



Avaya Solution & Interoperability Test Lab

Application Notes for Plantronics Hub Software, Plantronics DA90 USB Audio Processor and Plantronics EncorePro 500D Headset with Avaya one-X® Attendant - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Plantronics Hub Software, Plantronics DA90 USB Audio Processor and Plantronics EncorePro 500D Headset with Avaya one-X® Attendant. Plantronics Hub Software enables the integrated call control features for EncorePro 500D headset, including call answer/end and mute synchronization with one-X Attendant. The Plantronics Hub Software was installed on the desktop PC running one-X Attendant. EncorePro 500D was connected to the DA90 USB Processor which in turn was connected to a USB port on the desktop PC running one-X Attendant. The DA90 USB Processor provided call answer/end, volume and mute control. The EncorePro 510D was used for the compliance test.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

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 configuration steps required to integrate the Plantronics Hub Software, Plantronics DA90 USB Audio Processor and Plantronics EncorePro 500D Headset with Avaya one-X® Attendant. Plantronics Hub Software enables the integrated call control features for EncorePro 500D headset, including call answer/end and mute synchronization with one-X Attendant. The Plantronics Hub Software was installed on the desktop PC running one-X Attendant. EncorePro 500D was connected to the DA90 USB Processor which in turn was connected to a USB port on the desktop PC running one-X Attendant. The DA90 USB Processor provided call answer/end, volume and mute control. The EncorePro 510D was used for the compliance test.

Refer to the appropriate Plantronics documentation listed in **Section 10** for additional product information.

2. General Test Approach and Test Results

Avaya's formal testing and Declaration of Conformity is provided only on the headsets/handsets that carry the Avaya brand or logo. Avaya may conduct testing of non-Avaya headset/handset to determine interoperability with Avaya phones. However, Avaya does not conduct the testing of non-Avaya headsets/handsets for: Acoustic Pressure, Safety, Hearing Aid Compliance, EMC regulations, or any other tests to ensure conformity with safety, audio quality, long-term reliability or any regulation requirements. As a result, Avaya makes no representations whether a particular non-Avaya headset will work with Avaya's telephones or with a different generation of the same Avaya telephone.

Since there is no industry standard for handset interfaces, different manufacturers utilize different handset/headset interfaces with their telephones. Therefore, any claim made by a headset vendor that its product is compatible with Avaya telephones does not equate to a guarantee that the headset will provide adequate safety protection or audio quality.

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from Avaya one-X Attendant using the Plantronics Hub Software, Plantronics DA90 USB Audio Processor, and Plantronics EncorePro 500D and verifying 2-way audio. The type of calls made included calls to voicemail, to local stations, and to the PSTN.

The serviceability testing focused on verifying the usability of EncorePro 500D and DA90 USB Audio Processor after restarting the Avaya one-X Attendant, disconnecting and reconnecting the headset, and rebooting the PC.

2.1. Interoperability Compliance Testing

All test cases were performed manually. The following features were verified:

- Placing calls to the voicemail system. Voice messages were recorded and played back to verify that the playback volume and recording level were good.
- Placing calls to local stations to verify two-way audio.
- Placing calls to the PSTN to verify two-way audio.
- Answering and ending calls using the call control button on the DA90.
- Using the volume control buttons on the DA90 to adjust the playback volume.
- Using the mute button on the DA90 and on one-X Attendant to mute and un-mute the audio, including verifying that the mute status was accurately reflected on the headset and one-X Attendant.

For the serviceability testing, the headset was disconnected and reconnected to verify proper operation. Avaya one-X Attendant application was also restarted for the same purpose. The desktop PC was also rebooted to verify that one-X Attendant and headset were operational when the PC came back into service.

2.2. Test Results

All test cases passed.

2.3. Support

For technical support and information on Plantronics Hub Software, Plantronics DA90 USB Audio Processor and Plantronics EncorePro 500D Headsets, contact Plantronics at:

- Phone: 1-855-765-7878 (toll free)
- Website: <http://www.plantronics.com/us/support/>

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Plantronics solution. The configuration consists of Avaya Aura® Communication Manager running in a virtual environment with an Avaya G450 Media Gateway providing connectivity to the PSTN via an ISDN-PRI trunk (not shown). Avaya Aura® Messaging was used as the voicemail system. Avaya one-X Attendant and Plantronics Hub Software were installed on a desktop PC running Windows 10. EncorePro 500D was connected to the DA90 USB Processor which in turn was connected to a USB port on the desktop PC running one-X Attendant. The EncorePro 510D was used for the compliance test.

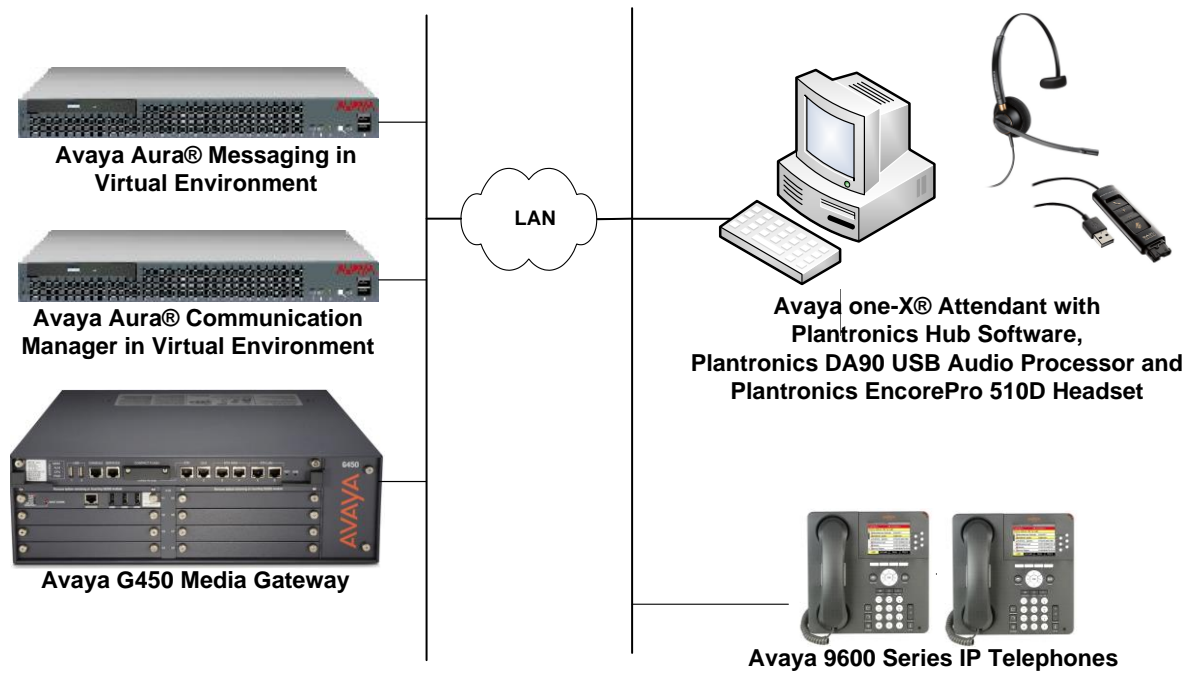


Figure 1: Avaya one-X® Attendant with Plantronics Hub Software, Plantronics DA90 USB Audio Processor and Plantronics EncorePro 500D Headset

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 in a Virtual Environment with an Avaya G450 Media Gateway	7.0.1.1 FP1 SP1 (R017x.00.0.441.0 with Patch 23169)
Avaya Aura® Messaging	6.3.2 SP 2 Patch 3
Avaya one-X® Attendant with Plantronics Hub SDK 3.5.51033.17958 on Microsoft Windows 10	4.0 SP12 (4.13.001.001)
Avaya 9600 Series IP Telephone	3.260A (H.323) 2.6.16.1 (SIP)
Avaya 96x1 Series IP Telephone	6.6115 (H.323) 7.0.1.1.5 (SIP)
Plantronics DA90 USB Audio Processor	Tuning: v.8.29.14.12.5.9.8 USB: v.119
Plantronics EncorePro 510D Headset	P/N: 203191-01 Date Code: OCT-16

5. Configure Avaya Aura® Communication Manager

This section covers the station configuration for Avaya one-X® Attendant. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

Use the **display system-parameters customer-options** command to verify that **IP Stations** and **IP Attendant Consoles** on **Page 5** are enabled. The license file installed on Communication Manager controls the values for these attributes. If a required feature is not enabled or there is insufficient capacity, contact an authorized Avaya sales representative.

```
display system-parameters customer-options                               Page 5 of 12
                                OPTIONAL FEATURES

Emergency Access to Attendant? y                                     IP Stations? y
  Enable 'dadmin' Login? y
  Enhanced Conferencing? y                                           ISDN Feature Plus? n
  Enhanced EC500? y                                                  ISDN/SIP Network Call Redirection? y
Enterprise Survivable Server? n                                       ISDN-BRI Trunks? y
  Enterprise Wide Licensing? n                                       ISDN-PRI? y
  ESS Administration? y                                             Local Survivable Processor? n
  Extended Cvg/Fwd Admin? y                                         Malicious Call Trace? y
  External Device Alarm Admin? y                                     Media Encryption Over IP? y
Five Port Networks Max Per MCC? n                                     Mode Code for Centralized Voice Mail? n
  Flexible Billing? n
Forced Entry of Account Codes? y                                       Multifrequency Signaling? y
  Global Call Classification? y                                       Multimedia Call Handling (Basic)? y
  Hospitality (Basic)? y                                             Multimedia Call Handling (Enhanced)? y
Hospitality (G3V3 Enhancements)? y                                     Multimedia IP SIP Trunking? y
  IP Trunks? y

IP Attendant Consoles? y
(NOTE: You must logoff & login to effect the permission changes.)
```

Use the **add attendant <n>** command, where **<n>** is an available attendant position. The **Type** field should be set to **302** for IP consoles. Enter the **Extension** and the **Security Code**, which will be used when by Avaya one-X® Attendant to register with Communication Manager. Since only one attendant was used, **Console Type** was set to **principal**. Set the **Port** to **IP**.

```
add attendant 1                                                       Page 1 of 4
                                ATTENDANT CONSOLE 1

Type: 302                    Name: one-X Attendant
Extension: 77600             Group: 1                    Auto Answer: none
Console Type: principal     TN: 1                        Data Module? n
Port: IP                    COR: 1                       Disp Client Redir? n
Security Code: *****     COS: 1                       Display Language: english
                                H.320 Conversion? n
```

On **Page 2**, set **Auto Start** to *n*. Default values were used for all other fields.

```
add attendant 1                                     Page 2 of 4
                                               ATTENDANT CONSOLE

VIS FEATURE OPTIONS

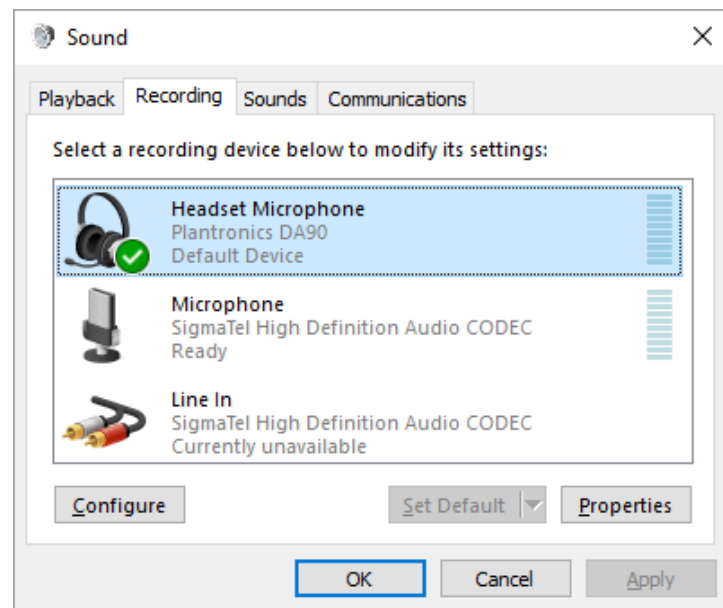
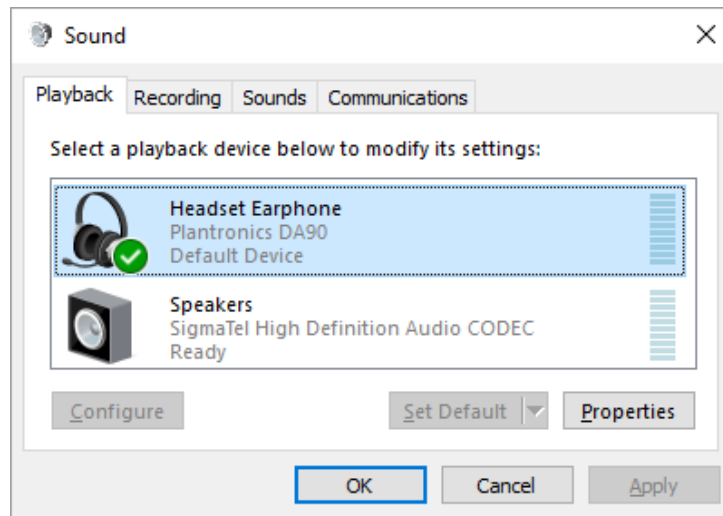
      Auto Start? n
      Echo Digits Dialed? y

IP FEATURE OPTIONS

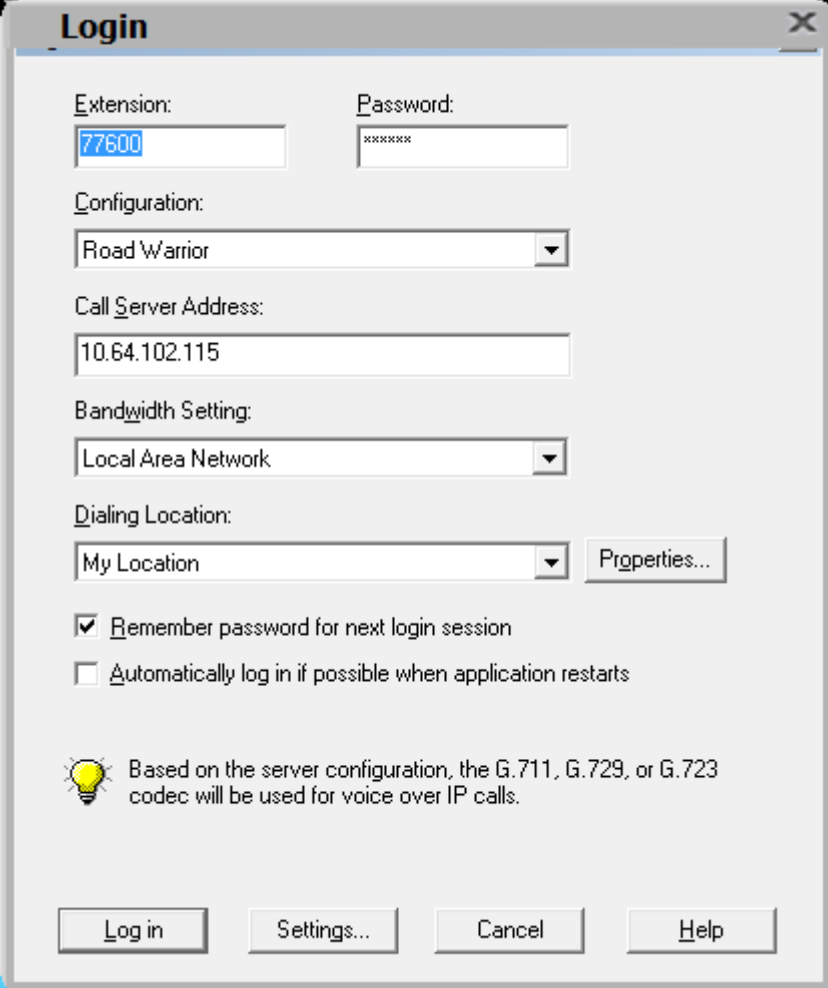
Remote Softphone Emergency Calls: as-on-local Direct IP-IP Audio Connections? y
Emergency Location Ext: 77600           Always Use? n   IP Audio Hairpinning? n
                                           Service Link Mode: permanent
```

6. Configure Avaya one-X® Attendant


This section describes the configuration steps required for Avaya one-X® Attendant to work with Plantronics EncorePro 510D and Plantronics DA90 USB Audio Processor. These Application Notes do not cover the general installation and configuration of Avaya one-X® Attendant. For additional information refer to [2]. Connect the EncorePro 500D Headset and DA90 USB Audio Processor to a USB port on the desktop PC running one-X Attendant. Prior to configuring one-X Attendant, ensure that the **Sound** properties under Windows 10 Control Panel are set properly. Verify that the Plantronics DA90 USB Audio Processor has been detected by Windows 10 and that it has been set as the default device in the **Playback** and **Recording** tabs as shown below.




Launch Avaya one-X® Attendant and log into Communication Manager using the attendant **Extension** and **Password** created in **Section 5**. Select *Road Warrior* for **Configuration**. Enter the information in the remaining fields as appropriate. Click **Log in**.

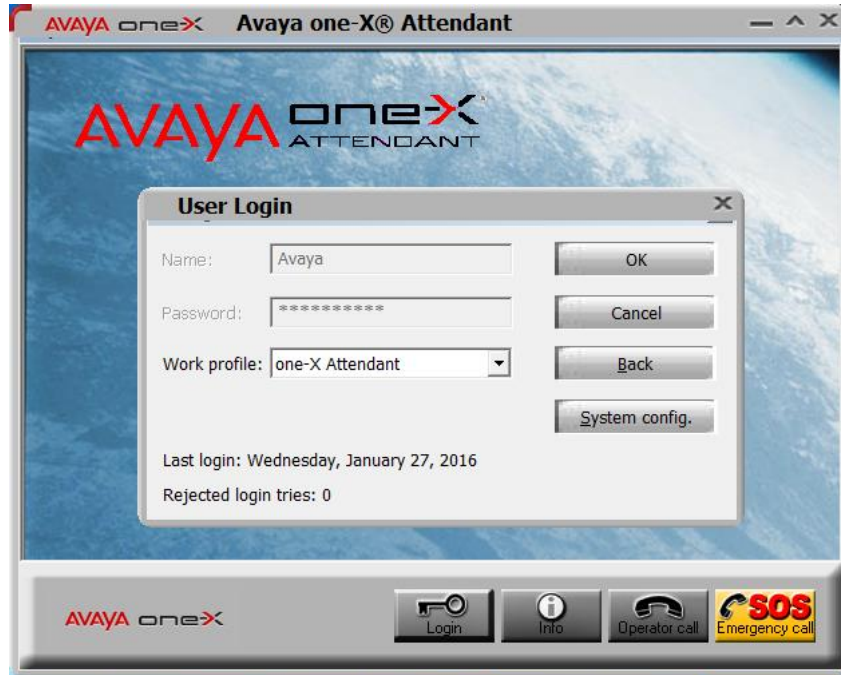



The image shows a 'Login' dialog box with the following fields and options:

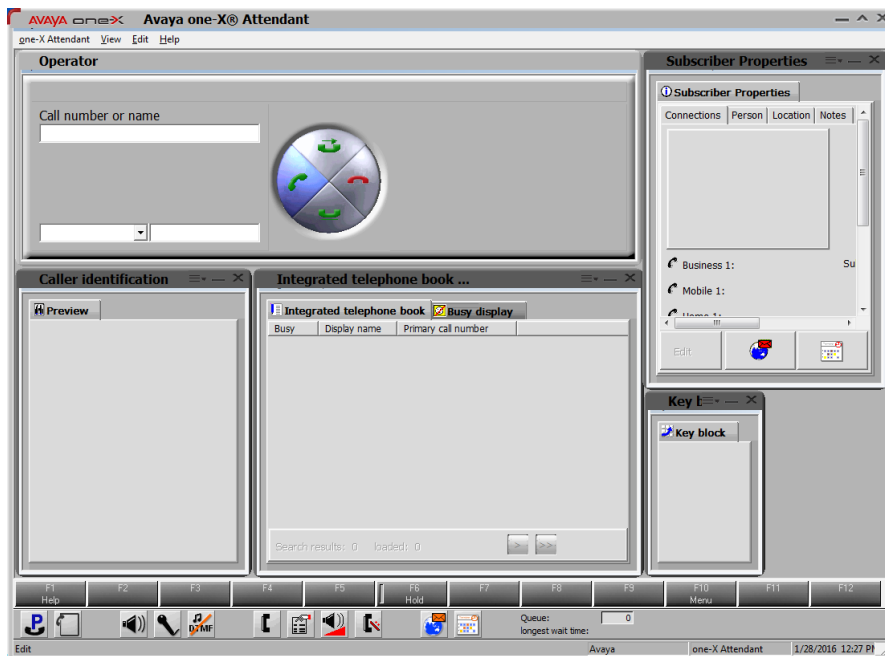
- Extension:** Text box containing '77600'.
- Password:** Text box containing 'xxxxxx'.
- Configuration:** Dropdown menu set to 'Road Warrior'.
- Call Server Address:** Text box containing '10.64.102.115'.
- Bandwidth Setting:** Dropdown menu set to 'Local Area Network'.
- Dialing Location:** Dropdown menu set to 'My Location', with a 'Properties...' button to its right.
- Remember password for next login session**
- Automatically log in if possible when application restarts**
-  **Based on the server configuration, the G.711, G.729, or G.723 codec will be used for voice over IP calls.**

At the bottom, there are four buttons: **Log in**, **Settings...**, **Cancel**, and **Help**.

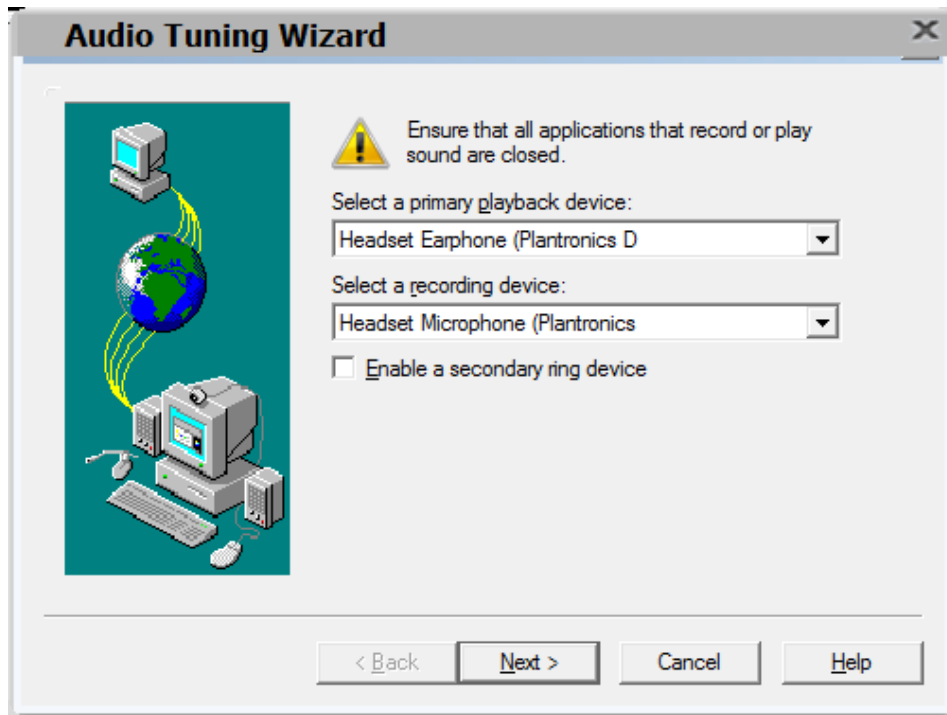
On the next screen, click the **Login** button  to log in as a one-X Attendant user. The default **Name** is *Avaya* and the **Password** is *000000*. The user will be prompted to change the password once logged in. Select *one-X Attendant* under **Work profile**. Click **OK**.



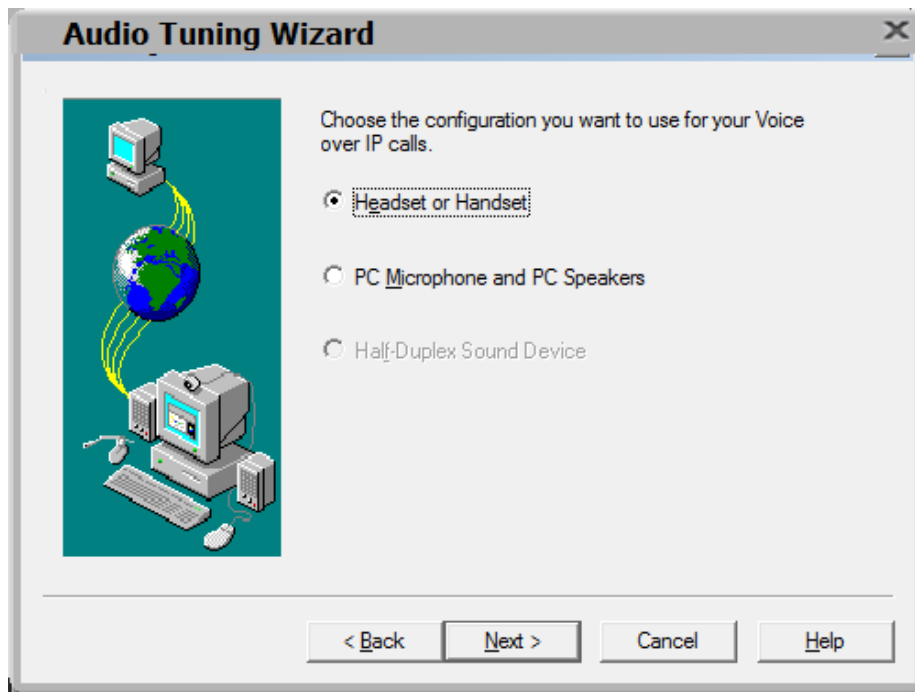
On the Avaya one-X® Attendant main screen, click the  icon on the toolbar to launch the **Audio Tuning Wizard**. Note that the icon is not available during an active telephone call.



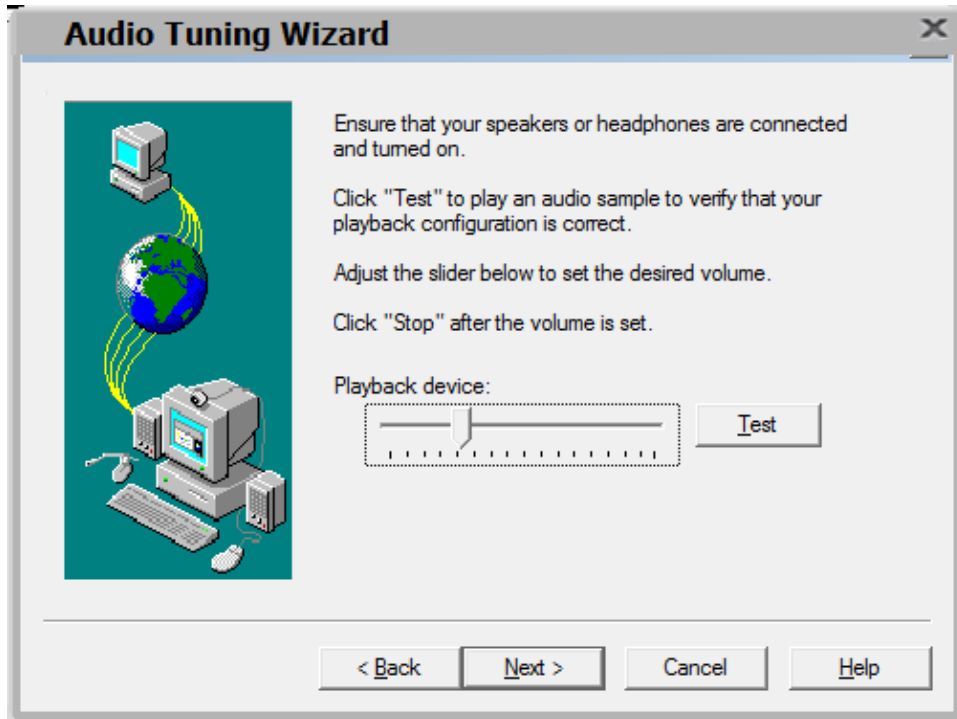
In the Audio Tuning Wizard, set the playback device and recording device to *Headset Earphone (Plantronics DA90)* and *Headset Microphone (Plantronics DA90)*, respectively. Click **Next**.



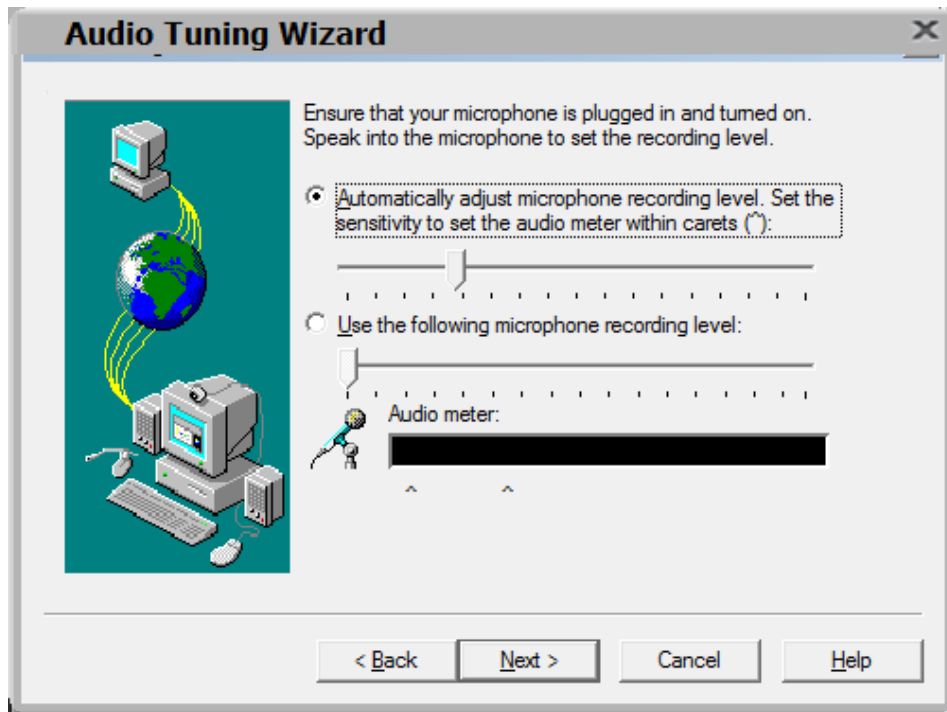
In the next window, select *Headset or Handset* as shown below. Click **Next**.



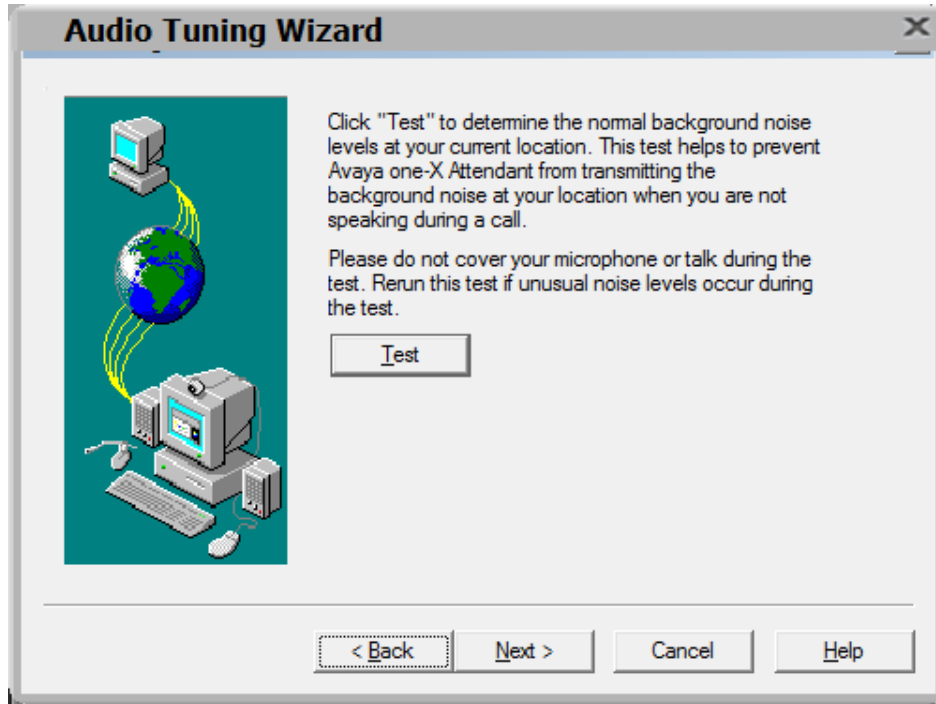
Next, click the **Test** button and verify that audio is heard through the Plantronics headset. Click **Next**.



Speak into the headset and verify that the **Audio meter** detects sound to set the recording level. Click **Next**.




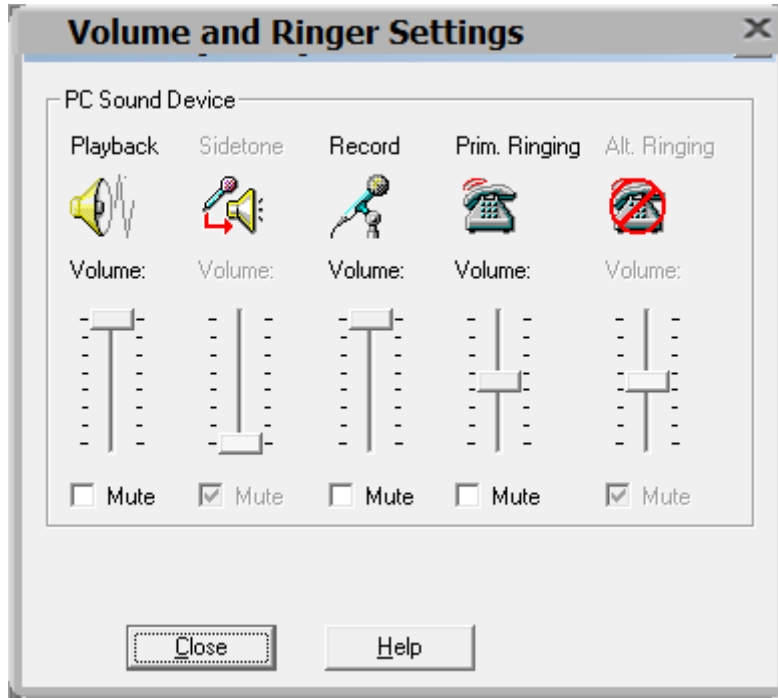
Next, click the **Test** button to determine the normal background noise. Click **Next**.



On the last Audio Tuning Wizard window, click **Finish**.



Configure the **Volume and Ringer Settings** to allow the user to hear ringing. To access the settings, select the  icon on the toolbar. Set the **Playback**, **Record**, and **Prim. Ringing** volume to the desired levels as shown below. Ensure that **Prim. Ringing** is not muted so that incoming call notification is played by the headset.



7. Install Plantronics DA90 USB Audio Processor and Plantronics Encore Pro 510D Headset

The Plantronics Hub Software should not be installed separately since one-X Attendant already has the Plantronics Hub SDK already integrated. It will automatically be installed during the installation of one-X Attendant. Plantronics Hub should be running, as indicated in the Windows taskbar, while one-X Attendant is being used. All that is required is to connect the EncorePro 500D Headset and DA90 USB Audio Processor to a USB port on the desktop PC running one-X Attendant.

8. Verification Steps

This section provides the tests that can be performed to verify proper installation and configuration of the Plantronics Hub Software, Plantronics DA90 USB Audio Processor and Plantronics EncorePro 500D Headset with one-X Attendant.

1. Start the one-X Attendant application.
2. Place an incoming call to one-X Attendant from any local phone.
3. Answer the call using the call control button on the headset.
4. Verify two-way talk path between the EncorePro 500D headset and phone.
5. Disconnect the call from the headset using the call control button.
6. Verify that the call is properly disconnected.

9. Conclusion

These Application Notes describe the configuration steps required to integrate the Plantronics Hub Software, Plantronics DA90 USB Audio Processor and Plantronics EncorePro 500D Headset with Avaya one-X® Attendant. All test cases were completed successfully.

10. Additional References

This section references the Avaya and Plantronics documentation that are relevant to these Application Notes.

The following Avaya product documentation can be found at <http://support.avaya.com>.

- [1] *Administering Avaya Aura® Communication Manager*, Release 7.0.1, Issue 2, May 2016, Document Number 03-300509.
- [2] *Avaya one-X® Attendant 4.0 (SP11) connected to Avaya Communication Manager. Installation and Administration Manual*, Document 16-603459-EN, Release 4.12, Jan. 2016.

The following Plantronics product documentation can be found at <http://www.plantronics.com>.

- [3] *Plantronics DA90 Quick Start Guide*.
- [4] *Plantronics EncorePro 510/520 Digital Quick Start Guide*.

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