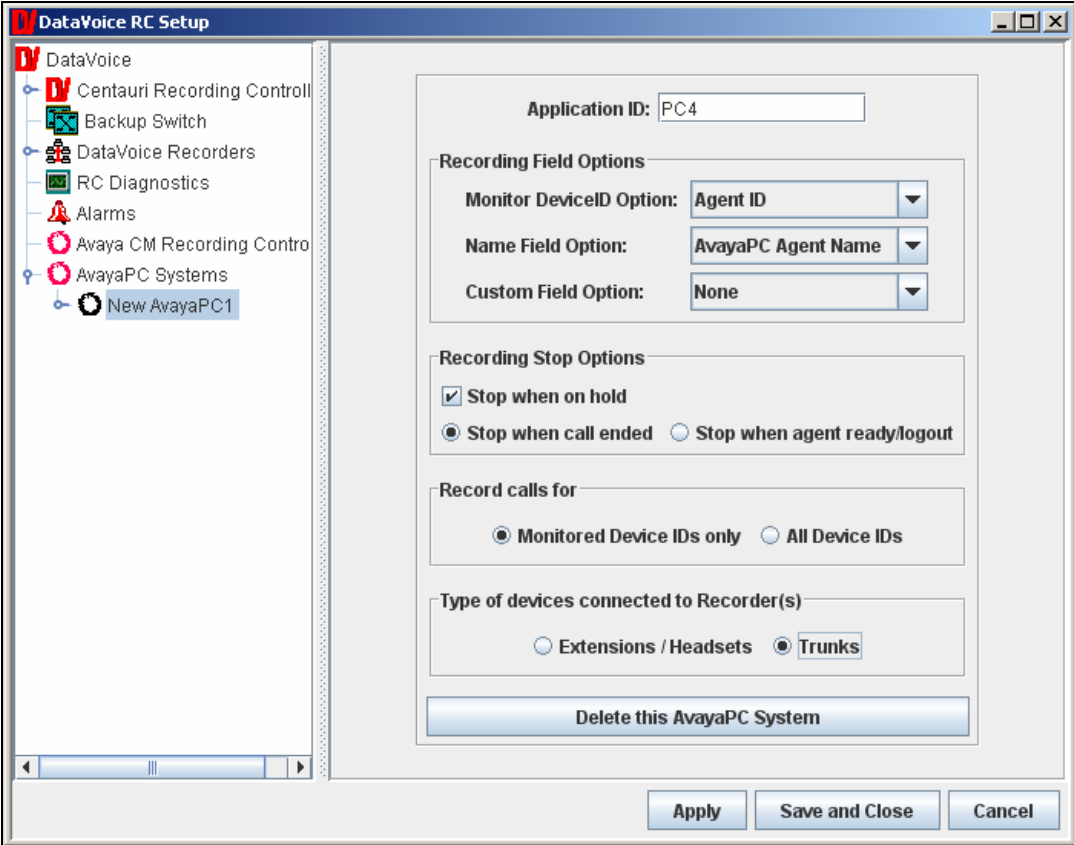
Step	Description
1.	<p>Verify the hosts file on the Libra Recorder to make sure that the Avaya HardDialer hostname entry exists.</p>  <pre>hosts - Notepad File Edit Format View Help # Copyright (c) 1993-1999 Microsoft Corp. # # This is a sample HOSTS file used by Microsoft TCP/IP for Windows. # # This file contains the mappings of IP addresses to host names. Each # entry should be kept on an individual line. The IP address should # be placed in the first column followed by the corresponding host name. # The IP address and the host name should be separated by at least one # space. # # Additionally, comments (such as these) may be inserted on individual # lines or following the machine name denoted by a '#' symbol. # # For example: # # 102.54.94.97 rhino.acme.com # source server # 38.25.63.10 x.acme.com # x client host # 127.0.0.1 localhost 192.45.120.155 lzpds4bj 10.204.60.13 vm-avaya-aes</pre>

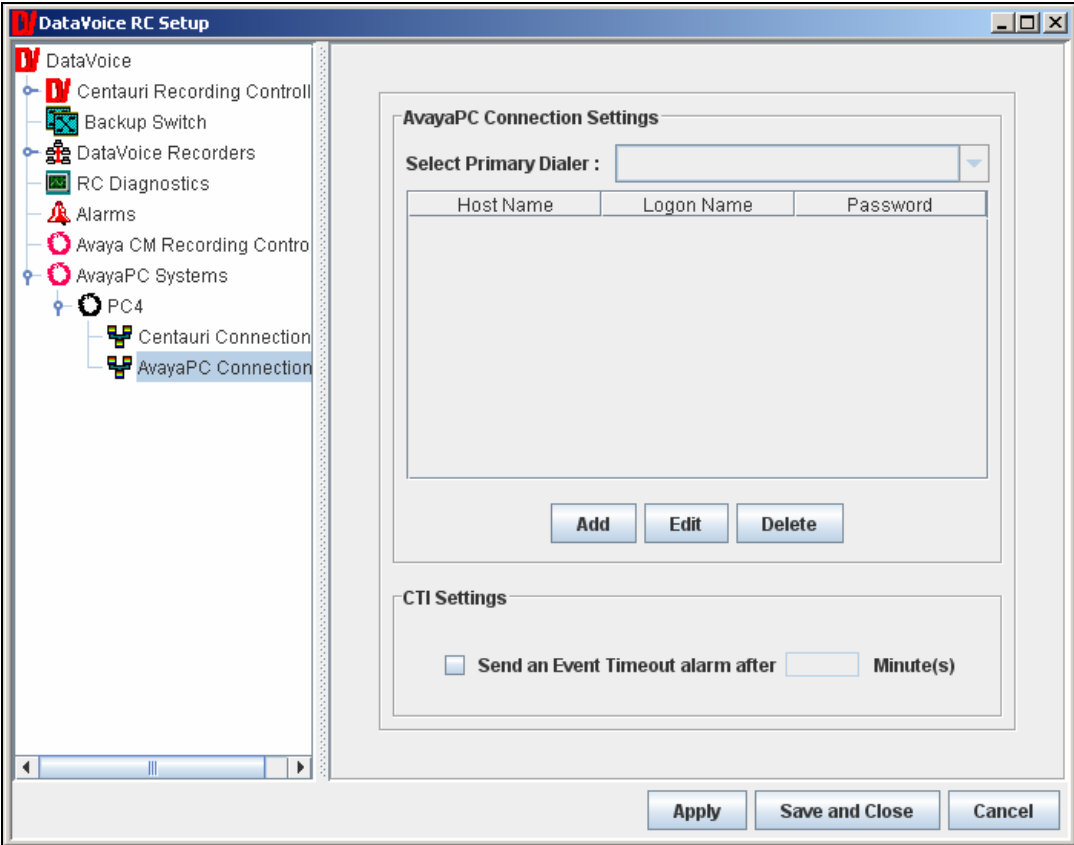
Note: The hostname of the Avaya HardDialer is case sensitive and must be the exact name of the dialer.

5.3. Avaya PC RC Configuration

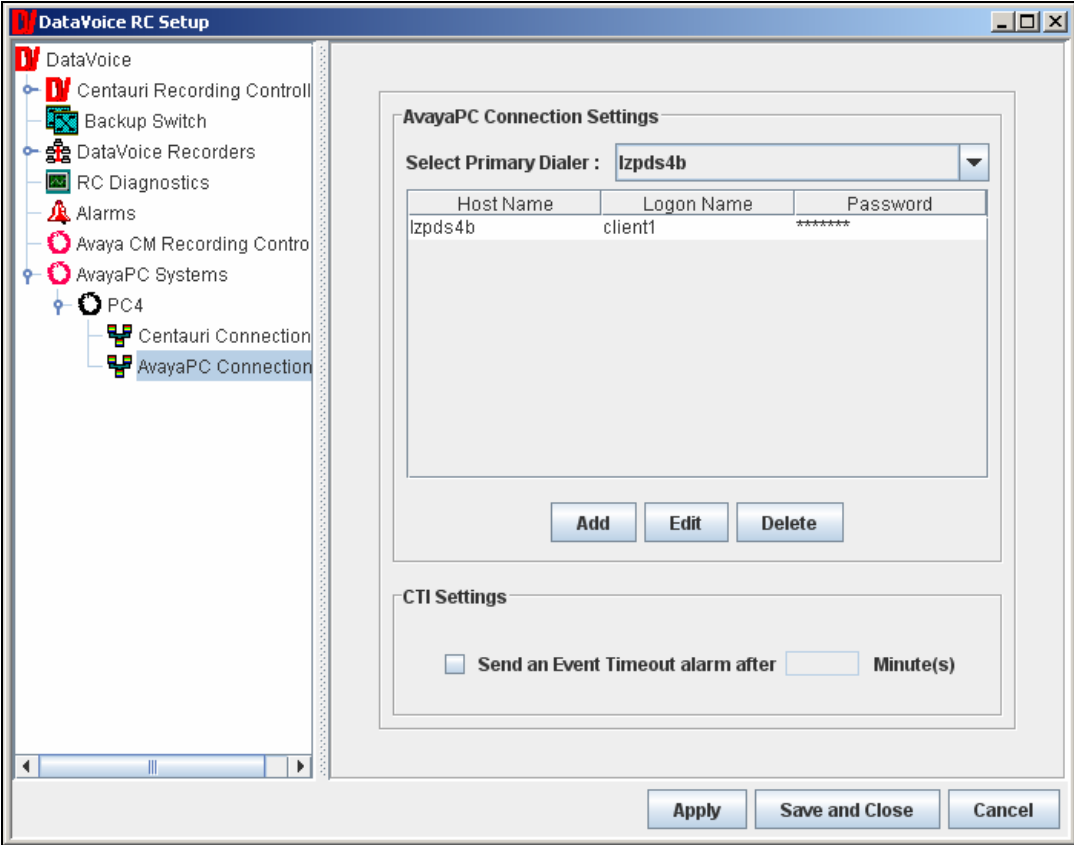
Step	Description
1.	<p>At the Desktop, click on DVSetup to display the following screen.</p> 

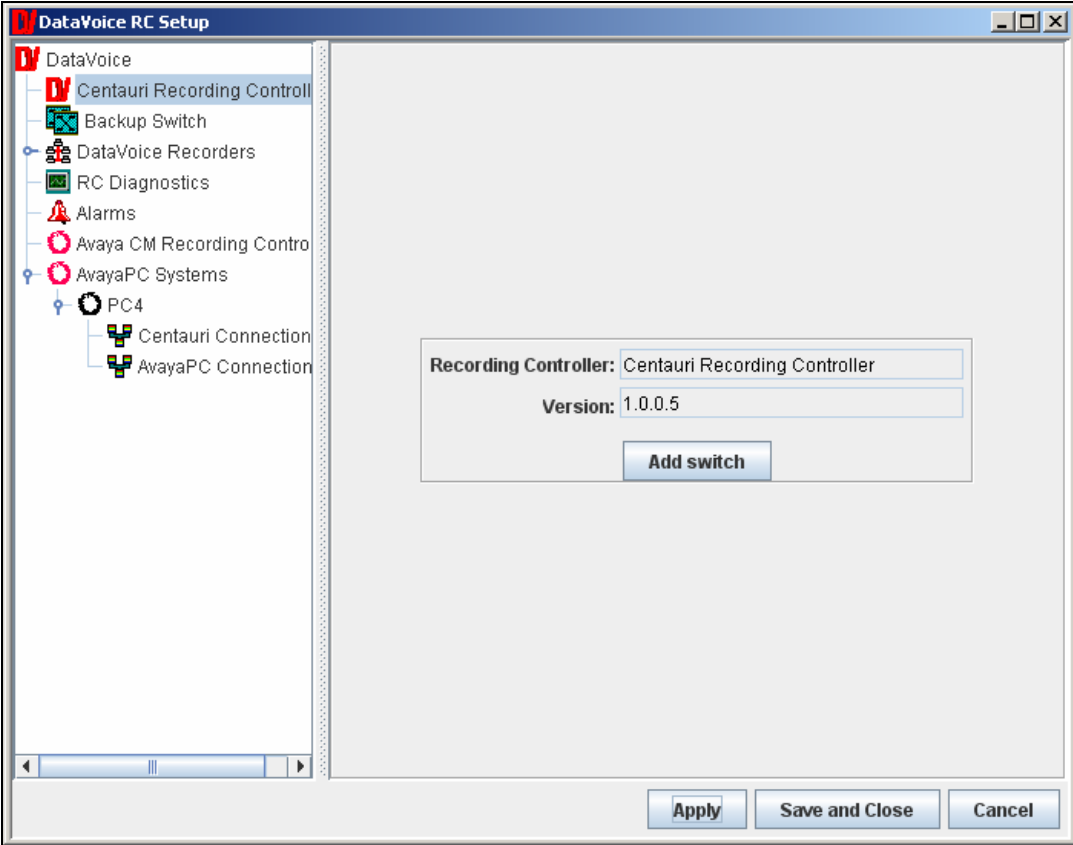
Step	Description
2.	<p>Select AvayaPC Systems, then right click and select Add AvayaPC System and click Apply.</p> 

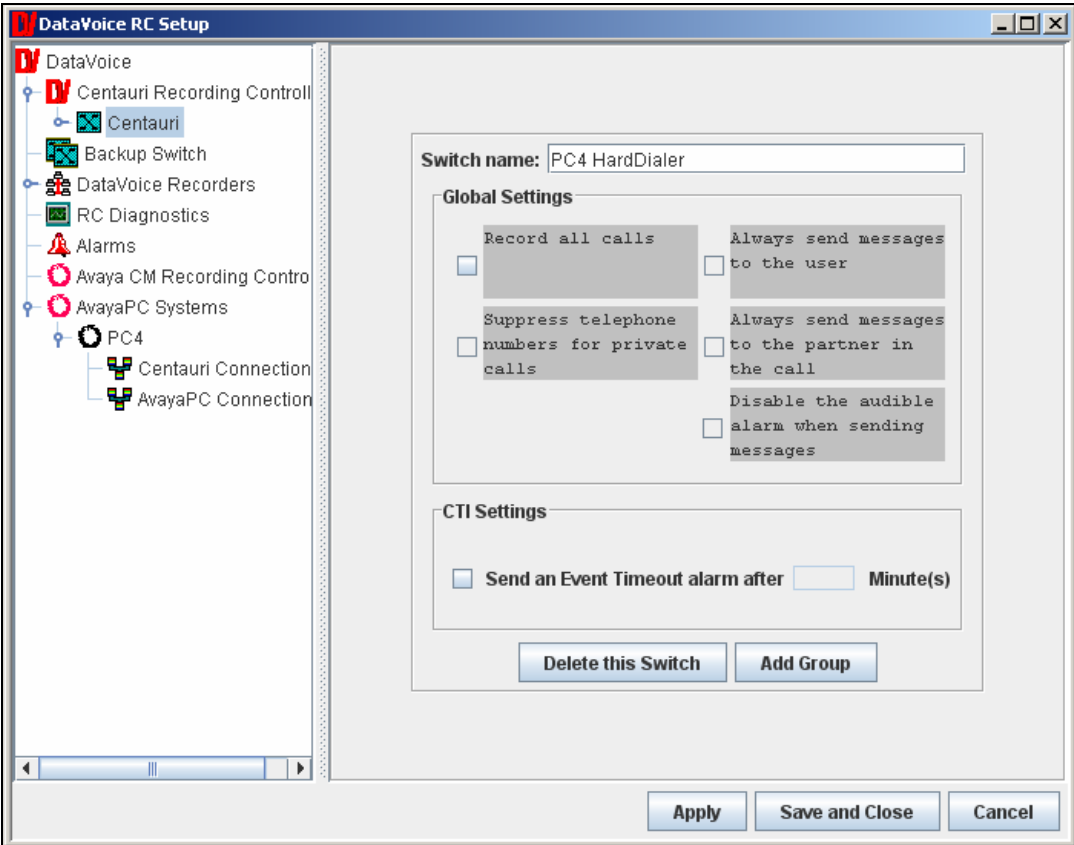
Step	Description
3.	<p>Select New AvayaPC1 in the left panel and configure as follows:</p> <ul style="list-style-type: none"> • Application ID - Enter any descriptive name. • Type of devices connected to Recorder(s) – Set to Trunks. 

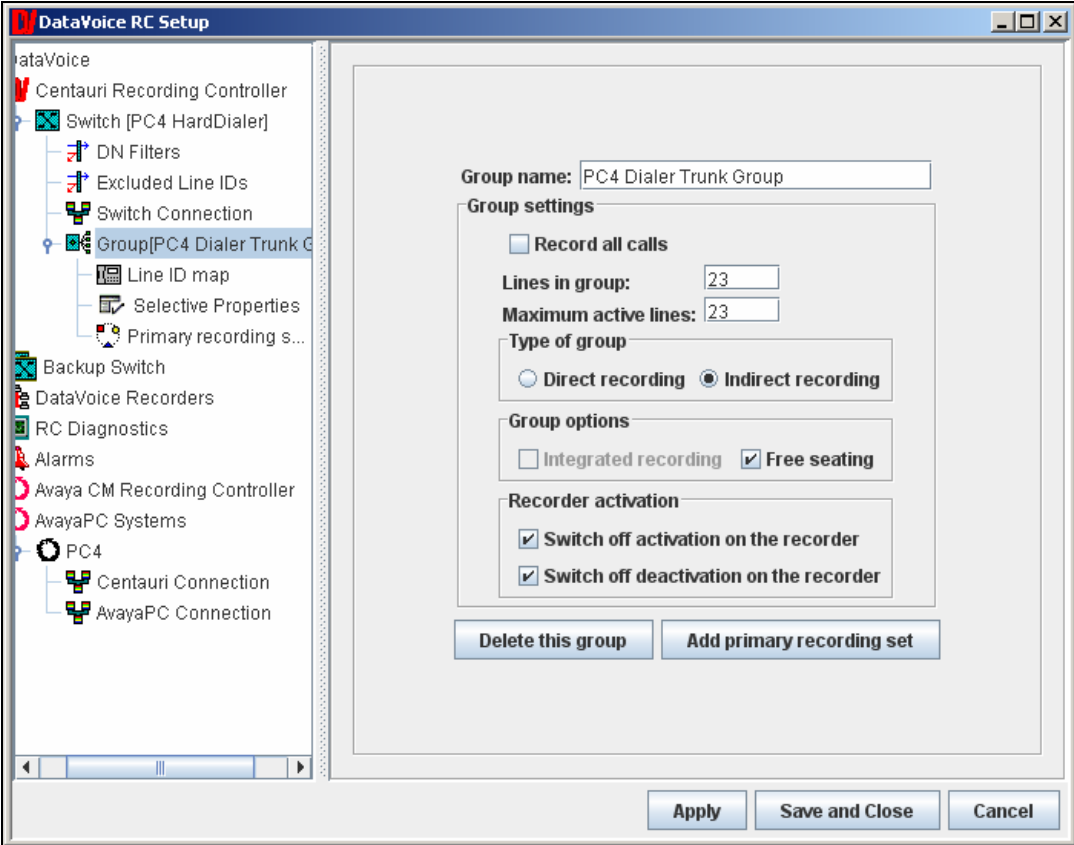
Step	Description
4.	<p>Click on the PC4 node to expand it, then select AvayaPC Connection and click Add.</p> 

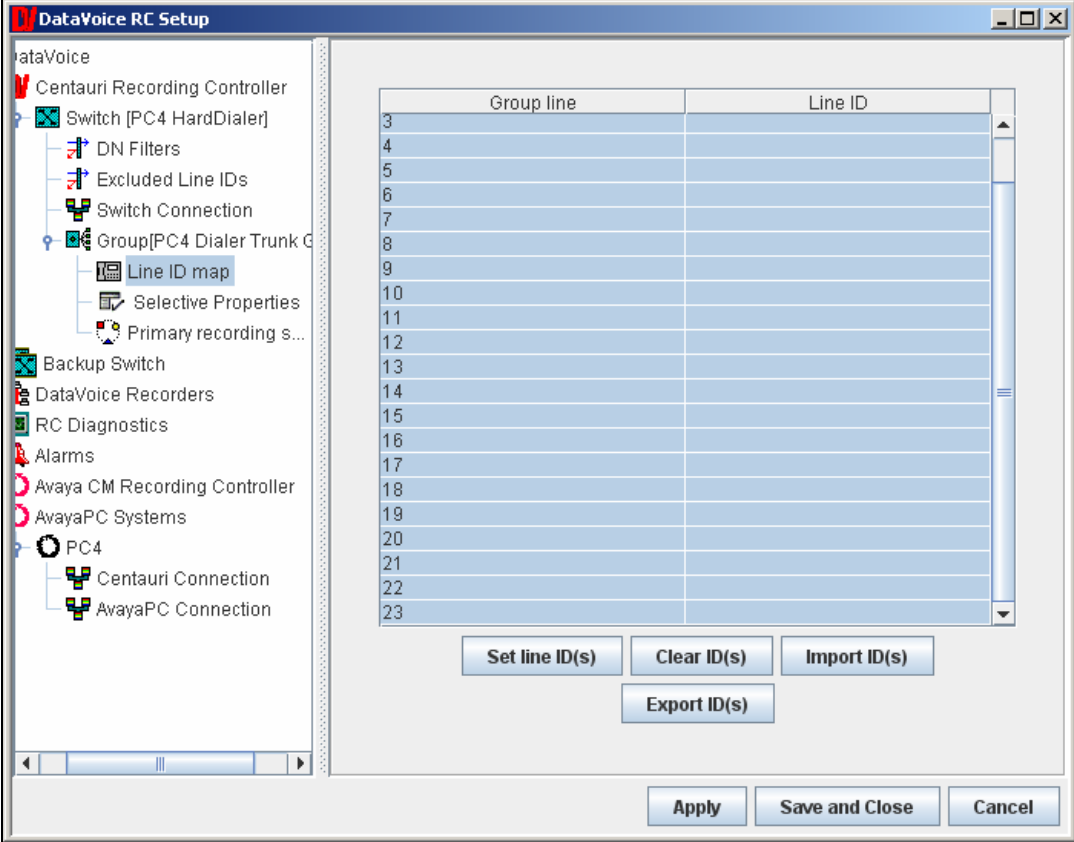
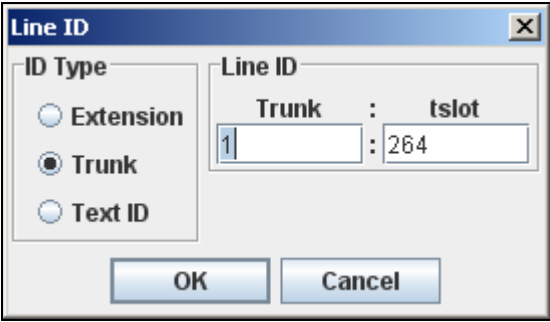
Step	Description
5.	<p>At the AvayaPC Connection Settings popup, configure as follows:</p> <ul style="list-style-type: none"> • Host Name – Enter the host name of the dialer displayed in host file of the Libra Recorder in Step 1, Section 5.2. Note: The host name of the dialer is case sensitive. Enter the exact name of the dialer. • Logon Name – Login id created on Avaya HardDialer. • Password – Password for the Login id created on Avaya HardDialer. • Click OK. <div data-bbox="610 569 1182 932" style="text-align: center;"> </div>

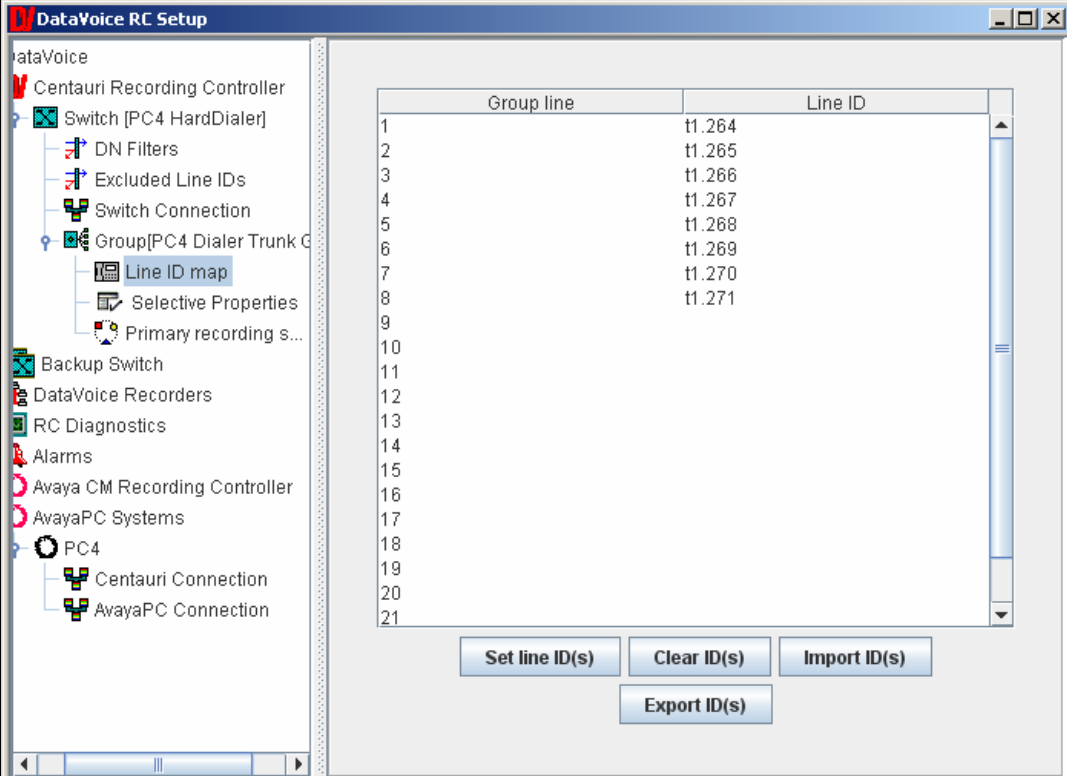
Step	Description
6.	<p>Following screen is displayed after the connection to Avaya HardDialer is added.</p> 

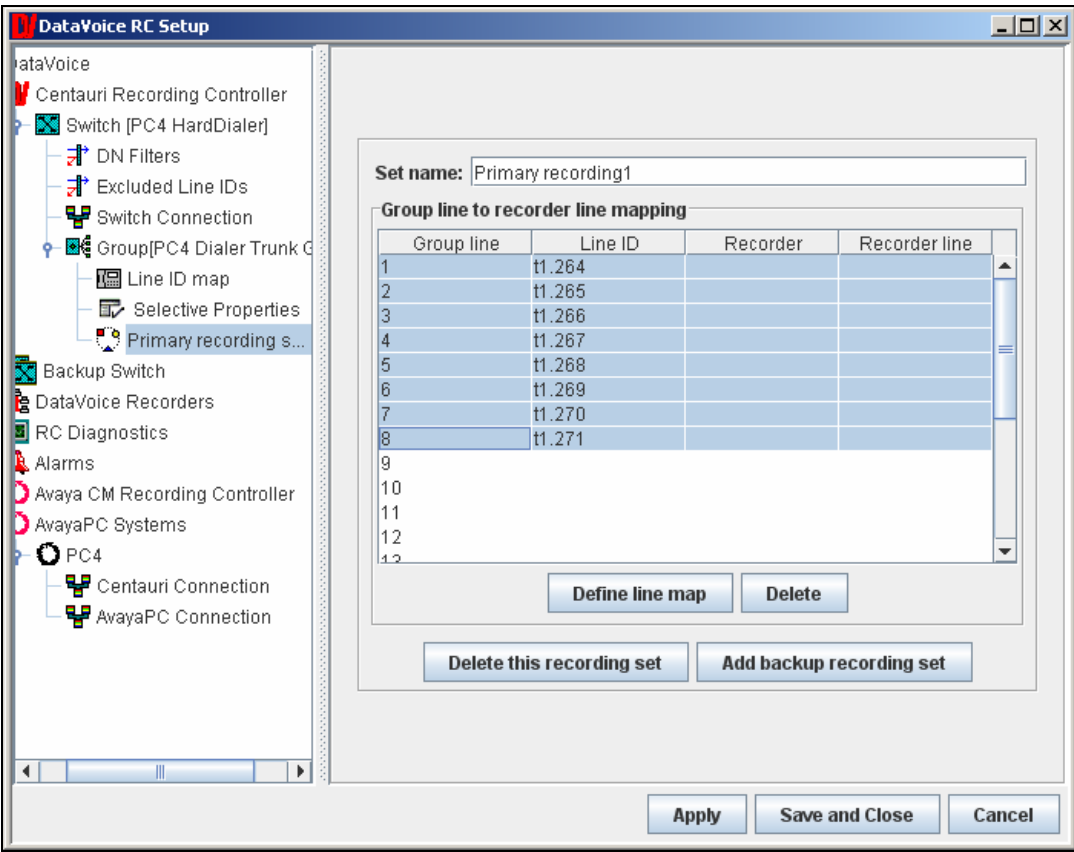
Step	Description
7.	<p>Select Centauri Recording Controller in the left pane and click Add Switch.</p> 

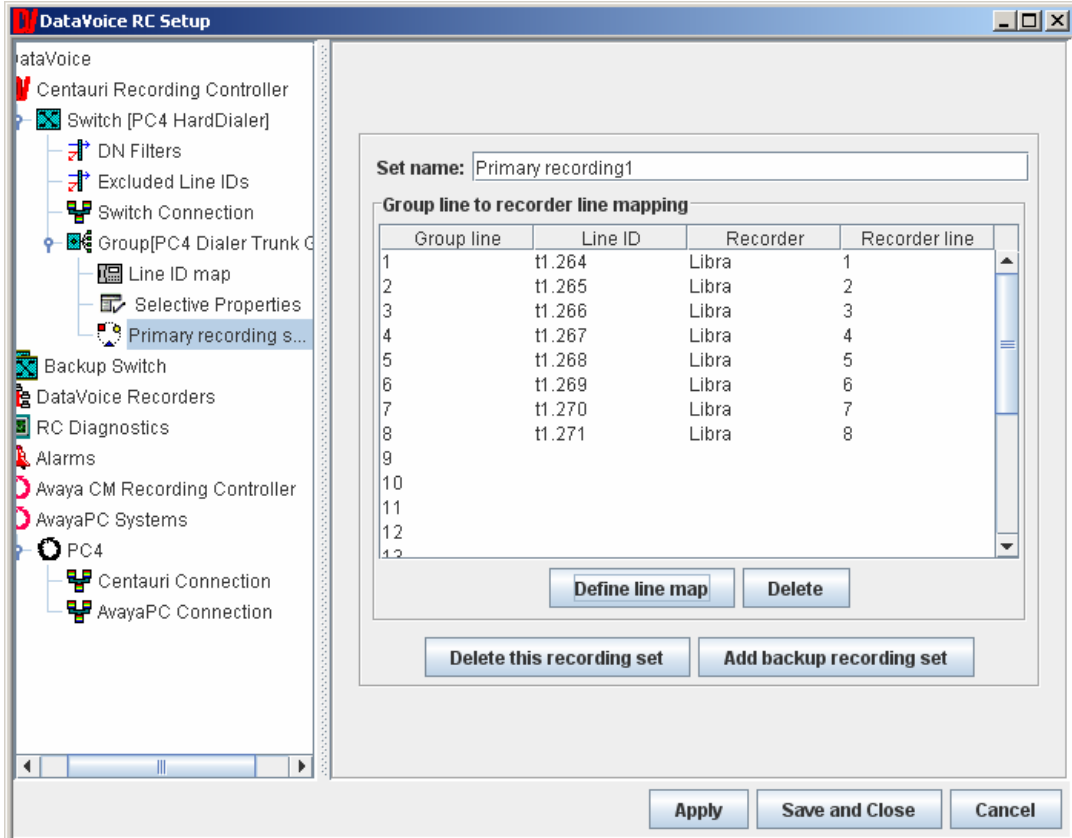
Step	Description
8.	<p>Click on Centauri under Centauri Recording Controller in the left pane and configure as follows:</p> <ul style="list-style-type: none"> • Switch name - Enter any descriptive name. • Click Add Group.
 <p>The screenshot shows the 'DataVoice RC Setup' window. On the left is a tree view with 'Centauri' selected under 'Centauri Recording Control'. The main area shows configuration for 'Switch name: PC4 HardDialer'. Under 'Global Settings', there are several checkboxes: 'Record all calls', 'Always send messages to the user', 'Suppress telephone numbers for private calls', 'Always send messages to the partner in the call', and 'Disable the audible alarm when sending messages'. Under 'CTI Settings', there is a checkbox for 'Send an Event Timeout alarm after' followed by a text box and 'Minute(s)'. At the bottom are buttons for 'Delete this Switch', 'Add Group', 'Apply', 'Save and Close', and 'Cancel'.</p>	

Step	Description
9.	<p>Select Group in the left pane and configure as follows:</p> <ul style="list-style-type: none"> • Group Name – Set to any descriptive name. • Group options – Select the Free seating option. 

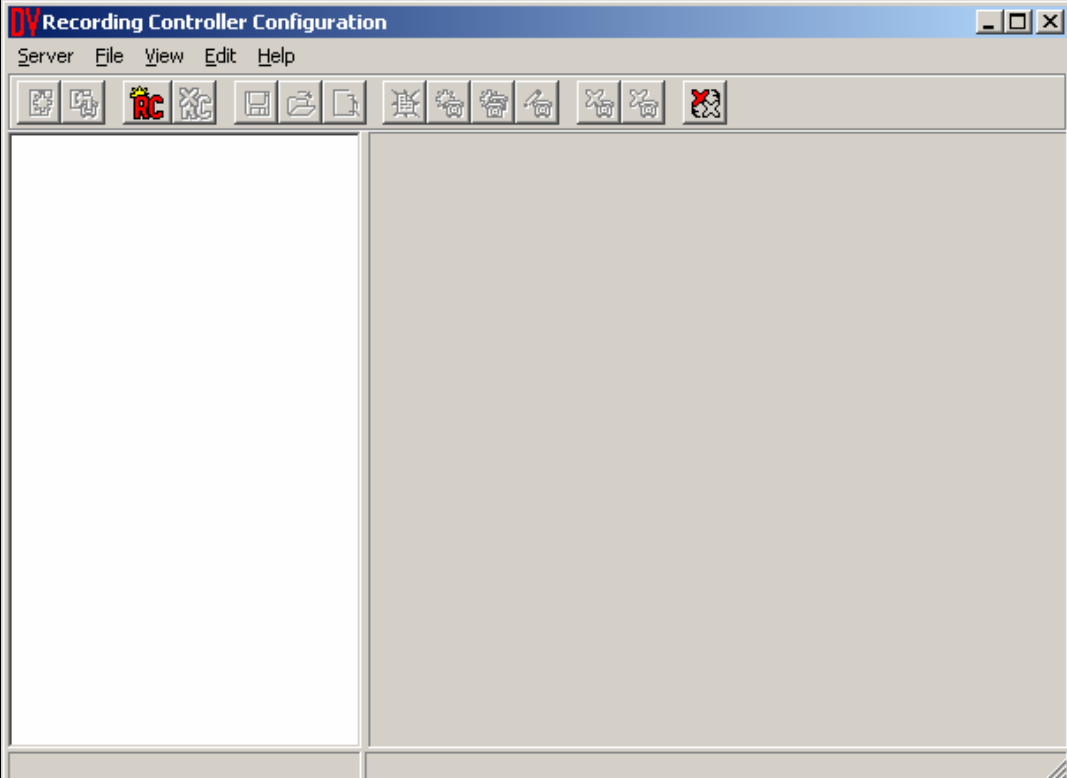
Step	Description
<p>10.</p>	<p>Select Line ID map in the left pane and click Set line ID(s).</p> 
<p>11.</p>	<p>At Line ID popup screen, configure as follows:</p> <ul style="list-style-type: none"> • ID Type – Select Trunk. • Line ID (Trunk) – Set to the port/trunk id in Section 4, Step 1. • Line ID (tslot) – Set to the timeslot in Section 4, Step 1. • Click OK. 
<p>12.</p>	<p>Repeat Steps 11-12 to configure additional time slots.</p>

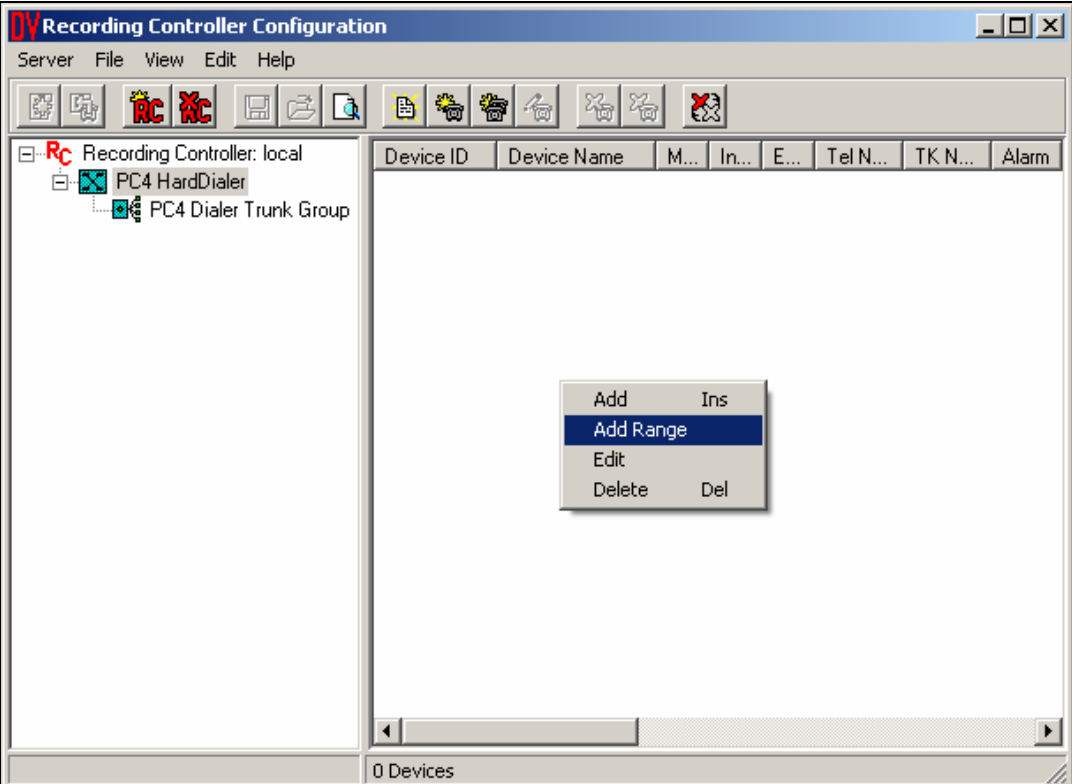
Step	Description																																												
13.	<p>The following confirmation screen appears after all the timeslots are configured. For this compliance test, only 8 timeslots were configured to match the number of headset extensions configured on Avaya HardDialer and displayed in Section 4, Step 1.</p>  <p>The screenshot shows the 'DataVoice RC Setup' window. On the left is a tree view with 'Line ID map' selected. The main area contains a table with two columns: 'Group line' and 'Line ID'. The table lists 21 rows, with the first 8 rows containing data and the remaining 13 rows being empty. Below the table are buttons for 'Set line ID(s)', 'Clear ID(s)', 'Import ID(s)', and 'Export ID(s)'. At the bottom of the window are 'Apply', 'Save and Close', and 'Cancel' buttons.</p> <table border="1" data-bbox="738 504 1372 1039"> <thead> <tr> <th>Group line</th> <th>Line ID</th> </tr> </thead> <tbody> <tr><td>1</td><td>t1.264</td></tr> <tr><td>2</td><td>t1.265</td></tr> <tr><td>3</td><td>t1.266</td></tr> <tr><td>4</td><td>t1.267</td></tr> <tr><td>5</td><td>t1.268</td></tr> <tr><td>6</td><td>t1.269</td></tr> <tr><td>7</td><td>t1.270</td></tr> <tr><td>8</td><td>t1.271</td></tr> <tr><td>9</td><td></td></tr> <tr><td>10</td><td></td></tr> <tr><td>11</td><td></td></tr> <tr><td>12</td><td></td></tr> <tr><td>13</td><td></td></tr> <tr><td>14</td><td></td></tr> <tr><td>15</td><td></td></tr> <tr><td>16</td><td></td></tr> <tr><td>17</td><td></td></tr> <tr><td>18</td><td></td></tr> <tr><td>19</td><td></td></tr> <tr><td>20</td><td></td></tr> <tr><td>21</td><td></td></tr> </tbody> </table>	Group line	Line ID	1	t1.264	2	t1.265	3	t1.266	4	t1.267	5	t1.268	6	t1.269	7	t1.270	8	t1.271	9		10		11		12		13		14		15		16		17		18		19		20		21	
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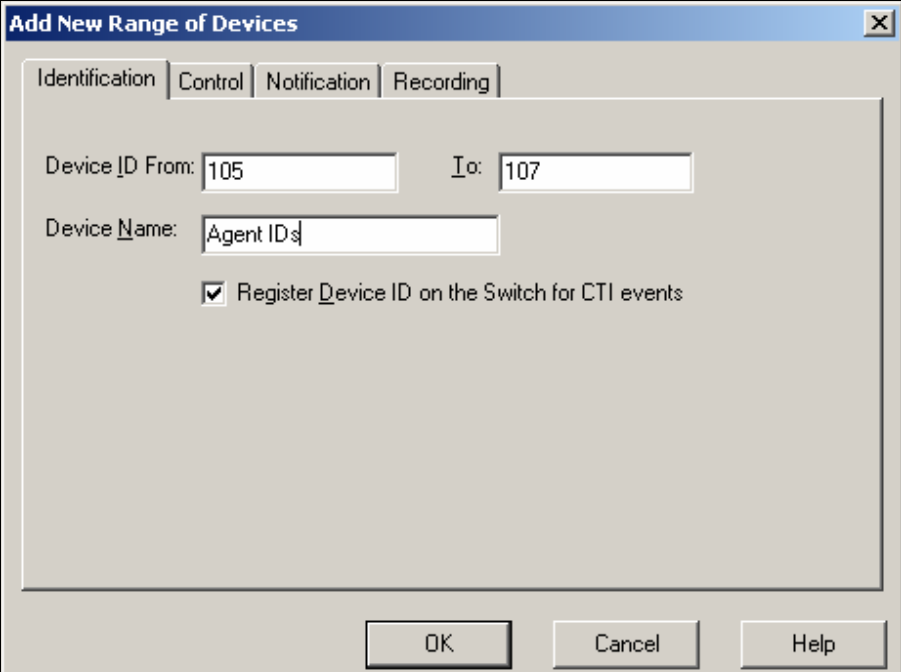
Step	Description																																																								
14.	<p>Select Primary recording... in the left pane and configure as follows:</p> <ul style="list-style-type: none"> • Set name – Enter any descriptive name. • Click Define line map. • At the next popup screen [not shown], click OK. 																																																								
 <p>The screenshot shows the 'DataVoice RC Setup' window. On the left is a tree view with 'Primary recording s...' selected. The main area shows a 'Set name' field with 'Primary recording1'. Below it is a table for 'Group line to recorder line mapping' with the following data:</p> <table border="1" data-bbox="716 638 1382 978"> <thead> <tr> <th>Group line</th> <th>Line ID</th> <th>Recorder</th> <th>Recorder line</th> </tr> </thead> <tbody> <tr><td>1</td><td>t1.264</td><td></td><td></td></tr> <tr><td>2</td><td>t1.265</td><td></td><td></td></tr> <tr><td>3</td><td>t1.266</td><td></td><td></td></tr> <tr><td>4</td><td>t1.267</td><td></td><td></td></tr> <tr><td>5</td><td>t1.268</td><td></td><td></td></tr> <tr><td>6</td><td>t1.269</td><td></td><td></td></tr> <tr><td>7</td><td>t1.270</td><td></td><td></td></tr> <tr><td>8</td><td>t1.271</td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td><td></td></tr> <tr><td>13</td><td></td><td></td><td></td></tr> </tbody> </table> <p>Buttons at the bottom include 'Define line map', 'Delete', 'Delete this recording set', 'Add backup recording set', 'Apply', 'Save and Close', and 'Cancel'.</p>		Group line	Line ID	Recorder	Recorder line	1	t1.264			2	t1.265			3	t1.266			4	t1.267			5	t1.268			6	t1.269			7	t1.270			8	t1.271			9				10				11				12				13			
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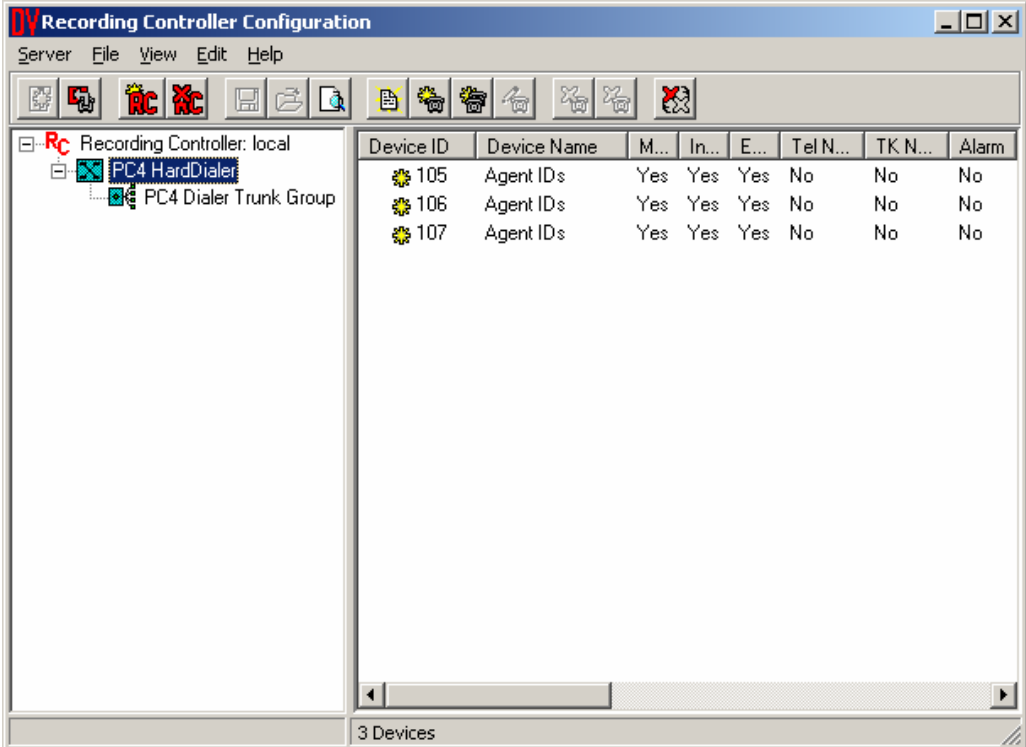
Step	Description																																																				
15.	<p data-bbox="360 233 1271 300">At the following confirmation screen, click Save and Close to save the configuration.</p>  <p data-bbox="360 338 1425 1171">The screenshot shows the 'DataVoice RC Setup' window. On the left is a tree view with 'Primary recording s...' selected. The main area displays a 'Set name' field containing 'Primary recording1' and a table titled 'Group line to recorder line mapping'. The table has four columns: 'Group line', 'Line ID', 'Recorder', and 'Recorder line'. The data in the table is as follows:</p> <table border="1" data-bbox="727 562 1383 898"> <thead> <tr> <th>Group line</th> <th>Line ID</th> <th>Recorder</th> <th>Recorder line</th> </tr> </thead> <tbody> <tr><td>1</td><td>t1.264</td><td>Libra</td><td>1</td></tr> <tr><td>2</td><td>t1.265</td><td>Libra</td><td>2</td></tr> <tr><td>3</td><td>t1.266</td><td>Libra</td><td>3</td></tr> <tr><td>4</td><td>t1.267</td><td>Libra</td><td>4</td></tr> <tr><td>5</td><td>t1.268</td><td>Libra</td><td>5</td></tr> <tr><td>6</td><td>t1.269</td><td>Libra</td><td>6</td></tr> <tr><td>7</td><td>t1.270</td><td>Libra</td><td>7</td></tr> <tr><td>8</td><td>t1.271</td><td>Libra</td><td>8</td></tr> <tr><td>9</td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td><td></td></tr> </tbody> </table> <p data-bbox="727 907 1383 1024">Below the table are buttons for 'Define line map' and 'Delete'. At the bottom of the window are buttons for 'Delete this recording set', 'Add backup recording set', 'Apply', 'Save and Close', and 'Cancel'.</p>	Group line	Line ID	Recorder	Recorder line	1	t1.264	Libra	1	2	t1.265	Libra	2	3	t1.266	Libra	3	4	t1.267	Libra	4	5	t1.268	Libra	5	6	t1.269	Libra	6	7	t1.270	Libra	7	8	t1.271	Libra	8	9				10				11				12			
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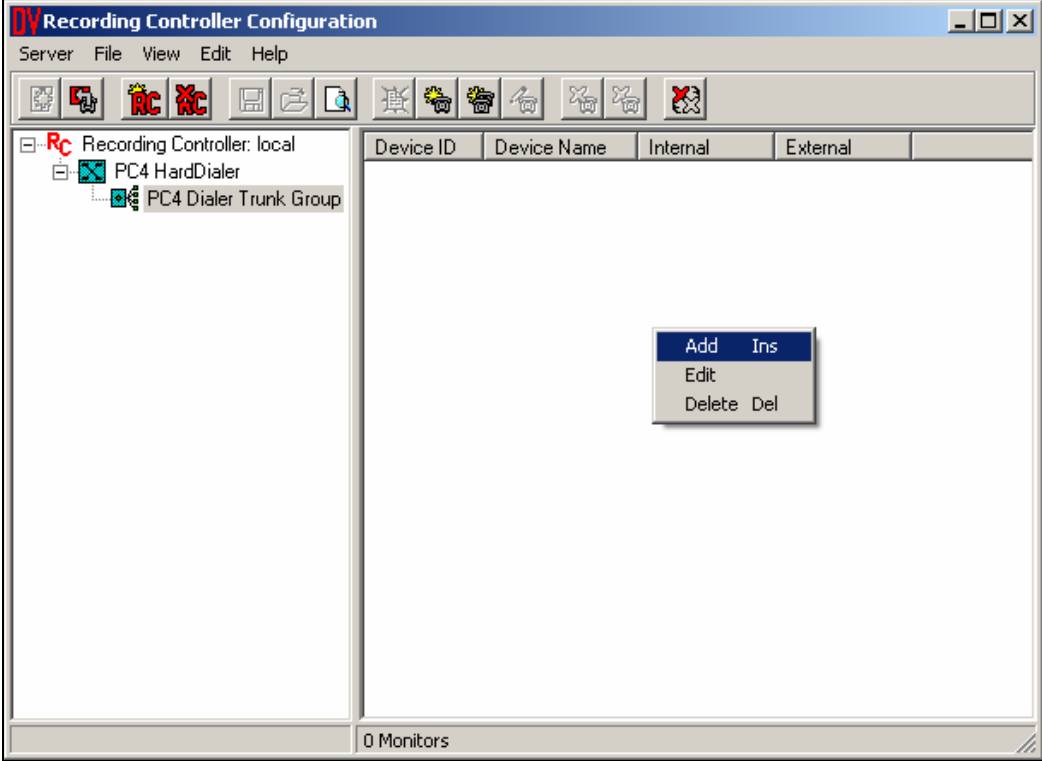
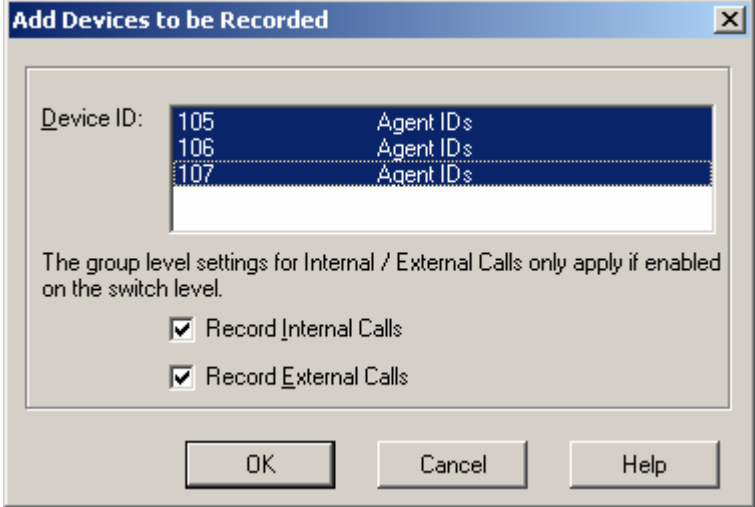
5.4. Avaya PC Recording Controller Configuration

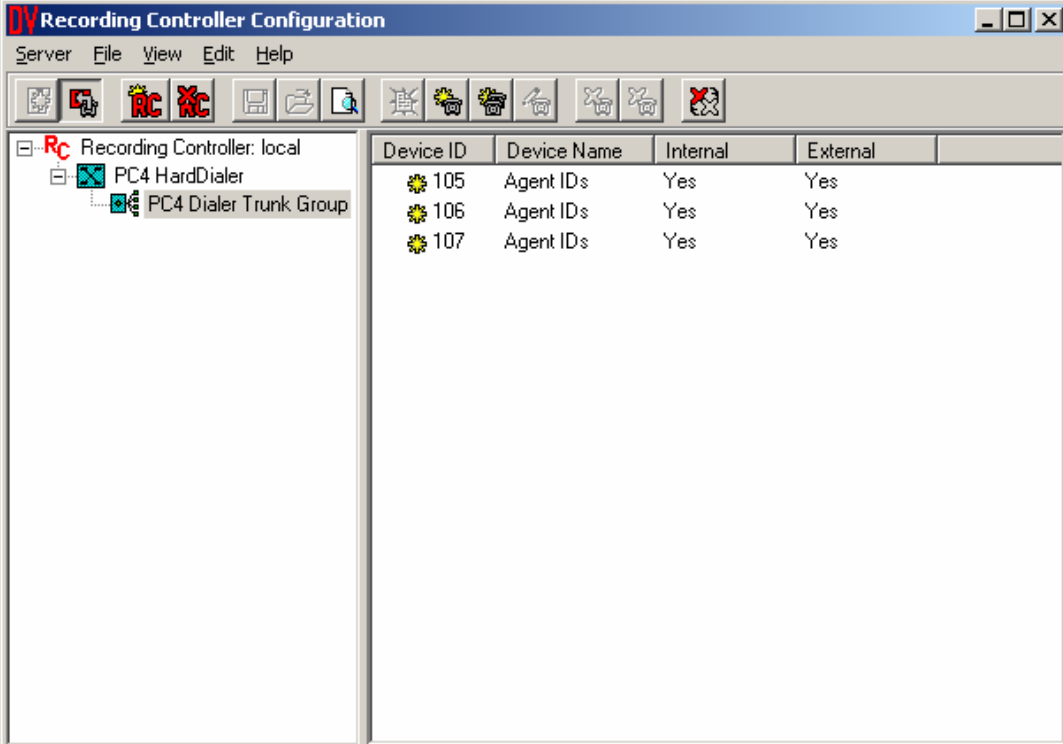
Step	Description
1.	<p>Navigate to All Programs->DataVoice->CentauriRC->DV Recording Controller Configuration to display the following screen and click on the red RC button. At the next popup screen [not displayed] click OK.</p> 

Step	Description
2.	<p>Select PC4 HardDialer from the left pane, then right click in the right pane to display the popup screen and select Add Range.</p> 

Step	Description
3.	<p>At the Add New Range of Devices popup window, configure as follows:</p> <ul style="list-style-type: none">• Device ID From: - Enter the starting agent id configured on Avaya HardDialer to be recorded.• To: - Enter the ending agent id configured on Avaya HardDialer to be recorded.• Device Name – Set to any descriptive name.• Click OK. 

Step	Description																																
4.	<p data-bbox="358 233 922 268">Following confirmation screen is displayed.</p>  <p data-bbox="386 302 1406 1045">The screenshot shows a software window titled "Recording Controller Configuration". It has a menu bar with "Server", "File", "View", "Edit", and "Help". Below the menu bar is a toolbar with various icons. The main area is split into two panes. The left pane shows a tree view with "Recording Controller: local" expanded to show "PC4 HardDialer" and "PC4 Dialer Trunk Group". The right pane contains a table with the following data:</p> <table border="1" data-bbox="737 432 1390 548"> <thead> <tr> <th>Device ID</th> <th>Device Name</th> <th>M...</th> <th>In...</th> <th>E...</th> <th>Tel N...</th> <th>TK N...</th> <th>Alarm</th> </tr> </thead> <tbody> <tr> <td>105</td> <td>Agent IDs</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>No</td> <td>No</td> <td>No</td> </tr> <tr> <td>106</td> <td>Agent IDs</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>No</td> <td>No</td> <td>No</td> </tr> <tr> <td>107</td> <td>Agent IDs</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>No</td> <td>No</td> <td>No</td> </tr> </tbody> </table> <p data-bbox="737 1016 818 1041">3 Devices</p>	Device ID	Device Name	M...	In...	E...	Tel N...	TK N...	Alarm	105	Agent IDs	Yes	Yes	Yes	No	No	No	106	Agent IDs	Yes	Yes	Yes	No	No	No	107	Agent IDs	Yes	Yes	Yes	No	No	No
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107	Agent IDs	Yes	Yes	Yes	No	No	No																										

Step	Description
5.	<p>Select PC4 Dialer Trunk Group in the left pane, then right click in the right pane and select Add Ins.</p>  <p>The screenshot shows the 'Recording Controller Configuration' application window. On the left, a tree view shows 'Recording Controller: local' expanded to 'PC4 HardDialer', which is further expanded to 'PC4 Dialer Trunk Group'. The right pane is empty with a table header containing 'Device ID', 'Device Name', 'Internal', and 'External'. A context menu is open over the right pane, with 'Add Ins' selected. The status bar at the bottom indicates '0 Monitors'.</p>
6.	<p>Select all the agent ids and click OK.</p>  <p>The screenshot shows the 'Add Devices to be Recorded' dialog box. It features a list box with three entries: '105 Agent IDs', '106 Agent IDs', and '107 Agent IDs', all of which are selected. Below the list box, there is a note: 'The group level settings for Internal / External Calls only apply if enabled on the switch level.' Two checkboxes are present: 'Record Internal Calls' and 'Record External Calls', both of which are checked. At the bottom, there are three buttons: 'OK', 'Cancel', and 'Help'.</p>

Step	Description																
7.	<p>This is the confirmation screen. Click the 2nd button from the left to save the configuration.</p>  <table border="1" data-bbox="730 472 1421 1081"> <thead> <tr> <th>Device ID</th> <th>Device Name</th> <th>Internal</th> <th>External</th> </tr> </thead> <tbody> <tr> <td>105</td> <td>Agent IDs</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>106</td> <td>Agent IDs</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>107</td> <td>Agent IDs</td> <td>Yes</td> <td>Yes</td> </tr> </tbody> </table>	Device ID	Device Name	Internal	External	105	Agent IDs	Yes	Yes	106	Agent IDs	Yes	Yes	107	Agent IDs	Yes	Yes
Device ID	Device Name	Internal	External														
105	Agent IDs	Yes	Yes														
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6. Interoperability Compliance Testing

This interoperability compliance test covered feature functionality, serviceability and basic load testing. Feature functionality focused on verifying that the DataVoice Recording solution could successfully record calls when using events from Avaya HardDialer Event Service.

Serviceability testing verified that the DataVoice Recording solution recovered from adverse conditions, such as rebooting, power failure and network disconnect. Basic load testing verified that the recording solution could successfully record calls for an extended period of time.

6.1. General Test Approach

Serviceability and basic functionality test cases were performed manually. During the manual tests, outbound calls were placed by Avaya HardDialer and routed to an available agent. The agent accepted the call and the conversation between the customer and the agent was recorded. The recordings were viewed using Libra Recorder web interface. During the basic load testing, Avaya HardDialer executed a calling list which delivered calls to the agents for sustained periods.

6.2. Test Results

Libra Recorder successfully recorded, stored and played back the calls between the agents and the customers. For serviceability testing, Libra Recorder resumed recording calls after restoration of connectivity to the Avaya HardDialer, after network disconnect/re-connect, and after reset of Libra Recorder. For stability testing, Libra Recorder successfully recorded calls for a sustained period of time.

Following observations were made during testing:

- When Stop on Hold feature is disabled and call is transferred, recording of that call does not stop until another call by same agent is initiated. A workaround is to not disable Stop on Hold feature.
- Calls put on hold have two separate recordings.
- Libra Recorder has two separate recordings for Work Transfer in Intelligent Call Blending campaign.
- Libra Recorder only records the first part of the call for transfers if the party that was transferred to is not an agent on the dialer.

7. Verification

7.1. Avaya Communication Manager

Step	Description																																																												
1.	Execute the test board slot_no , where <i>slot_no</i> is the location of the DS1 card on Avaya Communication Manager gateway. Verify that all the following tests pass after the trunk has been tapped to connect to Libra Recorder.																																																												
	test board 1a14 Page 1																																																												
	TEST RESULTS																																																												
	<table border="1"> <thead> <tr> <th>Port</th> <th>Mtce Name</th> <th>Alt. Name</th> <th>Test No.</th> <th>Result</th> <th>Error Code</th> </tr> </thead> <tbody> <tr> <td>01A14</td> <td>UDS1-BD</td> <td></td> <td>138</td> <td>PASS</td> <td></td> </tr> <tr> <td>01A14</td> <td>UDS1-BD</td> <td></td> <td>139</td> <td>PASS</td> <td></td> </tr> <tr> <td>01A14</td> <td>UDS1-BD</td> <td></td> <td>140</td> <td>PASS</td> <td></td> </tr> <tr> <td>01A14</td> <td>UDS1-BD</td> <td></td> <td>141</td> <td>PASS</td> <td></td> </tr> <tr> <td>01A14</td> <td>UDS1-BD</td> <td></td> <td>142</td> <td>PASS</td> <td></td> </tr> <tr> <td>01A14</td> <td>UDS1-BD</td> <td></td> <td>143</td> <td>PASS</td> <td></td> </tr> <tr> <td>01A14</td> <td>UDS1-BD</td> <td></td> <td>144</td> <td>PASS</td> <td></td> </tr> <tr> <td>01A14</td> <td>UDS1-BD</td> <td></td> <td>145</td> <td>PASS</td> <td></td> </tr> <tr> <td>01A14</td> <td>UDS1-BD</td> <td></td> <td>146</td> <td>PASS</td> <td></td> </tr> </tbody> </table>	Port	Mtce Name	Alt. Name	Test No.	Result	Error Code	01A14	UDS1-BD		138	PASS		01A14	UDS1-BD		139	PASS		01A14	UDS1-BD		140	PASS		01A14	UDS1-BD		141	PASS		01A14	UDS1-BD		142	PASS		01A14	UDS1-BD		143	PASS		01A14	UDS1-BD		144	PASS		01A14	UDS1-BD		145	PASS		01A14	UDS1-BD		146	PASS	
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01A14	UDS1-BD		146	PASS																																																									

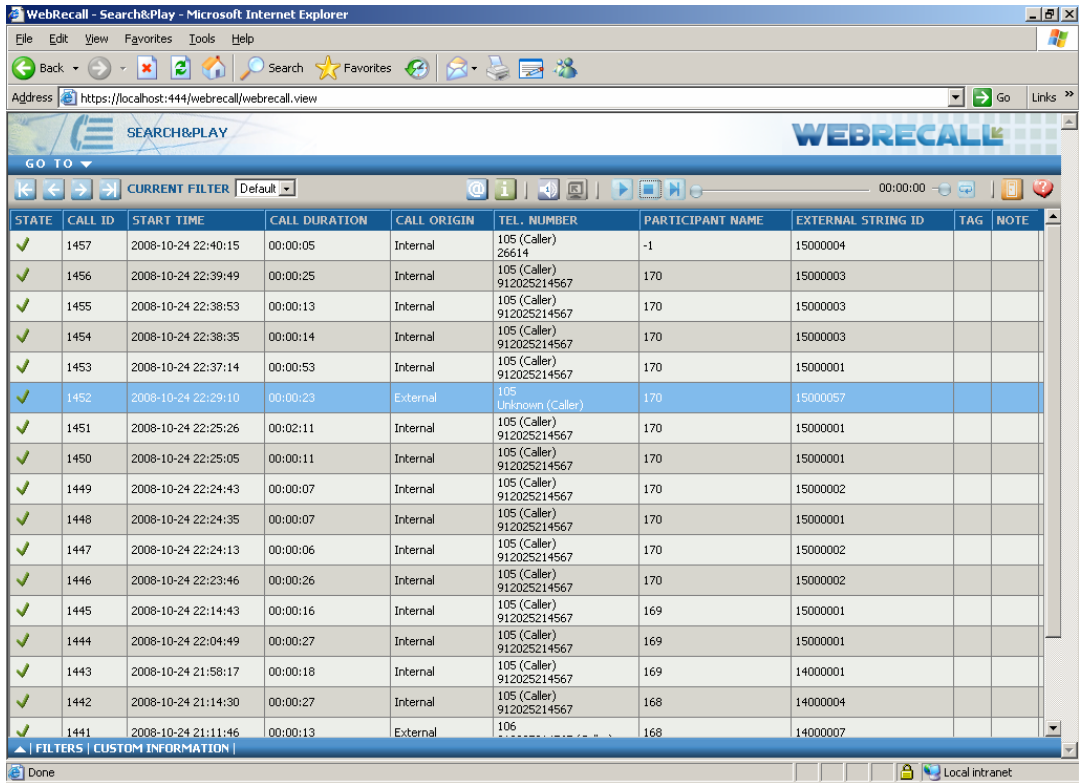
7.2. Avaya Proactive Contact

Step	Description												
1.	Execute the netstat -a at Avaya HardDialer server command prompt to verify the communication between Avaya HardDialer and the DataVoice Recording solution server. The result below shows that Libra Recorder at 192.45.30.241 is connected to the Avaya HardDialer (lzpds4b).												
	<pre>\$ netstat -a Active Internet connections (including servers) Proto Recv-Q Send-Q Local Address Foreign Address (state)</pre> <table border="1"> <tbody> <tr> <td>tcp</td> <td>0</td> <td>0</td> <td>lzpds4b:enserver_ssl</td> <td>192.45.30.241:39875</td> <td>ESTABLISHED</td> </tr> <tr> <td>tcp</td> <td>0</td> <td>0</td> <td>lzpds4b:NameService_ssl</td> <td>192.45.30.241:39874</td> <td>ESTABLISHED</td> </tr> </tbody> </table>	tcp	0	0	lzpds4b:enserver_ssl	192.45.30.241:39875	ESTABLISHED	tcp	0	0	lzpds4b:NameService_ssl	192.45.30.241:39874	ESTABLISHED
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tcp	0	0	lzpds4b:NameService_ssl	192.45.30.241:39874	ESTABLISHED								

7.3. Libra Recorder T1 Connectivity

Verify that the light is green on the T1 card on the Libra Recorder which taps into the T1 link between Avaya Communication Manager and Avaya HardDialer.

7.4. Libra Recorder Recording Playback

Step	Description																																																																																																																																																																																				
1.	<p>Following screen is a sample screen shot of the recordings using the web interface of the Libra Recorder. Each recording can be individually played to verify its quality and accuracy.</p>  <p>The screenshot shows a web browser window titled 'WebRecall - Search&Play - Microsoft Internet Explorer'. The address bar shows 'https://localhost:444/webrecal/webrecal.view'. The page header includes 'SEARCH&PLAY' and 'WEBRECALL'. Below the header is a navigation bar with 'GO TO' and 'CURRENT FILTER Default'. The main content is a table of call recordings with the following columns: STATE, CALL ID, START TIME, CALL DURATION, CALL ORIGIN, TEL. NUMBER, PARTICIPANT NAME, EXTERNAL STRING ID, TAG, and NOTE. The table contains 18 rows of data, each with a green checkmark in the STATE column. The bottom of the browser window shows 'Done' and 'Local intranet'.</p> <table border="1"> <thead> <tr> <th>STATE</th> <th>CALL ID</th> <th>START TIME</th> <th>CALL DURATION</th> <th>CALL ORIGIN</th> <th>TEL. NUMBER</th> <th>PARTICIPANT NAME</th> <th>EXTERNAL STRING ID</th> <th>TAG</th> <th>NOTE</th> </tr> </thead> <tbody> <tr><td>✓</td><td>1457</td><td>2008-10-24 22:40:15</td><td>00:00:05</td><td>Internal</td><td>105 (Caller) 26614</td><td>-1</td><td>15000004</td><td></td><td></td></tr> <tr><td>✓</td><td>1456</td><td>2008-10-24 22:39:49</td><td>00:00:25</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000003</td><td></td><td></td></tr> <tr><td>✓</td><td>1455</td><td>2008-10-24 22:38:53</td><td>00:00:13</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000003</td><td></td><td></td></tr> <tr><td>✓</td><td>1454</td><td>2008-10-24 22:38:35</td><td>00:00:14</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000003</td><td></td><td></td></tr> <tr><td>✓</td><td>1453</td><td>2008-10-24 22:37:14</td><td>00:00:53</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000001</td><td></td><td></td></tr> <tr><td>✓</td><td>1452</td><td>2008-10-24 22:29:10</td><td>00:00:23</td><td>External</td><td>105 Unknown (Caller)</td><td>170</td><td>15000057</td><td></td><td></td></tr> <tr><td>✓</td><td>1451</td><td>2008-10-24 22:25:26</td><td>00:02:11</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000001</td><td></td><td></td></tr> <tr><td>✓</td><td>1450</td><td>2008-10-24 22:25:05</td><td>00:00:11</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000001</td><td></td><td></td></tr> <tr><td>✓</td><td>1449</td><td>2008-10-24 22:24:43</td><td>00:00:07</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000002</td><td></td><td></td></tr> <tr><td>✓</td><td>1448</td><td>2008-10-24 22:24:35</td><td>00:00:07</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000001</td><td></td><td></td></tr> <tr><td>✓</td><td>1447</td><td>2008-10-24 22:24:13</td><td>00:00:06</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000002</td><td></td><td></td></tr> <tr><td>✓</td><td>1446</td><td>2008-10-24 22:23:46</td><td>00:00:26</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>170</td><td>15000002</td><td></td><td></td></tr> <tr><td>✓</td><td>1445</td><td>2008-10-24 22:14:43</td><td>00:00:16</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>169</td><td>15000001</td><td></td><td></td></tr> <tr><td>✓</td><td>1444</td><td>2008-10-24 22:04:49</td><td>00:00:27</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>169</td><td>15000001</td><td></td><td></td></tr> <tr><td>✓</td><td>1443</td><td>2008-10-24 21:58:17</td><td>00:00:18</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>169</td><td>14000001</td><td></td><td></td></tr> <tr><td>✓</td><td>1442</td><td>2008-10-24 21:14:30</td><td>00:00:27</td><td>Internal</td><td>105 (Caller) 912025214567</td><td>168</td><td>14000004</td><td></td><td></td></tr> <tr><td>✓</td><td>1441</td><td>2008-10-24 21:11:46</td><td>00:00:13</td><td>External</td><td>105</td><td>168</td><td>14000007</td><td></td><td></td></tr> </tbody> </table>	STATE	CALL ID	START TIME	CALL DURATION	CALL ORIGIN	TEL. 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8. Support

For technical support on any Spescom product, contact Spescom Customer Support at +27 (11) 266 1500. Technical support email may be sent to info@za.spescom.com.

9. Conclusion

These Application Notes describe the configuration steps required for Spescom DataVoice Recording solution to successfully interoperate with the Avaya HardDialer. All feature functionality and serviceability test cases were completed successfully.

10. Additional References

The following documents may be found at <http://support.avaya.com>:

- [1] *Administrator Guide for Avaya Communication Manager*, Document ID 03-300509, Issue 4.0, February 2007
- [2] *Implementing Proactive Contact 4.0*, May, 2008
- [3] *Administering Avaya Proactive Contact (Linux-based Interface)*, January 2008
- [4] *Sample Avaya Proactive Contact 3.0 with CTI Installation and Configuration*, Issue 1.0
- [5] *Sample Avaya Proactive Contact 3.0 Intelligent Call Blending Configuration*, Issue 1.0

Spescom DataVoice Documentation:

- [6] *DataVoice RC Server*, Document ID RCL-RC0-HBT-13, Issue 1.3, April 2008
- [7] *DataVoice Avaya Proactive Contact Recording Controller (RC)*, Document ID RCL-APC-HBT-01, Issue 1.2, April 2008

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