



Avaya Solution & Interoperability Test Lab

Application Notes for Sennheiser UUSB8 Interface and Sennheiser HeadSetup Application Connected to Avaya one-X® Communicator, Avaya one-X® Agent, and Avaya Aura™ Communication Manager using Sennheiser SH and CC Series headsets – Issue 1.0

Abstract

These Application Notes describe the compliance testing of Application Notes for Sennheiser UUSB8 interface and Sennheiser HeadSetup application connected to Avaya one-X® Communicator, Avaya one-X® Agent, and Avaya Aura™ Communication Manager using Sennheiser SH and CC Series headsets.

Avaya one-X® Communicator and Avaya one-X® Agent are PC-based softphones which provide telephone operations to PC users without a physical telephone. HeadSetup is a PC-based program which provides telephone events to Avaya one-X® Communicator and Avaya one-X® Agent. These headsets are intended to be used by office workers, call center agents, and others who have frequent or extensive telephone conversations. The compliance testing tested the major functions of the Sennheiser products.

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 Sennheiser headsets SH 230, SH 230 IP, SH 250, SH 330, SH 330 IP, SH 350, SH 350 IP, CC 515, CC 515 IP, and CC 550 attached to the Sennheiser UUSB8 interface using the Sennheiser HeadSetup application to successfully interoperate with Avaya one-X® Communicator, Avaya one-X® Agent, and Avaya Aura™ Communication Manager. The UUSB8 has an integrated USB cable on one end and a headset connector for the above-listed headsets on the other.

The Sennheiser UUSB8 has the following controls and indicators:

- a status LED
- a “switch-hook” button
- a mute button
- a two-way volume control switch

Repeated depressions of the switch-hook can be used to answer and terminate calls. The mute button allows the headset microphone to be turned off/on. The volume control allows the headset earpiece volume to be turned up or down.

HeadSetup is a PC-based program which provides telephone events to Avaya one-X® Communicator and Avaya one-X® Agent.

1.1. Interoperability Compliance Testing

The compliance testing included the following test scenarios shown below.

Tests for both Avaya one-X® Communicator and Avaya one-X® Agent:

- Verification of acceptable talk path in both directions for local and PSTN calls.
- Verification of the UUSB8's ability to terminate calls with its switch-hook button
- Verification of the UUSB8's mute switch
- Verification of the UUSB8's volume control
- Verification of the base UUSB8's ability to recover from interruption to its PC interface
- Verification of the base UUSB8's ability to recover from interruption of headset interface, and that active calls are preserved after reconnection
- Verification of the headset's ability to function normally after the PC is restarted.

Tests for Avaya one-X® Communicator:

- Verification of the UUSB8's ability to answer calls with its switch-hook button

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.

1.2. Support

Support from Avaya is available at <http://support.avaya.com/>.

Support for Sennheiser products is available at

- Web: http://www.senncom.com/comm/home_en.nsf/root/service_support-contact
- Email: support@senncom.com
- help desk: +45 56180000

2. Reference Configuration

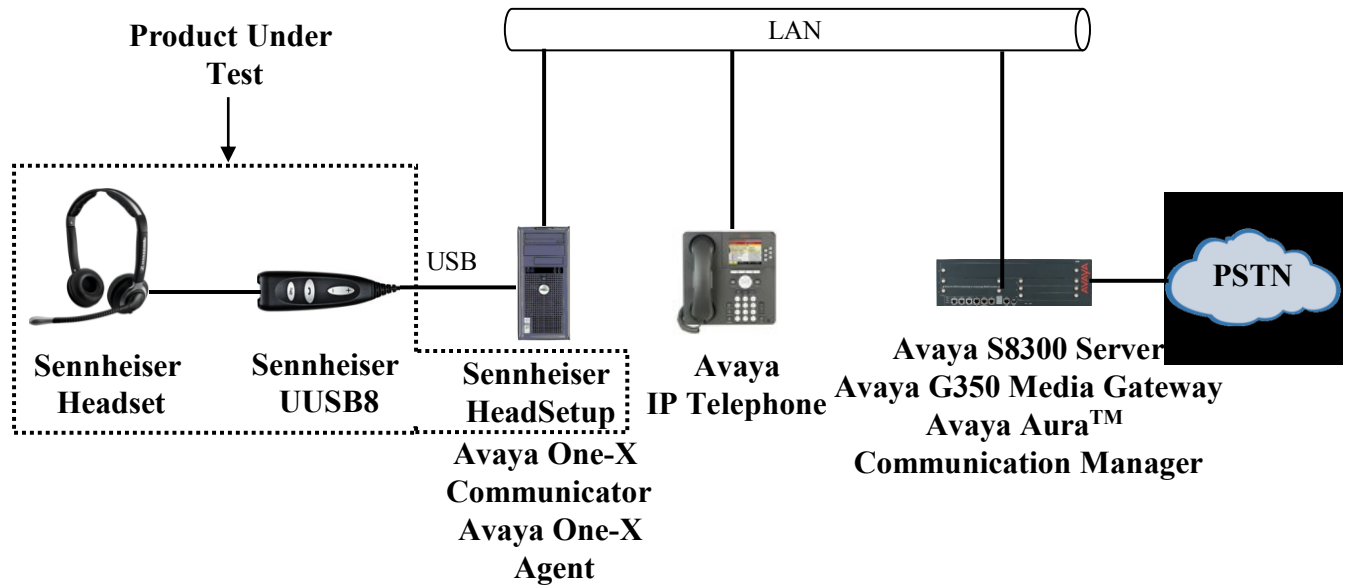


Figure 1: Reference Configuration

The PSTN interface was included in the configuration to place calls to a PSTN based voicemail system to verify the intelligibility of voice messages which were recorded and replayed through the Sennheiser headset. The HeadSetup program serves as an interface between Avaya one-X® Communicator or Avaya one-X® Agent and the UUSB8.

3. Equipment and Software Validated

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

Component	Version
Avaya Aura™ Communication Manager	R015x.02.1.016.4 Update 18365
Avaya G430 Media Gateway	30.14.0
Avaya 9640 IP Telephone	3.1.1
Avaya one-X® Communicator	6.0.0.26
Avaya one-X® Agent	2.0 SP3
Sennheiser HeadSetup	2.2
Sennheiser UUSB8 Interface	QZZT A01-10004
Sennheiser SH230 Headset	QZQZ A14-11004
Sennheiser SH230 IP Headset	QZZQ A01-10008
Sennheiser SH250 Headset	QZZY A14-19004
Sennheiser SH330 Headset	QZQZ A14-11011
Sennheiser SH330 IP Headset	QZZS A01-10014
Sennheiser SH350 Headset	QZZX A14-10979
Sennheiser SH350 IP Headset	QZZW A01-10020
Sennheiser CC515 Headset	QZQZ A15-11014
Sennheiser CC515 IP Headset	QZZR A01-10011
Sennheiser CC550 Headset	QZQQ A14-10022

Table 1: Equipment and Versions Validated

4. Configure Avaya Communication Manager

The configuration and verification operations illustrated in this section were performed using the Communication Manager System Administration Terminal (SAT).

Use the **add station** command to add an extension to be used by the softphone associated with the Sennheiser UUSB8 using the parameters shown in the following table.

Parameter	Usage
Type (page 1)	Enter endpoint type which corresponds to the endpoint being used.
Name (page 1)	Enter an appropriate name to identify the station.
Security Code (page 1)	Enter an appropriate security code for the station.
IP Softphone (page 1)	Set this parameter to “y”.
BUTTON ASSIGNMENTS (page 5)	Add “auto-in”, “manual-in”, “aux-work”, and “release” buttons if Avaya one-X® Agent is used as the softphone.

Table 2: IP Station Parameters

```

add station 10401                                     Page 1 of 5
                                                    STATION
Extension: 10401                                     Lock Messages? n                               BCC: 0
  Type: 9630                                       Security Code: 123456                       TN: 1
  Port: S00010                                       Coverage Path 1:                               COR: 1
  Name: extn 10401                               Coverage Path 2:                               COS: 1
                                                    Hunt-to Station:
STATION OPTIONS
                                                    Time of Day Lock Table:
  Loss Group: 19                                     Personalized Ringing Pattern: 1
                                                    Message Lamp Ext: 10401
  Speakerphone: 2-way                               Mute Button Enabled? y
  Display Language: english                         Button Modules: 0
Survivable GK Node Name:
  Survivable COR: internal                           Media Complex Ext:
  Survivable Trunk Dest? y                           IP SoftPhone? y
                                                    IP Video Softphone? n
                                                    Customizable Labels? y
  
```

Figure 2: IP Station Form

```
add station 10401                                     Page 5 of 5
                                                    STATION

BUTTON ASSIGNMENTS

 9: auto-in           Grp:
10: manual-in        Grp:
11: aux-work   RC:   Grp:
12: release
13:
14:
15:
16:
17:
18:
19:
20:
21:
22:
23:
24:
```

Figure 3: IP Station Form

5. Configure Avaya one-X® Communicator

Select  → Settings → General Settings from the menu as shown below.



Figure 4: Avaya one-X® Communicator User Interface

Select **Audio** from the left pane and select the **Basic** tab. Click on **Audio Tuning Wizard**.

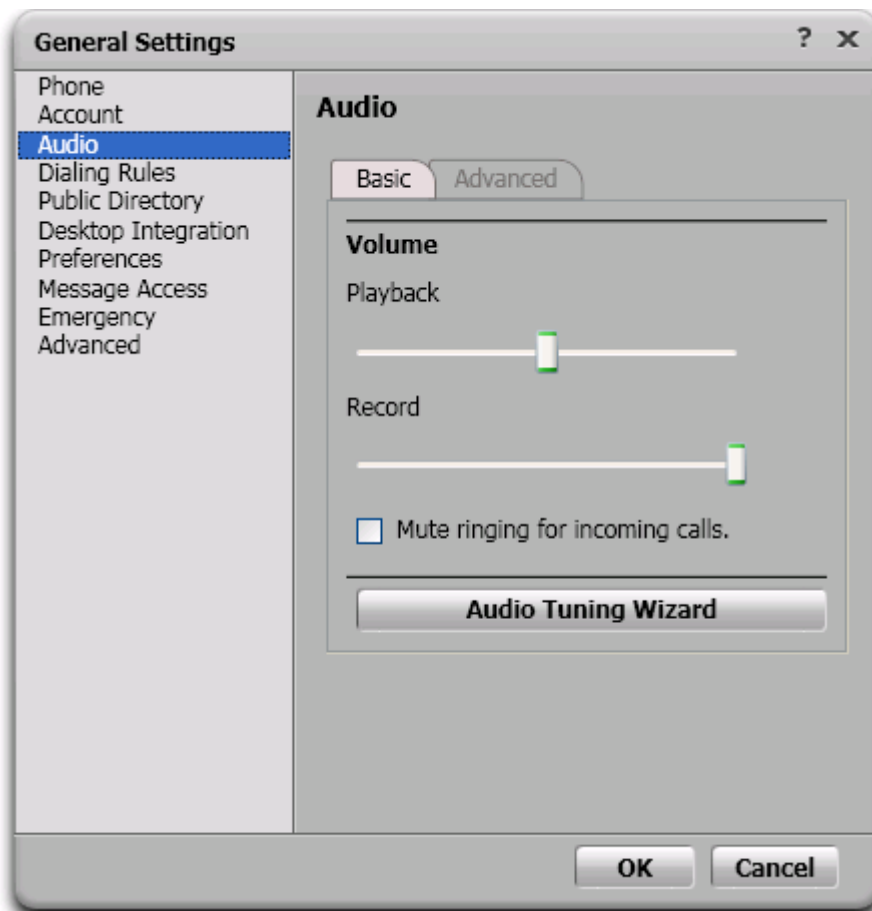


Figure 5: Avaya one-X® Communicator Audio Settings

The Sennheiser headset is automatically detected in Microsoft Windows as **Sennheiser VoIP USB headset**. Select this device as the **playback device** and **recording device** as shown below. Click **Next**.



Figure 6: Avaya one-X® Communicator Audio Tuning Wizard

6. Configure Avaya one-X® Agent

Select  → Settings → Agent Settings from the menu as shown below.



Figure 7: Avaya one-X® Agent User Interface

Select **Audio** from the left pane and select the **Advanced** tab. Select **Sennheiser VoIP USB headset** from both the **Playback Device** and **Record Device** drop-down menus and click **OK**.

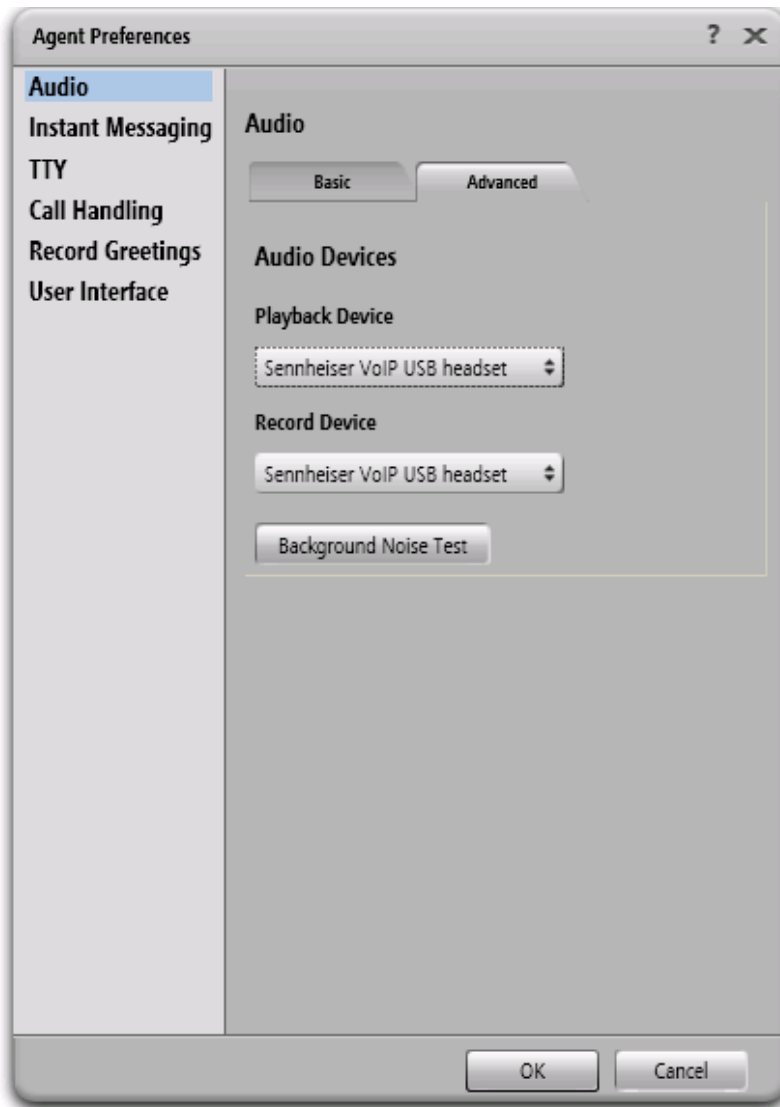


Figure 8: Avaya one-X® Agent Audio Settings

7. Configure Sennheiser Headset Solution

7.1. Configure Sennheiser HeadSetup

The Sennheiser HeadSetup program serves as an interface between the UUSB8 and either Avaya one-X® Communicator or Avaya one-X® Agent. In the “Settings” tab, the “Launch application in Windows Startup” should normally be checked.

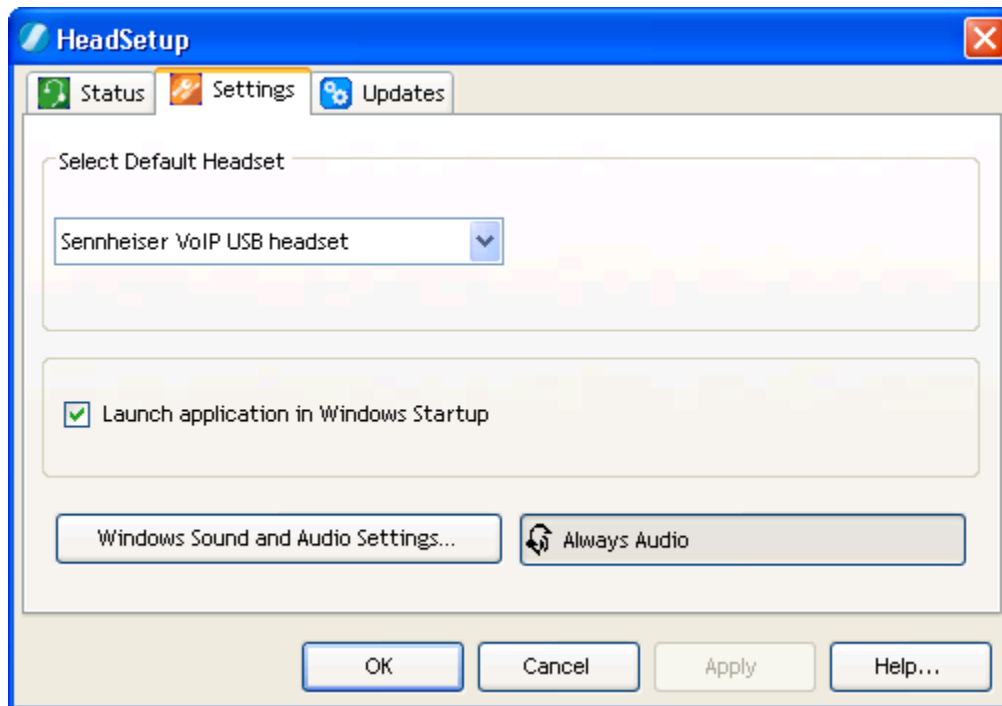


Figure 9: Sennheiser HeadSetup Settings

Clicking “Status” shows that the program is initially not connected to a softphone.

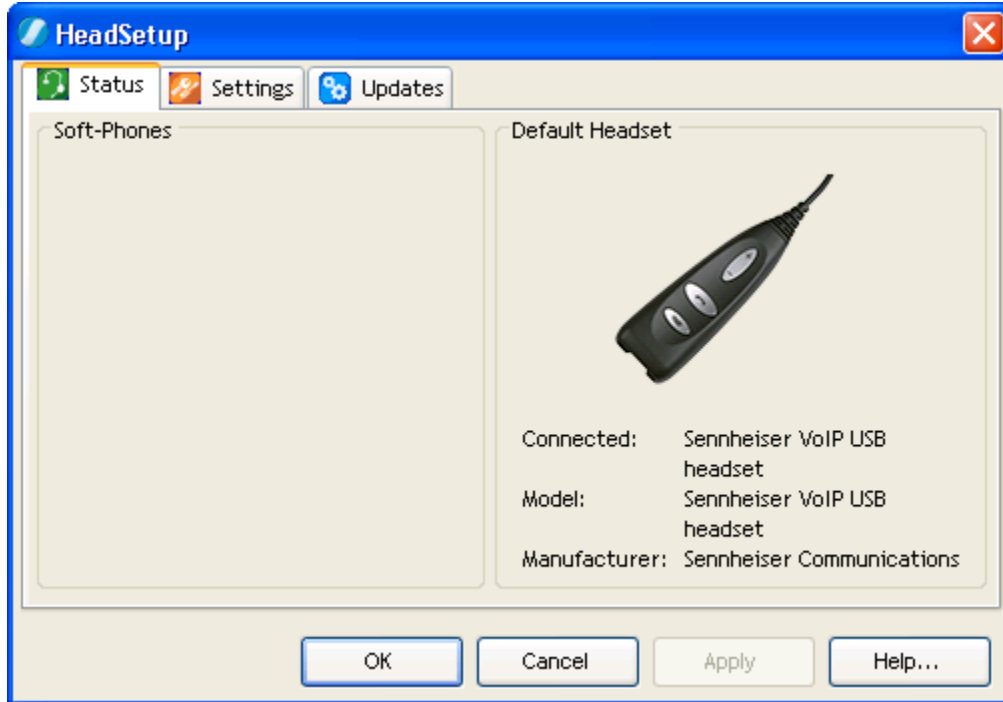


Figure 10: Sennheiser HeadSetup Unconnected Status

Clicking “OK” causes the program to be minimized to the Windows task tray. The program icon will initially be a gray circle with a white slash, as shown below, to indicate that it is not connected to a softphone.



Figure 11: Sennheiser HeadSetup Unconnected Icon

Sixty to ninety seconds after Avaya one-X Communicator or one-X Agent has been started, the icon changes (as shown below) to indicate that HeadSetup is connected to a softphone.



Figure 12: Sennheiser HeadSetup Connected Icon

If the icon is maximized, the name of the softphone to which it is connected is shown in the “Status” tab, along with an indication of which headset interface is active.

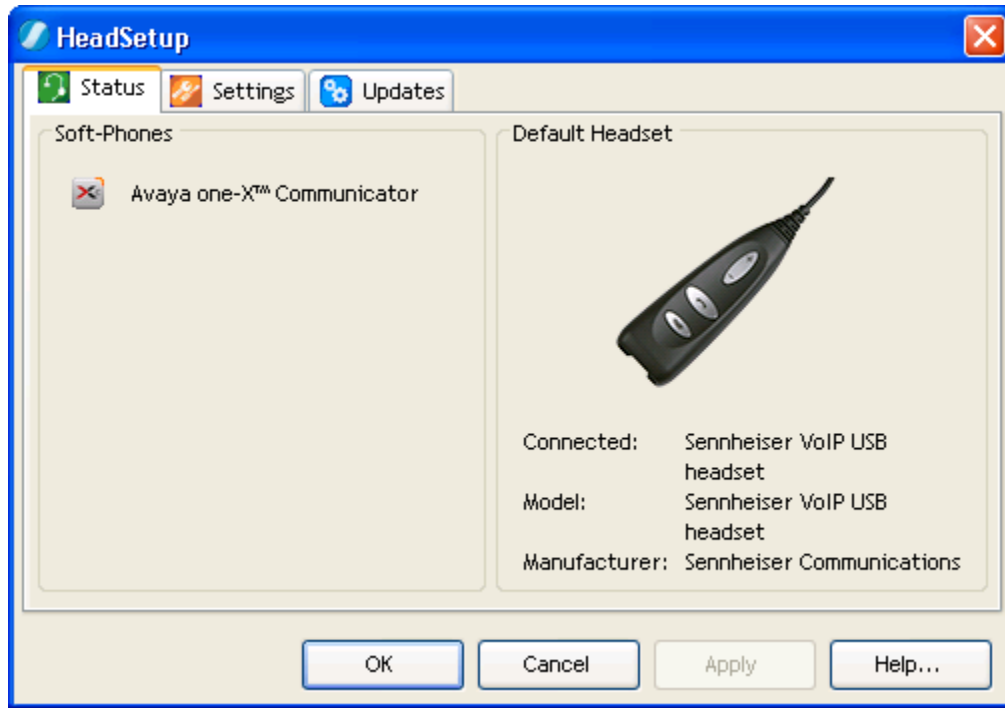


Figure 13: Sennheiser HeadSetup Connected Status

7.2. Attach Sennheiser Headset

One of the Sennheiser headsets SH 230, SH 230 IP, SH 250, SH 330, SH 330 IP, SH 350, SH 350 IP, CC 515, CC 515 IP, or CC 550 can be attached to the Sennheiser UUSB8 interface.

8. General Test Approach and Test Results

The compliance testing of Sennheiser headset solution interoperating with 1600 and 9600 series IP telephones was performed manually. The tests were functional in nature, and no performance testing was done. The tests listed in **Section 1.1** were performed.

The following issues were encountered while testing:

1. The Sennheiser HeadSetup program has a latency time on the order of 60 seconds after being started prior to connection to Avaya one-X® Communicator or Avaya one-X® Agent. If a call is made or accepted by one-X® Communicator/Agent prior to expiration of this startup latency time, the Sennheiser headset and associated interface will not be able to control the call. It is possible to determine if HeadSetup is connected to one-X® Communicator/Agent by observing the state of its icon in the Windows task tray: prior to connection it is “grayed-out”, which turns to color after it is connected. It is recommended that Windows be configured to start HeadSetup and Avaya one-X® Communicator/Agent automatically when the agent logs on to Windows to minimize to chance of calls arriving prior to HeadSetup’s connection to Avaya one-X® Communicator/Agent. If, for some reason, Avaya one-X® Communicator/Agent must be restarted, the agent should only accept or make calls after HeadSetup has reconnected to Avaya one-X® Communicator/Agent.
2. HeadSetup shows that it is connected to “Avaya one-X® Communicator” in its “Status” tab when Avaya one-X® Agent is running.
3. If the UUSB8 is disconnected from the PC USB interface while a call is active, HeadSetup must be restarted before the headset can be used again.

These issues were not deemed to be of a serious nature.

9. Verification Steps

From the Windows Control Panel, open **Sounds and Audio Devices** and click on the **Audio** tab. Verify that the device **Sennheiser VoIP USB headset** is listed in both the **Sound playback** and **Sound recording** section as shown below.

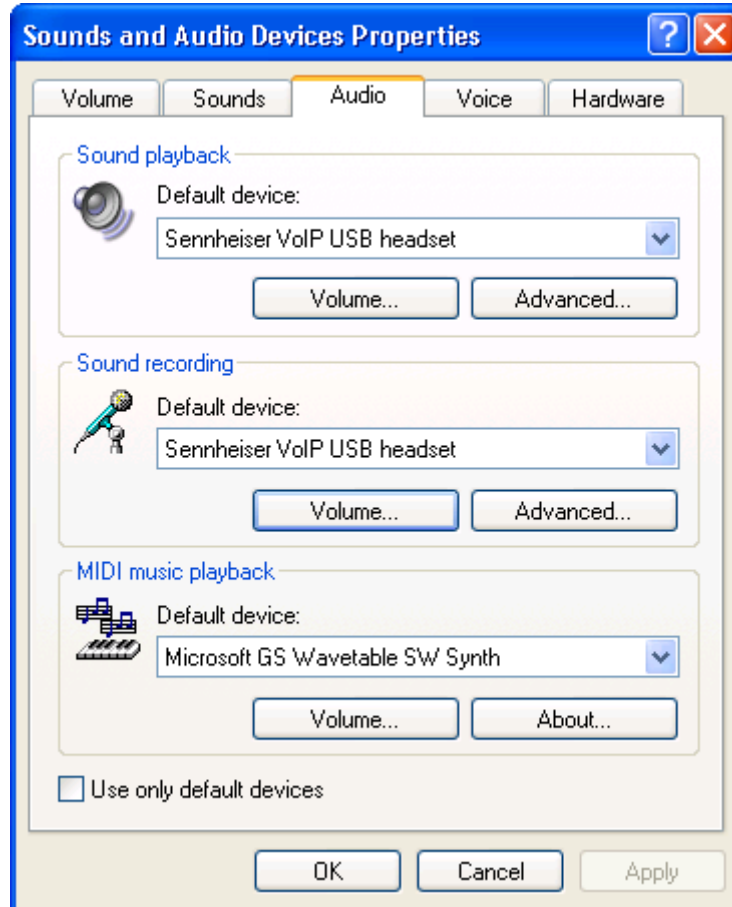


Figure 14: Windows Audio Device Properties

10. Conclusion

These Application Notes contain instructions for configuring Avaya Aura™ Communication Manager and Avaya one-X® Communicator and Avaya one-X® Agent to interact with Sennheiser headset solution consisting of a tethered Sennheiser headset attached to the Sennheiser UUSB8 interface controlled by the Sennheiser HeadSetup program.

11. Additional References

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

- [1] *Administering Communication Manager for Avaya one-X® Agent*, November 2009
- [2] *Using Avaya one-X® Agent*, November 2009
- [3] *Avaya one-X® Communicator User Reference*, October 2010
- [4] *Sennheiser Office Headset SH 230*
- [5] *Sennheiser Office Headset SH 230 IP*
- [6] *Sennheiser Office Headset SH 250*
- [7] *Sennheiser Office Headset SH 330*
- [8] *Sennheiser Office Headset SH 330 IP*
- [9] *Sennheiser Office Headset SH 350*
- [10] *Sennheiser Office Headset SH 350 IP*
- [11] *Sennheiser Call Center Headset CC 515*
- [12] *Sennheiser Call Center Headset CC 515 IP*
- [13] *Sennheiser Call Center Headset CC 520 / CC 540 / CC 550*
- [14] *Sennheiser Call Center Headset CC 520 IP / CC 550 IP*

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