AVAYA

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.

AT; Reviewed:
SPOC 3/3/2009

Solution & Interoperability Test Lab Application Notes
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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.

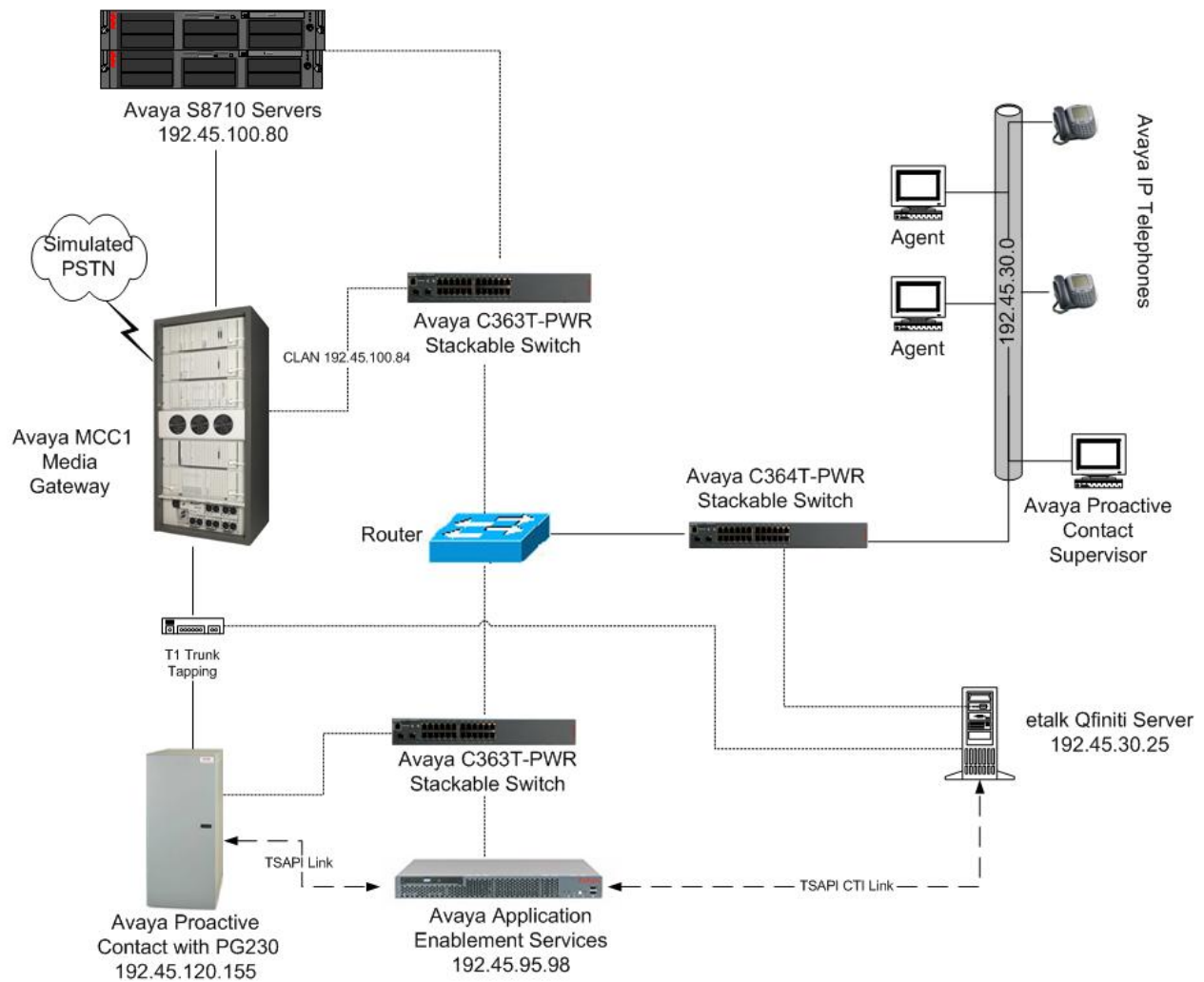**Figure 1** shows the configuration used for this compliance testing.

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.	Enter the **display ds1 xxxxx** command, where **xxxxx** is the location of the DS1 circuit pack and verify the following: **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**. ``` 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 ```

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. | Use the **display system-parameters customer-options** command. On **Page 3**, verify that the **Computer Telephony Adjunct Links** option is set to **y**.<br><br>```
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
``` |
| 2. | On **Page 6**, verify that the **ACD** and **Vectoring (Basic)** fields are set to **y**.<br><br>```
display system-parameters customer-options                    Page   6 of  11
                         CALL CENTER OPTIONAL FEATURES
                         Call Center Release: 5.0
                              ACD? y                        Reason Codes? n
                    BCMS (Basic)? n              Service Level Maximizer? n
       BCMS/VuStats Service Level? n              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? n                               Timed ACW? n
    DTMF Feedback Signals For VRU? n                       Vectoring (Basic)? y
                Dynamic Advocate? n                 Vectoring (Prompting)? y
    Expert Agent Selection (EAS)? y         Vectoring (G3V4 Enhanced)? n
                         EAS-PHD? n              Vectoring (3.0 Enhanced)? n
                Forced ACD Calls? n      Vectoring (ANI/II-Digits Routing)? n
            Least Occupied Agent? n      Vectoring (G3V4 Advanced Routing)? n
          Lookahead Interflow (LAI)? n                   Vectoring (CINFO)? n
Multiple Call Handling (On Request)? n      Vectoring (Best Service Routing)? n
     Multiple Call Handling (Forced)? n              Vectoring (Holidays)? n
    PASTE (Display PBX Data on Phone)? n             Vectoring (Variables)? n
``` |

Step	Description

3.	Add a CTI link using the **add cti-link *n*** command, where *n* is an available CTI link number, and configure as follows:
	• **Extension** – Set to an available extension as per the dial plan.
	• **Type** – Set to **ADJ-IP**
	• **Name** – Set to any descriptive string value.
	
	``
	add cti-link 15 Page 1 of 2
	                              CTI LINK
	 CTI Link: 15
	Extension: 24998
	     Type: ADJ-IP
	                                                             COR: 1
	     Name: AES DEVCON2715
	``

4.	Enter the **add hunt-group *n*** command, where *n* is an unused hunt group number, and configure as follows:
	• **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**.
	
	``
	add hunt-group 402 Page 1 of 3
	                             HUNT GROUP
	          Group Number: 402 ACD? y
	            Group Name: Dialer Inbound Queue? y
	       Group Extension: 50402 Vector? y
	            Group Type: ucd-mia
	                    TN: 1
	                   COR: 1 MM Early Answer? n
	         Security Code: Local Agent Preference? n
	 ISDN/SIP Caller Display:
	``
	
	On **Page 2** of the **HUNT GROUP** form, set the **Skill** field to **y** as shown below.
	
	``
	add hunt-group 402 Page 2 of 3
	                             HUNT GROUP
	                  Skill? y
	                    AAS? n
	               Measured: none
	     Supervisor Extension:
	      Controlling Adjunct: none
	``

Step	Description
5.	Enter the **change vector _n_** command, where _n_ is the next available vector. Enter the commands to queue to the skill (hunt group) configured in the previous step.

	<pre>change vector 402 Page 1 of 3
	                              CALL VECTOR
	    Number: 402 Name: Dialer Inbound
	               Attendant Vectoring? n Meet-me Conf? n Lock? n
	    Basic? y EAS? y G3V4 Enhanced? n ANI/II-Digits? n ASAI Routing? y
	 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.	Enter the **add vdn _n_** command, where _n_ is an unused VDN, and configure as follows: • **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.	Enter the **add agent-loginID** *n* command, where *n* is a valid extension as per the dial plan, and configure as follows:

  • **Name** – Set to any descriptive string value.
  • **Auto Answer** - Set to **all**.
  • Repeat this step to configure additional agent login IDs.

```
add agent-loginID 25020                                    Page   1 of   2
                            AGENT LOGINID
                  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
```

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.

```
change agent-loginID 25020                                 Page   2 of   2
                            AGENT LOGINID
       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:
```

Step	Description

8.	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:
	• **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: List3:
	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.	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**.
	
	<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 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.

Step	Description
3.	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.
4.	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.

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.	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: • **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] Note: **Protocol Settings (Signaling Protocol)** set to **NONE** indicates that **robbed-bit** protocol will be used.

6.2. Qfiniti System Administration

Step	Description
1.	Verify the hosts file on Qfiniti contains the hostnames of the Avaya Hard Dialer and Avaya AE Services server.
	# 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 **192.45.120.155 lzpds4b** **192.45.95.98 DEVCONAES01**
2.	• Create the folder <dir>:\pcv4_dialer_keys • Copy the following files from <dir>:\Program Files\Qfiniti\bin to <dir>:\ pcv4_dialer_keys: o corba_svc.conf o ProactiveContactCA.pem o corbaServer_key.pem o 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.	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: • **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.

AT; Reviewed:
SPOC 3/3/2009

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Step	Description
4.	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:
	• **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.

Step	Description
5.	Select **CTI Server Data** in the right pane and configure as follows:

- **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**.

Step	Description
6.	Select **Board Configuration** in the right pane and configure as follows: • **Name** – Enter any descriptive string. • **Board Model** – Select **AiLogix DP – Trunk Side** from the drop down list.

Step	Description
7.	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**.

Step	Description
8.	Select **Phone Interface** and **Station Side Logging Data** in the right pane and configure as follows: • **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.

Step	Description
9.	Click on **VRM** in the right pane, select **Logger1** under **Machines** and configure as follows: • **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.	Click on **VRM** in the right pane, navigate to **Quazimodo/Logger1/Line1** under **Machines** and configure as follows: • **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.	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. • 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.	Below is a confirmation screen with the aliases defined.

Step	Description
13.	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**.
	; 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**
14.	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: • **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.

Step	Description
15.	Select **CTI Server Data** in the right pane and configure as follows: • **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**. • **UUdata script name** – Set to **CTI_UUdataScripts**.

Step	Description
16.	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. • 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.
17.	Below is a confirmation screen with an ACD agent configured on Qfiniti server.

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.

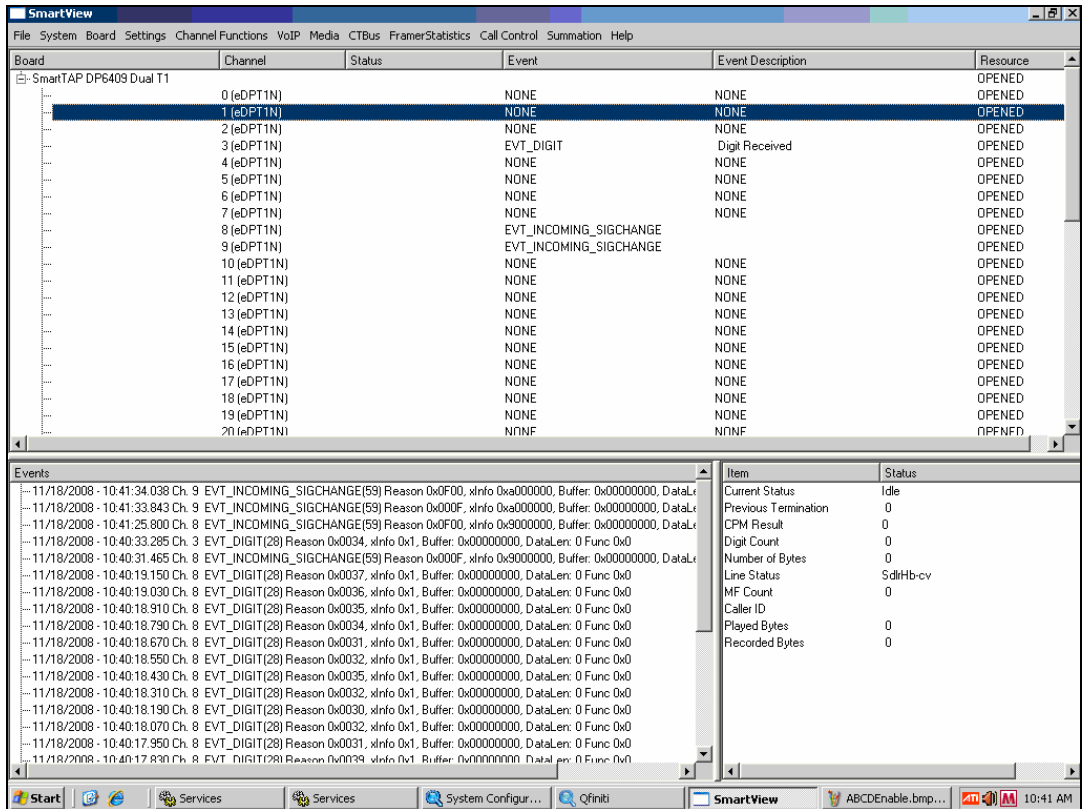# 8. Verification

8.1. Avaya Communication Manager

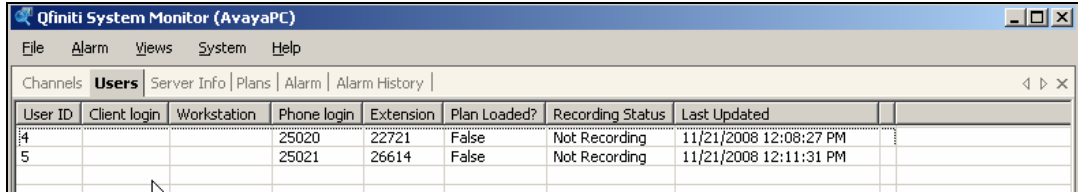| Step	Description
1.	Execute the **test board** *slot_no*, where *slot_no* is the location of the DS1 card on Avaya Communication Manager gateway. Verify that all the following tests pass after the trunk has been tapped to connect to the Qfiniti T1 card.

	<pre>test board 1a14 Page 1
	
	                  TEST RESULTS
	
	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</pre>

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).
	$ netstat –a Active Internet connections (including servers) Proto Recv-Q Send-Q Local Address Foreign Address (state) **tcp 0 0 lzpds4b:enserver_ssl 192.45.30.25:39875 ESTABLISHED** **tcp 0 0 lzpds4b:NameService_ssl 192.45.30.25:39874 ESTABLISHED**

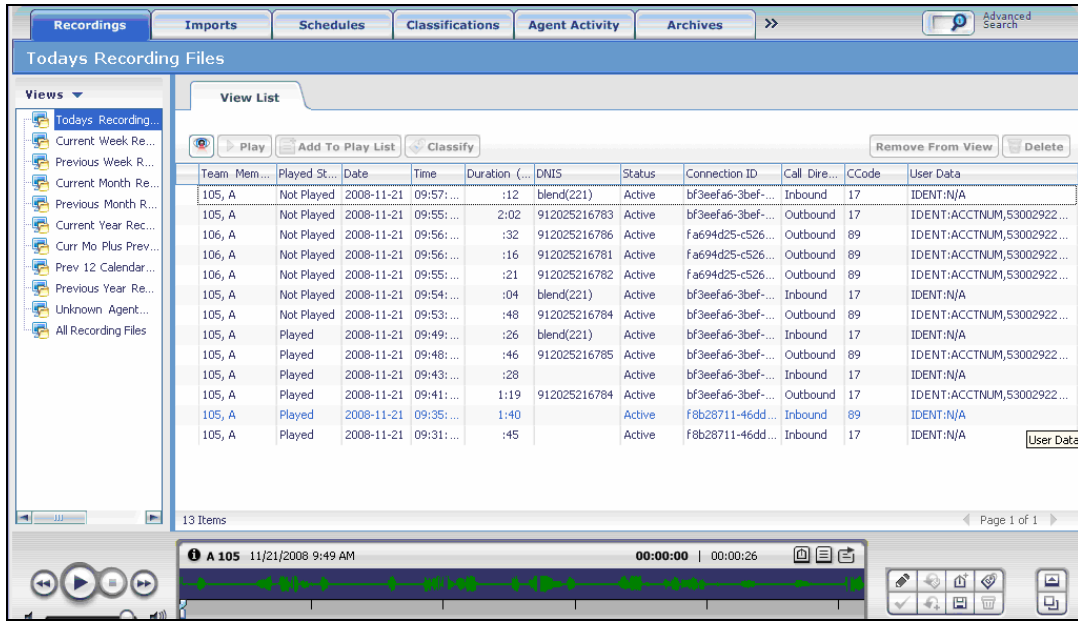## 8.3. Qfiniti T1 Connectivity

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.	The following is a sample screen to verify if the signaling events are being generated.

8.4. Qfiniti Recording Status

Step	Description
1.	The following screen is a sample screen shot for verifying which channels are being recorded. This example shows Qfiniti is recording channel **4** with Avaya Proactive Contact agent id **105** and extension **22721**.

8.5. Qfiniti ACD Agent Login Status

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

8.6. Qfiniti Recording Playback

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

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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