

Avaya Solution & Interoperability Test Lab

Application Notes for Magnetic North Optimise with Avaya Proactive Contact and Avaya PG230 Gateway - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Magnetic North Optimise to successfully interoperate with Avaya Proactive Contact 3.0.1 and an Avaya PG230 Gateway. Optimise delivers advanced call recording and quality monitoring for Outbound jobs in a typical Call Centre with a VoIP environment. Optimise was solution tested against Proactive Contact with an Avaya PG230 Gateway.

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

1. Introduction

Magnetic North Optimise is a call recording and agent monitoring solution for Call Centre applications running Outbound, Inbound and Blended Jobs. Optimise was compliance tested against Avaya Proactive Contact with an Avaya PG230 Gateway as a Hard Dialer. Optimise is a web based software that monitors and records agent calls in any business or contact centre environment. Optimise provides 2 solutions / ways to record calls, one is setting up a trunk and the second is a VoIP solution that records calls via an Ethernet switch mirrored port of an Avaya Med-Pro board. The VoIP solution was compliance tested. The purpose of this interoperability solution test plan is to verify that the Magnetic North's Optimise can interoperate with the Avaya Proactive Contact as Hard Dialer using PG230 Gateway.

Avaya Proactive Contact is a suite of hardware and software that can be realized through two different offerings: an external cabinet-based Avaya PG230 dialer or a software-based CTI (Computer Telephony Integration) solution that executes on Avaya Communications Manager. One of many efficiency boosting capabilities of this solution, the cruise control algorithm, ensures that businesses meet their service level delivery agreements. It optimizes agent productivity while complying with outbound regulations. Avaya Proactive Contact is a key component for an end-to-end communications strategy.

The integration of Magnetic North Optimise with Avaya Proactive Contact enables the monitoring of agent events and recording of agent calls from the Optimise web interface. Magnetic North Optimise is also able to seamlessly capture, package up and deliver the calls through standard web browsers from anywhere in the world.

In **Figure 1**, a sample configuration is shown for Avaya Proactive Contact working with Magnetic North Optimise. Avaya Proactive Contact has 2 main components, an Avaya Proactive Contact server and an Avaya PG230 Gateway, that are connected via a cross-over cable. The Avaya Proactive Contact server is connected to Avaya Communication Manager. In this configuration, Avaya Communication Manager consists of an Avaya S8500B server and an Avaya G650 Media Gateway. The Avaya PG230 Gateway is connected to the Avaya G650 Media Gateway via an E1-PRI trunk. Three Proactive Contact Agents are used in the configuration; one Proactive Contact Agent uses an Avaya IP Telephone, and two Proactive Contact Agents use Avaya IP Softphones. The Avaya IP Telephone and two Avaya IP Softphones are extensions on Avaya Communication Manager. The customer telephone is connected to the simulated PSTN. Magnetic North Optimise is connected to two ports on the Extreme Networks Summit 400-24p Switch, one of which is a mirrored port of the port to which an Avaya Med-Pro board (resides in the Avaya G650 Media Gateway) connects. Magnetic North Optimise also has a Corba connection to Avaya Proactive Contact to monitor Agent events through the Event Services API.

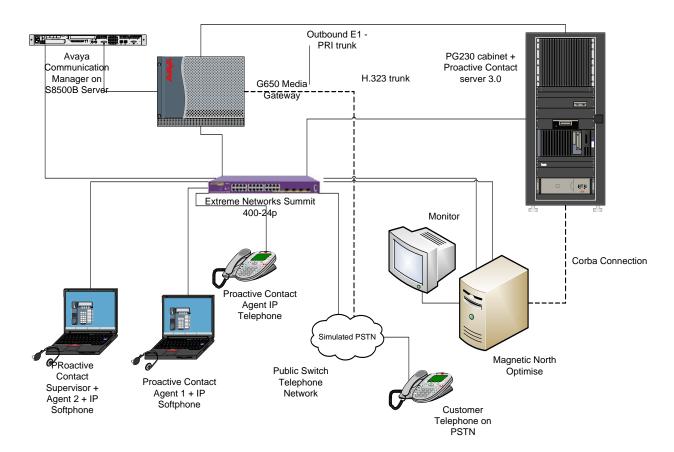


Figure 1: Sample Configuration of Avaya Proactive Contact as a Hard Dialer with Magnetic North Optimise.

2. Equipment and Software Validated

The equipment with its corresponding versions is listed in the table below:

Equipment	Software
Avaya Proactive Contact Dialer Server	3.0.1
Avaya S8500B Server	Avaya Communication Manager 5.1 SP1
Avaya G650 Media Gateway IPSI (TN2312AP)	HW 02 FW 044
Avaya G650 Media Gateway C-LAN (TN799DP)	HW 01 FW 026
Avaya G650 Media Gateway Med-Pro (TN2302AP)	HW 11 FW 118
Avaya G650 Media Gateway DS1 (TN2464BP)	HW 05 FW 019
Avaya IP Softphone	R6 SP5 (6.0.1.89)
Avaya Proactive Contact Supervisor	3.0 SP2
Avaya Proactive Contact Agent	3.0 SP2
Avaya PG230 Gateway	15.3.1
Avaya 4610SW IP Phone	2.9
Extreme Networks Summit 400-24p Switch	7.5e.2.8
Magnetic North Optimise	4.5 HotFix 2

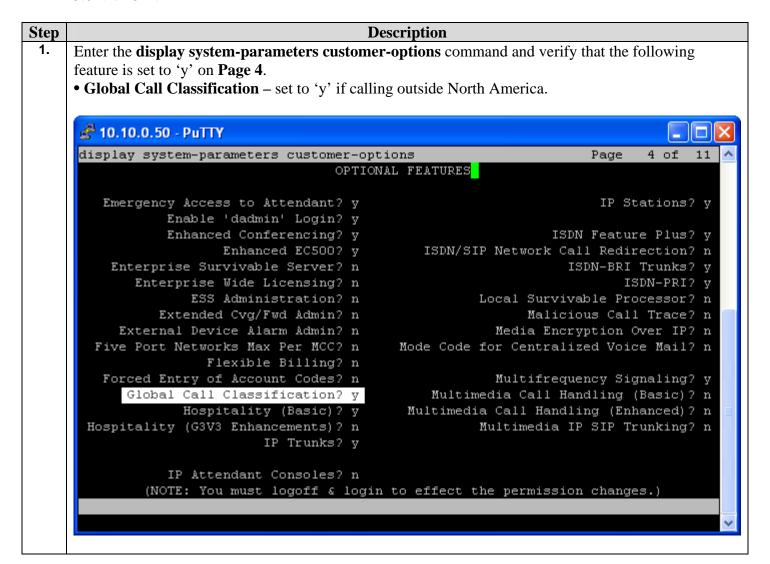
3. Configure Avaya Communication Manager

This section describes the steps for configuring the features required on Avaya Communication Manager for Avaya Proactive Contact with CTI. The following steps will be followed.

- Configure Avaya Communication Manager for Proactive Contact
- System Parameters Customer Options
- System Parameters Features
- Agent Stations

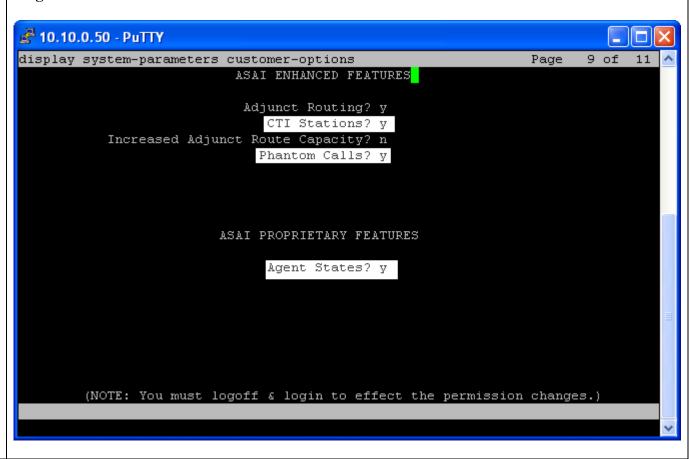
3.1. Configure Avaya Communication Manager for Avaya Proactive Contact

The following configuration is needed on Avaya Communication Manager for Proactive Contact 3.0 with CTI.



Navigate to **Page 9** and verify that the following features are set to 'y'.

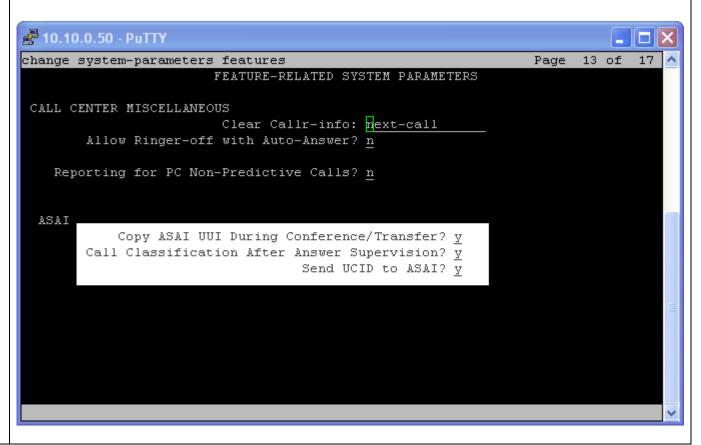
- CTI Stations
- Phantom Calls
- Agent States



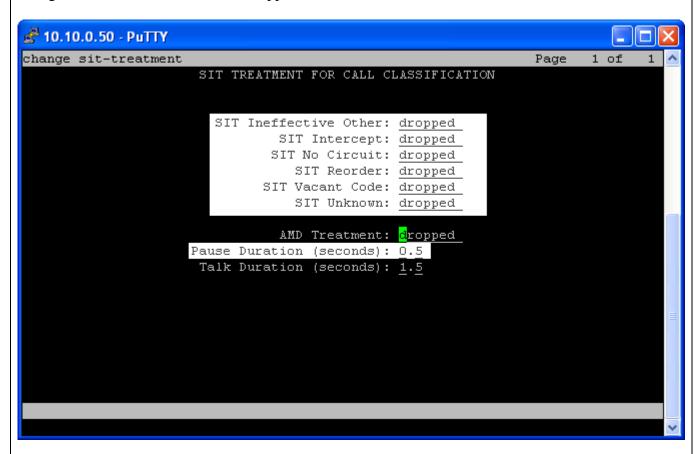
Enter the **change system-parameters features** command and set the following field to 'y' on **Page 5**. • Create Universal Call ID (UCID) 🚰 10.10.0.50 - PuTTY change system-parameters features Page 5 of FEATURE-RELATED SYSTEM PARAMETERS SYSTEM PRINTER PARAMETERS Endpoint: Lines Per Page: 60 SYSTEM-WIDE PARAMETERS Switch Name: Emergency Extension Forwarding (min): 10 Enable Inter-Gateway Alternate Routing? n Enable Dial Plan Transparency in Survivable Mode? n COR to Use for DPT: station MALICIOUS CALL TRACE PARAMETERS Apply MCT Warning Tone? n MCT Voice Recorder Trunk Group: SEND ALL CALLS OPTIONS Send All Calls Applies to: station Auto Inspect on Send All Calls? n UNIVERSAL CALL ID Create Universal Call ID (UCID)? y UCID Network Node ID: 1

Navigate to Page 13 and set the following fields to 'y'.

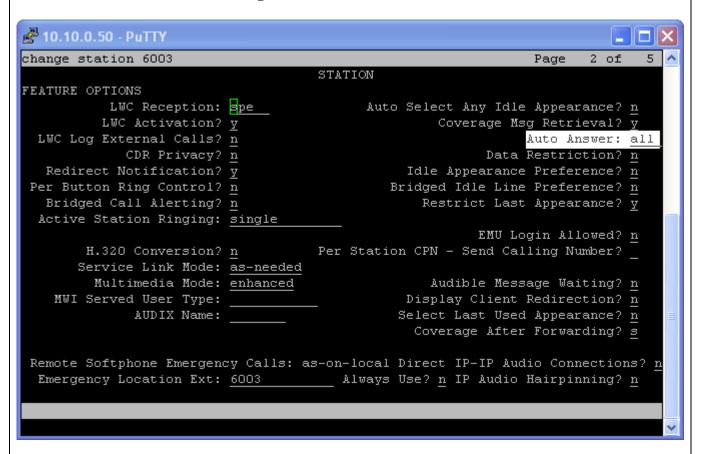
- Copy ASAI UUI During Conference/Transfer
- Call Classification After Answer Supervision
- Send UCID to ASAI



Enter the **change sit-treatment** command. On the **SIT TREATMENT** form, set the **Pause Duration** (**seconds**) to '0.5'. This will shorten the time between the customer saying 'hello' and the call reaching the agent. Set the six **SIT** fields to 'dropped'.

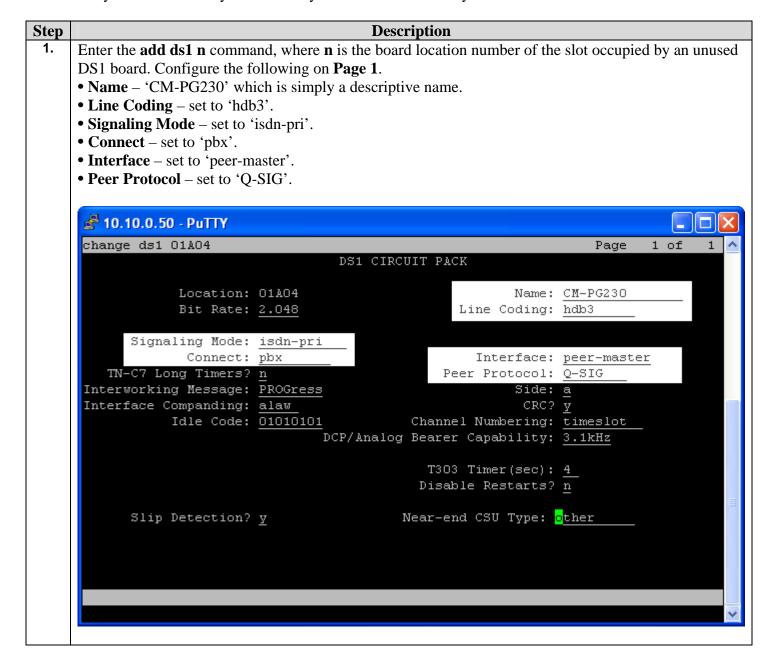


4. Enter the **change station n** command, where **n** is the extension of an Avaya Communication Manager station (IP Telephone or Softphone) used by an Avaya Proactive Contact Agent. On the **STATION** form, set **Auto Answer** to 'all' on **Page 2**.

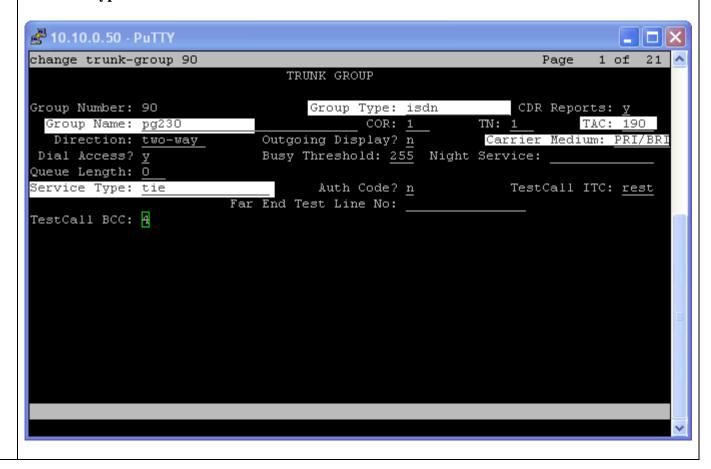


3.2. Configure DS1 Trunks on Avaya Communication Manager to Avaya Proactive Contact

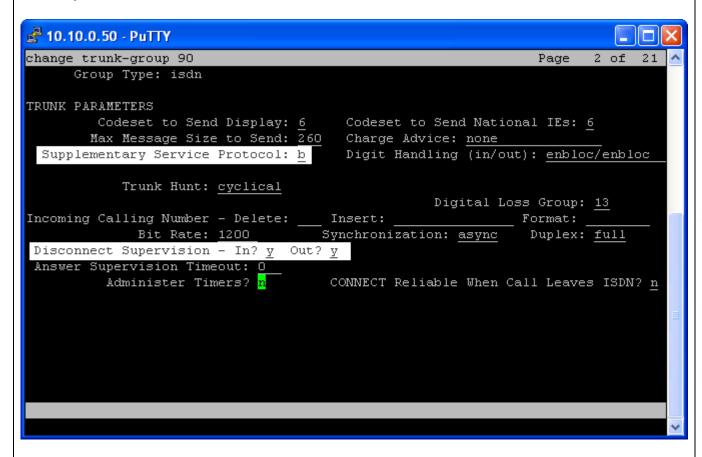
An E1 QSIG trunk for agent dial back, outbound and transfer calls was configured between Avaya Communication Manager and Avaya PG230 Gateway. The physical link was between the Avaya PG230 Gateway and the Avaya G650 Media Gateway.



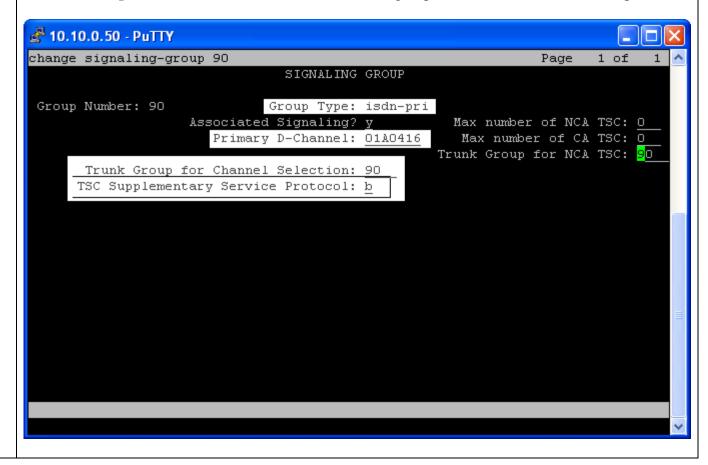
- 2. Enter the **add trunk-group n** command, where **n** is an available trunk group number. Configure the following on **Page 1**.
 - **Group Type** set to 'isdn'.
 - **Group Name** 'pg230' which is simply a descriptive name.
 - TAC enter a Trunk Access Code that is valid in the provisioned dial plan.
 - Carrier Medium set to 'PRI/BRI'.
 - **Service Type** set to 'tie'.



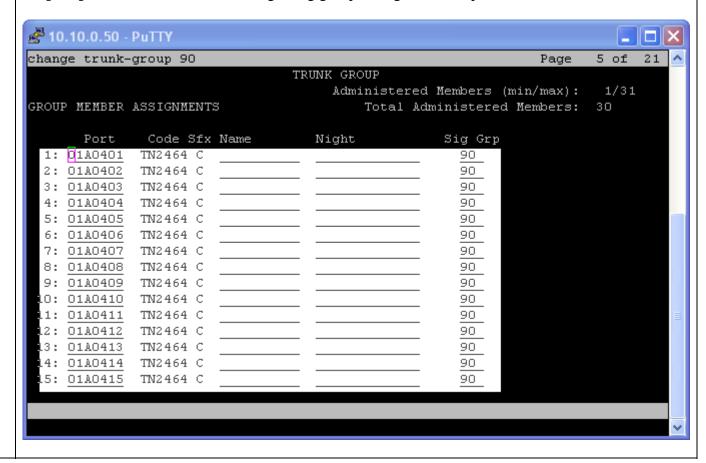
On Page 2, set Supplementary Service Protocol to 'b' and Disconnect Supervision – In to 'y' and Out to 'y'.



- 4. Enter the **add signaling-group n** command, where **n** is an unused signaling group number. Configure the following on **Page 1**.
 - **Group Type** set to 'isdn'.
 - **Primary D-Channel** set to the DS1 board number followed by 16.
 - **Supplementary Service Protocol** set to 'b'.
 - Trunk Group for Channel Selection set to the trunk group number that was added in Step 2.

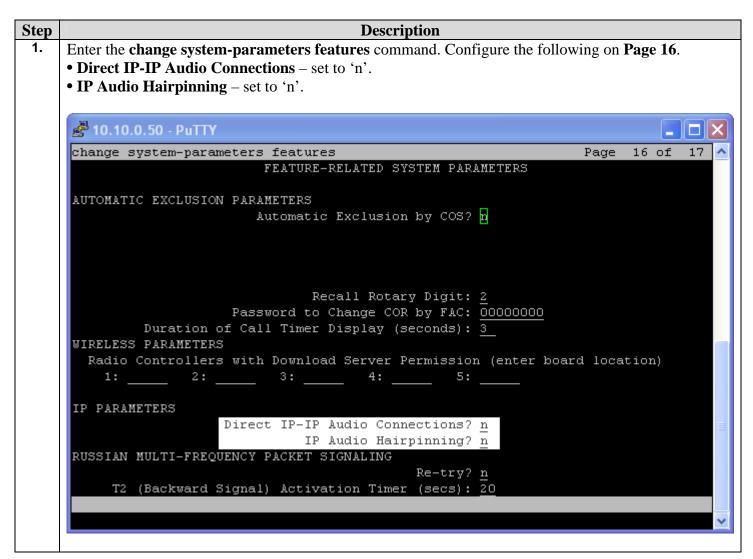


- 5. Enter the **change trunk-group n** command, where **n** is the trunk group number configured in Step 2. On **Page 3**, configure the following:
 - **Port** enter the DS1 board number followed by the trunk member number. The number of ports configured should be coordinated with the number of trunks available to the Avaya PG230 gateway.
 - Sip Grp enter the number of the signaling group configured in Step 4.

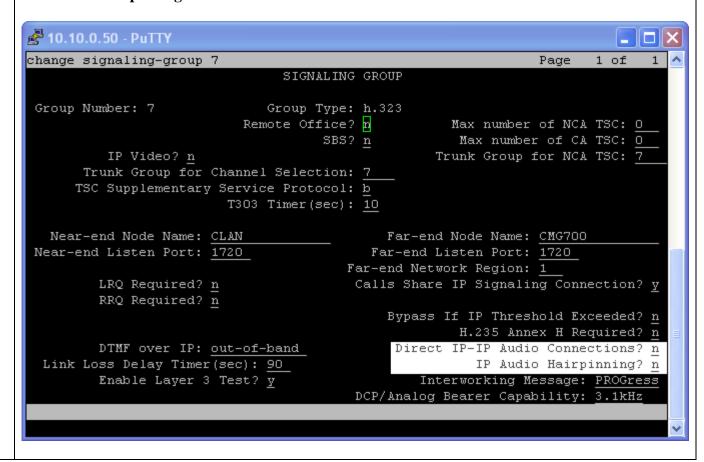


3.3. Configure Avaya Communication Manager to Disable Media Shuffling

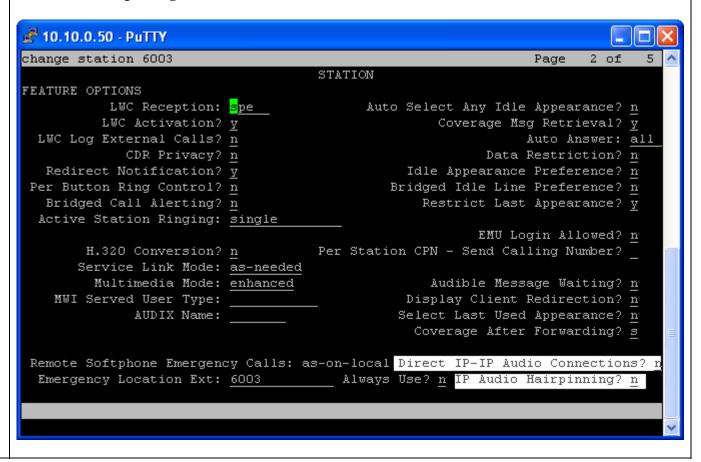
Magnetic North Optimise uses a mirrored Med-Pro port to record calls. Thus in order to record Agent calls successfully, all RTP packets must go through the Med-Pro. Since the simulated PSTN (Public Switched Telephone Network) connection in this sample configuration was a VoIP (H.323) trunk, therefore the media shuffling must be disabled in order for Agent PSTN calls to pass through the Med-Pro. Please note that Step 2 is only required when Avaya Communication Manager is connected to the PSTN through a VoIP (H.323) trunk. If not then do not disable media shuffling as media shuffling this helps in reducing the need for more MedPro resources.



- 2. Enter the **change signaling-group 7** command, where **7** is the signaling group number used to connect Avaya Communication Manager to the PSTN via a VoIP (H.323 in this case) trunk. Configure the following on **Page 1**. Please refer to the note at the introduction of section 3.3 as to when the media shuffling is to be disabled.
 - Direct IP-IP Audio Connections set to 'n'.
 - **IP Audio Hairpinning** set to 'n'.



- Enter the **change station n** command, where **n** is the extension of an Avaya Communication Manager station (IP Telephone or Softphone) used by an Avaya Proactive Contact Agent. Configure the following on **Page 2**. Repeat this step for every station used by an Avaya Proactive Contact Agent.
 - Direct IP-IP Audio Connections set to 'n'.
 - IP Audio Hairpinning set to 'n'.



4. Configure Avaya Proactive Contact 3.0

This section describes the configuration required on the Avaya Proactive Contact Server and Avaya Proactive Contact Supervisor to configure Avaya Proactive Contact with PG230 Gateway for outbound calling. The following steps should be followed:

- Configure Avaya Proactive Contact configuration files.
- Configure and start Avaya Proactive Contact processes.
- Configure Avaya Proactive Contact agent accounts.
- Configure an outbound job.
- Configure Avaya Proactive Contact PG230 Gateway.

4.1. Configure Avaya Proactive Contact configuration files

The following files need to be configured on Avaya Proactive Contact:

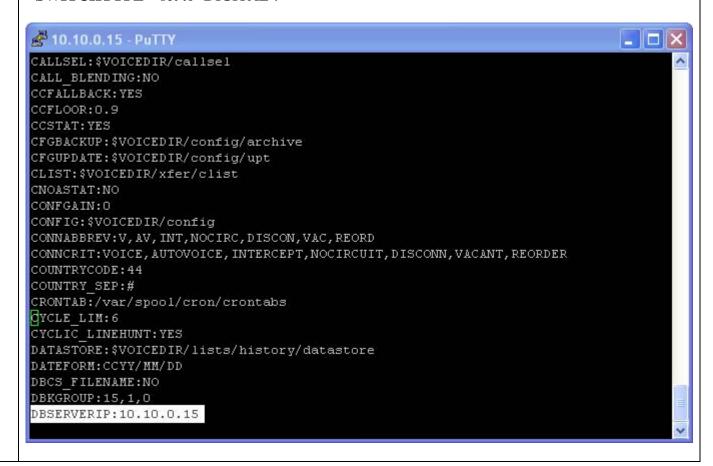
- master.cfg
- opmon.cfg
- dgswitch.cfg
- voicemsg.cfg
- telephony.spt
- hosts

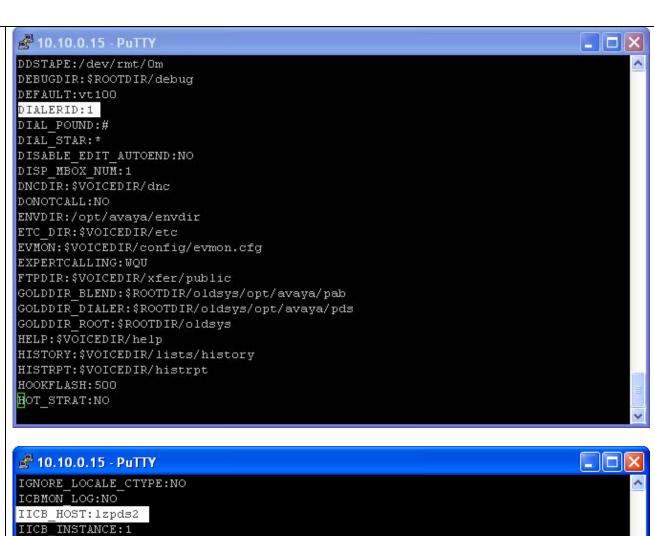
Step	Description
1.	Log in to the Proactive Contact server with an administrative login.

- 2. The master.cfg file sets the basic parameters for the operation of Avaya Proactive Contact. Configure the following parameters in the master.cfg file located in the opt/avaya/pds/etc directory.
 - **DBSERVERIP** set to the IP of the Oracle Database Server.
 - **DIALERID** set to '1'.
 - **IICB_HOST** set to the hostname of the Avaya Proactive Contact server.
 - NAMESERVICEHOST set to the hostname of the Avaya Proactive Contact server.
 - **OPERATORS** set to the number of outbound agents.
 - **OPLIMIT** set to the number of outbound agents (I -> Inbound, O-> Outbound, M -> Mixed) to match the number of stations that were configured in Avaya. Please note that for Outbound Jobs only configurations, only O needs to be set.

Communication Manager in Section 3.1 step 4.

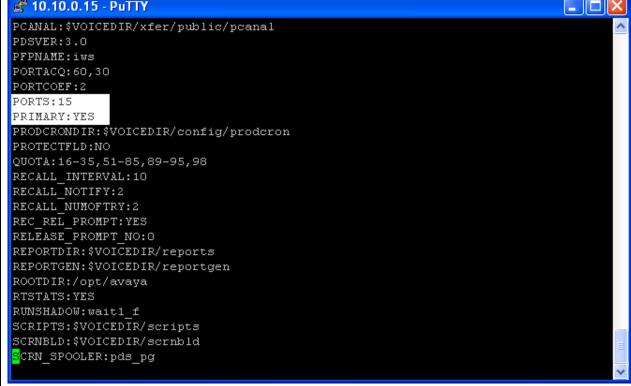
- **PORTS** set to the number of trunks on Avaya Communication Manager.
- **PRIMARY** set to 'YES'.
- **SWITCHTYPE** set to 'DIGITAL'.

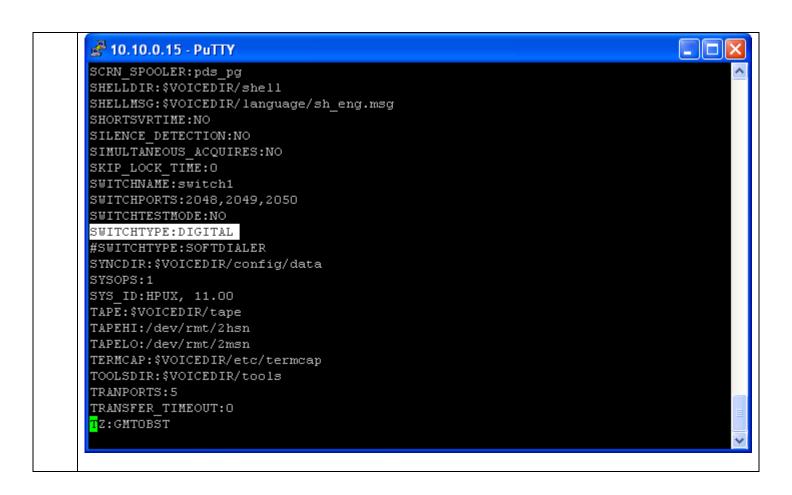




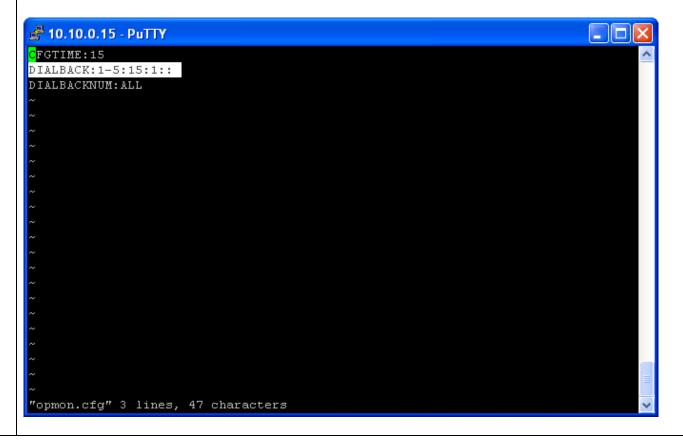








- The opmon.cfg file configures the agent headset line handling for establishing the audio link to agents. Configure the following parameter in the opmon.cfg file located in the /opt/avaya/pds/config directory. In the following configuration 1 to 5 ports on PG230 are reserved for headsets and 15 ports are reserved for Outbound Agent lines and 1 port is configured for Transfer Port. This is showed in detail in step 4.
 - **DIALBACK** set to the number of active headsets. (This is the number of outbound agents that will be administered in Avaya Proactive Contact.)



4. Configure the dgswitch.cfg file located in the /opt/avaya/pds/config directory to have the same number of **Headset Ports** rows as the number of outbound agents and the same number of **Outbound Ports** rows as the number of outbound trunks. In the sample configuration, there were 5 outbound agents, 15 outbound trunks and 1 transfer trunk. Please note below that 1-1-21-4 is the card number on the PG230 Gateway, and there are ports from 2 to 27, 5 of which (ports 2 to 6) configured as Headset ports and 15 of which (ports 7 to 22) configured as Outbound ports, and the remaining ports (23 to 27) configured as Transfer Ports.

```
🧬 10.10.0.15 - PuTTY
 Headset Ports
H:1:361:0::#H:15:54:1-1-21-4-2
H:2:362:0::#H:15:54:1-1-21-4-3
H:3:363:0::#H:15:54:1-1-21-4-4
H:4:364:0::#H:15:54:1-1-21-4-5
H:5:365:0::#H:15:54:1-1-21-4-6
# Outbound Ports
N:1:366:1::#0:10:54:1-1-21-4-7
N:2:367:1::#0:10:54:1-1-21-4-8
N:3:368:1::#0:10:54:1-1-21-4-9
N:4:369:1::#O:10:54:1-1-21-4-10
N:5:370:1::#0:10:54:1-1-21-4-11
N:6:371:1::#0:10:54:1-1-21-4-12
N:7:372:1::#0:10:54:1-1-21-4-13
N:8:373:1::#0:10:54:1-1-21-4-14
N:9:374:1::#0:10:54:1-1-21-4-15
N:10:375:1::#0:10:54:1-1-21-4-16
N:11:377:1::#0:10:54:1-1-21-4-18
N:12:378:1::#0:10:54:1-1-21-4-19
N:13:379:1::#0:10:54:1-1-21-4-20
N:14:380:1::#O:10:54:1-1-21-4-21
N:15:381:1::#0:10:54:1-1-21-4-22
"dgswitch.cfg" 26 lines, 728 characters
```

```
🚰 10.10.0.15 - PuTTY
H:3:363:0::#H:15:54:1-1-21-4-4
H:4:364:0::#H:15:54:1-1-21-4-5
H:5:365:0::#H:15:54:1-1-21-4-6
# Outbound Ports
N:1:366:1::#0:10:54:1-1-21-4-7
N:2:367:1::#0:10:54:1-1-21-4-8
N:3:368:1::#0:10:54:1-1-21-4-9
N:4:369:1::#0:10:54:1-1-21-4-10
N:5:370:1::#0:10:54:1-1-21-4-11
N:6:371:1::#0:10:54:1-1-21-4-12
N:7:372:1::#0:10:54:1-1-21-4-13
N:8:373:1::#0:10:54:1-1-21-4-14
N:9:374:1::#0:10:54:1-1-21-4-15
N:10:375:1::#0:10:54:1-1-21-4-16
N:11:377:1::#0:10:54:1-1-21-4-18
N:12:378:1::#0:10:54:1-1-21-4-19
N:13:379:1::#0:10:54:1-1-21-4-20
N:14:380:1::#0:10:54:1-1-21-4-21
N:15:381:1::#0:10:54:1-1-21-4-22
# Transfer Ports
T:1:12:1::#T:12:1-1-21-4, ports 23-27
```

5. Navigate to the /opt/avaya/pds/scripts directory. Make a copy of the telephny_hd.spt file and name it 'telephny.spt'.

```
🗗 10.10.0.15 - PuTTY
14:inmwait2:1014:Male:Folder2:Voice:Message14
15:inmwait3:1015:Male:Folder2:Voice:Message15
16:inmwait4:1016:Male:Folder2:Voice:Message16
17:fvirt1:1017:Female:Folder3:Voice:Message17
18:mvirt1:1018:Female:Folder3:Voice:Message18
19:pf msg 1:1019::Folder4:Music:Message19
20:pf msg 2:1020::Folder4:Music:Message20
21:pf msg 3:1021:Female:Folder4:Voice:Message21
22:pf msg 4:1022:Female:Folder4:Voice:Message22
23:pf msg 5:1023:Female:Folder4:Voice:Message23
24:pf msg 6:1024:Female:Folder4:Voice:Message24
25:pf msg 7:1025:Female:Folder4:Voice:Message25
26:pf msg 8:1026:Female:Folder4:Voice:Message26
250:greeting:18100:Female:Folder4:Voice:Message27
251:inbound:18101:Female:Folder4:Voice:Message28
252:outbound:18102:Female:Folder4:Voice:Message29
253:notLoggedIn:18103:Female:Folder4:Voice:Message30
LZPDS2(admin)@/opt/avaya/pds/config [1010]
LZPDS2(admin)@/opt/avaya/pds [1011]
 cd scripts
ZPDS2 (admin) @/opt/avaya/pds/scripts [1012]
 cp telephny hd.spt telephny.spt
```

6. Enable auto-start (following reboot) of the database, middle-tier services and Avaya Proactive Contact processes by adding the following lines to the mts_script, db_script, and pds_script files located in the /etc/rc.config.d directory.

DB_START=1 MTS_START=1 PDS_START=1 7. Add the hostnames of the machines running the Magnetic North Optimise and the Avaya Proactive Contact server. Also add a hostname for the 2nd Ethernet Connection between the Avaya Proactive Contact server and the Avaya Proactive Contact PG230 Gateway (this connection is referred to as the internal connection).

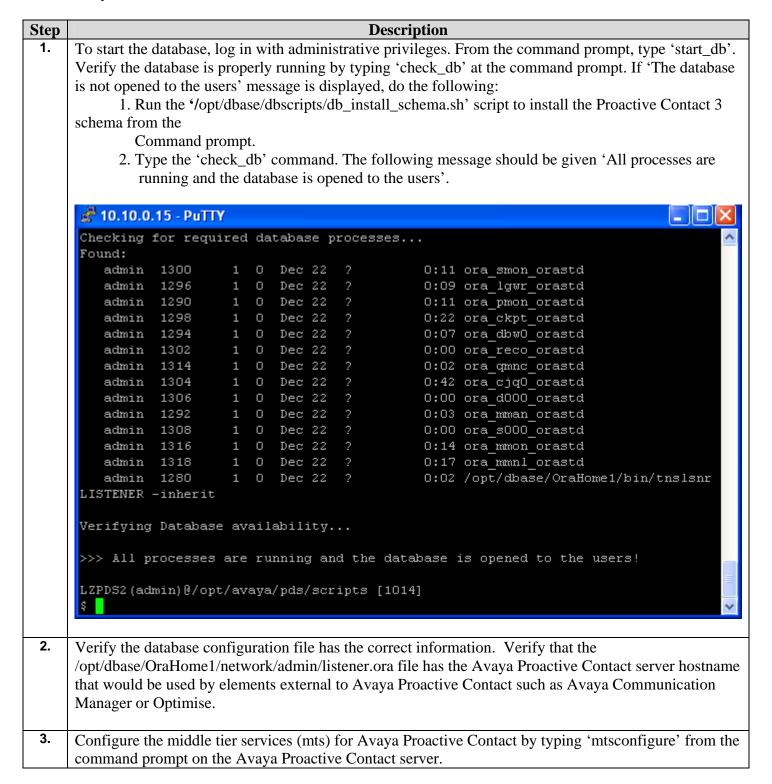
Type the command vi /etc/hosts and add the following entries:

- 10.10.0.15 lzpds2 the IP address and hostname for the Avaya Proactive Contact server.
- **10.1.10.28 cpu1** the IP address and hostname for the Avaya Proactive Contact server for the internal connection with the Avaya PG230 Gateway.
- **10.1.10.29 switch1** the IP address and hostname of the Avaya PG230 Gateway on the internal connection.
- **10.10.0.89 QASERVER14** the IP address and hostname of the Magnetic North Optimise server.

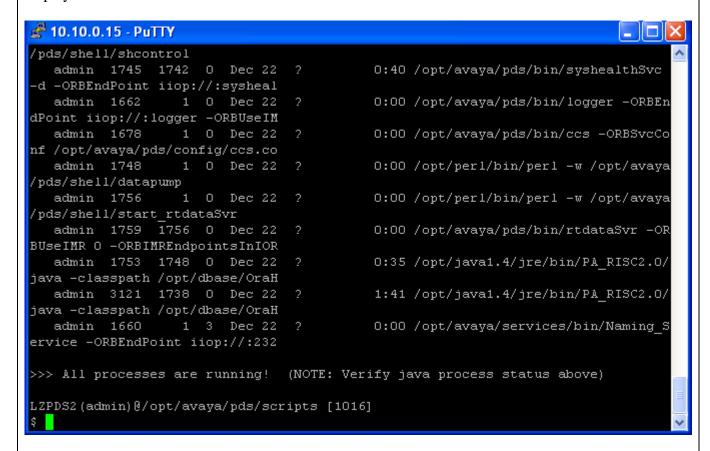
```
🚰 10.10.0.15 - PuTTY
## Configured using SAM by root on Fri Oct 24 13:08:39 2008
## Configured using SAM by root on Wed Nov 12 16:33:18 2008
# @(#)B.11.11 LRhosts $Revision: 1.9.214.1 $ $Date: 96/10/08 13:20:01 $
 The form for each entry is:
 <internet address>
                       <official hostname> <aliases>
 For example:
 192.1.2.34
                hpfcrm loghost
 See the hosts(4) manual page for more information.
 Note: The entries cannot be preceded by a space.
        The format described in this file is the correct format.
        The original Berkeley manual page contains an error in
        the format description.
127.0.0.1 localhost loopback
10.10.0.15 lzpds2
10.1.10.28 cpu1
10.1.10.29 switch1
10.10.0.13 neil-aes
10.10.0.89 QASERVER14
"hosts" 25 lines, 741 characters
```

4.2. Configure and start Avaya Proactive Contact Processes

This section describes how to configure and start the Avaya Proactive Contact processes on the Avaya Proactive Contact server.



- **4.** To start the mts processes, do the following:
 - 1. Start the mts processes by typing 'start_mts' at the command prompt
 - 2. Type 'check_mts' at the command prompt. The message 'All processes are running' should be displayed.



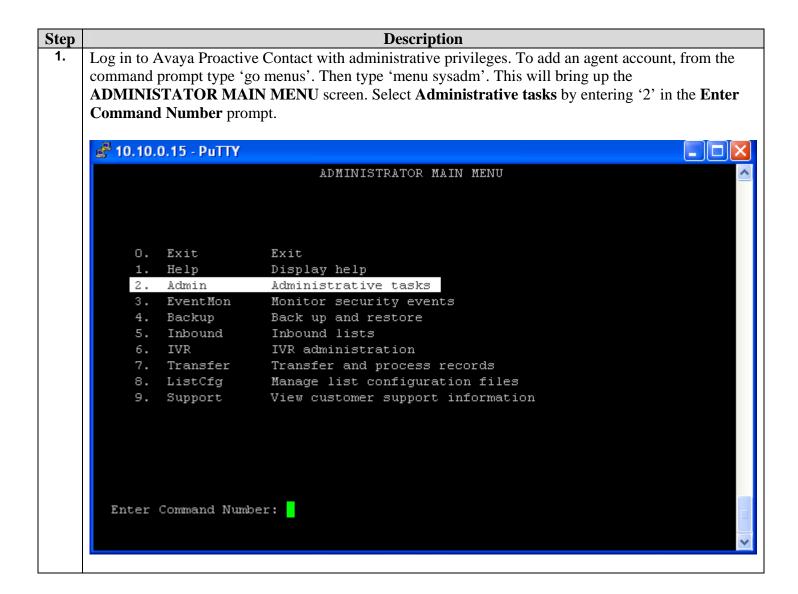
- 5. Configure the Avaya Proactive Contact processes by typing 'pdsconfigure' from the command prompt.
- **6.** To start the Avaya Proactive Contact processes, do the following:
 - 1. Start the Avaya Proactive Contact processes by typing 'start_pds' at the command prompt
 - 2. Type 'check_pds' at the command prompt. The message 'All processes running' should be displayed.

```
🗬 10.10.0.15 - PuTTY
   admin
          2702
                      0
                         Dec 22
                                           0:00 agent -d
   admin 2710
                      0
                         Dec 22
                                           0:01 ao_recall
         2706
                         Dec 22
                                           0:00 recall rmp
   admin
   admin 2699
                     0
                         Dec 22
                                           0:00 listserver
   admin 2606
                     0
                         Dec 22
                                           0:02 opmon
   admin 2529
                         Dec 22
                                           0:00 switcher
                      0
   admin 2506
                      0
                         Dec 22
                                           0:00 job_strter
                      0
                                           0:00 agentcount
   admin 2499
                         Dec 22
   admin 2494
                         Dec 22
                                           O:18 enserver -ORBEndpoint iiop://:en
server -ORBUseIMR O -ORBIMREndp
   admin 2746
                         Dec 22
                                           0:00 dccserver -ORBEndpoint iiop://:d
ccs -ORBUseIMR O -ORBIMREndpoin
   admin 2495
                         Dec 22
                                           0:01 datamgr
                     0
   admin 2485
                      0
                         Dec 22
                                           0:00 soe routed
   admin 2486 2485
                     0
                        Dec 22
                                           0:00 soe routed
   admin 1659
                      0
                         Dec 22
                                           0:00 signalit
                      0
                         Dec 22
   admin 2489
                                           0:00 conn mgr
   admin 2792
                      0
                         Dec 22
                                           0:03 hdsc -ORBEndpoint iiop://:hdsc -
ORBUseIMR O -ORBIMREndpointsInI
>>> All processes running!
LZPDS2(admin)@/opt/avaya/pds/scripts [1018]
```

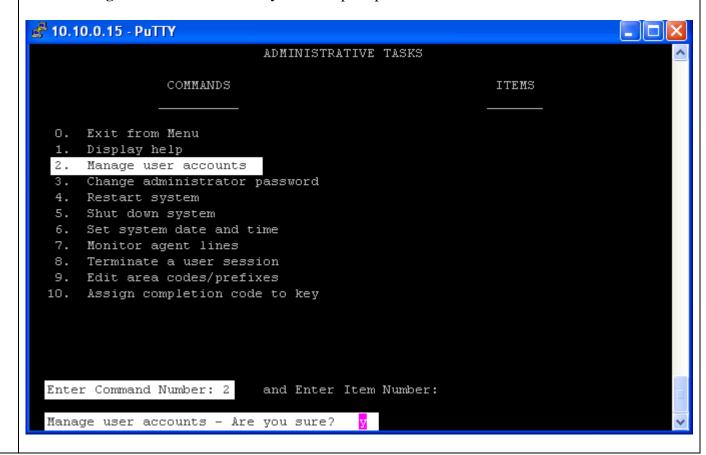
4.3. Configure Avaya Proactive Contact Agent Accounts

An agent account needs to be set up for each agent that logs in to Avaya Proactive Contact. One of the ways to set up an agent account is via the UNIX-based interface to Avaya Proactive Contact using telnet.

The Agent is added in Avaya Proactive Contact server which is automatically assigned an Agent-ID. This Agent account can use any extension on Avaya Communication Manager. On the Avaya Proactive Contact Agent login screen, the Agent account username and password, along with the extension of an Avaya Communication Manager phone, must be entered.



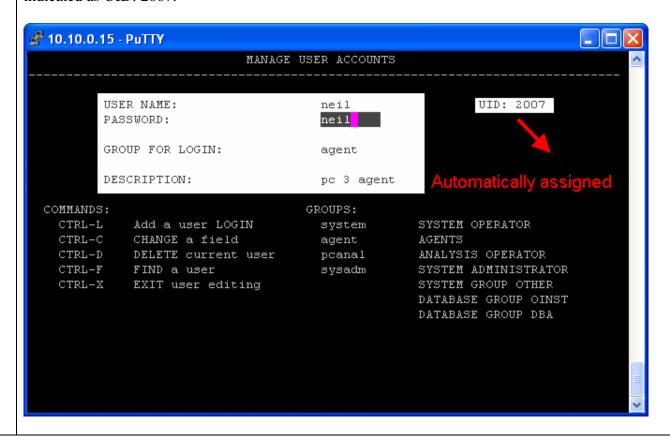
2. Select **Manage user accounts** by entering '2' in the **Enter Command Number** prompt, and enter 'y' in the **Manager user accounts** – **Are you sure?** prompt.



3. Press CTRL-L to add a new agent login. Enter values in the USER NAME, PASSWORD, GROUP FOR LOGIN and DESCRIPTION fields, and press Enter.

Repeat this for each agent that will log in to Avaya Proactive Contact. Press **CTRL-X** to exit the screen and enter 'y' at the **Save Changes?** prompt.

Please note that when creating an Agent account an automatic Agent ID is assigned to each agent account. In the screenshot below, the Agent ID assigned is 2007. This can be seen on the top right side indicated as UID: 2007.

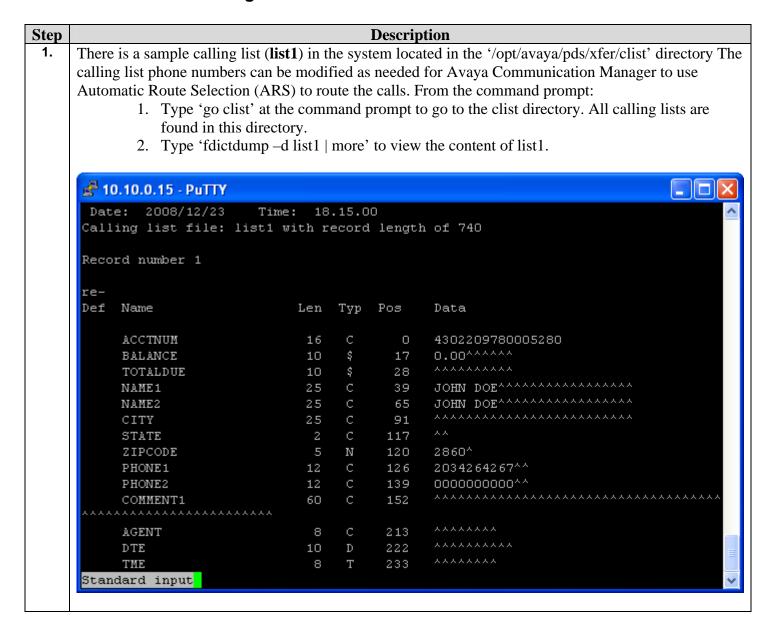


4.4. Configure an Outbound Job

A job integrates a calling list, phone strategy, record selection, and other settings to allow outbound calls to be placed and receive inbound calls. A calling list is a file that contains customer records. A phone strategy is a set of instructions that tells Avaya Proactive Contact when and how to place calls to customers, which customer phone number to dial, and the frequency of calls. Avaya Proactive Contact uses record selections to determine which records to use to place phone calls during a job. A record selection contains rules or selection criteria. The following steps are needed to configure an outbound job:

- Create a calling list.
- Configure a phone strategy.
- Configure a record selection.
- Configure a job.

4.4.1. Create a Calling List



2. Use the **phonefmt.cfg** file to change the format of the phone number from the calling list to the format needed by Avaya Communication Manager. The file is located in the /opt/avaya/pds/config directory. The example below shows the digit '4001' being added to each number after erasing all 10 digits of the original number before it is sent to Avaya Communication Manager to be dialed. Essentially in this sample configuration 4001 is continuously dialed by all Agents.

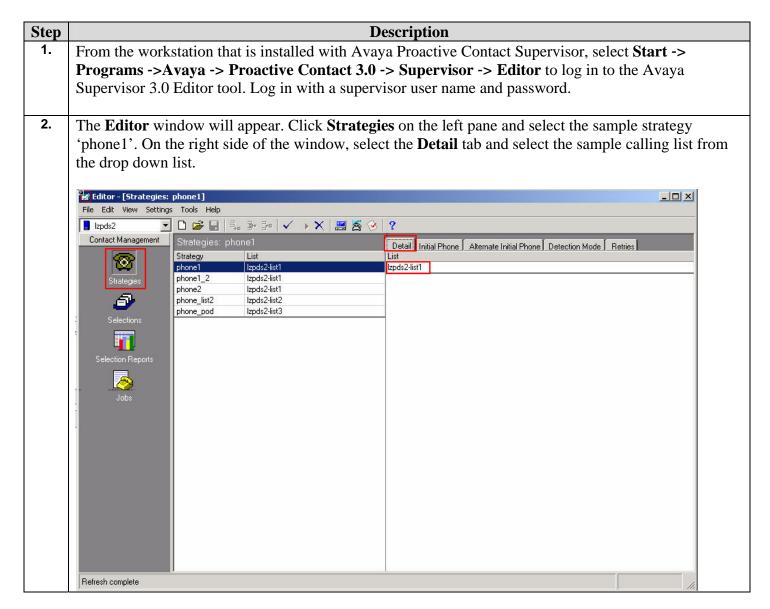
Please note that the numbers changed here should match the dial plan on Avaya Communication Manager.

```
🗗 10.10.0.15 - PuTTY
        STD TO DIALFMT:1:ALLTYPES:0:9-1::Long distance calling
 This covers the "local long distance" dialing. Numbers in the
 local area code which do not match the local numbers must be dialed
  with a "1" prefix but no area code. (Note that this type of dialing
  is no longer needed in the Washington 206 area code.)
        STD TO DIALFMT:1:ALLTYPES:3:9-1::Local long distance calling
        AREA NUMBER:206
 These are the local numbers. The area code is stripped and a "9-"
 is prefixed to get past the PBX.
        STD TO DIALFMT:1:ALLTYPES:3:9-::Local calling
        AREA NUMBER: 206:358,438,507,652,670,692,801,833,836-837
        AREA NUMBER: 206:881,896,907,933,935,939
# (Replace this default with customer STD TO DIALFMT specifications.)
STD TO DIALFMT: *: ALLTYPES: 10: 4001::
#STD TO DIALFMT: *: ALLTYPES: 10: 6004::
#STD TO DIALFMT: *: ALLTYPES: 5:55501::
#STD TO DIALFMT: *: ALLTYPES: 10:22721::
STD TO DIALFMT: *:ALLTYPES:0:9-1:#:
```

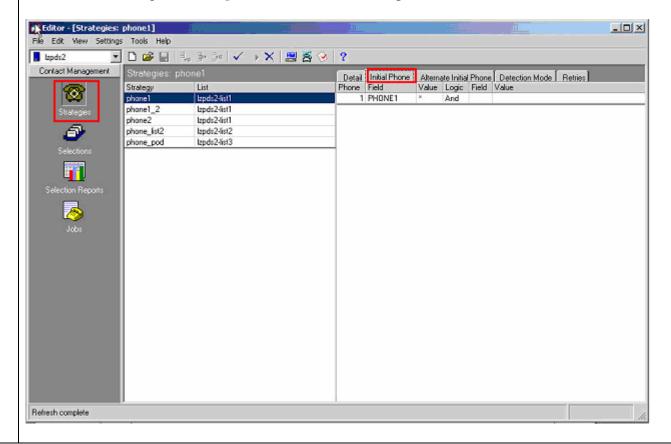
4.4.2. Configure a Phone Strategy

This section describes how to modify the existing sample strategy using the Avaya Supervisor Editor. The following parameters can be defined for each phone strategy:

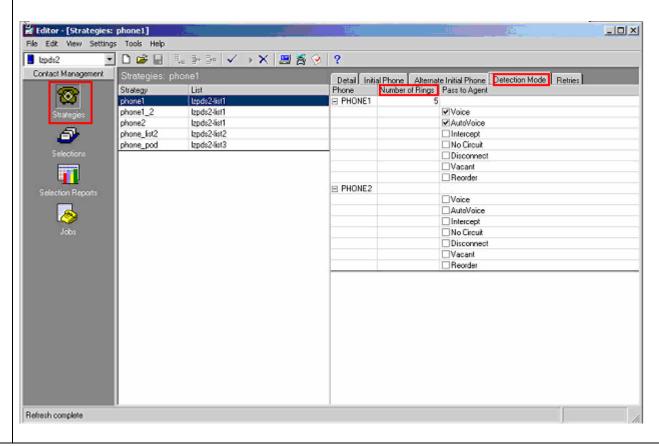
- The phone number to call first.
- The number of rings allowed before disconnecting.
- The time to wait before retrying a phone number that was busy, unanswered, or disconnected.
- The phone number to call if the first phone number is not answered.
- The number of times to retry a busy phone number.
- The number of times to call a phone number before switching to an alternate phone number.
- The types of calls to be passed to an agent when the Avaya Proactive Contact detects an answer.



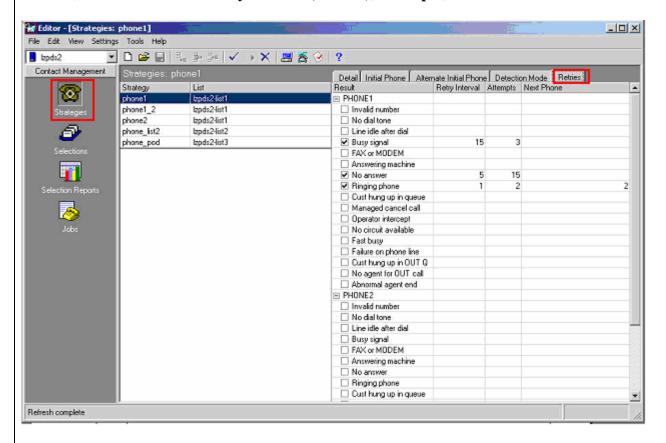
In the **Initial Phone** tab, select 'Phone1' from the drop-down list in the **Field** field. In the remaining fields, specify the restrictions. For example, to call all records in the calling list, type a '*' in the **Value** field. The remaining fields: **Logic**, **Field**, and **Value** are optional.



- The **Alternate Initial Phone** tab is optional and is not configured in this sample configuration. In the **Detection Mode** tab, click the **Number of Rings** field and use the drop down list to select a number. Use the check boxes to specify which types of calls to pass to agents, and then click **Next**. The following parameters can be selected to specify which types of calls to pass to agents:
 - Voice Human voice
 - Auto Voice –Answering machine
 - Intercept Operator intercept
 - No Circuit No circuit available
 - Vacant Vacant number
 - Reorder Reorder



5. Select the **Retries** tab, and check the fields in the **Result** column that should be used by Avaya Proactive Contact for the retry criteria. For example, if Avaya Proactive Contact detects a busy signal on the first call attempt, it will retry based on the 'Busy signal' values on this pane. For each result selected, enter a value in the **Retry Interval** (minutes), **Attempts**, and **Next Phone** columns.



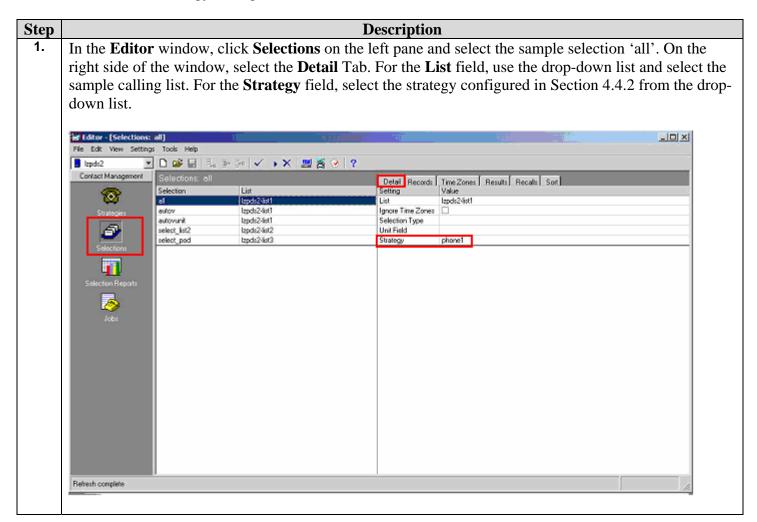
6. Select **File -> Save**. The phone strategy is automatically saved to Avaya Proactive Contact.

4.4.3. Configure a Record Selection

This section describes how to modify the existing sample record selection using Avaya Supervisor Editor. The tool can be invoked by selecting **Start -> Programs -> Avaya -> Proactive Contact 3.0 -> Supervisor -> Editor** from the Avaya Proactive Contact Supervisor workstation.

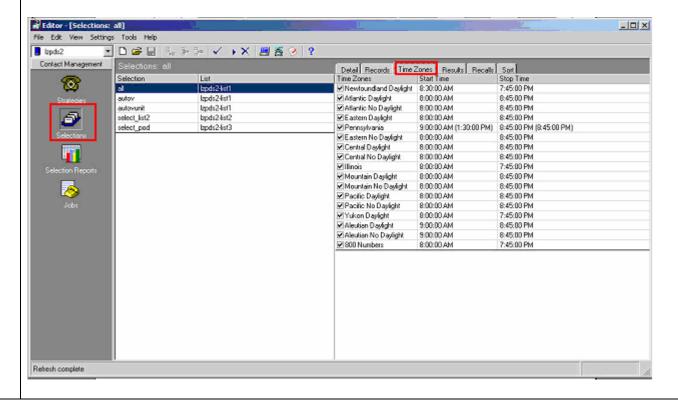
When configuring a record selection, the Avaya Proactive Contact chooses records based on the following criteria:

- Calling list fields
- Time zones
- Previous calling results
- Agent set recalls
- Phone strategy settings



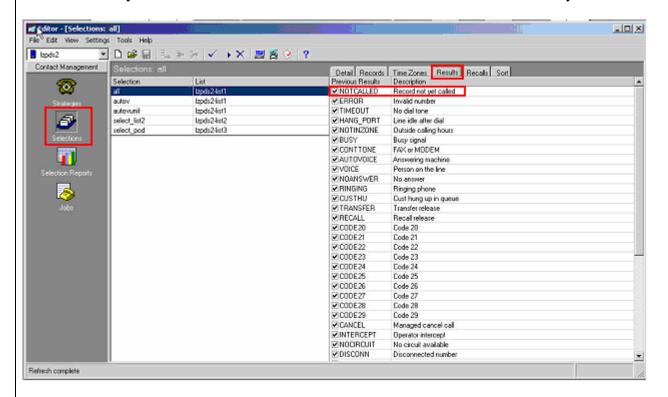
In the **Records** tab, set the **Field** to 'PHONE1' and the **Value** to '*'. 2. Please note that value of * here refers to call all numbers in the calling list. Editor - [Selections: all] File Edit View Settings Tools Help ▼ □ 😂 🖫 🔩 ≫ 🌬 🗸 🕨 🗶 🤮 🔗 📍 2 lzpds2 Contact Management Detail Records Time Zones Results Receils Son Field Value Logic Group PHONET And List ❽ lapds2-list1 lapds2-list1 al autov autovunit lzpds2-list1 select_list2 Izpds2-list2 Izpdt2-list3 telect_pod Refresh complete

3. In the **Time Zones** tab, select the time zones to call. To select all time zones, right-click and select **Select All**.



4. In the **Results** tab, select all completion codes for Avaya Proactive Contact. Optionally, right click and select **Select All** to select all the completion codes. The **Recalls** and **Sort** tabs are blank by default because they are optional and are not configured in this sample configuration.

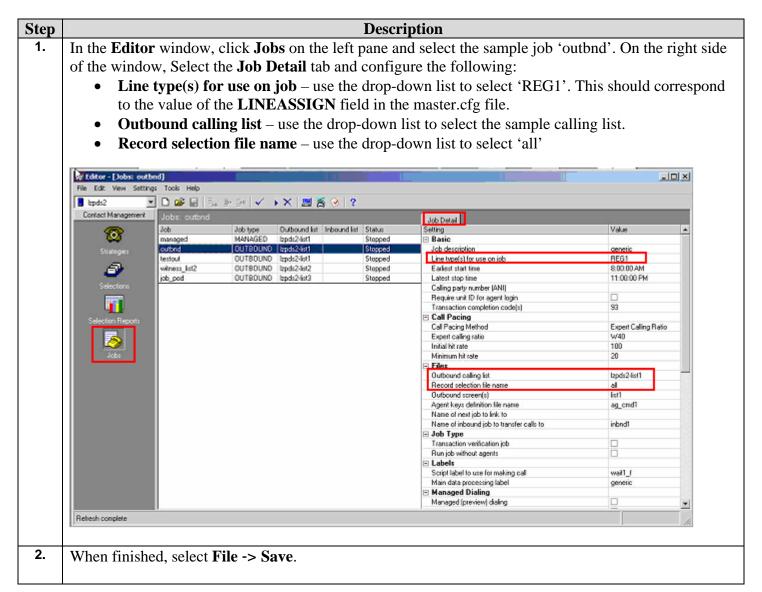
Note: Records that have not been called yet are assigned a 'Record not yet called' code. Always select the 'Record not yet called' for new records since the customers have not been called yet.



5. When finished, select **File -> Save**.

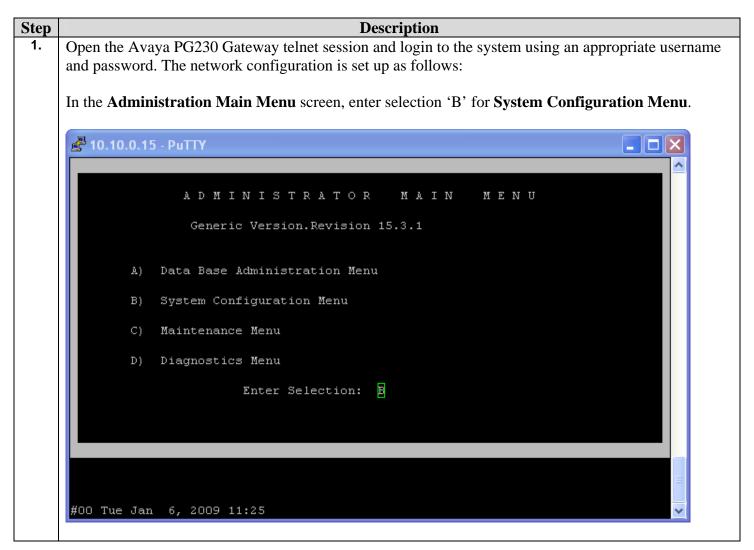
4.4.4. Configure a Job

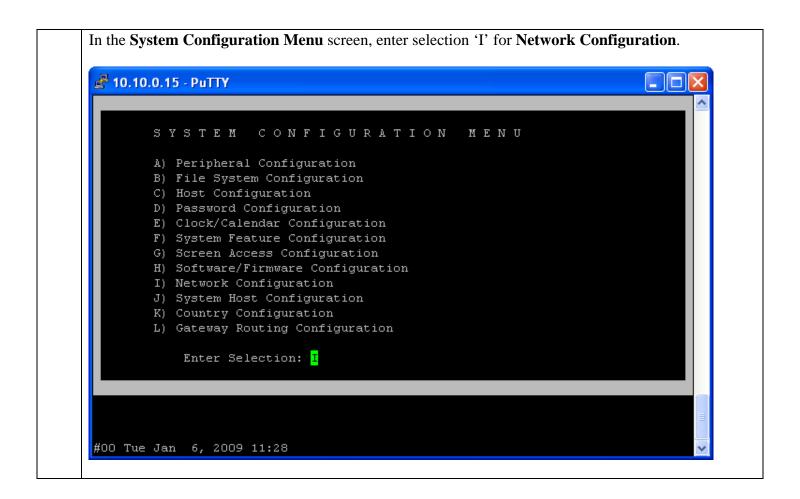
This section describes how to modify an existing job using Avaya Supervisor Editor.



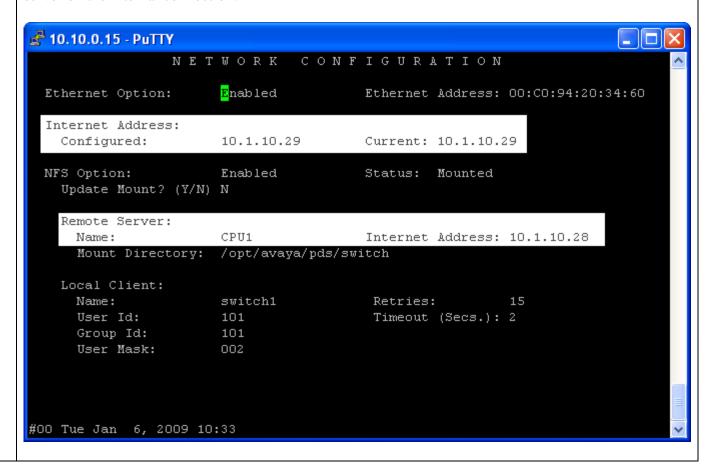
4.5. Configure Avaya Proactive Contact PG230 Gateway

Avaya Proactive Contact working as a Hard Dialer uses the Avaya PG230 Gateway. In this sample configuration, Outbound Jobs ae run by Outbound Agents using the Avaya PG230 Gateway (a dialer). This section deals with the configuration of the Avaya PG230 Gateway. Please note that **Ctrl x** is used to navigate back to the previous menu.





In the **Network Configuration** screen, set the **Internet Address Configure** and **Current** both to the IP address of the Avaya PG230 Gateway, **Remote Server Name** to the hostname of the Avaya Proactive Contact server, and **Remote Server Internet Address** to the IP address of the Avaya Proactive Contact server on the internal connection.

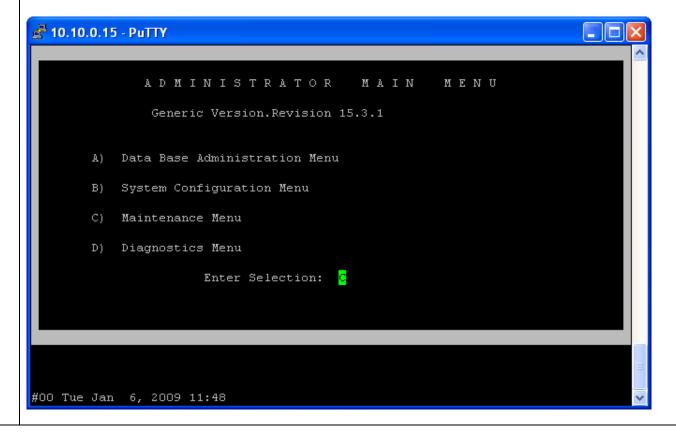


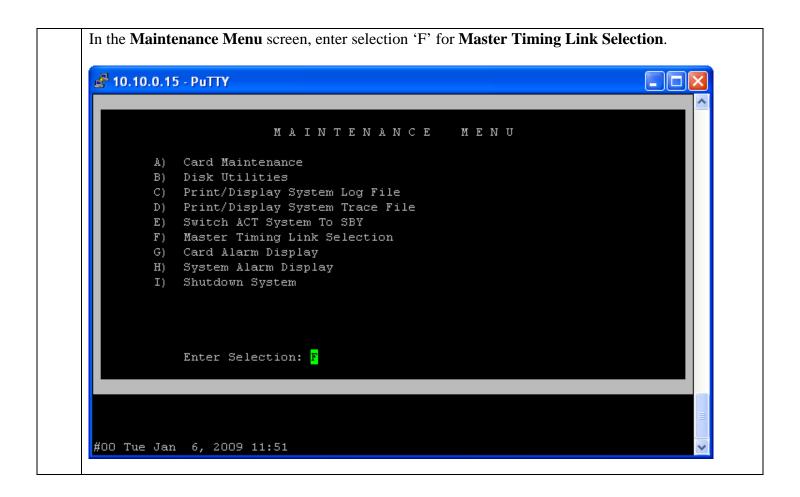
In the Avaya PG230 Gateway, the **Master Timing Link** is set up. In this sample configuration, card 21 port 4 is connected to the DS1 board in the Avaya G650 Media Gateway, corresponding to **R,L,S** being set to '1, 1, 21-4' in the screenshots that follow.

Note:

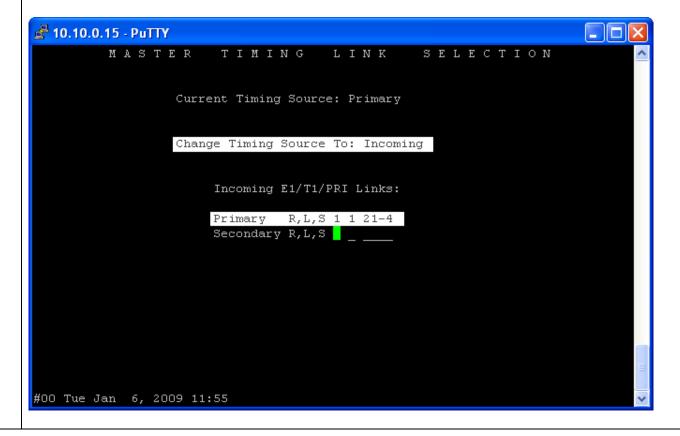
There is typically a Primary Timing Link configured (21-4 in this case) and a Secondary Timing Link (if available) configured in case the Primary link goes into alarm. The Secondary Timing link will automatically provide timing if the Primary link is in alarm.

In the Administration Main Menu screen, enter selection 'C' for Maintenance Menu.





In the **Master Timing Link Selection** screen, set field **Change Timing Source To** to 'Incoming' and **Primary R,L,S** to '1 1 21-4'.



First assign the card used for the E1/PRI trunk.

In the Administration Main Menu screen, enter selection 'C' for Maintenance Menu.

A D M I N I S T R A T O R M A I N M E N U

Generic Version.Revision 15.3.1

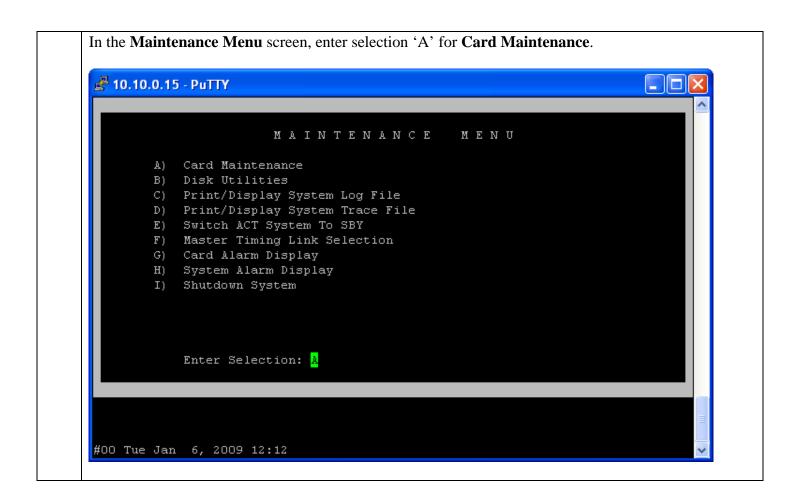
A) Data Base Administration Menu

B) System Configuration Menu

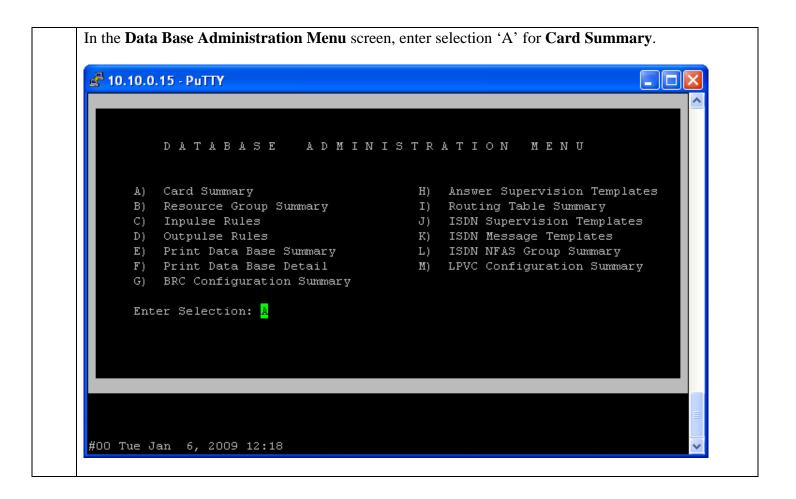
C) Maintenance Menu

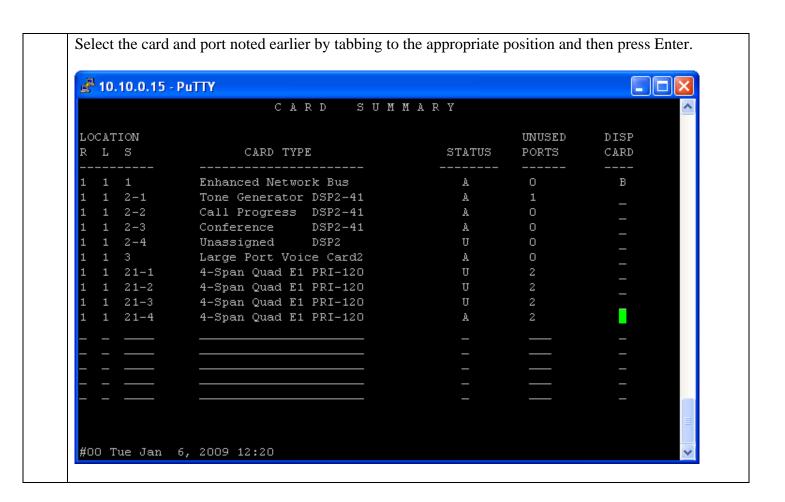
D) Diagnostics Menu

Enter Selection:



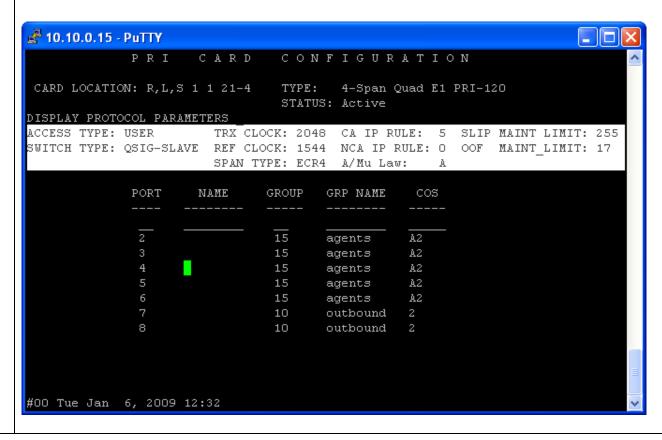
In the Card Maintenance screen, add the card with the details highlighted below in the screen shot. 🧬 10.10.0.15 - PuTTY CARD MAINTENANCE CARD TYPE V.RV S R L S CARD TYPE V.RV S Enhanced Network Bus 15.02 A 1 1 1 1 1 2-1 Tone Generator DSP2-41 1.01 A 1 1 2-2 Call Progress DSP2-41 1.01 A 1 1 2-3 Conference DSP2-41 1.01 A 1 1 2-4 Unassigned DSP2 U Large Port Voice Card2 1.01 A 1 21-1 4-Span Quad E1 PRI-120 13.00 U 1 21-2 4-Span Quad E1 PRI-120 13.00 U 1 21-3 4-Span Quad E1 PRI-120 13.00 U 1 1 21-4 4-Span Quad E1 PRI-120 13.00 A A)DD, D)ELETE, C)HANGE, P)ORT: PORTS: 65-128: 129-192: _ 193-248: #00 Tue Jan 6, 2009 12:15





In the **PRI Card Configuration** screen, perform following configurations:

- Set **ACCESS TYPE:** to 'USER'.
- Set CA IP RULE: to '5'.
- Set **SLIP MAINT LIMIT:** to '255'.
- Set **SWITCH TYPE:** to 'QSIG-SLAVE'.
- Set NCA IP RULE: to '0'.
- Set **OOF MAINT LIMIT:** to '17'.
- Set **SPAN TYPE:** to 'ECR4'.



5. Configure Extreme Networks Summit 400-24p Switch

The network switch needs to be configured to create a port that mirrors the port to which the Avaya Communication Manager Med-Pro board connects; the mirrored port will be connected to Magnetic North Optimise to record calls. **Note:** In the sample configuration, Port 2 is connected to the Med Pro board and Port 23 is the mirrored port connected to the Magnetic North Optimise.

- Connect the laptop to the Extreme Networks Summit 400-24p Switch with a serial cable.
- Use the following COM settings: 9600 8 n 1.
- Log in on the console of the switch with the appropriate administrative credentials.
- To enable port mirroring to a specific destination port :

Summit400-24p:62# enable mirroring to 23

• To add ports to mirroring:

Summit400-24p:63 # configure mirror add ports 2

• To view the mirror configuration:

Summit400-24p:64 # show mirroring

Mirror port: 23 is up untagged port number 2 in all vlans

• To save the changes:

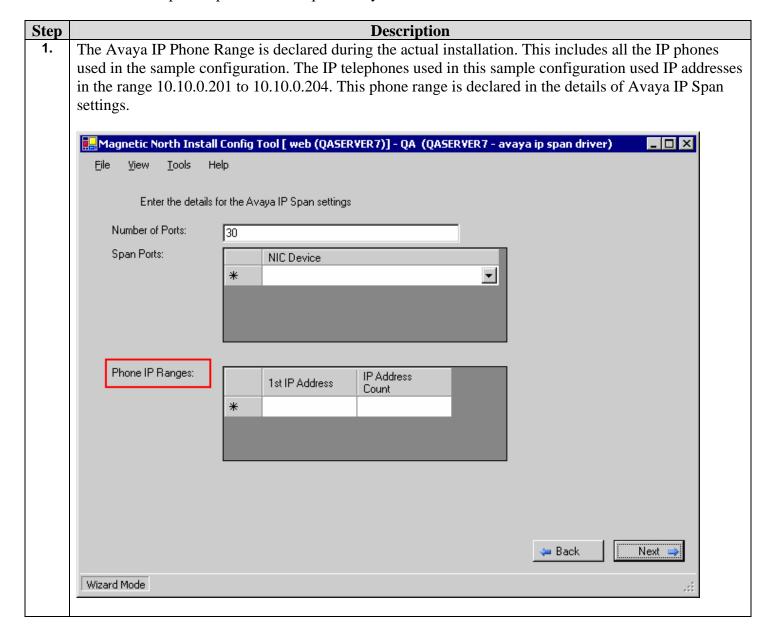
Summit400-24p:65 # save

6. Configure Magnetic North Optimise

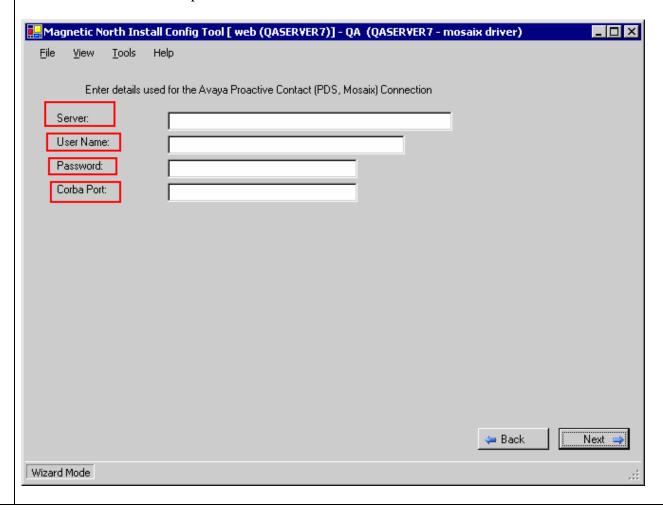
This section includes the configuration steps of Optimise to be able to interoperate with Avaya Proactive Contact 3.0.1.

6.1. Installation Steps of Optimise Requiring Avaya Proactive Contact Information

For Magnetic North Optimise to be able to work with Avaya Proactive Contact, some information is required at the installation time of Optimise. This section describes the parts of installation steps of Optimise that require Avaya Proactive Contact information.



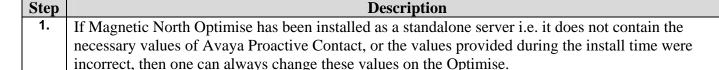
- The following screen during Optimise install requires Avaya Proactive Contact information when used as a Hard Dialer.
 - Set **Server** to the hostname of the Avaya Proactive Contact Server.
 - Set **User Name** to 'client1' which is a default user name that Avaya Proactive Contact provides to third parties using Corba connection.
 - Set **Password** to 'server1' which is the corresponding password for the default user name provided by Avaya Proactive Contact client1.
 - Set **Corba Port** to '23200' which is the default Corba Connection port provided by Avaya Proactive Contact 3.0. Please note that Avaya Proactive Contact 4.0 provides a different default Corba Connection port.



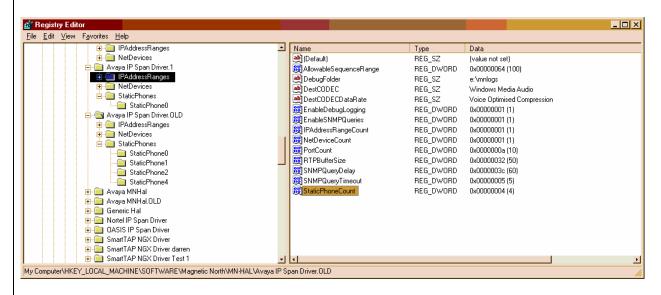
3. The **DN** field is set to Phone Extension. Please note that these are the phone extensions configured on Avaya Communication Manager in Section 3.1 Step 4. Magnetic North Install Config Tool [web (QASERVER7)] - QA (QASERVER7 - MN Generic TSP) Tools <u>V</u>iew Enter the phones to be recorded, and any acd queues the agents log into Phones: DΝ Queues: Queue * 🗢 Back Next Wizard Mode

6.2. Configuration Steps of Optimise to Be Able to Record Calls on Avaya Proactive Contact 3.0 Agents by Monitoring Them through Event Services API.

Magnetic North Optimise is configured so that it may monitor Avaya Proactive Contact 3.0 Agents, by using the Event Services API using the Corba Connection. Optimise would then be able to detect the Agent logins, logouts and also Agents being engaged in Outbound calls by joining Outbound jobs. The monitoring of Agent events would inform Optimise when to start recording Agent calls and when to stop recording Agent calls. The Agent calls will be recorded through the mirrored port on the network switch. This section describes the configuration of Optimise and also includes steps performed to record Agent calls and play them back.



Within the registry 'My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Magnetic North\MN-HAL\Avaya IP Span Driver', change or set the IP Address Ranges to appropriate values.



Within the registry 'My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Magnetic North\Esprit\Mosaix', change or set the values for Corba connection to appropriate values, i.e., values mentioned in **Section 6.1 Step 2**.

Now configuring Optimise for this particular testing.Logon to the Optimise by opening the Optimise through a web browser, http://<hostname of the Optimise machine>/Optimise.

Login to the system using appropriate User Name and Password.



3. Click on **Setup** option on the left side of the screen and a list of submenus will appear.



4. Select the Locations submenu option by clicking it.

Click Add New and set the following fields in the new Location form.

Configure Locations

Pick Location >> Details >> Server >> Archiving >> Screen Recording >> Post Call Processing

Available Locations (1)

Administration

Reports

Status

Setup

Cocations

Status

Setup

Cocations

Setup

Cocations

Setup

Cocations

Setup

Cocations

Setup

Cocations

LicenceAlarms

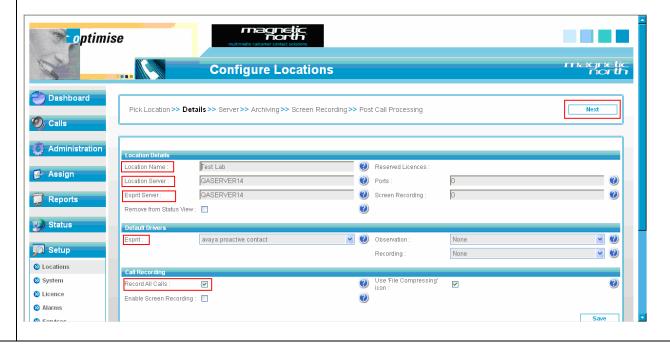
- 5. In the **Location Details** section set the following fields:
 - Set **Location Name** to any valid name given to the testing location.
 - Set **Location Server** to the hostname of the Optimise machine.
 - Set **Esprit Server** to the hostname of the Optimise machine.

In the **Default Drivers** section set the following fields:

• Set **Esprit** to 'avaya proactive contact' since in this sample configuration, Optimise is configured to work with Avaya Proactive Contact.

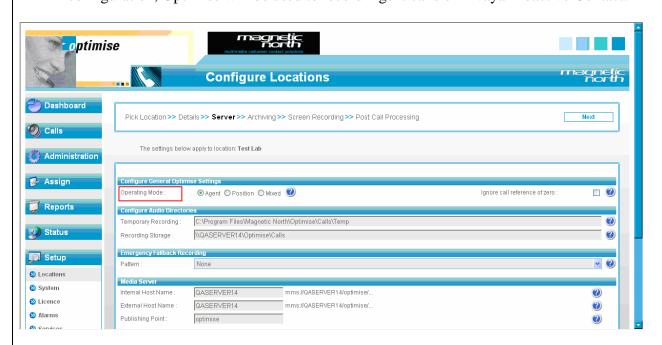
In the **Call Recording** section set the following fields:

• Select **Record All Calls** field by checking its check box.



Press **Next** on the top right of the screen to move onto the next page. In the **Configure General Optimise Settings** section set the following fields:

• Set **Operating Mode** to 'Agent' by clicking the Agent radio button since in this sample configuration, Optimise will be used to record Agent calls on Avaya Proactive Contact.



Click **Save** button on the bottom of the screen to save the entries entered for the Location form.

6. Select the **Administration** button on left side and select the **Users/Passwords** submenu by clicking it.

In the **Add User** section set the following fields:

- Set **User Name** to any valid username for the agent.
- Set **Full Name** to any valid full name for the agent.
- Set **Email Address** to any valid e-mail address for the agent.
- Set **Agent Id** to '2007' which corresponds to the Agent1 ID which is unique for every Agent.

Note that Agent ID can be found by monitoring Agent events in Avaya Proactive Contact through the command **enclient** –**e** \$NS and logging an Agent on Avaya Proactive Contact Agent application, the events corresponding to Agent extension will list the Agent ID as well.

Please note that Agent ID can also be found by displaying an existing Agent account and also when creating or changing an Agent account. On the screen it is referred to as UID (Universal ID). Please refer to Section 4.3 Step 3 for details.

• Set **Monitor Agent** to 'Yes' by selecting the 'Yes' radio button.

In the **Security** section set the following fields:

• Set **Password** and **Password Again** to any valid password for the agent. Note that this is not the Agent Password that was set in the Avaya Proactive Contact.

In the **Access Profile** section set the following fields:

• Set **Agent** to 'Agent' since in this section, an Agent is being added to the Optimise's database.

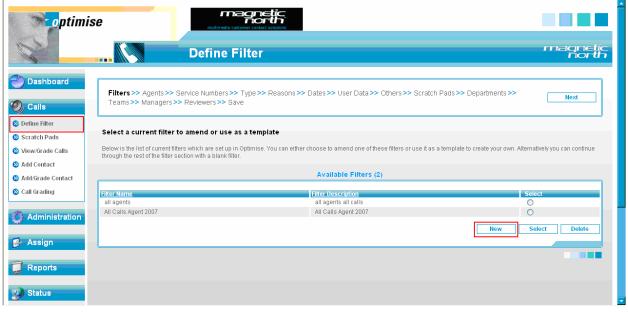
In the **Esprit Drivers** section set the following fields:

- Set **Primary Driver** to 'avaya proactive contact' since in this sample configuration, Optimise is configured to work with Avaya Proactive Contact.
- Set **Secondary Driver** to 'None' since there is no other driver involved in this testing.

Click **Update User** button to complete the process of adding an Agent (user).

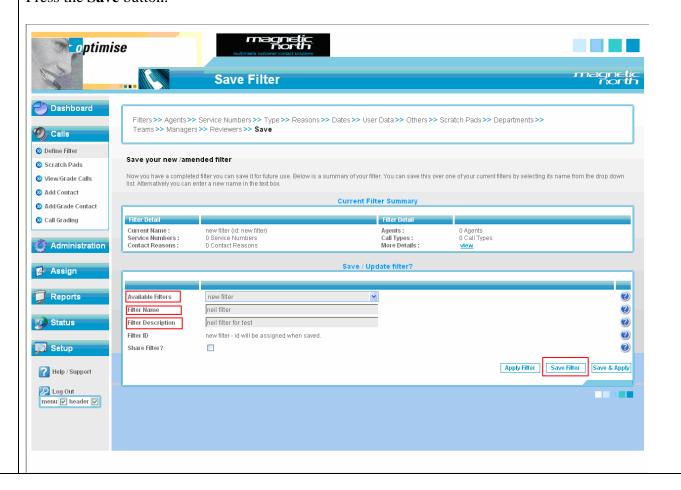


7. Select the **Calls** button on left side and select the **Define Filter** submenu by clicking it. Click **New** and set the following fields in the new Filter form.



- **8.** In the **Save Filter** form set the following fields:
 - Set **Available Filters** to 'new filter' from the drop down menu.
 - Set **Filter Name** to any valid name for the filter.
 - Set **Filter Description** to any valid description for the filter.

Press the Save button.



7. Interoperability Compliance Testing

This interoperability compliance testing covered feature functionality and the recovery services. Feature functionality focused on verifying that Magnetic North Optimise 4.5 Hot Fix 2 could successfully record outbound calls only when using events from Avaya Proactive Contact 3.0. Serviceability testing verified that the Optimise recovered from adverse conditions, such as rebooting, power failure and network disconnect by restarting its services.

7.1. General Test Approach

All feature functionality test cases were performed manually to verify proper operation. The general test approach entailed:

- Establishing connectivity between Magnetic North Optimise 4.5 Hot Fix 2 and Avaya Proactive Contact 3.0.
- Verifying outbound agent events could be monitored by Optimise through Event services API using the Corba connection provided by Avaya Proactive Contact.
- Verifying outbound calls by outbound agents could be recorded in a VoIP environment using the mirrored Med-Pro port on the network switch.
- Verifying call recording using basic telephony operations such as answer, hold/retrieve, transfer, consult, conference, and disconnect.
- Verifying serviceability events such as disconnect, reboot, network failure, restarting processes etc.

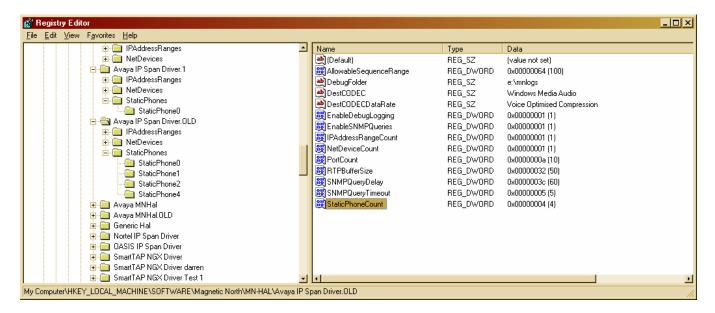
7.2. Test Results

All feature and serviceability tests passed. The Magnetic North Optimise 4.5 Hot Fix 2 successfully recorded, displayed and replayed the recordings of outbound agents. For serviceability testing, Optimise was able to resume call recording after restoration of connectivity to the Proactive Contact server, from network disconnect/re-connect, and Optimise resets. The following observations were obtained from testing:

- Hot Fix 2 was installed during the compliance testing in order to monitor outbound agent events through Event services API using Corba connection.
- For serviceability events, all Magnetic North services need to be restarted on Optimise to recover from any network failures, reboots, process failures etc.
- Avaya IP Softphone does not provide SNMP (Simple Network Management Protocol).
 Thus it cannot be used by an Avaya Proactive Contact Agent if Optimise is to record its calls. However there is a work around, by declaring IP Softphone extension as a static phone in Optimise, then the Optimise can record the Agent's calls even if Avaya IP Softphone is used by an Agent.

To declare an Avaya IP Softphone extension as a static phone in Optimise, the following step needs to be performed:

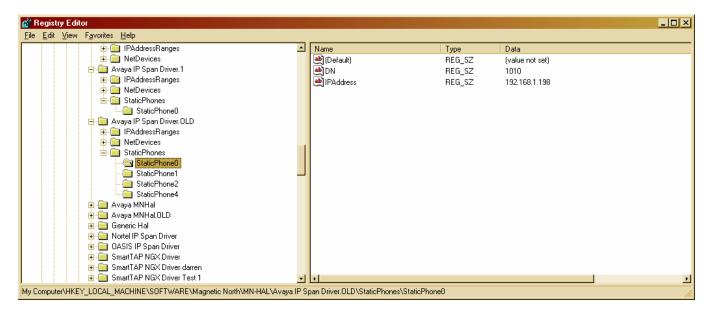
Within the registry 'My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Magnetic North\MN-HAL\Avaya IP Span Driver', set the StaticPhoneCount to the number of static phones (note – SNMP will still work so there can be a mix of static and non static)



Below is a sample phone:

Set the **DN** to the telephone (IP Softphone) extension.

Set the IPAddress to the telephone (IP Softphone) IP address.



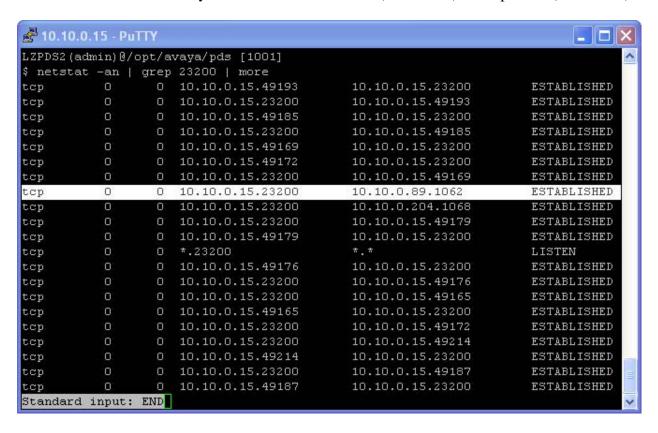
Note that the staticphone sub keys start at 0.

8. Verification Steps

This section includes the verification steps that verify the connection setup and configuration of Avaya Proactive Contact 3.0 and Magnetic North Optimise 4.5 is done correctly.

8.1. Avaya Proactive Contact Verification

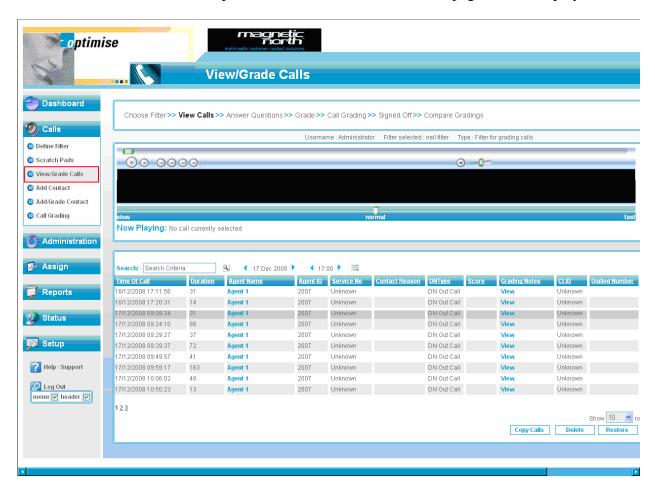
The 'netstat –an | grep 23200 | more' command from the command prompt on the Avaya Proactive Contact server can be used to verify the communication between Avaya Proactive Contact 3 and the Optimise. The above command should show an established **Event Server** connection between the Avaya Proactive Contact server (10.10.0.15) and Optimise (10.10.0.89).



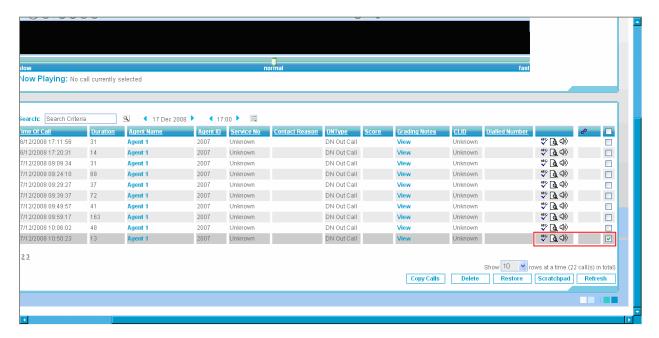
8.2. Magnetic North Optimise Verification

The Optimise verification includes the call being recorded on the Optimise web server and being played back from Optimise. The following step needs to be performed:

1. Select the **Filter** from the dropdown list and then the **View Calls** page will be displayed.



2. Click the speaker icon and the call will automatically be played back.



9. Conclusion

These Application Notes describe the required configuration steps for Magnetic North Optimise 4.5 to successfully interoperate with the Event Service of Avaya Proactive Contact 3.0 for outbound call recording only by Outbound Agents in aVoIP environment. Optimise used the mirrored Med-Pro port on the Extreme Networks Summit 400-24p Switch. Functionality and serviceability were successfully validated. The configuration described in these Application Notes has been successfully compliance tested.

10. Additional References

QA – Avaya Proactive Contact 3.0 – Optimise 4.5 Install and Configuration document on http://support.magneticnorth.com.

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