



Avaya Solution & Interoperability Test Lab

Application Notes for Witness Systems Impact 360 and Avaya Proactive Contact - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Witness Systems Impact 360 to successfully interoperate with Avaya Proactive Contact. Witness Systems Impact 360 is a call recording solution capable of capturing audio from Avaya Communication Manager using a variety of integration mechanism. Witness Systems Impact 360 uses Avaya Proactive Contact Event Service to extract call event information and T1 lines on the Avaya Media Gateway to obtain the audio.

Information in these Application Notes has been obtained through interoperability compliance testing and additional technical discussions. Testing was conducted via the *DeveloperConnection* Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe a compliance-tested configuration comprised of Avaya Proactive Contact 3.0 (PC3) and Witness Systems Impact 360 7.6. Impact 360 uses the Event Service of Avaya Proactive Contact 3.0 to extract call event information and T1 lines on the Avaya Media Gateway to obtain the audio.

There are different system deployment options for Avaya Proactive Contact 3.0. The deployment used in this configuration is the Avaya Proactive Contact with CTI. The Avaya Proactive Contact with CTI is a software solution that uses Avaya Telephony Services API (TSAPI) service from Avaya Application Enablement Services (AES) to communicate with Avaya Communication Manager. PC3, using Avaya Communication Manager, initiates outbound calls from a calling list. Once the call is connected to a customer, PC3 transfers the outbound call to an available agent. The Event Service of PC3 provides access to real time events and statistical information. Impact 360 interfaces with the Event Service by using the IP address of PC3 to login and register for events. Impact 360 uses the call events from the Event Service to determine when to begin and end call recording.

Impact 360 uses the Service Observing feature of Avaya Communication Manager to record calls. The Impact 360 server has a Dialogic D240 Voice Card that connects to the T1 from Avaya Communication Manager. The T1 channels are configured as DS1FD stations and are used to record the calls on the agents' telephones.

The network configuration is depicted in **Figure 1**.

Avaya Proactive Contact 3.0 Integration with Witness Impact 360 7.6

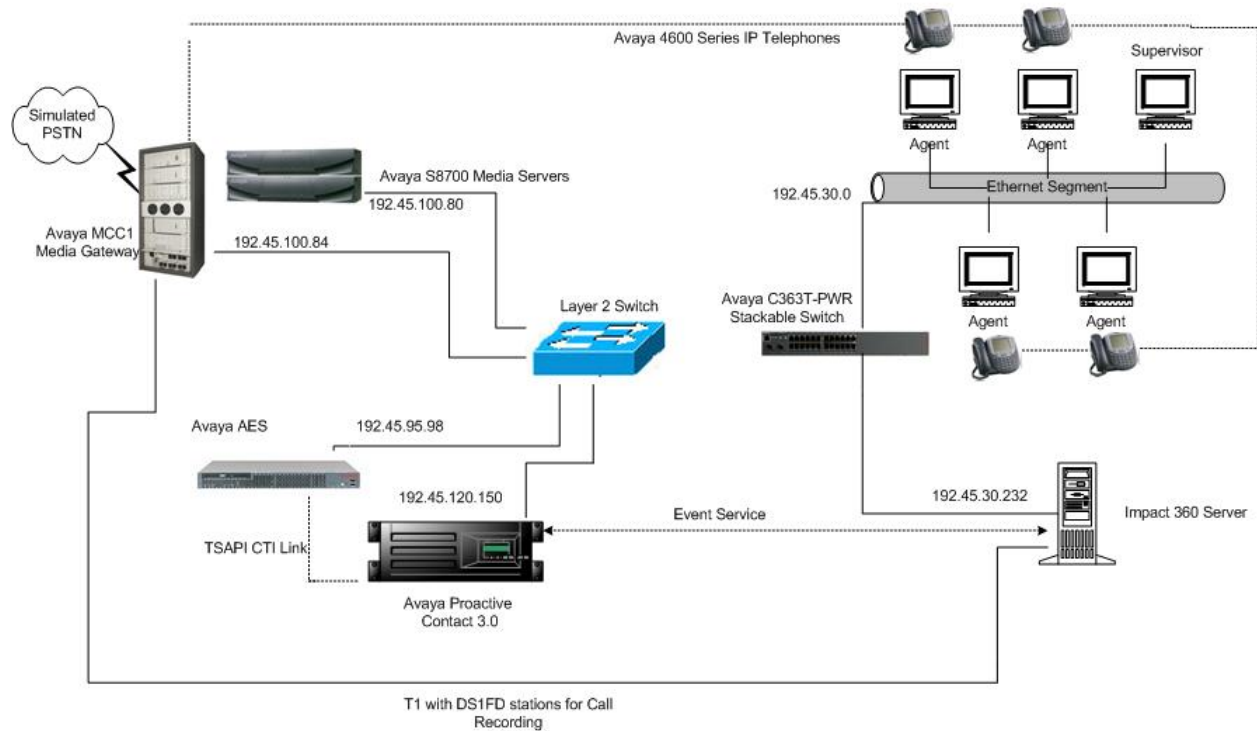


Figure 1: Avaya Proactive Contact 3.0, Avaya Communication Manager, Avaya AES and Witness Impact 360 Configuration

2. Equipment and Software Validated

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

Equipment	Software
Avaya HP C8000 Server	Proactive Contact 3.0 Build 36
Avaya S8700 Media Server	Avaya Communication Manager 3.0.1 (R013x.00.1.346.0)
Avaya MCC1 Media Gateway	
TN2312BP IP Server Interface	HW03 FW012
TN799DP C-LAN Interface	HW01 FW015
TN2302AP IP Media Processor	HW13 FW095
Avaya 4610 and 4612 IP Telephones	2.1.3 (4610SW), 1.8.3 (4624SW)
Avaya Application Enablement Services Server	3.0 Build 46
Avaya C363T-PWR Converged Stackable Switch	4.3.12
Witness Impact 360 on Windows 2000 Server	7.6 (Version 7.6.1.143)
Dialogic Voice Card in Impact 360 Server	D/240 PCI-T1

3. Configure Avaya Communication Manager

This section provides the procedures for configuring Avaya Communication Manager. The following steps will be followed:

- Configure service observing feature
- Configure DS1FD stations

For all other provisioning information, please refer to the Avaya Communication Manager product documentation.

The Avaya Communication Manager to Avaya Proactive Contact configuration is outside the scope of these Application Notes and should already be operating successfully with the following features properly configured.

- Computer Telephony Adjunct Links
- Agent States enabled
- Call Classification enabled
- Universal Call ID enabled
- Phantom Calls enabled
- Phantom Stations
- Vector Directory Numbers
- Vectors
- Announcements
- Reason Code
- Automatic Route Selection

Consult Application Notes - *Sample Avaya Proactive Contact 3.0 (PC3) with CTI Installation and Configuration*, Issue 1.0, Avaya Solution and Interoperability Test Lab – for further guidance.

3.1. Service Observing

Impact 360 uses the Avaya Communication Manager Service Observing feature to record calls on agent telephones. Implementation of the required Service Observing feature on Avaya Communication Manager can be achieved using the following series of steps. These steps are performed through the System Access Terminal (SAT) interface. The Avaya Site Administration program can be used to access the SAT interface via a telnet session.

Step	Description
1.	<p>Verify that the Service Observing (Basic) and Service Observing (Remote/By FAC) fields are set to “y” using the display system-parameters customer-options command. If they are not set to “y”, contact your Avaya sales team or business partner. A system license file controls the settings on the Call Center Optional Features form.</p> <pre> display system-parameters customer-options Page 6 of 11 CALL CENTER OPTIONAL FEATURES Call Center Release: 3.0 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 DTMF Feedback Signals For VRU? n Vectoring (Basic)? y Dynamic Advocate? n Vectoring (Prompting)? y Expert Agent Selection (EAS)? y Vectoring (G3V4 Enhanced)? y EAS-PHD? y Vectoring (3.0 Enhanced)? n Forced ACD Calls? n Vectoring (ANI/II-Digits Routing)? y Least Occupied Agent? n Vectoring (G3V4 Advanced Routing)? y Lookahead Interflow (LAI)? y Vectoring (CINFO)? y Multiple Call Handling (On Request)? y Vectoring (Best Service Routing)? n Multiple Call Handling (Forced)? y Vectoring (Holidays)? n PASTE (Display PBX Data on Phone)? y Vectoring (Variables)? n (NOTE: You must logoff & login to effect the permission changes.) </pre>
2.	<p>Add a feature access code for service observing listen only. Enter “*05” or a feature access code that conforms to the local dial plan in the Service Observing Listen Only Access Code field using the change feature-access-codes command. Submit these changes.</p> <pre> change feature-access-codes Page 5 of 8 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 Add Agent Skill Access Code: Remove Agent Skill Access Code: Remote Logout of Agent Access Code: </pre>

3.2. DS1FD Lines from the Media Gateway to the Impact 360 server

Impact 360 uses T1 or E1 lines configured as DS1FD stations to record telephone calls. Implementation of the required DS1FD stations on Avaya Communication Manager can be achieved using the following series of steps. These steps are performed through the System Access Terminal (SAT) interface. The Avaya Site Administration program can be used to access the SAT interface via a Telnet session.

Step	Description
1.	<p>Add a DS1 circuit pack to the system. The DS1 circuit pack is configured for robbed-bit signaling. Enter a descriptive name in the Name field. Set the Line Coding, Framing Mode, and Signaling Mode fields as shown. The remaining fields can retain the default values.</p> <div><pre>add ds1 1b17 DS1 CIRCUIT PACK Location: 01B17 Bit Rate: 1.544 Line Compensation: 1 Signaling Mode: robbed-bit Name: Witness Line Coding: ami-zcs Framing Mode: d4 Interface Companding: mulaw Idle Code: 11111111 Slip Detection? n Near-end CSU Type: other</pre></div>

Step	Description
3.	<p>Enter the change cor n command, where n is the class of restriction number. This COR will be used by the DS1FD stations. Set the Can Be a Service Observer field to “y”.</p> <pre> change cor 4 Page 1 of 4 CLASS OF RESTRICTION COR Number: 4 COR Description: Witness Server FRL: 7 APLT? y Can Be Service Observed? n 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? n Restriction Override: all Facility Access Trunk Test? n Restricted Call List? n Can Change Coverage? n Access to MCT? y Fully Restricted Service? n Group II Category For MFC: 7 Hear VDN of Origin Annc.? n Send ANI for MFE? n Add/Remove Agent Skills? n MF ANI Prefix: Automatic Charge Display? n Hear System Music on Hold? y PASTE (Display PBX Data on Phone)? n Can Be Picked Up By Directed Call Pickup? n Can Use Directed Call Pickup? n Group Controlled Restriction: inactive </pre>
4.	<p>Use the add station n command, where n is a valid extension. Configure each DS1 channel as a station with the Type field set to “DS1FD”. Set the COR field to “4”. Repeat this configuration for each DS1 channel. In this configuration, 24 DS1 ports were configured with an extension range of 22285 to 22308.</p> <pre> add station 22285 Page 1 of 3 STATION Extension: 22285 Lock Messages? n BCC: 0 Type: DS1FD Security Code: TN: 1 Port: 01B1701 Coverage Path 1: COR: 4 Name: CR Port 25 Coverage Path 2: COS: 1 Hunt-to Station: Tests? y STATION OPTIONS Loss Group: 4 Off Premises Station? y R Balance Network? n </pre>

Step	Description
5.	<p>On Page 2 of the station form, set the Data Restriction, Call Waiting Indication, Att. Call Waiting Indication, Distinctive Audible Alert, and Switchhook Flash fields to “n”. The remaining fields on the station form can retain the default values.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <pre> add station 22285 Page 2 of 3 STATION FEATURE OPTIONS LWC Reception: none LWC Activation? n LWC Log External Calls? n CDR Privacy? n Redirect Notification? n Per Button Ring Control? n Switchhook Flash? n Ignore Rotary Digits? n H.320 Conversion? n Service Link Mode: as-needed Multimedia Mode: basic MWI Served User Type: AUDIX Name: Coverage Msg Retrieval? n Auto Answer: none Data Restriction? n Call Waiting Indication? n Att. Call Waiting Indication? n Distinctive Audible Alert? n Adjunct Supervision? y Per Station CPN - Send Calling Number? Audible Message Waiting? n Coverage After Forwarding? s Multimedia Early Answer? n Emergency Location Ext: 22285 </pre> </div>

4. Configure Avaya Proactive Contact 3.0

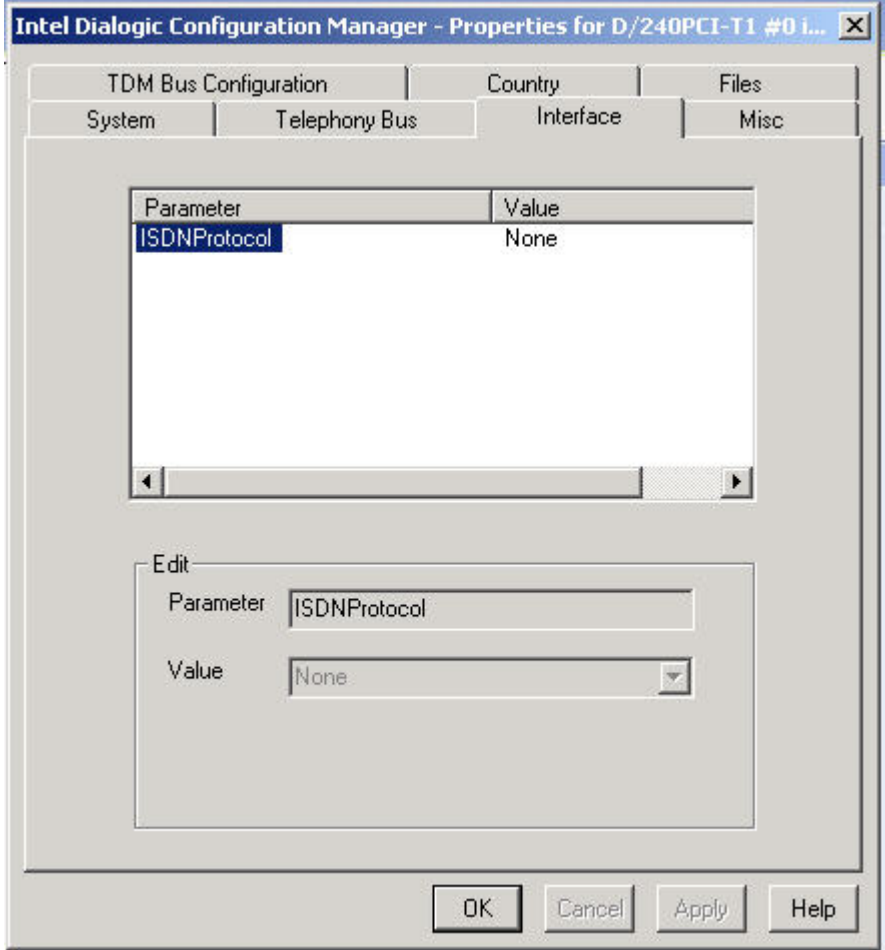
These Application Notes assume that the interface between the Avaya Proactive Contact 3.0, Avaya S8700 Media Server and Avaya Application Enablement Services has been configured and is operational, and that a calling list has been successfully downloaded to PC3. The Avaya Proactive Contact that is deployed for this test configuration is the Avaya Proactive Contact 3.0 with CTI. This deployment uses a TSAPI CTI link between Avaya Communication Manager and Avaya Application Enablement Services.

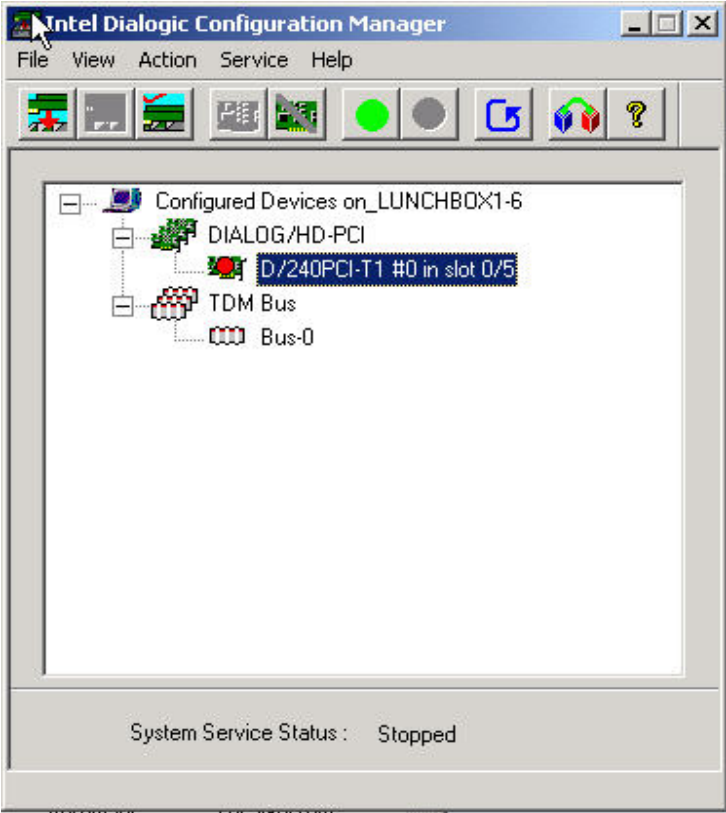
5. Configure Witness Impact 360

The following steps describe the configuration to integrate Impact 360 with Avaya Proactive Contact 3.0.

5.1. Dialogic D/240 Configuration

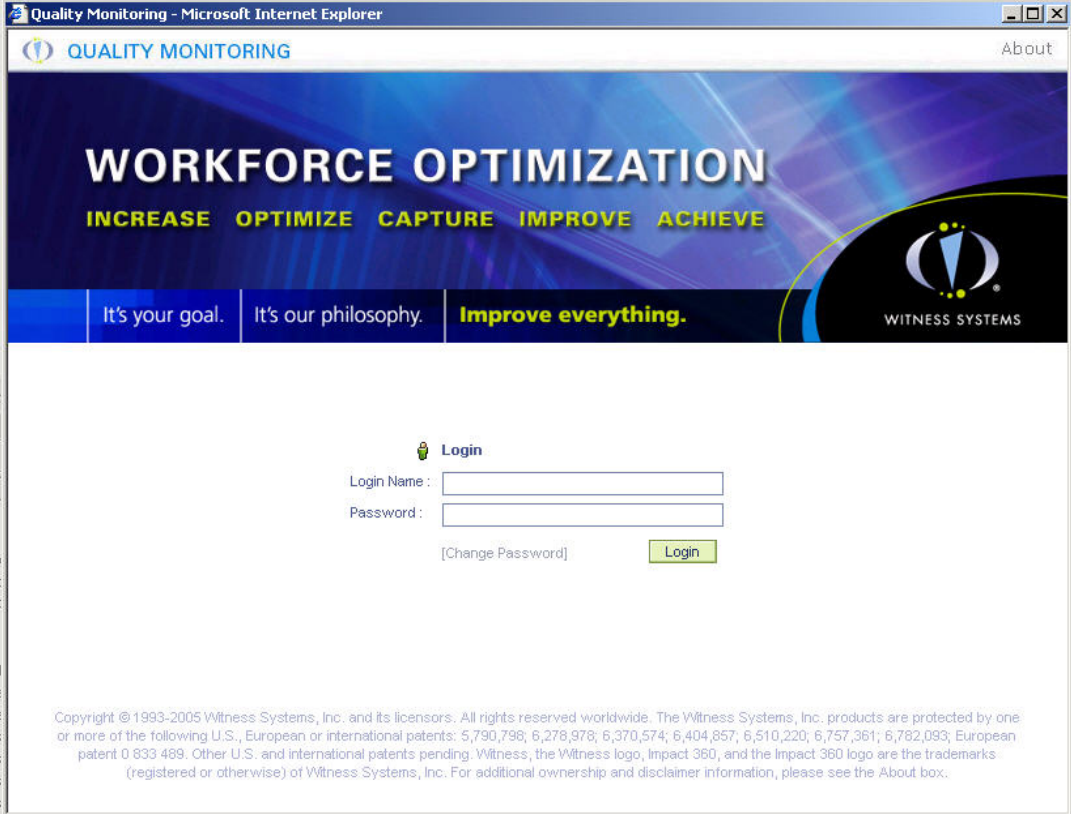
The Voice Board installed on the Impact 360 server is the Dialogic D/240. The Dialogic D/240 was configured as a robbed-bit T1 for the compliance testing.

Step	Description
1.	<p>Start the Dialogic Configuration Manager on the Impact 360 server by selecting Start → Programs → Intel Dialogic System Software → Configuration Manager – DCM. In the Interface tab set the Parameter field to “ISDNProtocol”. Click OK.</p> 

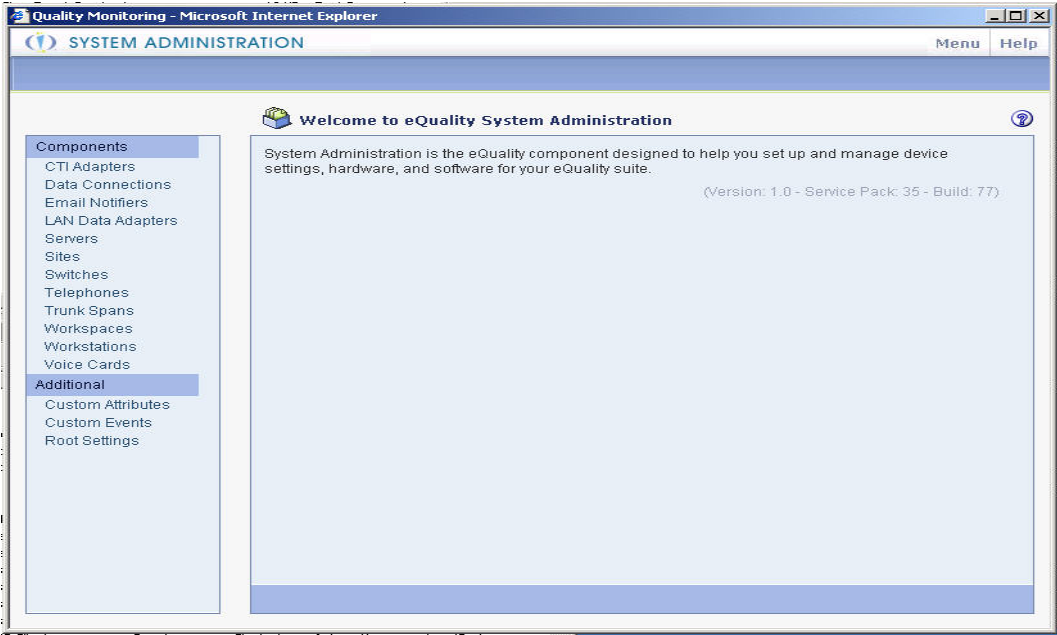
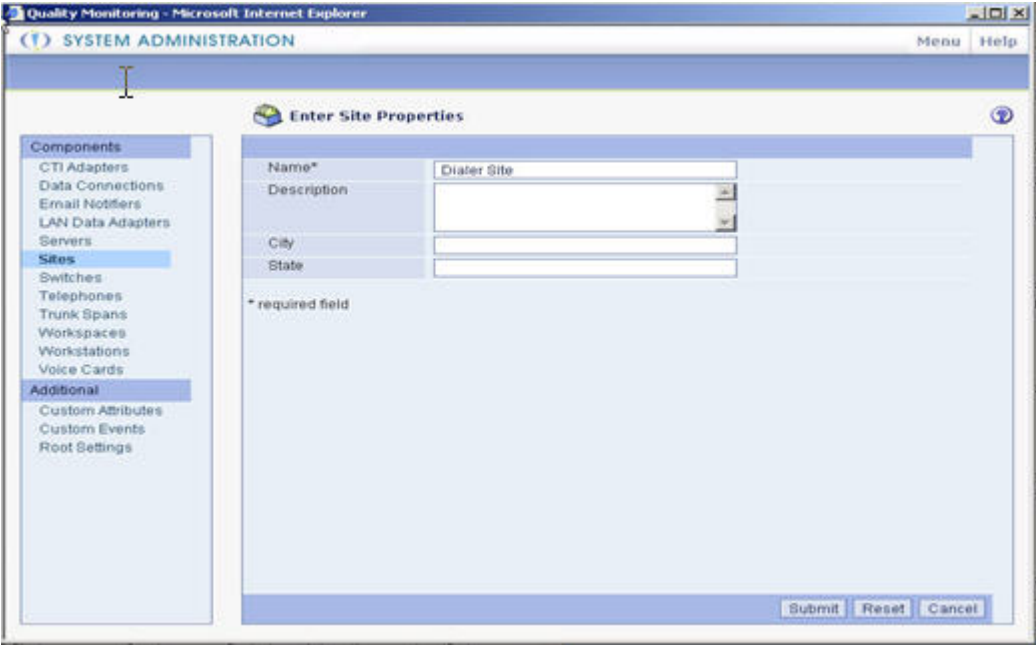
Step	Description
2.	<p>Select the entry D/240PCI-T1 #0 in slot <x>, where x is the physical slot that the Voice Board is installed on. Click on the green lamp icon to start the software.</p> 

5.2. Impact 360 System Administration Configuration

The steps in this section describe the system configuration of the Impact 360 server.

Step	Description
1.	<p>On the Impact 360 server, start the web browser and enter the IP address or system name (//machine_name/eQuality) in the URL field. The login screen is displayed. Enter the login credentials, and then click Login.</p> 

Step	Description
2.	<p>From the main menu, click SYSTEM ADMINISTRATION on the bottom left of the screen.</p> 

Step	Description
3.	<p>The System Administration menu is displayed in the left pane. All system settings are configured from this menu.</p> 
4.	<p>From the left pane, click on Sites and then click Create. Enter the Name field with a unique name that identifies the server location. The remaining fields are optional. Click Submit.</p> 

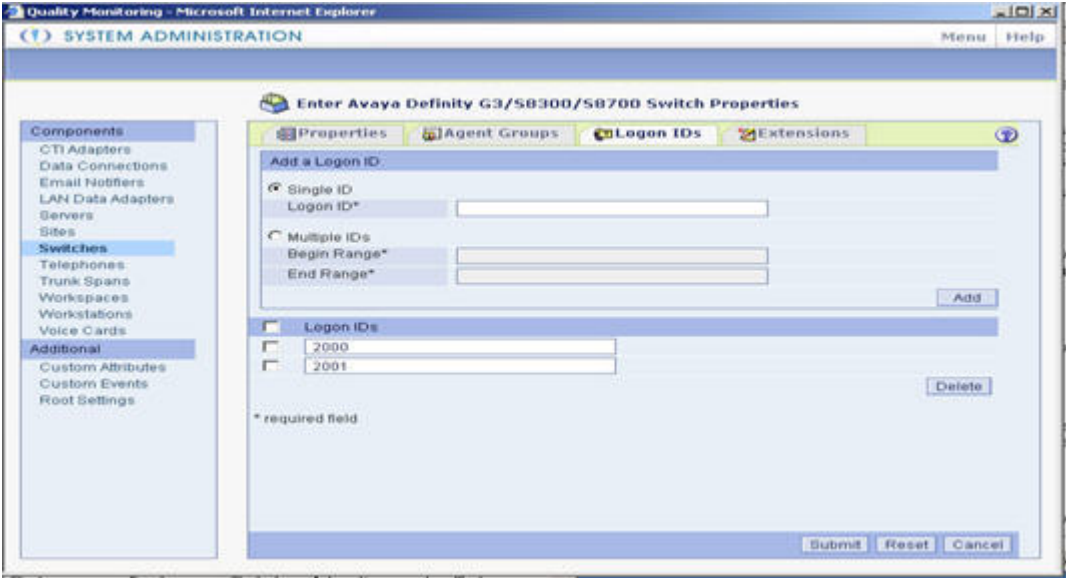
Step	Description
5.	<p>From the left pane, click on Data Connections and then click Create. Configure the following fields.</p> <ul style="list-style-type: none"> • Name – set to a unique name for the data connection. • Free Seating – check the checkbox. • Site – set to the site created in Step 4. <p>The remaining field can retain their default values. Click Submit.</p>

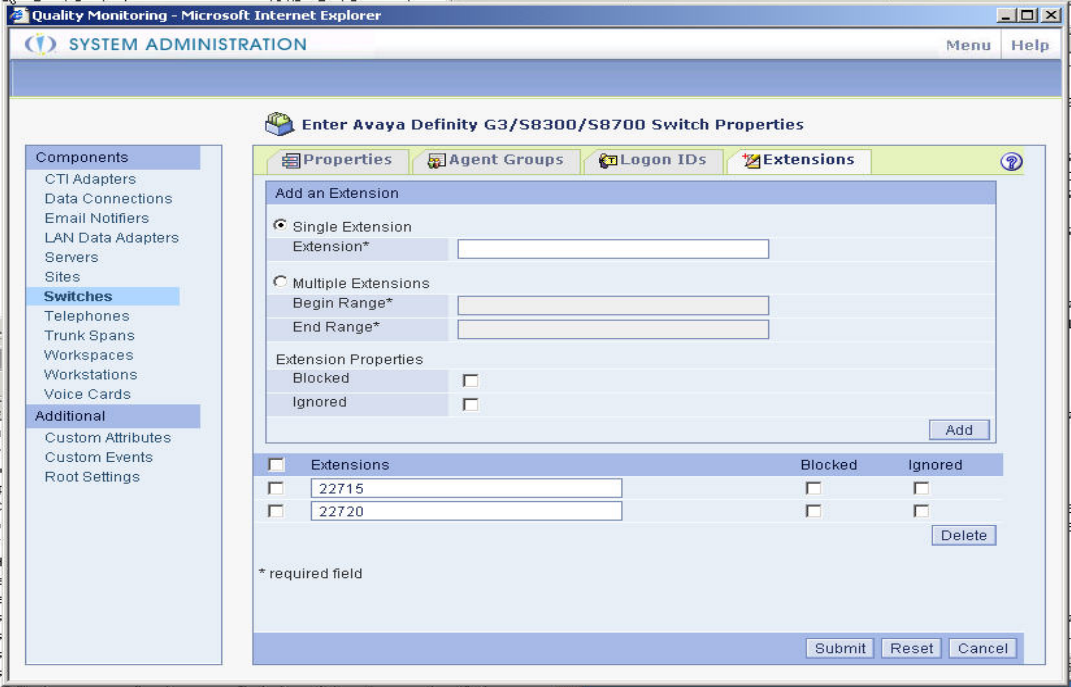
The screenshot shows the 'Enter Data Connection Properties' dialog box. On the left, a tree view under 'Components' has 'Data Connections' selected. The main panel has two tabs: 'Properties' and 'Logon IDs'. The 'Properties' tab contains the following fields:

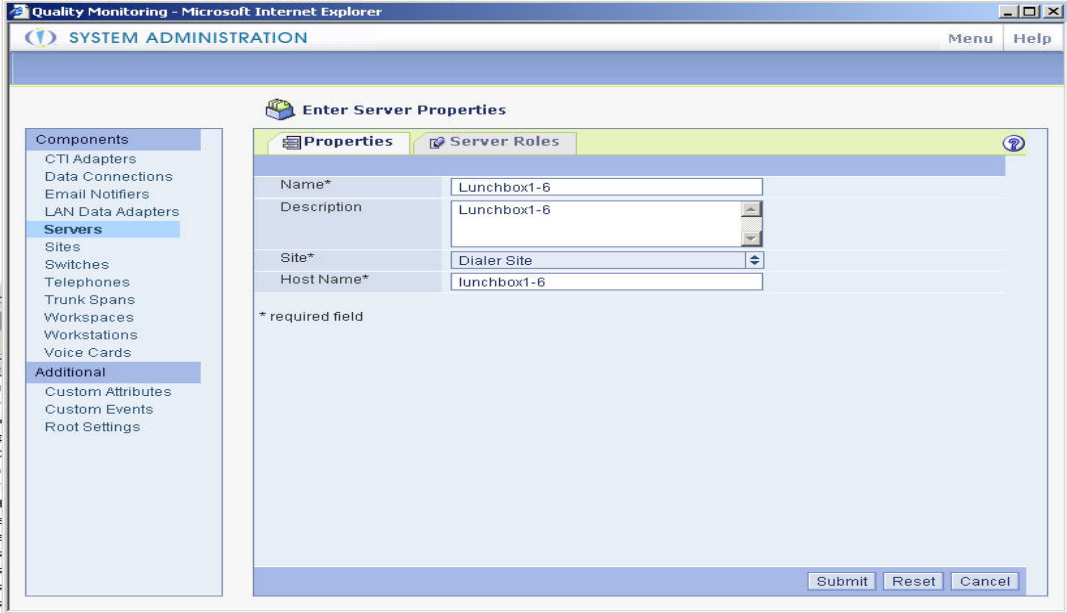
- Name***: Text box containing 'Avaya Dialer'
- Description**: Text box (empty)
- Free Seating**: Check box (checked)
- ContactStore Plus**: Check box (unchecked)
- Record Channel Threshold (channels)***: Text box containing '0'
- Playback Channel Threshold (channels)***: Text box containing '0'
- Site***: Dropdown menu showing 'Dialer Site'

At the bottom right are buttons for 'Submit', 'Reset', and 'Cancel'. A note at the bottom left states '* required field'.

Step	Description
6.	<p>From the left pane, click on Switches and then click Create. The Switch Selection page is displayed (not shown). Click Avaya Definity G3/S8300/S8700 Switch. The Enter Avaya Definity G3/S8300/S8700 Switch Properties page for the selected switch type is displayed. Configure the following fields.</p> <ul style="list-style-type: none"> • Name – set to a unique name that identifies the switch. • Site – set to the site created in Step 4. • Service Observed by – set to Extension. • Free Seating – check the checkbox. • Service Observing String – set to “*05”, as configured in Section 3.2 Step 2. <p>The remaining field can retain their default values. Click Submit.</p>

Step	Description
7.	<p>Click the Logon IDs tab on the menu bar. Click the radio button to select Single ID. Enter the Logon ID of “2000” and click Add. Repeat this for Logon ID of “2001”. Click Submit.</p> <p>Note: The Logon IDs can be found in the /etc/passwd file on the PC3 server. The Logon IDs are automatically generated by PC3 and corresponds to the PC3 agent IDs that the PC3 administrator creates.</p> 

Step	Description
8.	<p>Click the Extensions tab on the menu bar. Click the radio button to select Single Extension. Enter the extension of “22715” and click Add. Repeat this for extension “22720”. Click Submit.</p> <p>Note: These are the agent’s telephone extensions that will be recorded.</p> 

Step	Description
9.	<p>From the left pane, click on Servers and then click Create. Configure the following fields in the Properties tab.</p> <ul style="list-style-type: none"> • Name – set to a unique name for the Impact 360 server. • Site – set to the site created in Step 4. • Host Name – set to the same value as the Name field. <p>The remaining fields are optional. Click Submit.</p> 

Step	Description
10.	<p>Click Server Roles tab on the menu bar. Configure the following fields.</p> <ul style="list-style-type: none"> • BDR Server – check the checkbox. • Search Server – check the checkbox. • Web Server – check the checkbox. • eRecorder Server – check the checkbox. • Content AVI Path – set to “\\<Server Name>\Content”. • Export AVI Path – set to “\\<Server Name>\Exports”. <p>The remaining field can retain their default values. Click Submit.</p>

Quality Monitoring - Microsoft Internet Explorer

SYSTEM ADMINISTRATION

Enter Server Properties

Components

- CTI Adapters
- Data Connections
- Email Notifiers
- LAN Data Adapters
- Servers**
- Sites
- Switches
- Telephones
- Trunk Spans
- Workspaces
- Workstations
- Voice Cards

Additional

- Custom Attributes
- Custom Events
- Root Settings

Properties Server Roles

BDR Server ☒

Search Server ☒

Web Server ☒

eRecorder Server ☒

eRecorder Settings

Master Node ☒

Content AVI Path* \\Lunchbox1-6\Content

Export AVI Path* \\Lunchbox1-6\Exports

Disk Space Threshold (kilobytes)* 5242880

Reporting Frequency (seconds)* 600

Command Server ☒

Command Server Settings

Input Rate Interval (seconds)* 10

Latency Threshold (seconds)* 30

Num Performance Samples* 2

Socket Processors* 5

LMPS Server ☒

LMPS Server Settings

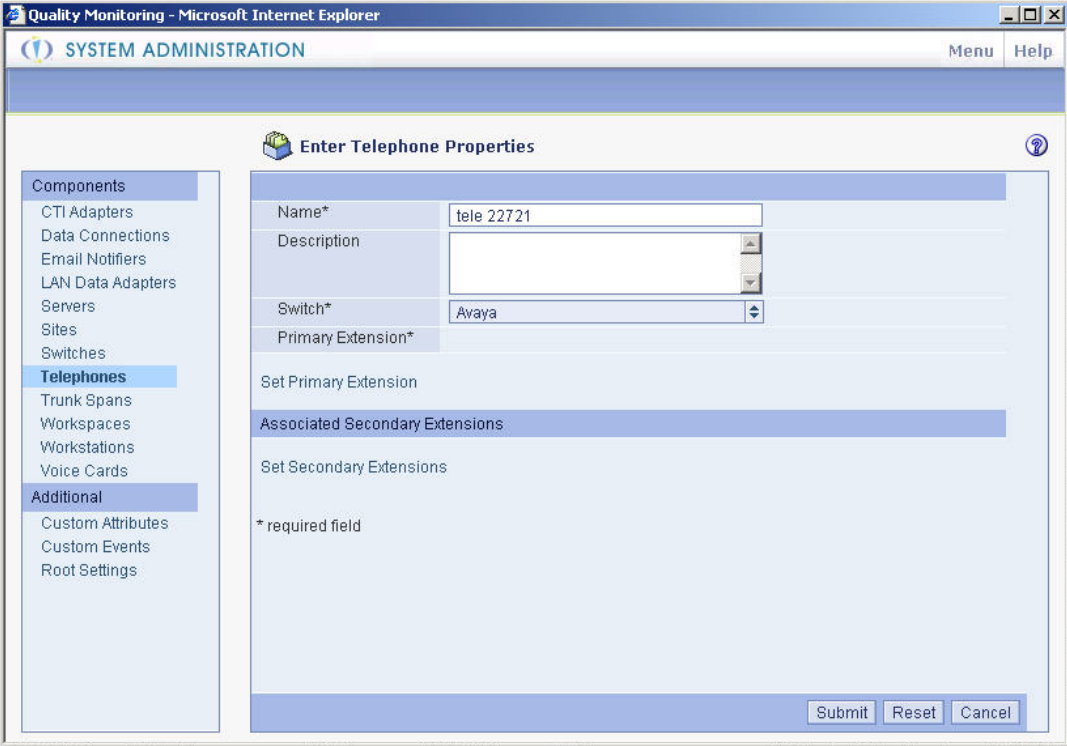
Socket Port* 3000

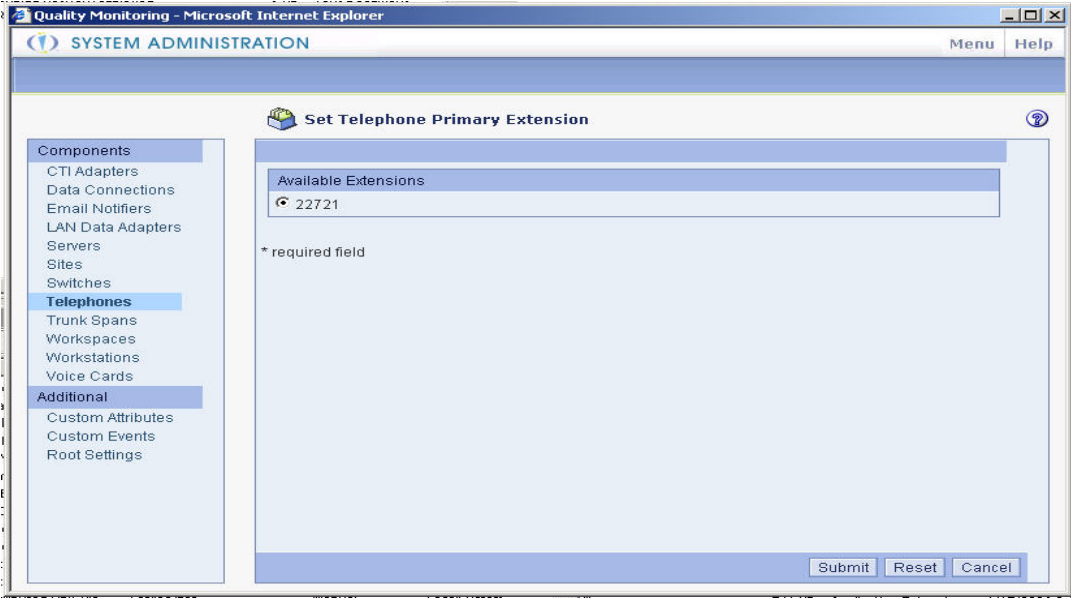
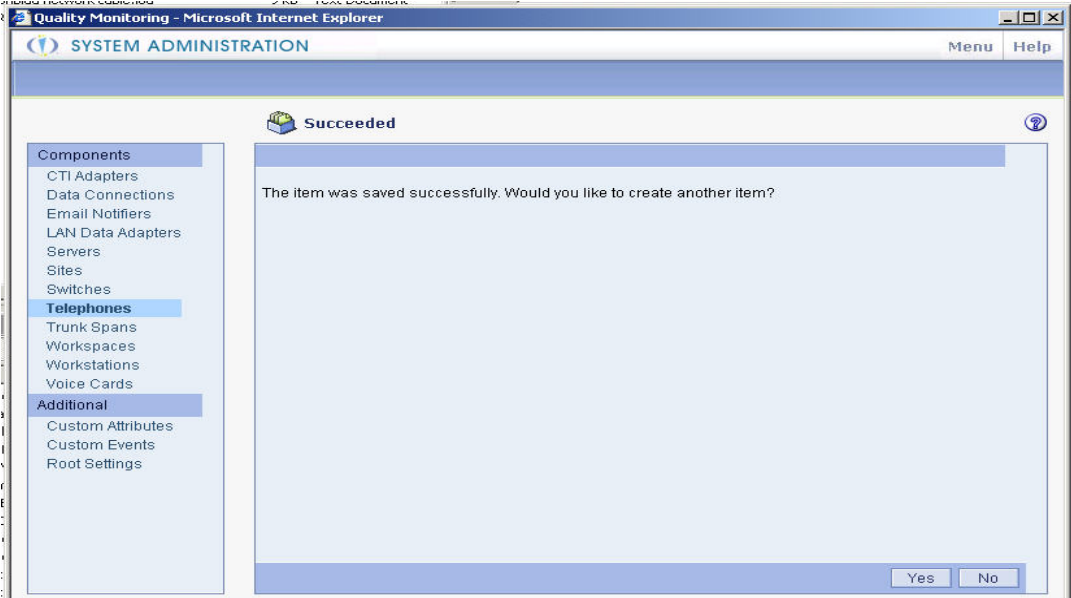
Reporting Server ☐

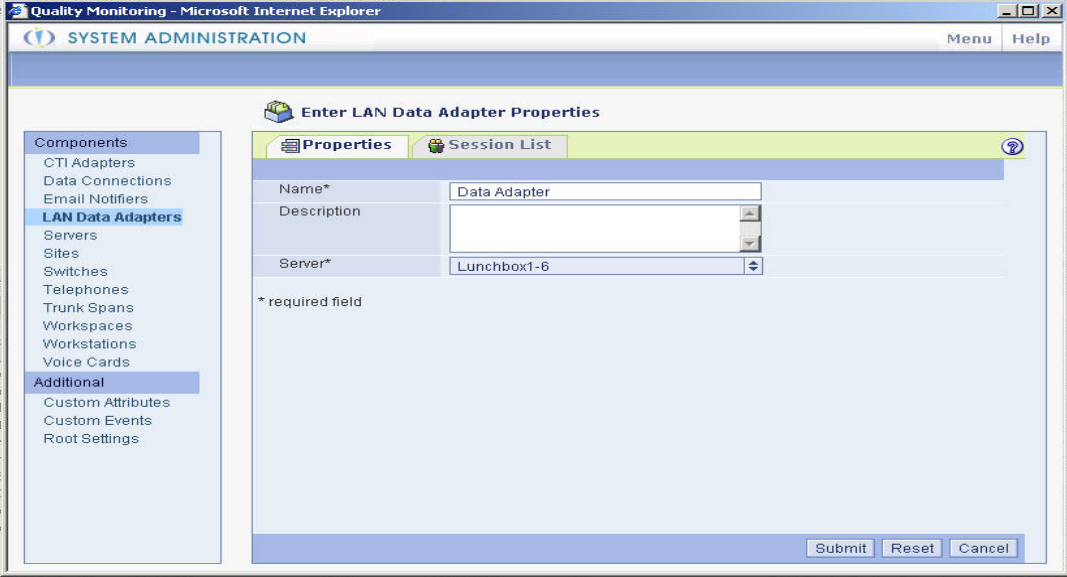
Reporting Server Settings

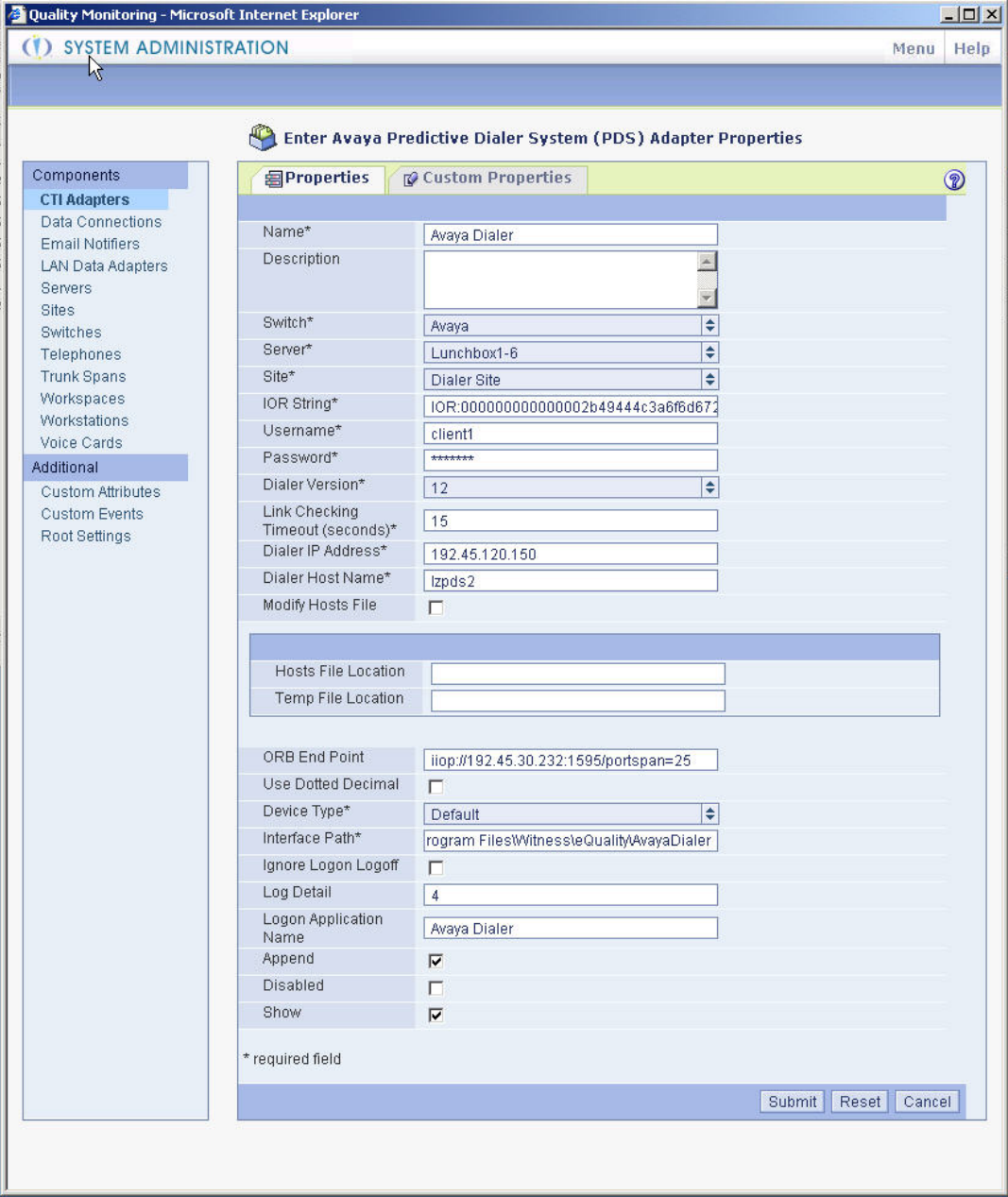
Socket Port* 8282

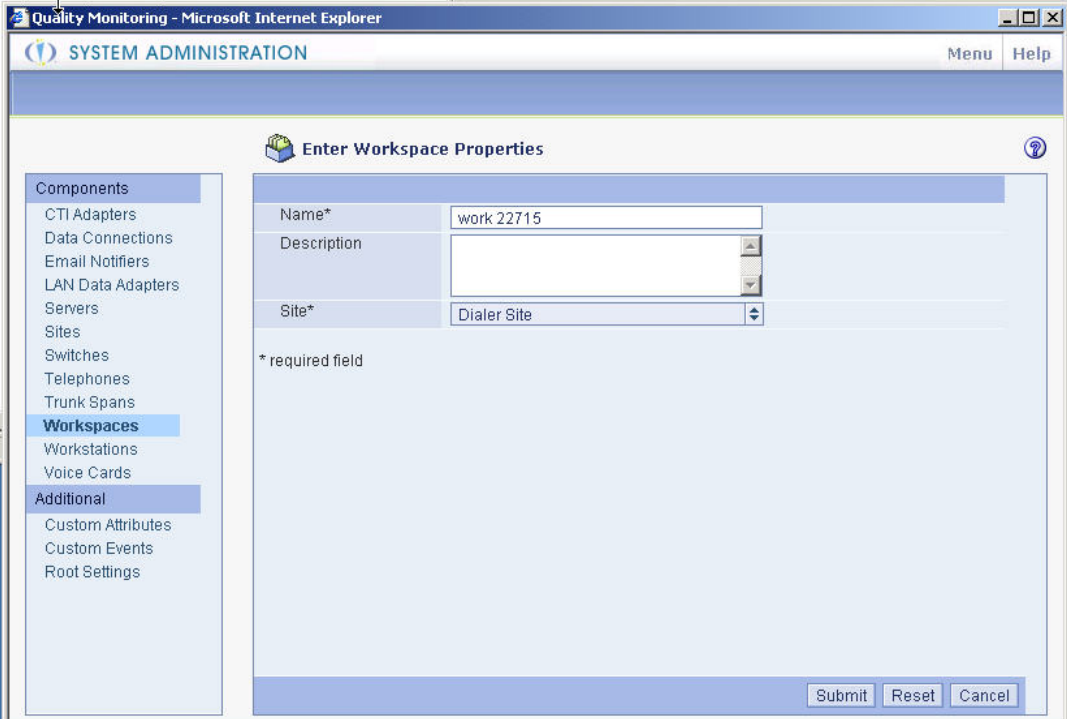
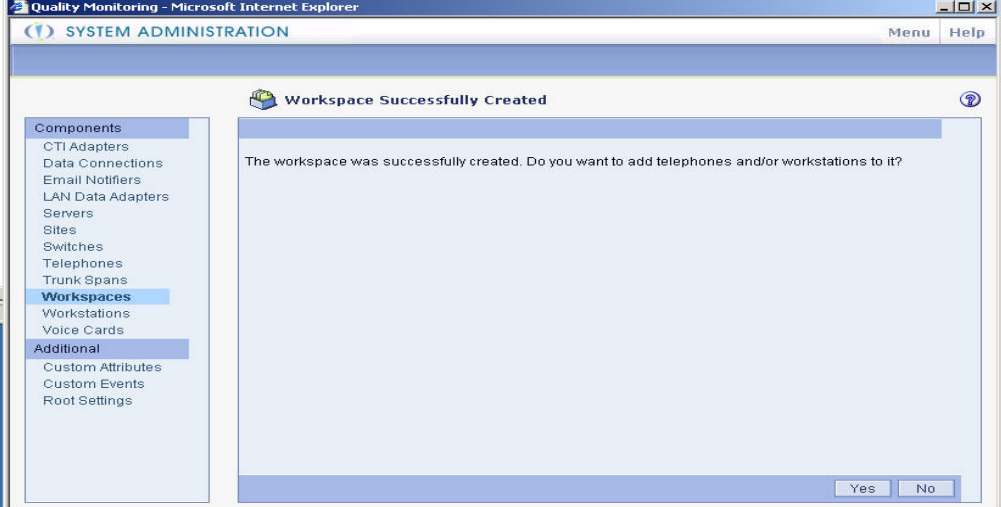
Submit Reset Cancel

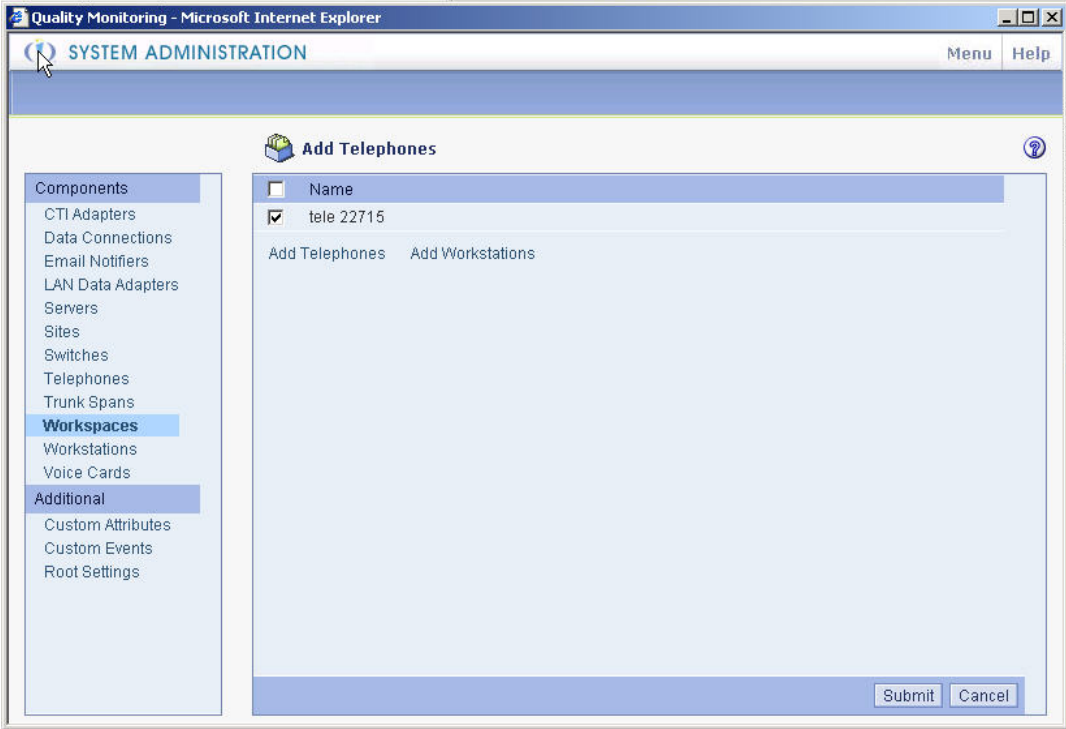
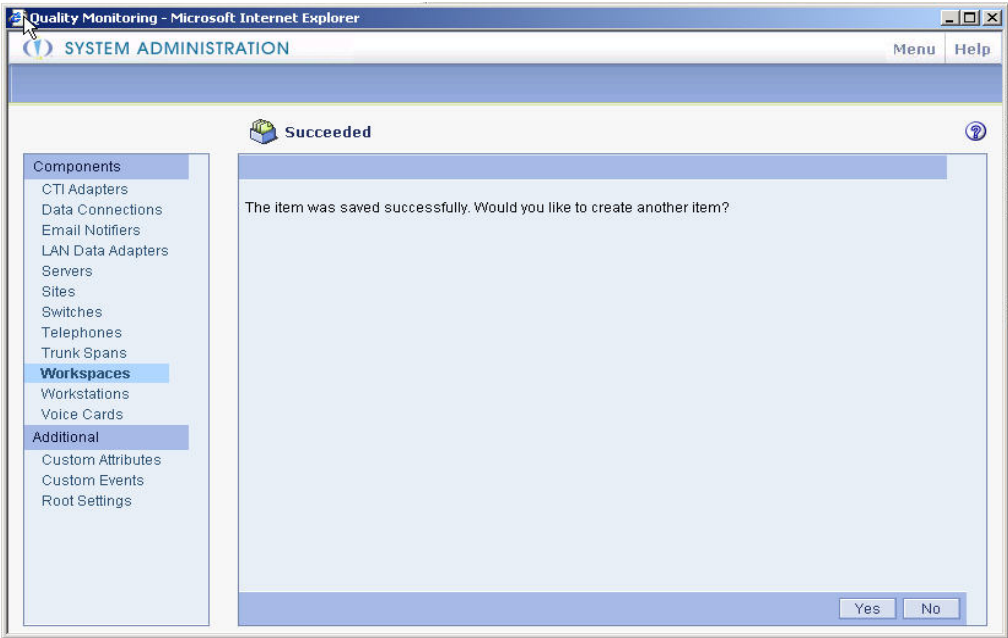
Step	Description
11.	<p>From the left pane, click on Telephones and then click Create. Configure the following fields.</p> <ul style="list-style-type: none"> • Name – set to a unique name for the telephone. • Switch – set to the Switch name created in Step 6. <p>Click Set Primary Extension.</p> 

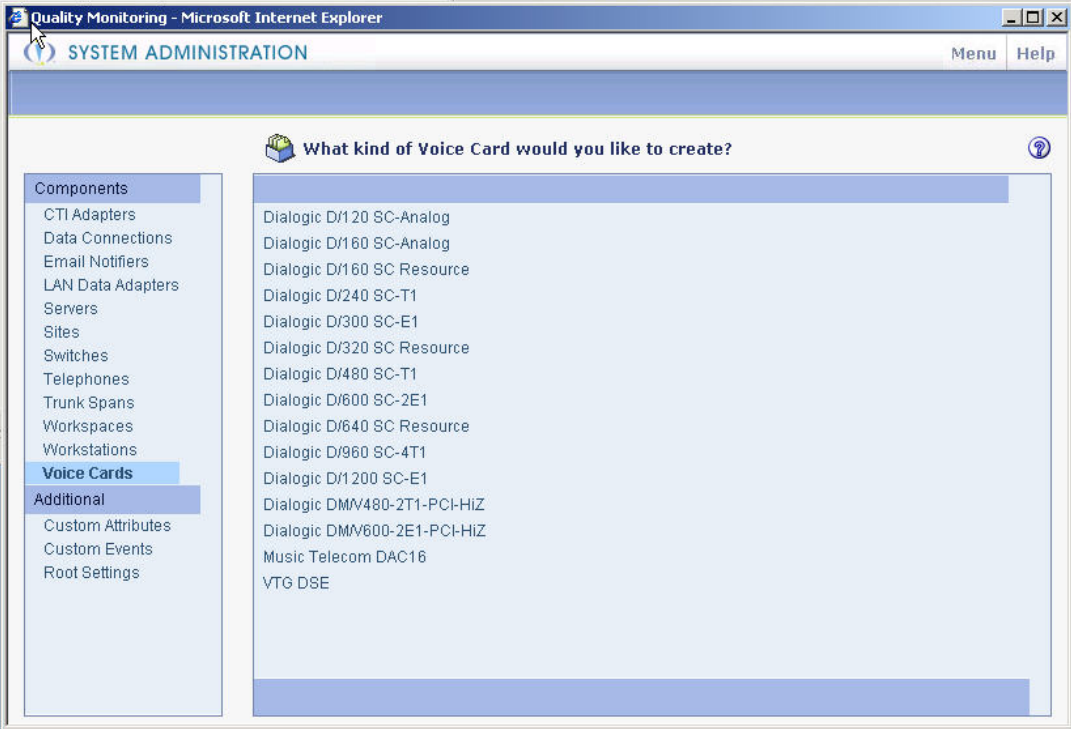
Step	Description
12.	<p>The Available Extensions will be the extensions configured in Step 8. Click the radio button next to the extension to associate with this telephone. Click Submit.</p> 
13.	<p>The Succeeded window is displayed. Click Yes to add another telephone and continue until all telephones have been created. Click No when the last telephone has been added.</p> 

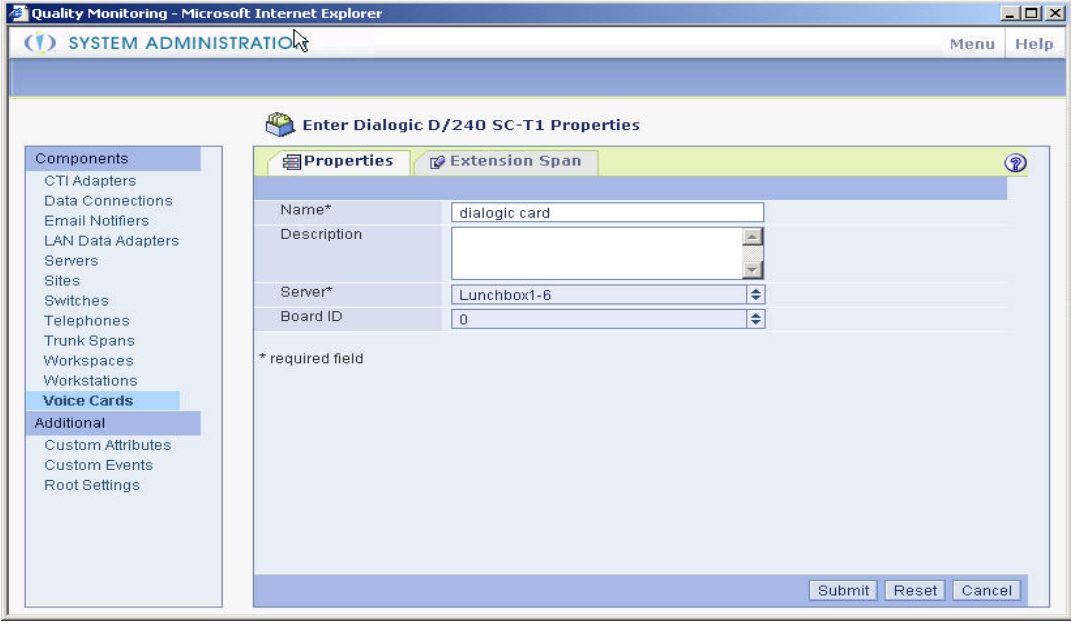
Step	Description
14.	<p>From the left pane, click on LAN Data Adapters and then click Create. Configure the following fields in the Properties tab.</p> <ul style="list-style-type: none"> • Name – set to a unique name for the data adapter. • Server – set to the Server name created in Step 9. <p>The remaining fields are optional. Click Submit.</p> 
15.	<p>From the left pane, click on CTI Adapters and then click Create. Select the Avaya Predictive Dialing System (PDS) Adapter and the appropriate properties screen is displayed. Configure the following fields in the Properties tab.</p> <ul style="list-style-type: none"> • Name – set to the Data Connection created in Step 5. • Switch – set to the Switch created in Step 6. • Server – set to the Server created in Step 9. • Site – set to the Site created in Step 4. • IOR String - this string is found in the file “ns_ior” located on the PC3 server in the directory: “//opt/Avaya/services/data”. This string is used to locate the CORBA services on PC3. • Username – set to the username for Event Service on PC3. • Password – set to the password for Event Service on PC3. • Dialer Version – set to “12”. The next version of Impact 360 will have the correct gui drop down list with an option for “PC3”. • Link Checking Timeout - is defaulted to 30 seconds. This interval is used to check for an active connection between the Impact 360 server and PC3. • Dialer IP Address – set to the IP Address of the PC3 server. • Dialer Host Name – set to the name of the PC3 server. • ORB End Point – specifies how the Dialer Adapter connects to the Impact 360 server. It contains the IP address of the Impact 360 server, a return port

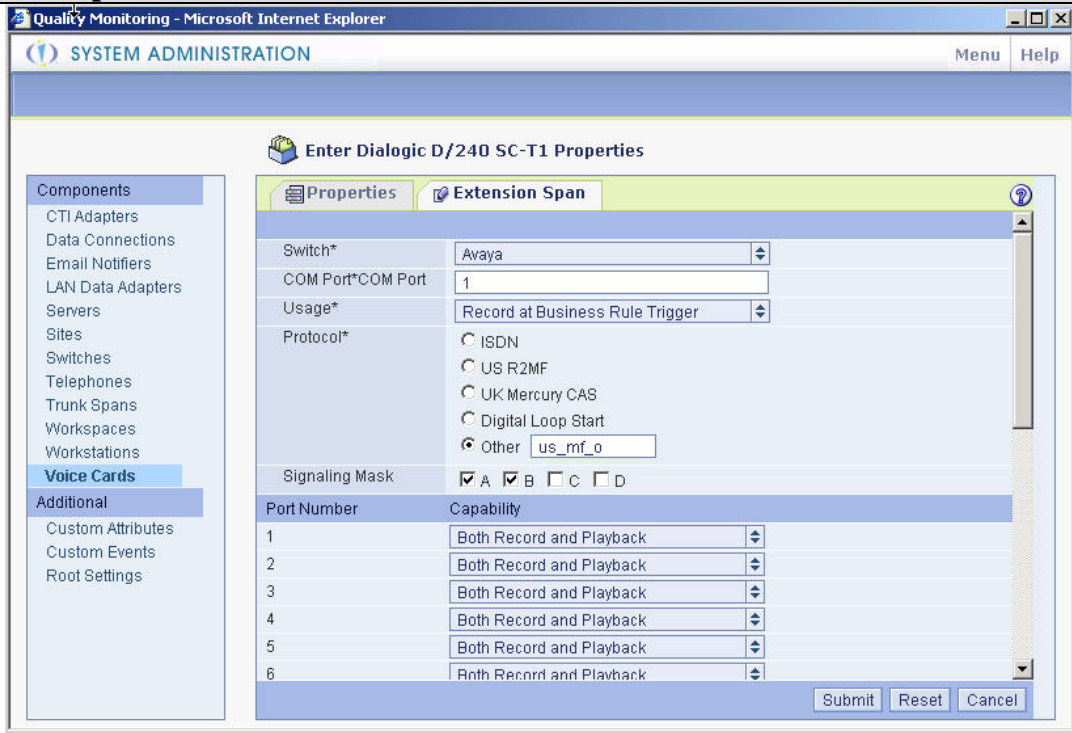
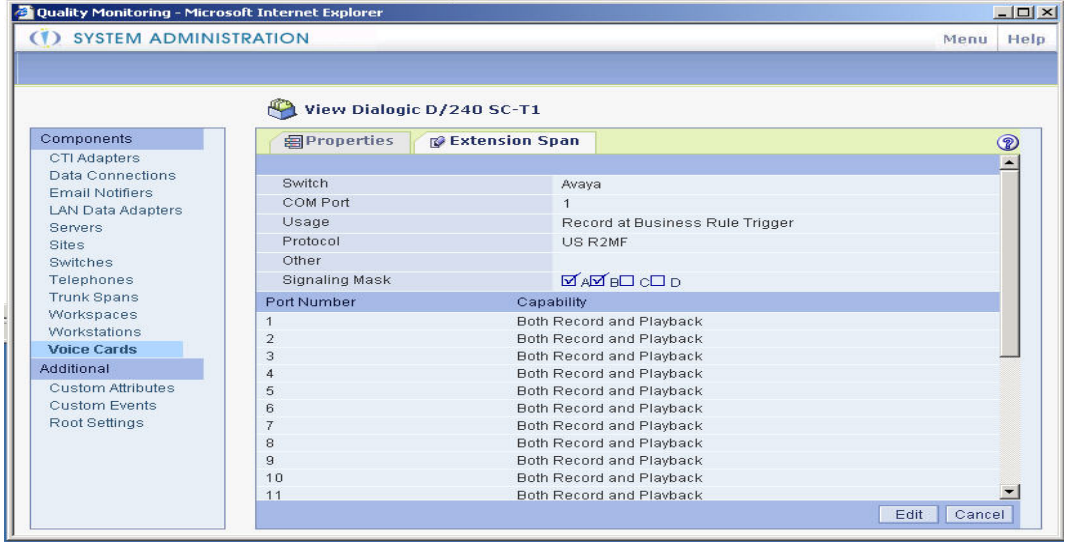
Step	Description
	<p>number and a portspan option.</p> <ul style="list-style-type: none"> • Interface Path - is the location of the Avaya Dialer interface files on the Impact 360 server. <p>The remaining field can retain their default values. Click Submit.</p> 

Step	Description
17.	<p>From the left pane, click on Workspaces and then click Create. Configure the following fields.</p> <ul style="list-style-type: none"> • Name – set to a unique name for the workspace. • Site – set to the Site created in Step 4. <p>The remaining fields are optional. Click Submit.</p> 
	<p>Click Yes to add telephones to workspace.</p> 

Step	Description
18.	<p>The list of available telephones is displayed. Check the box on the telephone to associate with this workspace. Then click Submit.</p>  <p>Click Yes if more workspaces need to be added.</p> 

Step	Description
18.	<p>From the left pane, click on Voice Cards and then click Create. A list of voice cards is displayed. Double-click on Dialogic D/240 SC-T1.</p> 

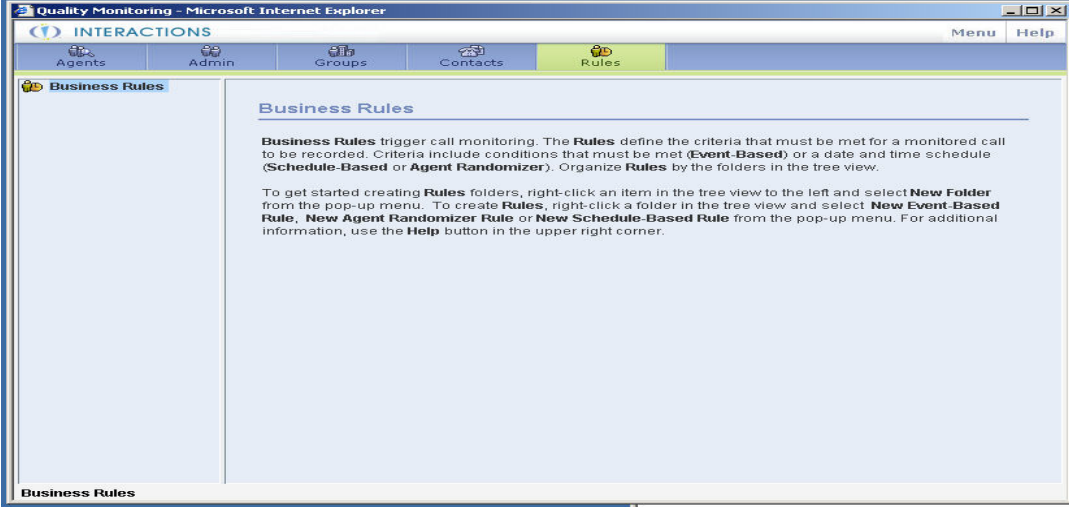
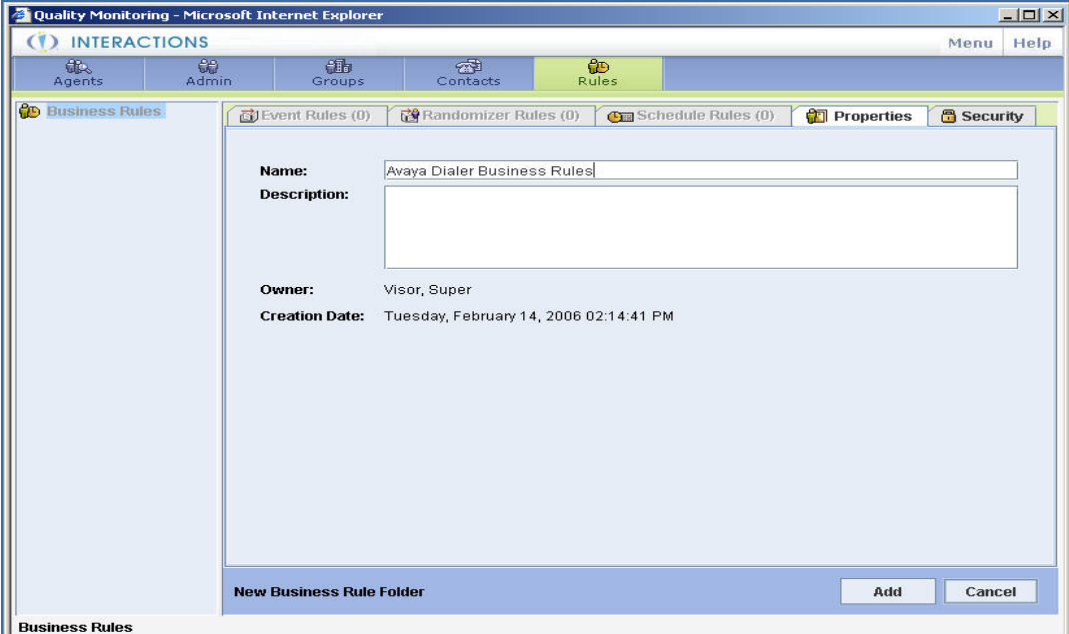
Step	Description
19	<p>Configure the following fields in the Properties tab.</p> <ul style="list-style-type: none"> • Name – set to a unique name for the voice card. • Server – set to the Server created in Step 9. • Board ID – set to the physical location of the board on the Impact 360 server. <p>The remaining fields are optional. Click Submit.</p> 
20.	<p>Click the Extension Span tab on the menu bar. Configure the following fields in the Extension Span tab.</p> <ul style="list-style-type: none"> • Switch – set to the Switch created in Step 6. • COM Port – set to “1”. • Usage – set to “Record at Business Rule Trigger”. • Protocol – select Other and set to “us_mf_o”. • Server – set to the Server created in Step 9. • Board ID – set to the physical location of the board on the Impact 360 server. <p>The remaining field can retain their default values. Click Submit.</p>

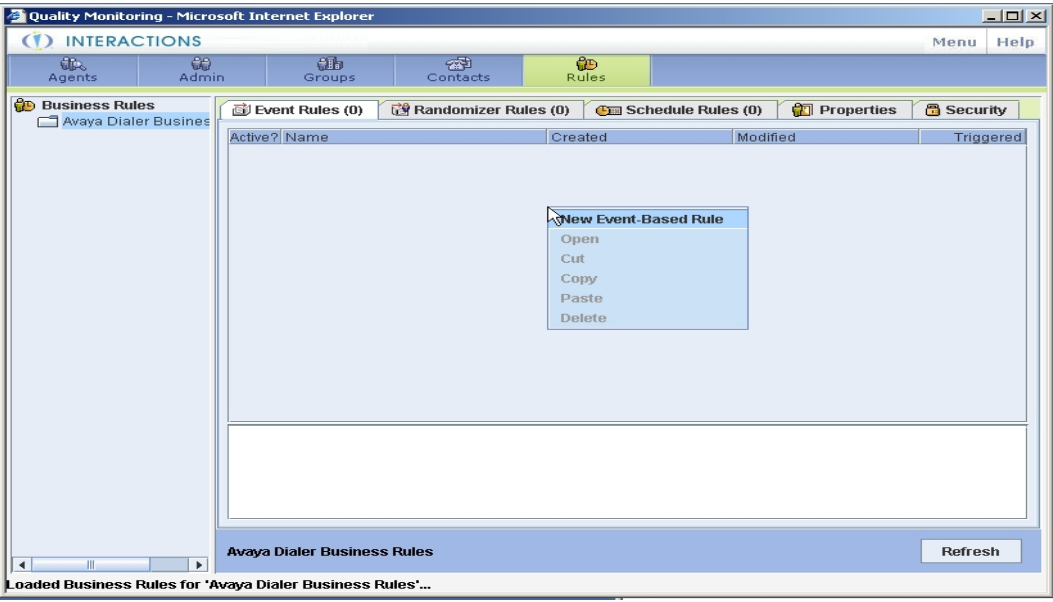
Step	Description
	 <p>The summary screen for the Voice Card is displayed. Due to a bug in the System Administration program, the Protocol field is not accurately displayed, even though the configuration is correct. The Protocol field is incorrectly shown as US R2MF.</p>
	

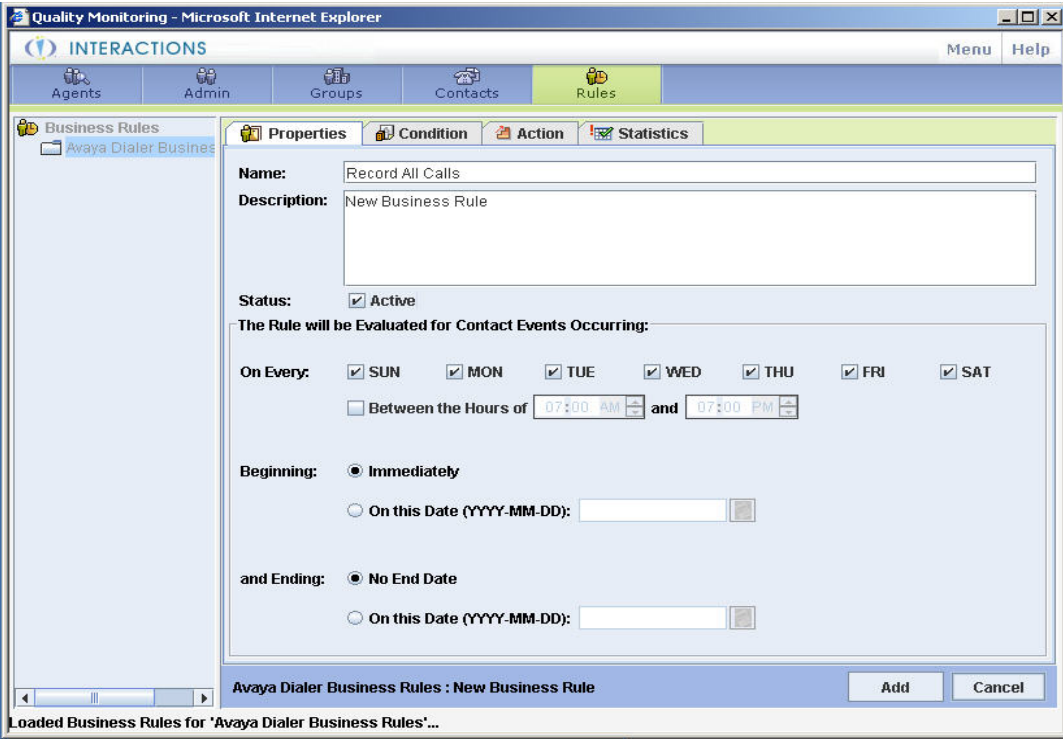
5.3. Impact 360 Interaction Configuration

The interaction configuration sets up business rules, creates users and manages contacts. The steps in this section describe the interaction configuration of the Impact 360 server.

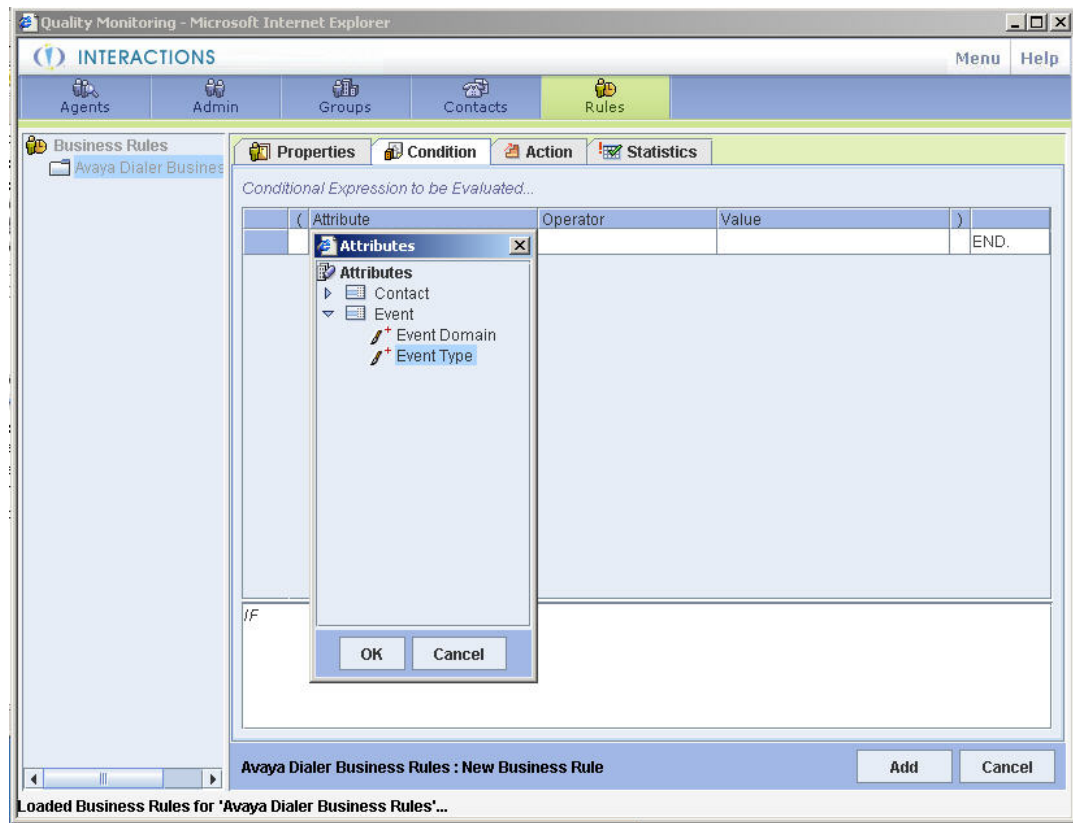
Step	Description
1.	Click Menu on the top right of the screen to get to the main menu.
2.	From the main menu click INTERACTIONS on the left of the screen. 

Step	Description
3.	<p>Impact 360 monitors events received from PC3 and acts on those events based upon business rules. A single rule was used for this configuration which enables contact recording when a connect event is received. Select Rules from the menu bar.</p> 
4.	<p>From the left pane, click on Business Rules. Configure the following field in the Properties tab.</p> <ul style="list-style-type: none"> Name – set to a unique name for the business rule. <p>The remaining fields are optional. Click Add.</p> 

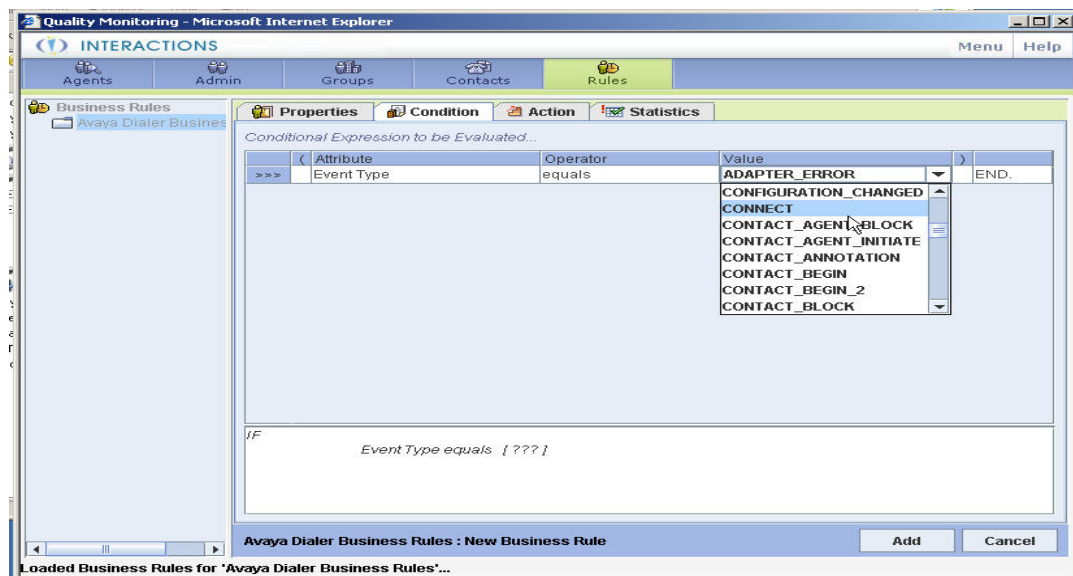
Step	Description
5.	<p>Click the Event Rules (0) tab on the menu bar, and right click in the window. Select “New Event Based Rule” from the list.</p> 

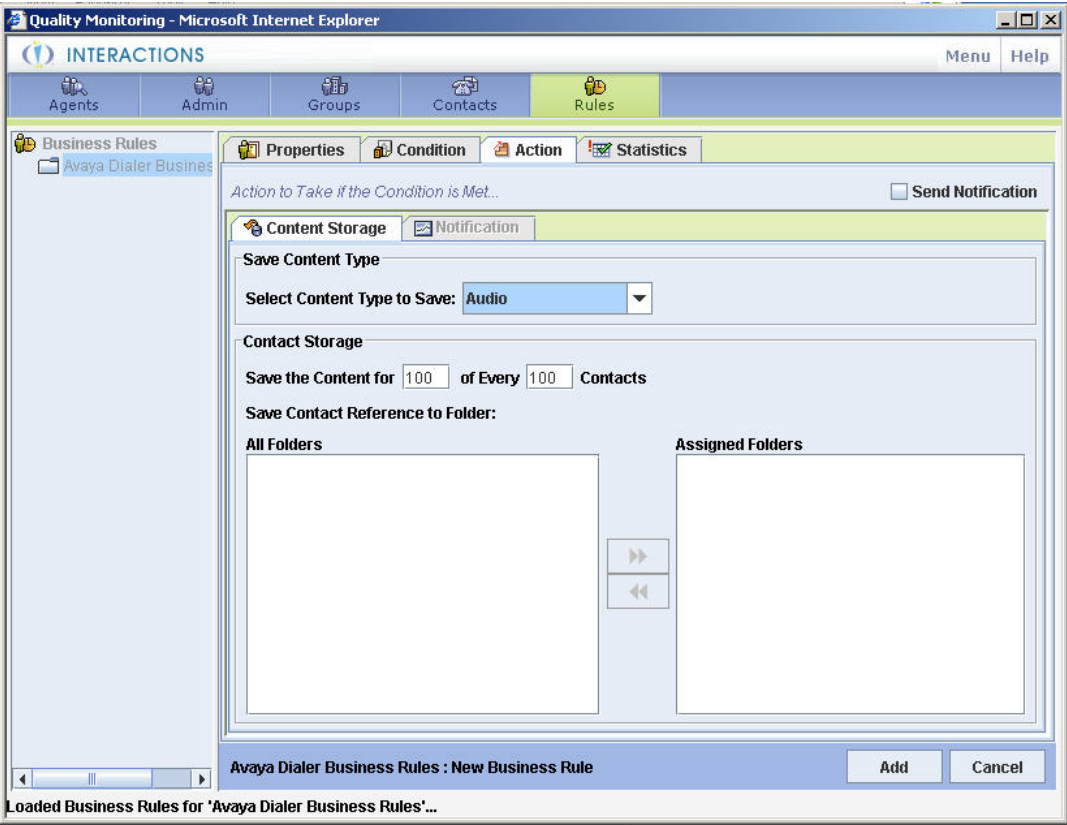

Step	Description
6.	<p>Configure the following fields in the Properties tab.</p> <ul style="list-style-type: none"> • Name – set to a unique name for this specific business rule. • Status – check the checkbox. <p>The remaining fields can retain their default values. Click Add.</p>  <p>The screenshot shows the 'Quality Monitoring - Microsoft Internet Explorer' window. The 'INTERACTIONS' menu is visible at the top. The 'Business Rules' section is expanded, and the 'Properties' tab is selected. The 'Name' field contains 'Record All Calls' and the 'Description' field contains 'New Business Rule'. The 'Status' is set to 'Active' with a checked checkbox. Under 'The Rule will be Evaluated for Contact Events Occurring:', the 'On Every' section has checkboxes for SUN, MON, TUE, WED, THU, FRI, and SAT, all of which are checked. The 'Between the Hours of' section shows '07:00 AM' and '07:00 PM'. The 'Beginning' section has 'Immediately' selected with a radio button. The 'and Ending' section has 'No End Date' selected with a radio button. At the bottom, there are 'Add' and 'Cancel' buttons. The status bar at the bottom of the window reads 'Avaya Dialer Business Rules : New Business Rule' and 'Loaded Business Rules for 'Avaya Dialer Business Rules'...'.</p>

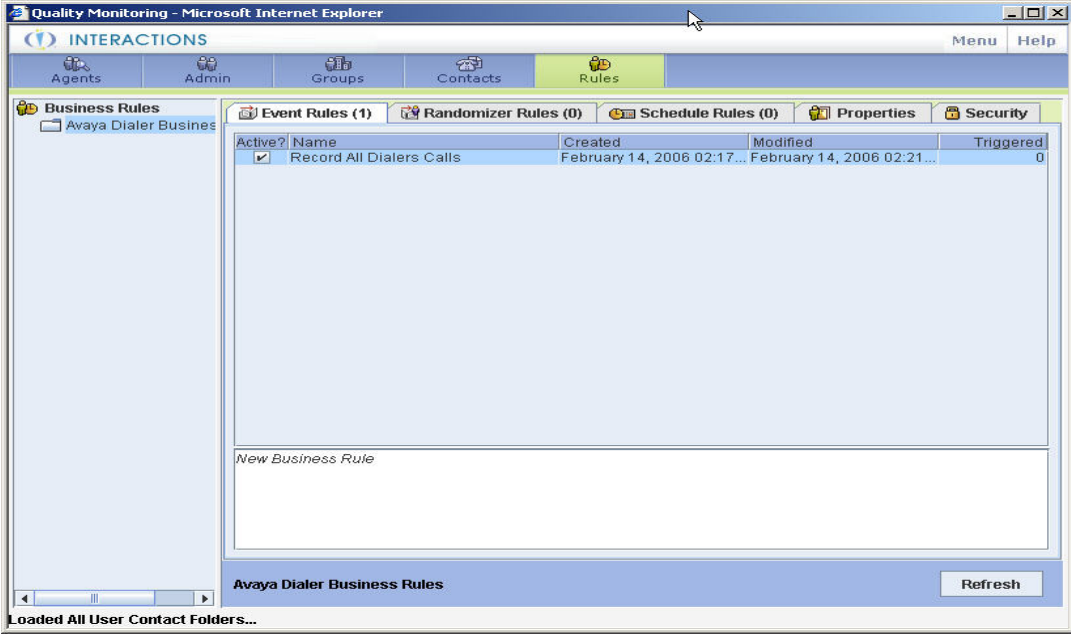
Step	Description
7.	Click the Condition tab from the menu bar. Right click on the Attribute field and select Event Type . Click OK then click Add .

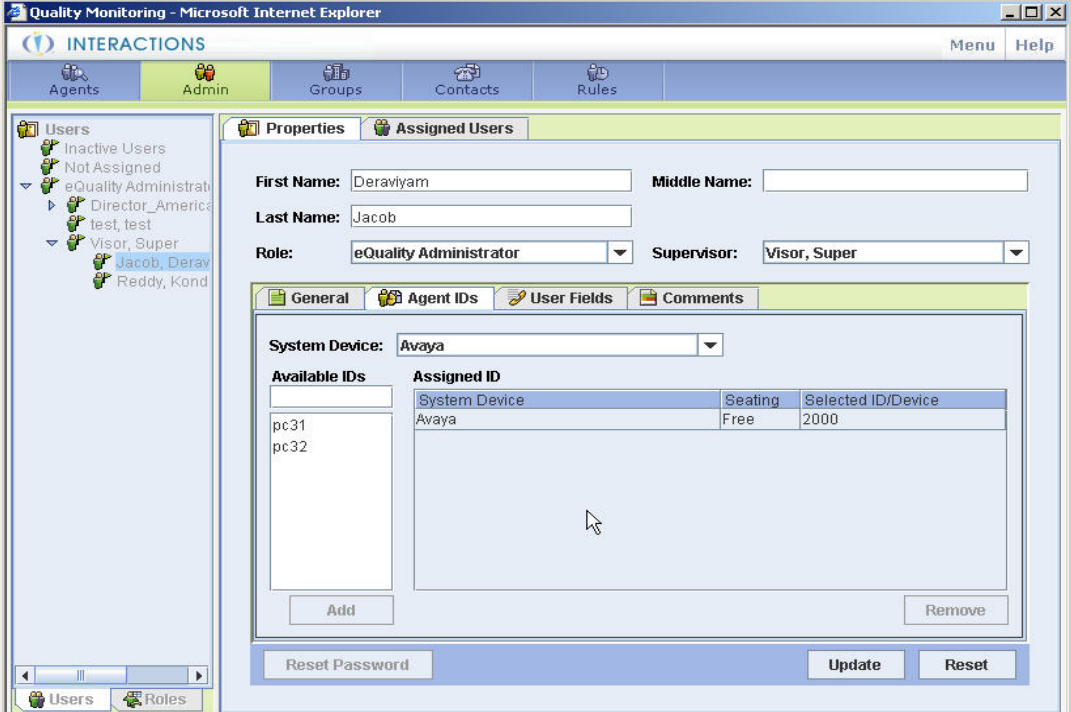


Select “CONNECT” in the **Value** field from the pull-down menu, then click **Add**.



Step	Description
8.	<p>Click the Action tab from the menu bar and select “Audio” in the Select Content Type to Save field. Click Add.</p>  <p>Click OK to create a new folder.</p> 

Step	Description
9.	<p>The following summary screen will be displayed.</p> 

Step	Description
10.	<p>Agents can be grouped as a set of users with the same role and the same supervisor. Click Admin tab from the menu bar. From the Properties tab, select the Available IDs, then click ADD to add to the Assigned ID. Repeat the step to add additional IDs.</p>  <p>Done retrieving property and summary information.</p>

6. Interoperability Compliance Testing

Interoperability compliance testing covered feature functionality, serviceability and basic load testing. Feature functionality focused on verifying that Impact 360 could successfully record calls when using events from PC3 Event Service. Serviceability testing verified that the Impact 360 server recovered from adverse conditions, such as rebooting, power failure and network disconnect. Basic load testing verified that Impact 360 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 PC3 and routed to an available agent. The agent accepted the call and the conversation were recorded between the customer and the agent. The recordings (contacts) were retrieved using the Interactions web-based program. During the basic load testing, Avaya PC3 executed a calling list which delivered calls to the agents for sustained periods.

6.2. Test Results

Impact 360 successfully recorded, stored and played back the outbound calls. For serviceability testing, Impact 360 was able to resume recording calls after restoration of connectivity to the PC3 server, after network disconnect/re-connect, and after resets of the Impact 360 server. For performance testing, Impact 360 successfully recorded calls for a sustained period of time.

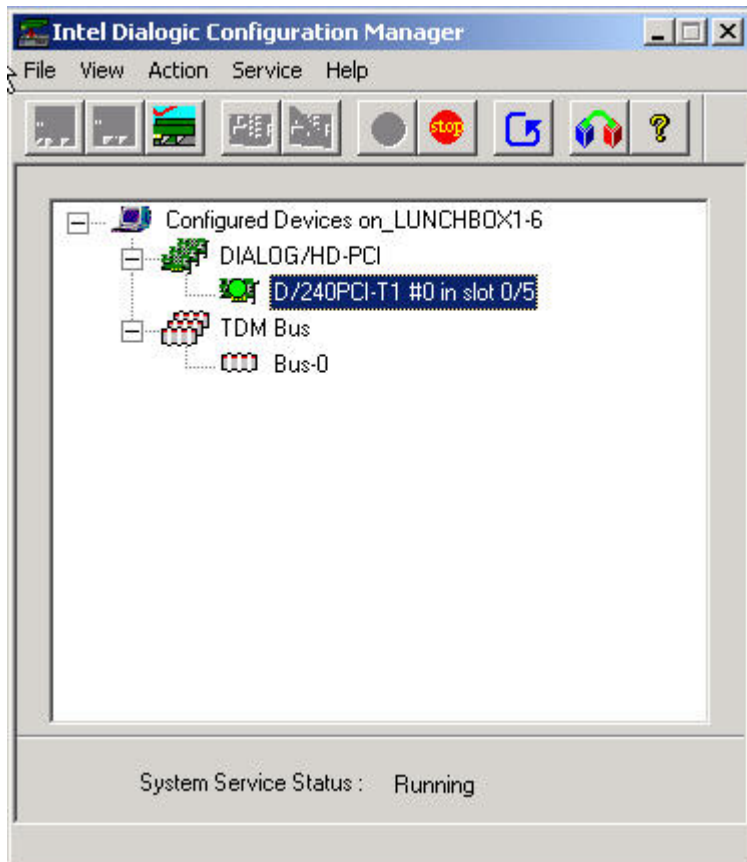
The following observation was obtained from testing:

- Avaya Proactive Contact 3.0 with CTI allows agents to hold, conference, transfer, place manual calls or answer inbound calls only from their telephone and not from the PC3 desktop application. (This is not the case for the other system deployment options of PC3 with the PG230 or switch cabinet.) Therefore, the test cases had the agents perform these activities from their telephone. These activities using the telephone do not generate events on PC3 Event Service. When the agents consults, transfers or conferences the call, Impact 360 only stops the call recording of the agent once the agent releases the line and a CALLDISCONNECT event is sent from PC3 Event Service.

7. Verification

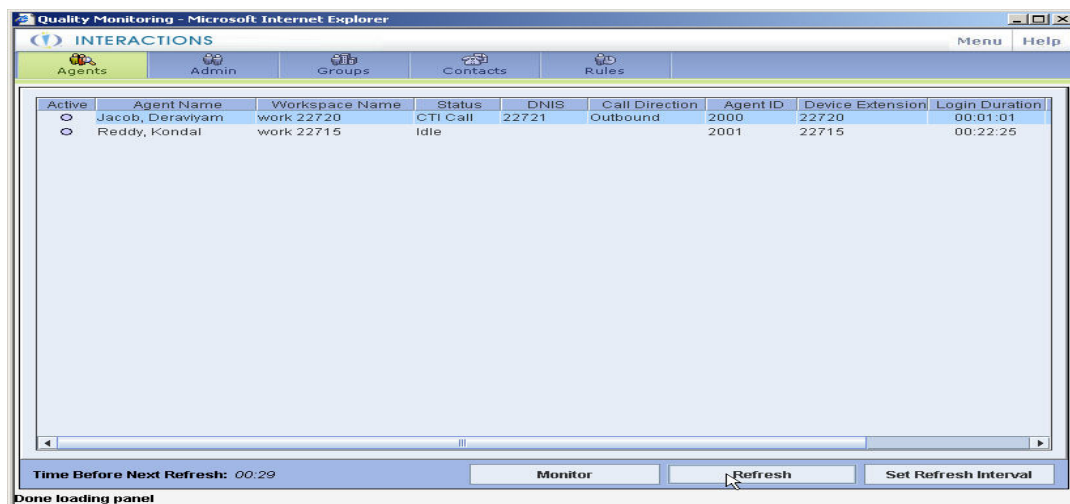
7.1. Dialogic D/240 Voice Board

On the Impact 360 server, verify the voice board is running by navigating to Start → Programs → Intel Dialogic System Software → Configuration Manager –DCM. Select the device “D/240PCi-T1 #0 in slot 0/5” and verify the **System Service Status** displays “Running”.



7.2. Agent Summary

In the Interactions Window, click the **Agents** tab in the menu bar, to see a summary of the agents that are administered and their call state. Verify the correct status state is displayed.



7.3. Event Services Link

The event services link status can be verified through the Impact 360's AvayaDialer log file. A connection that is successfully established is indicated by the heartbeat, shown at the bottom of the following log file segment.

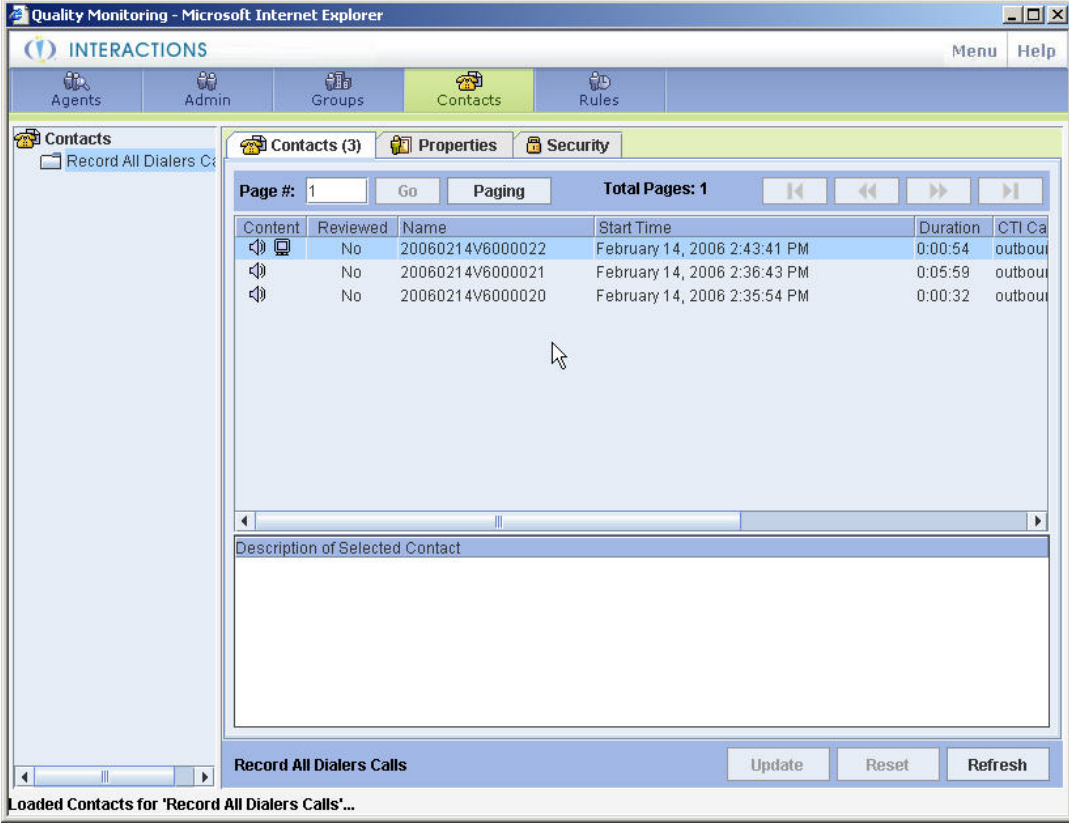
```
[Info ]2006/02/13 18:49:25:562
*****
[Info ]2006/02/13 18:49:25:562 Application Started
[Info ]2006/02/13 18:49:25:562 Command-line values:
[Info ]2006/02/13 18:49:25:562 Name<Avaya Dialer>
[Info ]2006/02/13 18:49:25:562 LogDir<E:\Program Files\Witness\eQuality\AvayaDialer>
[Info ]2006/02/13 18:49:25:562 LogLevel<4>
[Info ]2006/02/13 18:49:25:562 Append<true>
[Info ]2006/02/13 18:49:25:562 Show<true>
[Debug]2006/02/13 18:49:25:593 ServerLink start called
[Debug]2006/02/13 18:49:25:593 ClientLink start called
[Debug]2006/02/13 18:49:29:546 Configuration message received
[Debug]2006/02/13 18:49:29:546 Configuration Data:
[Debug]2006/02/13 18:49:29:546 Name: <Avaya Dialer>
[Debug]2006/02/13 18:49:29:546 DialerHost: <lzpds2>
[Debug]2006/02/13 18:49:29:546 DialerIP: <192.45.120.150>
[Debug]2006/02/13 18:49:29:546 PDSVersion: <12>
[Debug]2006/02/13 18:49:29:546 WorkDir: <E:\Program Files\Witness\eQuality\AvayaDialer>
[Debug]2006/02/13 18:49:29:546 Show: <true>
[Debug]2006/02/13 18:49:29:546 LogonID: <client1>
[Debug]2006/02/13 18:49:29:546 Password: <server1>
[Debug]2006/02/13 18:49:29:546 IORString:
<IOR:000000000000002b49444c3a6f6d672e6f72672f436f734e616d696e672f4e616d696e67436f6e74657874457874
3a312e300000000000001000000000000008400010200000000076c7a7064733200005aa00000000003a14010f004e555
00000001c0000000000000001526f6f74504f41004e616d65536572766963650000000011000000014e616d6553657276
696365000000000020000000000000080000000054414f00000000010000001400000000001000100000000001010
900000000>
[Debug]2006/02/13 18:49:29:546 ORBEndpoint: <iiop://192.45.30.232:1595/portspan=25>

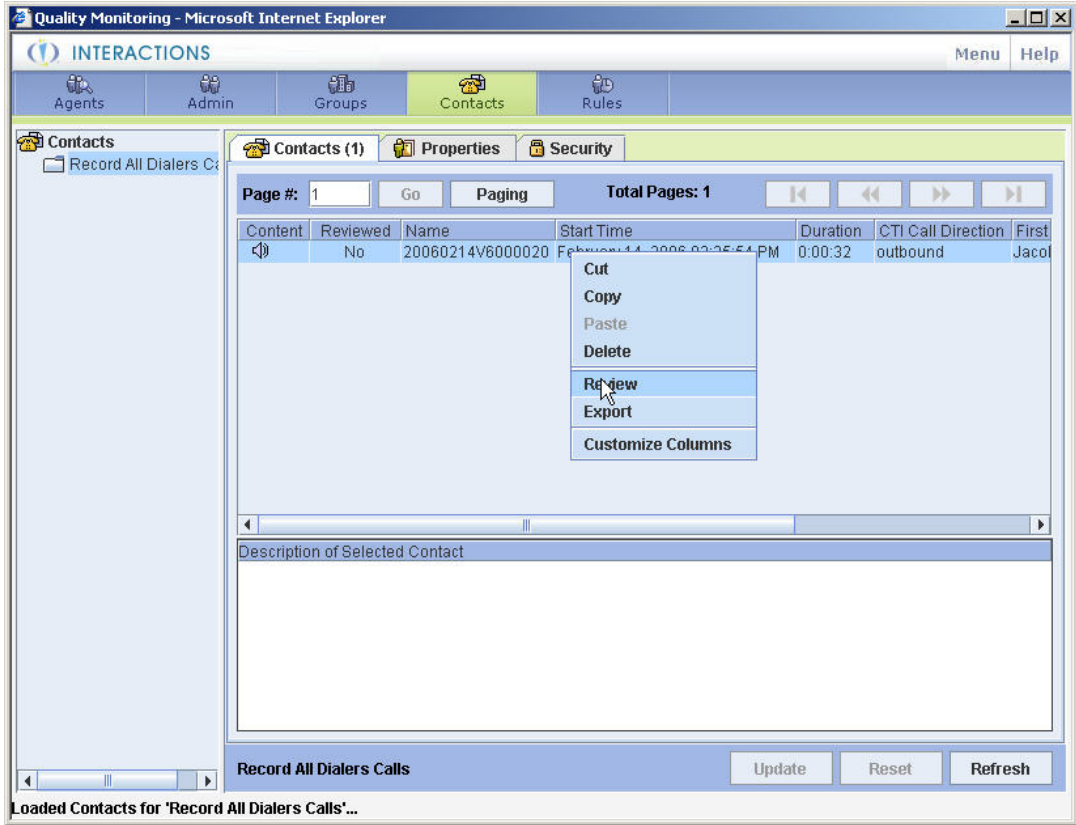

[Info ]2006/02/13 18:49:29:562 ----- Begin CORBA Init -----
[Info ]2006/02/13 18:49:29:562 HeartbeatThread started
[Info ]2006/02/13 18:49:29:562 Initializing the ORB
[Info ]2006/02/13 18:49:29:687 Initializing the ORB Completed!

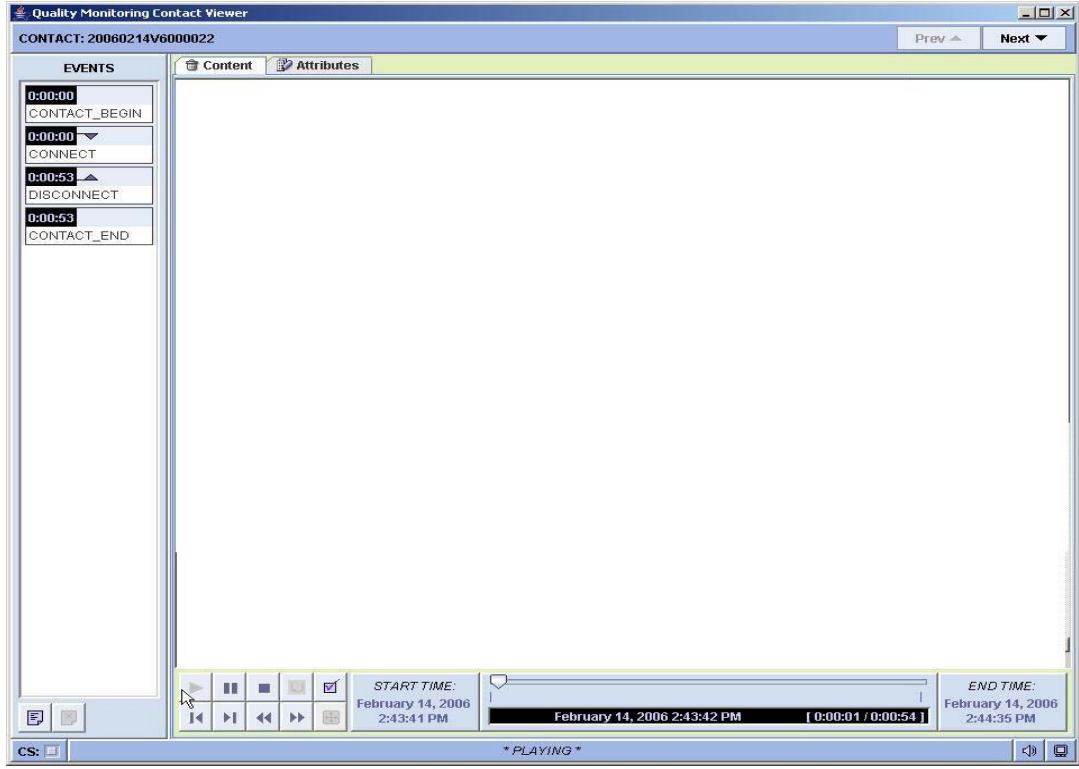
[Debug]2006/02/13 18:49:29:687 CheckHostName called, HostName<lzpds2>
[Debug]2006/02/13 18:49:29:687 Checking HostName<lzpds2>
[Info ]2006/02/13 18:49:29:687 HOSTNAME: "lzpds2" resolves to IP: "192.45.120.150"
[Info ]2006/02/13 18:49:29:687 ----- End CORBA Init -----
[Info ]2006/02/13 18:49:29:687 Converting IOR String to Object
[Info ]2006/02/13 18:49:29:687 Obtaining Object Pointer for NameService
[Error]2006/02/13 18:49:29:703 CORBA::NamingContext list is empty
[Info ]2006/02/13 18:49:29:703 Building Version 12 NameService Query, Server<lzpds2>
[Info ]2006/02/13 18:49:29:703 Resolving root object from name service
[Debug]2006/02/13 18:49:29:718 Root object resolved from name service
[Info ]2006/02/13 18:49:34:718 Obtaining Object pointer for EventServer from the root object
[Info ]2006/02/13 18:49:34:718 IOR: Resolved IOR for ENServer:
[Info ]2006/02/13 18:49:34:718 .....
[Debug]2006/02/13 18:49:34:718 CheckHostName called, HostName<lzpds2>
[Debug]2006/02/13 18:49:34:718 Checking HostName<lzpds2>
[Info ]2006/02/13 18:49:34:718 HOSTNAME: "lzpds2" resolves to IP: "192.45.120.150"
[Info ]2006/02/13 18:49:34:718 Logon to EventServer
[Info ]2006/02/13 18:49:36:718 Activating POA Manager
[Info ]2006/02/13 18:49:36:750 Component Value as hex:
[Info ]2006/02/13 18:49:36:750 .....
[Info ]2006/02/13 18:49:36:750 HOSTNAME: Connection IP Address: 192.45.30.232
[Info ]2006/02/13 18:49:36:765 Sending request list to EventServer
[Info ]2006/02/13 18:49:36:765 registrationID= 20000
[Info ]2006/02/13 18:49:36:765 ----- STARTING ORB -----
[Info ]2006/02/13 18:49:38:343 Received Heartbeat response
[Info ]2006/02/13 18:49:44:343 Received Heartbeat response
```

7.4. Impact 360 Recording Playback

Impact 360 Interactions application allows the actual recordings that have taken place to be inspected for voice content. This utility was used throughout testing to validate successful recording of the various tested call scenarios

Step	Description																								
1.	<p>Select Contacts on the menu bar. This gives a summary of all the contacts that have been recorded.</p>  <p>The screenshot shows the 'Quality Monitoring - Microsoft Internet Explorer' window with the 'INTERACTIONS' application. The 'Contacts' menu item is selected. The main content area shows a table of recorded calls. The table has the following data:</p> <table><tr><th>Content</th><th>Reviewed</th><th>Name</th><th>Start Time</th><th>Duration</th><th>CTI Ca</th></tr><tr><td></td><td>No</td><td>20060214V6000022</td><td>February 14, 2006 2:43:41 PM</td><td>0:00:54</td><td>outbou</td></tr><tr><td></td><td>No</td><td>20060214V6000021</td><td>February 14, 2006 2:36:43 PM</td><td>0:05:59</td><td>outbou</td></tr><tr><td></td><td>No</td><td>20060214V6000020</td><td>February 14, 2006 2:35:54 PM</td><td>0:00:32</td><td>outbou</td></tr></table> <p>At the bottom of the application, there is a checkbox labeled 'Record All Dialers Calls' and buttons for 'Update', 'Reset', and 'Refresh'.</p>	Content	Reviewed	Name	Start Time	Duration	CTI Ca		No	20060214V6000022	February 14, 2006 2:43:41 PM	0:00:54	outbou		No	20060214V6000021	February 14, 2006 2:36:43 PM	0:05:59	outbou		No	20060214V6000020	February 14, 2006 2:35:54 PM	0:00:32	outbou
Content	Reviewed	Name	Start Time	Duration	CTI Ca																				
	No	20060214V6000022	February 14, 2006 2:43:41 PM	0:00:54	outbou																				
	No	20060214V6000021	February 14, 2006 2:36:43 PM	0:05:59	outbou																				
	No	20060214V6000020	February 14, 2006 2:35:54 PM	0:00:32	outbou																				

Step	Description
2.	<p>Select the recording and right click on the selection. Select “Review” from the list.</p> 
3.	<p>Enter the method of audio playback. This is where the recording will be played.</p> 

Step	Description
4.	<p>Answer the phone or listen to the computer speakers to verify the recording. The Contact play window is displayed.</p> 

8. Support

For technical support on any Witness product, contact the Witness Systems Customer Support at 1-800-4-WITNESS (1-800-494-8637). Technical support email may be sent to support@witness.com.

9. Conclusion

These Application Notes describe the configuration steps required for Witness Systems Impact 360 7.6 to successfully interoperate with the Event Service of Avaya Proactive Contact 3.0. All feature functionality and serviceability test cases were completed successfully.

10. Additional References

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

- Administrator's Guide for Avaya Communication Manager, Release 3.0.1, Issue 1, June 2005; Doc ID: 03-300509

- Avaya Proactive Contact 3.0 Installation and Configuration, November 2005; Doc ID: 07-300491
- Avaya Proactive Contact 3.0 Administration (UNIX-based), October 2005; Doc ID: 07-300488

These documents are available from Witness:

- Impact 360 7.6 Configuration Guide
- Impact 360 7.6 Server Infrastructure Guide
- Impact 360 7.6 Installation Guide
- Impact 360 7.6 Interactions Guide

©2006 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DeveloperConnection Program at devconnect@avaya.com.