Avaya Solution & Interoperability Test Lab

Application Notes for Inisoft synTelate with Avaya Proactive Contact with CTI – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Inisoft synTelate to interoperate with Avaya Proactive Contact with CTI. In the compliance testing, Inisoft synTelate used the Agent API from Avaya Proactive Contact and the Telephony Services Application Programmer Interface from Avaya Aura™ Application Enablement Services to provide a custom agent desktop for Avaya Proactive Contact agents for handling of outbound calls delivered by Avaya Proactive Contact and inbound calls delivered by Avaya Aura™ Communication Manager.

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.

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1. Introduction

These Application Notes describe the configuration steps required for Inisoft synTelate to interoperate with Avaya Proactive Contact with CTI. In the compliance testing, Inisoft synTelate used the Agent API from Avaya Proactive Contact and the Telephony Services Application Programmer Interface (TSAPI) from Avaya Aura™ Application Enablement Services to provide a custom agent desktop for Avaya Proactive Contact agents, for handling of outbound calls delivered by Avaya Proactive Contact and inbound calls delivered by Avaya Aura™ Communication Manager.

The synTelate solution consists of the synTelate Designer and the synTelate Agent. synTelate Designer is a graphical tool used to define the call flow and custom agent screen, which will run on the synTelate Agent. A subset of the Avaya Proactive Contact Agent API is used by synTelate Designer to obtain jobs, call lists, and data fields to facilitate the agent screen customization.

The Avaya Proactive Contact Agent API is used by synTelate Agent to obtain information such as job type, agent state, customer record fields and values from Avaya Proactive Contact to display on the customized agent desktop, and to request customer record update functions initiated from the agent desktop.

The inbound calls are delivered to the agents by Avaya Aura™ Communication Manager. The TSAPI interface from Avaya Aura™ Application Enablement Services is used by synTelate Agent to request call control functions for the inbound calls, such as hold and reconnect.

The detailed administration of basic connectivity amongst Avaya Proactive Contact, Avaya Aura™ Communication Manager, and Avaya Aura™ Application Enablement Services are not the focus of these Application Notes and will not be described. Furthermore, the detailed customization of the agent screen using synTelate Designer is also outside the scope of these Application Notes.

This compliance test used the Avaya Proactive Contact with CTI deployment option.

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1.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability 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 inbound calls.
- Outbound and managed jobs.
- Agent Blending algorithm.
- Change password, and automatic enable/disable agent trace as part of agent login/logout.
- Hold/reconnect and transfer of outbound calls via the agent telephone.
- Hold/reconnect and transfer of inbound calls via synTelate Agent.
- Log in, join job, go on/off break, leave job, and log off.
- Send/receive message, agent drop, customer drop, release line, and finish work.
- Set callback and update customer record fields.
- Use of Avaya Proactive Contact Supervisor to send/receive message with the agent, and immediate and graceful stop of jobs while the agent is on an active call.

The serviceability testing focused on verifying the ability of synTelate to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable to the synTelate Designer and to the synTelate Agent.

1.2. Support

Technical support on synTelate can be obtained through the following:

- **Phone:** (603) 383-4999 or +44 (0) 141-552-8800
- **Email:** support@inisoft.co.uk

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2. 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.

The table below shows the contact center devices on Avaya Aura™ Communication Manager that were pre-defined and used in the testing.

Device Type	Extension
Supervisor Station	65000
Agent Station / Headset Number	65001, 65002
Agent Login ID	41661, 41662
Agent Password	41661, 41662

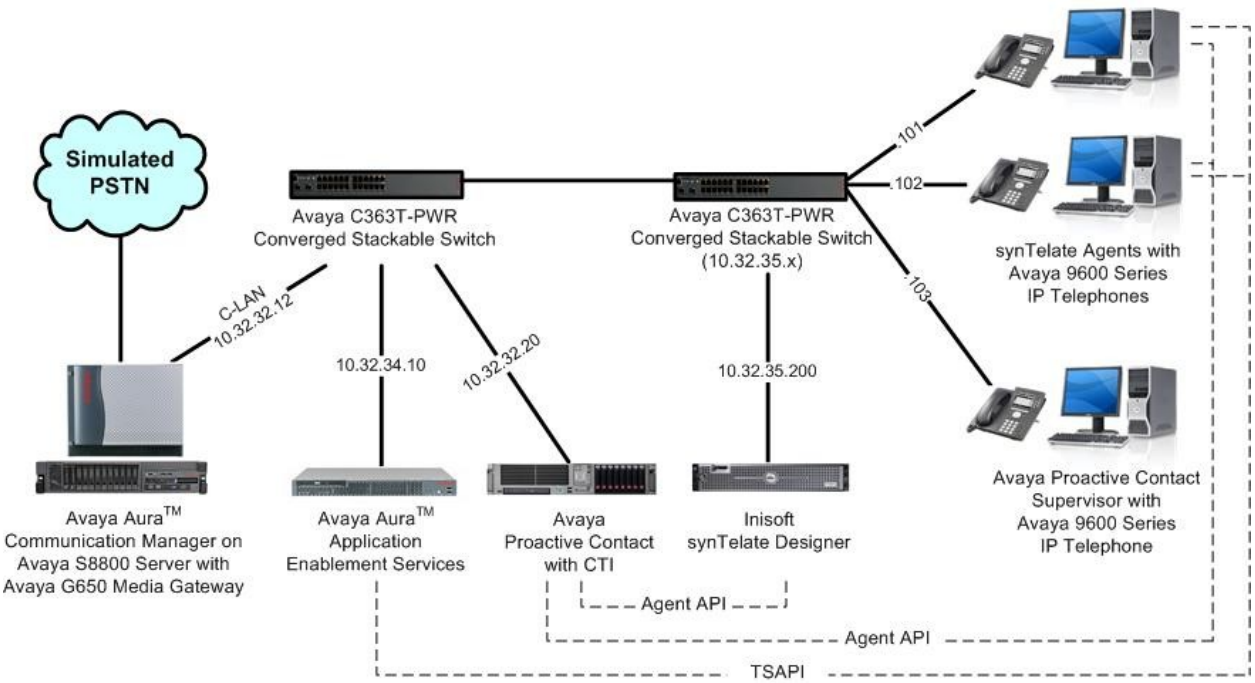

Figure 1: synTelate with Proactive Contact with CTI

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3. Equipment and Software Validated

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

Equipment	Software
Avaya Aura™ Communication Manager on Avaya S8800 Server	R016x.00.0.345.0-18246
Avaya G650 Media Gateway • TN799DP C-LAN Circuit Pack	 HW01 FW038
Avaya Aura™ Application Enablement Services	5.2.2
Avaya Proactive Contact with CTI	4.2
Avaya Proactive Contact Supervisor	4.2
Avaya 9600 Series IP Telephones (H.323)	3.1
synTelate Designer	4.1.6.0
synTelate Agent with • MosaixTelephonySvr.dll • TSAPITelephonySvr.dll	4.1.6.0 4.1.8.0 4.1.8.1

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4. Configure Avaya Proactive Contact

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

- Obtain customer record fields
- Obtain completion codes

4.1. Obtain Customer Record Fields

Log in to the Linux shell of the Avaya Proactive Contact server. Navigate to the **/opt/avaya/pds/lists** directory to locate the configuration files for the calling lists used by the jobs.

In the compliance testing, the calling list "list1" was used for all jobs, and the call record fields for "list1" is defined in the **list1.fdict.cfg** file shown below. The customer record fields used for the testing were **ACCTNUM**, **BALANCE**, **NAME1**, **NAME2**, **ZIPCODE**, and **COMMENT1**. These field names were used by synTelate for customization of the agent screen.

```
$ more list1.fdict.cfg
RECLEN:740
ACCTNUM:16:C:ACCOUNT NUMBER:
BALANCE:10:$:BALANCE:
TOTALDUE:10:$:TOTAL DUE:
NAME1:25:C:NAME LINE1:
NAME2:25:C:NAME LINE2:
CITY:25:C:City:
STATE:2:C:State:
ZIPCODE:5:N:ZIPCODE:
PHONE1:12:C:HOME PHONE:
PHONE2:12:C:BUSINESS PHONE:
COMMENT1:60:C:COMMENT LINE 1:
AGENT:8:C:AGENT ID:
DTE:10:D:SYSTEM DATE:
TME:8:T:SYSTEM TIME:
CODE:3:C:COMPLETION CODE:
JOBNAME:20:C:Job Name:
COUNTER:3:N:RECORD ATTEMPT COUNTER:
ENTRYDATE:10:D:1ST DATE ON SYSTEM:
STATUSFLAG:1:C:RECORD STATUS:
RECALLNAME:30:C:RECALL NAME:
RECALLDATE:10:D:RECALL DATE:
--More--(22%)
```


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4.2. Obtain Completion Codes

Navigate to the **/opt/avaya/pds/config** directory to locate the completion code file **ag_cmd1.ky**. Make a note of the completion codes to be used, in this case **6**, **17**, **35**, **93**, and **98**, which will be used later to configure synTelate.

```
$ more ag_cmd1.ky
::::F1
:LOGOUT:::F2    Logout of job
:DIAL:::F3      Dial previewed record
:CANCEL:cancel_call:35:F4       Managed cancel call
:RELEASE:call_complete:89:F5    Managed non-connection
:RELEASE:pf_msg_1:20:F6 Play pre-recorded msg
:HOME:::F7      Goto first editable field
:RELEASE:call_complete:21:F8
:RELEASE:call_complete:22:F9
:RELEASE:call_complete:23:F10
:RECALL:::F11   Set recall
:RELEASE:call_complete:19:F12   Recall release
:DONE:::SF1     Release record
:CALL:::SF2     Field call
:HANGUP:::SF3   Manual hangup
:MCALL:::SF4    Manual call
:HOOKFLASH:::SF5        PBX Transfer call
:RELEASE:call_complete:16:SF6   Ringing phone
:RELEASE:call_complete:17:SF7   Cust hung-up in queue
:RELEASE:call_complete:24:SF8
:DIALDIGIT:::SF9        Dial pad enable
:EAR_VOLUME:::SF10      Adjust ear volume
:MOUTH_VOLUME:::SF11    Adjust mouth volume
:MASTER:::SF12  Agent assistant key
:HOLD:::CF1     Agent HOLD key
:UNHOLD:::CF2   Agent UNHOLD key
:MOFLASH_B:call_complete:6:CF3  Blind trans to INB
:MOFLASH_S:::CF4        Supv trans to INB
::::CF5
::::CF6
:RELEASE:call_complete:93:CF7   Sold Campaign
::::CF8
:RELEASE:call_complete:98:CF9   Agent owned recall
--More--(82%)
```


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5. Configure Avaya Aura™ Application Enablement Services

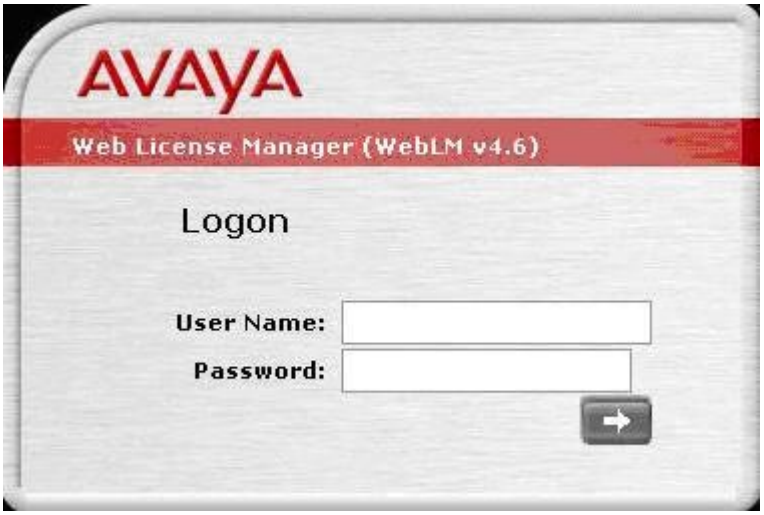
This section provides the procedures for configuring Avaya Aura™ Application Enablement Services. The procedures include the following areas:

- Verify TSAPI license
- Launch OAM interface
- Administer TSAPI link
- Disable security database
- Restart TSAPI service
- Obtain Tlink name
- Administer synTelate user

5.1. Verify TSAPI License

Access the Web License Manager interface by using the URL "https://ip-address/WebLM/index.jsp" in an Internet browser window, where "ip-address" is the IP address of the Application Enablement Services server.

The **Web License Manager** screen is displayed. Log in using the appropriate credentials.



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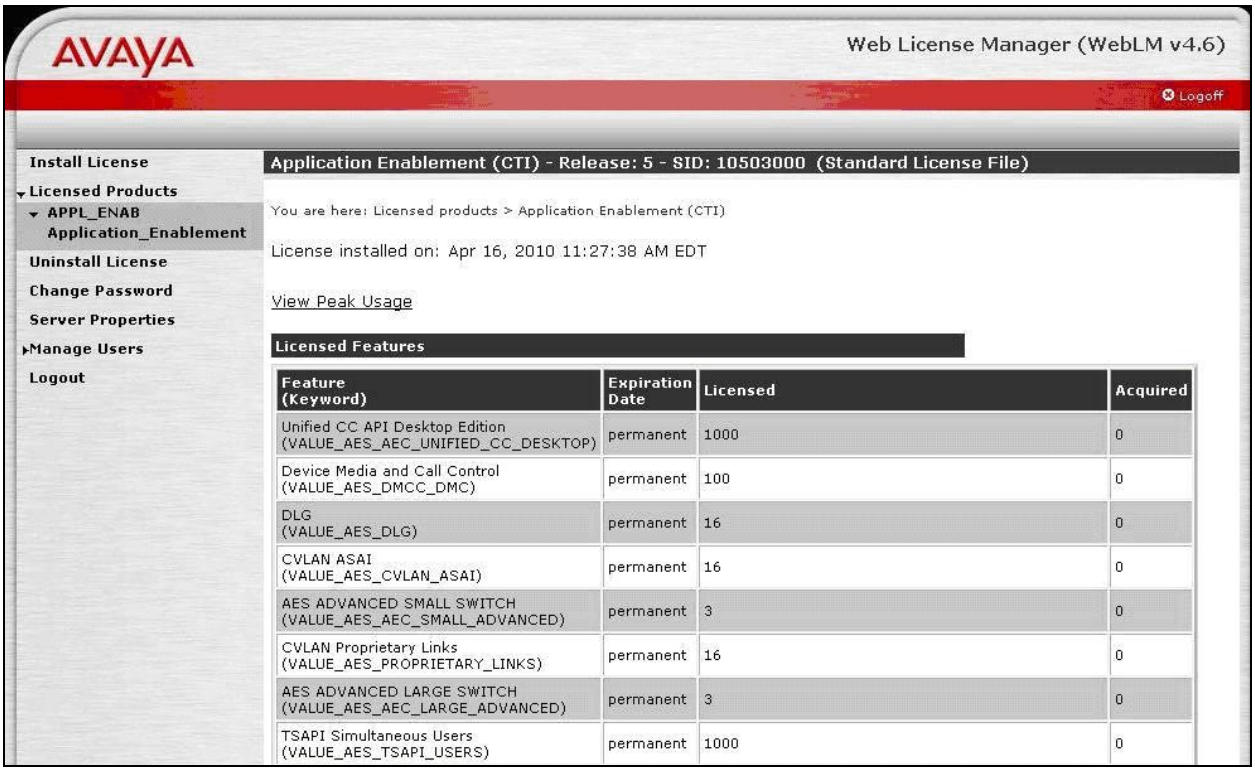
The **Web License Manager** screen below is displayed. Select **Licensed products > APPL_ENAB > Application_Enablement** in the left pane, to display the **Licensed Features** screen in the right pane.

Verify that there are sufficient licenses for **TSAPI Simultaneous Users**, as shown below.



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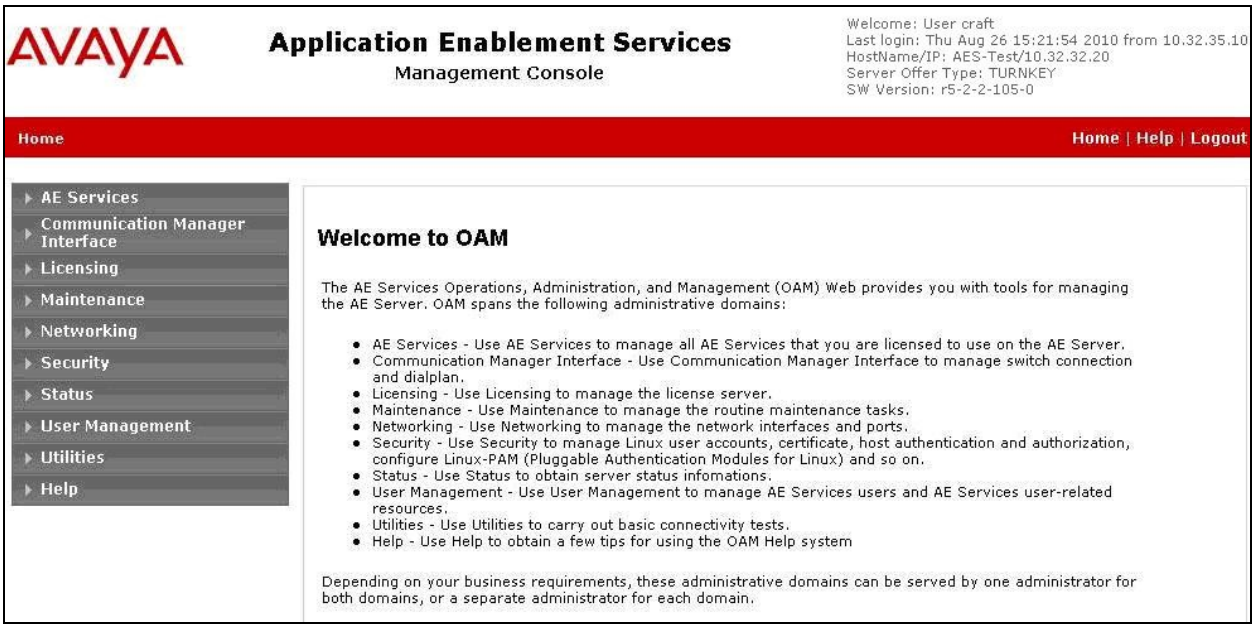
5.2. Launch OAM Interface

Access the OAM web-based interface by using the URL "https://ip-address" in an Internet browser window, where "ip-address" is the IP address of the Application Enablement Services server. The **Management Console** screen is displayed. Log in using the appropriate credentials.

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



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5.3. Administer TSAPI Link

Select **AE Services > TSAPI > TSAPI Links** from the left pane. The **TSAPI Links** screen is displayed. Locate the TSAPI link pre-configured for use with Avaya Proactive Contact, and click **Edit Link**.

The **Edit TSAPI Links** screen is displayed next. For **Security**, select "Both" from the drop-down list. Retain the default values in the remaining fields, and click **Apply Changes**.

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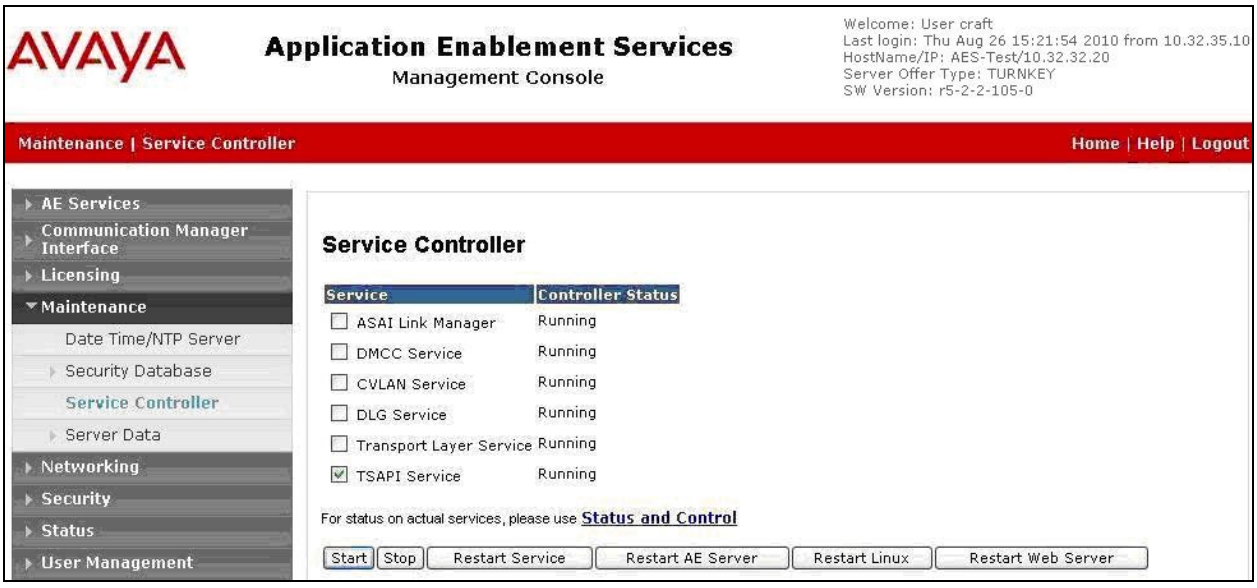
5.4. Disable Security Database

Select **Security > Security Database > Control** from the left pane, to display the **SDB Control for DMCC and TSAPI** screen in the right pane. Uncheck **Enable SDB TSAPI Service, JTAPI and Telephony Service**, and click **Apply Changes**.

5.5. 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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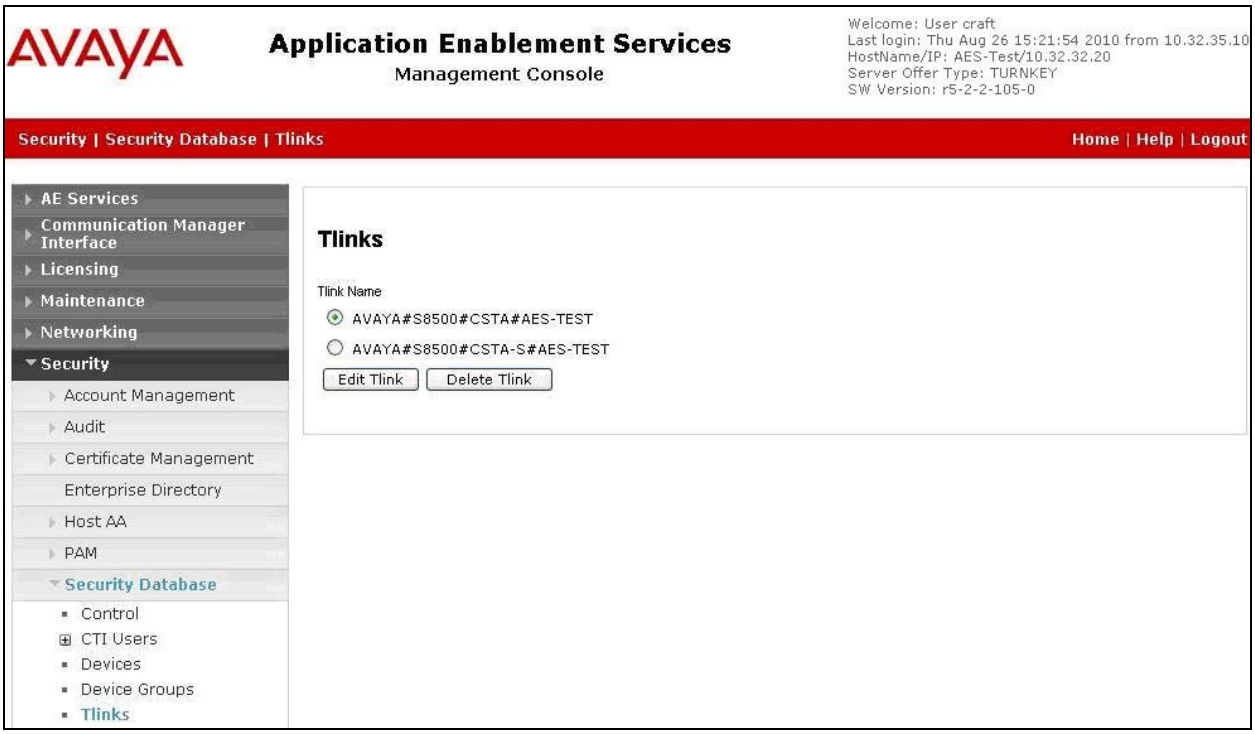
5.6. Obtain Tlink Name

Select **Security > Security Database > Tlinks** from the left pane. The **Tlinks** screen shows a listing of the Tlink names. Locate the Tlink names associated with the relevant switch connection, which would use the name of the switch connection as part of the Tlink name. Make a note of the associated Tlink name for the non-encrypted TSAPI link, to be used later for configuring synTelate. Note that the encrypted TSAPI link is used by Avaya Proactive Contact.

In this case, the associated Tlink name is "AVAYA#**S8500**#CSTA#AES-TEST". Note the use of the switch connection "S8500" from **Section 5.3** as part of the Tlink name.



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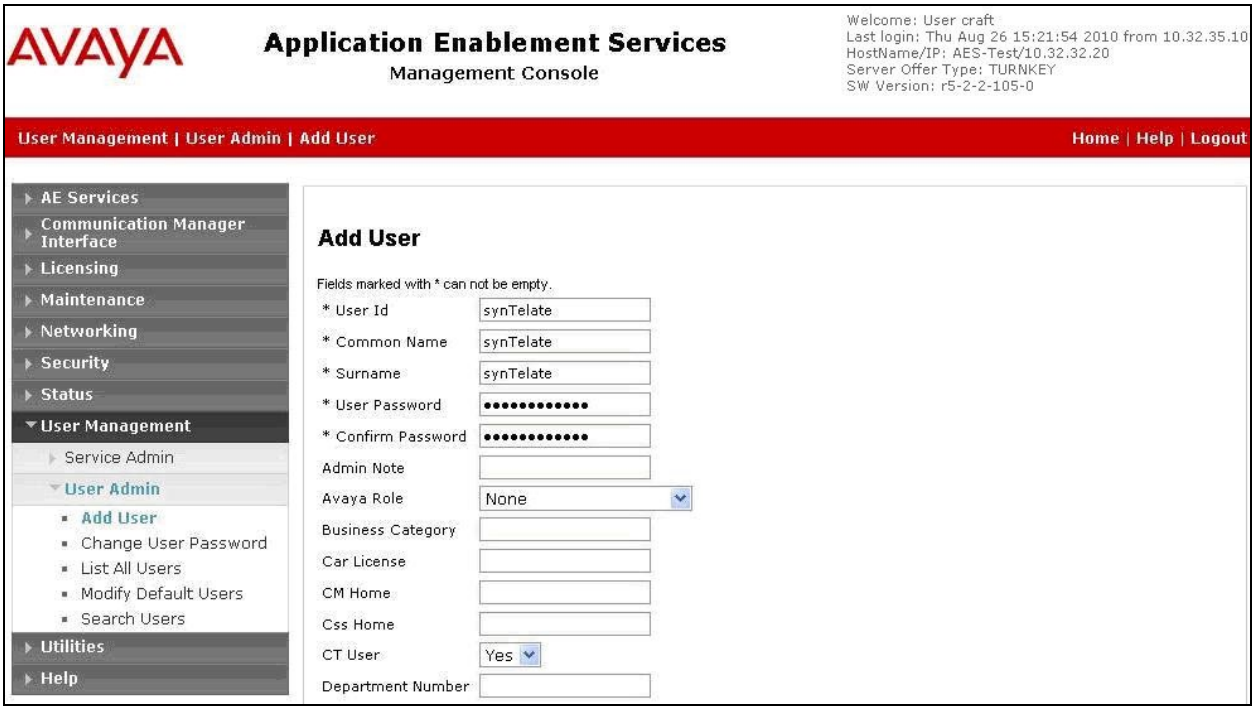
5.7. Administer synTelate User

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).



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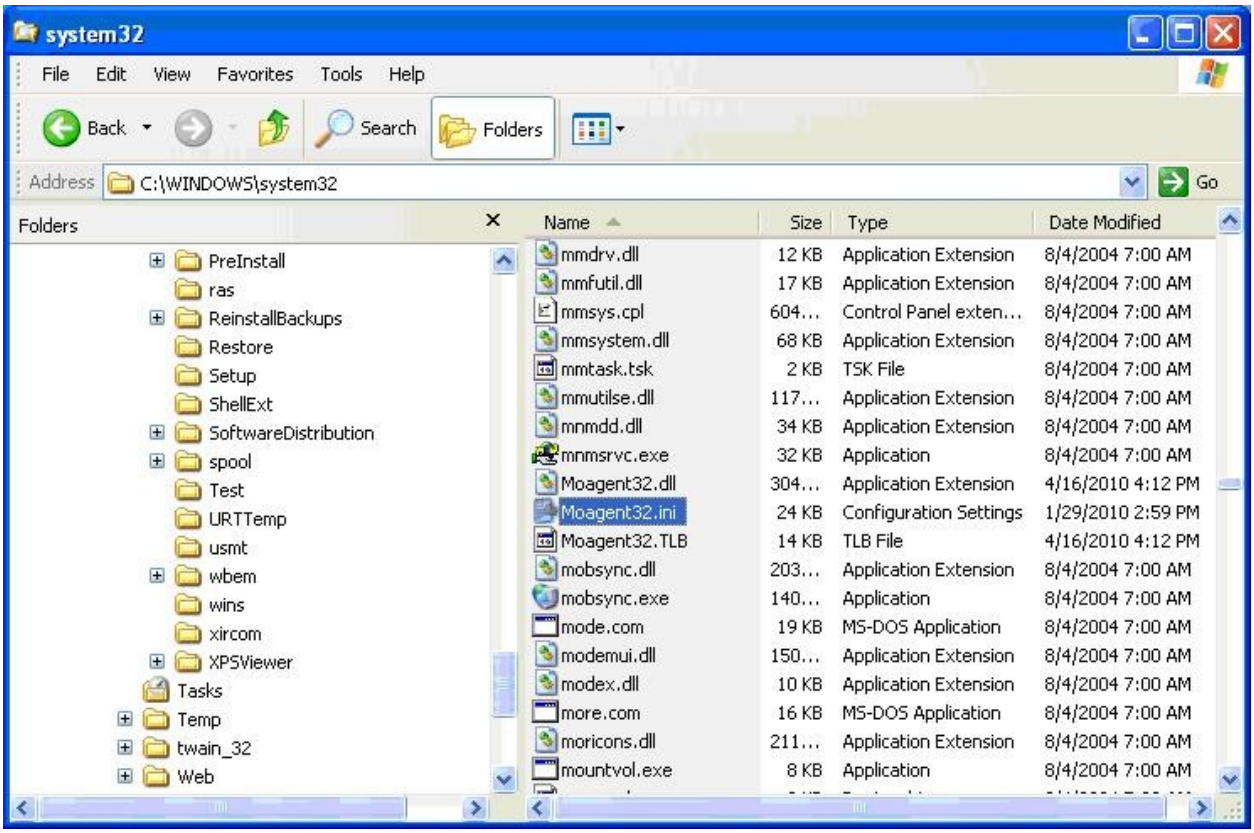
6. Configure synTelate Designer

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

6.1. Administer Moagent32.ini

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



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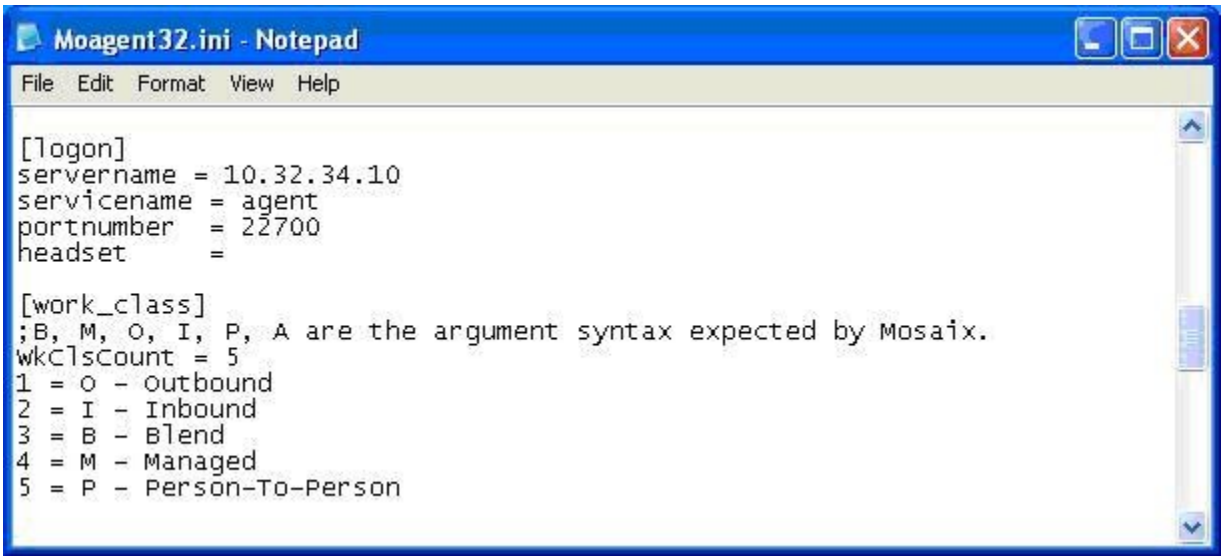
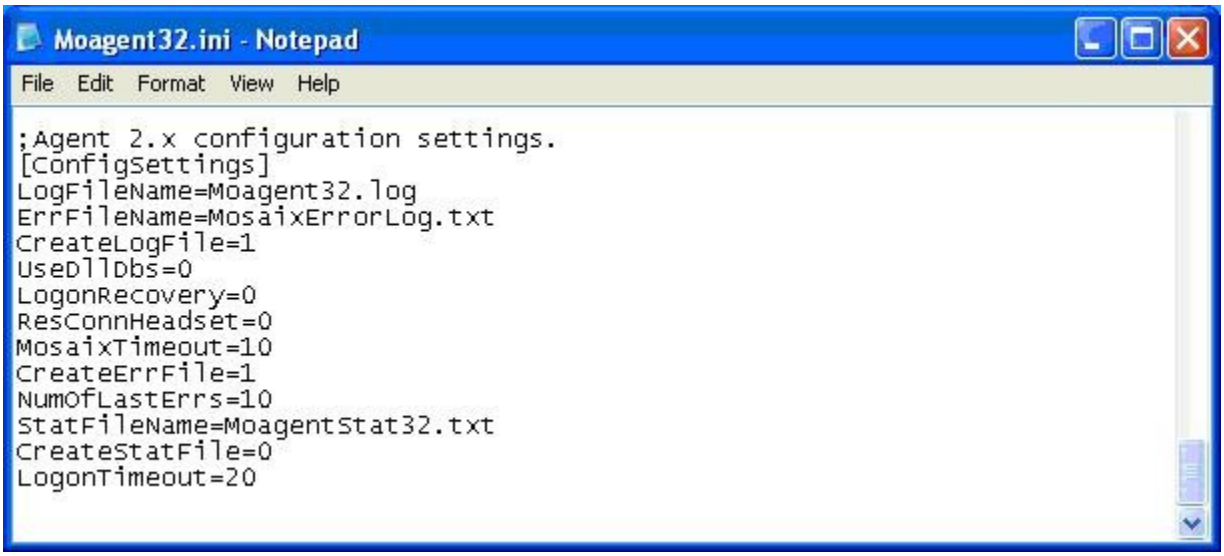
Open the **Moagent32.ini** file with the Notepad application. Scroll to the **logon** section, and set **Servername** to the IP address of Avaya Proactive Contact, as shown below.



Scroll down to the bottom of the file, and set **UseDllDbs** to "0", as shown below. Select **File > Save As** from the top menu, and save the changed file to the **C:\WINDOWS** directory.



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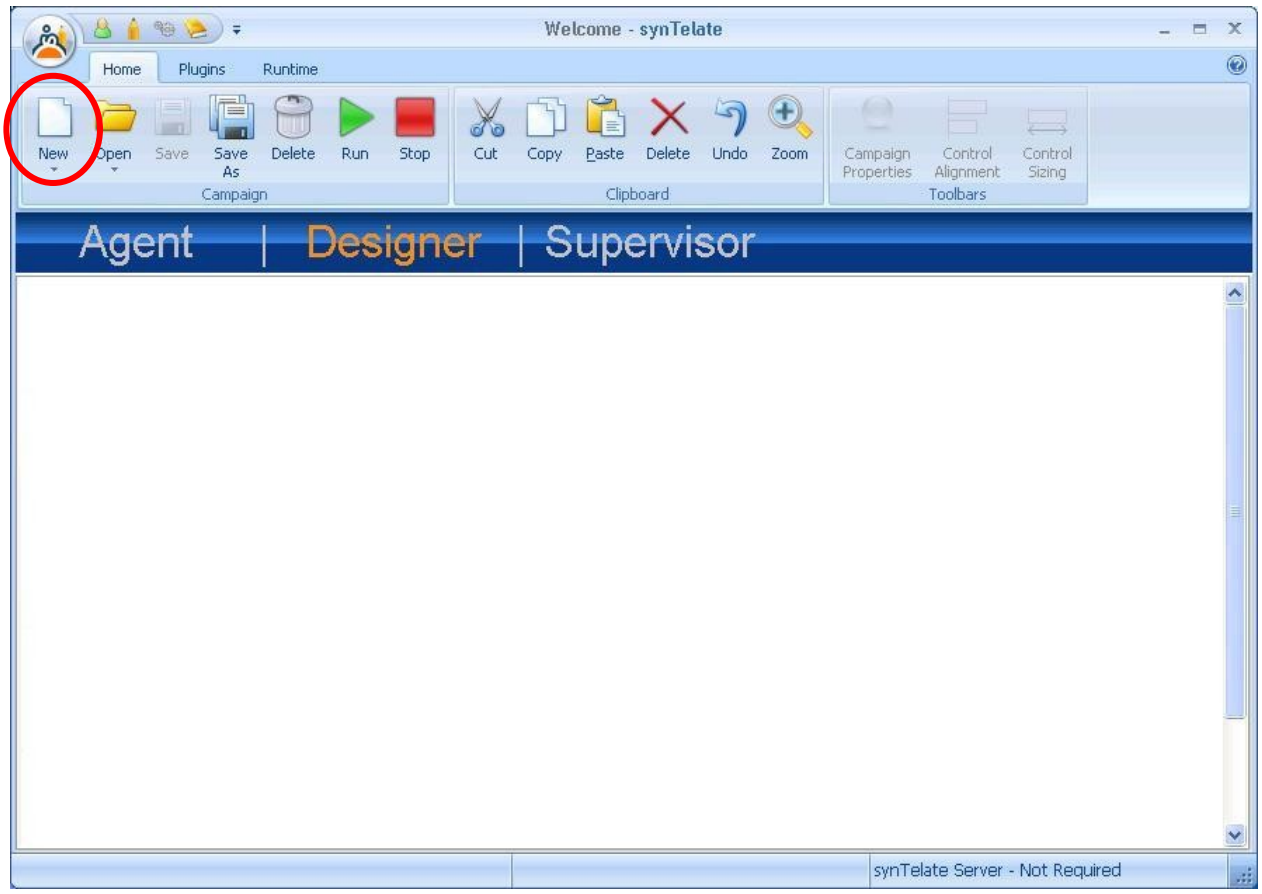
6.2. Launch Designer

From the PC running Designer, select **Start > Programs > synTelate > synTelate Designer** to display the **Welcome - synTelate** screen.

Select the **Designer** tab. From the top menu, select the **Home** tab. Click **New** and select **Wizard > Dialler Wizard** from the drop-down list (not shown below) to create a new campaign.



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6.3. Administer Campaigns

The **Step 1 of 7** screen is displayed. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Database:** "sysRun"
- **Password:** The password for the database.
- **Name:** A descriptive name for the new campaign.

The **Avaya PCS Login** screen is displayed next. Enter the credentials for the Avaya Proactive Contact supervisor.

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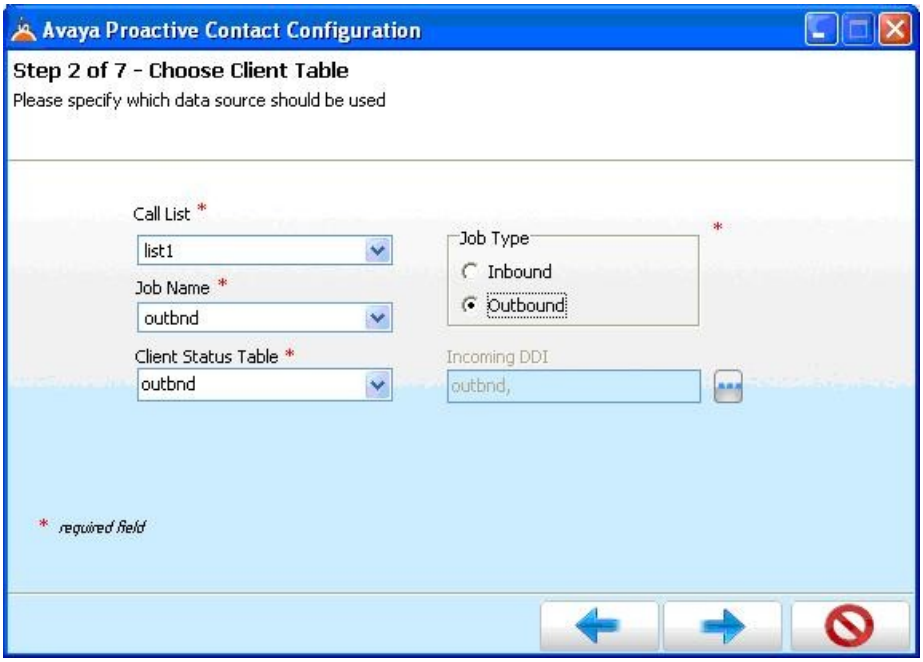
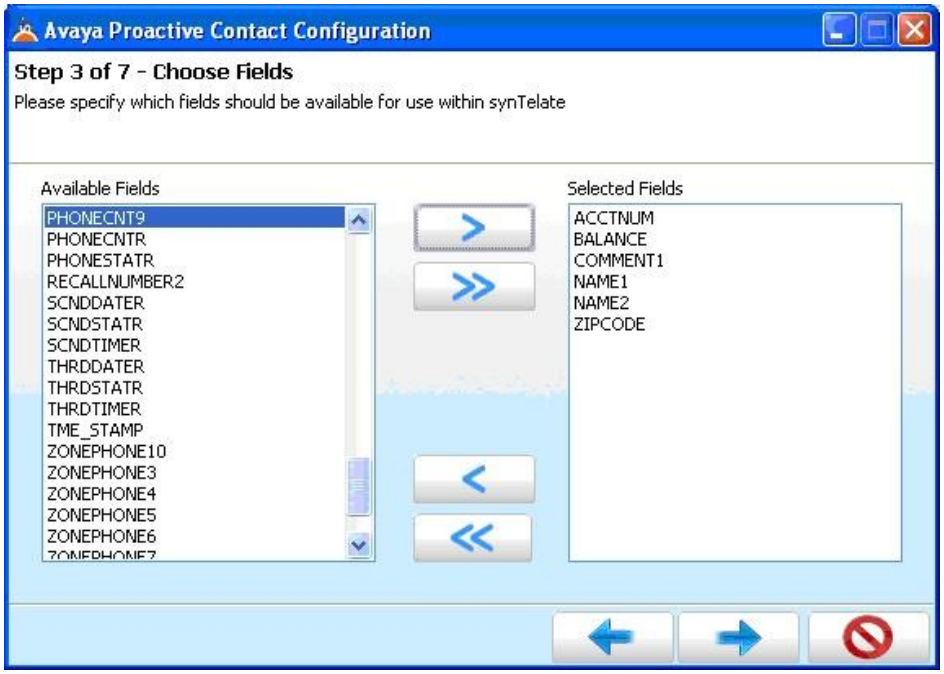
The **Step 2 of 7** screen is displayed. Select the proper values for **Call List** and **Job Name**. Retain the default value for **Client Status Table**, and select the proper **Job Type**. Note that when **Job Type** is **Inbound**, then the **Incoming DDI** field is enabled, and needs to be configured with the dialed number from the PSTN for the inbound calls.



The **Step 3 of 7** screen is displayed next. Select the data fields from the left pane that correspond to the selected fields from **Section 4.1**. The screenshot below shows the data fields used in the compliance test. Retain the default values in all subsequent screens to complete the wizard.



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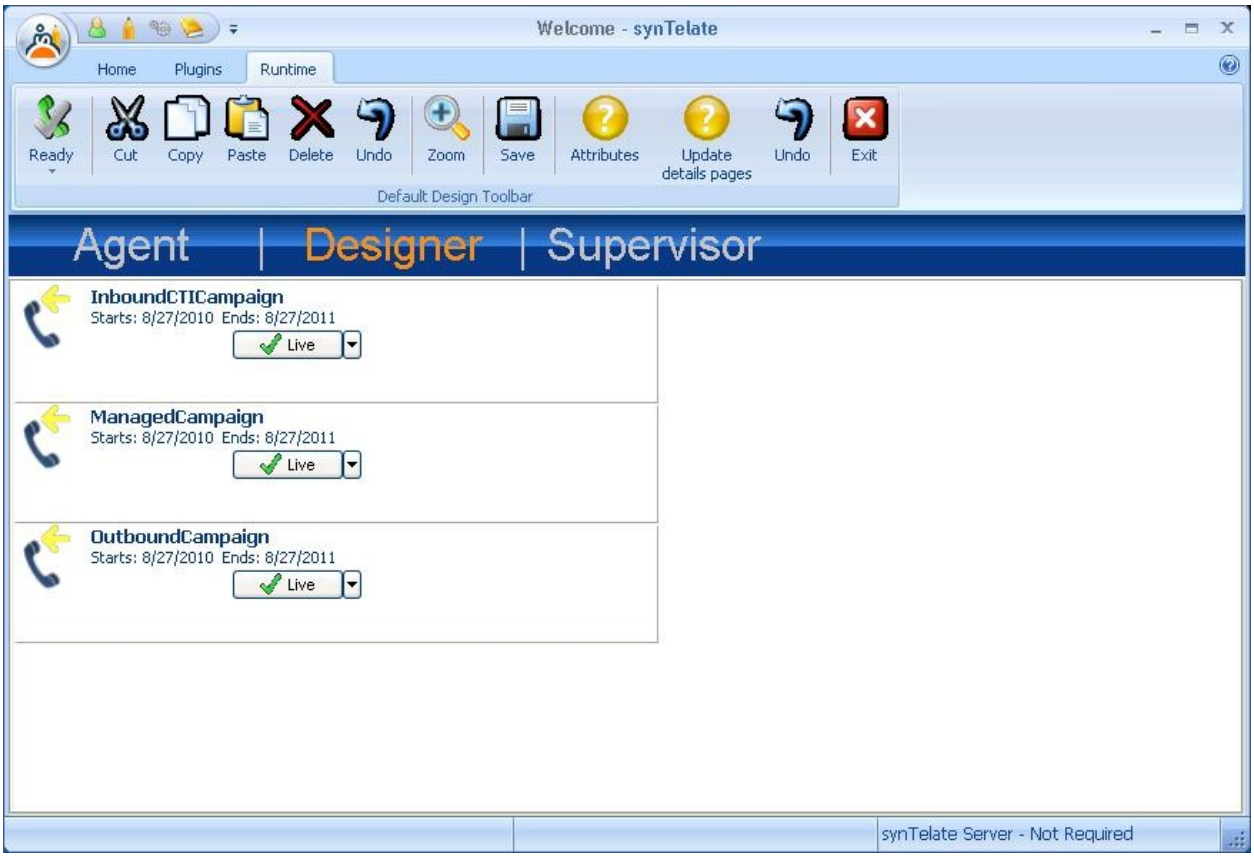
Repeat this section to create all desired campaigns. In the compliance testing, three campaigns were created, as shown below.



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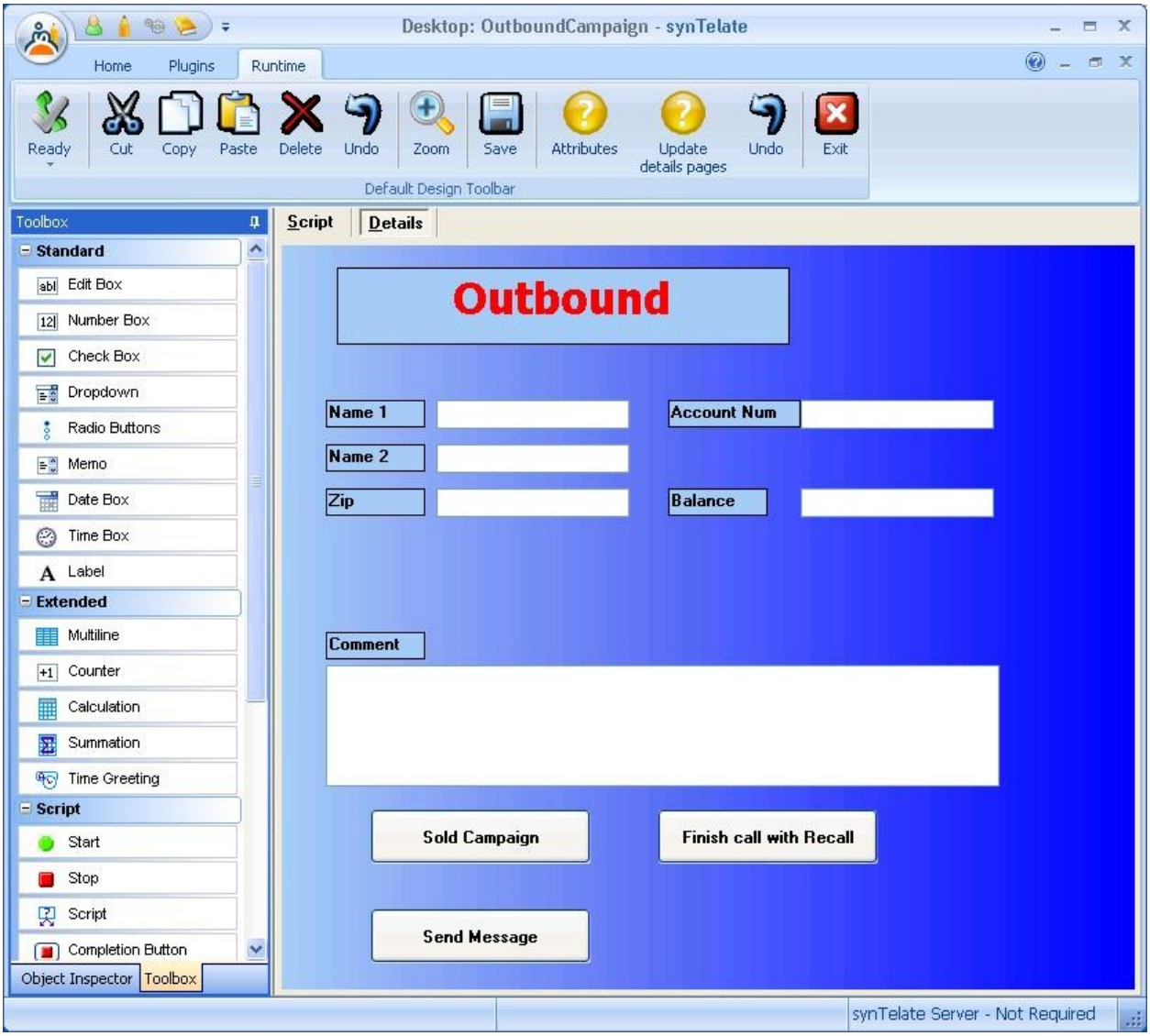
6.4. Administer Scripts and Screens

Follow [3] to administer call flow scripts and data screens for each campaign in **Section 6.3**. The screenshot below shows a sample customized data screen for the outbound campaign used in the testing.

The customer record fields from **Section 4.1** and the completion codes from **Section 4.2** were used in administering the data screens.



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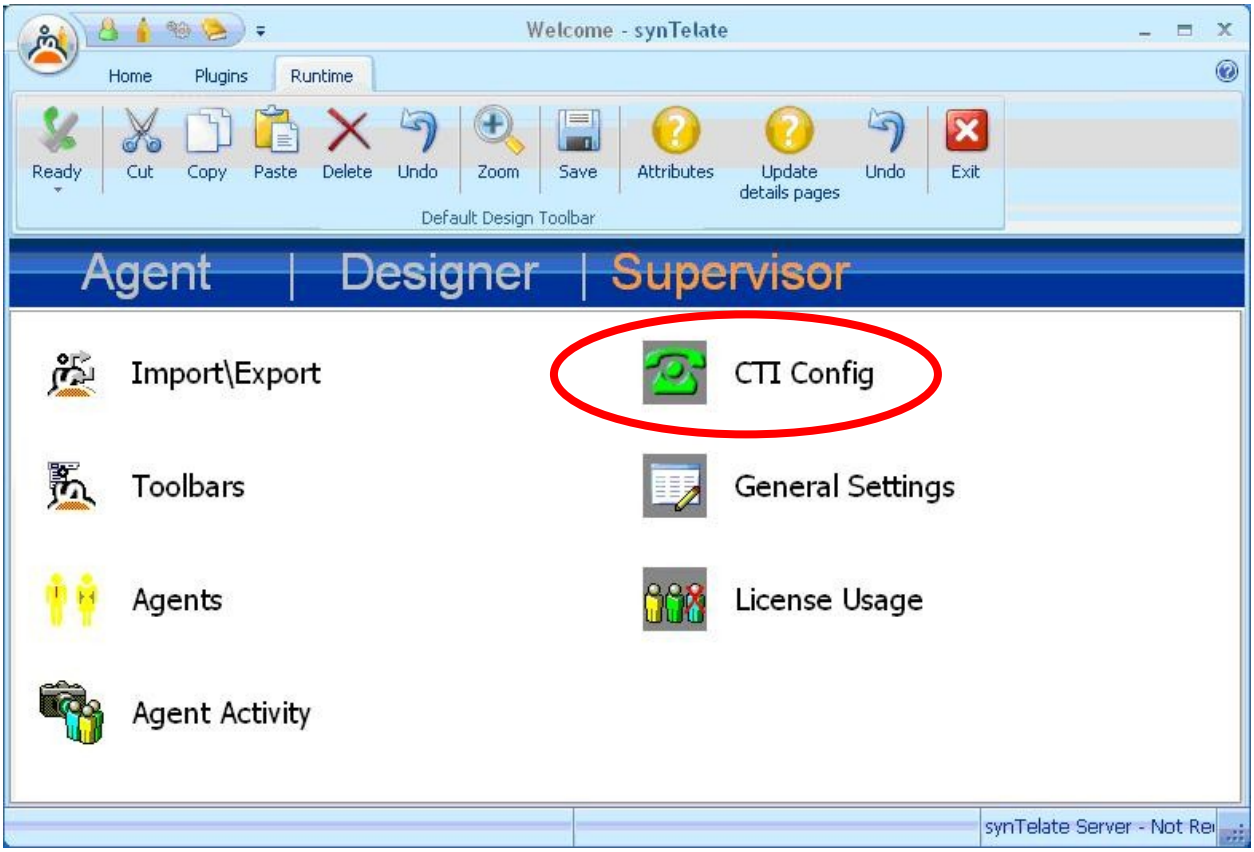
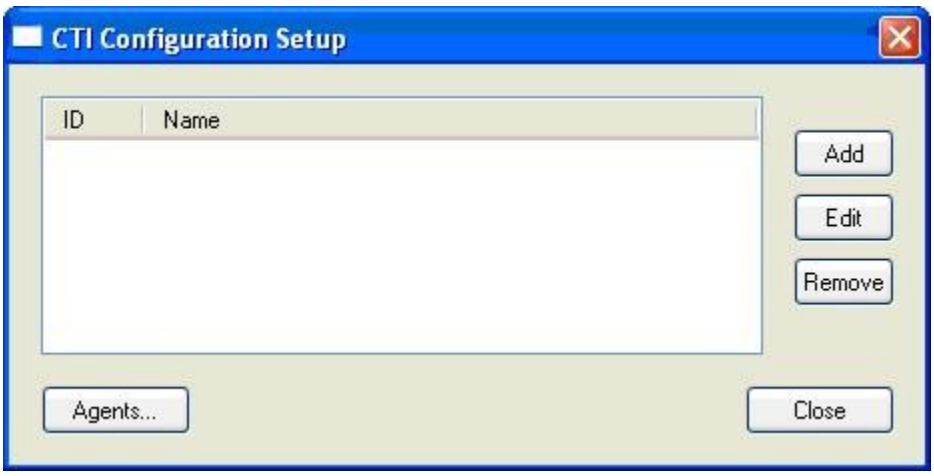
6.5. Administer CTI

Select the **Supervisor** tab, and click on **CTI Config**.



The **CTI Configuration Setup** screen is displayed. Click **Add**.



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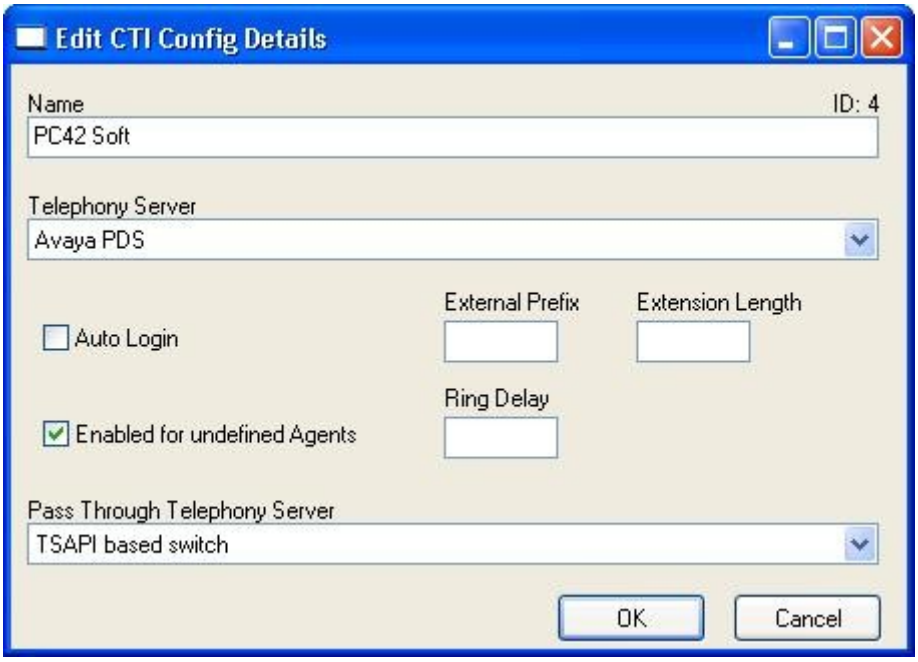
The **Edit CTI Config Details** screen is displayed. Enter a descriptive **Name**. For **Telephony Server**, select "Avaya PDS" from the drop-down list. Check **Enabled for undefined Agents**. For **Pass Through Telephony Server**, select "TSAPI based switch" from the drop-down list, as shown below.



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7. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Outbound calls were automatically placed and delivered to synTelate Agent by Avaya Proactive Contact, and inbound calls were manually placed and delivered to synTelate Agent by Avaya Aura™ 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 Avaya Proactive Contact Agent API and from Avaya Aura™ Application Enablement Services TSAPI.

The Avaya Proactive Contact Supervisor was used to start/stop jobs and send/receive messages with agents.

The serviceability test cases were performed manually by disabling/enabling the Ethernet connection to synTelate Designer and to synTelate Agent.

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. The one observation from the compliance test is that the synTelate Agent does not display any message related to a link interruption, and agent will receive errors upon completing the current customer record. The workaround is for the agent to manually drop the active call, log out of ACD, exit from synTelate Agent, and be removed from the job by the supervisor before attempting to log back in.

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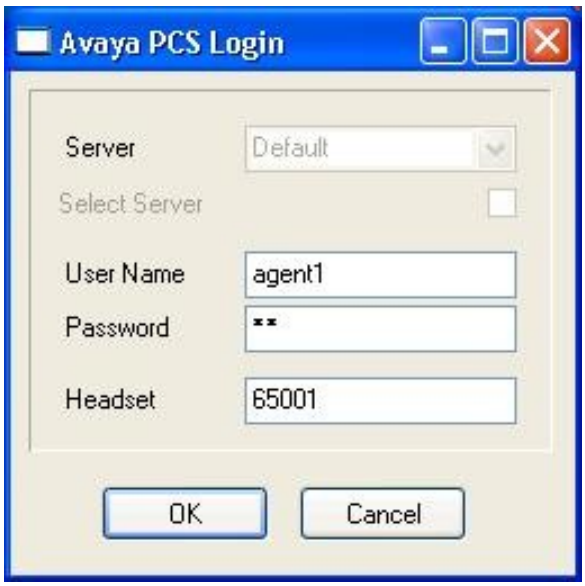
8. Verification Steps

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

8.1. Verify synTelate

From the PC running synTelate Agent, select **Start > Programs > synTelate > synTelate Agent**. The **Select a CTI Config** screen is displayed. Select the CTI configuration from **Section 6.5**, as shown below.

The **Avaya PCS Login** screen is displayed next. Enter the pre-defined agent login and password for Avaya Proactive Contact, and the agent station / headset number from **Section 2**.



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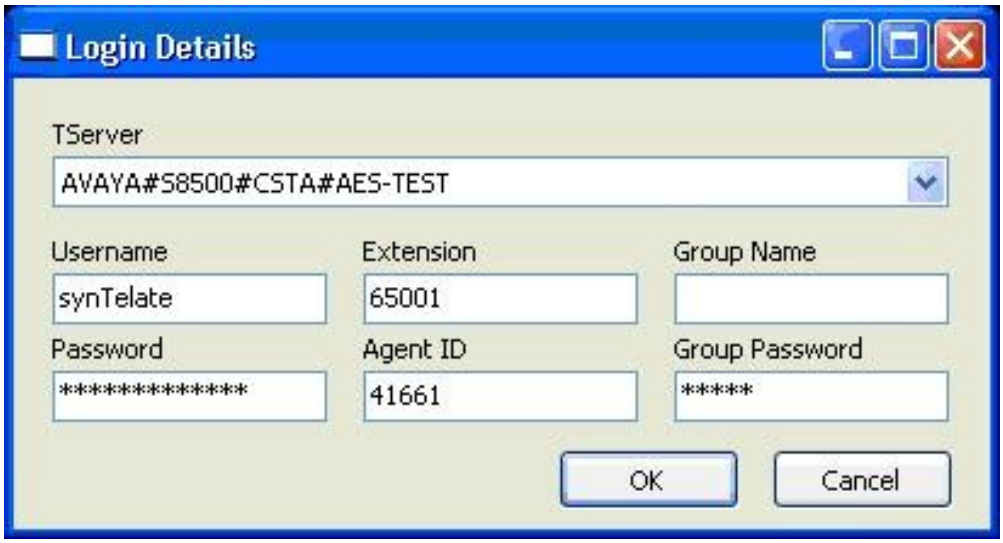
The **Login Details** screen is displayed. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Tserver:** The Tlink name from **Section 5.6**.
- **Username:** The synTelate user credentials from **Section 5.7**.
- **Password:** The synTelate user credentials from **Section 5.7**.
- **Extension:** The agent station / headset number from **Section 2**.
- **Agent ID:** The agent login ID from **Section 2**.
- **Group Password:** The agent password from **Section 2**.



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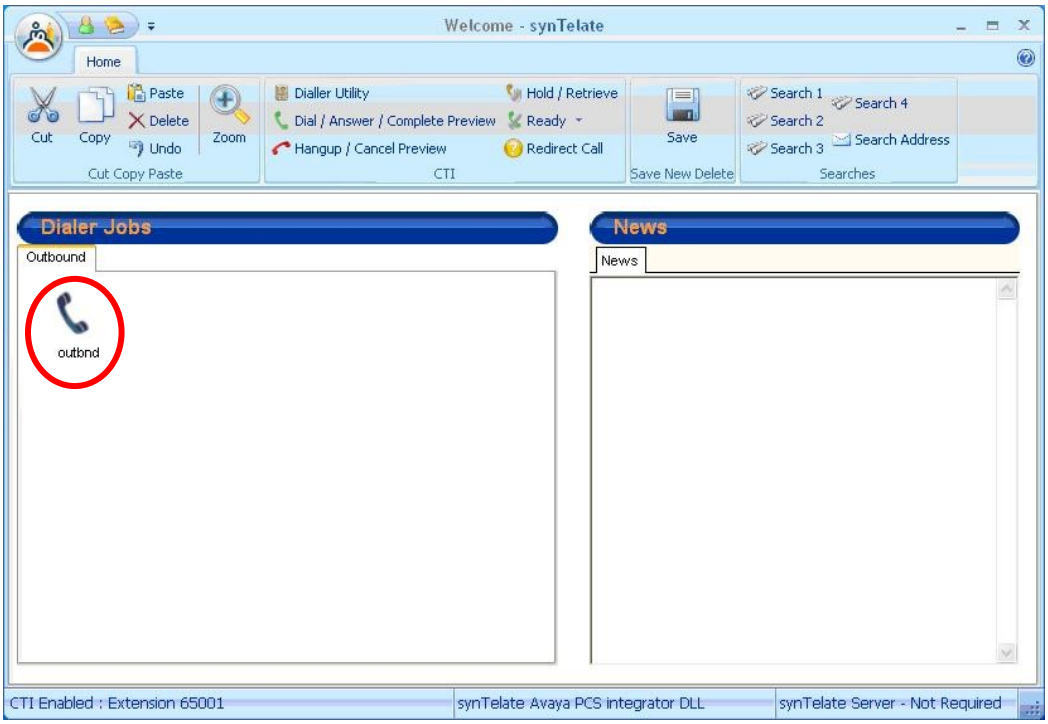
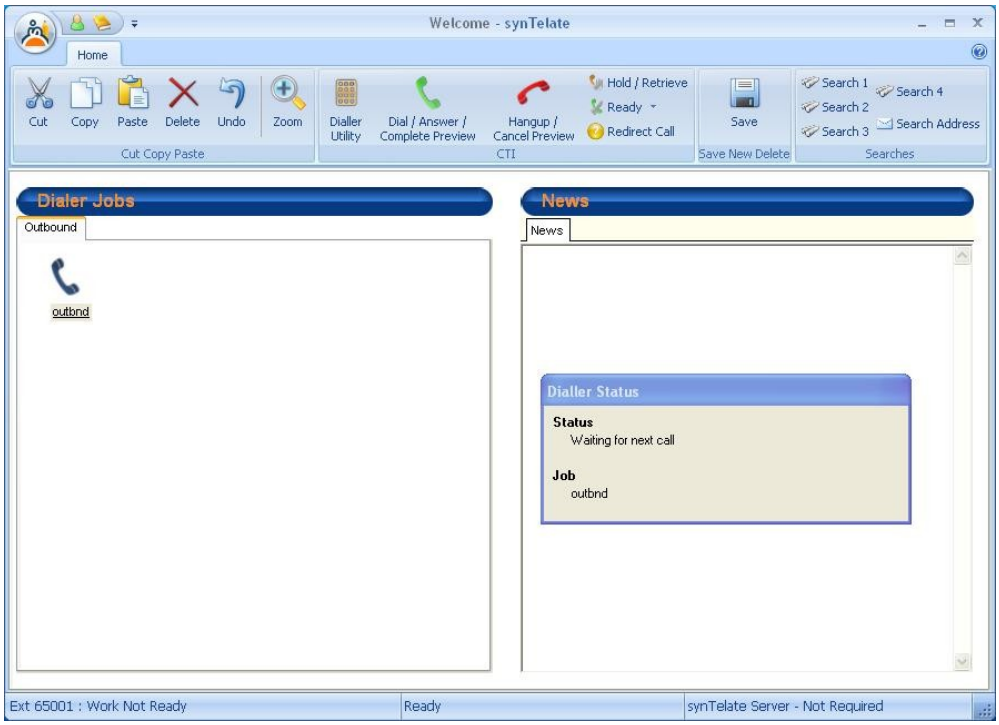
The **Welcome - synTelate** screen is displayed. Verify the active outbound job is displayed. Click **outbnd**.



The **Dialer Status** box is displayed in the right pane. Verify the values for **Status** and **Job**, as shown below.



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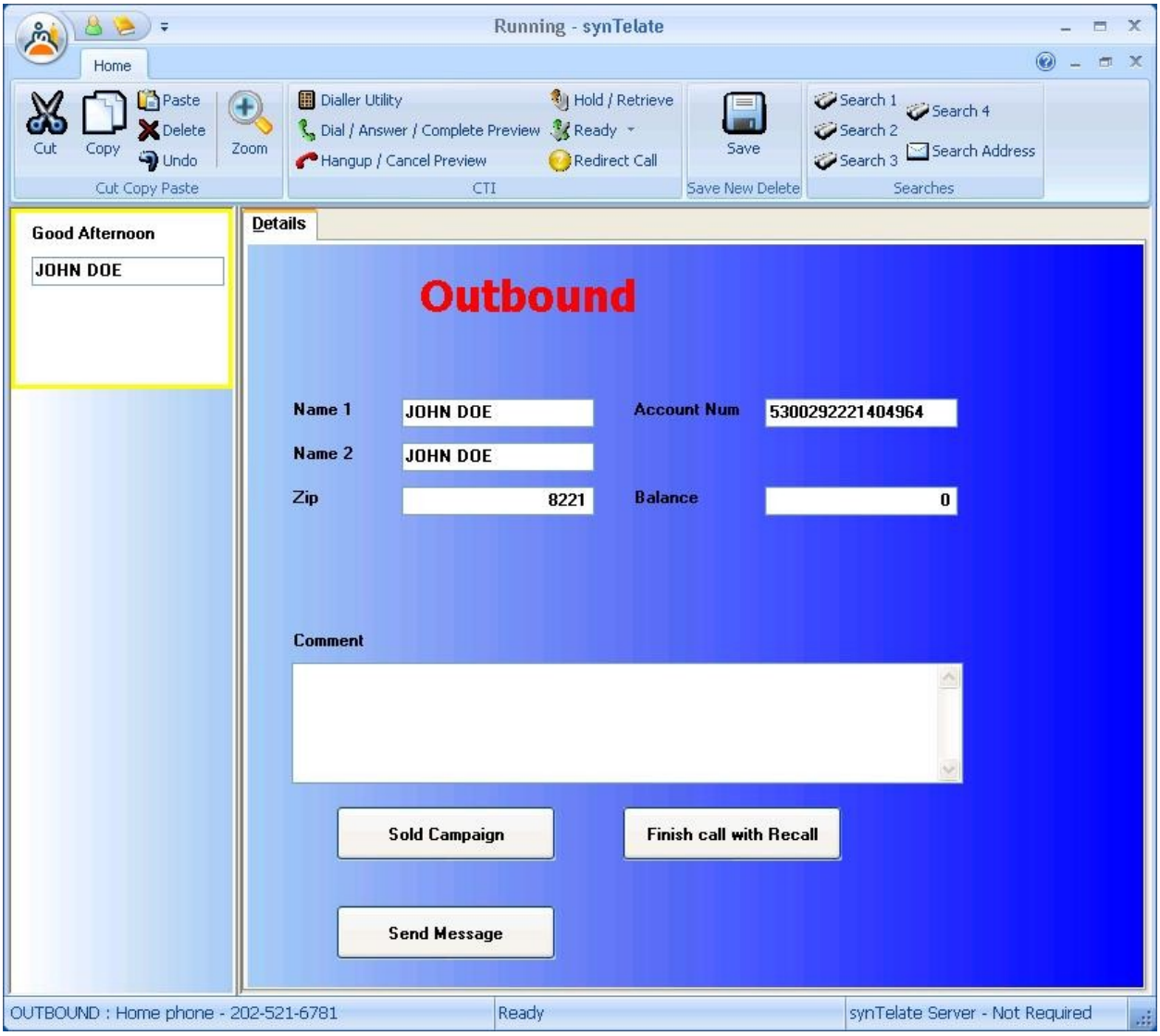
The **Running - synTelate** screen is displayed. When an outbound call is delivered to the agent, verify that the appropriate data screen from **Section 6.4** is displayed and populated with values retrieved from the customer record, as shown below.



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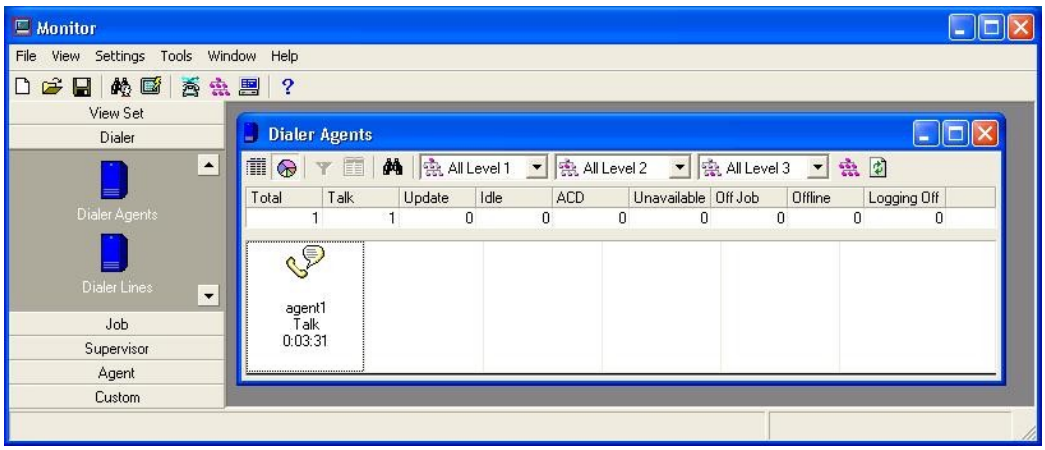
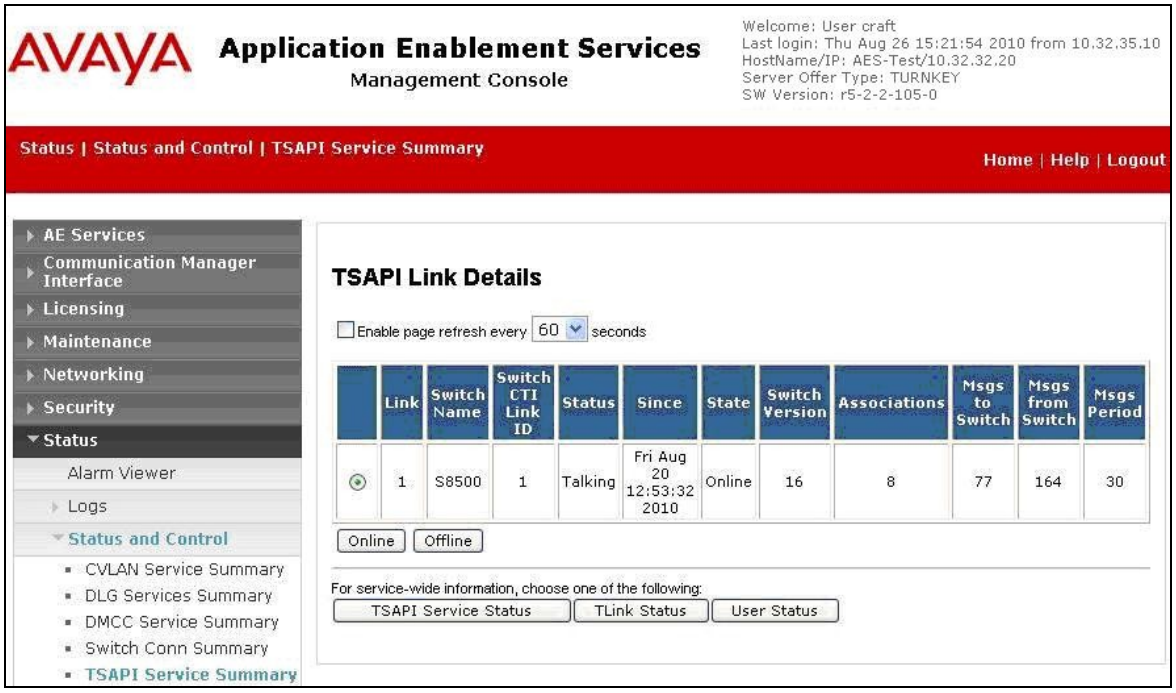
8.2. Verify Avaya Proactive Contact

From the PC running the Avaya Proactive Contact Supervisor, select **Start > All Programs > Avaya > Proactive Contact 4.2 > Supervisor > Monitor**, and log in with the appropriate credentials. The **Monitor** screen is displayed. Select **Dialer > Dialer Agents** from the left pane, to display the **Dialer Agents** screen. Verify that the agent from **Section 8.1** is displayed and in the "Talk" state.



8.3. Verify Avaya Aura™ Application Enablement Services

On Application Enablement 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 5.3**, as shown below.



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9. Conclusion

These Application Notes describe the configuration steps required for synTelate to successfully interoperate with Avaya Proactive Contact with CTI. All feature and serviceability test cases were completed, with observations noted in **Section 7**.

10. Additional References

This section references the product documentation relevant to these Application Notes.

1. *Administering Avaya Proactive Contact*, Release 4.2, May 2010, available at http://support.avaya.com.

2. *Avaya Aura*™ *Application Enablement Services Administration and Maintenance Guide*, Release 5.2, Document ID 02-300357, Issue 11, November 2009, available at http://support.avaya.com.

3. *synTelate Training Manual*, Version 4.01, Issue 0.1.02, available as part of the synTelate training course.

4. *Agent Helpfile for synTelate version 4.01 with Avaya PCS*, Version 4.01, Issue 1.0, available from the synTelate Agent installation CD.

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