Avaya Solution & Interoperability Test Lab

Application Notes for configuring Aperio from Fiserv and Avaya Proactive Contact with PG230 - Issue 1.0

Abstract

These Application Notes describe the configuration steps for Aperio from Fiserv to interoperate with Avaya Proactive Contact using PG230. Aperio is an Agent desktop that can connect and use the Proactive Contact functionality.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

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

SJW; Reviewed:
SPOC 6/13/2016

Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.

1 of 59
Aperio_PC511_HD

1. Introduction

These Application Notes describe the configuration steps to integrate Avaya Proactive Contact with Aperio.

Aperio consists of a backend Application Server and an agent client. It is a solution for agent desktops in an Avaya call center environment focused on voice.

Aperio database contains customer and third party agency information which is available to Aperio clients. The Aperio client allows connectivity to Avaya Proactive Contact. The client can access stored information from the Aperio database using recognised phone numbers.

2. General Test Approach and Test Results

The general test approach was to configure the Aperio client to communicate with the Proactive Contact. Two Aperio clients were configured. See **Figure 1** for a network diagram. The interoperability compliance test included both feature functionality and serviceability tests focusing on validating successful handling of outbound calls generated by Proactive Contact using the Aperio Client.

Aperio has a Client/Server relationship and Aperio server was installed on a Windows 7 laptop running an MS SQL 2008 R2 database. Connect client software is installed on each client PC utilised by an agent. The Aperio database contains the IP address of the Proactive Contact and the Aperio software references this when connecting to Proactive Contact ensuring that each agent PC will get its connection information to Proactive Contact from a single source i.e., the database on the Aperio server.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

2.1. Interoperability Compliance Testing

The interoperability compliance test included both feature functionality and serviceability testing. The feature functionality testing focused on Aperio receiving calls in different outbound call scenarios. The tests included:

- Aperio client login to the dialer.
- Aperio client joining an outbound job.
- Aperio client is attached to a headset.
- Calls are delivered to the Aperio client.
- Hold initiated by Aperio client
- Call Wrap up and next call presentation.
- Failover/Service – Tests the behaviour of Aperio Client during certain failed conditions.

2.2. Test Results

All functionality and serviceability test cases were completed successfully. The following observations were noted.

1. Aperio outbound does not support Transfer and conference features.
2. When a job is stopped immediately the current call is lost and Aperio needs to log in after the job has started.
3. Aperio outbound does not support going on a break whilst attached to an outbound job. The agent must logoff the current job.
4. Aperio outbound does not notify the agent of a job being stopped gracefully and the headset remains connected until Aperio is closed and the agent logs in again.
5. Aperio outbound agents can only login after the job has been started.
6. Aperio outbound does not currently control inbound and outbound agents allowing them to function for Blend jobs. Fiserv have and inbound and outbound client but development is required to allow them to work together.

2.3. Support

Graham Hefford
Operations Manager
Agiliti
Fiserv
Office: +44 (0)208 8333193
Mobile: +44 (0)7793 249303
Graham.Hefford@Fiserv.com
www.fiserv.com

3. Reference Configuration

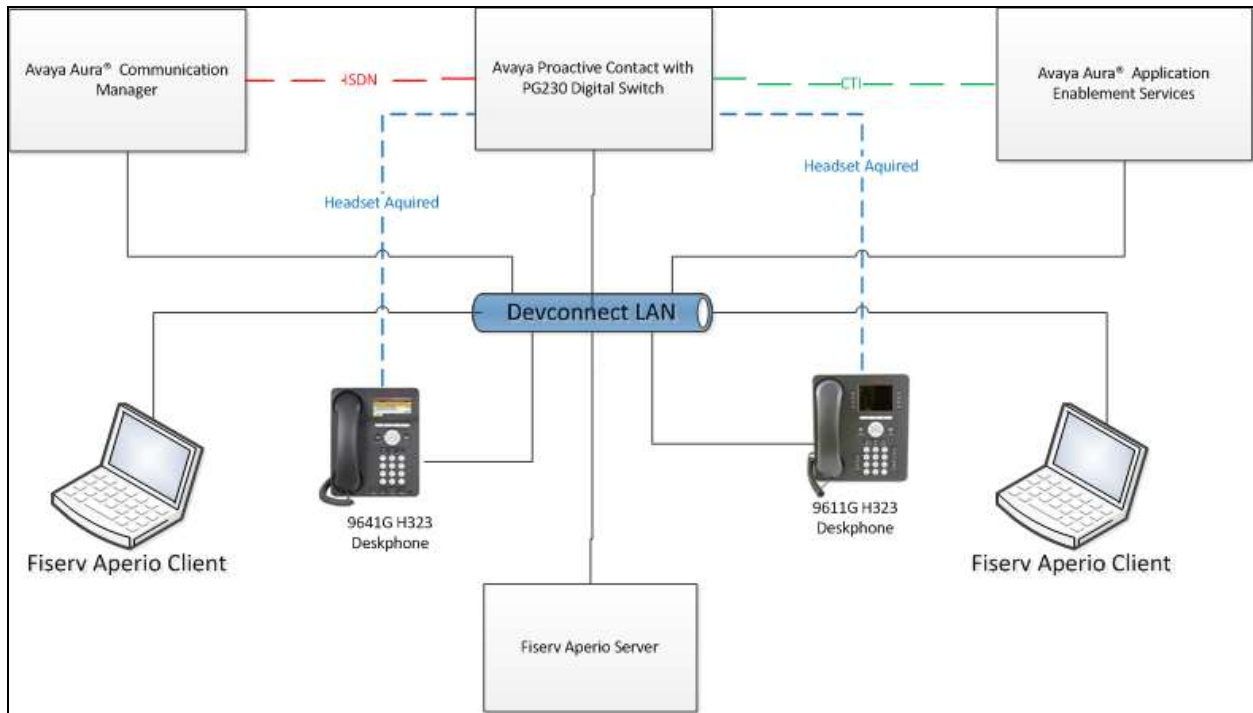The configuration shown in **Figure 1** was used during the compliance test of Aperio with Proactive Contact.

Figure 1: Connection of Fiserv Aperio with Avaya Proactive Contact

SJW; Reviewed:
SPOC 6/13/2016
Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.
4 of 59
Aperio_PC511_HD

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
VMware virtual machine	Avaya Aura® Communication Manager 7.0.1 R17x.00.0.441.0-22477
G430 Media Gateway	FW 37.20.0
Avaya S8730 Server	Avaya Proactive Contact 5.1.1 with Patch 392
VMware virtual machine	Avaya Aura® Application Enablement Services 7.0.0.0.0.13-0
• Avaya IP Deskphones • 9641G (H.323) • 9611G (H.323)	6.6029
Aperio for Agiliti	9.2

5. Configure Avaya Aura® Communication Manager

The information provided in this section describes the configuration of Communication Manager relevant to this solution. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 10**.

5.1. Configure AEServices

Use **change node-names ip** to enter the node-name and IP address for the Application Enablement Server. Take a note of the **CLAN** node **Name** and **IP Address**.

```
change node-names ip                                          Page   1 of   2
                                IP NODE NAMES
     Name              IP Address
CLAN                 10.10.40.31
CM521                10.10.16.23
Gateway              10.10.16.1
IPbuffer             10.10.16.184
Intuition            10.10.16.51
MedPro               10.10.16.32
Presence             10.10.16.83
RDTT                 10.10.16.185
SESMNGR              10.10.16.44
SM1                  10.10.16.43
SM61                 10.10.16.201
default              0.0.0.0
devconaes61          10.10.16.30
```

In order for Communication Manager to establish a connection to Application Enablement Services, administer the CTI Link as shown below. Specify an available **Extension** number, set the **Type** as **ADJ-IP**, which denotes that this is a link to an IP connected adjunct, and name the link for easy identification, in this instance, the node-name defined in previous step is used.

```
add cti-link 1                                                Page   1 of   3
                                CTI LINK
 CTI Link: 1
Extension: 1111
      Type: ADJ-IP
                                                                    COR: 1
      Name: devconaes61
```

Using the command **change ip-services,** configure IP-Services for the AESVCS services follows:

```
change ip-services                                                Page   1 of   4

                              IP SERVICES
 Service     Enabled     Local        Local       Remote      Remote
  Type                   Node         Port        Node        Port

CDR1                     CLAN            0         IPbuffer       9000
CDR2                     CLAN            0         RDTT           9001
AESVCS        y          CLAN         8765
```

On **Page 4,** set the **AE Services Server** node name and **Password** the AES Server will use to authenticate with Communication Manager.

```
change ip-services                                                Page   4 of   4
                        AE Services Administration

   Server ID    AE Services        Password         Enabled    Status
                  Server
      1:        devconaes61        Avayapassword1       y       in use
```

5.2. Configure Avaya Proactive Contact Acquire feature

In order for Proactive Agent Blending to function, Communication Manager must be configured with a VDN monitored by Proactive Contact. When the agents who belong to the skill to which the Acquire VDN routes are not taking any inbound ACD calls, they are automatically acquired by Proactive Contact to service calls delivered by the outbound job administered in Proactive Contact Editor.

```
add vdn 8274000                                               Page    1 of   3
                            VECTOR DIRECTORY NUMBER

                             Extension: 8274000
                                 Name*: Dialer Acquire-Out
                           Destination: Vector Number         1
                    Attendant Vectoring? n
                   Meet-me Conferencing? n
                     Allow VDN Override? n
                                   COR: 1
                                   TN*: 1
                              Measured: none



          VDN of Origin Annc. Extension*:
                             1st Skill*:
                             2nd Skill*:
                             3rd Skill*:
```

VDN 8274000 has a destination of **Vector Number 1**.

```
change vector 1                                               Page    1 of   6
                               CALL VECTOR

    Number: 1                     Name: DialerAcquireOut
Multimedia? n      Attendant Vectoring? n    Meet-me Conf? n         Lock? n
    Basic? y   EAS? y   G3V4 Enhanced? y   ANI/II-Digits? y  ASAI Routing? y
 Prompting? y   LAI? y  G3V4 Adv Route? y   CINFO? y   BSR? y   Holidays? y
 Variables? y   3.0 Enhanced? y
01 queue-to      skill 1    pri m
02 wait-time     60   secs hearing ringback
```

As shown in vector 1, **skill 1** will be the skill in which the agents required for Proactive Agent Blending will reside. Skill 1 is administered as a hunt group using the command **add hunt-group 1** and specify and identifying **Group Name**, **Group Extension**, and setting **ACD**, **Queue** and **Vector** to **y.**

```
add hunt-group 1                                          Page   1 of   4
                              HUNT GROUP

            Group Number: 1                              ACD? y
              Group Name: Dialer Acquire-Out            Queue? y
         Group Extension: 3091                          Vector? y
              Group Type: ucd-mia
                      TN: 1
                     COR: 1                   MM Early Answer? n
           Security Code:              Local Agent Preference? n
 ISDN/SIP Caller Display:


             Queue Limit: unlimited
 Calls Warning Threshold:        Port:
  Time Warning Threshold:        Port:
```

On **Page 2**, set **Skill** to **y**

```
add hunt-group 1                                          Page   2 of   4
                              HUNT GROUP

                     Skill? y     Expected Call Handling Time (sec): 180
                       AAS? n
                  Measured: none
      Supervisor Extension:


        Controlling Adjunct: none



 Timed ACW Interval (sec):
   Multiple Call Handling: none
```

5.3. Configure ACD agent for Proactive Agent Blend

In order for the ACD agent to be acquired by Proactive Contact once it has completed taking inbound calls using the Proactive Agent Blending feature, it must be in both the inbound skill (2) and the Acquire skill (1). Using the command **add agent-loginID x** where **x** is a valid extension in the dialplan. Administer the **Name**, **Security Code**, and **Password** fields as shown below.

```
add agent-loginID 8231001                                    Page   1 of   3
                             AGENT LOGINID

             Login ID: 8231001                               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: 6002

                                        LoginID for ISDN/SIP Display? n
                                                        Password: 6002
                                       Password (enter again): 6002
                                                     Auto Answer: station
                                              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
                                           Forced Agent Logout Time:   :


      WARNING:  Agent must log in again before changes take effect
```

On **Page 2** configure the agent in both the inbound skill and the acquire skill.

```
add agent-loginID 8231001                                    Page   2 of   3
                             AGENT LOGINID
      Direct Agent Skill:                          Service Objective? n
Call Handling Preference: skill-level          Local Call Preference? n

    SN   RL SL        SN   RL SL          SN   RL SL          SN   RL SL
 1: 1       2      16:                 31:                 46:
 2: 2       1      17:                 32:                 47:
```

5.4. Configure feature access codes for Call Centre features

These will be referenced later in the Proactive Contact Configuration and used by AES to change the state of the agent on Communication Manager during blend operation. Enter the command **change feature-access-codes**, and on **Page 5** configure **Auto-In Access Code**, **Login Access Code** and **Logout Access Code** as per the dialplan.

```
change feature-access-codes                              Page    5 of  10
                         FEATURE ACCESS CODE (FAC)

                            Call Center Features
  AGENT WORK MODES
                    After Call Work Access Code: *36
                           Assist Access Code: *37
                          Auto-In Access Code: *38
                         Aux Work Access Code: *39
                            Login Access Code: *40
                           Logout Access Code: *41
                        Manual-in Access Code: *42
```

5.5. Configure Trunks to Avaya PG230 Digital Switch

A number of trunks are required for the purpose of communication between PG230 and Communication Manager. One trunk for calls in each of the following categories.

- Agent Headsets (Dialback)
- Outbound
- Inbound
- Transfer

The physical connection is made between PG230 and the MM710 contained within the G430 Media Gateway. Enter the **add ds1 xxxx** command, where **xxxx** is the location of the DS1 circuit pack and configure as follows:

- **Name**   Set to any descriptive string value, in this case, it was **CM-PG230**
- **Bit Rate**   Set to **2.048**
- **Line Coding**   Set to **hdb3**
- **Signaling Mode**   Set to **isdn-pri**
- **Connect**   Set to **pbx**
- **Interface**   Set to **peer-master**
- **Peer Protocol**   Set to **Q-SIG**
- **Interface Companding**   Set to **alaw**
- **Idle Code**   Set to **01010100**

```
add ds1 001v2                                                 Page   1 of   1
                             DS1 CIRCUIT PACK


           Location: 001v2                          Name: CM-PG230
           Bit Rate: 2.048                   Line Coding: hdb3


     Signaling Mode: isdn-pri
            Connect: pbx                        Interface: peer-master
  TN-C7 Long Timers? n                      Peer Protocol: Q-SIG
Interworking Message: PROGress                        Side: a
Interface Companding: alaw                            CRC? y
          Idle Code: 01010100          Channel Numbering: timeslot
                            DCP/Analog Bearer Capability: 3.1kHz


                                          T303 Timer(sec): 4
                                         Disable Restarts? n


     Slip Detection? y               Near-end CSU Type: other

  Echo Cancellation? n
```

Configure a Signaling Group for the previously configured DS1 board 001v2. Enter the **add signaling-group n** command, where **n** is an unused signaling group number. Configure as follows:

- **Group Type**   Set to **isdn-pri**
- **Primary D-Channel**   Enter the DS1 board number followed by 16
- **Trunk Group for Channel Selection**   Enter the 1st trunk group number that was configured for DS1 board 001v2 in this case that was trunk group **21**
- **TSC Supplementary Service Protocol**   Set to **b**

```
add signaling-group 10                                          Page   1 of   1
                              SIGNALING GROUP

 Group Number: 10               Group Type: isdn-pri
                     Associated Signaling? y      Max number of NCA TSC: 0
                   Primary D-Channel: 001v216     Max number of CA TSC: 0
                                               Trunk Group for NCA TSC:21
      Trunk Group for Channel Selection: 21   X-Mobility/Wireless Type: NONE
       TSC Supplementary Service Protocol: b     Network Call Transfer? n
```

SJW; Reviewed:
SPOC 6/13/2016
Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.
13 of 59
Aperio_PC511_HD

Configure a trunk group used for inbound calls. Enter the **add trunk-group n** command, where **n** is an available trunk group number. Configure as follows:

- **Group Type**   Set to **isdn**
- **Group Name**   Set to any descriptive string value, in this case, it was **QSIG to PG230 - Inbound**
- **TAC**   Enter a Trunk Access Code that is valid in the provisioned dial plan
- **Dial Access** Set to **y**
- **Service Type** Set to **tie**

```
add trunk-group 23                                              Page   1 of  21
                              TRUNK GROUP

Group Number: 23                    Group Type: isdn        CDR Reports: y
  Group Name: QSIG to PG230 - Inbound    COR: 1       TN: 1        TAC: 723
   Direction: two-way      Outgoing Display? n      Carrier Medium:
PRI/BRI
 Dial Access? y            Busy Threshold: 255  Night Service:
Queue Length: 0
Service Type: tie                   Auth Code? n           TestCall ITC:
rest
                          Far End Test Line No:
TestCall BCC: 4
```

On **Page 2** of the trunk group configuration, configure as follows:

- **Supplementary Service Protocol** - Set to **b**
- **Disconnect Supervision**
  - **In** - set to **y**
  - **Out** - set to **y**

```
add trunk-group 23                                              Page   2 of  21
      Group Type: isdn

TRUNK PARAMETERS
         Codeset to Send Display: 6    Codeset to Send National IEs: 6
       Max Message Size to Send: 260  Charge Advice: none
  Supplementary Service Protocol: b    Digit Handling (in/out): enbloc/enbloc

            Trunk Hunt: cyclical

                                           Digital Loss Group: 13
Incoming Calling Number - Delete:    Insert:                Format:
            Bit Rate: 1200      Synchronization: async    Duplex: full
 Disconnect Supervision - In? y  Out? y
 Answer Supervision Timeout: 0
        Administer Timers? n     CONNECT Reliable When Call Leaves ISDN? n
                                Delay Call Setup When Accessed Via IGAR? N
```

On **Page 5**, configure **GROUP MEMBER ASSIGNMENTS** as follows.

- **Port** Enter the DS1 board number followed by the trunk member number. The ports configured on Communication Manager must be mapped to the ports configured on the PG230 Digital Switch
- **Sig Grp** Enter the number of the signaling group configured for the DS1 board 001v2 in this case it is Signaling Group **10**

```
add trunk-group 21                                          Page   5 of  21
                                TRUNK GROUP
                                   Administered Members (min/max):   1/5
GROUP MEMBER ASSIGNMENTS                 Total Administered Members:   5


      Port     Code Sfx Name         Night            Sig Grp
 1: 001v217  MM710  C                                    10
 2: 001v218  MM710  C                                    10
 3: 001v219  MM710  C                                    10
 4: 001v220  MM710  C                                    10
 5: 001v221  MM710  C                                    10
```

Note: There is different port numbering between PG230 Digital Switch and Communication Manager; therefore ports 18-22 on PG230 Digital Switch correspond to ports 17-21 on Communication Manager.

Repeat the above configuration steps in order to configure remaining trunk groups for Agent Headsets (Dial Back), Outbound and Transfer calls. For each trunk group make sure that the number of ports in GROUP MEMBER ASSIGNMENTS is correctly mapped to the number of ports configured on the PG230. Also, for every trunk group, configure each port with signaling group 10.

Enter **list trunk-group** command, to list all trunk groups that were configured on Communication Manager. Below is the list of all trunk groups that were configured for the E1 QSIG trunk between Communication Manager and PG230 Digital Switch.

```
list trunk-group                                                   Page   1

                              TRUNK GROUPS

Grp                                               No.            Out      Que
No.   TAC   Group Type  Group Name                Mem TN  COR CDR Meas Dsp Len
21    721   isdn        QSIG to PG230 - Headsets  5   1   1   y   none y   0
22    722   isdn        QSIG to PG230 - Outbound  10  1   1   y   none n   0
23    723   isdn        QSIG to PG230 - Inbound   5   1   1   y   none n   0
24    724   isdn        QSIG to PG230 - Transfer  5   1   1   y   none n   0
```
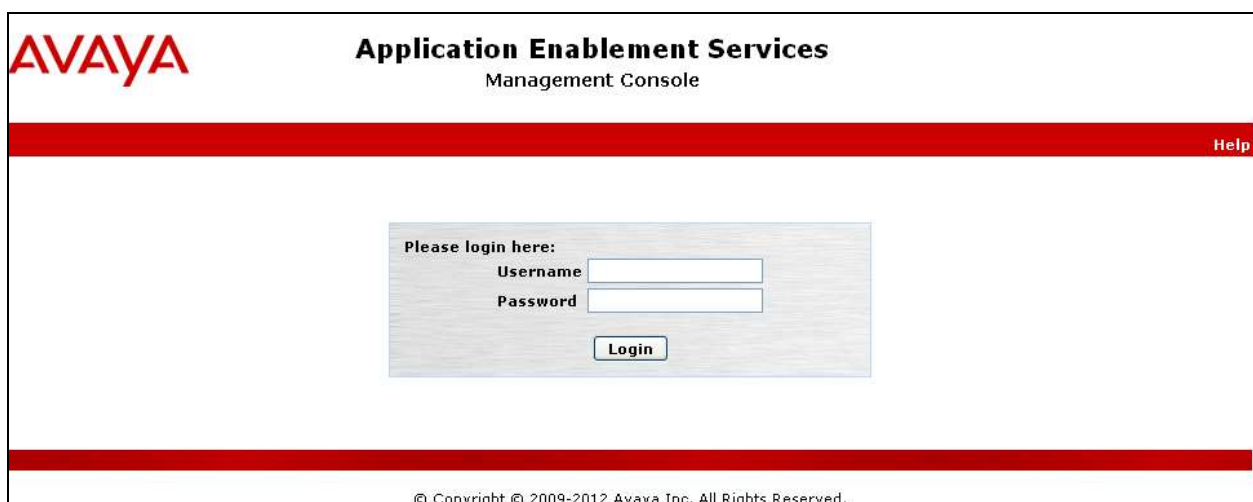
6. Configure Avaya Aura® Application Enablement Services

This section provides the procedures for configuring Application Enablement Services. The procedures fall into the following areas:
- Verify Licensing.
- Create Switch Connection.
- Administer TSAPI link.
- Enable DMCC Ports.
- Create CTI User.
- Associate Devices with CTI User.

6.1. Verify Licensing

To access the AES Management Console, enter **https://<ip-addr>** as the URL in an Internet browser, where <ip-addr> is the IP address of AES. At the login screen displayed, log in with the appropriate credentials and then select the **Login** button.
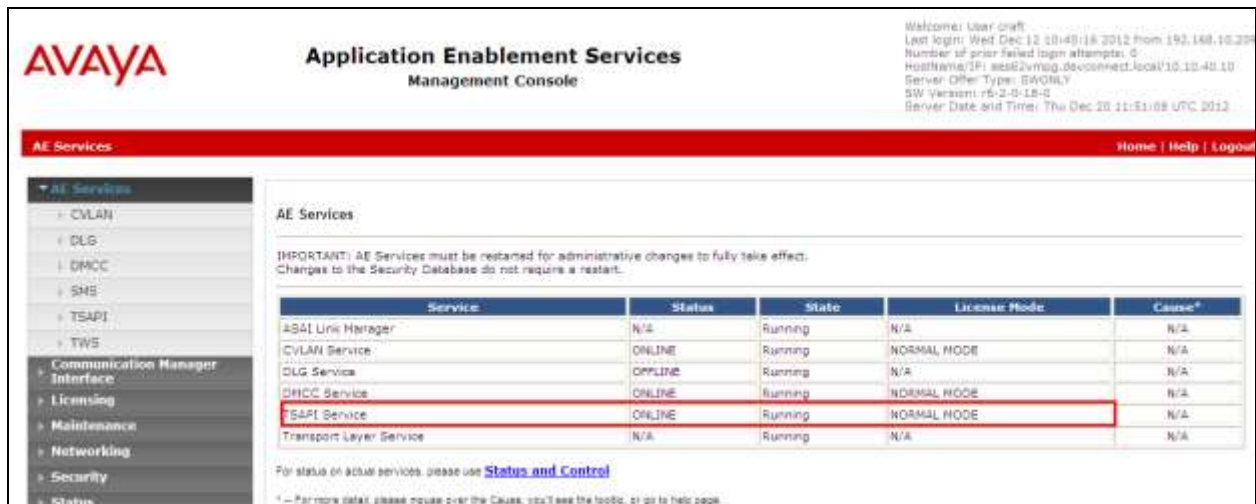
The Application Enablement Services Management Console appears displaying the **Welcome to OAM** screen (not shown). Select **AE Services** and verify that the TSAPI Service is licensed by ensuring that **TSAPI Service** is in the list of **Services** and that the **License Mode** is showing **NORMAL MODE**. If not, contact an Avaya support representative to acquire the proper license for your solution.

6.2. Create Switch Connection

From the AES Management Console navigate to **Communication Manager Interface** → **Switch Connections** to set up a switch connection. Enter a name for the Switch Connection to be added and click the **Add Connection** button.

In the resulting screen enter the **Switch Password**; the Switch Password must be the same as that entered into Communication Manager AE Services Administration screen via the **change ip-services** command, described in **Section 5.1** Default values may be accepted for the remaining fields. Click **Apply** to save changes.

From the **Switch Connections** screen, select the radio button for the recently added switch connection and select the **Edit PE/CLAN IPs** button (not shown). In the resulting screen, enter the IP address of the procr as shown in **Section 5.1** that will be used for the AES connection and select the **Add/Edit Name or IP** button.

6.3. Administer TSAPI link

From the Application Enablement Services Management Console, select **AE Services → TSAPI → TSAPI Links**. Select **Add Link** button as shown in the screen below.

On the **Add TSAPI Links** screen (or the **Edit TSAPI Links** screen to edit a previously configured TSAPI Link as shown below), enter the following values:

- **Link:** Use the drop-down list to select an unused link number.
- **Switch Connection:** Choose the switch connection **CM63VMPG**, which has already been configured in **Section 7.2** from the drop-down list.
- **Switch CTI Link Number:** Corresponding CTI link number configured in **Section 5.1** which is **1**.
- **ASAI Link Version:** This can be left at the default value of **5**.
- **Security:** This can be left at the default value of **both**.

Once completed, select **Apply Changes**.

Another screen appears for confirmation of the changes made. Choose **Apply**.

When the TSAPI Link is completed, it should resemble the screen below.

The TSAPI Service must be restarted to effect the changes made in this section. From the Management Console menu, navigate to **Maintenance → Service Controller**. On the Service Controller screen, tick the **TSAPI Service** and select **Restart Service**.

6.4. Enable DMCC Ports

To ensure that DMCC ports are enabled, navigate to **Networking → Ports**. In the section **DMCC Server Ports**, ensure that the **Unencrypted Port** is set to **Enabled** as shown below.

6.5. Create CTI User

A User ID and password needs to be configured for the Aperio server to communicate as a TSAPI client with the Application Enablement Services server. Navigate to the **User Management → User Admin** screen then choose the **Add User** option.
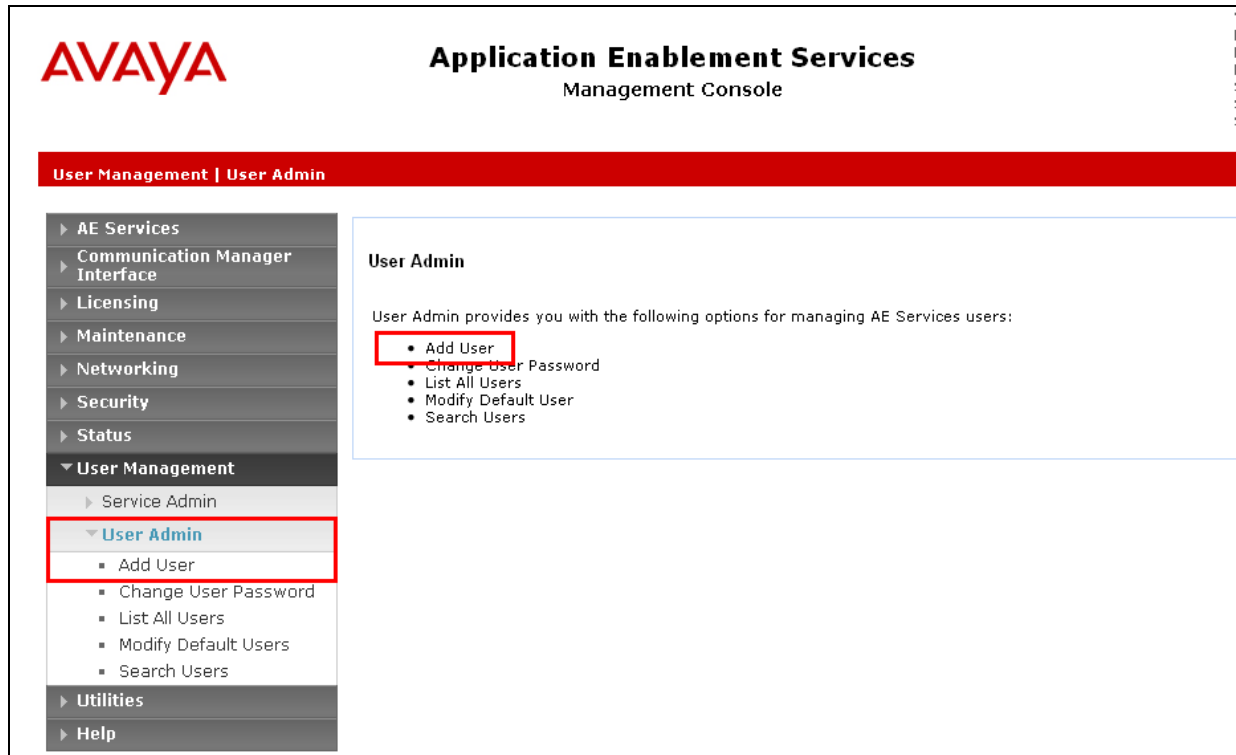
In the **Add User** screen shown below, enter the following values:
- **User Id -** This will be used by the Aperio Server to connect to AES.
- **Common Name** and **Surname -** Descriptive names need to be entered.
- **User Password** and **Confirm Password -** This will again be used by the Aperio Server.
- **CT User -** Select **Yes** from the drop-down menu.

Complete the process by choosing **Apply** at the bottom of the screen.

The next screen will show a message indicating that the user was created successfully (not shown).

7. Configure Avaya Proactive Contact

This section provides the procedures for configuring Proactive Contact. The procedures include the following areas:

- Verify Avaya Proactive Contact Licensing
- Configure CTI
- Configure Avaya Proactive Contact with CTI for Agent Blending
- Configure master.cfg
- Configure number format
- Configure the calling list
- Configure Avaya Proactive Contact Administration Software

7.1. Verify Avaya Proactive Contact Licensing

Access the Web License Manager of the Avaya Proactive Contact, in this instance using the URL https://10.10.16.91:52233/WebLM/. The Web License Manager Screen is displayed; login using the appropriate credentials.

SJW; Reviewed:
SPOC 6/13/2016
Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.
24 of 59
Aperio_PC511_HD

The **Web License Manager** screen below is displayed. Select **Licensed products →
Avaya_Proactive_Contact** in the left pane, to display the **Licensed Features** screen in the right
pane. Verify that there are sufficient licenses for each of the fields displayed:

7.2. Configure CTI

In order to establish the TSAPI link between Proactive Contact and Application Enablement Services Server, the relevant files were edited.From the Proactive Contact Telnet Session create a cti_passwd.cfg file by doing the following:

- type cti_passwd -s (s denotes the CTI Option).

When prompted for the password enter the password assigned to the CTI user configured earlier on the Application Enablement Services Server in **Section 6.5**, and hit return, re-enter as requested.

Navigate to the **/opt/avaya/pds/config/swif_ct.cfg** file and change the parameters as shown follows.

```
SERVER:AVAYA#CM#CSTA-S#DEVCONAES61
LOGIN:syntelate
REASONCODE:1
PHANTOMNUMBERS:1850-1854
WORKMODE:AUTO_IN
AGENTANSWER:NO
PRIORITYCALL:NO
```

Notes: The Tlink and the Proactive Contact CTI username as configured in **Section 6.5**.

Navigate to the **/opt/avaya/pds/config/** directory. Copy and rename the tslibrc file, by typing **cp tslibrc .tslibrc**. Edit **.tslibrc** with the IP Address of the Application Enablement Services Server, as shown.

```
[Telephony Servers]
; 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
10.10.16.30
;

; This file should be copied to CONFIG directory as .tslibrc.
; See master.cfg for the directory name.

; This entry overrides the [Telephony Servers] section, if any.
```

For Agent Blending, copy the .tslibrc file to the **/opt/avaya/pab/config/** directory by entering the command **cp /opt/avaya/pab/config/.tslibrc /opt/avaya/pab/config/.tslibrc**. Navigate to **/opt/avaya/pds/config** – edit **opmon.cfg** as shown below:

```
CFGTIME:15
DIALBACK:1-15:15:1::
DIALBACKNUM:ALL
```

Edit **dgswitch.cfg** as shown below. The format used is based on the location of the ports in the PG230 Digital Switch; therefore Proactive Contact is configured with the same number of Inbound Ports as the number of inbound lines on the PG230 Digital Switch. The inbound ports configured on Proactive Contact correspond to the ports of the inbound trunk group configured on Communication Manager in **Section 5.5**; the same is true for Headset, Outbound and Transfer trunk ports.

```
# Headset Ports
H:1:361:1::#H:15:1:1-1-21-4-2
H:2:362:1::#H:15:1:1-1-21-4-3
H:3:363:1::#H:15:1:1-1-21-4-4
H:4:364:1::#H:15:1:1-1-21-4-5
H:5:365:1::#H:15:1:1-1-21-4-6

# Normal Outbound Trunks
N:1:366:1::#O:10:1:1-1-21-4-7
N:2:367:1::#O:10:1:1-1-21-4-8
N:3:368:1::#O:10:1:1-1-21-4-9
N:4:369:1::#O:10:1:1-1-21-4-10
N:5:370:1::#O:10:1:1-1-21-4-11
N:6:371:1::#O:10:1:1-1-21-4-12
N:7:372:1::#O:10:1:1-1-21-4-13
N:8:373:1::#O:10:1:1-1-21-4-14
N:9:374:1::#O:10:1:1-1-21-4-15
N:10:375:1::#O:10:1:1-1-21-4-16

# Normal Inbound Trunks

N:11:377:1::#I:11:1:1-1-21-4-18
N:12:378:1::#I:11:1:1-1-21-4-19
N:13:379:1::#I:11:1:1-1-21-4-20
N:14:380:1::#I:11:1:1-1-21-4-21
N:15:381:1::#I:11:1:1-1-21-4-22


# Transfer-thru Trunks
T:1:12:1::#T:12:1:1-1-21-4-1
```

Edit only the last 4 lines of **voicemsg.cfg**, this file refers to the announcements recorded on the
PG230.

```
250:greeting:1027:Female:Folder4:Voice:Message27
251:inbound:1028:Female:Folder4:Voice:Message28
252:outbound:1029:Female:Folder4:Voice:Message29
253:notLoggedIn:1030:Female:Folder4:Voice:Message30
```

Navigate to the **/opt/avaya/pds/scripts** directory and copy the telephny_sp.spt file to the
telephny.spt file using the command **cp telephny_hd.spt telephny.spt**. This file defines Hard
Dialer specific parameters.

Navigate to the **/opt/avaya/pds/shell/** directory and edit the **pdscontrol** file. This script starts the
agent binary during pds_stop/start. Normally it is set to **agent -d** which starts the agent binary as
a daemon. Make the following change to this line in the script for the purposes of Proactive
Agent Blending.

>	**agent -m –d**

7.3. Configure Avaya Proactive Contact with CTI for Agent Blending

From the Proactive Contact Telnet Session create a cti_passwd.cfg file by entering the following Type **cti_passwd -b** (b denotes the blend). When prompted for the password enter the password assigned to the CTI user configured earlier in **Section 6.5**.

Navigate to the **/opt/avaya/pab/config/** directory. Copy and rename the **ctirc.cvct** file, by typing **cp ctirc.cvct ctirc1.** Edit **ctirc1** as shown below.

```
########################################################################
# LAST REVISION $Date: 2002/02/20 16:24:55 $
########################################################################
# The only configurable line is the 14th line after the comments (third from
# the bottom). There are five fields in this line:
# Field 1: TLINK
# Field 2: Login name for CVCT (run "cti_passwd -b" to setup the encrypted
password)
# Field 3: Application Name (PDS)
# Field 4: TS2 - This is the library version that we used.  Do no change.
0                              # CVCT CEP (switch type)
0x11                           # CEP CHGSVR
0x2015A                        # Supported Events
0                              # Stats and Counts (No MIS for Aspect)
0                              # Appear and Vanish (No LM for Aspect)
0                              # Agent Available, Login, Logout
0                              # per-outstanding-move (N/A for Aspect)
0                              # seconds added to LM (N/A for Aspect)
0                              # seconds added to LC (N/A for Aspect)
Port SupId SupPass
NotUsed
AVAYA#CM#CSTA-S#DEVCONAES61:pc5hd:PDS:TS2
chgsvr
cep_pway
```

Copy and rename the CBA_procs.example file, type **cp CBA_procs.example CBA_procs** and edit **CBA_procs** as shown below:

```
#########################################################################
#                         |Max Wait|Max Wait|Max Wait|Max Wait|Kill
#                         | Before | Before | Before | Before |Cfg-
# Process|Startup|Shutdown|Shutdown|  Abort | SIGTERM| SIGKILL|Only
#   Type | Order | Order  | Message| Message| Signal | Signal |Mode
#-----------------------------------------------------------------------
# NOTE - Startup Order and Shutdown Order MUST start at the value one(1) and
#        increment WITHOUT any sequence gaps
PROCESS_CONTROL
SOE| 1 | 5 | -1 | -1 | -1 | 25 | 0
USR| 2 | 4 | -1 | -1 | 21 | 24 | 0
CTI| 3 | 3 | 11 | 15 | 24 | 35 | 1
ACD| 4 | 2 |  0 | 5 | 10 | 11 | 1
MSC| 5 | 1 | -1 | -1 | -1 | 25 | 0


############################################################
# Process | Host | Path | Binary | Parameters
#  Type   | Name |      |  Name  |
#-------------------------------------------------------------
PROCESS_INSTANCE
USR|devconhd|/opt/avaya/pab/bin/|cbauser|1
CTI|devconhd|/opt/avaya/pab/bin/|cti|1
ACD|devconhd|/opt/avaya/pab/bin/|acdmon|1 nocancel min_asa 2sec gen_rel
MSC|devconhd|/opt/avaya/pab/scripts/|acdsnap_mon|
```

Copy and rename the CBA_cfg.example file, type **cp CBA_cfg.example CBA_cfg** and press Enter. This establishes the Application, PBX and Gateway IDs used by Agent Blending.

Proactive Contact needs to be configured with the inbound VDN to be monitored and the acquire VDN for acquiring agents in order to handle calls from the outbound job. The Proactive Contact name for a VDN is Domain. Configured in **/opt/avaya/pab/config/dom_group.data** – this defines an outbound only Domain Group called NORTH_USA, an IB (inbound) Domain called 8274002, with specific reference to VDN 8274002, and a TEAM (acquire) Domain called 8274000 with specific reference to VDN 8274000. Both of these Domain have a Domain Group ID of NORTH_USA.

```
*VERSION | 1
######################### Defined Domains Groups #########################
# Domain Group Record Layout - To Create a new domain group copy the template
#     below and replace all field holders with appropriate values.
#   NOTE - All fields that retain their place holder values(TR,TT,etc)
#           will be assumed to be empty.
#   NOTE - Line breaks may happen between any fields but not within a field
#   NOTE - Do not change lower case field holders
#
#   WARNING - Remove the "#" comment field indicator to activate the template
#
# TEMPLATE
# ----------------------------------------------------------------------------
--
# *DG | DG_NM | dg_id | RTI | CM | MAAS | SC | DSL | MSL |
#  AUT | MAO | TR | TT | ACWT | MQR | afi | rti |
# ----------------------------------------------------------------------------
--
#
# Description of fields within a Domain Group
# ------------------------------------------
# *      - Start Of New Record { MUST be in first column of record}
# DG     - Domain Group Record Key   { Always DG}
# DG_NM  - Domain Group Name {Descriptive name use by UI to specify a domain}
# dg_id  - Domain Group ID { FILLED IN BY SYSTEM}
# RTI    - Time Interval (hours)
# CM     - Control Method {ASA-Avg.Spd Answered,SL-Sevice Lvl,OB_ONLY-
Outbound}
# MAAS   - [Target] Average Speed to Answer (seconds)
# SC     - Service Criterion (seconds)
# DSL    - Desired Service Level (%)
# MSL    - Abatement Service Level (%)
# AUT    - Traffic Intensity Threshold (%)
# MAO    - Minimum # of Agents on Outbound (# agents)
# TR     - Initial Traffic Rate (calls/second)
# TT     - Minimum Talk Time (seconds)
# ACWT   - Minimum After Call Work Time (seconds)
# MQR    - Minimum Queued for Release (OB_ONLY groups)
# afi    - Acquisitions From Inbound { FILLED IN BY SYSTEM }
# rti    - Releases To Inbound      { FILLED IN BY SYSTEM }
#

*DG | NORTH_USA | 1 | RTI | OB_ONLY | MAAS | SC |
      DSL | MSL | AUT | MAO | TR | TT |
      ACWT | 0 | afi | rti |
```

```
########################### Defined Domains #########################
# Domain Record Layout - To Create a new domain copy the template below
#     and replace all field holders with appropriate values.
#     NOTE - All notes/warnings from domain group field still apply.
#
# TEMPLATE
# ----------------------------------------------------------------------
# *DM | DM_ADRS | DM_EXT | DG_NM | dg_id | AP_ID | PBX_ID | GW_ID | DM_TYP |
# ----------------------------------------------------------------------
#
# Description of fields within a Domain
# --------------------------------------------
# *      - Start Of New Record {MUST be in first column of record}
# DM     - Domain Record Keyword   {Always DM}
#
# DM_ADRS- Domain Address
# DM_EXT - Domain Phone Number
# DG_NM  - Domain Group Name {Descriptive name use by UI to specify a D.G.}
#                   Use TRANS if defining a floating transient domain.
# dg_id  - Domain Group ID {FILLED IN BY SYSTEM}
# AP_ID  - PDS ID
# PBX_ID - PBX ID
# GW_ID  - Gateway ID
# DM_TYP - Domain Type -- one of:
#                   IB          - Inbound,
#                   TRANS    - Transient Acquire,
#                   TEAM     - Team Acquire,
#                       OV_FLOW - Overflow
#

*DM | 8274000 | 8274000 | NORTH_USA | 1 | 1 | 1 |
      1 | TEAM |

*DM | 8274002 | 8274002 | NORTH_USA | 1 | 1 | 1 |
       1 | IB |
```

Edit **ACD.cfg** – This file contains the Communication Manager feature access codes for ACD login and logouts noted in **Section 5.5** and also specifies the **TESTMODE**, configured as shown below:

```
TESTMODE:OFF
DELAYTIME:5
LOGIN:*40
LOGOUT:*41
```

Edit **acd_ext.cfg** – This file contains the Communication Manager extension number which Proactive Contact Agents and ACD Agents will be logging in, as show below, extension **8231001** is the extension onto which agents are logged into in this case:

```
1:8231001
```

Agent Blending is a feature add-on for Proactive Contact. Ensure that PDS is stopped and as root, enter the command **menu install** which will run a script. When prompted Select option **2**. For **Value added products**, and then **2** again for **Install Predictive Agent Blend** and follow the instructions prompted on screen as shown below:

```
Have you stopped PDS processes: y
Following AES servers are configured:
10.10.16.30 Do you want to add another AES server: n
CTI password seems to be already set in /opt/avaya/pab/config/cti_passwd.cfg
Do you wish to change the CTI password? n
AES_LINK set to AVAYA#CM#CSTA-S#DEVCONAES61
Do you want to change it now?: n
AES_USER set to pc5hd
Do you want to change it now?: n
Do you wish to configure Domains now?: n
Do you wish to change number of users that can be acquired for outbound
calling now?: n
Now we'll install ACD extensions
Enter q to quit
When prompted, press any key to continue.
Enter 0 to exit, and 0 again
```

SJW; Reviewed:
SPOC 6/13/2016
Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.
33 of 59
Aperio_PC511_HD

7.4. Configure master.cfg

Amendments to the **master.cfg** file, located in **/opt/avaya/pds/etc** were made as follows.

```
CALL_BLENDING:YES
DBKGROUP:15,1,1
DBSERVERIP:10.10.16.91
IICB_HOST:devconhd
INBNDSYS:YES
LINEASSIGN:REG,O=1-10;INB,I=11-15
NAMESERVICEHOST:devconhd
OPERATORS:5
OPLIMIT:I=5,O=5,B=5,P=5,M=5
PORTS:15
PRIMARY:YES
SWITCHNAME:switch1
SWITCHTESTMODE:NO
SWITCHTYPE:DIGITAL
VISUAL_CPA:YES
WEBLMURL:http,//10.10.16.91,8080/WebLM/LicenseServer:
```

Note: **INBNDSYS** was set to **YES** for the purposes of Fiserv testing.

7.5. Configure Number Format

The **phonefmt.cfg** file located in **/opt/avaya/pds/config** contains details of how Proactive Contact needs to manipulate numbers in the calling list in order to successfully place calls. The last line in the file is configured as follows:

```
STD_TO_DIALFMT:*:ALLTYPES:10:8230003::
```

In this instance, of the digits dialed, **10** are deleted and the digits **8230003** are inserted.

7.6. Configure Calling List

Proactive Contact is delivered with default calling lists. The author assumes an inbound and outbound calling list is created using Proactive Contact Editor. The administration of calling lists is outside of the scope of this document.

7.7. Configure Avaya Proactive Contact Administration Software

In order for the Proactive Contact Editor application to communicate with the Proactive Contact Server, the PC on which it resides must be configured.

7.7.1. Configure Windows Host File

Edit **%WINDIR%\system32\drivers\etc\hosts** to include the hostname and IP address of the Proactive Contact Server, as follows:

```
10.10.16.91 devconhd
```

7.7.2. Check Avaya Proactive Contact Services

Ensure all necessary services are running on the Proactive Contact Server. The following commands start, check and stop the three services. The services must be stopped and started in the order shown. All services must be started before proceeding.

> start_db
> start_mts
> start_pds
> check_db
> check_mts
> check_pds
> stop_pds
> stop_mts
> stop_db

7.7.3. Configure Avaya Proactive Contact Administration Software

Double click on the Health Manager icon on the desktop. The screen below will be presented; complete it as shown with the Proactive Contact IP address and hostname.

It is now possible to log in to the Health Manager with the **sysadm** login credentials. Close Health Manager and double click on the Editor icon on the desktop. Log in with the **sysadm** login credentials.

7.7.4. Configure Native Voice and Data Transfer Parameters (NVDT)

NVDT is the feature used when transferring caller details from the outbound job to the inbound job. In this instance, an agent logged into the inbound job will receive the account number as well as the voice path. These parameters are configured in the calling list, as shown below. In the left hand pane click **Calling Lists → Calling Lists** right click on **list4** and select **Calling List Details**.
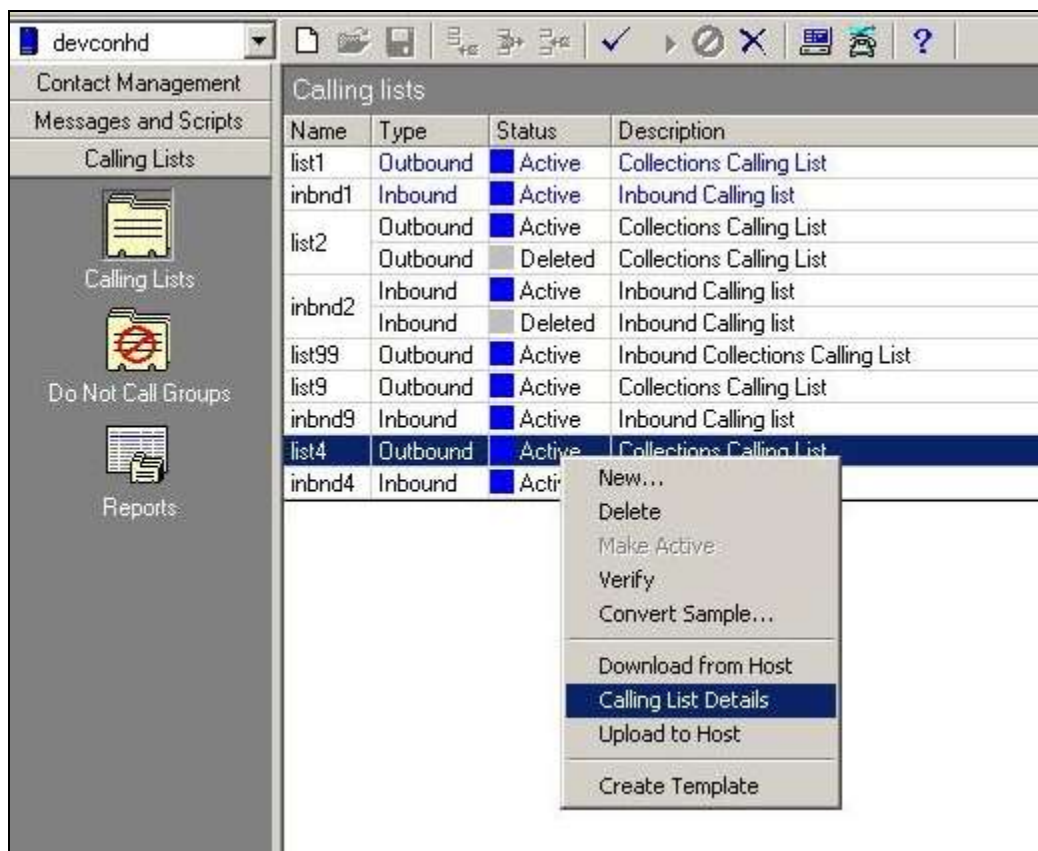
Click to place a tick in the field to enable NVDT (**Native Voice and Data Transfer**).

Click on the **Calling List Dictionary** tab, and click to place a tick in the **NVDT** column next to **ACCTNUM**, ensure the **LENGTH** field is set to **25** and save (not shown) when completed.

The same needs to be performed for the **inbnd4** list. Right click on **inbnd4** and select **Calling List Details**.
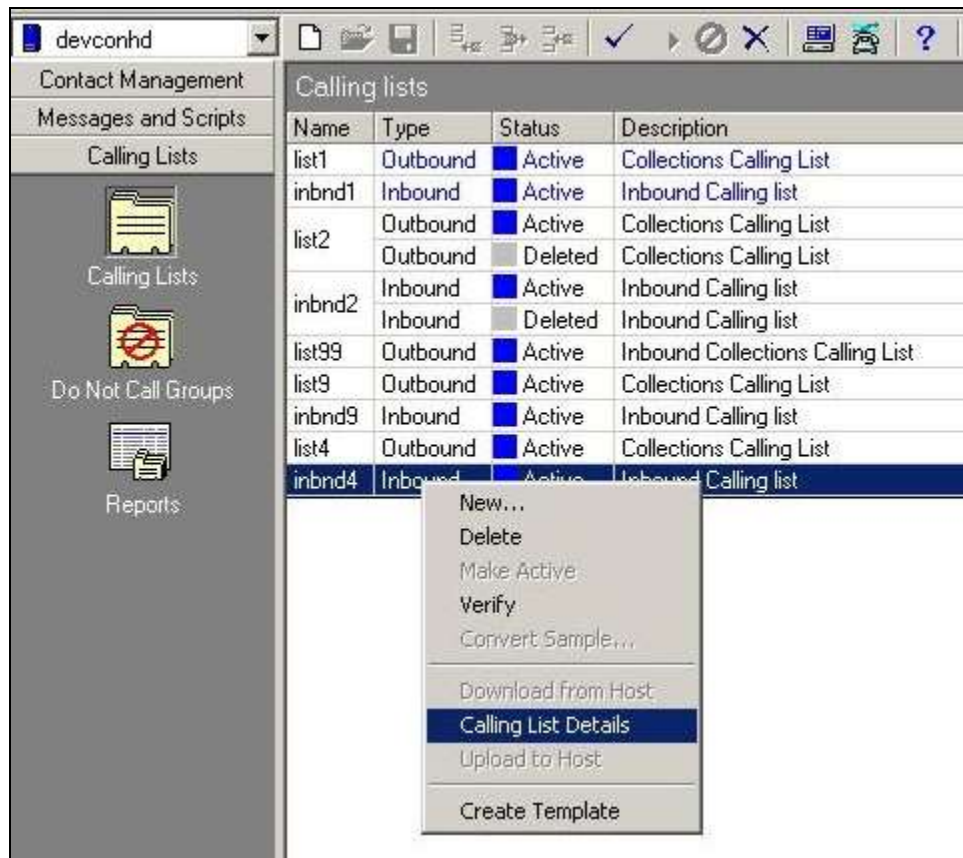
Click to place a tick in the column next to **ACCTNUM,** and ensure the **LENGTH** field is set to **25**. Save when completed (not shown).
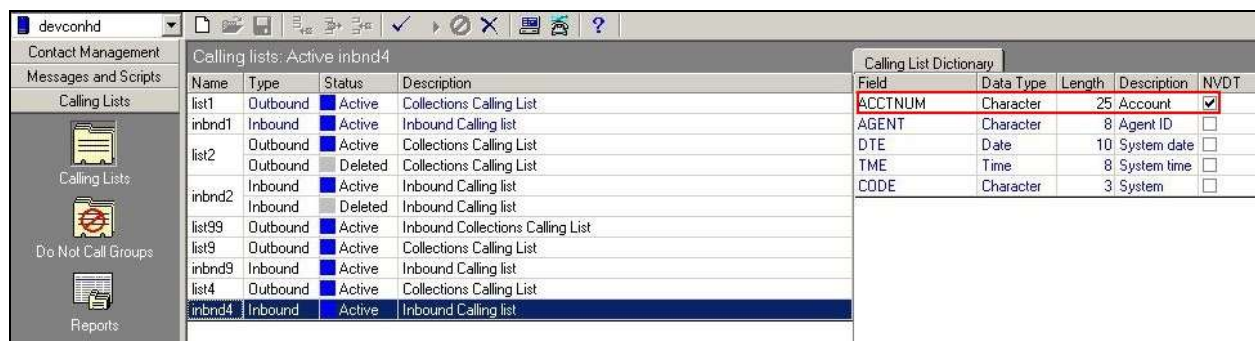
7.7.5. Configure Strategy

Assuming that strategy **phone1** and calling list **list4** (as specified in the previous section), are being used, configure editor as shown below and click verify. Ensure verification is successful.
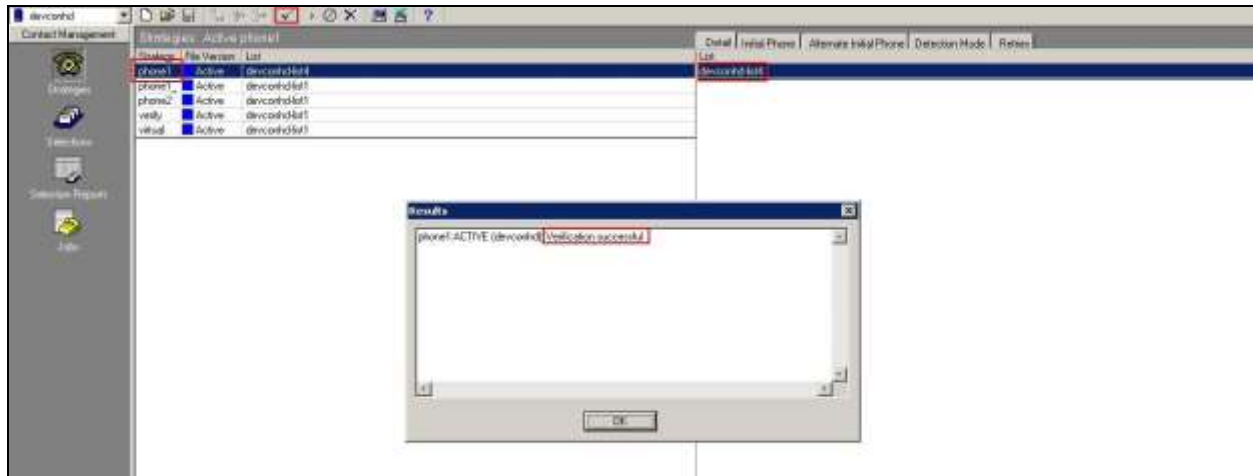
7.7.6. Configure Selections

Click **Selections**, select **all4**, and calling **list4**, click verify ✓ and ensure verification is successful.

SJW; Reviewed:
SPOC 6/13/2016

Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.

41 of 59
Aperio_PC511_HD
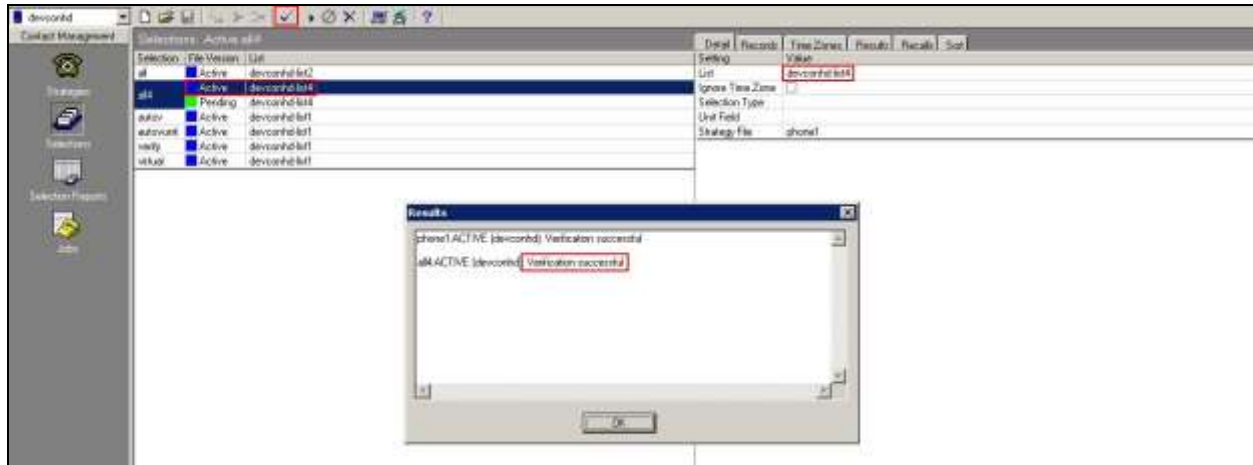
Click **Run** ▸ , and ensure that the **Results** pop-up screen shows some records in the **Records Selected** field.
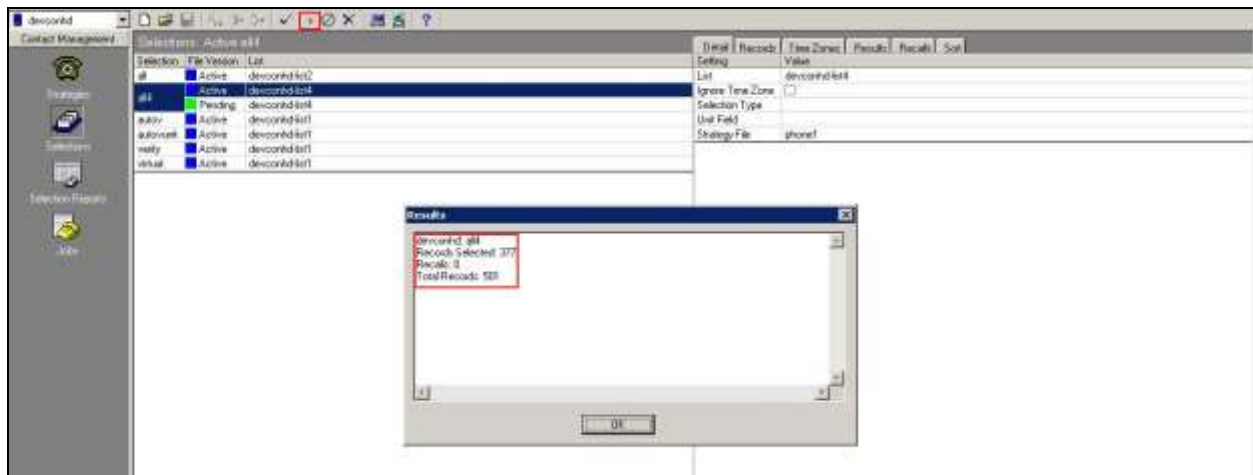
7.7.7. Configure Outbound Job

Click **Jobs**, select **outbnd2** and configure as shown below:

Note: **Name of inbound job to transfer calls to** field is set to **inbnd1**.

Continued from previous screenshot.

Labels	
Script label to use for making call	wait1_f
Main data processing label	generic
Script label to use OFCOM	
Managed Dialing	
Managed (preview) dialing	☐
Allow agents to cancel call in preview mode	☐
Time limit (seconds) for preview	10
Display empty record at preview	☐
Allow dialing from deleted record	☐
Method for record search at preview (LIS, HASH, NONE)	NONE
Key field for LIS record search	
Outbound Processing	
Shutdown job when no more calls remain	☐
Make alternate phone lowest priority in selecting next record	☐
Order calling of records by time zone	☐
VDN needed by the CTI Dialer only	
Post Processing	
Automatically start Update mode on customer hang-up	☐
Quota Settings	
Quota setting (completion code,quota)	
Quota settings file name	
Save quota setting when the job ends	☐
Recall	
Recall reschedule interval (minutes)	10
Recall notification time (minutes)	2
Number of recall attempts	2
Auto assign recall from Infinite job to agents on another job	☐
Name of the job to get agent for recall	
Service Level	
Desired service level (percentage)	
Time to connect tolerance (seconds)	
Ofcom Timer	2
Wait Queues	
Total wait delay (seconds)	90
Number of message to play while on hold awaiting transfer	

SJW; Reviewed:
SPOC 6/13/2016

Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.

44 of 59
Aperio_PC511_HD

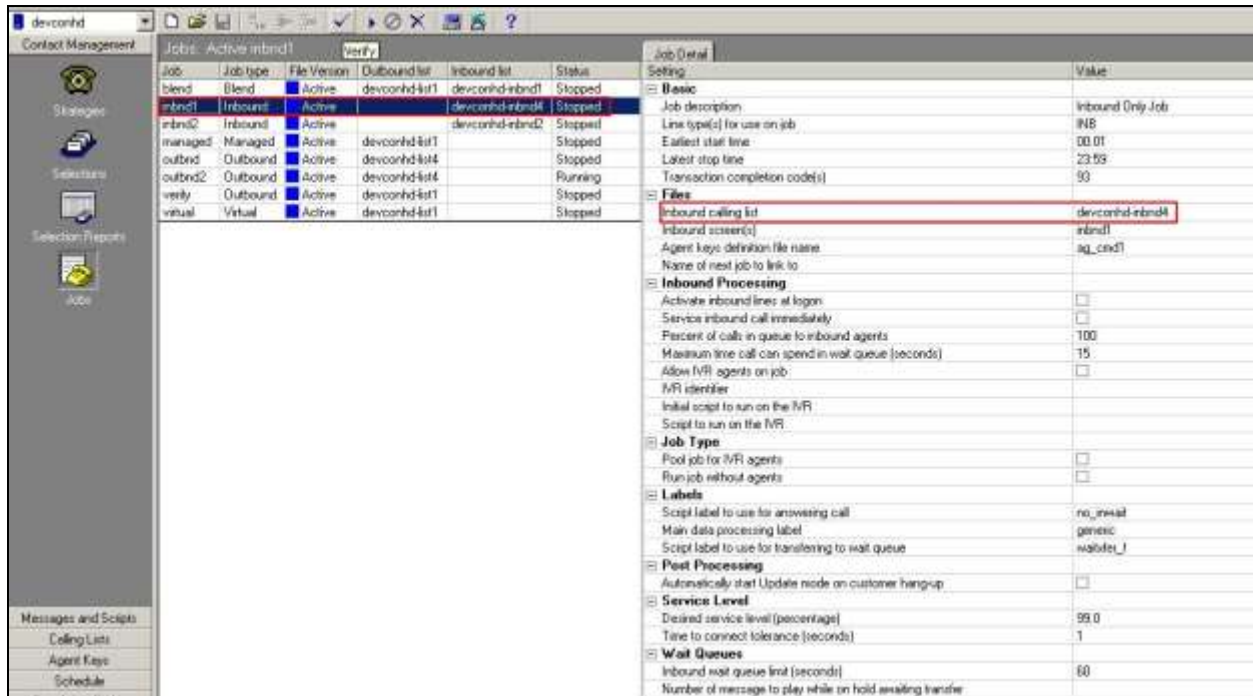Click verify ![checkmark] and ensure verification completes successfully.
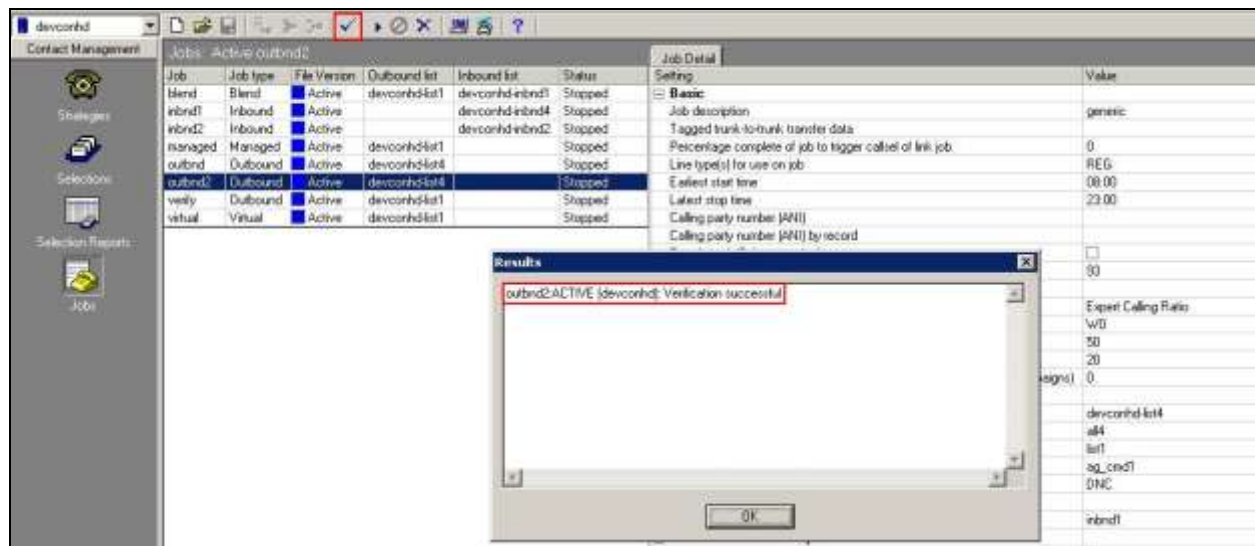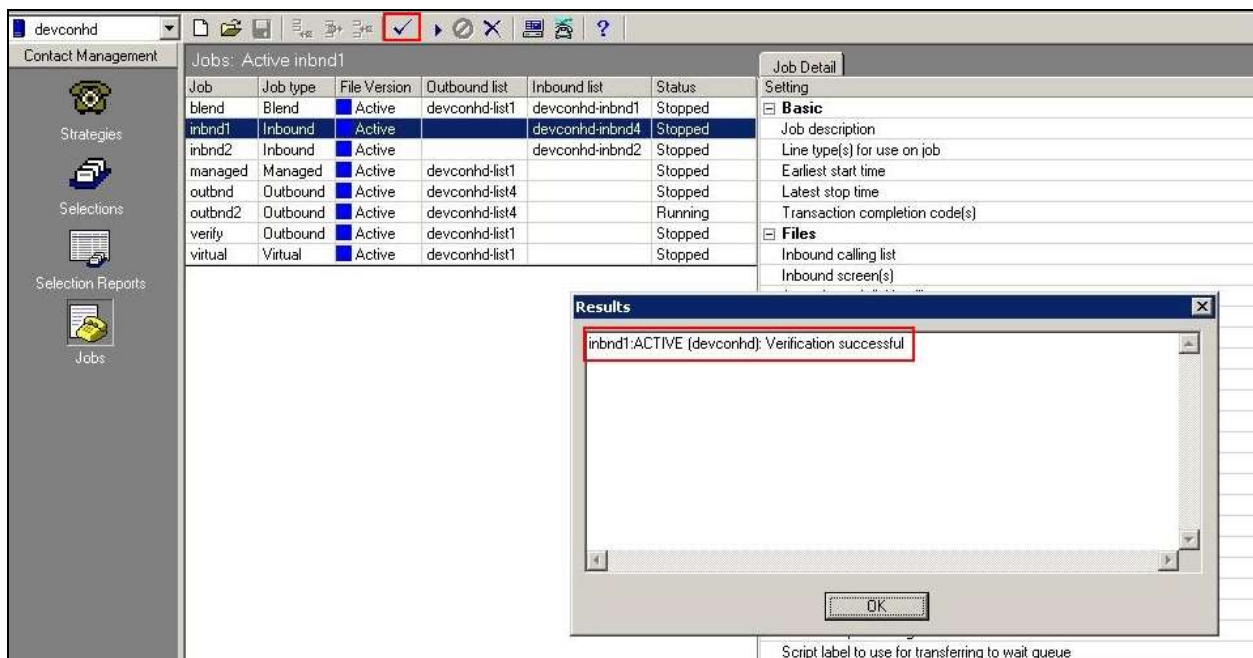
Click run ▶ to start the job.
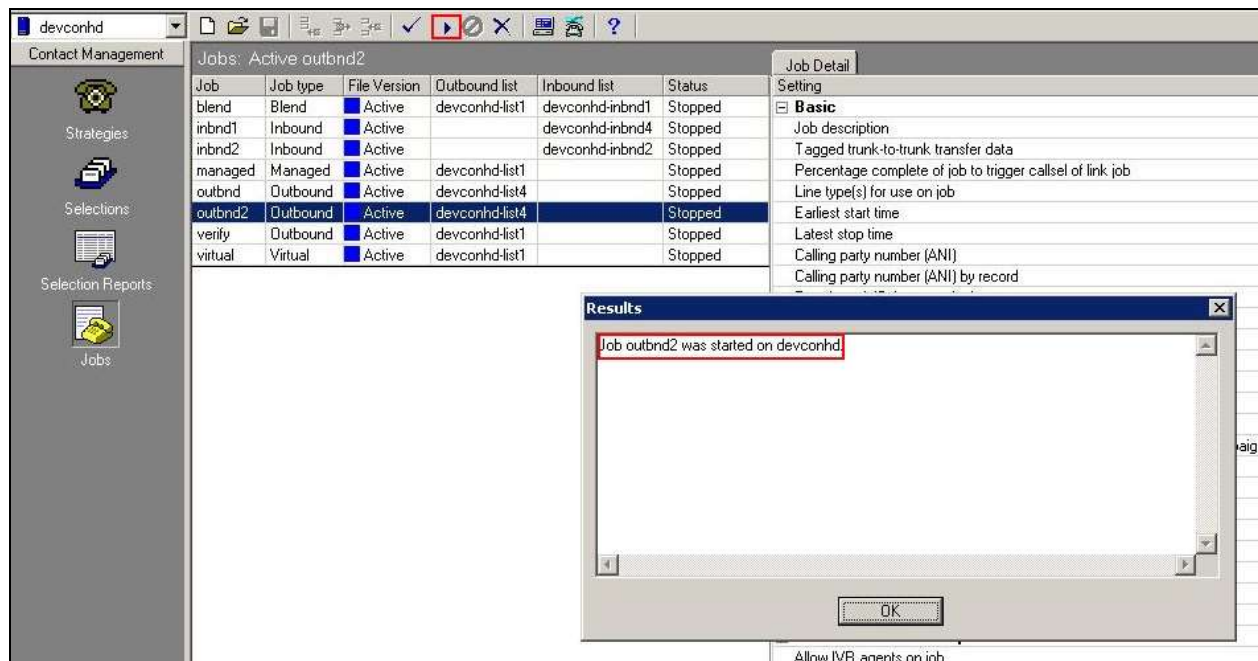
The outbound job is now running, and Proactive Contact will be initiating outbound calls to Proactive Contact Agents, once logged in. In this instance, synTelate Agent is used to log in both the Proactive Contact Agent, and the Communication Manager as an ACD Agent.

7.7.8. Configure Inbound Job
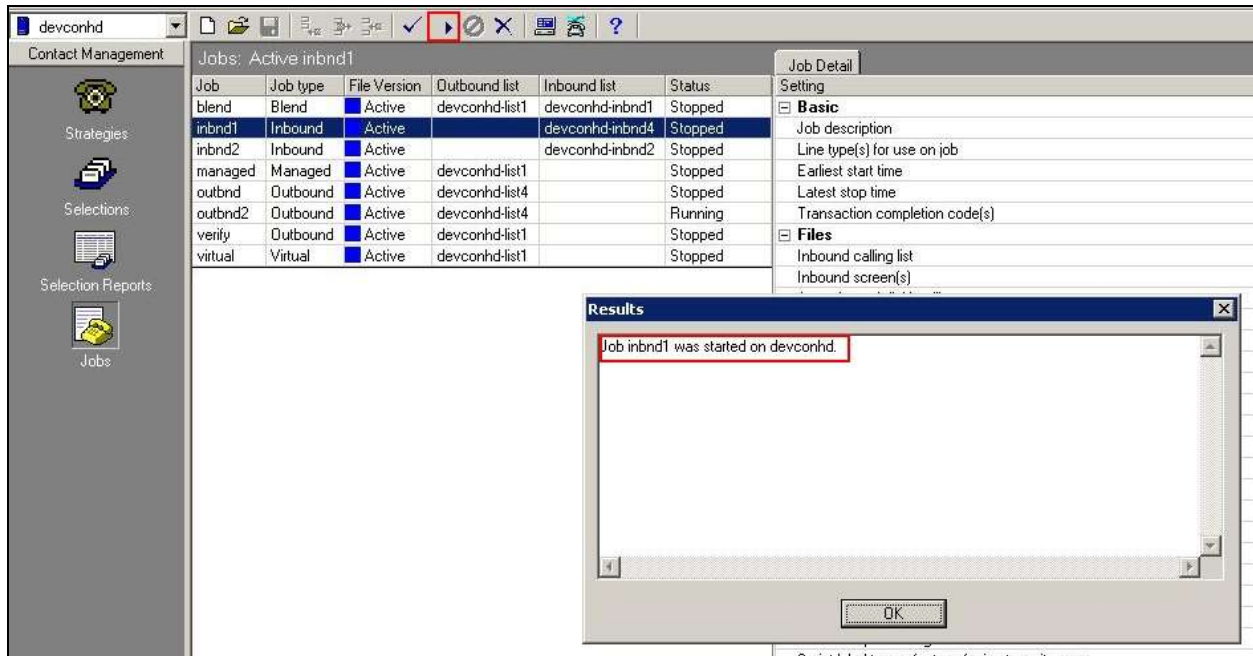
Click **Jobs** in the left pane, select **inbnd4** and set the **inbound calling list** field as configured in **Section 7.7.4**.

Click verify ✓ and ensure verification completes successfully.

Click ▶ to start the job.

If the job fails to run as expected, ensure the job file within the **/opt/avaya/pds/job/** directory has the following parameters set.

TESTMODE::
TESTOPER::

8. Configure Aperio

8.1. Configure telephony server

From the windows start menu run Portrait management console and create a new telephony server whose name is the server name of the AES.
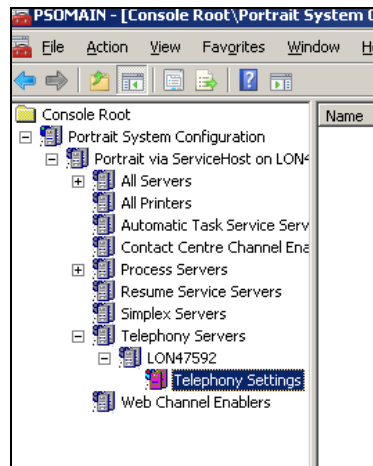
The Properties of Telephony Settings should be set as below

SJW; Reviewed:
SPOC 6/13/2016

Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.

49 of 59
Aperio_PC511_HD

Note: If the Portrait MMC does not resolve the server name (or IP address) being added as the telephony server it will refuse to allow the server to be added.
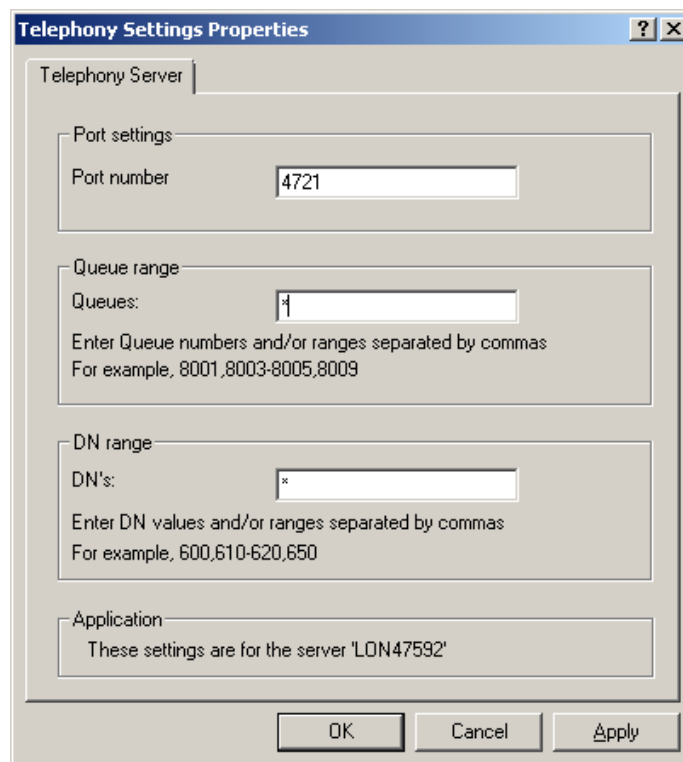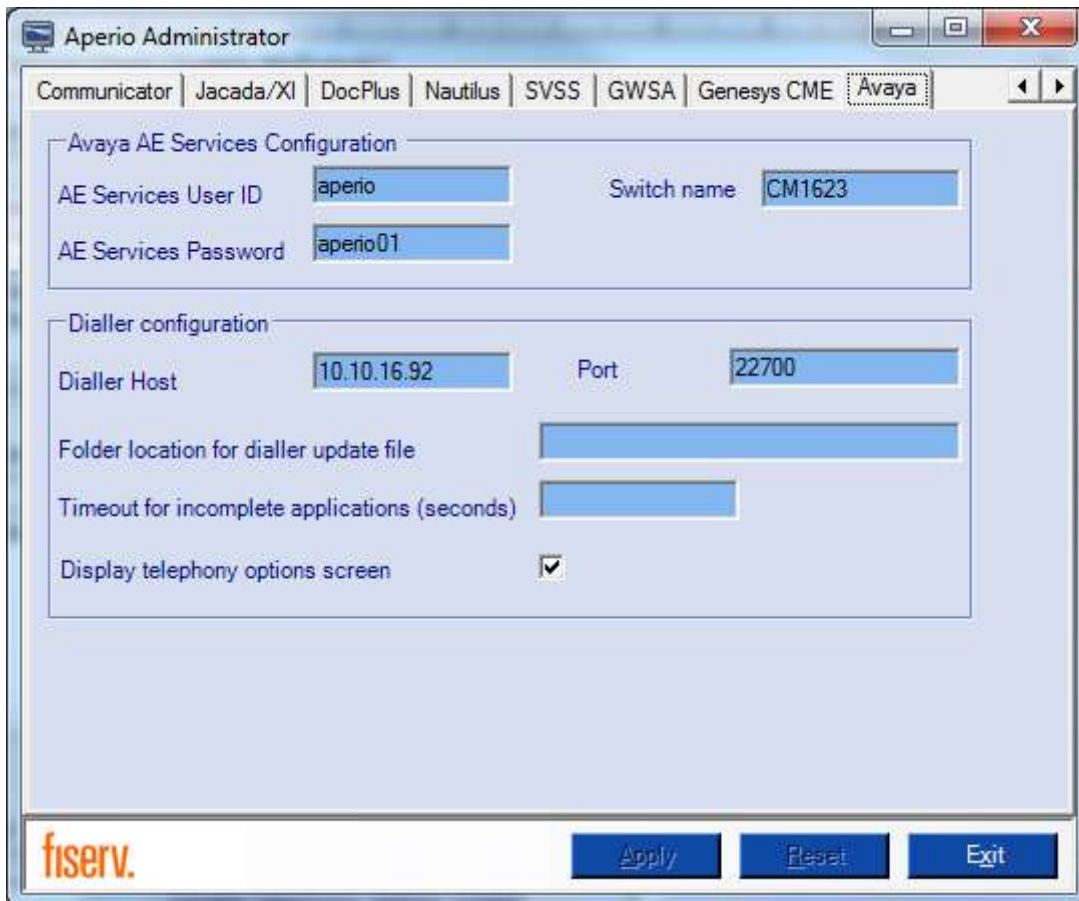
8.1.1. Manually Add Telephony Server

Create a telephony server whose name is the name of the local server and set up all other settings as above. Go to the Aperio database and update the relevant tables directly in order to add the AES server as a new telephony server. The following script will create and update the necessary tables, and can be modified beforehand so that the names of the new and configured telephony server are correctly set as indicated by the comments in the script.

Update_telephony_s
erver_details.sql

8.2. Configure Aperio Administrator

Configure the **AE Services User ID**, **AE Services Password** and **Switch name** administered in **Section 6** and **Dialler Host, Port,** and **Display telephony options screen** into Aperio Administrator.

8.3. Configure Agent in Agent Manager

Each agent will need to be configured in Agent Manager with **Extension number**, **Telephony ID** and **Telephony queue**. Entries are set as follows
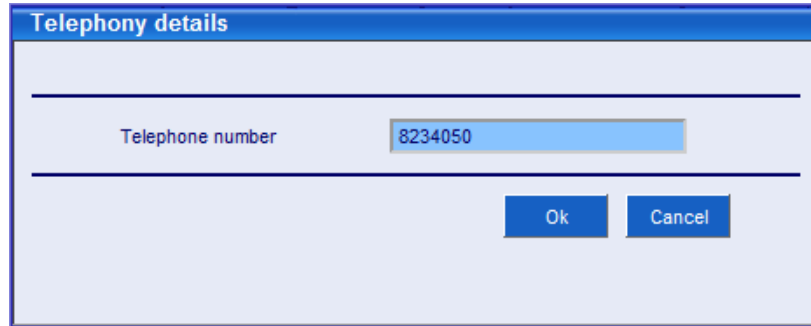
- **Extension number**:   The extension of the phone used by the agent.
- **Telephony ID**:   The agent ID as configured in CM for the agent.
- **Telephony password**:The password for the agent ID as configured in CM.
- **Telephony queue**:   The hunt group number that the agent will log on to as configured in CM.
- **Auto dialer user ID**: The agent ID as configured in Proactive Contact for the agent.
- **Auto dialer password**:The password as configured in Proactive Contact for the agent.

SJW; Reviewed:
SPOC 6/13/2016

Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.

51 of 59
Aperio_PC511_HD

8.4. Configure Teams in Agent Manager

In Agent Manager configure the telephony details for individual teams. The telephone number for the team is set to the VDN associated with the hunt group as defined in **Section 5.2**.

9. Verification Steps

This section provides the steps that can be taken to verify correct configuration of the Avaya solution and Aperio server.

9.1. Verify Avaya Aura® Communication Manager CTI Service State

The following steps can validate that the communication between Communication Manager and AES is functioning correctly. Check the AESVCS link status by using the command **status aesvcs cti-link**. Verify the **Service State** of the CTI link is **established**.

```
status aesvcs cti-link

                      AE SERVICES CTI LINK STATUS

CTI     Version     Mnt     AE Services     Service     Msgs     Msgs
Link                Busy     Server          State       Sent     Rcvd

1         4         no      aes63vmpg       established  18       18
```

9.2. Verify TSAPI Link

On the AES Management Console verify the status of the TSAPI link by selecting **Status →
Status and Control → TSAPI Service Summary** to display the **TSAPI Link Details** screen.
Verify the status of the TSAPI link by checking that the **Status** is **Talking** and the **State** is
Online.
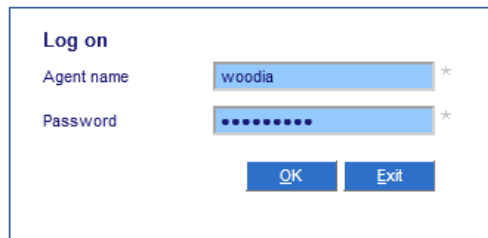
9.3. Aperio connection

Start Aperio client and enter **Agent name** and **Password** as configured in Agent Manager. Note, this is the user ID and password for Communicator / Signature. Press **OK** to validate Agent Name and Password.
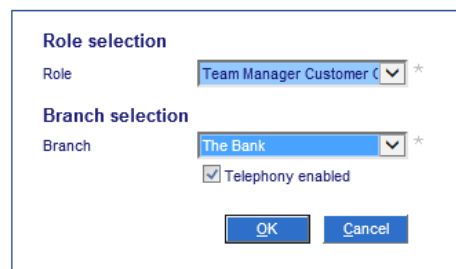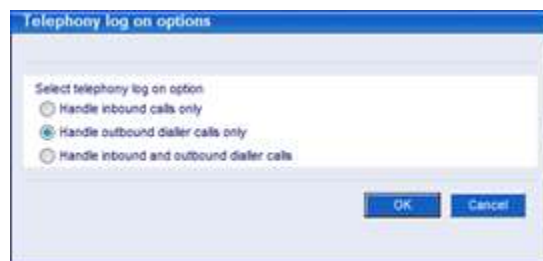
Choose a role and branch for the agent and ensure that the "**Telephony enabled**" checkbox is ticked. Press **OK**.

Select handle outbound dialler calls only. Press **OK**.

SJW; Reviewed:
SPOC 6/13/2016
Solution & Interoperability Test Lab Application Notes
©2016 Avaya Inc. All Rights Reserved.
54 of 59
Aperio_PC511_HD

Select tenant for agent. Press **OK**.
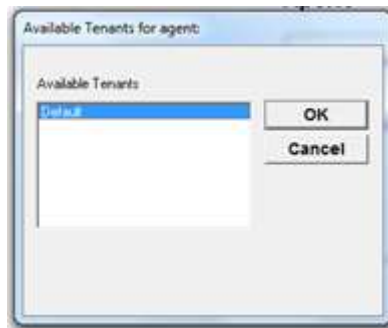
Select an available job for the agent. Press **OK**.
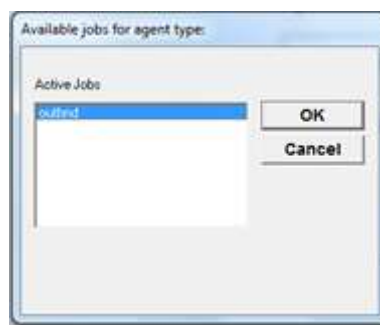
The agent desktop will be displayed. The telephony bar at the bottom of the screen will show the initial status of telephony. **System status** will be **Available** and **Agent status** will be **Logged on and unavailable**.
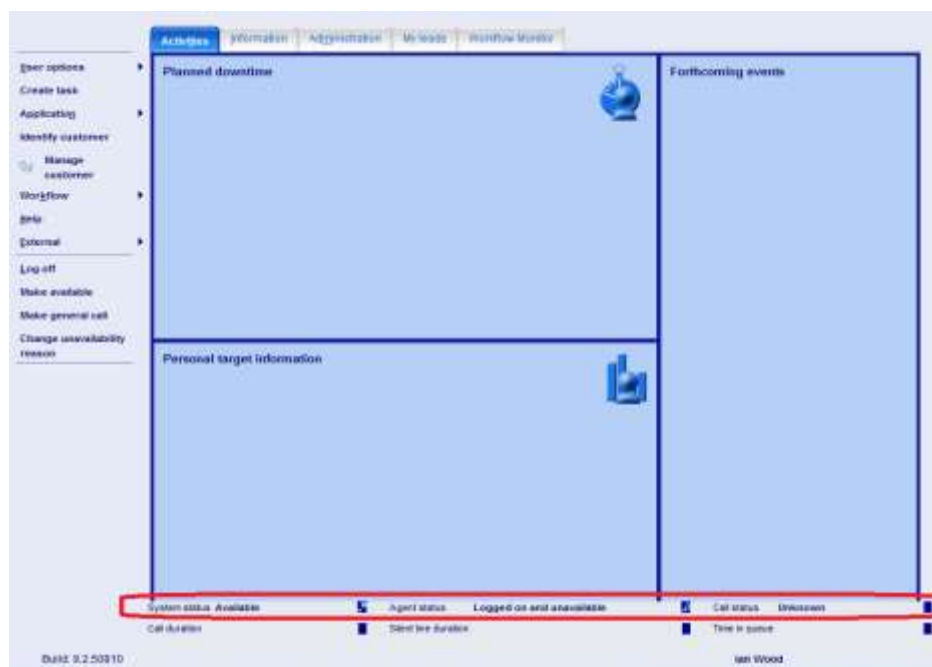
10. Conclusion

These Application Notes describe the configuration steps required for Fiserv Aperio to successfully interoperate with Avaya Aura® Avaya Aura® Communication Manager R7.0 and Avaya Aura® Application Enablement Services R7.0. All feature functionality and serviceability test cases were completed successfully with observations noted in **Section 2.2**.

11. Additional References

This section references the Avaya and Fiserv product documentation that are relevant to these Application Notes.

Product documentation for Avaya products may be found at http://support.avaya.com
   [1] *Administering Avaya Aura® Communication Manager,* Document ID 03-300509.
   [2] *Avaya Aura® Communication Manager Feature Description and Implementation,* Document ID 555-245-205.
   [3] *Avaya Aura® Application Enablement Services Administration and Maintenance Guide Release 7.0.*

Technical documentation can be obtained for fiserv Aperio by contacting Fiserv and / or consulting the following Portrait base documents.
   [1] *Integrating telephony,* Edition 7.1.
   [2] *New Feature Overview,* Edition 1.0.
   [3] *Telephony Client Integration Developers Guide,* Edition 1.0.

Appendix

Avaya 9608 H323 Deskphone

This is a printout of the Avaya 9608 H323 Deskphone used during compliance testing.

```
display station 2016                                           Page   1 of   5
                              STATION


Extension: 2016                         Lock Messages? n              BCC: M
     Type: 9608                        Security Code: *               TN: 1
     Port: S00102                    Coverage Path 1:                COR: 1
     Name: CCT Agent2                Coverage Path 2:                COS: 1
                                     Hunt-to Station:              Tests? y
STATION OPTIONS
                 Location:                  Time of Day Lock Table:
              Loss Group: 19      Personalized Ringing Pattern: 1
                                           Message Lamp Ext: 2016
            Speakerphone: 2-way          Mute Button Enabled? y
        Display Language: english            Button Modules: 0
 Survivable GK Node Name:
           Survivable COR: internal        Media Complex Ext:
   Survivable Trunk Dest? y                     IP SoftPhone? y

                                         IP Video Softphone? y
                       Short/Prefixed Registration Allowed: default

                                        Customizable Labels? y
```

Page 2

```
display station 2016                                           Page   2 of   5
                              STATION
FEATURE OPTIONS
            LWC Reception: spe          Auto Select Any Idle Appearance? n
           LWC Activation? y                    Coverage Msg Retrieval? y
  LWC Log External Calls? n                              Auto Answer: none
             CDR Privacy? n                         Data Restriction? n
    Redirect Notification? y            Idle Appearance Preference? n
 Per Button Ring Control? n          Bridged Idle Line Preference? n
   Bridged Call Alerting? n              Restrict Last Appearance? y
 Active Station Ringing: single
                                                 EMU Login Allowed? n
        H.320 Conversion? n      Per Station CPN - Send Calling Number?
       Service Link Mode: as-needed                  EC500 State: disabled
         Multimedia Mode: enhanced         Audible Message Waiting? n
  MWI Served User Type:                   Display Client Redirection? n
            AUDIX Name:                   Select Last Used Appearance? n
                                            Coverage After Forwarding? s
                                             Multimedia Early Answer? n
 Remote Softphone Emergency Calls: as-on-local Direct IP-IP Audio Connections? y
  Emergency Location Ext: 2016         Always Use? n IP Audio Hairpinning? n
```

Page 3

```
display station 2016                                           Page   3 of   5
                               STATION


            Conf/Trans on Primary Appearance? n
  Bridged Appearance Origination Restriction? n     Offline Call Logging? y
       Require Mutual Authentication if TLS? n

            Call Appearance Display Format: disp-param-default
                           IP Phone Group ID:
Enhanced Callr-Info Display for 1-Line Phones? n


                           ENHANCED CALL FORWARDING
                               Forwarded Destination          Active
 Unconditional For Internal Calls To:                            n
               External Calls To:                                n
       Busy For Internal Calls To:                               n
               External Calls To:                                n
   No Reply For Internal Calls To:                               n
               External Calls To:                                n

        SAC/CF Override: n
```

Page 4

```
display station 2016                                           Page   4 of   5
                               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: ec500      Timer? n
 2: call-appr                       6: extnd-call
 3: call-appr                       7:
 4: call-park                       8:

    voice-mail
```

©2016 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 DevConnect Program at devconnect@avaya.com.