



Avaya Solution & Interoperability Test Lab

Application Notes for Noetica Synthesys Customer Interaction Management with Avaya IP Office - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Noetica Synthesys Customer Interaction Management to successfully interoperate with Avaya IP Office. The objective of the test was to evaluate interoperability of the above-mentioned products in a contact center, handling predictive outbound and inbound calling campaigns, as well as agent blending.

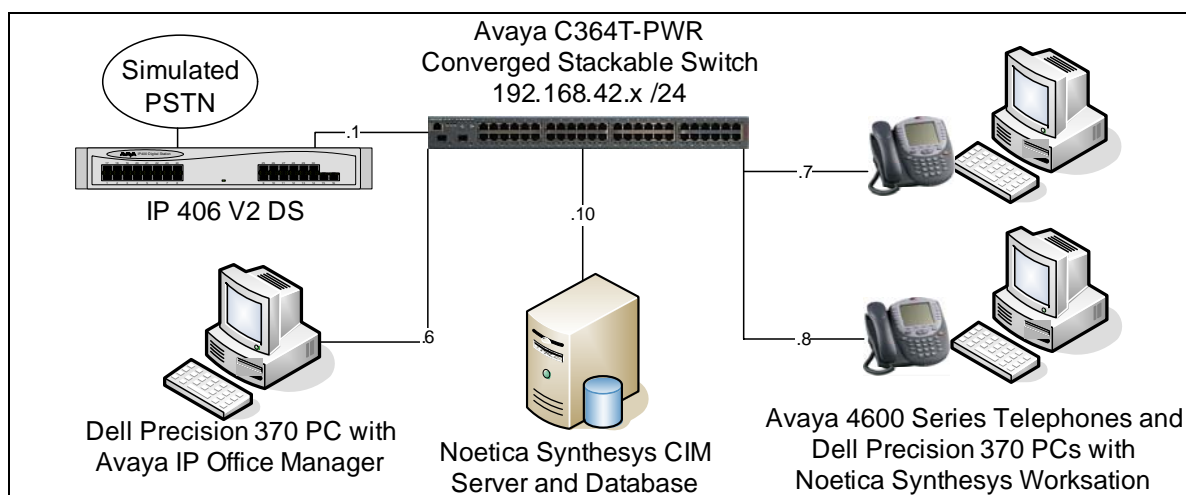
Information in these Application Notes has been obtained through interoperability compliance testing and additional technical discussions. Testing was conducted via the *DeveloperConnection* Program at the Avaya Solution and Interoperability Test Lab.

1 Introduction

These Application Notes describe the configuration steps required for Noetica Synthesys Customer Interaction Management (CIM) to interoperate with Avaya IP Office. Noetica Synthesys is a multi-channel customer interaction management software framework providing the following features.

- Customer relationship management (CRM) and workflow functionality.
- Campaign and team management.
- Computer telephony integration (CTI).
- Predictive dialing and call blending.
- Reporting and automated contact import/export utility.

The integration with Avaya IP Office is achieved using a Telephony Application Programming Interface (TAPI) CTI link for call control and device monitoring. This CTI link terminates at the Synthesys CIM server which passes the CTI information to the agent PCs running the Synthesys Workstation application.



For inbound campaigns Avaya IP Office routes the calls using call center features. Synthesys CIM monitors the agent phones allowing the agent to answer and control calls using the Synthesys Workstation application. Synthesys CIM routes outbound contacts to the Synthesys Workstation application using three outbound pacing modes, as follows.

- **Preview Dial:** The contact is routed to the agent who has to accept it manually before the application dials the contact's number.
- **Power Dial:** The application starts dialing the contacts' number as soon as the contact is routed to the agent.
- **Predictive Dial:** The application predicts future agent availability and makes outbound calls accordingly. The Private Branch Exchange (PBX) routes the calls back into the application, which passes them to available agents.

2 Equipment and Software Validated

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

Equipment	Software
Avaya IP406V2 DS Control Unit	Avaya IP Office 4.0(5)
Avaya 4610SW IP Telephones (H.323)	2.3
Avaya 4620SW IP Telephones (H.323)	2.3
Noetica Synthesys CIM running on Novatech model 8011 PC.	3.2.2007-08-24 Windows Server 2003, Service Pack 1
Noetica Synthesys Workstation running on Dell Precision 370 PCs	3.2.2007-07-18 Windows XP Professional, Service Pack 2

3 Configure Avaya IP Office

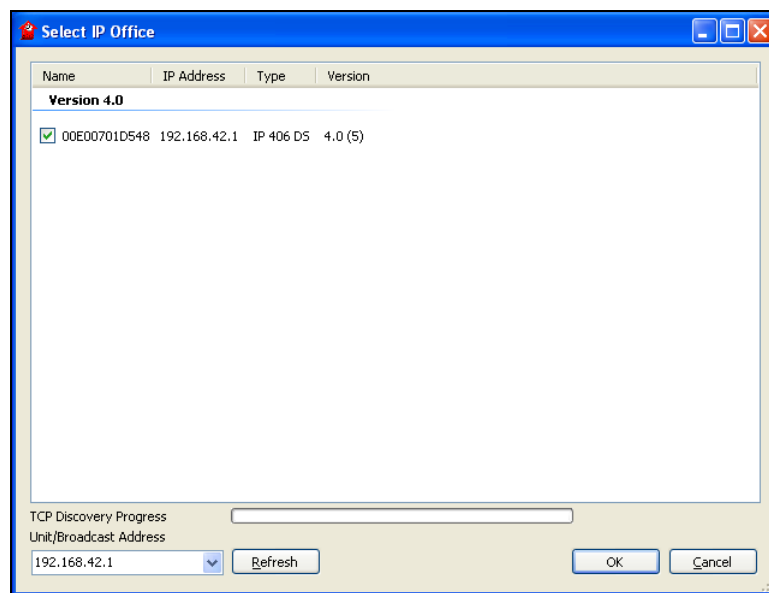
This section provides the procedures for configuring Avaya IP Office. The procedures include the following areas.

- Licensing Avaya IP Office.
- Configuring TAPI Wave ports.
- Saving the Avaya IP Office configuration.

Please note that it is expected that the installer is familiar with configuring users, hunt groups, short codes etc. on the Avaya IP Office as the focus of these Application Notes is on the configuration of the TAPI interface only. For all other provisioning information, such as software installation, installation of optional components, basic configuration of Avaya IP Office, etc., refer to the Avaya IP Office product documentation in reference [1].

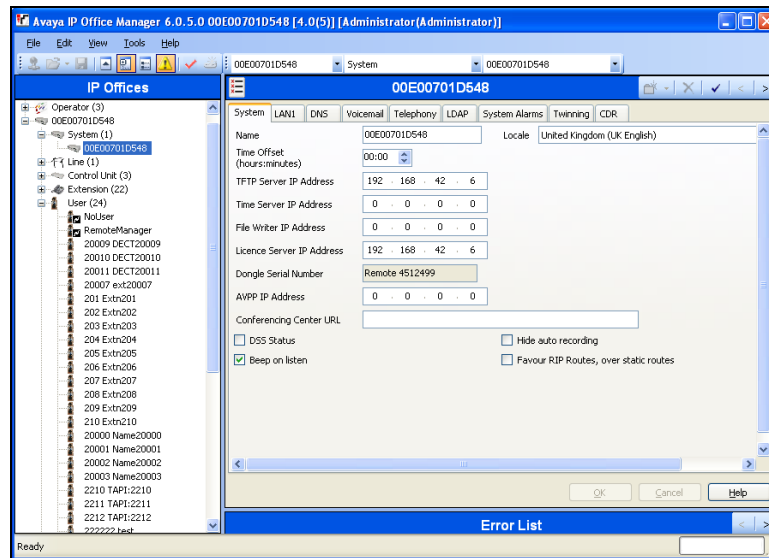
3.1 License Avaya IP Office

Log into the IP Office Manager PC and go to **Start > Programs > IP Office > Manager** to launch the Manager application. Go to **File > Open Configuration** to bring up the **Select IP Office** dialog box. Select the IP Office system by checking the system name as seen below. In this case, there is only one system to select from.



Log into the Avaya IP Office Manager application by using the appropriate user name and password (not shown).

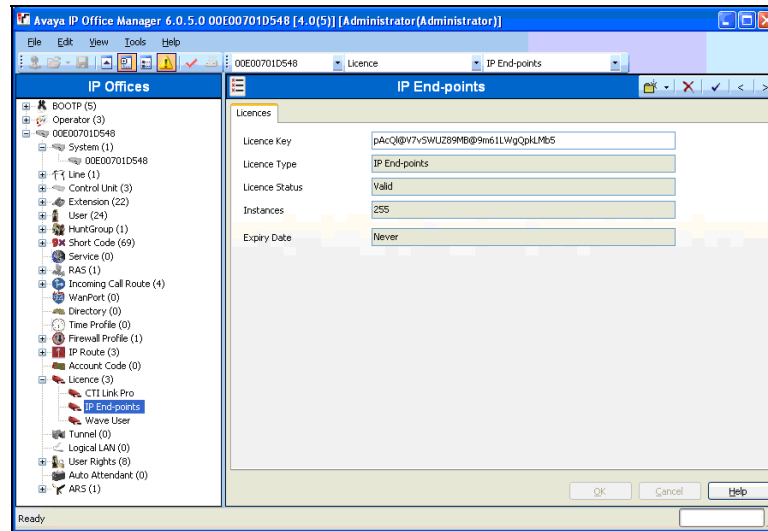
Ensure that the Avaya IP Office serial license dongle is connected to the IP Office Manager PC. In the Manager window, go to the left panel Configuration Tree and click **System**. Click the **System** Tab on the right panel. The **Dongle Serial Number** field should be populated with the dongle number previously plugged into the IP Office. Enter the IP address of the IP Office Manager PC in the **License Service IP Address** field and click **OK**.



Two licenses are required for Noetica Synthesys.

- **CTI Link Pro:** This license allows Noetica Synthesys to connect to Avaya IP office via TAPI.
- **Wave User:** This license allows the creation of TAPI Wave ports which enable Noetica Synthesys to pass the media stream to agent extensions during predictive outbound campaigns.

To add a license, in the Manager window, go to the Configuration Tree, right-click **License** and select **New** from the drop-down menu. Manually enter (or cut and paste from notepad) the license code, provided by Avaya or the Business Partner, into the **License Key** field and click **OK**.

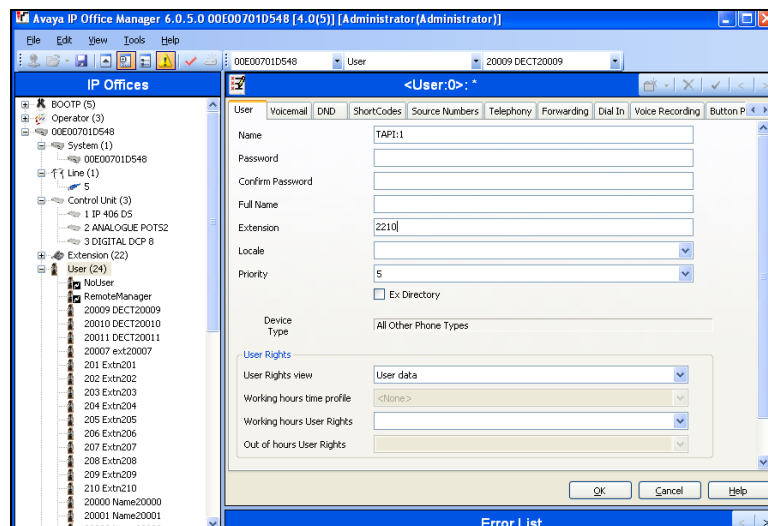


3.2 Configure TAPI Wave Ports

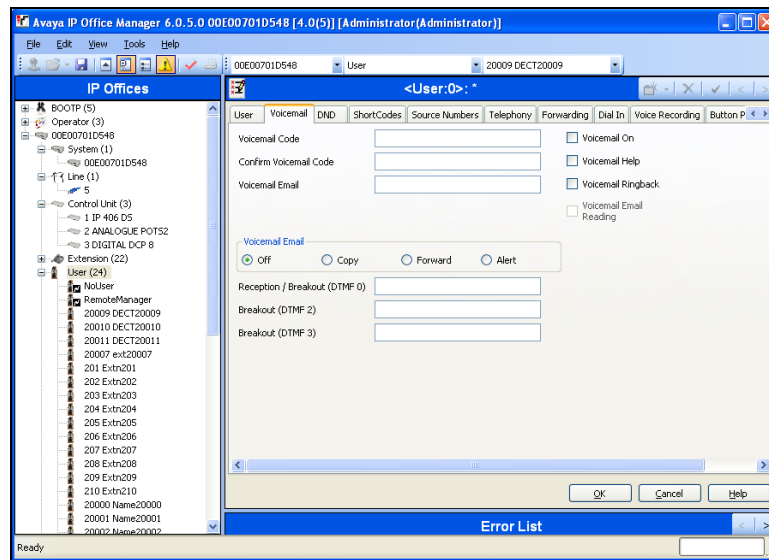
TAPI wave ports should be configured in consecutive ranges. To add a TAPI Wave port, in the Manager window, go to the Configuration Tree, right-click **User** and select **New** from the drop-down menu. Click the **User** tab on the right panel, configure the fields as follows.

- **Name:** Enter “TAPI:x” where “x” is a number to identify the individual TAPI Wave port.
- **Extension:** Enter a valid extension number.

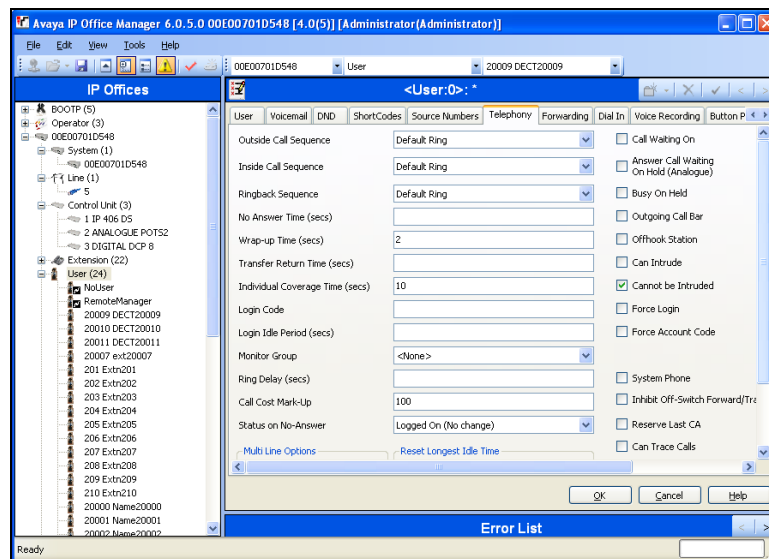
The remaining fields may be left at their default values.



Click the **Voicemail** tab on the right panel, uncheck the **Voicemail On**. The remaining fields may be left at their default values.



Click the **Telephony** tab on the right panel, uncheck **Answer Call Waiting On Hold (Analog)**. The remaining fields may be left at their default values. Click **OK**.



Repeat this process for each TAPI Wave port required.

3.3 Save the Avaya IP Office Configuration

In the Manager window, select **File > Save Configuration**. The configuration to Avaya IP Office is saved at this point and will require a re-boot of Avaya IP Office. This completes configuration of Avaya IP Office

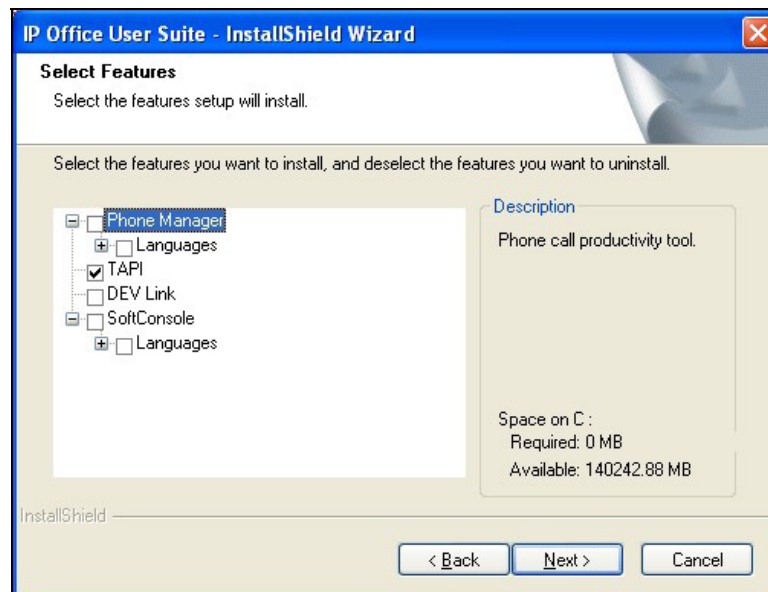
4 Configure Avaya TAPI Driver

This section provides the procedures for configuring the Avaya TAPI Driver. The procedures include the following areas.

- Install Avaya TAPI driver
- Configure Avaya TAPI driver

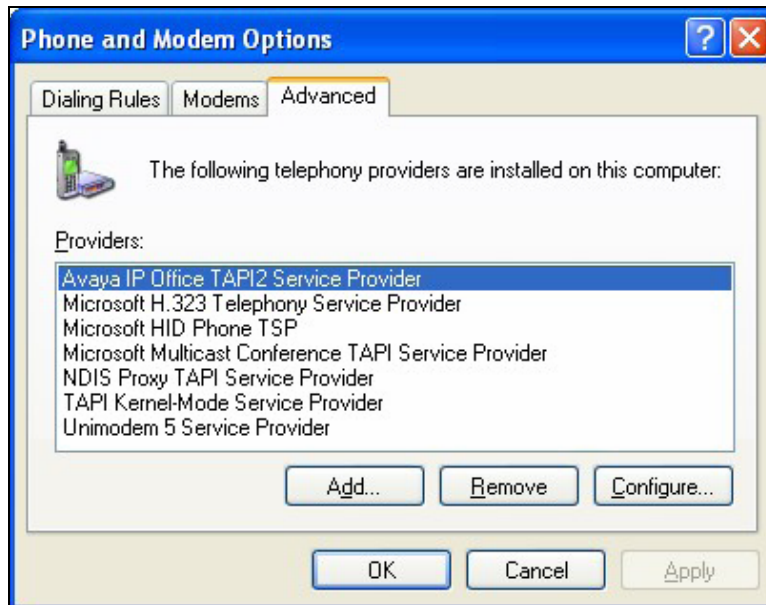
4.1 Install Avaya TAPI Driver

Log into the Noetica Synthesys PC with administrative privileges and start the IP Office User Suite installation. The automatic process displays the screen below. Check **TAPI** to install the Avaya IP Office TAPI driver on the PC. Click **Next** to complete the installation of the Avaya IP Office User Suite. At the InstallShield Wizard Complete window, click **Finish**.

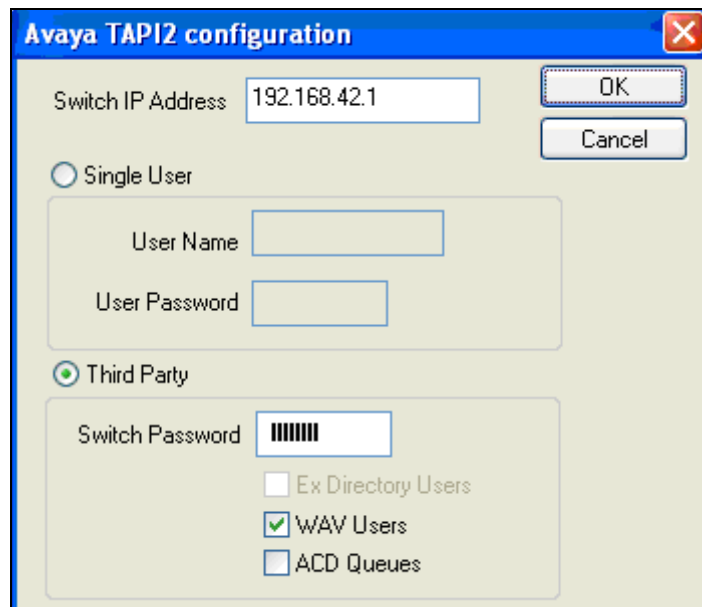


4.2 Configure Avaya TAPI Driver

Goto the Windows Control Panel and open the **Phone and Modem Options**. Click the **Advanced** tab and select **Avaya IP Office TAPI2 Service Provider** and click **Configure....**



In the **Avaya TAPI2 configuration** window that is displayed, set **Switch IP Address** to the IP Address of Avaya IP Office, select **Third Party**, set **Switch Password** to the IP Office password, and check **WAV Users**. Click **OK**



In the Phone and Modem Options window, click **OK**. Reboot the PC for the new changes to take effect. This completes the configuration of the Avaya TAPI driver on the Noetica Synthesys PC.

5 Configure Noetica Synthesys CIM

This section provides the procedures for configuring Noetica Synthesys CIM. The procedures include the following areas:

- Configure Synthesys Server.
- Start the Synthesys TAPI Service.
- Configure Workstation client.

Please note that it is expected that the installer is familiar with configuring agents, teams, campaigns, etc., on Noetica Synthesys as the focus of these Application Notes is on the configuration of the TAPI interface only. For all other provisioning information, such as software installation, installation of optional components, basic configuration of Noetica Synthesys, etc., refer to the Noetica Synthesys product documentation in reference [2].

5.1 Configure Synthesys Server

Open the “synthesys.inf” file which is found in \Synthesys\etc from the root of the drive that Synthesys was installed on, in this case C:\Synthesys\etc, and configure as follows.

Scroll to the **[System Services]** section and add the line “SynTAPI.exe, Synthesis Tapi Interface, 40” under the existing lines.

Scroll to the **[Interfaces]** section and add the line “INTERFACE1=CTIClient.exe, CTIClient, KILL” under the existing lines.

Scroll to the **[LOGON]** section and edit the **FIELD0** line so it reads “FIELD0=Device;EDIT;UNIQUE”. This step adds a field to the agent login dialog box, allowing the agent to specify their extension.

Scroll to the **[TAPI]** section and edit the **ACDType** line so it reads “ACDType=IPOffice”.

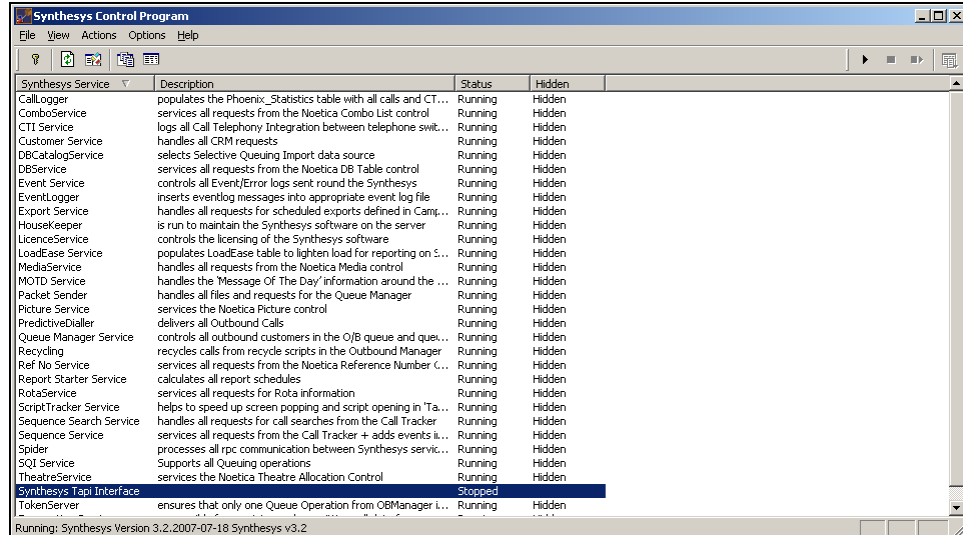
Scroll to the **[Predictive]** section and edit the following lines. This step can be ignored if predictive outbound dialing is not required.

- **MaximumTrunks:** This should be a number equal to the maximum simultaneous calls required (there should also be equal to the number of TAPI Wave ports configured in **Section 3.3**). For example if the value required is 8, the line would read “MaximumTrunks=8”.
- **LinesToUse:** This should be the range(s) of TAPI Wave ports. For example, if the TAPI Wave ports are in ranges 2210-2212 and 2220-2225 the line would read “LinesToUse=2210-2212,2220-2225”.

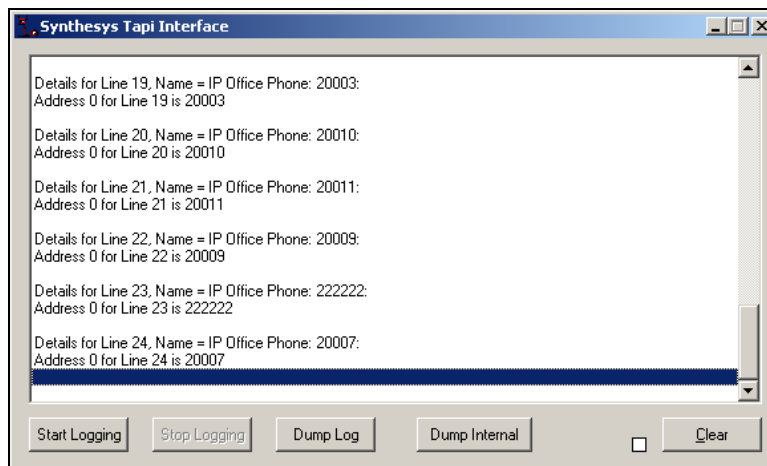
Once configuration is completed, save and close the file.

5.2 Start the Synthesys TAPI Service

To start the Synthesys TAPI service, maximize the **Synthesys Control Program** window, which opens when the server is booted. Select **Actions > Refresh**, right-click on **Synthesys TAPI Interface** and select **Start**.

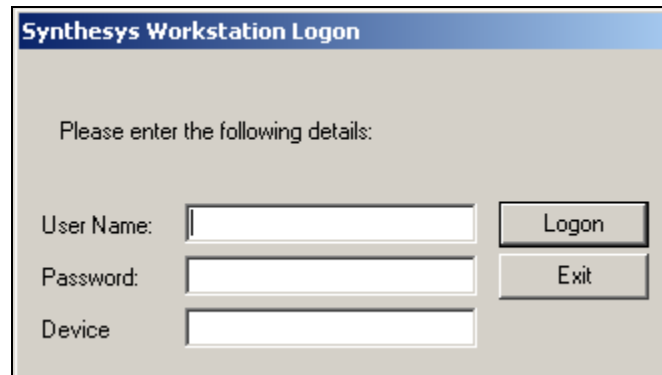


The **Synthesys TAPI Interface** window is displayed, showing all devices available via TAPI.



5.3 Configure Workstation Client

To log in an agent to Workstation, double-click the **Synthesys** icon on the desktop. The **Synthesys Workstation Logon** window is displayed, enter the agent user name, password and extension and click on **Logon**. In normal operation the **Take Calls** application (not shown) will start automatically after a successful log on.

The image shows a screenshot of the 'Synthesys Workstation Logon' window. It has a blue title bar with the text 'Synthesys Workstation Logon'. Below the title bar, the text 'Please enter the following details:' is displayed. There are three input fields: 'User Name:', 'Password:', and 'Device'. To the right of the 'User Name' and 'Password' fields are two buttons: 'Logon' and 'Exit'.

6 Interoperability Compliance Testing

The interoperability compliance test included both feature and serviceability testing.

The feature testing focused on verifying Noetica Synthesys CIM's handling of TAPI messages to request and respond to Avaya IP Office features. The features tested included using the Workstation application for initiating, receiving and controlling calls and handling inbound, outbound and blended campaigns. Test cases were performed manually by making calls to the agent stations and loading call lists for the outbound campaigns. The Synthesys Workstation application was operated manually to test the application's handling of the contacts

The serviceability testing focused on verifying Noetica Synthesys CIM's ability to recover from an outage condition, such as busying out the CTI link and disconnecting the Ethernet cable for the CTI link.

6.1 General Test Approach

All feature and serviceability test cases were performed manually. The verification included checking the states at the telephone sets, and viewing TAPI message traces on Noetica Synthesys CIM.

6.2 Test Results

All test cases passed successfully.

7 Verification Steps

The following steps may be used to verify the configuration.

- Verify the CTI Link Pro and WAVE User licenses are enabled on Avaya IP Office (see **Section 3.1**).
- Verify that all required devices are displayed in the **Synethsys Tapi Interface** window (see **Section 5.2**).
- Verify that the **Take Calls** application can be used to initiate outbound calls and answer inbound calls.

8 Support

For technical support on Noetica Synthesys, contact the Noetica Helpdesk on +44 (0) 207 326 8508. Technical support emails can be sent to helpdesk@noetica.com.

9 Conclusion

These Application Notes describe the configuration steps required for the successful interoperability of Noetica Synthesys with Avaya IP Office. All application functionality and serviceability test cases were completed.

10 Additional References

This section references the product documentations that are relevant to these Application Notes.

[1] *IP Office 4.0 Installation Manual*, Document ID 15-601042, Issue 15e, January 2007, available at:
<http://support.avaya.com>.

[2] *Noetica Synthesys CIM Online Manual and Training Material*, available at:
http://www.noetica.com/access/train/train_main.htm.

©2007 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DeveloperConnection Program at devconnect@avaya.com.