



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring NMS Adaptive Web Assist with Avaya IP Office R8.0 using Avaya IP Office TAPI Service Provider - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for NMS Adaptive Web Assist module to interoperate with Avaya IP Office. NMS Adaptive Web Assist is one module of the NMS Adaptive Suite which allows a user to communicate using web chat.

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

1. Introduction

These Application Notes describe the compliance tested configuration used to validate the NMS Adaptive Web Assist module of the NMS Adaptive Suite with Avaya IP Office R8.0 using Avaya IP Office TAPI3 Service Provider. The Adaptive Suite interoperates with Avaya IP Office using Third Party Telephony Application Programming Interface (TAPI). A module of the Adaptive Suite, the Adaptive CTI Gateway handles all communication between the Adaptive solution and Avaya IP Office.

NMS Adaptive suite is a Computer Telephony Integration (CTI) platform that provides call control, media blending, progressive and predictive dialling and monitoring functionality to end users. Adaptive Desktop allows operators to control making and receiving calls via an Avaya handset registered to the Avaya IP Office.

Adaptive Web Assist is one module of the Adaptive suite which offers web visitors two forms of assistance, a telephone call-back or more immediate assistance using interactive web chat. To request a call-back, visitors complete a simple web form giving their name, telephone number and when to be called. When submitted, the request is automatically put into a queue in the Adaptive system. When the call-back is due, it is automatically presented to the next available user with the correct level of skill to handle it. The user can dial the presented call-back by simply clicking the “Dial” button on the call-back dialog. The system can also trigger an Adaptive CTI screen-pop when the call-back is made. To request a web chat, visitors complete a simple web form giving their name. When submitted, the request is instantly placed into a queue in the Adaptive system. As soon as the next user with the correct level of skill becomes available, the chat is automatically presented to that user. During a Web Assist chat, the user can “push” web pages to the visitor. Comprehensive spell check facilities enable the user to check their own text prior to sending it to the visitor. The user can also save typing time by inserting standard phrases into the chat with a single click. Visitors do not need to download or install any software; the only requirement is a web browser.

2. General Test Approach and Test Results

The interoperability compliance testing included feature and serviceability testing. The feature testing focused on verifying NMS Adaptive's handling of Call Back functionality and Web Chat messages.

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. Compliance testing

The compliance testing focused primarily on the following:

- Scheduled Call Back to an Adaptive Desktop user from a website visitor
- Instant Web Chat between an Adaptive Desktop user and a website visitor

The serviceability testing focused on verifying the ability of NMS Adaptive Web Assist to recover from adverse conditions, disconnecting the Ethernet cable for the CTI link and the reboot of Adaptive server under test.

2.2. Test Results

All tests passed successfully. The following observation was noted.

- [1] Adaptive Desktop does not log in a user as a part of the CTI functionality. Call Control is taken for a user already logged in to an extension.

2.3. Support

For technical support on NMS Adaptive products please contact the NMS support team at:

Web address : <http://www.nms-adaptive.com/support-options.html>
Telephone : +44 845 612 4000
Email : support@nms-adaptive.com

3. Reference Configuration

Figure 1 shows the network topology for compliance testing. NMS Adaptive Web Assist which resides on a Windows 2003 Server with IP Office TAPI3 Service Provider to provide a CTI connection to IP Office. Avaya 2400 Series digital deskphones are associated with Adaptive Desktop operators/users giving each Adaptive Desktop user telephony functionality from the IP Office. Avaya H.323 IP deskphones can also be used to provide telephony functionality.

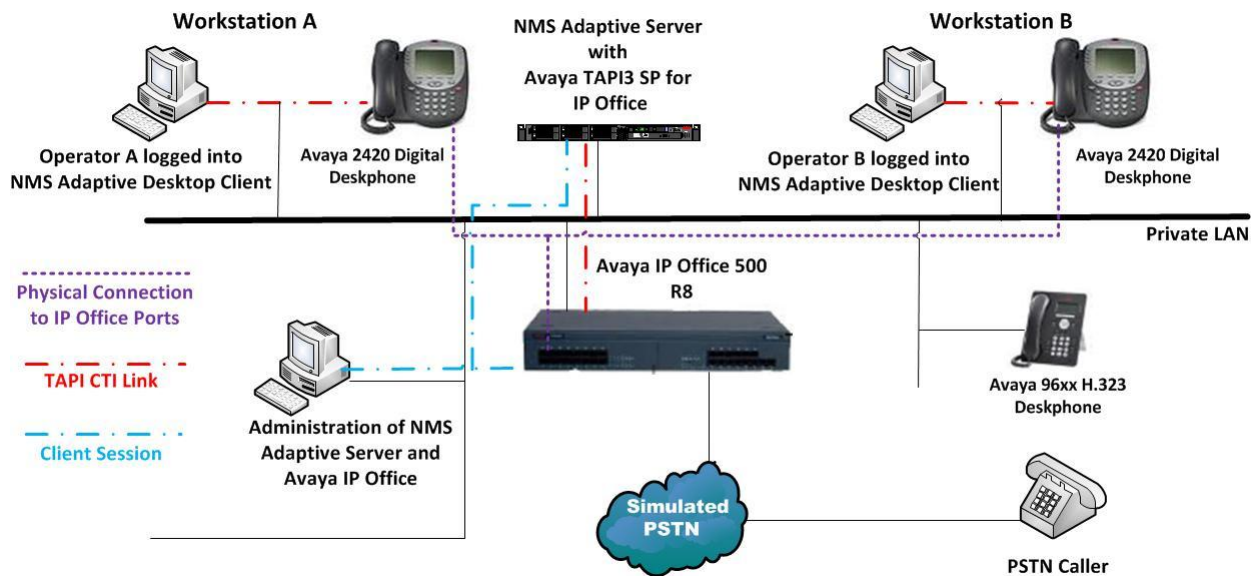


Figure 1: Connection of NMS Adaptive Web Assist with Avaya IP Office R8.0

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office 500	Avaya IP Office R8.0.16
Avaya 96xx H.323 Deskphone	Avaya H323 IP Office Firmware Ha96xxua3_Hbas.bin
Avaya 2420 Digital Extension	N/A
Avaya TAPI3 Telephony Service Provider Client for IP Office Installed on Adaptive Server.	Avaya TSPI3w.tsp 1.0.0.17
Platform Independent Server with Windows 2003 Server O/S and NMS Adaptive Server.	NMS Adaptive Web Assist Release 9.4
Client Workstation with Windows XP and NMS Adaptive Desktop	NMS Adaptive Desktop Release 9.4

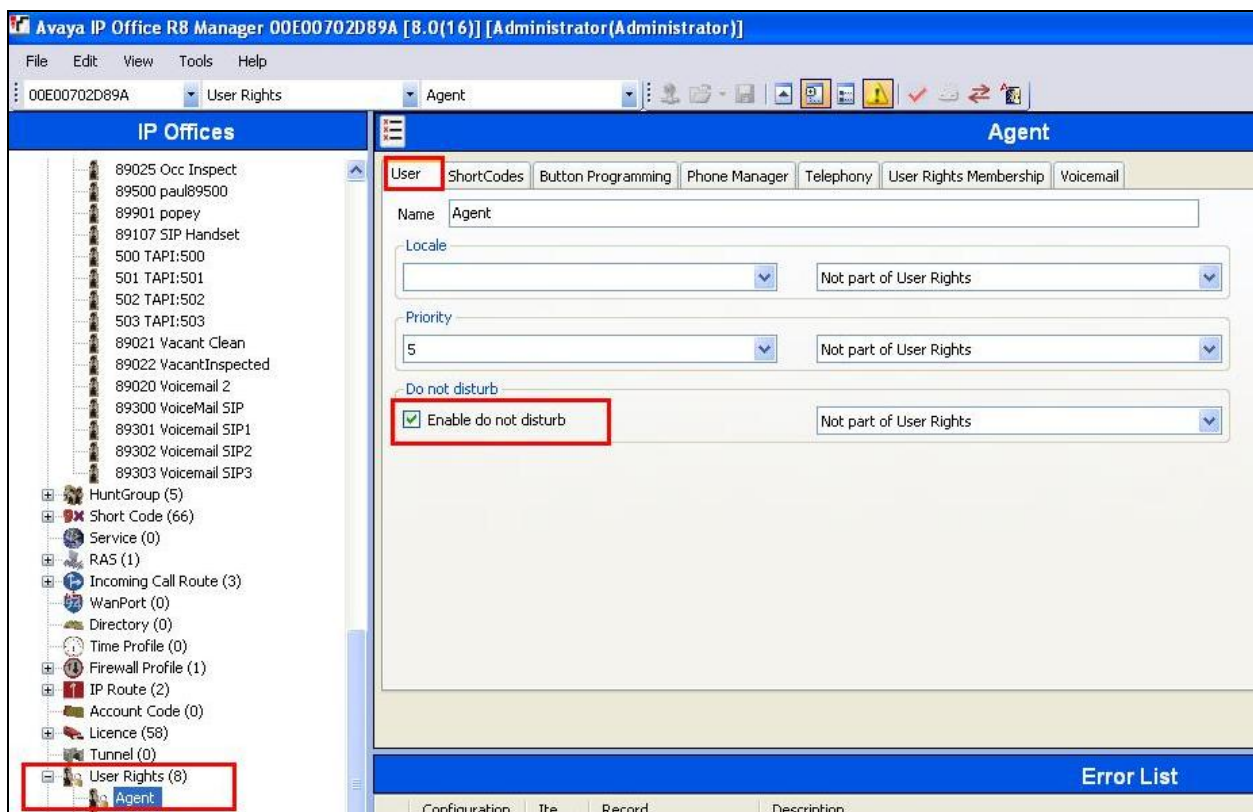
5. Configuration of Avaya IP Office

IP Office is administered using IP Office Manager installed on a client PC. It is assumed that a working IP Office is in place with extensions and users preconfigured. This section shows what changes to the IP Office configuration is required for NMS Adaptive Messaging to interoperate correctly.

Note: A user must be logged into an IP extension before the Adaptive Desktop can assume control of the extension.

5.1. Configuration of Avaya IP Office Users

Each user will need to be configured to allow the Do not disturb feature. Click on **User Rights** in the left window select the user right associated with the users. In the example below this is named **Agent**. Under the **User** tab ensure **Enable do not disturb** is ticked as shown. Enter a suitable name for the User rights as this will be referenced in the User configuration to follow. Click **OK** once the information is entered correctly (not shown).



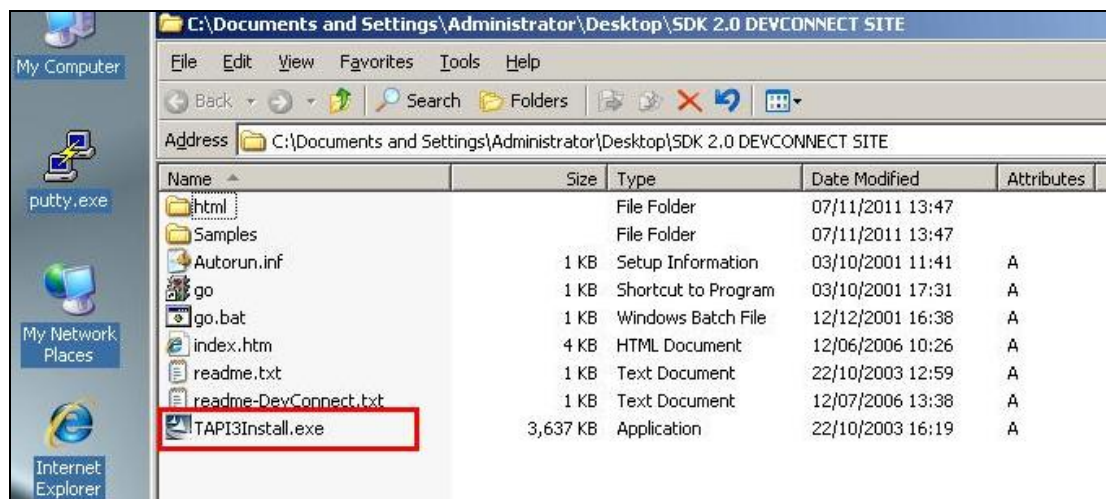
Expand on **User** in the left window and select the user to modify. Under the **User** tab in the right window ensure that **Working hours User Rights** is set to that user rights configured above.

The screenshot displays the Avaya IP Office configuration interface. On the left, a tree view under 'IP Offices' shows a list of users. The 'User (51)' folder is expanded, and the user '8910 Ext8910' is selected. On the right, the 'User' configuration page for 'Ext8910: 8910' is shown. The 'User' tab is active, displaying various settings. The 'Working hours User Rights' dropdown menu is highlighted with a red box and is set to 'Agent'. Other settings include 'System Phone Rights' set to 'None', 'Profile' set to 'Teleworker User', and 'Device Type' set to 'Avaya 2420'.

Setting	Value
System Phone Rights	None
Profile	Teleworker User
Receptionist	<input type="checkbox"/>
Enable Softphone	<input checked="" type="checkbox"/>
Enable one-X Portal Services	<input checked="" type="checkbox"/>
Enable one-X TeleCommuter	<input checked="" type="checkbox"/>
Enable Remote Worker	<input checked="" type="checkbox"/>
Ex Directory	<input type="checkbox"/>
Device Type	Avaya 2420
User Rights view	Working hours User Rights
Working hours time profile	<None>
Working hours User Rights	Agent
Out of hours User Rights	

6. Installation and Configuration of Avaya IP Office TAPI3 Service Provider

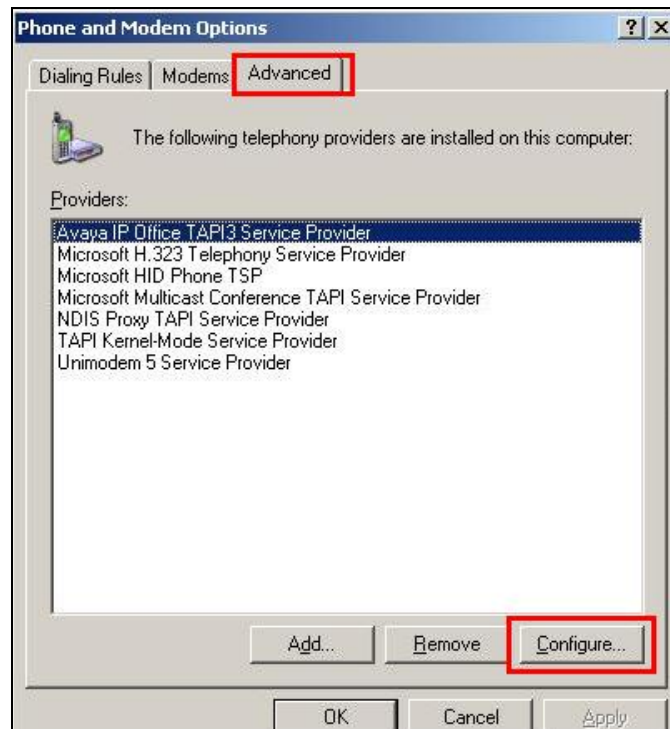
TAPI3 Service Provider is included in the IP Office CTI Link Software Development Kit (SDK) located on the DevConnect website (<http://www.avaya.com/gcm/master-usa/en-us/corporate/alliances/devconnect/index.htm>) under the product name IP Office. Once downloaded the install is initiated by running **TAPI3Install.exe** as shown below.



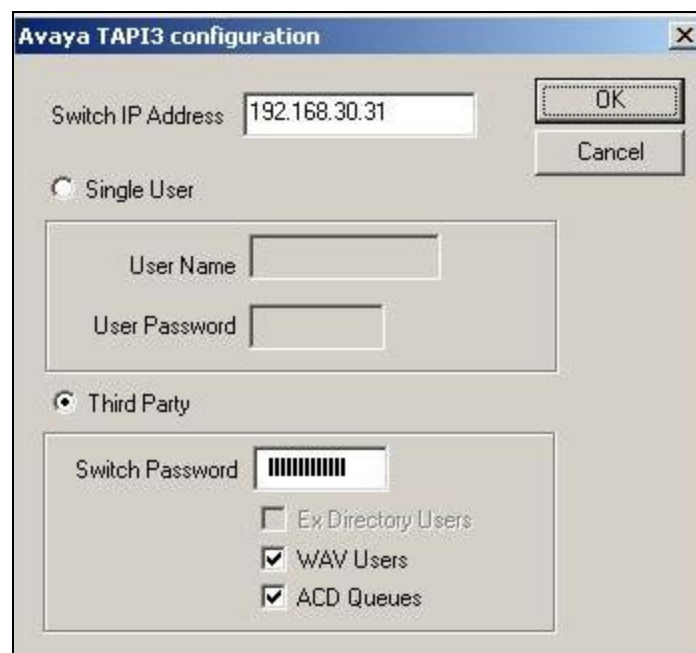
To configure the TAPI Service Provider, navigate to **Control Panel** and right click on **Phone and Modem Options** and properties as highlighted below.



Click on the **Advanced** tab and highlight **Avaya IP Office TAPI3 Service Provider** and click **Configure**.



Enter the IP Office IP address into the **Switch IP Address** box. Select **Third Party** and enter the IP Office Administrators password into the **Switch Password** box. Ensure **WAV Users** and **ACD Queues** are ticked as shown below.



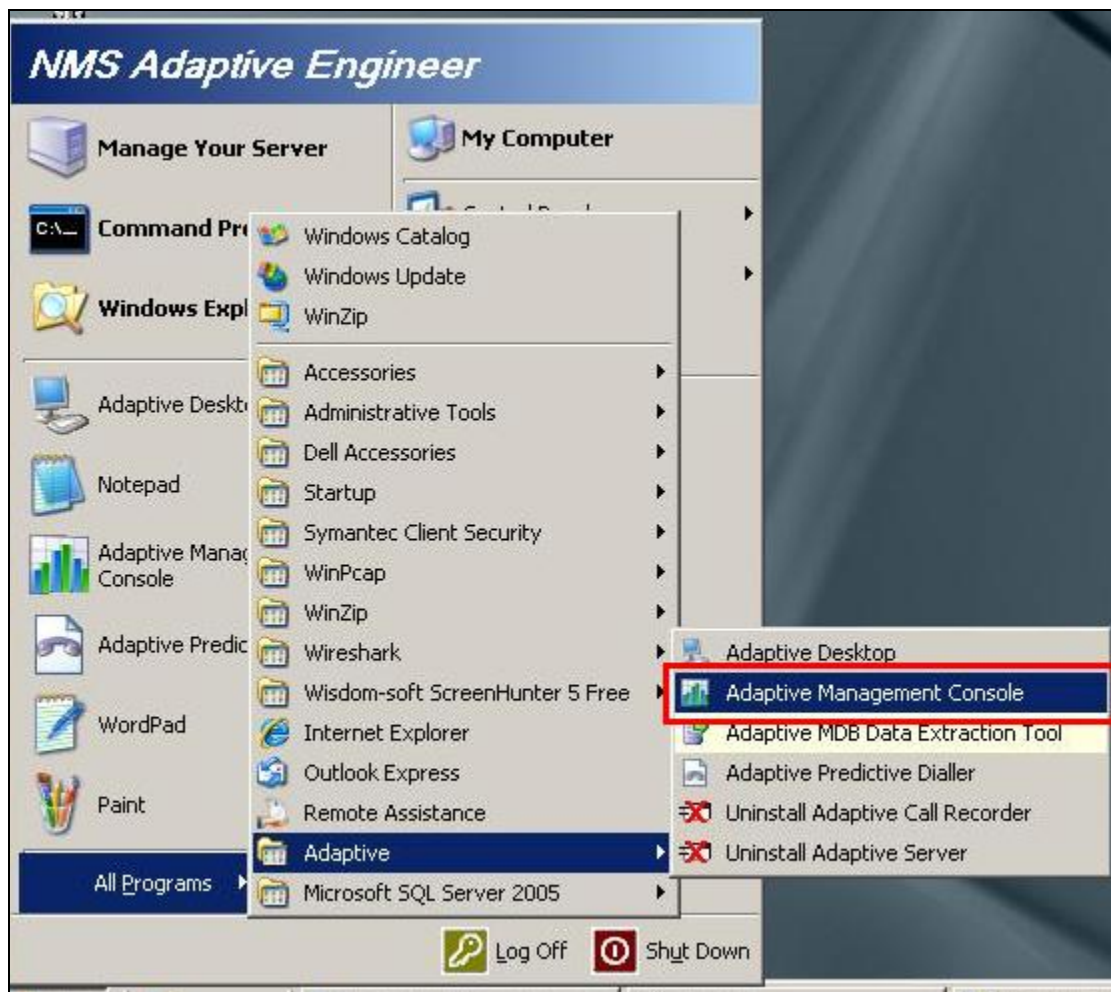
7. Configuration of NMS Adaptive Web Assist

This section outlines the steps necessary to configure the NMS Adaptive Web Assist to enable the Adaptive Desktop users take control of the Avaya IP Office deskphones. All configuration changes on the Adaptive Server are done through Adaptive Management Console installed on the Adaptive Server.

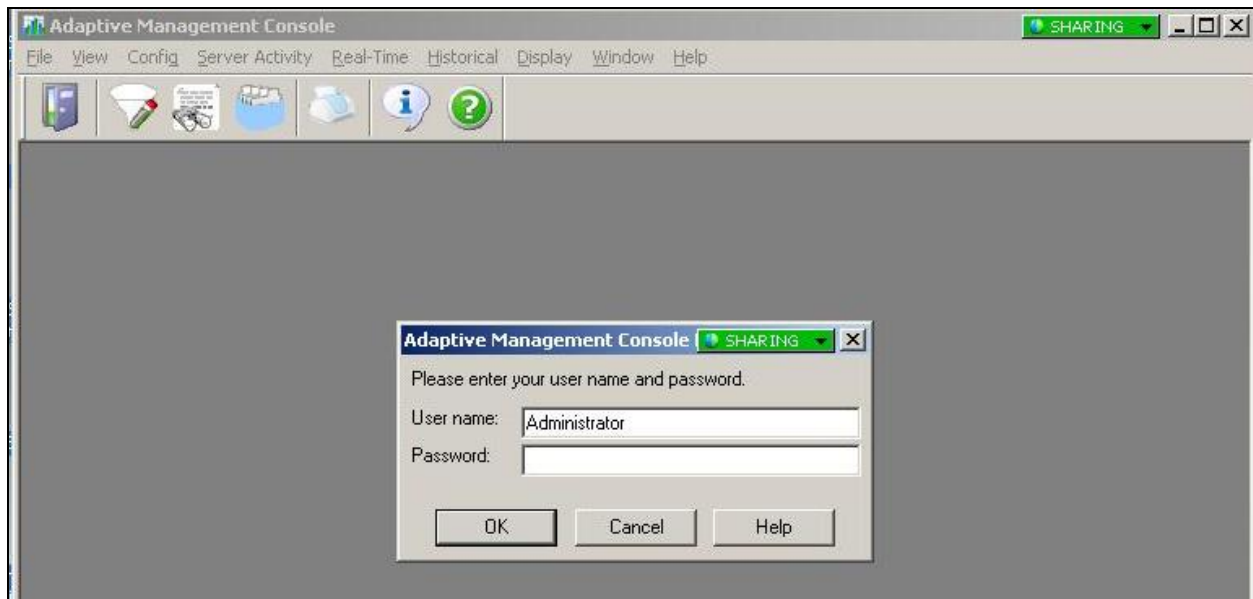
Note: Installation of the Adaptive Web Assist software is outside the scope of this document, for additional information regarding the installation please see **Section 10** of these Application Notes.

7.1. Configuration of NMS Adaptive CTI Gateway

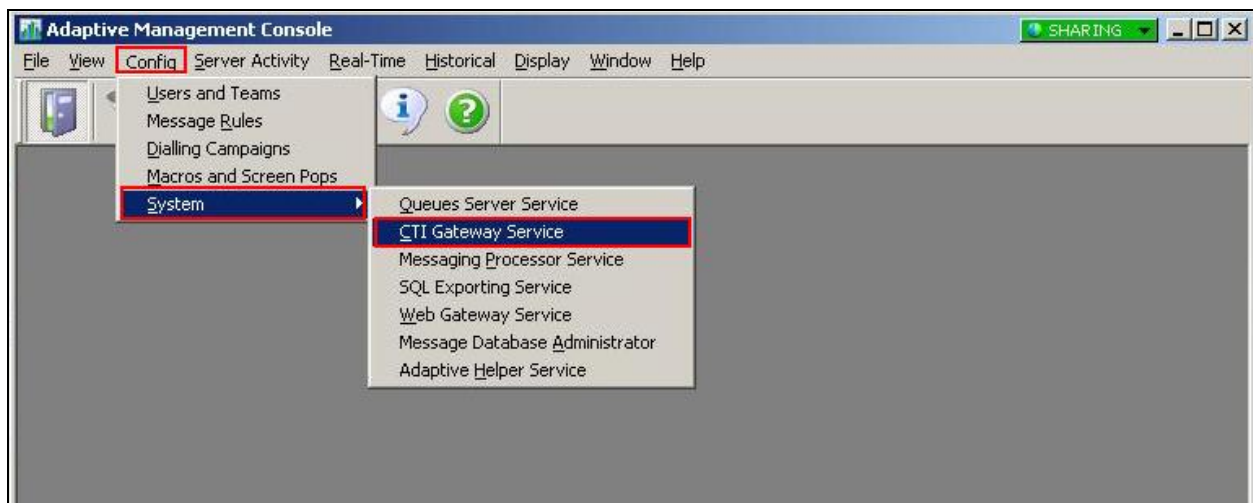
The steps below describe the configuration for Adaptive CTI Gateway. This configuration enables the Adaptive Messaging to communicate with IP Office via TAPI. Open the program **Adaptive Management Console** as shown below.



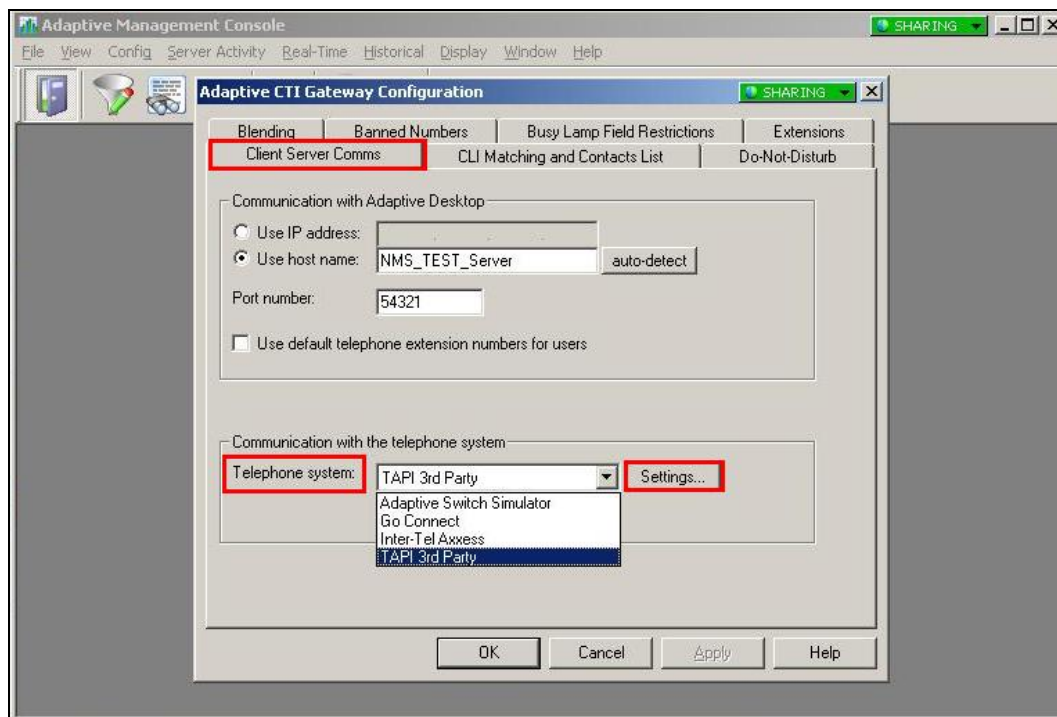
Enter the appropriate credentials into the **Adaptive Management Console** login screen as shown.



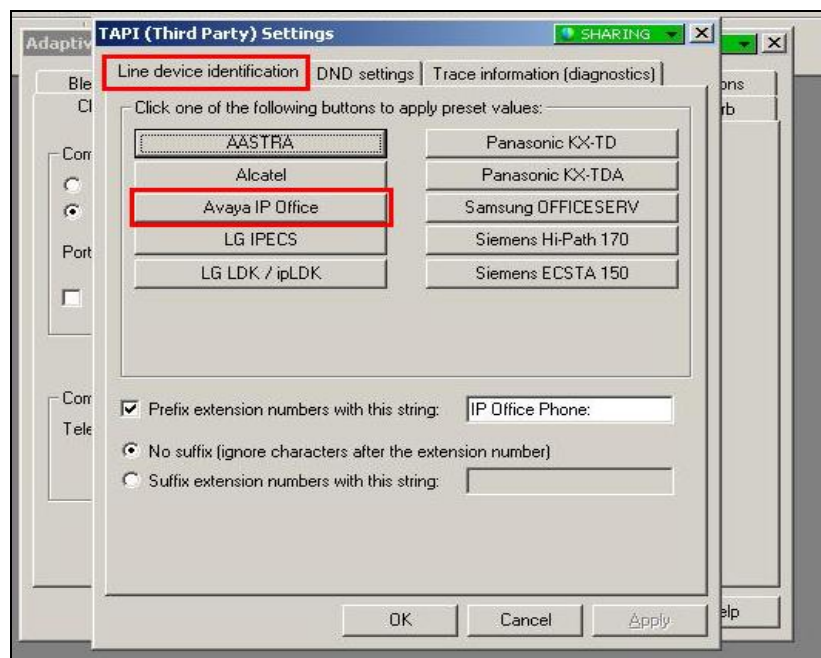
Once logged in configure the CTI Gateway Service by clicking on **Config** in the toolbar at the top of the screen and under **System** select **CTI Gateway Service** as shown below.



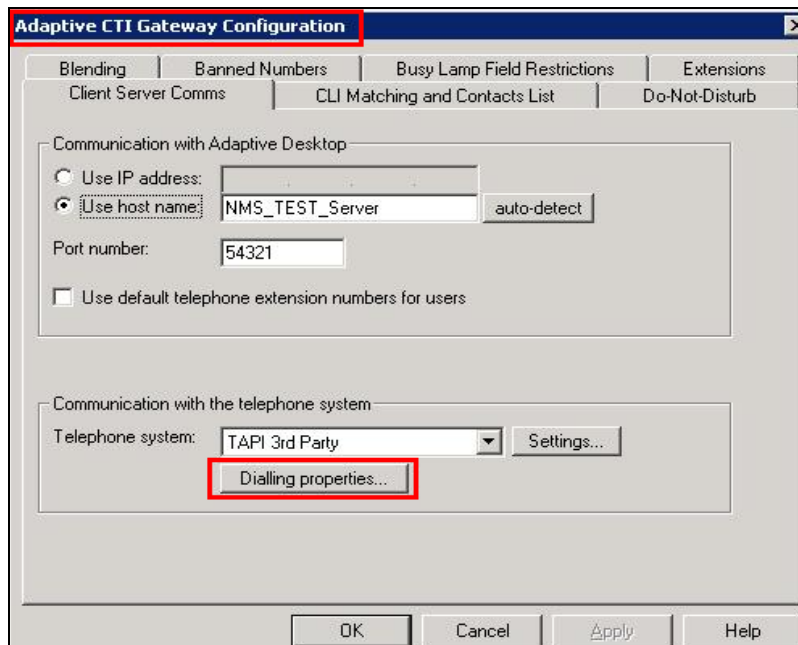
The **Adaptive CTI Gateway Configuration** window opens. Select **Client Server Comms** tab and select **TAPI 3rd Party** for the **Telephone system** as highlighted below. Click **Settings** to configure the TAPI Settings.



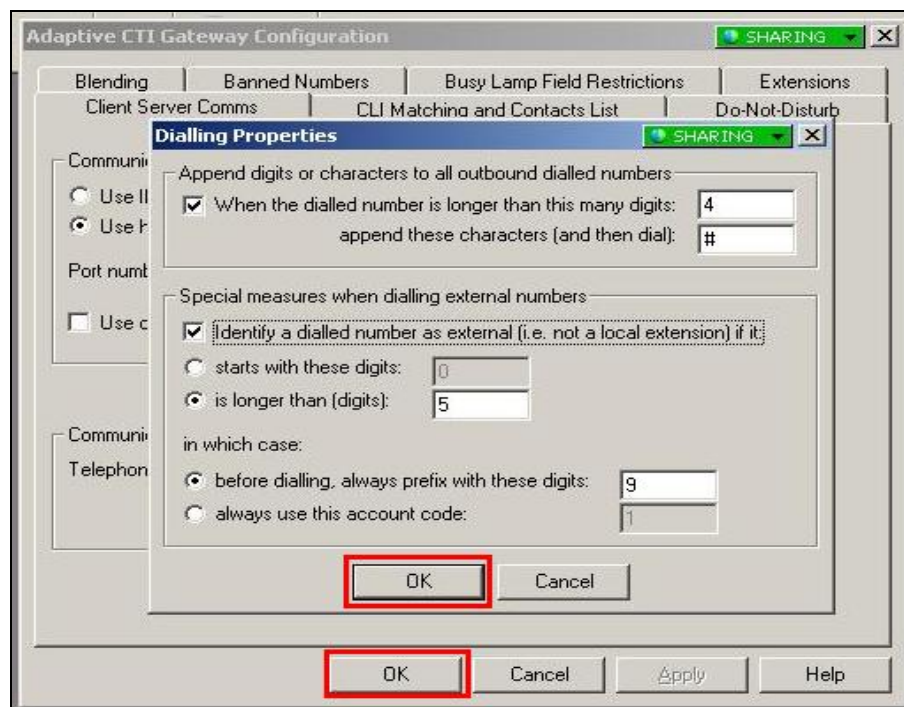
The **TAPI (Third Party) Settings** window opens. Click the **Avaya IP Office** button under the **Line device identification** tab and click **OK** to submit. All other entries are default.



Click on **Dialling properties** on the **Adaptive CTI Gateway Configuration** window as shown below.

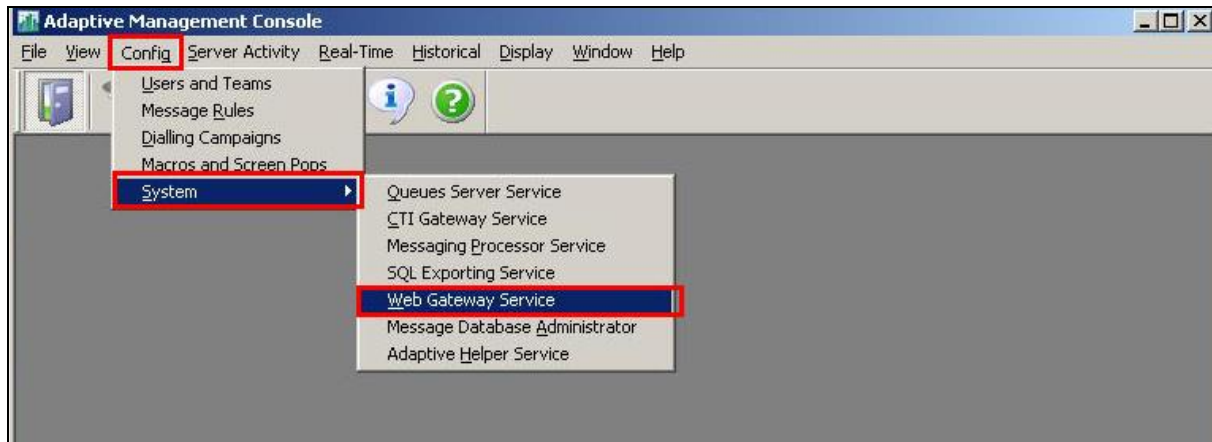


Prefix numbers for outside lines and appended numbers are added for the system on this screen. The information added here is non-specific as it is unique for each site. Once the relevant information is added, click **OK** and **OK** on the **Adaptive CTI Gateway Configuration** window, as shown.

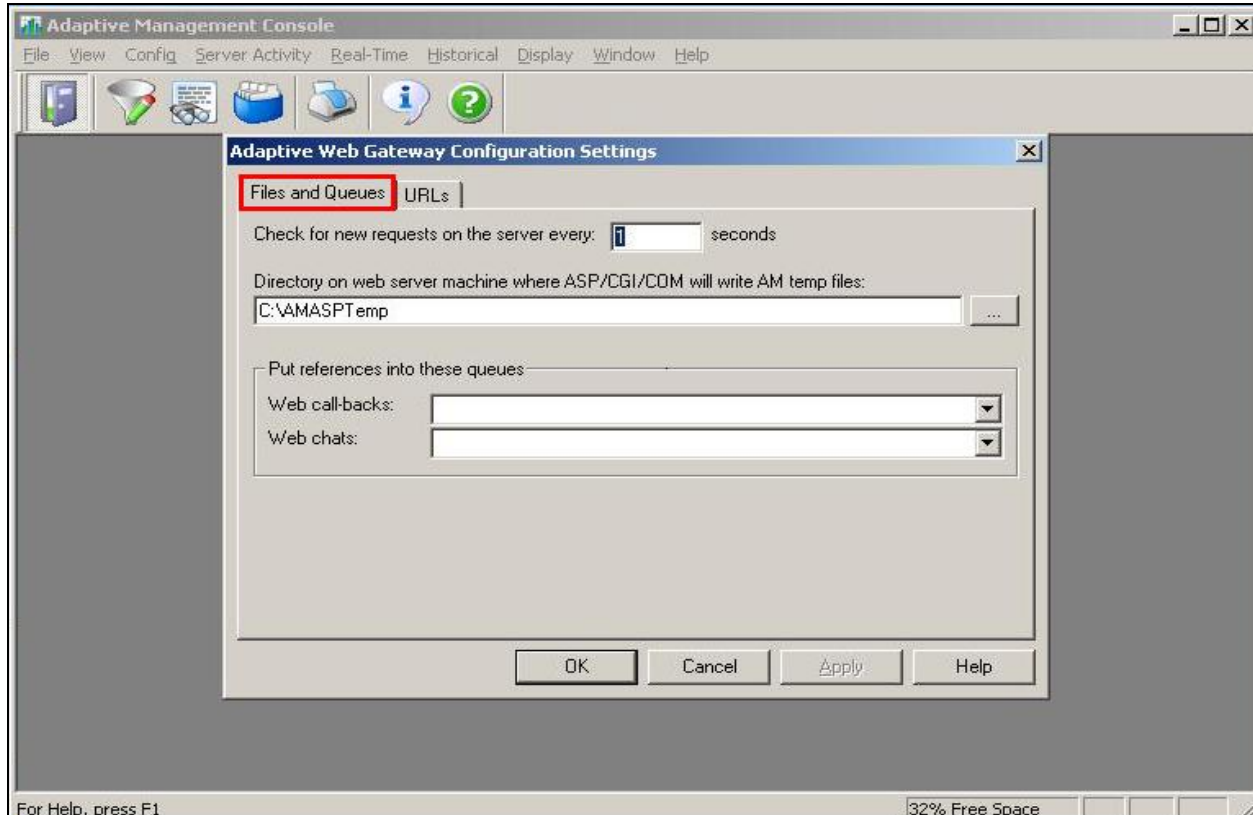


7.2. Configuration of NMS Adaptive Web Assist module

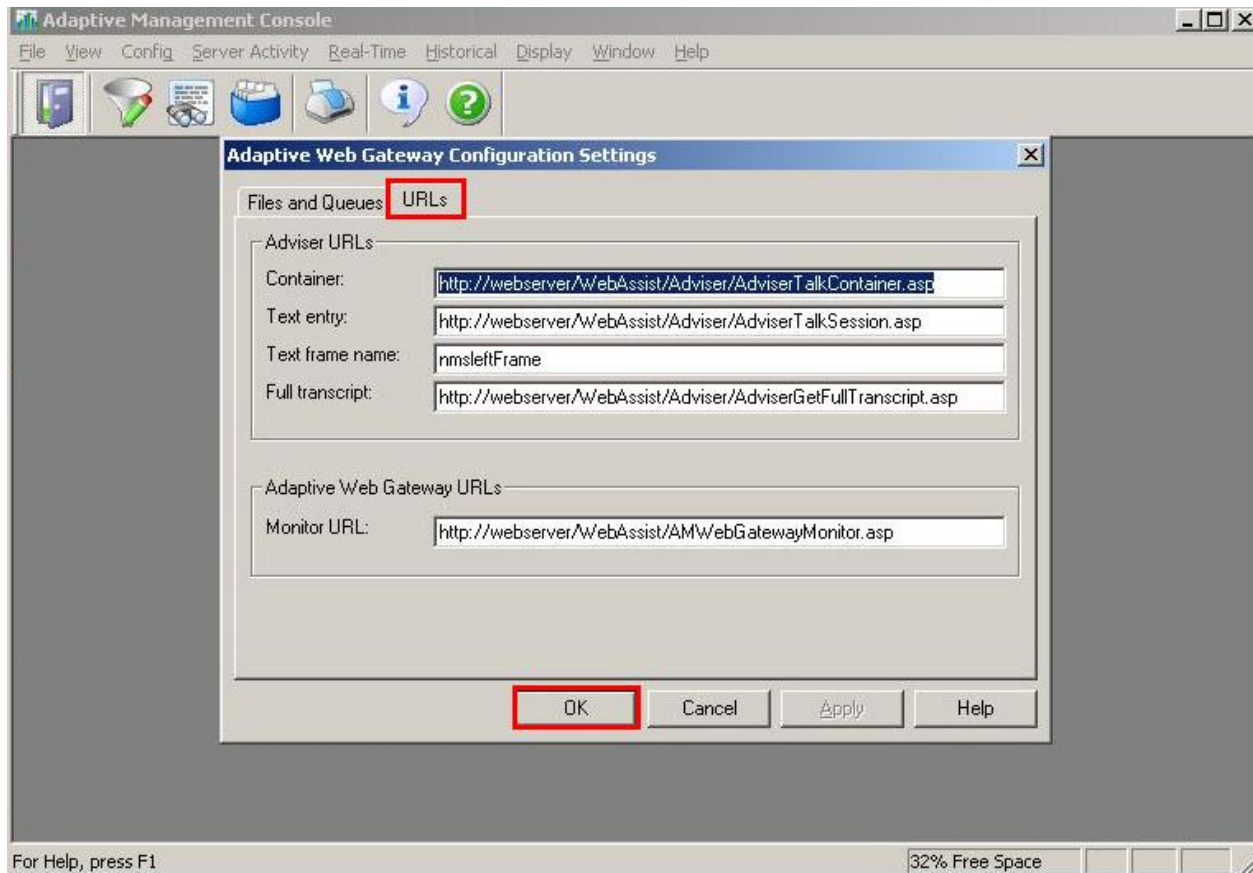
This section shows the configuration steps necessary to configure the Adaptive Web Assist module. Open the program **Adaptive Management Console** as shown in **Section 7.1**. Under **Config** on the toolbar select **System** and **Web Gateway Service** highlighted below.



A window called **Adaptive Web Gateway Configuration Settings** is opened. Click on the **Files and Queues** tab. Enter the location of the **AM temp files** (note this location during the installation of Web Assist), enter the correct queue information for **Web Call-backs** and **Web chats**.

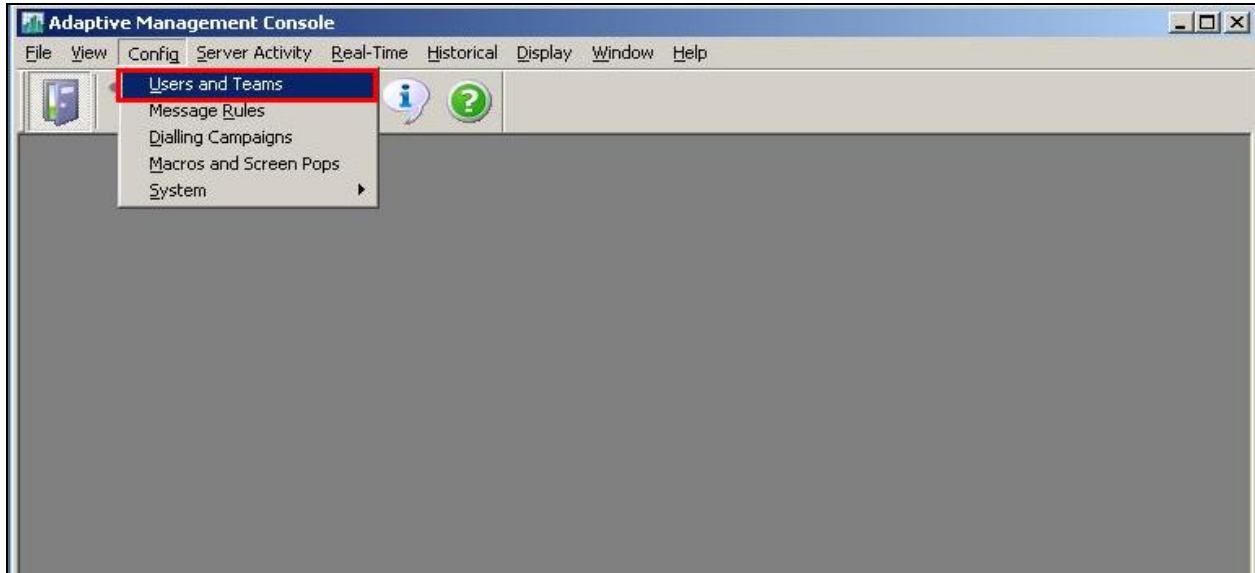


Click on the **URLs** tab. Enter the correct information for the **Adviser URLs** and the **Adaptive Web Gateway URLs**.

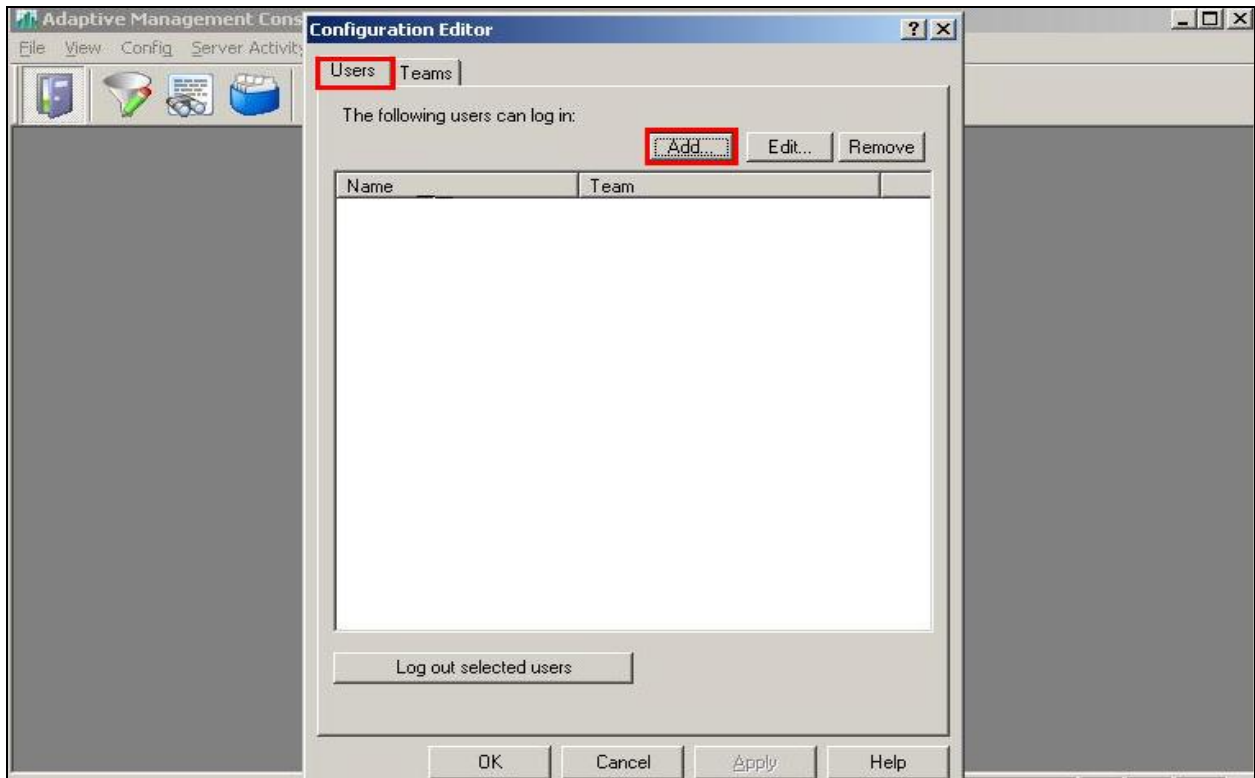


7.3. Adding Adaptive Users

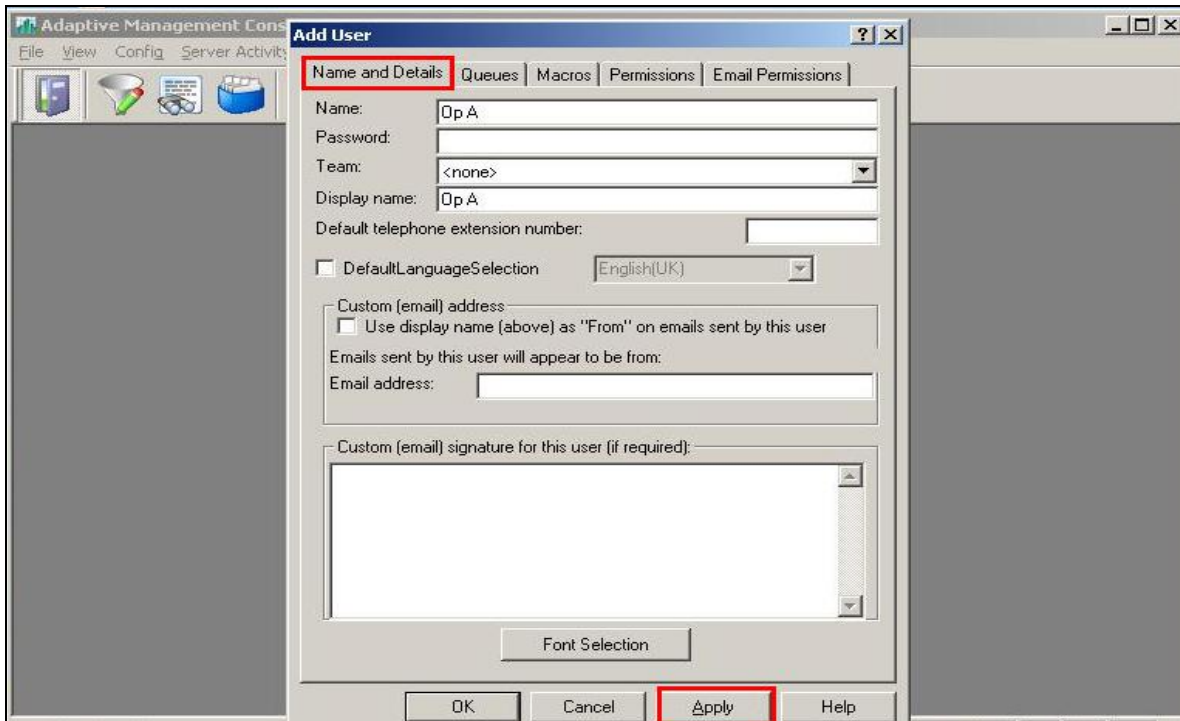
Open the **Adaptive Management Console** as described in **Section 7.1**. Under **Config** select **Users and Teams** highlighted below.



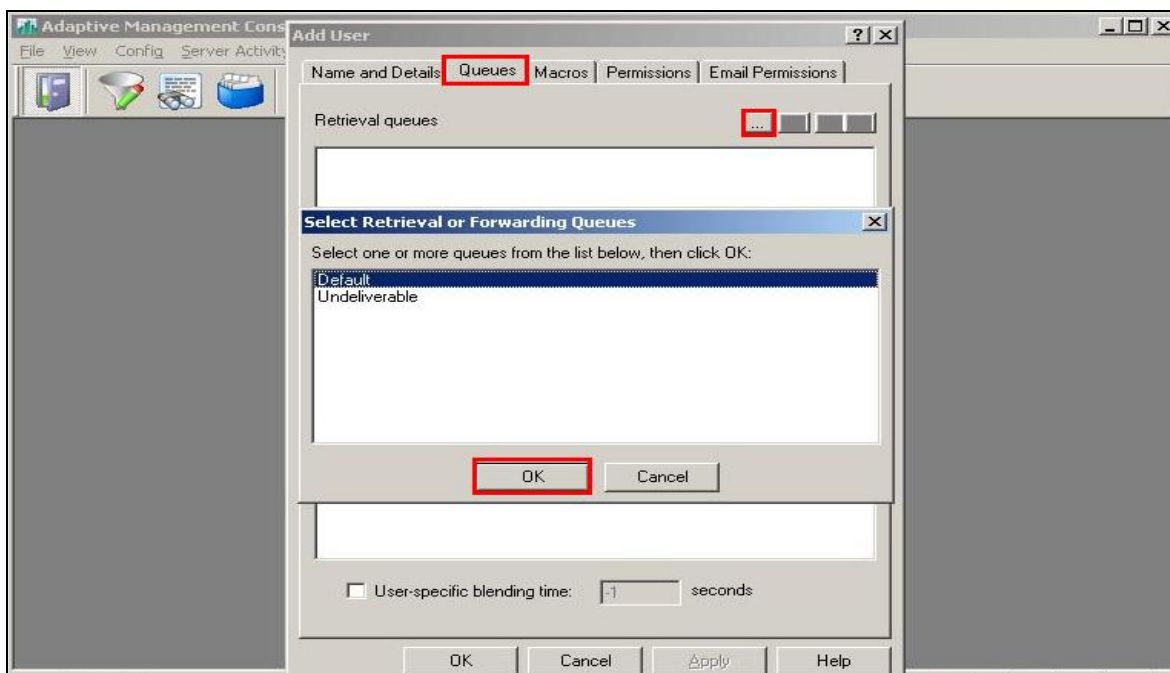
Select the **Users** tab and click on the **Add** button highlighted below.



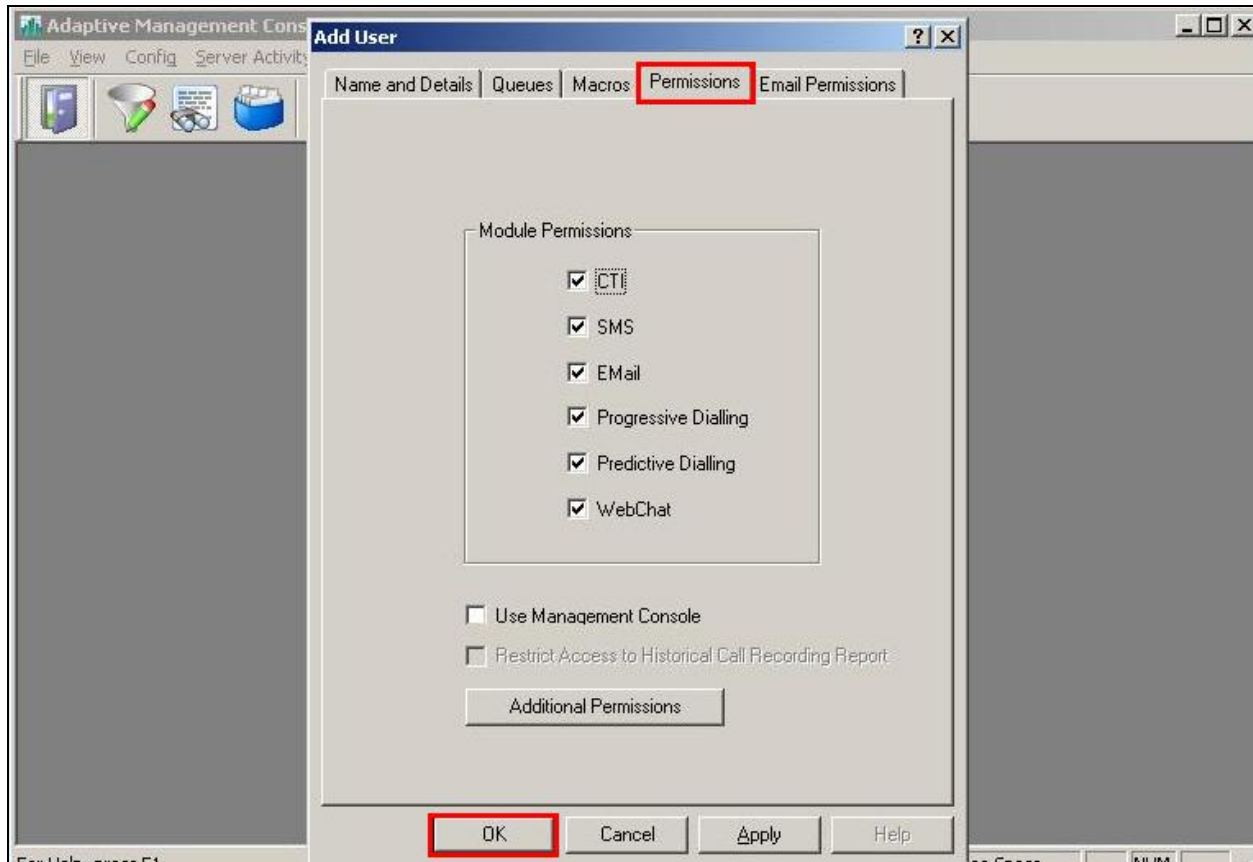
The **Add User** window is opened, under the **Name and Details** tab enter a suitable **Name** and **Password** and click **Apply**.



Select the **Queues** tab and click on the icon highlighted below. The **Select Retrieval or Forwarding Queues** window is opened. Select the required queue that will be associated with the new user and click **OK**.

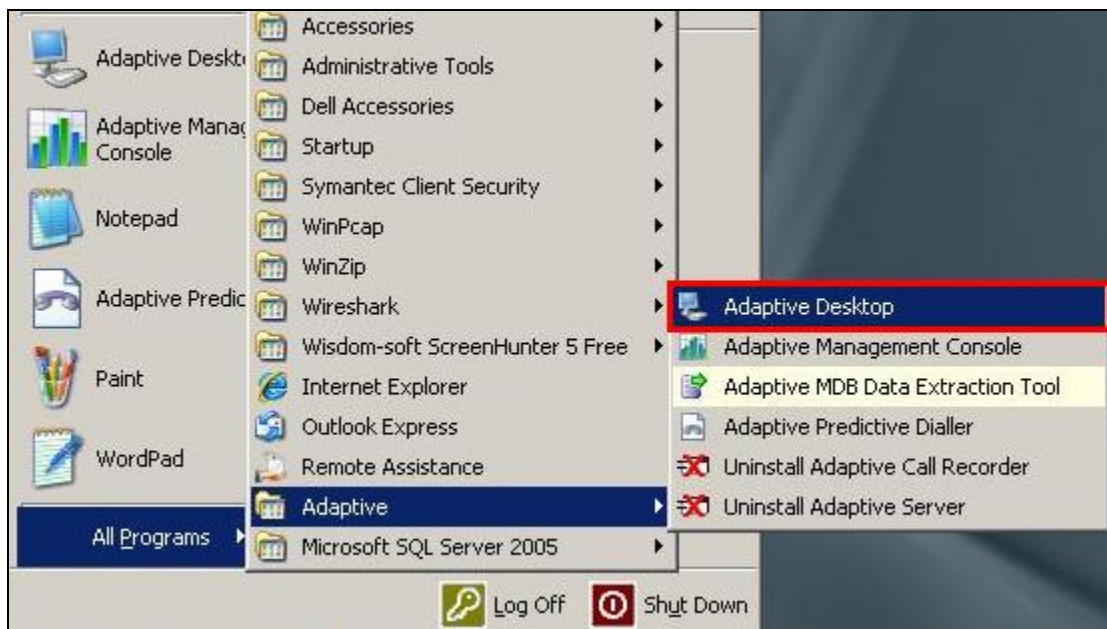


Click on the **Permissions** tab and select the **Module Permissions** required for the user, the example below shows all possible modules selected for the user. Click on **OK** once selected.

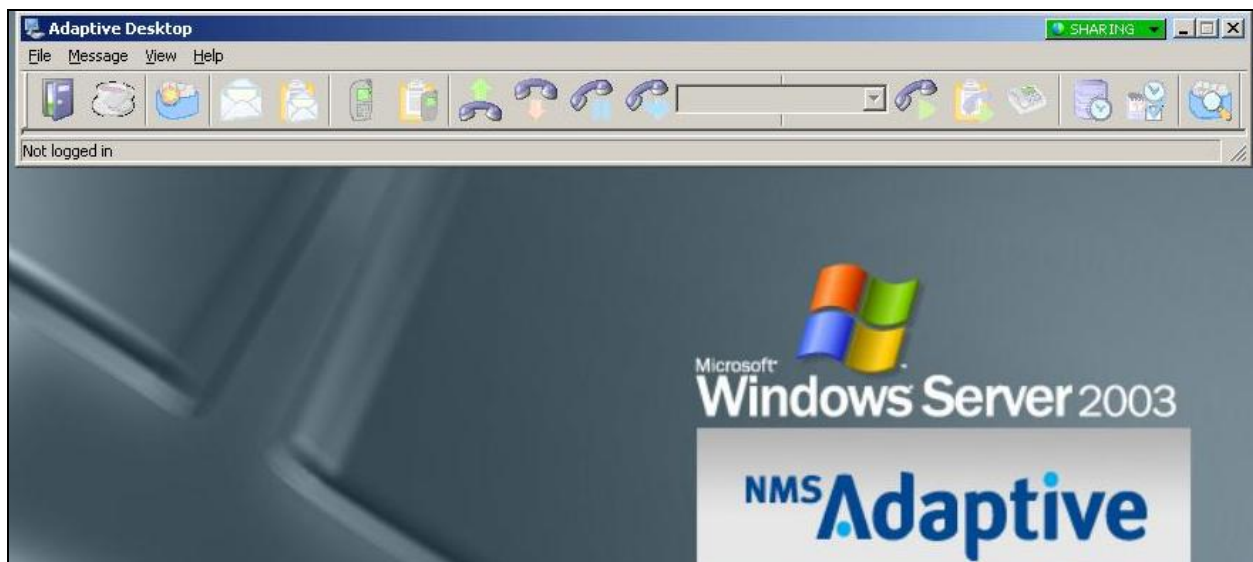


7.4. Configure Adaptive Desktop

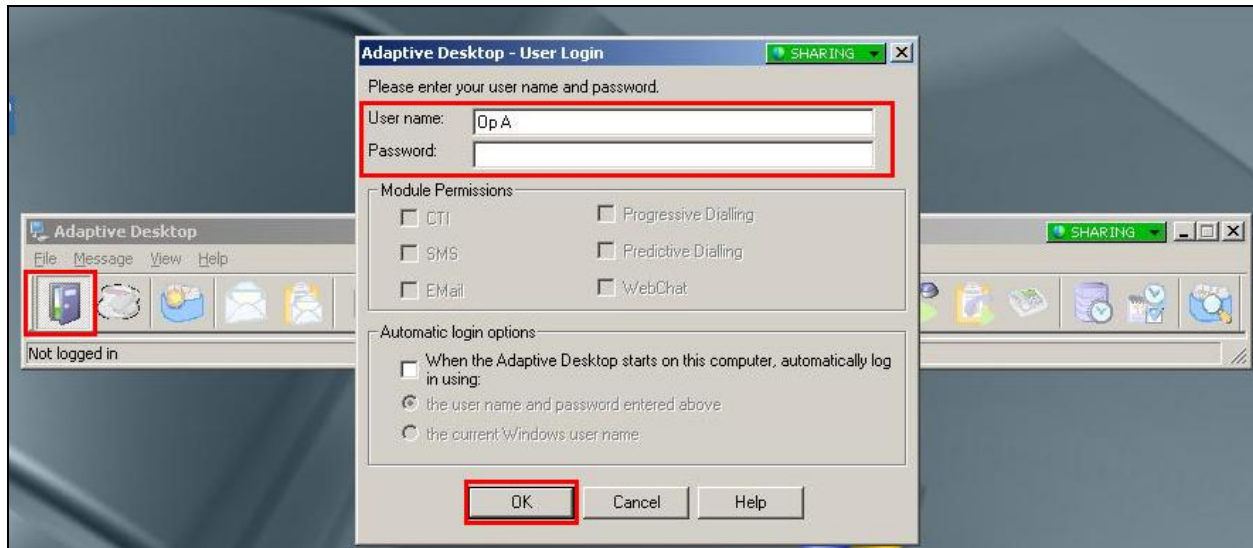
Open **Adaptive Desktop** as shown below.



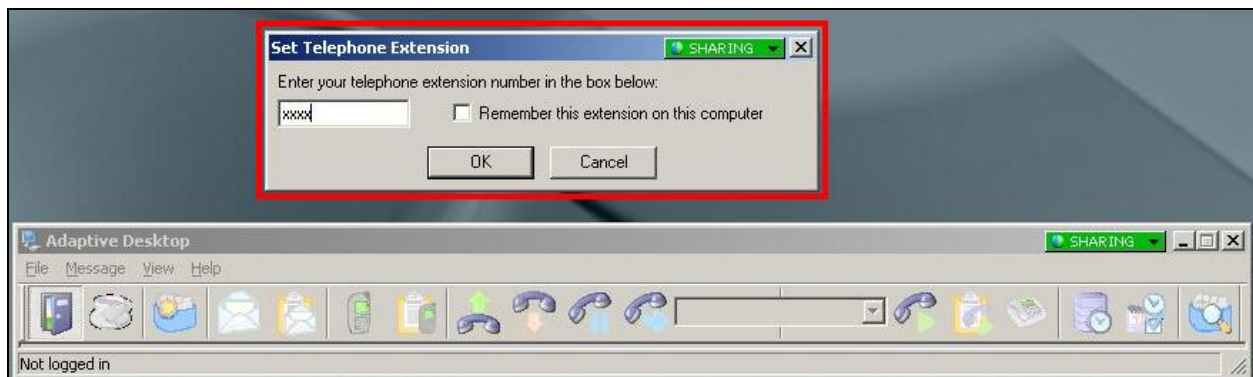
This opens the **Adaptive Desktop** window as shown.



Click on the Login Icon highlighted. This opens the **Adaptive Desktop – User Login** window, Enter the required **User name** and **Password** and click **OK**.



Once **OK** is clicked above the **Set Telephone Extension** window opens. Enter the IP Office extension that is to be associated with the Adaptive Desktop operator and click **OK**.



Once logged in information on **messages**, **calls**, and **Call Queue** is displayed as highlighted below.

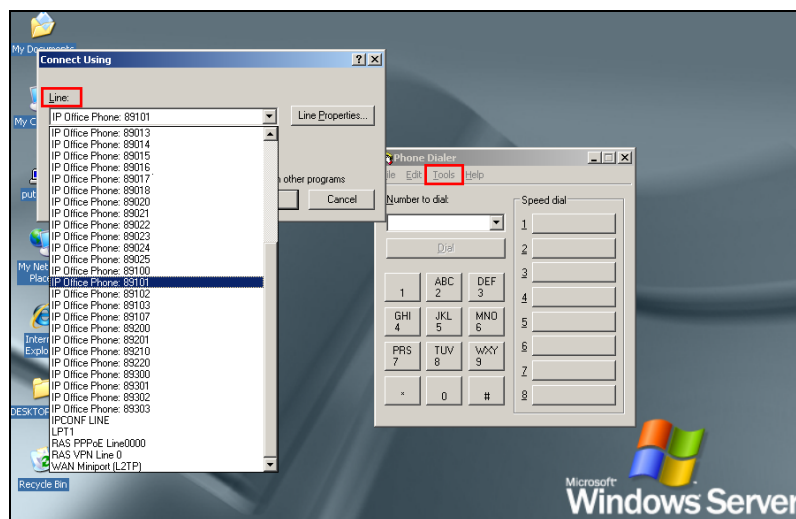


8. Verification Steps

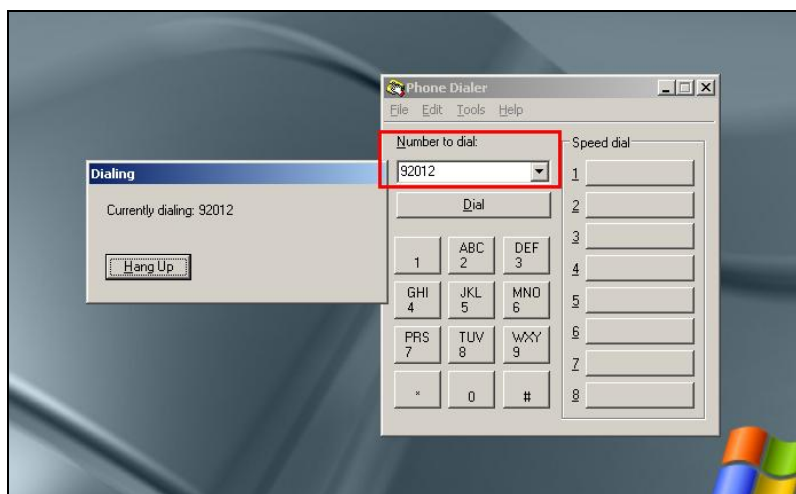
This section illustrates the steps necessary to verify that the NMS Adaptive Web Assist is connected to the Avaya IP Office correctly.

8.1. Verify that Avaya IP Office TAPI Service Provider is running correctly

Open **Phone Dialer** (Windows program installed on all Windows platforms) on the Evolution Server where TAPI is installed. Click on the **Tools** menu and select **Connect Using**. Another box opens as shown below. Open the **Line** dropdown box and all the IP Office users should here as an available line to use.



Choose any line and in the box **Number to dial** enter a valid IP Office extension number as shown below and click **Dial**. The **Phone Dialer** should successfully call the chosen extension number.

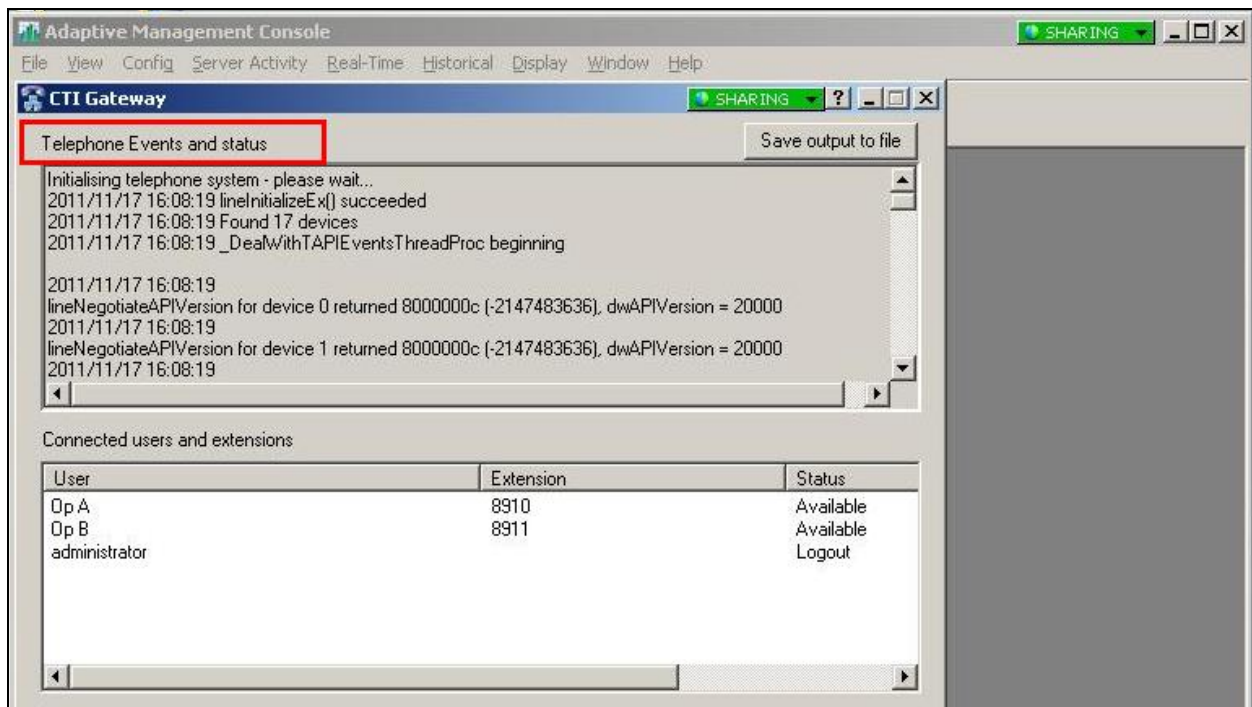


8.2. Verify that NMS Adaptive Server has CTI functionality

Open Adaptive Management Console as shown in **Section 7.1**. Click on **Server Activity** in the top menu and **Telephone Events** as shown below.



Telephone Events and status are displayed in the **CTI Gateway** window as shown below.



8.3. Verify NMS Adaptive Web Assist module

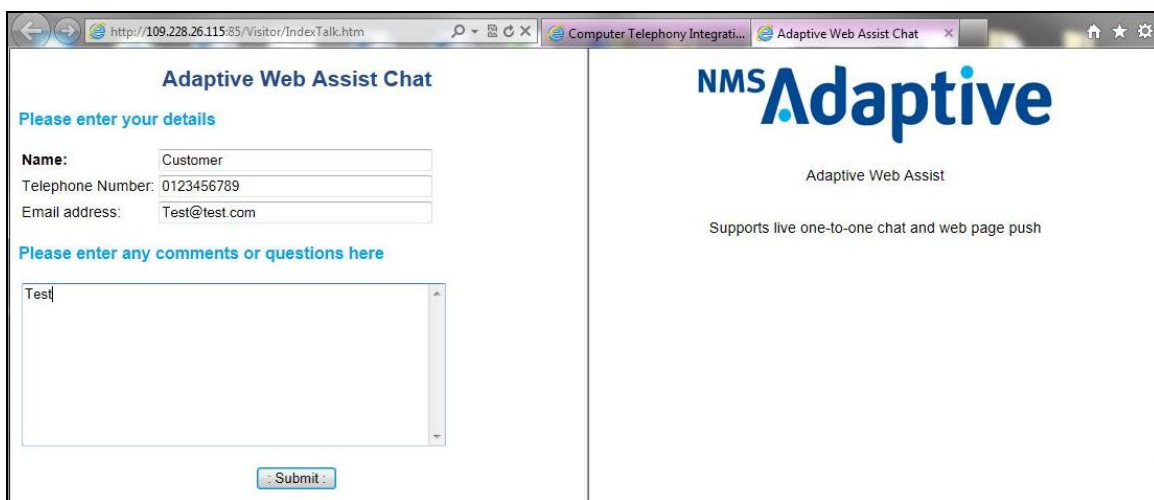
This section goes through the call flow for Web Chat and Web Call Back, verifying that Web Assist is configured correctly.

8.3.1. Verify Web Assist Web Chat

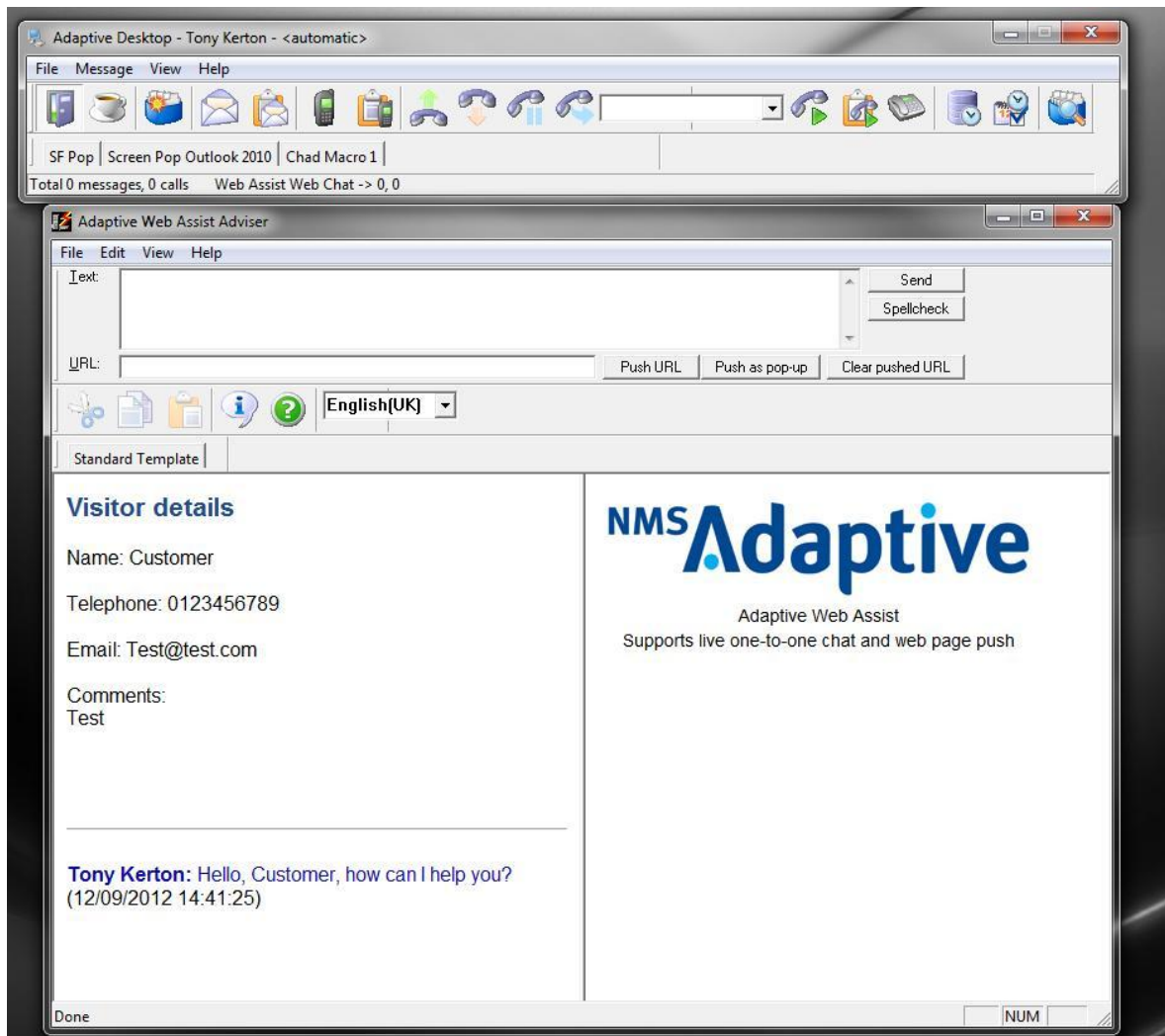
A customer browsing on the NMS Adaptive web site clicks on **LIVE CHAT** to request assistance using Web Chat.



The customer is presented with a new window where the customers' details are filled in and submitted to the NMS Web Assist module.



Once submitted the Adaptive Desktop user receives a pop up message requesting assistance with details of the customer and a window in which messages can be sent.



8.3.2. Verify Web Assist Call Back

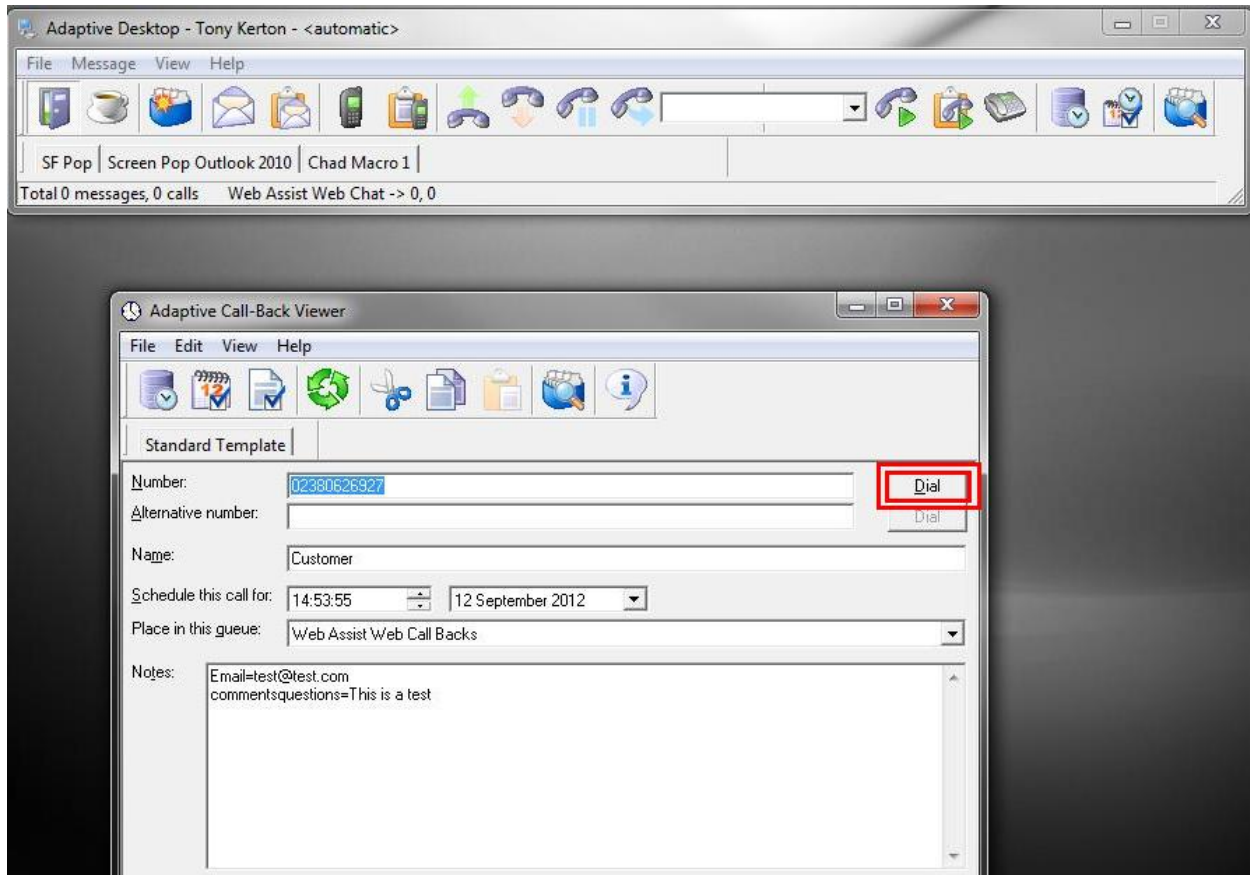
A customer browsing on the NMS Adaptive web site clicks on **CALL ME** to request assistance using a call back option on Web Assist.



The customer is then presented with a web call back page where the customer's details are filled out and submitted to the Web Assist module.

A screenshot of the 'Adaptive Web Assist Call-Back Request' form. The form is titled 'Adaptive Web Assist Call-Back Request' and has a blue header. Below the header, there's a section titled 'Please enter your details' with fields for 'Name' (filled with 'Customer'), 'Telephone Number' (filled with '02380626927'), 'Alternative Number' (empty), and 'Email address' (filled with 'test@test.com'). Below this, there's a section titled 'Please choose your time' with a 'Today' dropdown (set to 'now') and an 'OR' option. Below 'OR', there are fields for 'Date' (format dd/mm/yyyy) and 'Time' (format HH:MM). Below this, there's a section titled 'Please enter any comments or questions here' with a text area containing 'This is a test!'. At the bottom right, there is a 'Submit' button.

The Adaptive Desktop user is presented with the following screen pop with the customer's details and an option to dial the customer by pressing **Dial** highlighted below.



9. Conclusion

Illustrated in these Application Notes is the procedure for configuring NMS Adaptive Web Assist to interoperate with Avaya IP Office R8.0. Using the configuration described in these Application Notes, various emails were sent and received. Agents were placed in “Do not Disturb” mode while reading and replying to each email so as calls would not arrive at the agent’s deskphone during this period. During compliance testing, all test cases were completed successfully; any observations are outlined in **Section 2.2**.

10. Additional References

This section references documentation relevant to these Application Notes. The Avaya product documentation is available at <http://support.avaya.com>.

- [1] *TAPI Link installation Doc # 15-601034 Issue 11d*
- [2] *TAPI Link Doc # 15-601035 Issue 11f*
- [3] *IP Office R8 Doc library*

The following NMS Adaptive product documentation can be found at <http://nms-adaptive.com/downloads/>

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