



Avaya Solution & Interoperability Test Lab

Application Notes for the Autonomy etalk Qfiniti QA Recording with Avaya Proactive Contact using Avaya PG230 Switch - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for the Autonomy etalk Qfiniti QA Recording 3.5 to successfully interoperate with Avaya Proactive Contact 4.0 using Avaya PG230 Switch. Qfiniti QA is a recording solution which uses Avaya Proactive Contact Event Services and the Telephony Services API of Avaya Application Enablement Services to extract agent and call event information, and uses trunk side tapping to record the audio.

Information in these Application Notes has been obtained through interoperability 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 (simply referred to as Avaya HardDialer in these Application Notes) and Autonomy etalk Qfiniti QA Recording 3.5 (simply referred to as Qfiniti in these Application Notes). Qfiniti delivers a recording solution that records all calls for compliance management, or selectively captures voice and desktop activity for quality assurance.

Qfiniti uses the Event Service of Avaya HardDialer and the Telephony Services API (TSAPI) of Avaya Application Enablement (AE) Services to receive events concerning particular stations, agents, and agent hunt/skill groups. Qfiniti uses these events as recording triggers. There are many methods that Qfiniti can use for call recording; in this compliance-tested configuration Qfiniti uses trunk side tapping to record calls. The Qfiniti server has an AiLogix Card that taps into a T1 interface between Avaya Communication Manager and Avaya HardDialer to record the audio. Qfiniti records calls between AgentOnCall and AgentNotReady events it receives from the Avaya HardDialer.

Figure 1 shows the configuration used for this compliance testing.

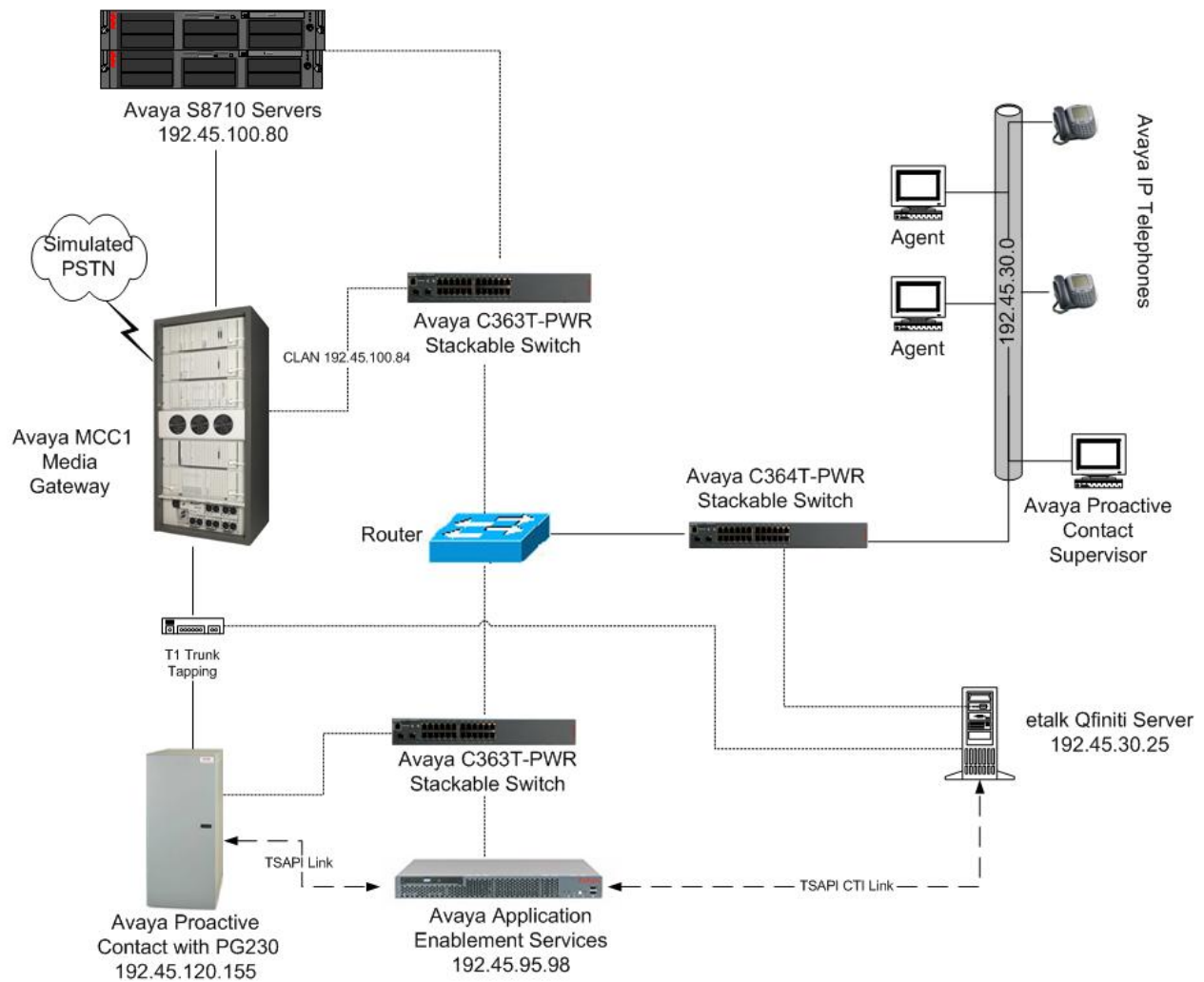


Figure 1: Avaya Proactive Contact, Avaya Communication Manager, Avaya Application Enablement Services and Autonomy etalk Qfiniti Server Configuration

2. Equipment and Software Validated

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

Equipment	Software
HP Proliant DL385G2 and PG230 Digital Switch	Avaya Proactive Contact 4.0.1 Build 105
Avaya S8700 Media Server	Avaya Communication Manager 5.0 (R015x.01.1.415.1)
Avaya MCC1 Media Gateway	
TN464 DS1 Interface	HW02, FW019
TN799DP C-LAN Interface	HW01 FW024
TN2302AP IP Media Processor	HW13 FW116
Avaya 4625SW IP Telephone (H323)	2.8.3
Avaya Application Enablement Services Server	4.2
Avaya C363T-PWR Converged Stackable Switch	4.5.14
Qfiniti Server with AiLogix Trunk Card	3.5 sp1 u4 with Quick update 25207

3. Configure Avaya Communication Manager

These Application Notes assume that Avaya Communication Manager is already configured and operational. This section provides the procedures for verifying and configuring Avaya Communication Manager. The following will be configured:

- Verify T1 Link Parameters for Trunk Tapping
- Configure Avaya Communication Manager for Predictive Agent Blending on 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. These steps are performed from the Avaya Communication Manager System Access Terminal (SAT) interface and all changes are saved. Refer to [1, 2, and 4] for additional details.

3.1. Verify T1 Link Parameters for Trunk Tapping

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">• Name – Set to any descriptive string value.• Bit Rate – Set to 1.544.• Line Coding – set to ami-zcs.• Framing Mode – set to d4.• Signaling Mode – set to robbed-bit. <div><pre>display ds1 1a14 DS1 CIRCUIT PACK Location: 01A14 Bit Rate: 1.544 Line Coding: ami-zcs Framing Mode: d4 Signaling Mode: robbed-bit Interface Companding: mulaw Idle Code: 11111111 Slip Detection? n Near-end CSU Type: other</pre></div>

3.2. Configure Avaya Communication Manager for Predictive Agent Blending

Avaya HardDialer via the CTI link monitors the activity on Avaya Communication Manager contact center devices such as the inbound VDN and hunt groups, and uses this information to determine when to acquire agents for outbound calling and when to release the agents to handle inbound calls.

Step	Description
1.	<p>Use the display system-parameters customer-options command. On Page 3, verify that the Computer Telephony Adjunct Links option is set to y.</p> <pre> display system-parameters customer-options Page 3 of 11 OPTIONAL FEATURES Abbreviated Dialing Enhanced List? n Audible Message Waiting? n Access Security Gateway (ASG)? n Authorization Codes? n Analog Trunk Incoming Call ID? n Backup Cluster Automatic Takeover? n A/D Grp/Sys List Dialing Start at 01? n CAS Branch? n Answer Supervision by Call Classifier? y CAS Main? n ARS? y Change COR by FAC? n ARS/AAR Partitioning? y Computer Telephony Adjunct Links? y ARS/AAR Dialing without FAC? y Cvg Of Calls Redirected Off-net? n ASAI Link Core Capabilities? n DCS (Basic)? n ASAI Link Plus Capabilities? n DCS Call Coverage? n Async. Transfer Mode (ATM) PNC? n DCS with Rerouting? n Async. Transfer Mode (ATM) Trunking? n ATM WAN Spare Processor? n Digital Loss Plan Modification? n ATMS? n DS1 MSP? n Attendant Vectoring? n DS1 Echo Cancellation? n </pre>
2.	<p>On Page 6, verify that the ACD and Vectoring (Basic) fields are set to y.</p> <pre> display system-parameters customer-options Page 6 of 11 CALL CENTER OPTIONAL FEATURES Call Center Release: 5.0 ACD? y BCMS (Basic)? n Reason Codes? n BCMS/VuStats Service Level? n Service Level Maximizer? n BSR Local Treatment for IP & ISDN? n Service Observing (Basic)? y Business Advocate? n Service Observing (Remote/By FAC)? y Call Work Codes? n Service Observing (VDNs)? y DTMF Feedback Signals For VRU? n Timed ACW? n Dynamic Advocate? n Vectoring (Basic)? y Expert Agent Selection (EAS)? y Vectoring (Prompting)? y EAS-PHD? n Vectoring (G3V4 Enhanced)? n Forced ACD Calls? n Vectoring (3.0 Enhanced)? n Least Occupied Agent? n Vectoring (ANI/II-Digits Routing)? n Lookahead Interflow (LAI)? n Vectoring (G3V4 Advanced Routing)? n Multiple Call Handling (On Request)? n Vectoring (CINFO)? n Multiple Call Handling (Forced)? n Vectoring (Best Service Routing)? n PASTE (Display PBX Data on Phone)? n Vectoring (Holidays)? n Vectoring (Variables)? n </pre>

Step	Description
3.	<p>Add a CTI link using the add cti-link <i>n</i> command, where <i>n</i> is an available CTI link number, and configure as follows:</p> <ul style="list-style-type: none"> • Extension – Set to an available extension as per the dial plan. • Type – Set to ADJ-IP • Name – Set to any descriptive string value. <div> <pre> add cti-link 15 CTI Link: 15 Extension: 24998 Type: ADJ-IP Name: AES DEVCON2715 COR: 1 </pre> <p>Page 1 of 2</p> <p>CTI LINK</p> </div>
4.	<p>Enter the add hunt-group <i>n</i> command, where <i>n</i> is an unused hunt group number, and configure as follows:</p> <ul style="list-style-type: none"> • Group Name – Set to any descriptive string value. • Group Extension – Set to a valid extension provisioned in the dial plan. • ACD – Set to y. • Queue – Set to y. • Vector – Set to y. <div> <pre> add hunt-group 402 Group Number: 402 Group Name: Dialer Inbound Group Extension: 50402 Group Type: ucd-mia TN: 1 COR: 1 Security Code: ISDN/SIP Caller Display: ACD? y Queue? y Vector? y MM Early Answer? n Local Agent Preference? n </pre> <p>Page 1 of 3</p> <p>HUNT GROUP</p> </div> <p>On Page 2 of the HUNT GROUP form, set the Skill field to y as shown below.</p> <div> <pre> add hunt-group 402 Skill? y AAS? n Measured: none Supervisor Extension: Controlling Adjunct: none </pre> <p>Page 2 of 3</p> <p>HUNT GROUP</p> </div>

Step	Description
5.	<p>Enter the change vector <i>n</i> command, where <i>n</i> is the next available vector. Enter the commands to queue to the skill (hunt group) configured in the previous step.</p> <pre> change vector 402 Page 1 of 3 CALL VECTOR Number: 402 Name: Dialer Inbound Basic? y EAS? y G3V4 Enhanced? n Meet-me Conf? n Lock? n Prompting? y LAI? n G3V4 Adv Route? n CINFO? n BSR? n Holidays? n Variables? n 4.0 Enhanced? n 01 queue-to skill 402 pri h 02 wait-time 60 secs hearing ringback 03 04 </pre>
6.	<p>Enter the add vdn <i>n</i> command, where <i>n</i> is an unused VDN, and configure as follows:</p> <ul style="list-style-type: none"> • Name – Set to any descriptive string value. • Vector Number – Set to the vector configured in the previous step. <pre> add vdn 54402 Page 1 of 2 VECTOR DIRECTORY NUMBER Extension: 54402 Name: Dialer Inbound Vector Number: 402 Attendant Vectoring? N Meet-me Conferencing? N Allow VDN Override? N COR: 1 TN: 1 Measured: none 1st Skill: 2nd Skill: 3rd Skill: </pre>

Step	Description
7.	<p>Enter the add agent-loginID <i>n</i> command, where <i>n</i> is a valid extension as per the dial plan, and configure as follows:</p> <ul style="list-style-type: none"> • Name – Set to any descriptive string value. • Auto Answer - Set to all. • Repeat this step to configure additional agent login IDs. <div> <div>add agent-loginID 25020</div> <div> <div>AGENT LOGINID</div> <div> <div>Page 1 of 2</div> <div> Login ID: 25020 AAS? n Name: Agent1 AUDIX? n TN: 1 LWC Reception: spe COR: 1 LWC Log External Calls? n Coverage Path: AUDIX Name for Messaging: Security Code: LoginID for ISDN Display? n Password: Password (enter again): Auto Answer: all MIA Across Skills: system ACW Agent Considered Idle: system Aux Work Reason Code Type: system Logout Reason Code Type: system Maximum time agent in ACW before logout (sec): system </div> </div> </div> </div> <p>On Page 2 of the AGENT LOGINID form, specify the list of skills in the SN (Skill Number) field and level in the SL (Skill Level) field assigned to this agent login ID as shown below.</p> <div> <div>change agent-loginID 25020</div> <div> <div>AGENT LOGINID</div> <div> <div>Page 2 of 2</div> <div> Direct Agent Skill: Call Handling Preference: skill-level Local Call Preference? n SN SL SN SL SN SL SN SL 1: 402 2 16: 31: 46: 2: 17: 32: 47: 3: 18: 33: 48: 4: 19: 34: 49: </div> </div> </div> </div>

Step	Description
8.	<p>Enter the change station n where n is an already configured agent phone/headset extension used by Avaya HardDialer. On Page 3, configure the following button assignments:</p> <ul style="list-style-type: none"> • aux-work – agent is logged on to the phone for outbound calls. • auto-in – agent goes to auto-in to accept inbound calls. • after-call –when the agent is in wrap up state after the call has ended. • release – to drop the call. • Repeat this step to configure additional agent phone/headset extensions. <pre> change station 22720 Page 3 of 4 STATION SITE DATA Room: Headset? n Jack: Speaker? n Cable: Mounting: d Floor: Cord Length: 0 Building: Set Color: ABBREVIATED DIALING List1: List2: BUTTON ASSIGNMENTS 1: call-appr 5: aux-work RC: Grp: 2: call-appr 6: auto-in Grp: 3: call-appr 7: after-call Grp: 4: call-fwd Ext: 8: release </pre>

4. Configure Avaya Proactive Contact

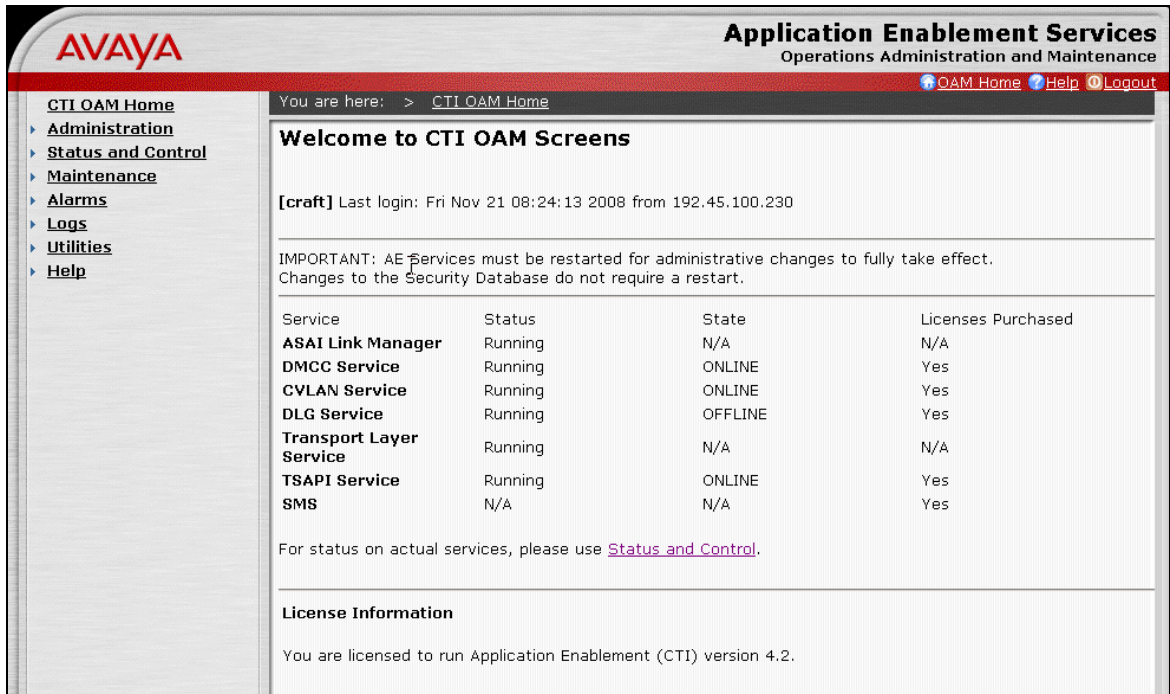
These Application Notes assume that the interfaces between Avaya Proactive Contact, Avaya S8710 Servers and Avaya AE Services have been configured and are operational, and that a calling list has been successfully downloaded to the Avaya HardDialer. The following configuration was verified on Avaya HardDialer. Refer to [2, 3, and 4] for additional details.

Step	Description
1.	<p>Edit the 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 6.2, Step 10.</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 Avaya Application Enablement Services Server

This section displays the already configured values on Avaya AE Services for Qfiniti to receive TSAPI events. Basic configuration related to the switch connection between Avaya Communication Manager and Avaya AE Services is assumed. Refer to [2, 4] for additional details.

Step	Description
1.	Launch a web browser, enter <a href="https://<IP address of AE Services server>:8443/MVAP">https://<IP address of AE Services server>:8443/MVAP in the URL, and log in with the appropriate credentials for accessing the AE Services CTI OAM pages.
2.	From the CTI OAM Home menu, select CTI OAM Admin and verify that the TSAPI service is licensed as shown below under the heading License Information.



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

[CTI OAM Home](#) [Help](#) [Logout](#)

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

Welcome to CTI OAM Screens

[craft] Last login: Fri Nov 21 08:24:13 2008 from 192.45.100.230

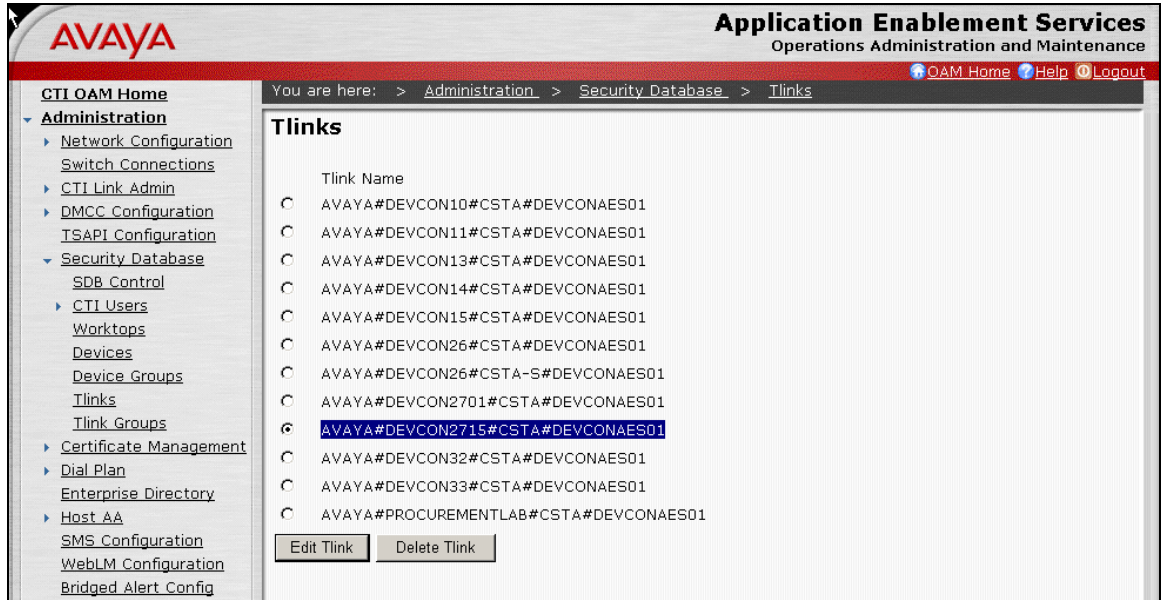
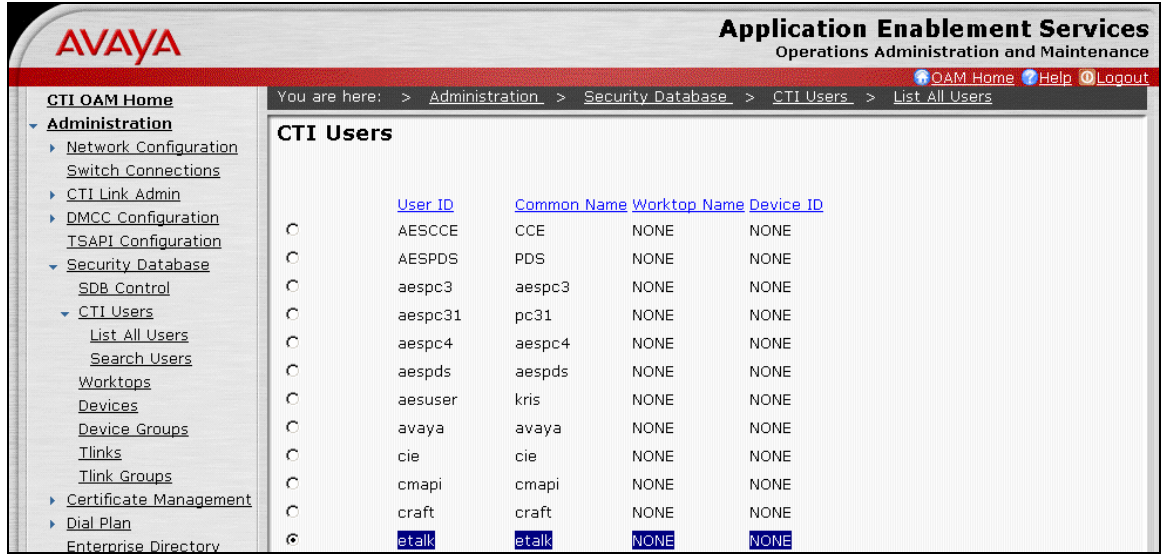
IMPORTANT: AE Services must be restarted for administrative changes to fully take effect. Changes to the Security Database do not require a restart.

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

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

License Information

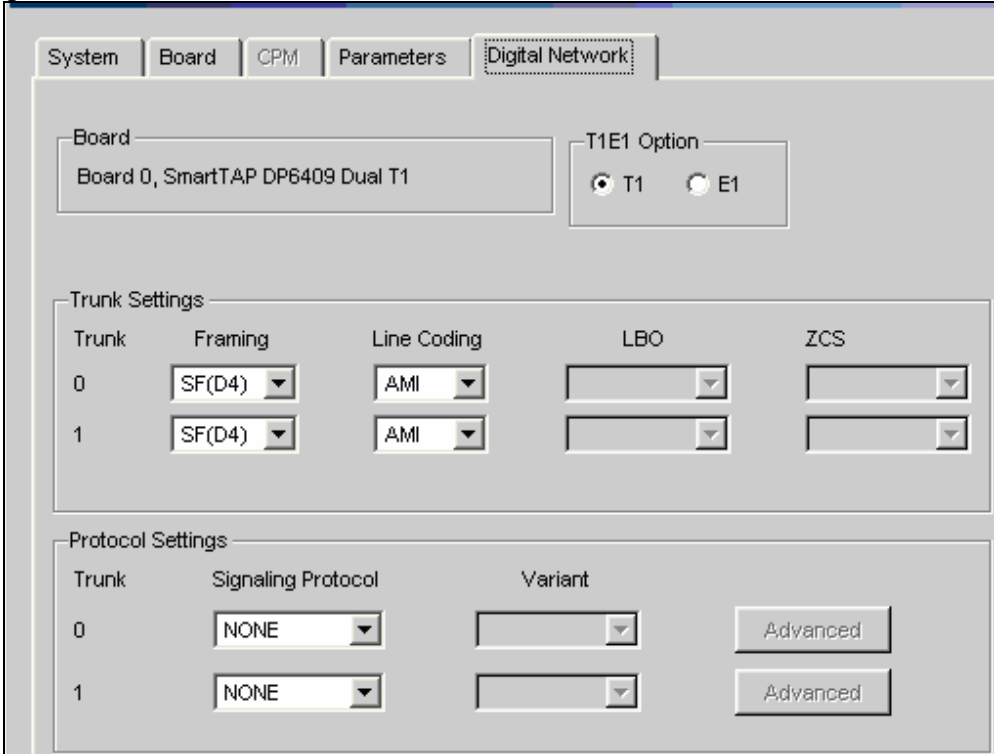
You are licensed to run Application Enablement (CTI) version 4.2.

Step	Description
3.	<p>Navigate to the Tlinks screen by selecting CTI OAM Home → Administration → Security Database → Tlinks and verify a TSAPI link is configured. In this sample configuration, the AVAYA#DEVCON2715#CSTA#DEVCONAES01 string is used by Qfiniti to connect to Avaya AES.</p> <div></div>
4.	<p>Navigate to CTI OAM Home/Administration → CTI Users → List All Users and verify that a user for Qfiniti has been created on the Avaya AE Services server.</p> <div></div>

6. Configure Qfiniti

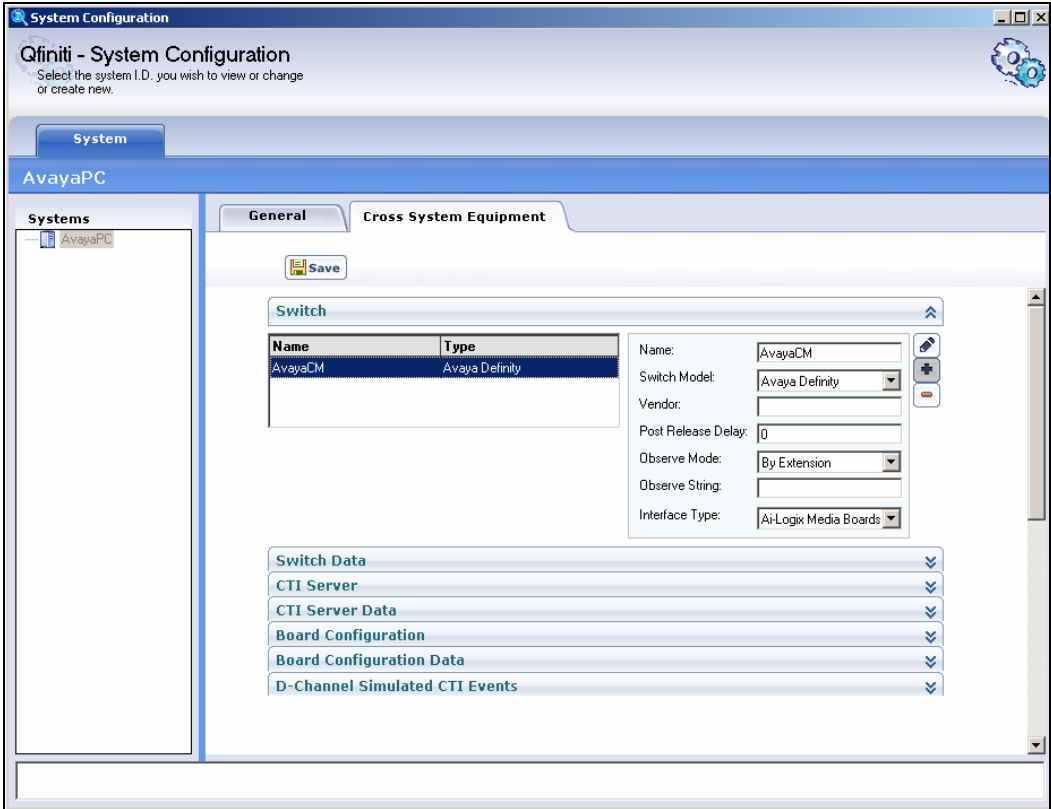
The following steps describe the configuration to integrate Qfiniti with Avaya HardDialer. Configuration in the following sections is only for the fields where a value needs to be entered or modified. Default values are used for all other fields. Refer to [7] for additional details.

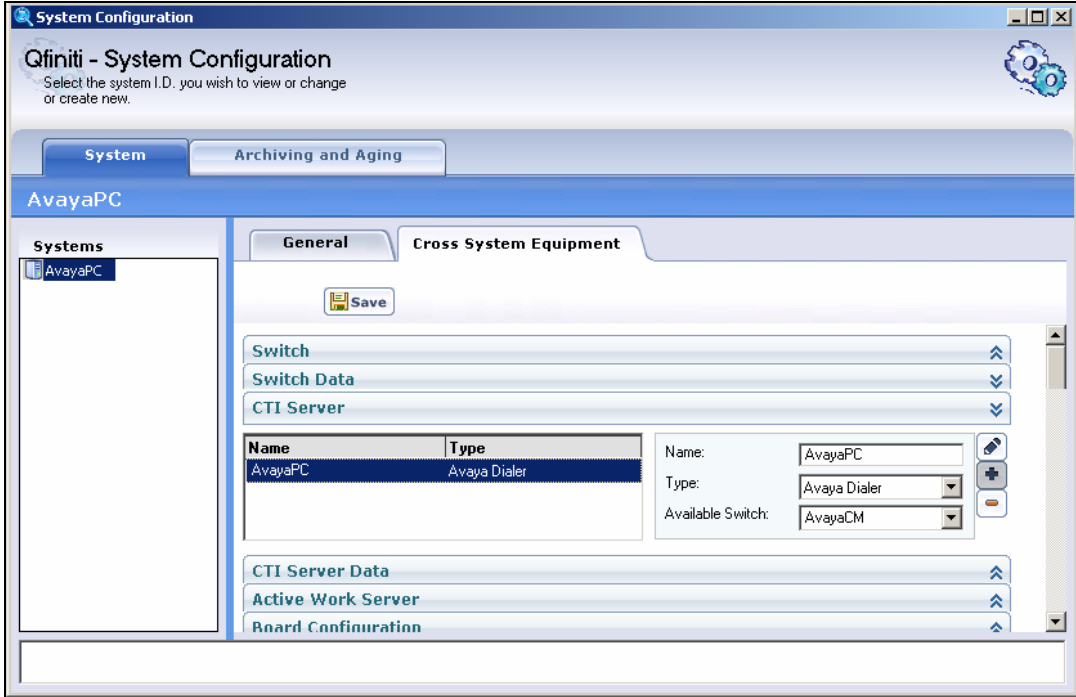
6.1. Qfiniti T1 Configuration

Step	Description
1.	<p>Navigate from Start → Control Panel → Smart Card and click on the smartcard icon. Select the Digital Network tab to display the following screen and configure T1 parameters as follows:</p> <ul style="list-style-type: none">• T1E1 Option – Click T1 radio button.• 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.• Click OK button. [not visible in the screen below] <p>Note: Protocol Settings (Signaling Protocol) set to NONE indicates that robbed-bit protocol will be used.</p> 

6.2. Qfiniti System Administration

Step	Description
1.	<p>Verify the hosts file on Qfiniti contains the hostnames of the Avaya Hard Dialer and Avaya AE Services server.</p> <pre># 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 </pre> <p>192.45.120.155 lzpds4b 192.45.95.98 DEVCONAES01</p>
2.	<ul style="list-style-type: none"> • Create the folder <dir>:\pcv4_dialer_keys • Copy the following files from <dir>:\Program Files\Qfiniti\bin to <dir>:\pcv4_dialer_keys: <ul style="list-style-type: none"> ○ corba_svc.conf ○ ProactiveContactCA.pem ○ corbaServer_key.pem ○ corbaServer_cert.pem • Edit <dir>:\pcv4_dialer_keys\corba_svc.conf, pasting the path "<dir>:\pcv4_dialer_keys\" after "PEM:" in 3 places. This will provide the correct path to the three .pem files listed above.

Step	Description
3.	<p>Click System Configuration icon on the Qfiniti server desktop and select the Cross System Equipment tab. Click Switch in the right pane and configure as follows:</p> <ul style="list-style-type: none"> • Name – Set to any descriptive string. • Switch Model – Choose Avaya Definity from the drop down list. • Interface Type – Select Air-Logix Media Boards from the drop down list.  <p>The screenshot shows the 'System Configuration' window for 'AvayaPC'. The 'Cross System Equipment' tab is active. On the left, a 'Systems' pane lists 'AvayaPC'. The main area shows a 'Switch' configuration table with columns 'Name' and 'Type'. The table contains one entry: 'AvayaCM' with type 'Avaya Definity'. To the right of the table are fields for 'Name' (AvayaCM), 'Switch Model' (Avaya Definity), 'Vendor', 'Post Release Delay' (0), 'Observe Mode' (By Extension), 'Observe String', and 'Interface Type' (Air-Logix Media Boards). Below these are expandable sections for 'Switch Data', 'CTI Server', 'CTI Server Data', 'Board Configuration', 'Board Configuration Data', and 'D-Channel Simulated CTI Events'.</p>

Step	Description
4.	<p>Configuration in this step pertains to receiving events from Avaya HardDialer by connecting to the Event Service. Select CTI Server in the right pane and configure as follows:</p> <ul style="list-style-type: none"> • Name – Set to any descriptive name. • Type – Select Avaya Dialer from the drop down list. • Available Switch – Select the switch configured in the previous step.  <p>The screenshot shows the 'System Configuration' window for 'Qfiniti - System Configuration'. The 'System' tab is selected, and the 'AvayaPC' system is chosen from the left pane. The 'General' tab is active, displaying a 'Save' button and a list of configuration sections: 'Switch', 'Switch Data', 'CTI Server', 'CTI Server Data', 'Active Work Server', and 'Board Configuration'. The 'CTI Server' section is expanded, showing a table with columns 'Name' and 'Type'. The table contains one entry: 'AvayaPC' with 'Avaya Dialer' as the type. To the right of the table, there are three fields: 'Name' (set to 'AvayaPC'), 'Type' (set to 'Avaya Dialer'), and 'Available Switch' (set to 'AvayaCM').</p>

Step	Description
5.	<p>Select CTI Server Data in the right pane and configure as follows:</p> <ul style="list-style-type: none"> • User Name – Set to the user name configured on Avaya HardDialer for corba connection. • Password – Set to the password on Avaya HardDialer for corba connection. • Orb Initial Reference Flag – Set to -ORBInitRef. • Init <DialerHostName.xxx.com> - Set to NameService=corbaloc:ssliop:<hostname of the Avaya Hard Dialer>:23201/NameService. • ORB dot Decimal Addr Flag – Set to -ORBSvcConf. • (0)Disable / (1)Enable - Set to C:\pcv4_dialer_keys\corba_svc.conf. • ORB Debug Flag – Set to -ORBDebugLevel. • (0)Min (10)Max – Set to 10. This is for debug purposes only. Once configuration issues have been resolved, and Observe is receiving dialer CTI events, set the value to 0. • ORB Flag (optional) – Set to -ORBLogFile. • ORB value (optional) – Set to \\Quazimodo\Recordings\Corba.log. • Event Service P0 – Set to PDS. • Event Service P1 – Set to dialers. • ES P2 <DialerHostName> - Set to the hostname of the Avaya HardDialer. • Event Service P3 – Set to eventserver. • Event Service P4 – Set to v2_0. • PBX Extensions – Set to the agent extensions to be recorded. • Dialer Version – Set to PACv4.0.

Qfiniti - System Configuration
Select the system I.D. you wish to view or change or create new.

System

AvayaPC

Systems

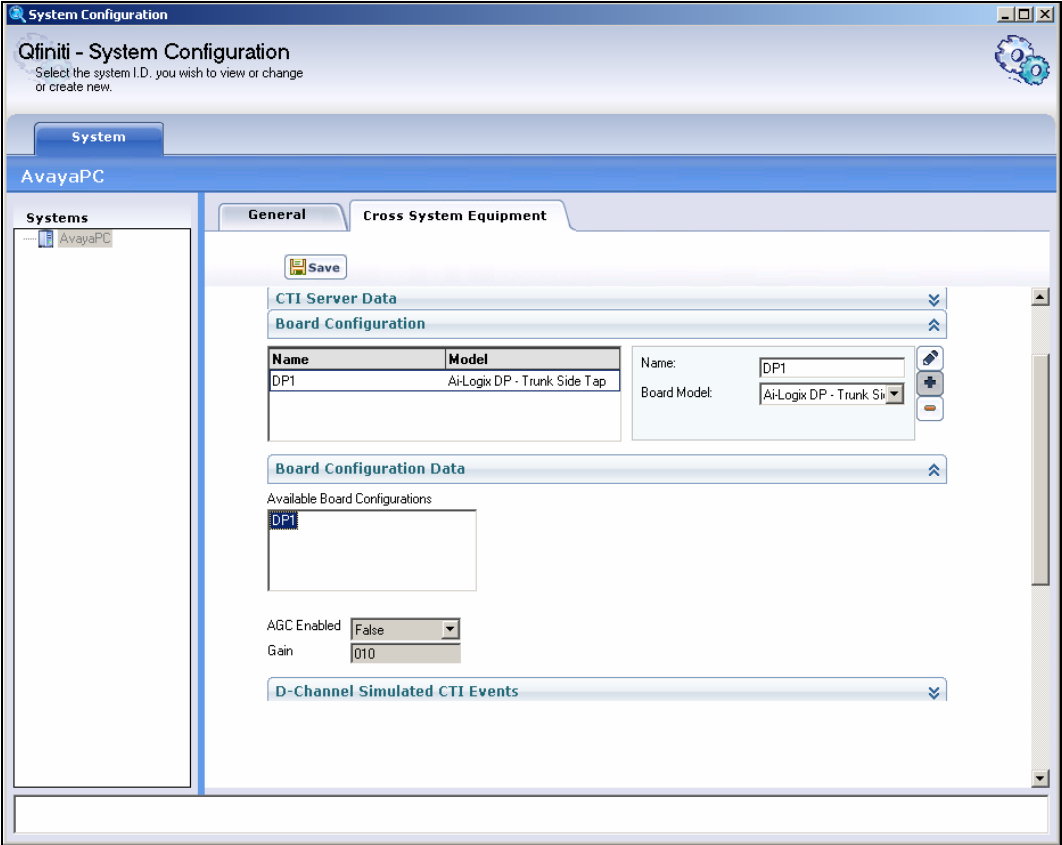
General **Cross System Equipment**

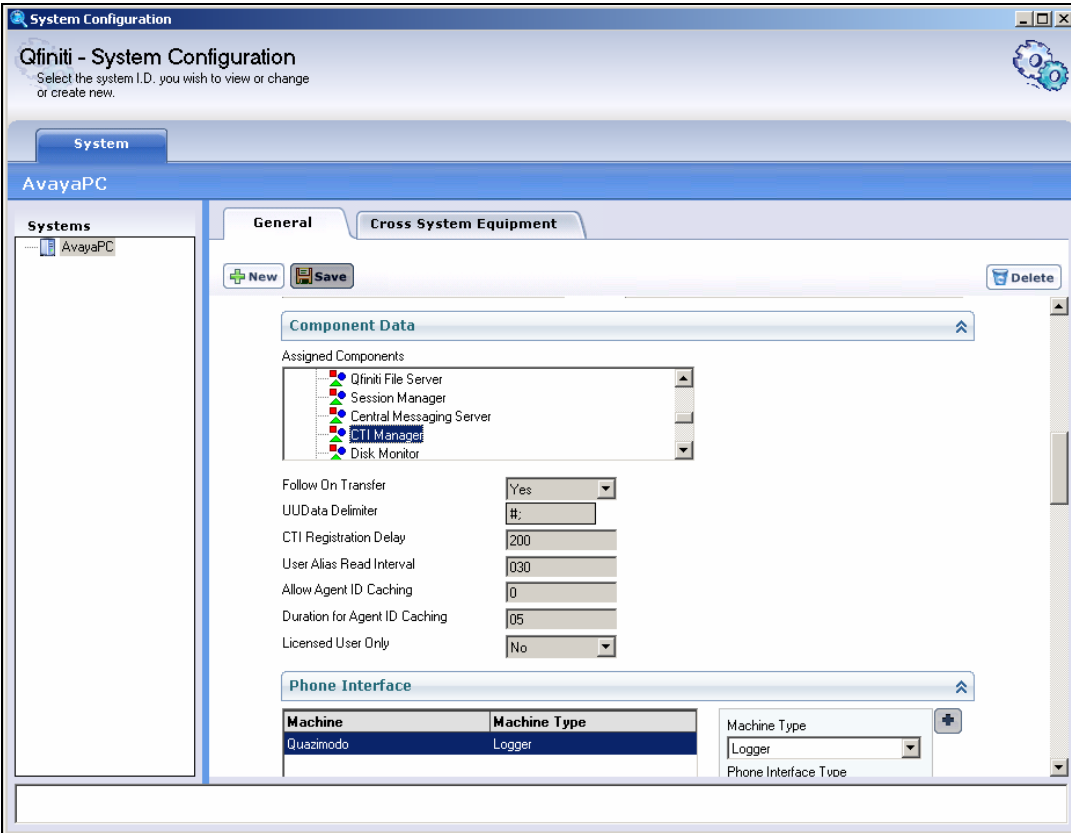
CTI Server Data

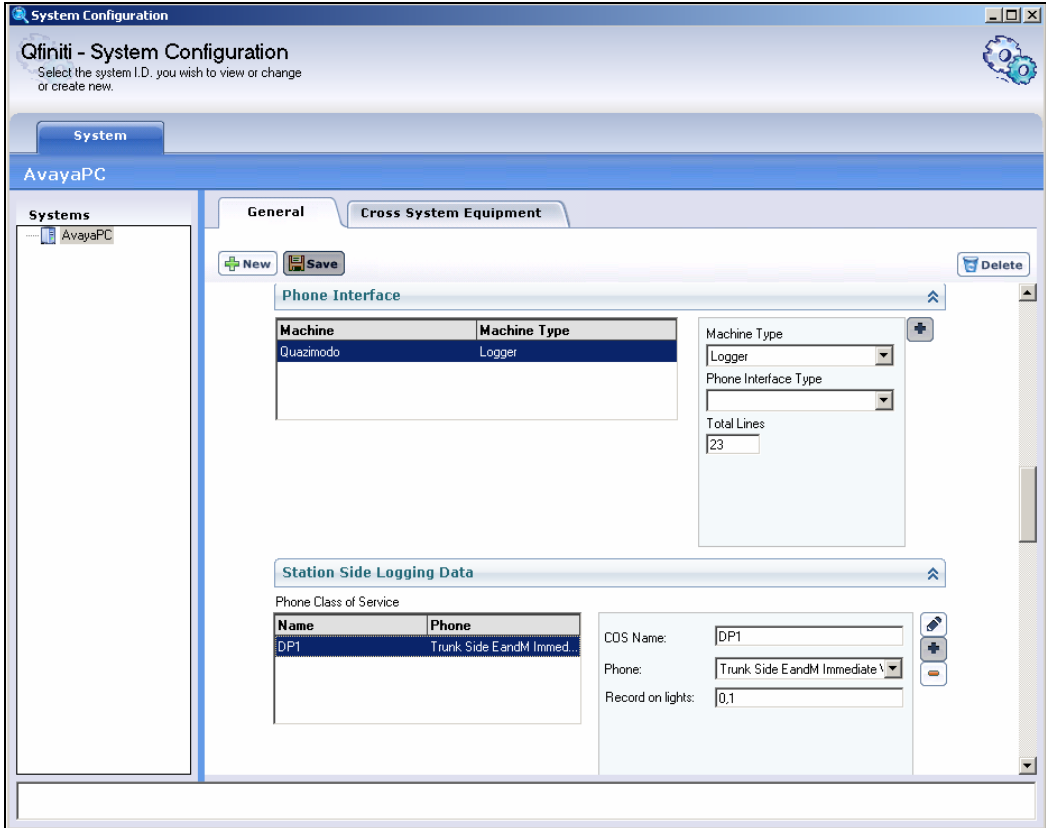
Available CTI Servers

AvayaPC

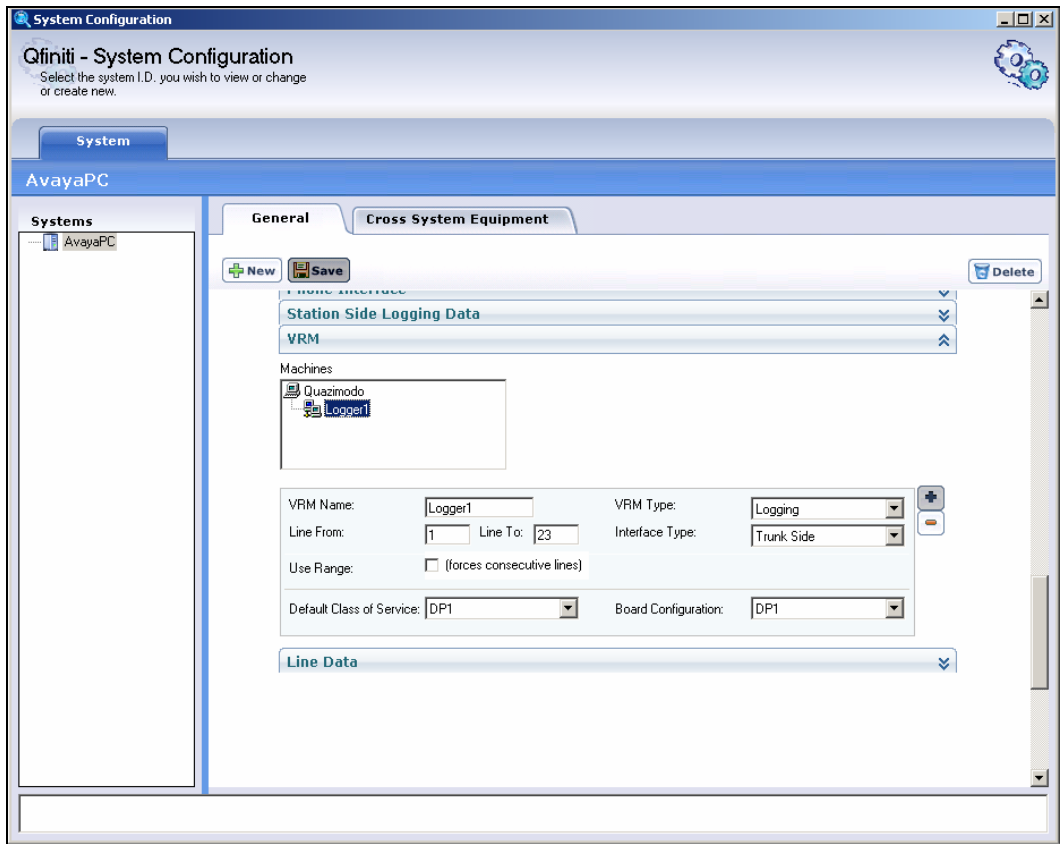
User Name	client1	Event Service P0	PDS
Password	server1	Event Service P1	dialers
ORB Initial Reference Flag	-ORBInitRef	ES P2. <DialerHostName>	lpds4b
Init <DialerHostName.XXX.com>	NameService=corb	Event Service P3	eventserver
ORB Dot Decimal Addr Flag	-ORBSvcConf	Event Service P4	v2_0
(0) Disable / (1) Enable	C:\pcv4_dialer_ke	ES P5 (optional)	
ORB Debug Flag	-ORBDebugLevel	ES P6 (optional)	
(0) Min - (10) Max	10	UUData script name	CTI_UUDataScripts
ORB Flag (optional)		PBX Extensions	22720
ORB Value (optional)			22721
ORB Flag (optional)	-ORBLogFile		26614
ORB Value (optional)	\\Quazimodo\Rec	Dialer Version	PACv4.0

Step	Description
6.	<p>Select Board Configuration in the right pane and configure as follows:</p> <ul style="list-style-type: none"> • Name – Enter any descriptive string. • Board Model – Select AiLogix DP – Trunk Side from the drop down list. 

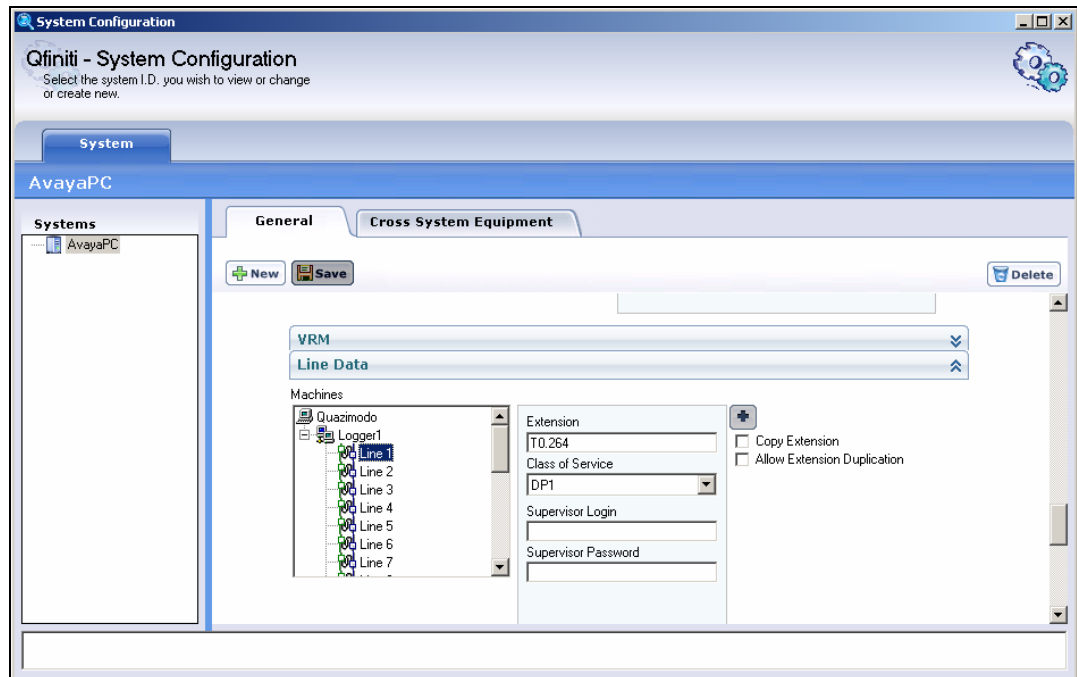
Step	Description
7.	<p>Click on the General tab and select Component Data in the right pane. Select CTI Manager under Assigned Components and verify Allow Agent ID Caching field is set to 0.</p>  <p>The screenshot shows the 'Qfiniti - System Configuration' window. The 'System' tab is selected, and the 'AvayaPC' system is chosen. The 'General' tab is active, and the 'Component Data' section is expanded. Under 'Assigned Components', 'CTI Manager' is selected. The 'Allow Agent ID Caching' field is set to '0'. Other fields include 'Follow On Transfer' (Yes), 'UUData Delimiter' (#), 'CTI Registration Delay' (200), 'User Alias Read Interval' (030), 'Duration for Agent ID Caching' (05), and 'Licensed User Only' (No). The 'Phone Interface' section shows a table with 'Machine' (Quazimodo) and 'Machine Type' (Logger).</p>

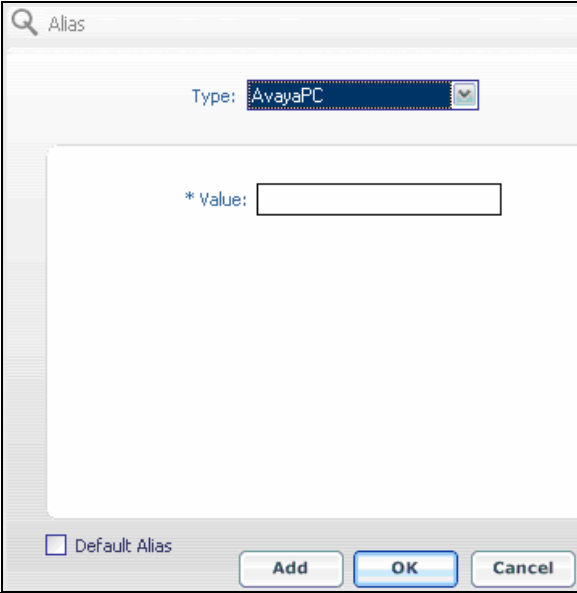
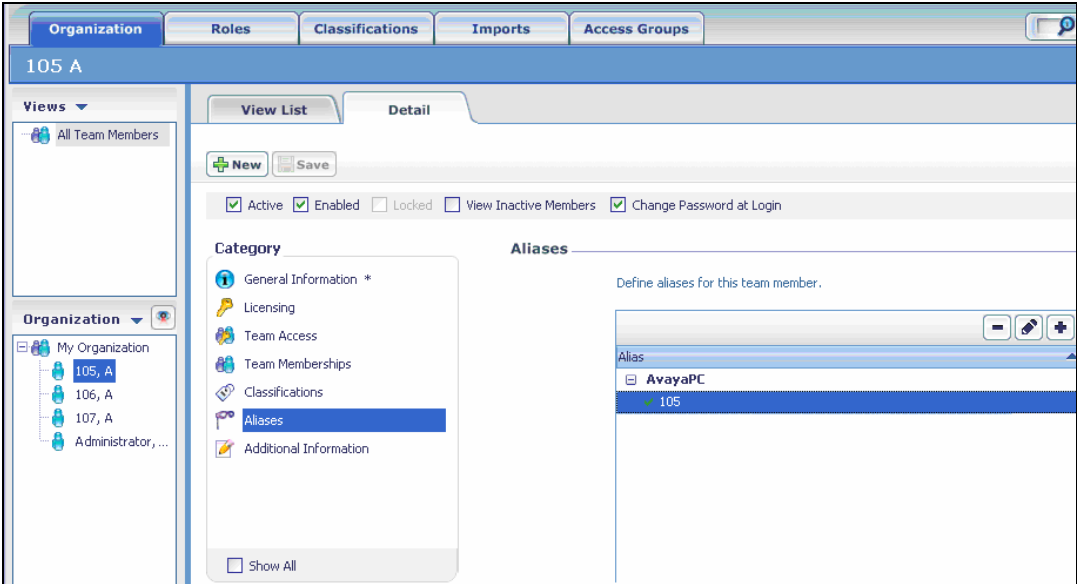
Step	Description
8.	<p>Select Phone Interface and Station Side Logging Data in the right pane and configure as follows:</p> <ul style="list-style-type: none"> • Machine Type – Select Logger from the drop down list. • Phone Interface Type – Leave blank for recording using trunk tapping. • Total Lines – Set to 23. • COS Name – Set to any descriptive string. • Phone – Select Trunk Side EandM Immediate Wink from the drop down list.  <p>The screenshot displays the 'System Configuration' window for 'AvayaPC'. The 'Cross System Equipment' tab is active. Under the 'Phone Interface' section, a table lists 'Quazimodo' with 'Logger' as the 'Machine Type'. To the right, the 'Machine Type' dropdown is set to 'Logger', 'Phone Interface Type' is blank, and 'Total Lines' is set to '23'. Under the 'Station Side Logging Data' section, a table lists 'DP1' with 'Trunk Side EandM Immed...' as the 'Phone'. To the right, 'COS Name' is 'DP1', 'Phone' is 'Trunk Side EandM Immediate', and 'Record on lights' is '0,1'.</p>

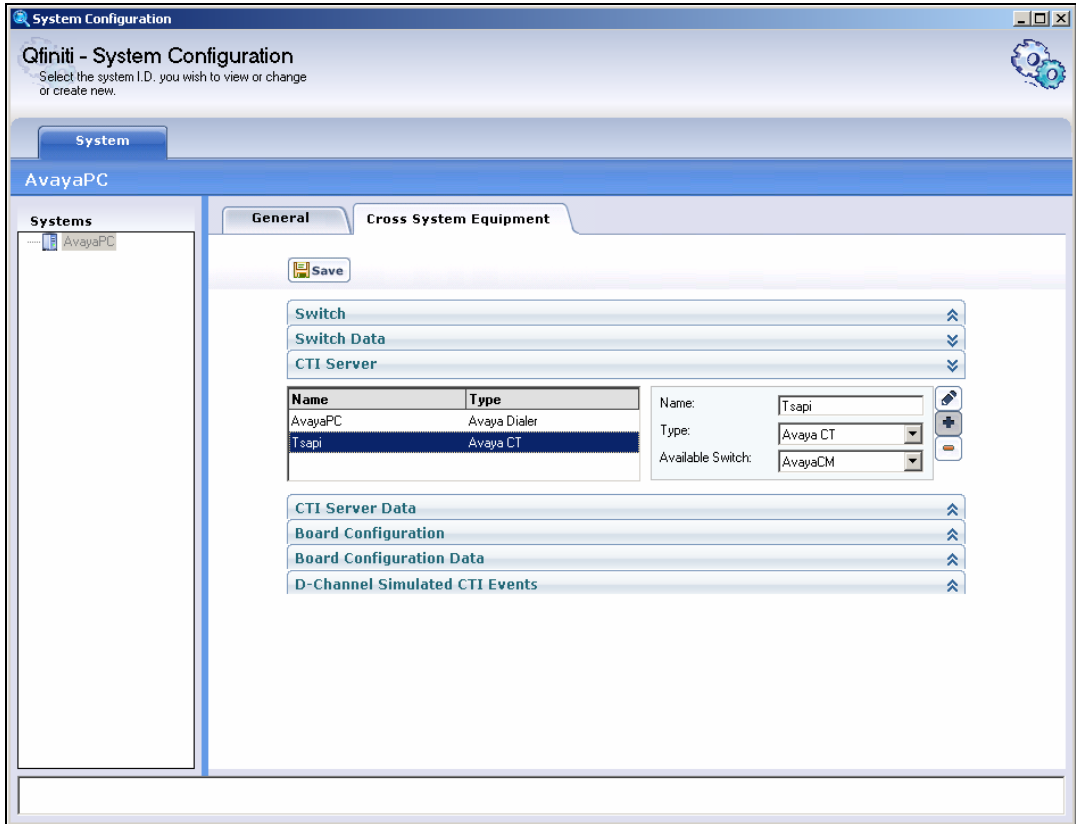
Step	Description
9.	<p>Click on VRM in the right pane, select Logger1 under Machines and configure as follows:</p> <ul style="list-style-type: none"> • VRM Name – Set to any descriptive string. • Line From – Set to 1. • Line To – Set to the Total Lines field value configured in the previous step. • VRM Type – Select Logging from the drop down list. • Interface Type – Select Trunk Side from the drop down list. • Default Class of Service – Select the COS Name field value configured in previous step. • Board Configuration – Select the Name field configured in Step 6.



Step	Description
10.	<p>Click on VRM in the right pane, navigate to Quazimodo/Logger1/Line1 under Machines and configure as follows:</p> <ul style="list-style-type: none"> • Extension – Set to the channels configured in Section 4, Step 1 pre-pended by T0. In this example the value for channel 264 in Section 4, Step 1 is set as T0.264. • Class of Service – Select the COS Name field value configured in Step 8. • Repeat this step for all the headset channels configured in Section 4, Step 1.



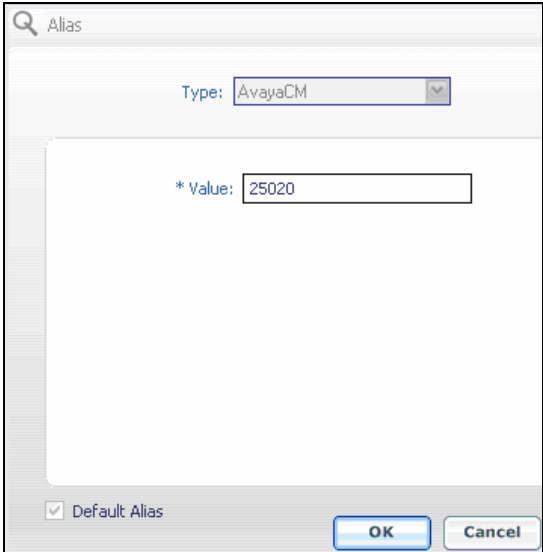
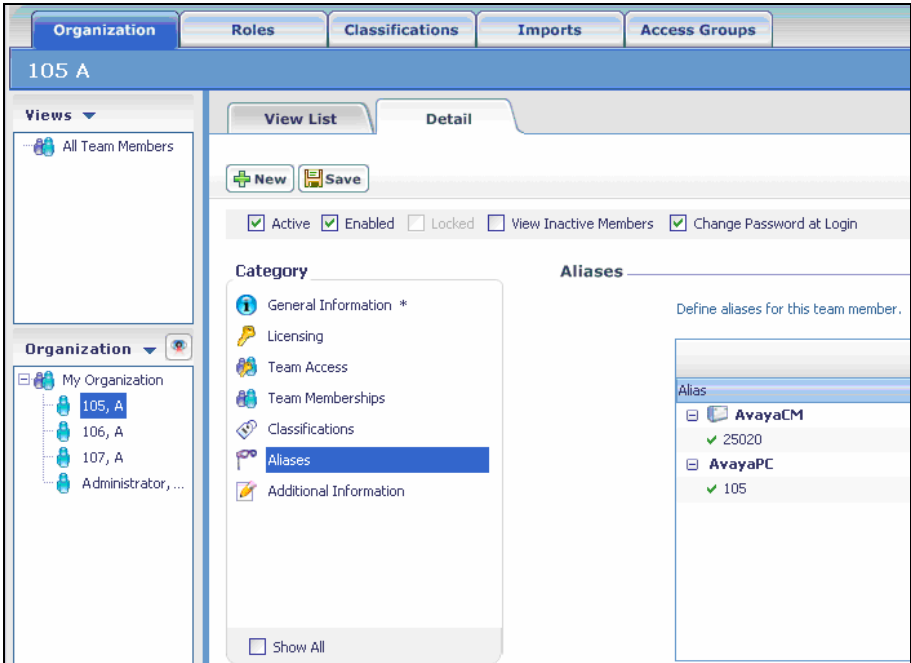
Step	Description
11.	<p>Click Qfiniti Desktop on the desktop and navigate to the Organization/Detail tab. Select Aliases under Category and click on the + sign in the Aliases section to display the following Alias popup window.</p> <ul style="list-style-type: none"> Enter the agent id of the Avaya Proactive Contact agent to be recorded in the Value field and click OK. Repeat this step for additional Avaya Proactive Contact agent ids to be recorded. 
12.	<p>Below is a confirmation screen with the aliases defined.</p> 

Step	Description
13.	<p>For Predictive Agent Blending, a TSAPI client should be installed on the Qfiniti server and the Telephony Servers section in the tslib.ini file should point to the Avaya AE Services server displayed in Step 1.</p> <p>; This is a list of the servers offering Telephony Services via TCP/IP. ; Either domain name or IP address may be used; default port number is 450 ; The form is: host_name=port_number For example: ; ; tserver.mydomain.com=450 ; 127.0.0.1=450 ; [Telephony Servers] DEVCONAES01=450</p>
14.	<p>Configuration in this step pertains to receiving events using TSAPI to receive events from Avaya AES. Select CTI Server in the right pane and configure as follows:</p> <ul style="list-style-type: none"> • Name – Set to any descriptive name. • Type – Select Avaya CT from the drop down list. This option appears after the TSAPI client is installed on Qfiniti server. • Available Switch – Select the Switch configured in Step 3 from the drop down list.  <p>The screenshot shows the 'Qfiniti - System Configuration' window. The 'System' tab is selected, and the 'AvayaPC' system is chosen in the left pane. The 'General' tab is active, displaying the 'Cross System Equipment' section. A 'Save' button is at the top. Below it, a tree view shows 'Switch', 'Switch Data', and 'CTI Server'. The 'CTI Server' section contains a table with two entries: 'AvayaPC' (Avaya Dialer) and 'Tsapi' (Avaya CT). To the right of the table, there are input fields for 'Name' (set to 'Tsapi'), 'Type' (set to 'Avaya CT'), and 'Available Switch' (set to 'AvayaCM'). Below the table, there are expandable sections for 'CTI Server Data', 'Board Configuration', 'Board Configuration Data', and 'D-Channel Simulated CTI Events'.</p>

Step	Description
15.	<p>Select CTI Server Data in the right pane and configure as follows:</p> <ul style="list-style-type: none"> • Available CTI Servers – Select Tsapi which is the CTI Server configured in the previous step. • ServerName – Set to the Avaya AE Services server name as displayed in Step 1 and used in last part of the string displayed in Section 5, Step 3. • Queue – These queues are the VDNs configure in Section 3.2, Step 6. • Agent Extension – Set to the agent extensions configured in Section 3.2, Step 8 to be recorded. • User Name – Set to the user name displayed in Section 5, Step 4. • Password – Set to the password for the user displayed in Section 5, Step 4. • Vendor – Set to the first part of the TSAPI string displayed in Section 5, Step 3. • Driver – Set to second part of the TSAPI string displayed in Section 5, Step 3. • Service – Set to the third part of the TSAPI string displayed in Section 5, Step 3. • Udata script name – Set to CTI_UUdataScripts.

The screenshot shows the 'System Configuration' window for 'Qniniti - System Configuration'. The 'System' tab is selected, and the 'AvayaPC' system is chosen. The 'General' tab is active, displaying the 'CTI Server Data' configuration. The 'Available CTI Servers' list shows 'AvayaPC' and 'Tsapi', with 'Tsapi' selected. The configuration fields are as follows:

Field	Value
ServerName	DEVCONAES01
Queue	55401, 55402
Agent Extensions	22720, 22721, 26614
User Name	etalk
Password	etalk
Vendor	AVAYA
Driver	DEVCON2715
Service	ICSTA
BackUp ServerName	
BackUp Password	
BackUp Vendor	
BackUp Driver	
BackUp Service	
Udata script name	CTI_UUdataScripts
Auto Login Extensions	
PreInitExtensions	Yes

Step	Description
16.	<p>Click Qfiniti Desktop on the desktop and navigate to the Organization/Detail tab. Select Aliases in under Category and click on the + sign in the Aliases section to display the following Alias popup window.</p> <ul style="list-style-type: none"> Enter the Avaya Communication Manager agent login id in the Value field for the ACD agent configured in Section 3.2, Step 7 and click OK. Repeat this step for additional ACD agents to be configured.  <p>The image shows an 'Alias' popup window. At the top, there is a search bar with the text 'Alias'. Below it, a 'Type' dropdown menu is set to 'AvayaCM'. Underneath, there is a field labeled '* Value:' with the text '25020' entered. At the bottom left, there is a checkbox labeled 'Default Alias' which is checked. At the bottom right, there are 'OK' and 'Cancel' buttons.</p>
17.	<p>Below is a confirmation screen with an ACD agent configured on Qfiniti server.</p>  <p>The image shows the 'Organization/Detail' screen in Qfiniti Desktop. The top navigation bar includes 'Organization', 'Roles', 'Classifications', 'Imports', and 'Access Groups'. The main header shows '105 A'. On the left, there is a 'Views' section with 'All Team Members' and an 'Organization' tree showing 'My Organization' with sub-items '105, A', '106, A', '107, A', and 'Administrator, ...'. The main content area has tabs for 'View List' and 'Detail'. Below the tabs are buttons for 'New' and 'Save'. There are checkboxes for 'Active', 'Enabled', 'Locked', 'View Inactive Members', and 'Change Password at Login'. The 'Category' section on the left lists 'General Information *', 'Licensing', 'Team Access', 'Team Memberships', 'Classifications', 'Aliases', and 'Additional Information'. The 'Aliases' section on the right is titled 'Define aliases for this team member.' and shows a list of aliases: 'AvayaCM' with value '25020' and 'AvayaPC' with value '105'. A 'Show All' button is at the bottom left.</p>

7. Interoperability Compliance Testing

This interoperability compliance test covers feature functionality, serviceability and basic stability testing. Feature functionality focused on verifying that Qfiniti could successfully record calls using events from Avaya HardDialer and Avaya AE Services. Serviceability testing verified that the Qfiniti server recovered from adverse conditions, such as rebooting, power failure and network disconnect. Basic stability testing verified that the recording solution could successfully record calls for an extended period of time.

7.1. 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 the Qfiniti desktop interface. During the basic load testing, Avaya HardDialer executed a calling list which delivered calls to the agents for sustained periods.

7.2. Test Results

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

8. Verification

8.1. Avaya Communication Manager

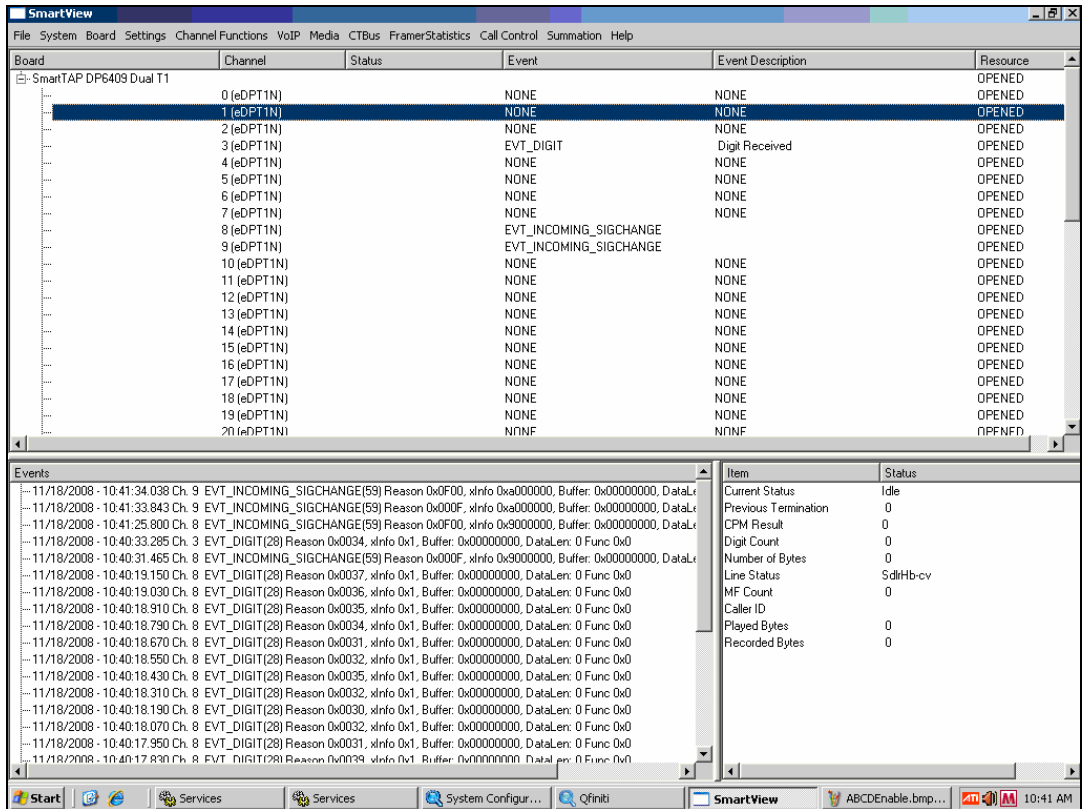
Step	Description																																																												
1.	Execute the test board <i>slot_no</i> , where <i>slot_no</i> is the location of the DS1 card on Avaya Communication Manager gateway. Verify that all the following tests pass after the trunk has been tapped to connect to the Qfiniti T1 card.																																																												
	<div>test board 1a14<div>Page 1</div></div> <div>TEST RESULTS</div> <table><tr><th>Port</th><th>Mtce Name</th><th>Alt. Name</th><th>Test No.</th><th>Result</th><th>Error Code</th></tr><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></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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8.2. Avaya Proactive Contact

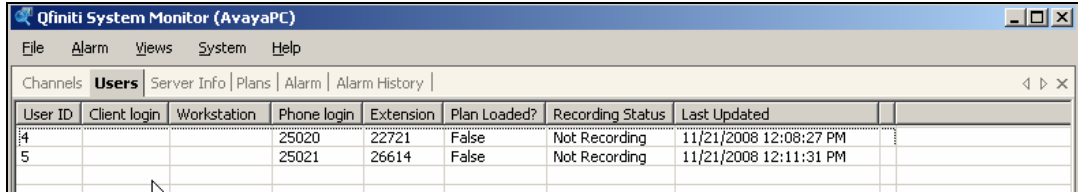
Step	Description
1.	Execute the netstat -a command at the Avaya Proactive Contact server command prompt to verify the communication between Avaya Proactive Contact and the Qfiniti server. The result below shows that the Qfiniti server at 192.45.30.25 is connected to the Avaya Proactive Contact server (lzpds4b).
	<pre>\$ netstat -a Active Internet connections (including servers) Proto Recv-Q Send-Q Local Address Foreign Address (state)</pre>
	<pre>tcp 0 0 lzpds4b:enserver_ssl 192.45.30.25:39875 ESTABLISHED tcp 0 0 lzpds4b:NameService_ssl 192.45.30.25:39874 ESTABLISHED</pre>

8.3. Qfiniti T1 Connectivity

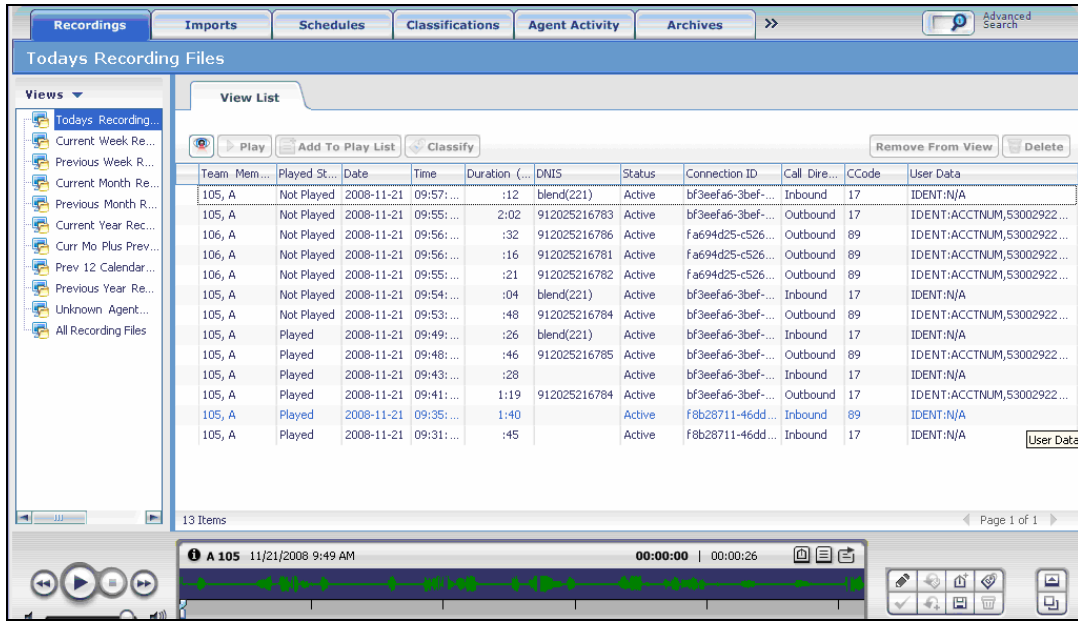
Verify that the light is green on the T1 card on the Qfiniti server which taps into the T1 link between Avaya Communication Manager and Avaya HardDialer.

Step	Description
1.	<p>The following is a sample screen to verify if the signaling events are being generated.</p>  <p>The screenshot displays the SmartView application interface. The top menu bar includes File, System, Board, Settings, Channel Functions, VoIP, Media, CTBus, FramersStatistics, Call Control, Summation, and Help. The main window is divided into two panes. The left pane shows a list of channels for the 'SmartTAP DP6409 Dual T1' board, with columns for Board, Channel, Status, Event, Event Description, and Resource. Channels 0 through 20 are listed, with most having a status of 'OPENED' and an event of 'NONE'. Channel 3 shows an 'EVT_DIGIT' event with the description 'Digit Received'. The right pane shows a list of events with columns for Item and Status. The 'Current Status' is 'Idle', 'Previous Termination' is '0', 'CPM Result' is '0', 'Digit Count' is '0', 'Number of Bytes' is '0', 'Line Status' is 'SdtHb-cv', 'MF Count' is '0', 'Caller ID' is '0', 'Played Bytes' is '0', and 'Recorded Bytes' is '0'. The bottom of the screen shows a Windows taskbar with the Start button, several service icons, and the SmartView application icon.</p>

8.5. Qfiniti ACD Agent Login Status

Step	Description
1.	<p>The following screen is a sample screen shot displaying the ACD Agent and Avaya HardDialer extension for Predictive Agent Blending campaign.</p> 

8.6. Qfiniti Recording Playback

Step	Description
2.	<p>The following screen is a sample screen shot of the recordings. Each recording can be individually played to verify its quality and accuracy.</p> 

9. Support

For technical support on any Autonomy etalk product, contact Etalk Customer Support at 1-214-981-1979 (International) or 800-346-4436. Technical support email may be sent to techsupport@etalk.com.

10. Conclusion

These Application Notes describe the configuration steps required for Autonomy etalk Qfiniti QA Recording 3.5 to successfully interoperate with Avaya Proactive Contact 4.0 using Avaya PG230 Gateway. All feature functionality and serviceability test cases were completed successfully.

11. 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, January 2008
- [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

Autonomy etalk Documentation found on the Installation CDs:

- [6] *Installation Guide for Qfiniti 3.5 SP1.pdf*
- [7] *Configuration Guide for Qfiniti 3.5 SP1.pdf*
- [8] *Installation Checklist for Qfiniti 3.5 SP1.pdf*
- [9] *User Guide for Qfiniti 3.5 SP1.pdf*
- [10] *Administration Guide for Qfiniti 3.5 SP1.pdf*

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