Avaya Solution & Interoperability Test Lab

Application Notes for Avaya Proactive Contact R5.0.1 with Inisoft synTelate R4.3 using CTI and Proactive Agent Blending – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Inisoft synTelate R4.3 to successfully interoperate with Avaya Proactive Contact R5.0.1 using Computer Telephony Interface. Inisoft synTelate is a call center scripting application for creating inbound and outbound campaigns and consists of the synTelate Designer and the synTelate Enterprise Agent. Inisoft synTelate Enterprise Agent was compliance tested against Avaya Proactive Contact R5.0.1 using Computer Telephony Interface.

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

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1. Introduction

These Application Notes describe a compliance-tested configuration comprised of Avaya Proactive Contact R5.0.1 using Computer Telephony Interface Dialer (Sofdialer) and Inisoft synTelate R4.3 (synTelate). Avaya Proactive Contact uses a Telephony Server Application Programming Interface (TSAPI) link with Avaya Aura® Application Enablement Services (AE Services).

Inisoft synTelate is a call center scripting application for creating inbound and outbound campaigns, and consists of the Inisoft synTelate Designer and the Inisoft synTelate Agent. Inisoft synTelate Designer is a graphical tool that is used for the definition of the call flow and agent screens. Inisoft synTelate database consists of client records that are used during inbound and outbound campaigns which are imported from Avaya Proactive Contact. Inisoft synTelate Agent uses Avaya Proactive Dialer Agent API (Agent API) to communicate with Avaya Proactive Contact. This allows Inisoft synTelate to perform operations such as logging in and out the agent, joining a job, changing the agent state, handling calls and setting completion codes. Inisoft synTelate uses a TSAPI link to Avaya Aura® Application Enablement Services to receive inbound call events and to control the call (answer, hold, retrieve, hangup, etc.).

During compliance testing, Outbound, Managed, and Proactive Agent Blending (PAB) campaign types were run. Outbound campaign focuses only on outbound calls initiated by the dialer. Managed campaign is a special type of Outbound campaign where the agent releases the call to be dialed after reviewing the customer information.

PAB campaign can handle both outbound and inbound calls but it focuses on outbound calls releasing agents when an inbound call enters the monitored hunt group queue on Avaya Aura® Communication Manager. Proactive Agent Blending is achieved with a Computer Telephony Interface (CTI) link configured between Avaya Proactive Contact and Avaya Aura® Application Enablement Services.

2. General Test Approach and Test Results

The interoperability compliance testing evaluated the ability of synTelate to carry out call handling functions in a variety of scenarios through its TSAPI and Agent API interface with AE Services and Proactive Contact, respectively. The feature test cases were performed both automatically and manually. Outbound calls were automatically placed and delivered to synTelate Agent by Proactive Contact, and inbound calls were manually placed and delivered to synTelate Agent by Communication Manager. Different types of jobs were exercised, along with different actions initiated from synTelate Agent, to verify proper generation and handling of supported messages from the Proactive Contact Agent API and from Application Enablement Services TSAPI. The Proactive Contact Editor was used to start/stop jobs. The verification included checking the display of fields, options, and values on synTelate Agent, and checking the exchanged API messages in the designer and agent logs. All test cases were executed.

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 feature testing focused on verifying proper display of the customized synTelate Agent with appropriate options, fields, and values for the following scenarios:

- Outbound and managed jobs
- Proactive Agent Blending
- Log in, join job, go on/off break, leave job, and logoff
- Hold, retrieve, call transfer, conference, place manual call, agent drop, customer drop, release line/hang-up, and finish work.
- Set callback and update customer fields

2.2. Test Results

All test cases passed successfully.

2.3. Support

Technical support on synTelate can be obtained through the following:

- Phone: +44 (0) 141-552-8800
- Email: support@inisoft.co.uk

3. Reference Configuration

The configuration used for the compliance testing is shown in **Figure 1**. In the compliance testing, synTelate used the Agent API to monitor and control outbound calls for the agents, and used TSAPI to monitor and control the inbound calls for the agents.
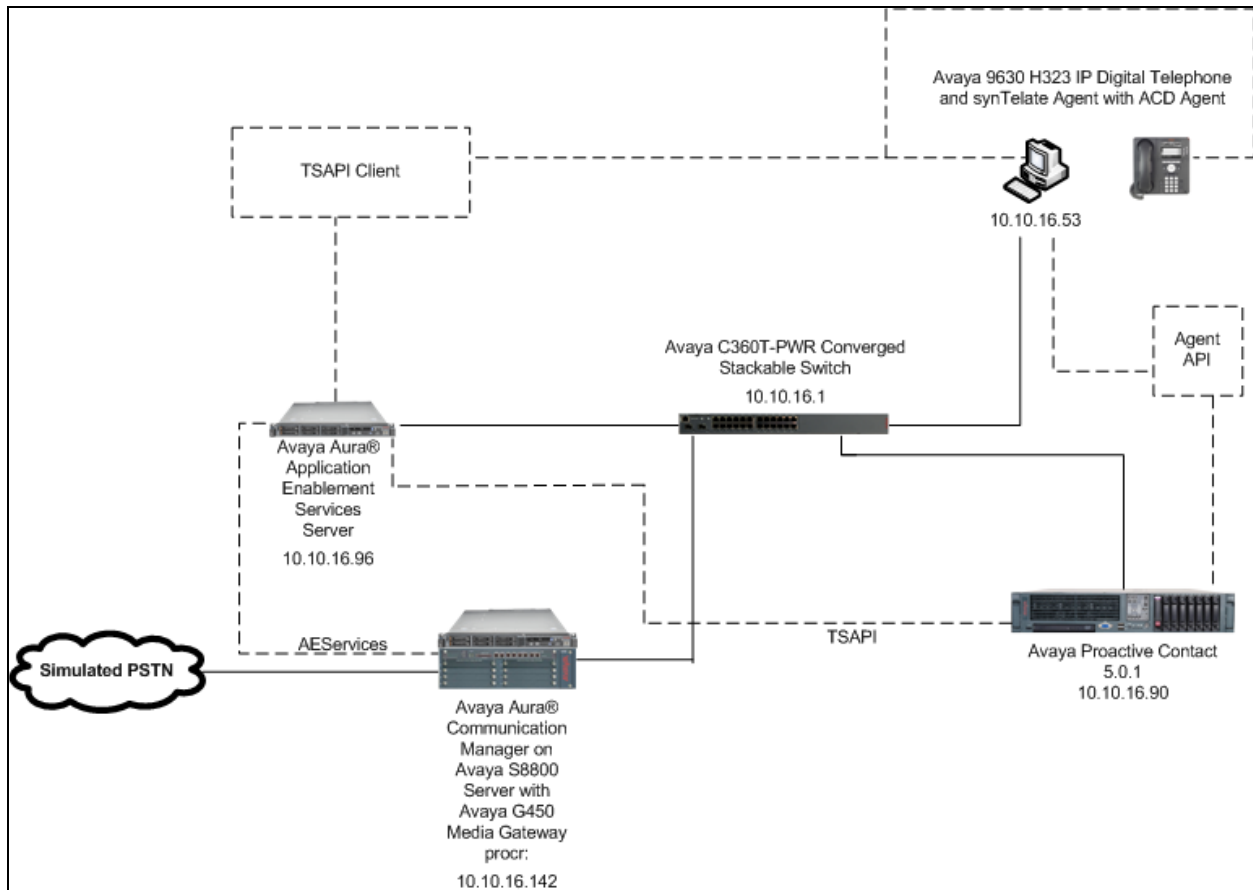

Figure 1: Inisoft synTelate with Avaya Proactive Contact using CTI and Proactive Agent Blending

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Communication Manager running on Avaya S8800 Server	R6.2 SP3 R016x.02.0.823.0-20001
G450 Media Gateway MM710AP Media Module	31.22.0 HW5 FW022
Avaya Proactive Contact running on Avaya S8730 Server	R5.0.1 with patch 301, 302, 307, 309, 323, 328
Avaya Aura® Application Enablement Services running on Avaya S8800 Server	R6.2
Avaya 9630 H323 IP Telephone	R3.104S
Inisoft synTelate Enterprise Agent • MosaixTelephonySvr.dll • TSAPITelephonySvr.dll	4.3.0 4.3.0 4.3.0

5. Configure Avaya Aura® Communication Manager

This section provides the procedures for configuring Communication Manager to support the CTI integration. The procedures include the following areas.

- Configure AEServices
- Configure Avaya Proactive Contact Adjunct Route
- Configure Inbound ACD
- Configure Avaya Proactive Contact Acquire feature
- Configure ACD agent for Proactive Agent Blend
- Configure feature access codes for Call Centre features
- Configure Phantom Extensions
- Configure and record Announcements

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5.1. Configure AEServices

Enter the node **Name** and **IP Address** for AE Services. Take a note of the **procr** node **Name** and **IP Address**.

```
change node-names ip                                      Page   1 of   2
                             IP NODE NAMES
    Name               IP Address
procr               10.10.16.142
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
aesserver62         10.10.16.96
```

In order for Communication Manager to establish a connection to AE 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 is used.

```
add cti-link 1                                            Page   1 of   3
                                  CTI LINK
 CTI Link: 1
Extension: 5899
     Type: ADJ-IP
                                                                COR: 1

     Name: aesserver62
```

Using the command **change ip-services,** configure IP-Services for the AESVCS service. Using the **procr** node name as noted above as the **Local Node**

```
change ip-services                                       Page   1 of   4

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

AESVCS          y         procr         8765
```

On **Page 4**, set the **AE Services Server** node-name and the **Password** that AE Services 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:        aesserver62      Avayapassword1         y        in use
```

5.2. Configure Avaya Proactive Contact Adjunct Route

The following is configured in order to route calls from Communication Manager to Proactive Contact Agents. This is the VDN which is referenced in the Proactive Contact Editor when the outbound job is administered. The adjunct route provides the means for AE Services to deliver a call from Communication Manager to an Agent on Proactive Contact. Enter an appropriate **Extension**, **Name** for the purposes of identification, and specify the **Vector Number** configured below.

```
add vdn 5813                                                   Page   1 of   3
                           VECTOR DIRECTORY NUMBER


                          Extension: 5813
                              Name*: Adjunct Route
                        Destination: Vector Number        3
                  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 5813 has a destination of **Vector Number 3**. The **routing link** number is established by the administered position in the ip-services **Page 4**. The vector is configured accordingly, as shown below.

```
change vector 3                                                Page   1 of   6
                               CALL VECTOR


    Number: 3                    Name: Adjunct Rt
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 adjunct       routing link 1
02 wait-time     2   secs hearing silence
```

5.3. Configure Inbound ACD

This VDN is used for delivering inbound calls to ACD agents independent of Proactive Contact.

```
add vdn 5812                                                   Page   1 of   3
                          VECTOR DIRECTORY NUMBER

                            Extension: 5812
                                Name*: Inbound
                          Destination: Vector Number         2
                   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 5812 has a destination of Vector Number 2, which delivers calls to the agent skill.

```
change vector 2                                              Page   1 of   6
                              CALL VECTOR

    Number: 2                  Name: Inbound
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 2     pri h
02 wait-time     60   secs hearing ringback
```

Calls routed to VDN 5812 will route to skill 2, this is administered as a hunt group

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

          Group Number: 2                              ACD? y
            Group Name: Inbound                      Queue? y
        Group Extension: 3092                        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:
```

```
add hunt-group 2                                             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
```

5.4. Configure Avaya Proactive Contact Acquire feature

In order for Proactive Agent Blend to function, Communication Manager must be configured with a VDN monitored by Proactive Contact. When the agents who belong to the skill which the Acquire VDN monitors 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 5811                                                   Page   1 of   3
                          VECTOR DIRECTORY NUMBER

                             Extension: 5811
                                 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 5811 has a destination of Vector Number 1, which monitors the Acquire skill.

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

    Number: 1                     Name: DialerAcquireOu
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

```
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:
```

```
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
```

5.5. 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 Blend feature, it must be in both the inbound skill (2) and the Acquire skill (1).

```
add agent-loginID 5621                                          Page   1 of   3
                             AGENT LOGINID

              Login ID: 5621                                         AAS? n
                  Name: Agent1                                     AUDIX? n
                    TN: 1                               LWC Reception: spe
                   COR: 1                         LWC Log External Calls? n
         Coverage Path:                     AUDIX Name for Messaging:
         Security Code:

                                          LoginID for ISDN/SIP Display? n
                                                          Password:
                                            Password (enter again):
                                                      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
```

```
add agent-loginID 5621                                          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       2      17:                 32:                 47:
```

5.6. Configure feature access codes for Call Centre features

These feature access codes will be referenced later in the Proactive Contact Configuration and used to change the state of the agent

```
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
```

5.7. Configure Phantom Extensions

Phantom numbers are used during Agent Blending to pick an agent for outbound calling by dialing the acquire VDN. Once the agent is picked, the CTI dialer puts the agent in AUX work mode. In this example, extension 5800 – 5804 are configured as Phantom numbers. The configuration of Phantom number 5800 is displayed below.

```
add station 5800                                               Page   1 of   5
                               STATION

Extension: 5800                        Lock Messages? n              BCC: 0
     Type: CTI                         Security Code:                 TN: 1
     Port: X                           Coverage Path 1:              COR: 1
     Name: Acquire 1                   Coverage Path 2:              COS: 1
                                       Hunt-to Station:
STATION OPTIONS
                                       Time of Day Lock Table:
           Loss Group: 1         Personalized Ringing Pattern: 1
          Data Module? n                      Message Lamp Ext: 5800
       Display Module? n
     Display Language: english

       Survivable COR: internal            Media Complex Ext:
  Survivable Trunk Dest? y
```

5.8. Configure and Record Announcements

It is assumed that Communication Manager has been administered as required and announcements have been recorded for use by Proactive Contact, enter the command **list integrated-annc-boards** to display the administered announcements.

```
list integrated-annc-boards


                          INTEGRATED ANNOUNCEMENTS
Board Location: 001V9                      Time Remaining at 64Kbps: 2839

Internal Group  Announcement                               Length   Size
Number   Number Extension        Name                       (Sec)    (Kb)
NA              5631             welcometopc5                 3       24
NA              5632             youarenowinininboundmod       2       16
NA              5633             youarenowinoutboundmode      2       16
NA              5634             yourenotloggedin             1       11
```
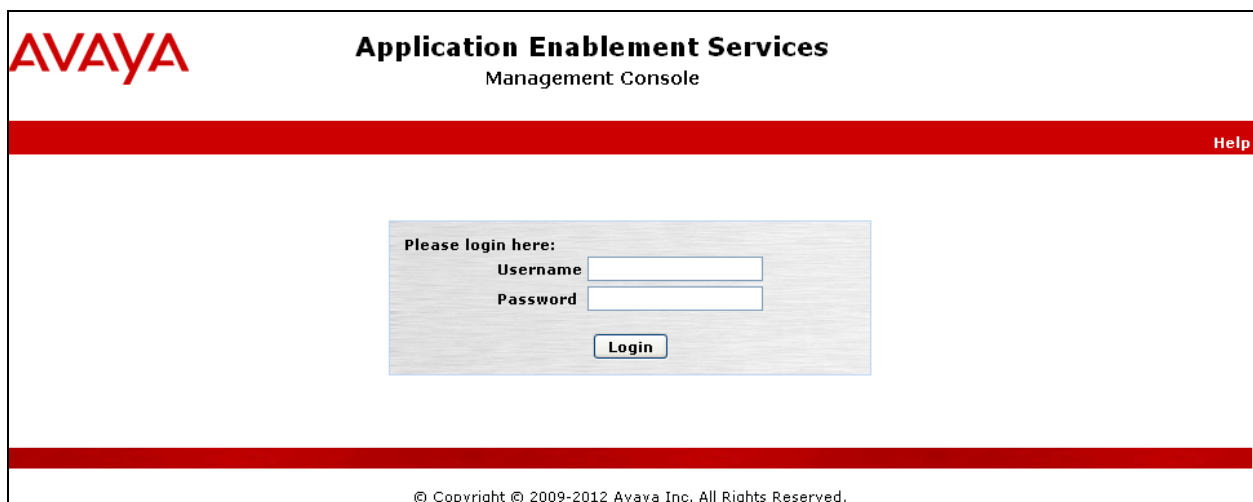
6. Configure Avaya Aura® Application Enablement Services Server

This section provides the procedures for configuring Application Enablement Services. The procedures include the following areas:

- Launch OAM interface
- Administer the Switch Connection
- Administer TSAPI Link
- Restart TSAPI Service
- Obtain Tlink name
- Administer Avaya Proactive Contact and synTelate user

6.1. Launch OAM Interface

Access the OAM web-based interface of AE Services, in this instance using the URL https://10.10.16.96. The Management console is displayed. Login using the appropriate credentials.

The **Welcome to OAM** screen is displayed next.

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6.2. Administer the Switch Connection

To establish the connection between Communication Manager and AE Services, click **Communication Manager Interface → Switch Connections**. In the field next to Add Connection enter **CM62** and click on **Add Connection**.

The following screen is displayed. Complete the configuration as shown and enter the password specified in **Section 5.1** when configuring AESVCS in ip-services. Click on **Apply** when done.

The following screen will be shown displaying the newly added switch connection, click **Edit PE/CLAN IPs**.

Click on **Edit PE/CLAN IPs** in order to specify the IP address of the procr, as noted in **Section 5.1**. Next to **Add name or IP,** enter the IP address of the procr as shown below.

The following screen will now appear displaying the newly added IP address.

6.3. Administer TSAPI Link

Select **AE Services** → **TSAPI** → **TSAPI Links** from the left pane. The **TSAPI Links** screen is displayed, click **Add Link**.

Configure the TSAPI Link using the newly configured **Switch Connection** and choose the **Switch CTI Link Number** configured in **Section 5.1**, set the **Security** to **Both** to enable both Encrypted and Unencrypted TSAPI connections and click **Apply Changes.**

The screen below will be displayed with instructions to restart the TSAPI Server. Click **Apply** taking note of the instructions given.
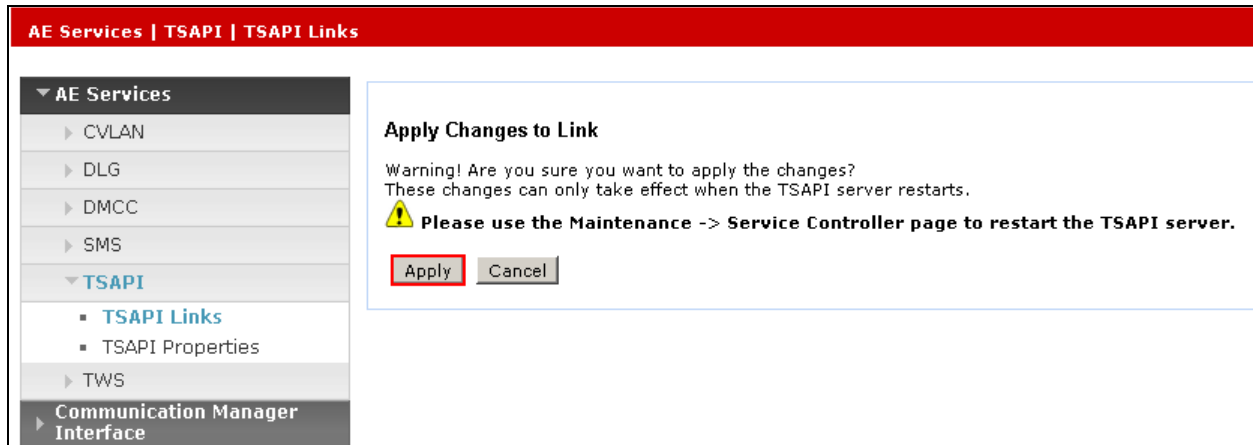
The following screen shows the TSAPI Link used during the compliance test.

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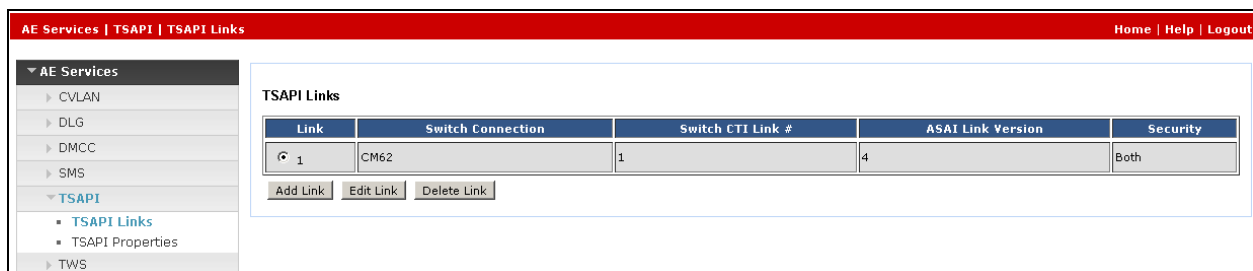
6.4. Restart TSAPI Service

Select **Maintenance → Service Controller** from the left pane, to display the **Service Controller** screen in the right pane. Check the **TSAPI Service**, and click **Restart Service.**

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6.5. Obtain Tlink Name

Select **Security** → **Security Database** → **Tlinks** from the left pane. The **Tlinks** screen shows a listing of the Tlink names. Locate the Tlink name associated with the relevant switch connection, which would use the name of the switch connection as part of the Tlink name.

Note: The encrypted TSAPI link is used by Proactive Contact.
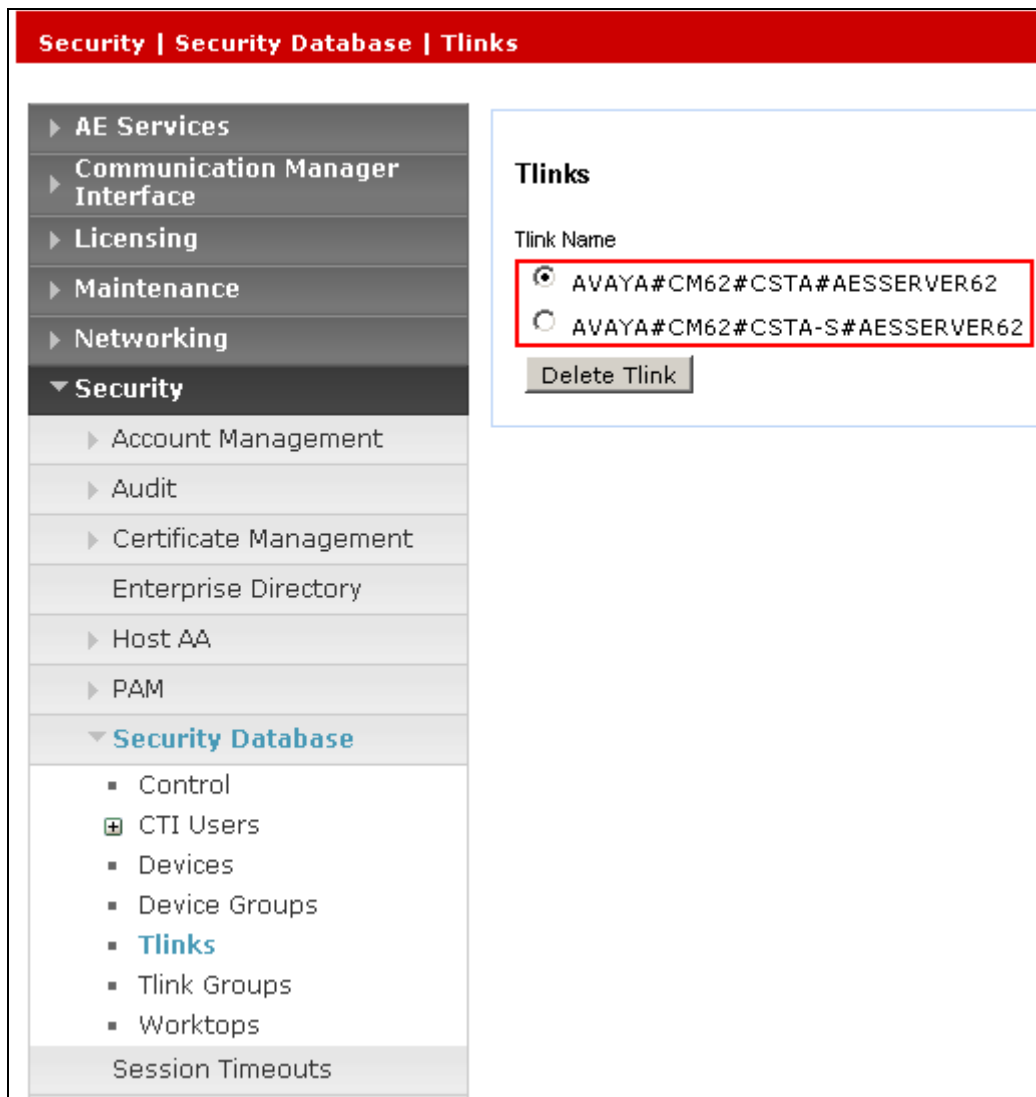
6.6. Administer Avaya Proactive Contact and synTelate User

In this section two users are configured, the first for use by Proactive Contact, and another for the synTelate Client to communicate with the AEServices. Select **User Management** → **User Admin** → **Add User** from the left pane to display the **Add User** screen in the right pane. Enter desired values for **User Id**, **Common Name**, **Surname**, **User Password** and **Confirm Password**. For **CT User**, select **Yes** from the drop-down list. Retain the default value in the remaining fields. Click **Apply** at the bottom of the screen (not shown below).

Repeat the steps above to create the synTelate user. Enter desired values for **User Id**, **Common Name**, **Surname**, **User Password**, and **Confirm Password**. For **CT User**, select **Yes** from the drop-down list. Retain the default value in the remaining fields. Click **Apply** at the bottom of the screen (not shown below).

In addition, the user which will be used by Proactive Contact and synTelate should be configured as an unrestricted user. Select **Security→ Security Database → CTI Users → List All Users** from the left pane, click on the radio button beside the user created above, in this case, **pc501sd** and click **Edit** (not shown)**.** Check the box next to **Unrestricted Access**, as shown in the screen below. Click **Apply Changes** when done.

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 Link
- Configure Avaya Proactive Contact with CTI for Agent Blending
- Configure master.cfg
- Configure number format
- Configure the calling list
- Configure Avaya Proactive Contact Editor

7.1. Verify Avaya Proactive Contact Licensing

Access the Web License Manager of Avaya Proactive Contact, in this instance using the URL https://<ip-address>:52233/WebLM/ where ip-address is the IP address of the Proactive Contact Server. The Web License Manager Screen is displayed, login using the appropriate credentials.

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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 Link

In order to establish the TSAPI link between Proactive Contact and AE Services, the relevant fields were edited. From the Proactive Contact Shell, create a cti_passwd.cfg file by performing 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, and hit return, re-enter as requested. Navigate to the /opt/avaya/pds/config/swif_ct.cfg file and change the parameters as follows:
- **SERVER** – enter the Secure TSAPI Link obtained in **Section 6.5**
- **LOGIN** – enter the CTI user created for Proactive Contact in **Section 6.6**
- **REASONCODE** – enter **0** in order for Agent Blending to operate.
- **PHANTOMNUMBERS** – enter the phantom extensions configured in **Section 5.7**
- **WORKMODE** – set to **AUTO_IN**

```
SERVER: AVAYA#CM62#CSTA-S#AESSERVER62
LOGIN:pc501
REASONCODE:0
PHANTOMNUMBERS:5800-5804
WORKMODE:AUTO_IN
AGENTANSWER:NO
PRIORITYCALL:NO
```

Note: The Tlink, the Proactive Contact CTI username, and the phantom numbers assigned, as configured earlier. The **REASONCODE** *must* be **0**.

Navigate to the **/opt/avaya/pds/config/** directory. Copy and rename the tslibrc file, by typing **cp tslibrc .tslibrc** and press Enter. Edit .tslibrc with the IP Address of AE Services, 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
10.10.16.96
;

; 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 the purposes of Agent Blending, copy the .tslibrc file to the /opt/avaya/pab/config/ directory by entering the command **cp /opt/avaya/pds/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
SOFTDIAL:1-15
```

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Edit **dgswitch.cfg** as shown below. Enter the same number of Headset Ports as the number of outbound agents and the same number of Trunks as configured in the PORTS and the LINEASSIGN rows of master.cfg

```
# Headset Ports
H:1:96:0::#1-1-4-1
H:2:97:0::#1-1-4-2
H:3:98:0::#1-1-4-3
H:4:99:0::#1-1-4-4
H:5:100:0::#1-1-4-5
H:6:101:0::#1-1-4-6
H:7:102:0::#1-1-4-7
H:8:103:0::#1-1-4-8
H:9:104:0::#1-1-4-9
H:10:105:0::#1-1-4-10
H:11:106:0::#1-1-4-11
H:12:107:0::#1-1-4-12
H:13:108:0::#1-1-4-13
H:14:109:0::#1-1-4-14
H:15:110:0::#1-1-4-15

# Normal Inbound/Outbound Trunks
N:1:168:0::#1-1-11-1
N:2:169:0::#1-1-11-2
N:3:170:0::#1-1-11-3
N:4:171:0::#1-1-11-4
N:5:172:0::#1-1-11-5
N:6:200:0::#1-1-11-6
N:7:201:0::#1-1-11-7
N:8:202:0::#1-1-11-8
N:9:203:0::#1-1-11-9
N:10:204:0::#1-1-11-10
N:11:205:0::#1-1-11-11
N:12:206:0::#1-1-11-12
N:13:207:0::#1-1-11-13
N:14:208:0::#1-1-11-14
N:15:209:0::#1-1-11-15
N:16:210:0::#1-1-11-16
N:17:211:0::#1-1-11-17
N:18:212:0::#1-1-11-18
N:19:213:0::#1-1-11-19
N:20:214:0::#1-1-11-20

# Transfer-thru Trunks
T:1:300:0::#1-1-18-1
```

Edit only the last 4 lines of **voicemsg.cfg**. This file refers to the announcements recorded earlier on Communication Manager in **Section 5.8**.

```
250:greeting:5631:Female:Folder4:Voice:Message27
251:inbound:5632:Female:Folder4:Voice:Message28
252:outbound:5633:Female:Folder4:Voice:Message29
253:notLoggedIn:5634:Female:Folder4:Voice:Message30
```

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

7.3. Configure Avaya Proactive Contact with CTI for Agent Blending

From the Proactive Contact Shell, 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 on the Application Enablement Services Server, and hit return, re-enter as requested. 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#CM62#CSTA-S#AESSERVER62:pc501:PDS:TS2
chgsvr
cep_pway
```

Copy and rename the CBA_procs.example file, type **cp CBA_procs.example CBA_procs** and press Enter. Edit **CBA_procs** to include the Proactive Contact hostname 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|**devconsd**|/opt/avaya/pab/bin/|cbauser|1
CTI|**devconsd**|/opt/avaya/pab/bin/|cti|1
ACD|**devconsd**|/opt/avaya/pab/bin/|acdmon|1 nocancel min_asa 2sec gen_rel
MSC|**devconsd**|/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 SOUTH_USA, an IB (inbound) Domain called 5812, with specific reference to VDN 5812, and a TEAM (acquire) Domain called 5811 with specific reference to VDN 5811. Both of these Domains have a Domain Group ID of SOUTH_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 | SOUTH_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 | 5811 | 5811 | SOUTH_USA | 1 | 1 | 1 |
     1 | TEAM |

*DM | 5812 | 5812 | SOUTH_USA | 1 | 1 | 1 |
      1 | IB |
```

Edit **ACD.cfg** – this contains the Communication Manager feature access codes for ACD login and logout as noted previously, and also specifies the TESTMODE, configured as shown below:

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

Edit **acd_ext.cfg** – this contains the Communication Manager extension number into which Proactive Contact Agents and ACD Agents will be logging in, as show below, extension **6000** is the extension onto which agents are logged into in this case:

```
1:6000
1:1603
1:1650
1:1608
```

Agent Blending is a feature add-on for Proactive Contact. Ensure that PDS is stopped, as root, enter the command **menu install**;
Select option 2. **Value added products**, and then 2 again for **Install Predictive Agent Blend** follow the instructions accordingly:
Have you stopped PDS processes: **y**
Following AES servers are configured:
10.10.16.96 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#CM62#CSTA-S#AESSERVER62
Do you want to change it now?: **n**
AES_USER set to pc501
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

7.4. Configure master.cfg

Amendments to the master.cfg file were made as follows:

```
CALL_BLENDING:YES
DBSERVERIP:10.10.16.90
IICB_HOST:devconsd
INBNDSYS:NO
NAMESERVICEHOST:devconsd
PRIMARY:YES
SWITCHTESTMODE:NO
SWITCHTYPE:SOFTDIALER
SYSOPS:5
TRANPORTS:1
TZ:EST5EDT
VISUAL_CPA:YES
WEBLMURL:http,//10.10.16.90,8080/WebLM/LicenseServer:
```

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 them via Communication Manager. The final line in the file is configured as follows:

```
STD_TO_DIALFMT:*:ALLTYPES:0:::
```

In this instance, of the digits dialed, **0** are deleted and the call is routed by Communication Manager. It is assumed Communication Manager has the necessary configuration required to route the call accordingly.

7.6. Configure Calling List

Proactive Contact is delivered with default calling lists. The author assumes an inbound and outbound calling list is created in Proactive Contact Editor. The administration of calling lists is outside of the scope of this document. For the purposes of the compliance test, calling list 4 (list4) was used was used for the outbound job and inbnd4 was used for the inbound job.. The calling list contains the phone numbers which must be dialed. The administered calling lists are shown below as displayed in the **/opt/avaya/pds/lists/calllistapp.tbl**

```
list2:OUTBOUND:ACTIVE:Outbound calling list:20110509:NO
```

7.7. Configure Avaya Proactive Contact Editor

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

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

```
10.10.16.90 devconsd
```

Ensure all necessary services are running on the Proactive Contact Server. The following commands start, check and stop the 3 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

Double click on the **Health Manager** icon on the desktop to display the Configurator screen. Complete it as shown below, and click **OK**.

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.

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Assuming that strategy **phone1** and calling list **list2** (as specified in the previous section), are being used, configure editor as shown below and click verify, ensure verification is successful:
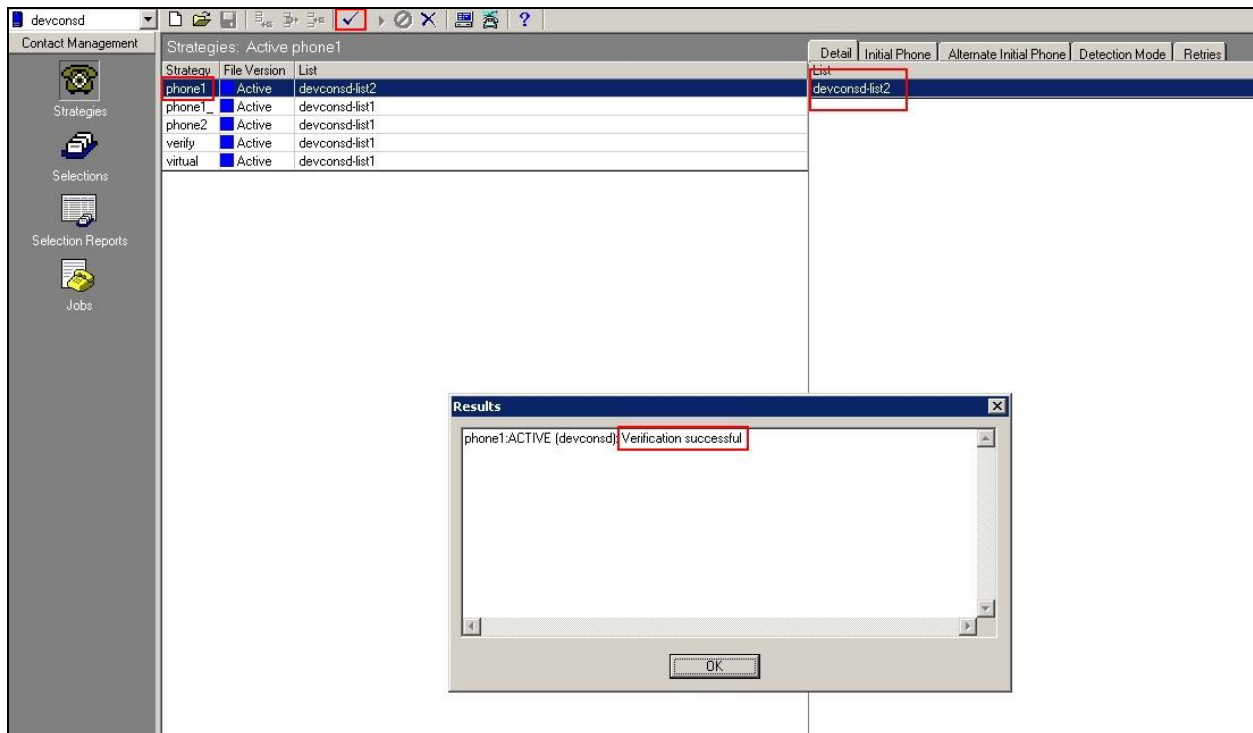
Click **Selections** from the left pane, select **all**, and specify calling list 2 from the right pane. Click the verify icon and ensure verification is successful:

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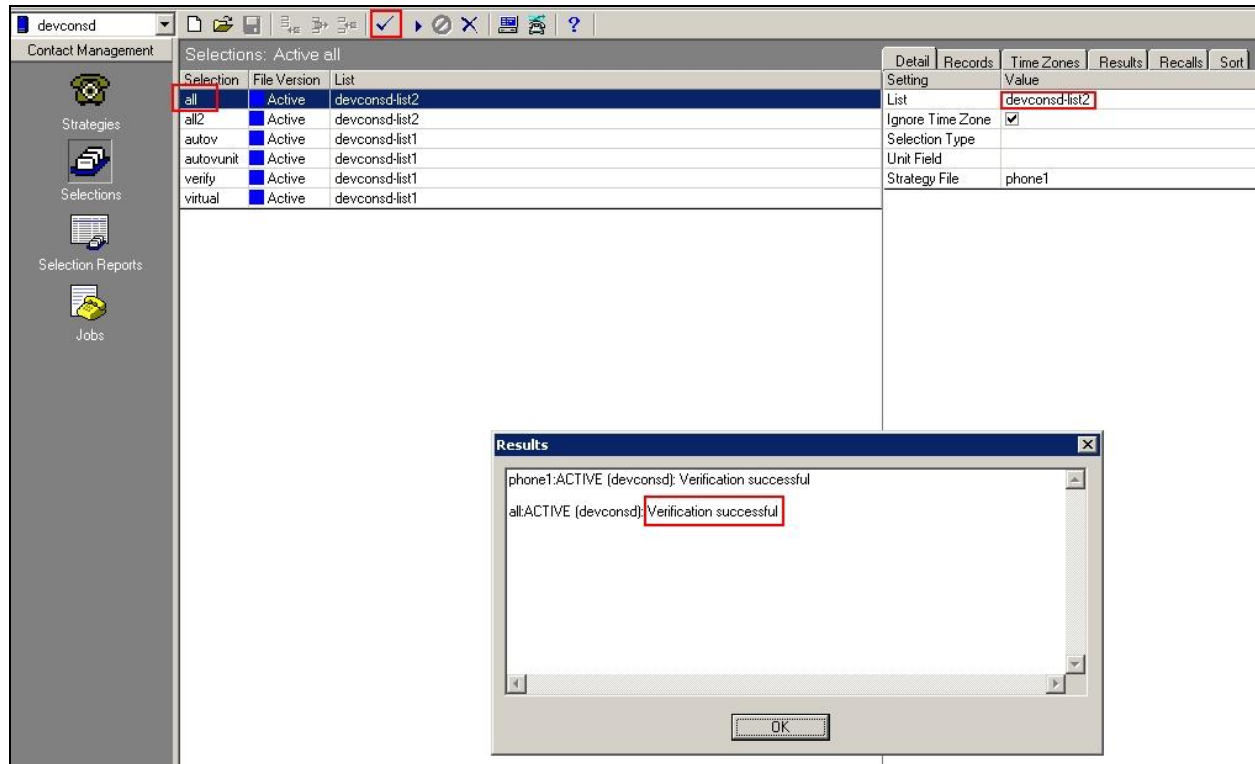
Click the run icon, and ensure that the selection selected includes some records:
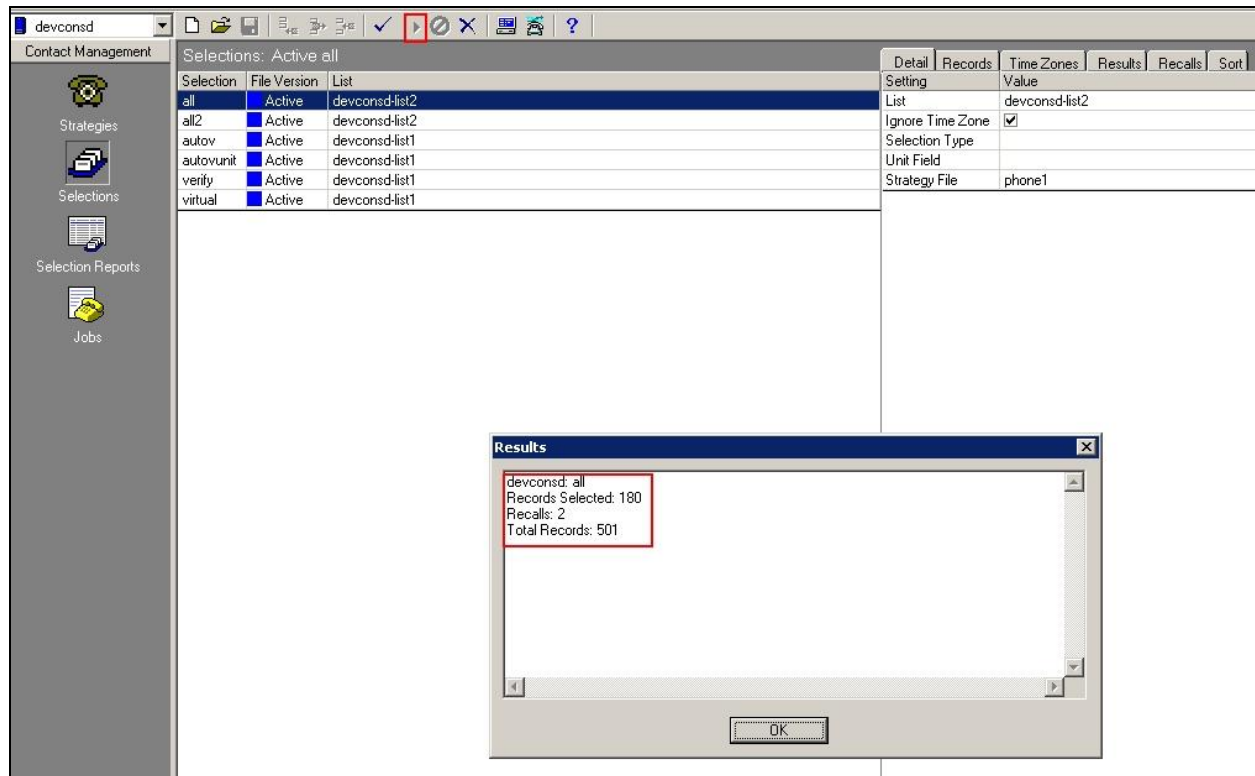
Click **Jobs** from the left pane. Select the **outbnd2** and configure as shown below. Note the outbound VDN 5813, configured on Communication Manager, is specified:

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Continued from previous screenshot:

Click verify and ensure verification completes successfully.

Start job by click the start icon, highlighted in the screenshot below.
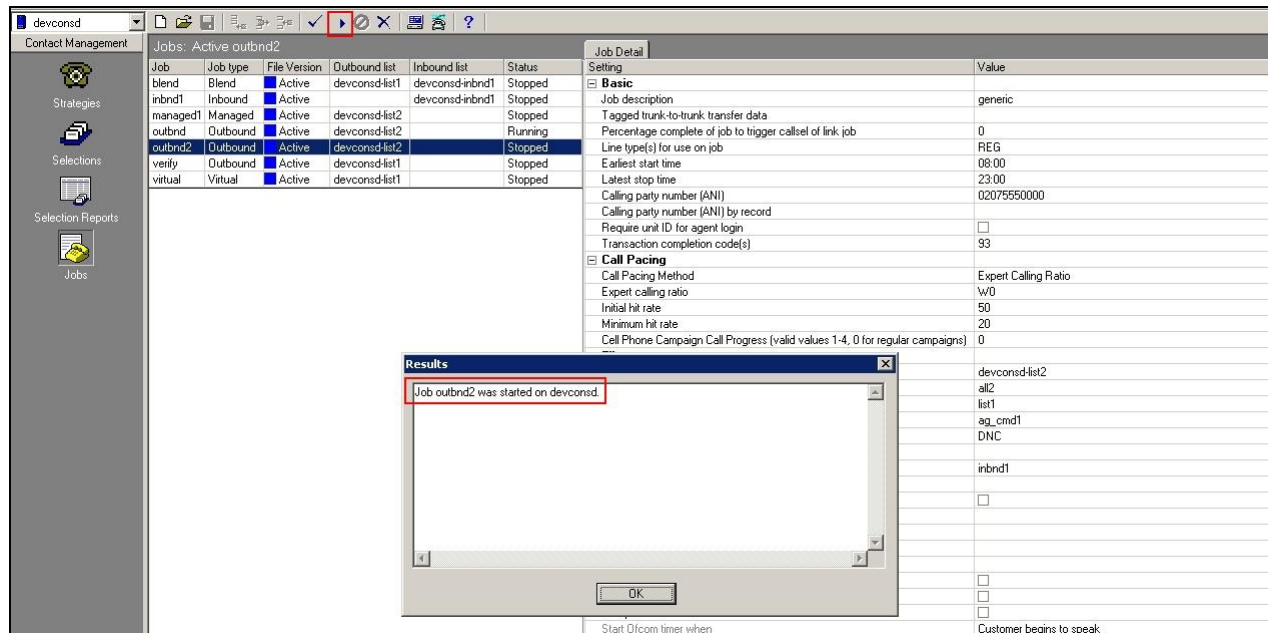
The outbound job is now running, and Proactive Contact will be initiating outbound calls for Proactive Contact Agents, once logged in. In this instance, synTelate Agent is used to log in both the Proactive Contact Agent, and the Communication Manager ACD Agent. If the job fails to run as expected, ensure the outbound job file within the **/opt/avaya/pds/job/** directory has the following parameters set:

```
TESTMODE::
TESTOPER::
```

8. Configure synTelate Designer

This section provides the procedures for configuring synTelate Designer. The procedures include the following areas:

- Administer Moagent32.ini
- Launch Designer
- Administer campaigns
- Administer scripts and screens
- Administer CTI

8.1. Administer Moagent32.ini

From the PC running Designer, navigate to the **C:\WINDOWS\system32** directory to locate the **Moagent32.ini** file. Amend this file as shown below and save to the **C:\WINDOWS** directory.

> [logon]
> **servername = 10.10.16.90**
> **headset =**
> [ConfigSettings]
> **UseDllDbs=0**

8.2. Launch Designer

From the PC running Designer, select **Start → Programs → synTelate → synTelate Designer** (not shown) to display the **Welcome - synTelate** screen (not shown). Select the **Designer** tab (not shown). From the top menu, select the **Home** tab. Click **New** and select **Wizard → Dialler Wizard** from the drop-down list to create a new campaign.
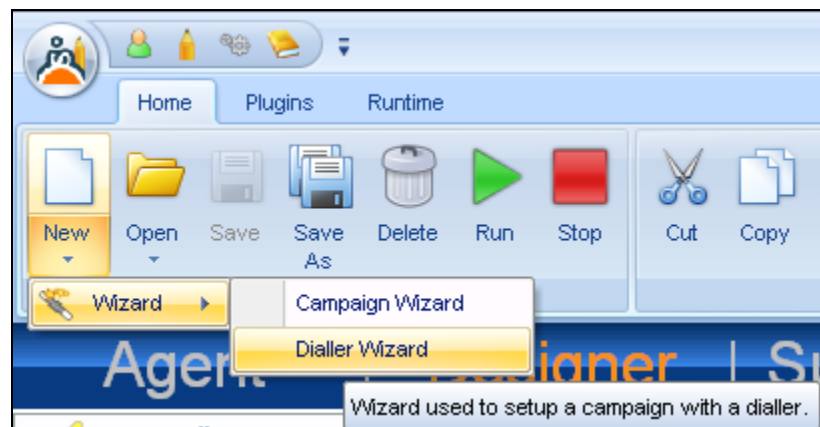
8.3. Administer campaigns

The **Step 1 of 6 - Basic Campaign Details** screen is displayed. Enter the following values shown, and retain the default values for the remaining fields.

Click on the arrow pointing right. The **Avaya PCS Login** screen is displayed. Enter the credentials for the Proactive Contact supervisor and click on the green tick.

The **Step 2 of 6 – Choose Data Source** screen is displayed. Select the proper values for **Call List** and **Job Name**. Retain the default value for **Client Status Table**, and select the proper **Job Type**. Click on the arrow pointing right to proceed to **Step 3**.

The **Step 3 of 6 – Database Behaviour** screen is displayed, complete as shown and click on the arrow pointing right to proceed to **Step 4**.

The **Step 4 of 6 – Dialler Field Mappings** screen is displayed.

Click on the double arrow, highlighted below, to select all fields and click on the arrow pointing right to proceed to **Step 5**.

The **Step 5 of 6 - outbnd2 – Fields** screen is displayed, amend as required and click on the arrow pointing right to proceed to **Step 6.**

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The **Step 6 of 6 - Summary** screen is displayed. Confirm the settings and click on the Door icon to complete the Wizard.

8.4. Administer scripts and screens

For the purposes of this compliance test, it is assumed that scripts and screens are created according to requirements. A sample screen is shown below:

8.5. Administer CTI

Open Select the **Supervisor** tab (not shown) in synTelate Designer and click on **CTI Config**.
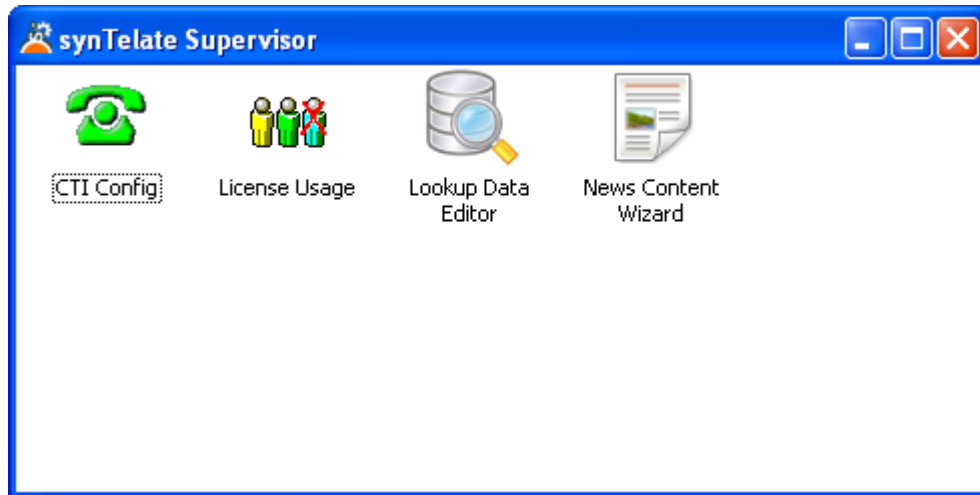
Click **Add** to setup CTI configuration.
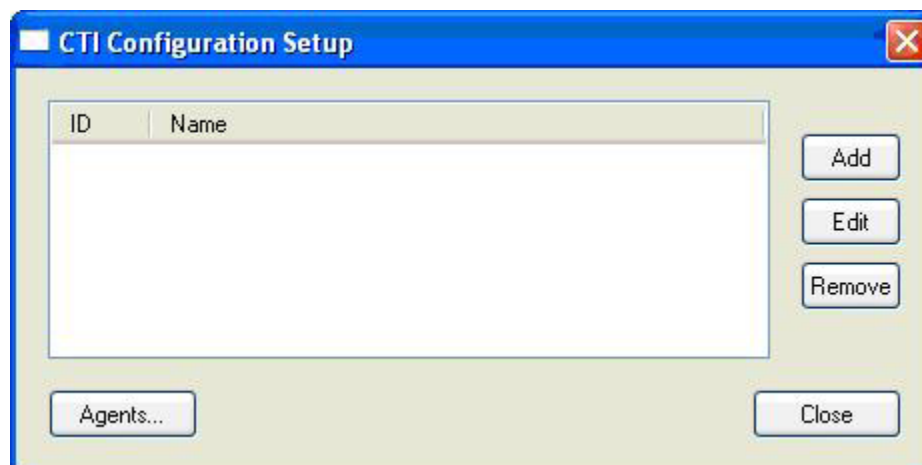
The **Edit CTI Config Details** screen is displayed. Complete as shown below.

9. Verification Steps

This section provides the tests that can be performed to verify proper configuration of synTelate, Proactive Contact, and Application Enablement Services. Prior to verification, start an outbound job on Proactive Contact.

9.1. Verify synTelate
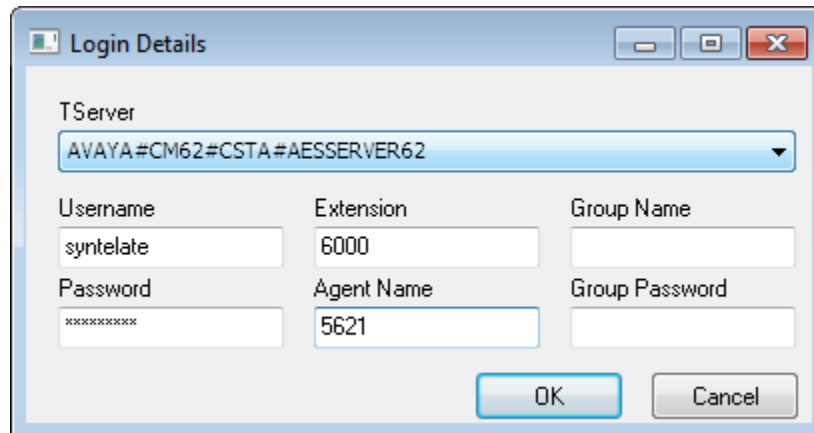
From the PC running synTelate Agent, select **Start → Programs → synTelate → synTelate Agent**. The **Select a CTI Config** screen is displayed next. Select the CTI from **Section 8.5**, as shown below.
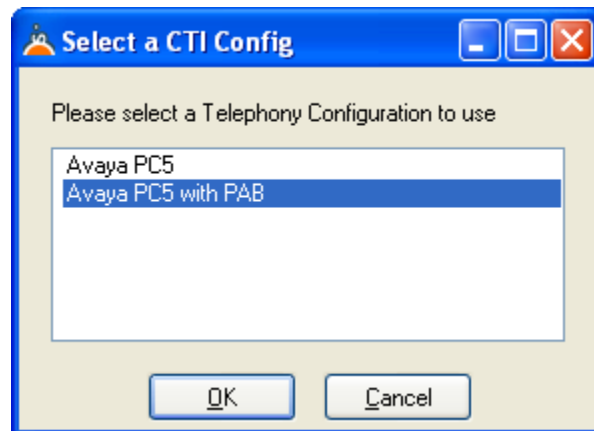
The **Avaya PCS Login** screen is displayed. Enter the pre-defined agent login and password for Proactive Contact, and the agent station/headset number detailed above.
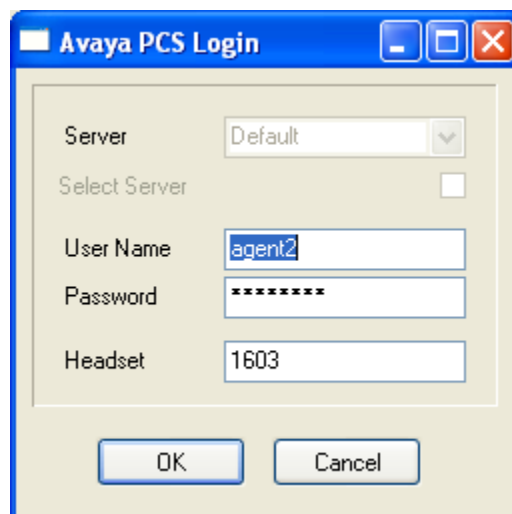
The **Login Details** screen is displayed. Enter the values as shown:

synTelate opens with welcome screen showing list of available jobs, Verify the active outbound job is displayed. Click **outbnd2**.
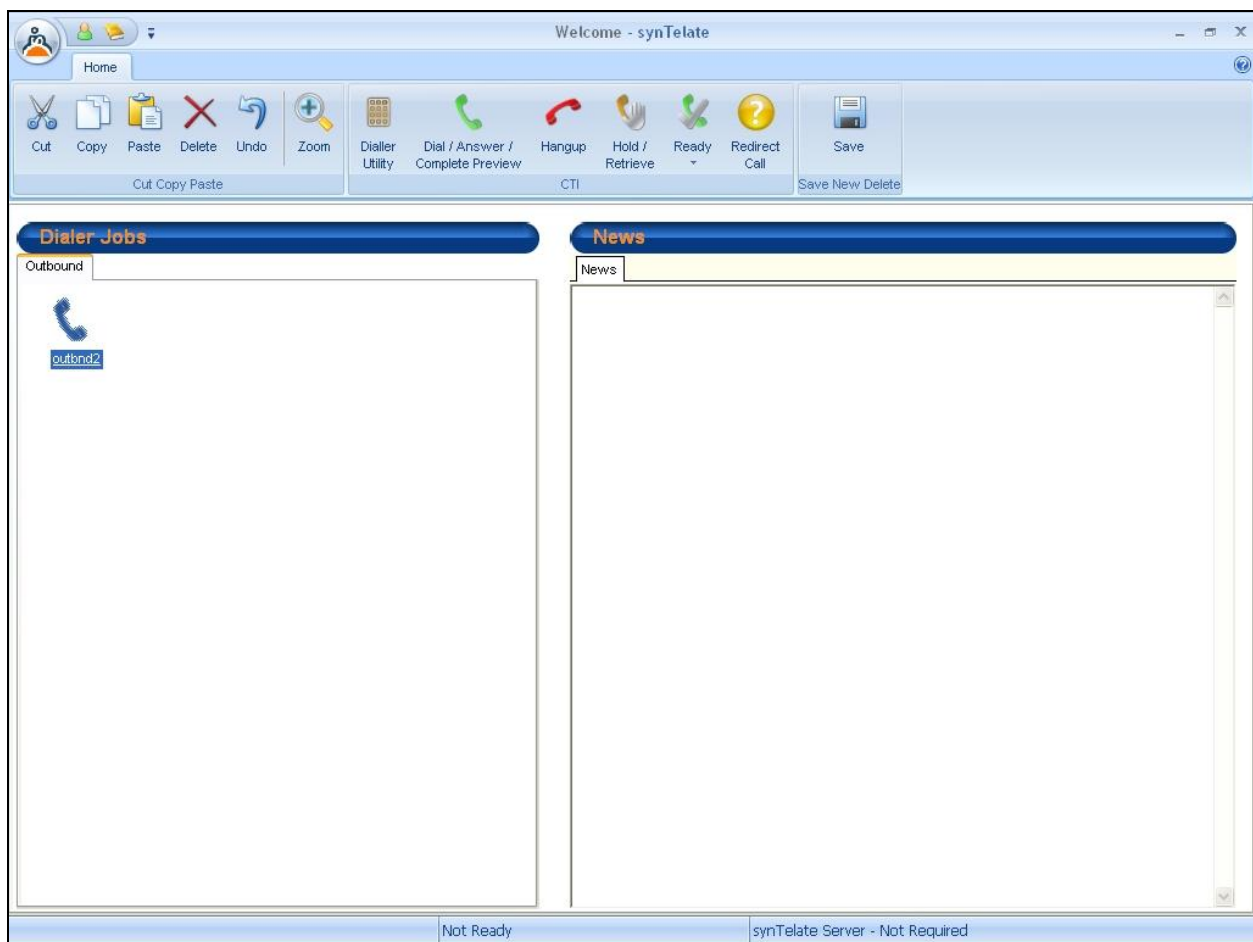
The **Dialler Status** box is displayed. Verify the values for **Status** and **Job**, as shown below.
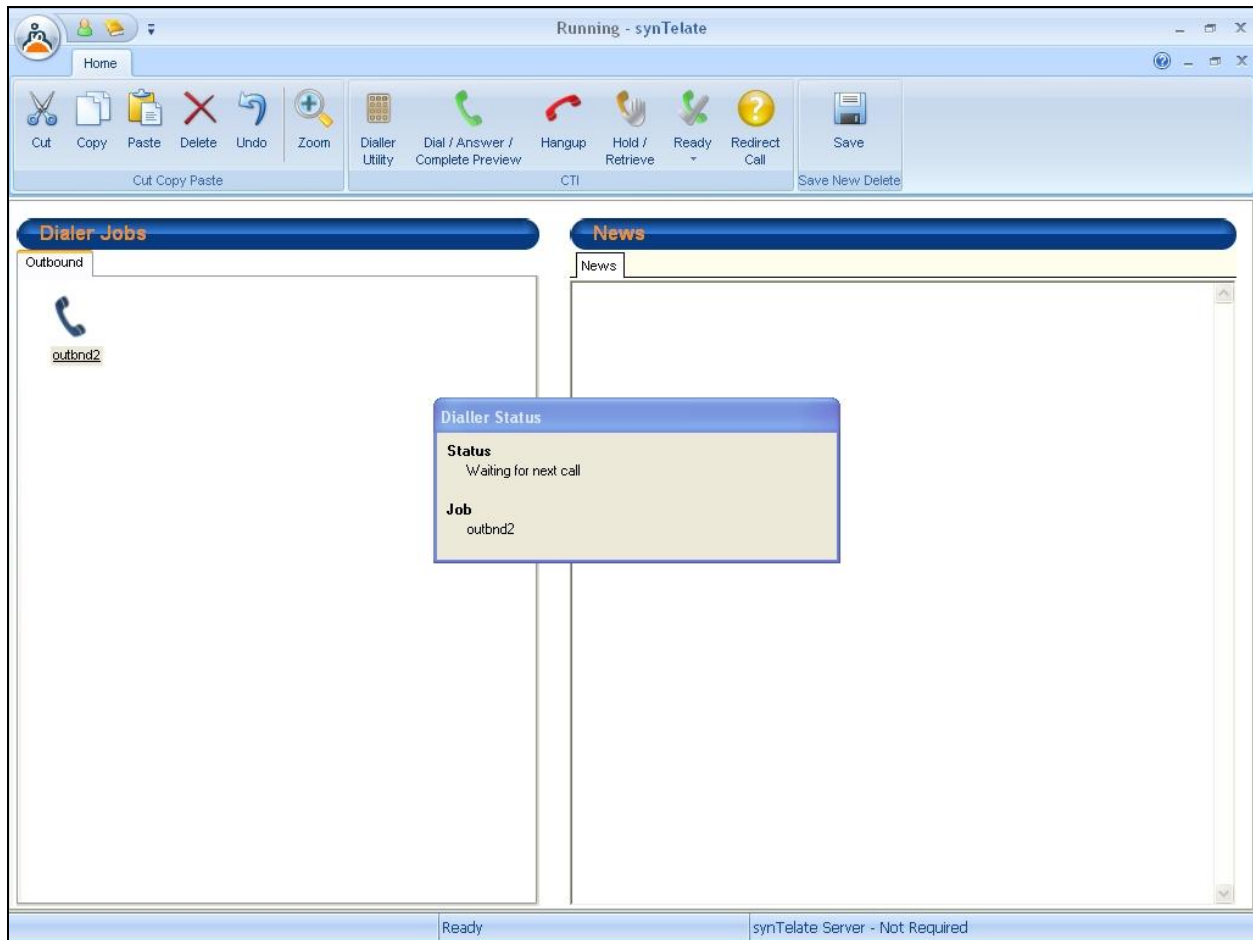
The **Running - synTelate** screen is displayed. When an outbound call is delivered to the agent, verify that the appropriate data screen from **Section 8.4** is displayed and populated with values retrieved from the customer record, as shown below:

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9.2. Verify Avaya Proactive Contact

From Proactive Contact shell, type the command **jobmon** to verify agent is logged into the job outbnd2:

```
[STANDARD]                        Job Activity
[ALLID]
                              Summary Statistics
                 Job: [outbnd2][69]
                 Start time: 09.43.20  Current time: 10.16.55
 Agent Activity                            Line Usage
 ---------------------------------  ---------------------------------------
-
           All Outb    ACD       PTP  Outbound Lines        Cur  Avg  Peak
 Logged in:  1    1      1         0     Demand:             1    1    1
 Assigned :  1    1                      Available   :      17
 On Phone :  1    1                      Total Lines :      18


 Calling Activities
 ---------------------------------------------------------------------------
-
 Outbound Phone Calls
   Records Selected:        335
   Phone Calls made:          3
   Cur/Run Hit Rate:      100/100%
   Agent Connects  :          1
   Queue           :          0
   Recalls         :          0
   Phone Calls Left:        168

[ Job outbnd2 ready for calling                                            ]
```

9.3. Verify Avaya Aura® Application Enablement Services

On AE Services, verify the status of the TSAPI link by selecting **Status** → **Status and Control** → **TSAPI Service Summary** from the left pane. The **TSAPI Link Details** screen is displayed. Verify the **Status** is **Talking** for the TSAPI link administered in **Section 6.4**, as shown below.

10. Conclusion

These Application Notes describe the configuration steps required for synTelate to successfully interoperate with Avaya Proactive Contact with CTI using agent blending. All feature test cases were completed, with observations noted in **Section 2.2**.

11. Additional References

This section references the product documentation relevant to these Application Notes.
1. *Administering Avaya Proactive Contact*, Release 5.0, April 2012, available at http://support.avaya.com.
2. Release Notes for Avaya Proactive Contact 5.0.1 Dialer and Database available at http://support.avaya.com.

For additional information or documentation on Inisoft synTelate R4.3, please contact Inisoft or visit http://www.inisoft.co.uk