



# **Application Notes for Configuring Sennheiser Communications A/S HeadSetup software and SP 10/SP 20 Speakerphones with Avaya one-X® Communicator - Issue 1.0**

## **Abstract**

These Application Notes describe the configuration steps required to integrate the Sennheiser Communications A/S HeadSetup software and SP 10/SP 20 Speakerphones with Avaya one-X® Communicator. The HeadSetup is a collection of programs that enable remote call control with Sennheiser headsets/speakerphones and Avaya one-X® Communicator. With Sennheiser SP 10/SP 20 Speakerphones connected via USB port on a PC, users can answer, end, mute/unmute, hold/resume and adjust volume using buttons on the speakerphone devices.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any 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

The Sennheiser Communications A/S SP 10/SP 20 Speakerphones together with HeadSetup software allow connection and call control with Avaya one-X® Communicator via USB port on a PC. The HeadSetup is a collection of programs that enable remote call control with the speakerphones and Avaya one-X® Communicator. With Sennheiser SP 10/SP 20 Speakerphones, users can answer, end, mute/unmute, hold/resume and adjust volume using buttons on the speakerphone devices.

## 2. General Test Approach and Test Results

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.

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 with Avaya one-X® Communicator, answering and ending calls using the call control button on the speakerphones, and verifying two-way audio. The call types included calls to voicemail, local extensions, and the PSTN.

The serviceability testing focused on verifying the usability of the Sennheiser Speakerphone solution after restarting the Avaya one-X® Communicator, restarting the PC and reconnecting the speakerphone to 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 internal extensions 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 Speakerphone and the soft button on one-X Communicator.
- Using the soft button on one-X Communicator and the call control button on the speakerphone to hold and un-hold the audio.
- Using the volume control buttons on the speakerphone to adjust the audio volume.
- Using the voice control button on the speakerphone and the soft button on one-X Communicator to mute and un-mute the audio.
- Using the call control button on the speakerphone to reject or redial a call.
- Verifying incoming call notification on headset.
- Verifying call ended notification on headset.

The serviceability testing focused on verifying the usability of the Sennheiser Speakerphone solution after restarting the one-X Communicator and restarting the PC and reconnecting the speakerphone to the PC.

## 2.2. Test Results

Redial feature of the Sennheiser device are not supported as Avaya headset API does not provide this functionality. All other test cases are successfully completed.

## 2.3. Support

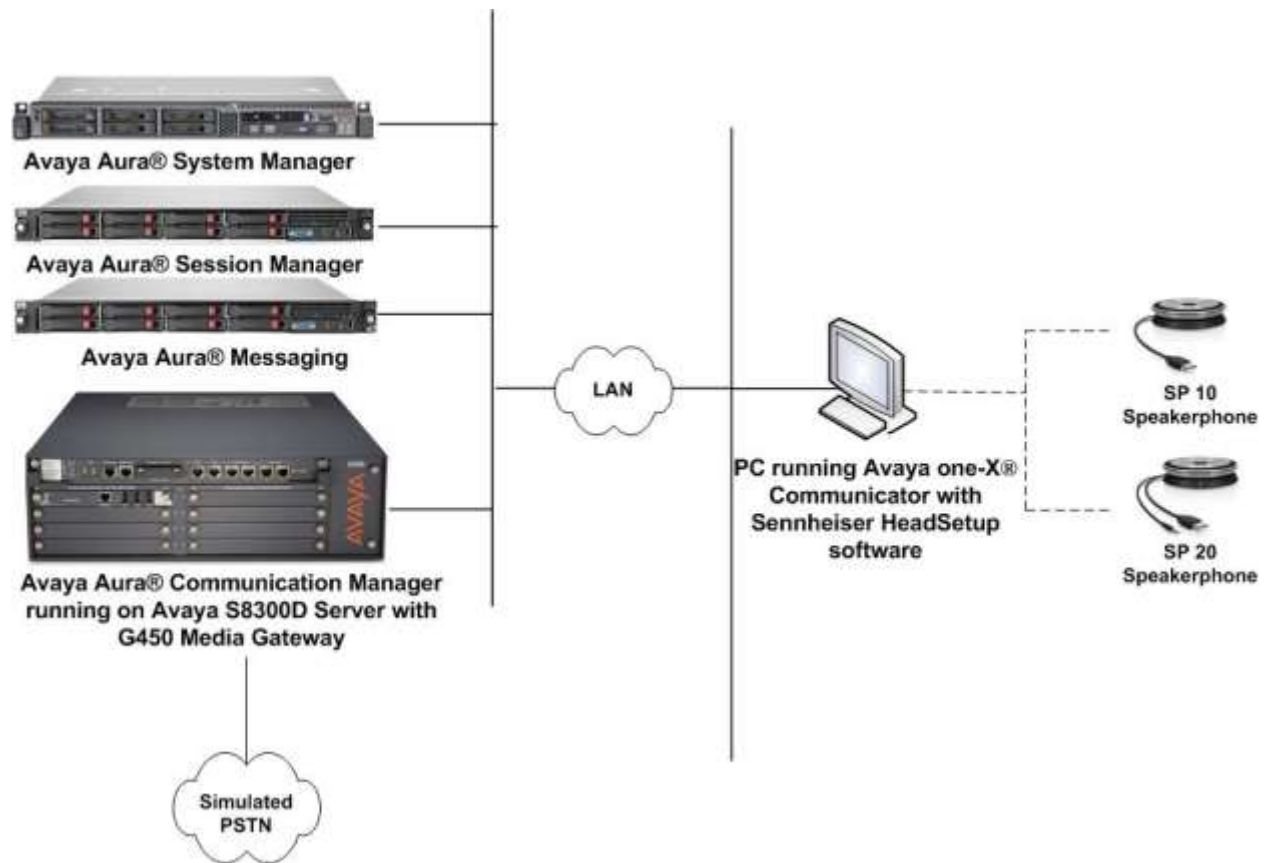
For support on the Sennheiser Communications A/S headset solution, contact Sennheiser Communications A/S technical support at:

Website: <http://en-de.sennheiser.com/service-support/>

Phone: +1-866-697-8757

### 3. Reference Configuration

**Figure 1** illustrates the test configuration used to verify Sennheiser HeadSetup software with Speakerphone solution. The configuration consists of an Avaya S8300D Server running Avaya Aura® Communication Manager with an Avaya G450 Media Gateway providing connectivity to the PSTN via an ISDN-PRI trunk. Avaya Aura® Messaging was used as the voicemail system. The Sennheiser HeadSetup software was installed on the PC. The speakerphones are connected via the USB interface on the PC.



**Figure 1: Test Configuration**

## 4. Equipment and Software Validated

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

<b>Equipment/Software</b>	<b>Release/Version</b>
Avaya Aura® Communication Manager running Avaya S8300D Server with a G450 Media Gateway	6.3.9.1 (Build R016x.03.0.124.0-22098)
Avaya Aura® System Manager	6.3.12 (6.3.12.9.3022)
Avaya Aura® Session Manager	6.3.12 (6.3.12.0.631208)
Avaya Aura® Messaging	6.3.124.321-1.251259
one-X® Communicator running on Windows 7 Professional Service Pack 1	6.2.5.03 (6.2 SP5)
Sennheiser HeadSetup software	V3.0.2
Sennheiser SP 10 Speakerphone	1.2.6.0
Sennheiser SP 20 Speakerphone	1.2.6.0

## 5. Configure Avaya Aura® Communication Manager

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

### 5.1. Configure H.323 station

Use the **add station** command to create a station for Avaya one-X® Communicator. Set the **Type** field to the station type to be emulated. In this example, *9608* was used. Set the **Port** field to *IP* and configure a **Security Code**, which will be used as the password by Avaya one-X® Communicator to log in. Set the **IP Softphone** field to *y*.

```
add station 10005                                     Page 1 of 5
                                                    STATION
Extension: 10005                                     Lock Messages? n          BCC: 0
  Type: 9608                                         Security Code:            TN: 1
  Port: S00037                                       Coverage Path 1: 99      COR: 1
  Name: 10005                                         Coverage Path 2:        COS: 1
                                                    Hunt-to Station:        Tests? y


STATION OPTIONS
  Location:                                         Time of Day Lock Table:
  Loss Group: 19                                   Personalized Ringing Pattern: 1
                                                    Message Lamp Ext: 10005
  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
                                                    Short/Prefixed Registration Allowed: default
                                                    Customizable Labels? y
```

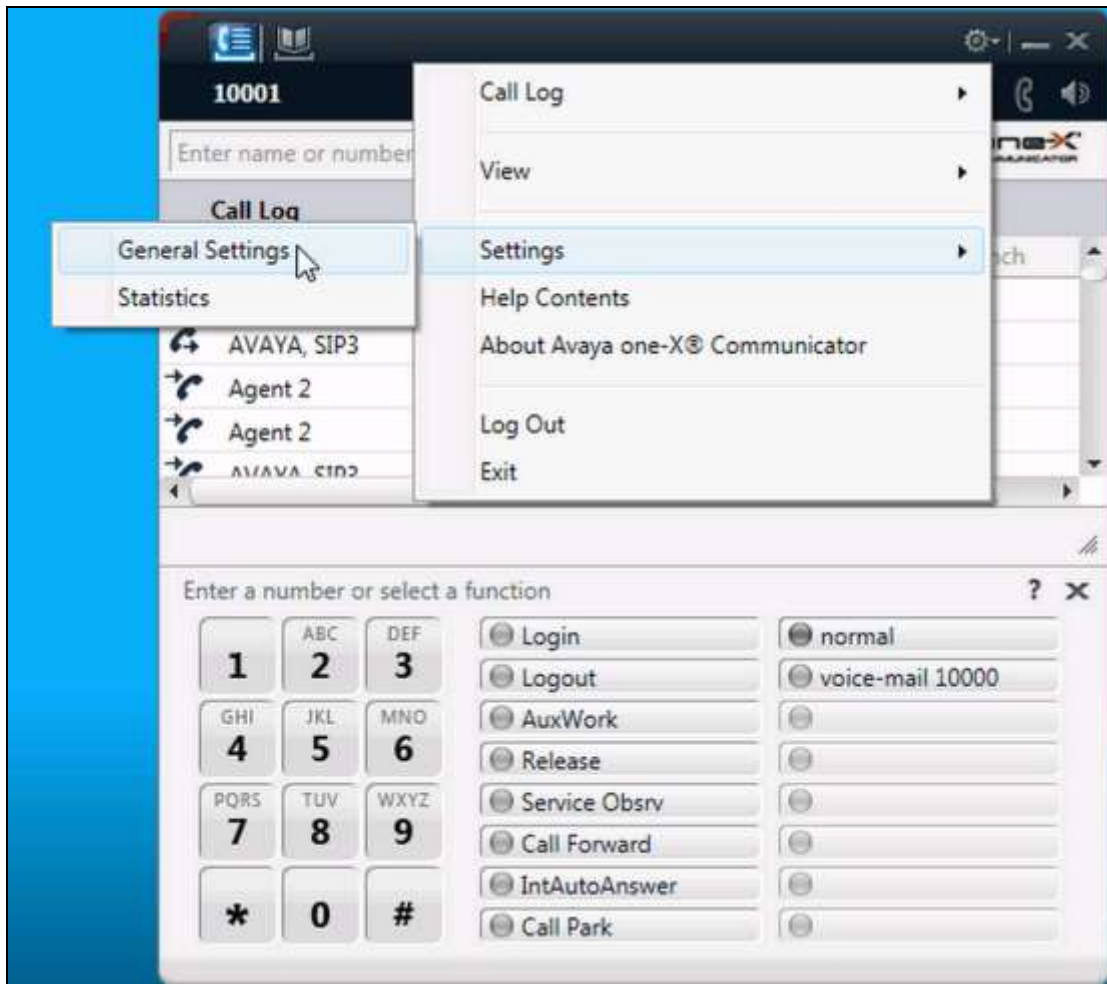
## 5.2. Configure SIP station

The configuration for SIP station is performed partially via the System Access Terminal (SAT) on Communication Manager. The rest of the configurations are performed via the System Manager. There is an option to generate SIP station without using the SAT when adding a new SIP user using System Manager. The details will not be covered in this document. Please refer to the application notes in [4] for details. Below shows the SIP Station with **Type 9641SIP** configured.

```
display station 10049                                     Page 1 of 6
                                                         STATION
Extension: 10049                                         Lock Messages? n      BCC: 0
  Type: 9641SIP                                         Security Code:        TN: 1
  Port: S00138                                           Coverage Path 1:     COR: 1
  Name: AVAYA, SIP3                                       Coverage Path 2:     COS: 1
                                                         Hunt-to Station:
STATION OPTIONS
  Location:                                               Time of Day Lock Table:
  Loss Group: 19                                           Message Lamp Ext: 10049
  Display Language: english                               Button Modules: 0
  Survivable COR: internal
  Survivable Trunk Dest? y                               IP SoftPhone? n
                                                         IP Video? n
```

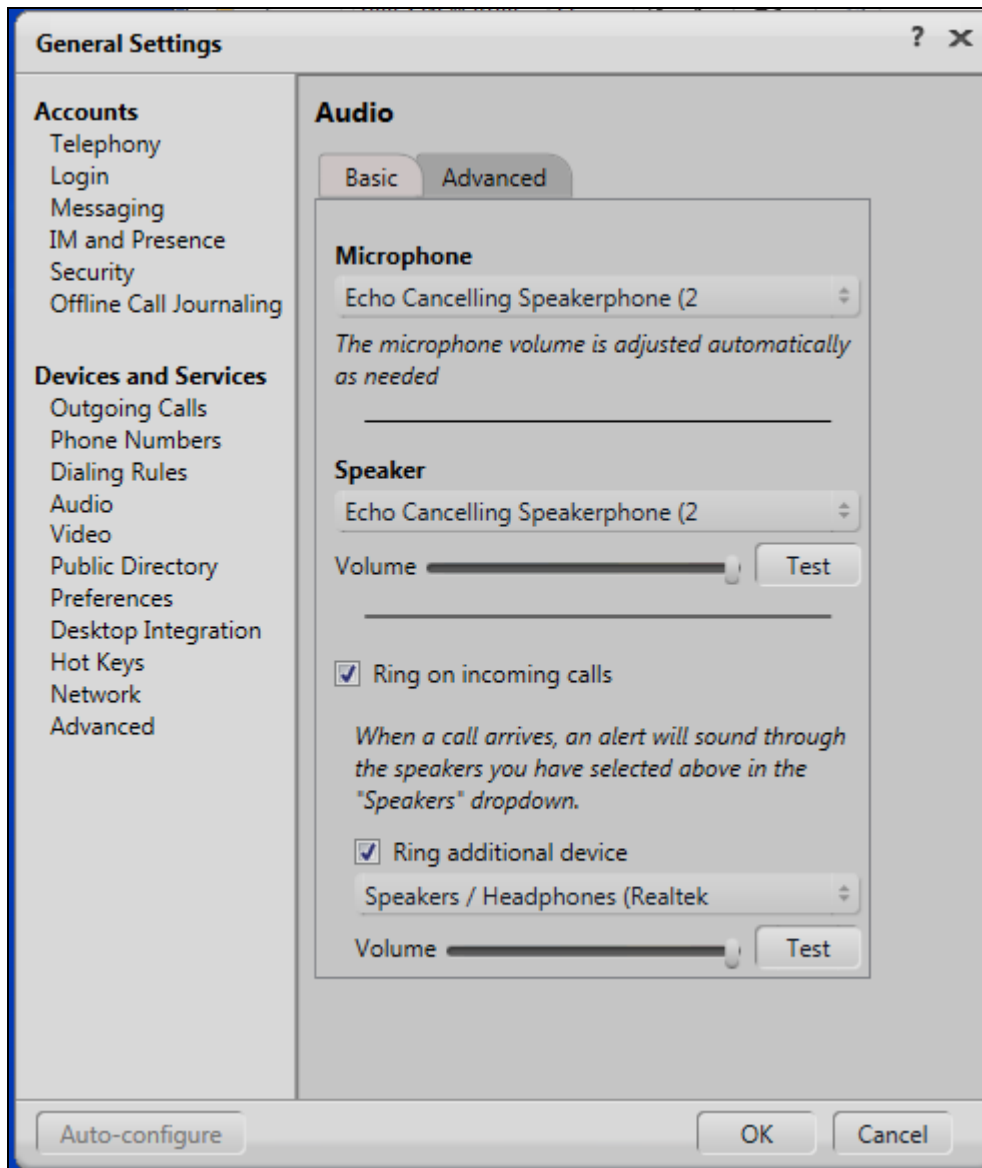
## 6. Configure Avaya one-X® Communicator

Before configuring the Avaya one-X® Communicator, the speakerphone has to be configured and provisioned as detailed in **Section 7**. After logging into Avaya one-X® Communicator, select  → **Settings** → **General Settings** as shown below.





The *Echo Cancelling Speakerphone (2- Sennheiser)* will appear as under the **Basic** tab of the **Audio** settings for Sennheiser Speakerphone SP 10. Check that this device is detected under the **Microphone** and **Speaker** fields as shown below.



## 7. Configure Sennheiser Speakerphone solution

This section covers the steps to integrate Sennheiser Speakerphone with one-X Communicator, including:

- Installing the Sennheiser HeadSetup software
- Configuring HeadSetup software
- Connect Sennheiser Speakerphone

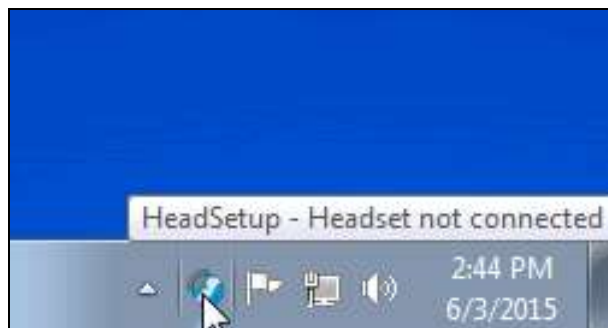
**Note:** After successfully performing this procedure, the speakerphone will be detected in Avaya one-X® Communicator as described in **Section 6**.

### 7.1. Installing the Sennheiser HeadSetup software

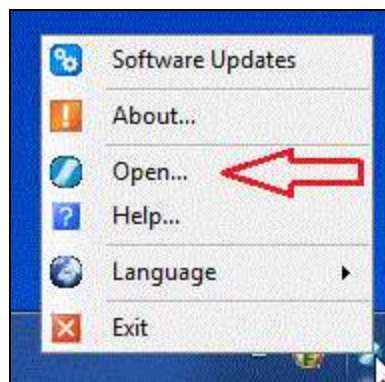
The installation instructions for Sennheiser HeadSetup software on the Avaya one-X® Communicator PC is described in [5] listed in **Section 10**.

### 7.2. Configuring HeadSetup software

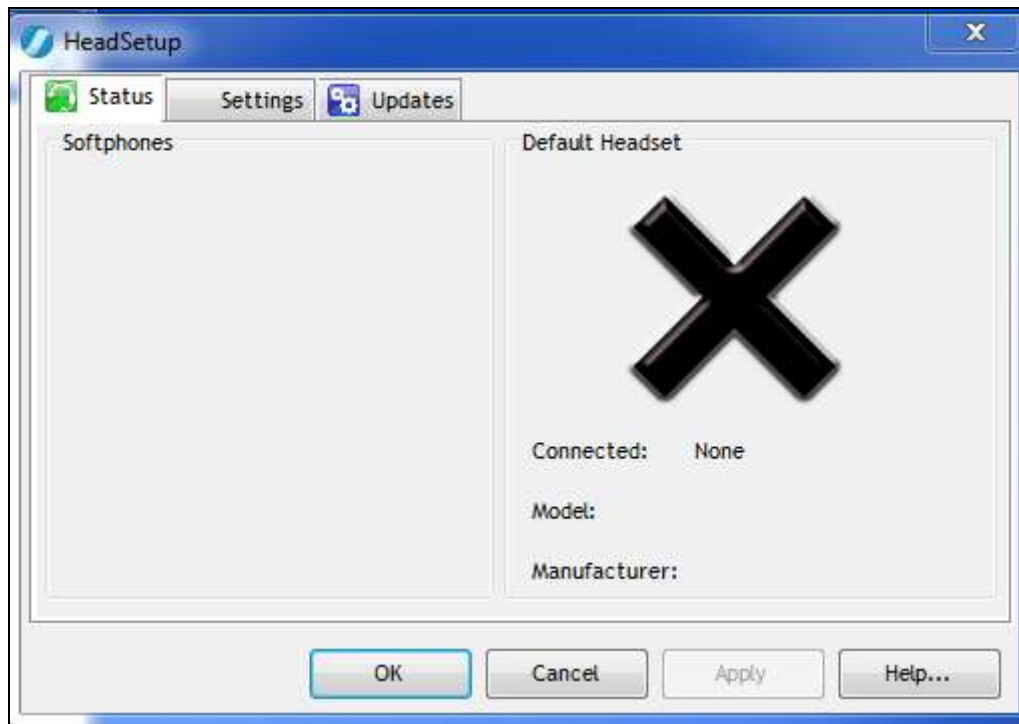
Launch the **HeadSetup** icon from the desktop. Hover mouse over the HeadSetup icon on bottom right taskbar and that it shows “**HeadSetup – Headset not connected**”.



**Right Click** on the HeadSetup application icon at the bottom right taskbar and select **Open**.

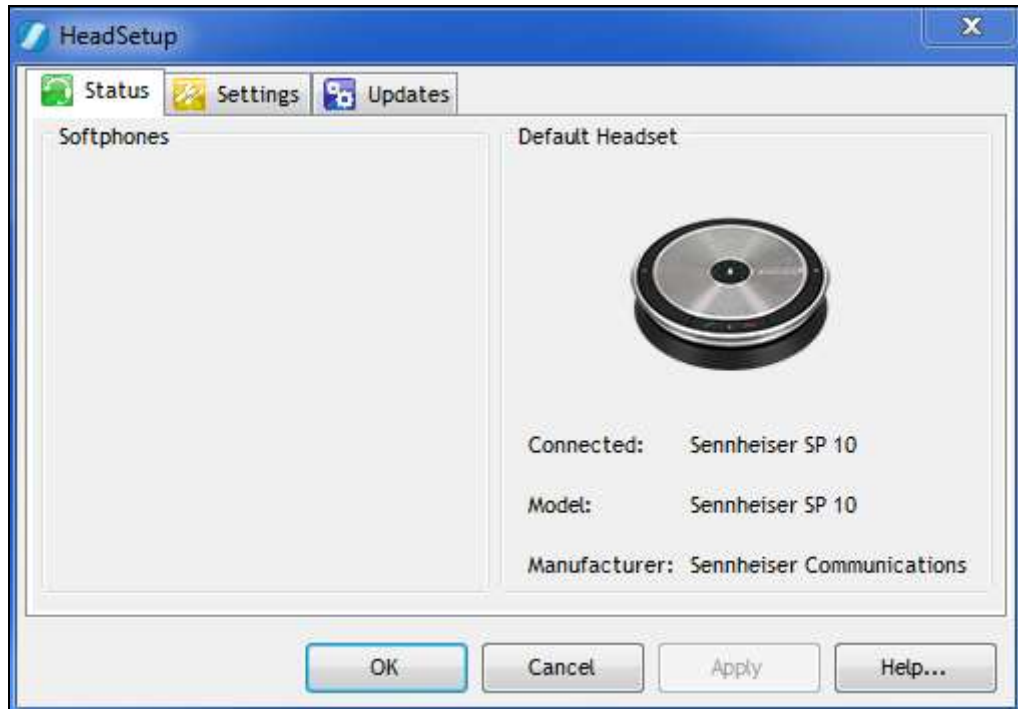


Select the **Status** tab and **Default Headset** on the right pane shows no headset is detected with an **X**.



### 7.3. Connect Sennheiser Speakerphone

Plug Sennheiser Speakerphone into USB port on a PC. The device drivers will automatically be installed once plugged into the PC. The HeadSetup software **Status tab** shows the **Sennheiser SP 10** (or **Sennheiser SP 20** depending on which speakerphone is plugged) is detected.



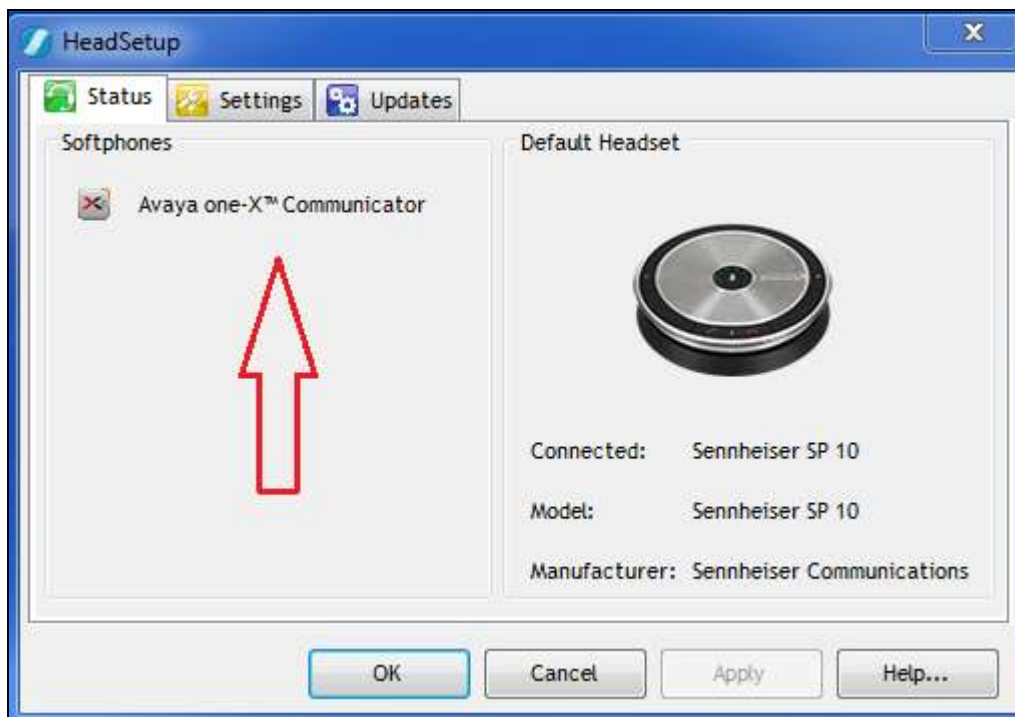
Hover mouse over the HeadSetup icon (in grey) on bottom right taskbar and it shows “HeadSetup – Not logged to any soft-phone”.



## 8. Verification Steps

This section verifies that the speakerphone solution has been successfully integrated with the Avaya one-X® Communicator. Launch and log in to Avaya one-X® Communicator.

1. Verify that the Sennheiser Speakerphone has been successfully connected for use with Avaya one-X® Communicator. From the **HeadSetup** program, select the **Status** tab. Verify that:
  - The **Softphones** on the left pane shows **Avaya one-X™ Communicator**.
  - The **Default Headset** on the right pane shows the **Sennheiser Speakerphone SP 10** or **Sennheiser Speakerphone SP 20** depending on which speakerphone is connected.



2. Hover mouse over the HeadSetup icon (in green) on bottom right taskbar and it shows “**HeadSetup – Headset Idle**”.



3. Once the Speakerphone is connected to Avaya one-X® Communicator, verify that incoming and outgoing calls can be established with two-way audio to the headset. Hover mouse over the HeadSetup icon on bottom right taskbar and

it shows “**HeadSetup – Headset in use**”. If the headset call control buttons is not functioning, restart the connection by closing and opening the HeadSetup application.



4. For incoming calls, answer the call by pressing the call control button on the headset.
5. End the call by pressing the call control button on the headset.

## 9. Conclusion

These Application Notes describe the configuration steps required to integrate Sennheiser Communications A/S HeadSetup software and SP 10/SP 20 Speakerphones with Avaya one-X® Communicator. All test cases were completed successfully with observations noted in **Section Error! Reference source not found.**

## 10. Additional References

This section references the Avaya and Sennheiser Communications A/S 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 6.3, Issue 10.0, June 2014, Document Number 03-300509.
- [2] *Administering Avaya one-X® Communicator*, Release 6.2 FP4, October 2014.
- [3] *Implementing Avaya one-X® Communicator*, Release 6.2 FP4, October 2014.
- [4] *Application Notes for Configuring Avaya 9600 Series IP Deskphones running Avaya one-X® SIP firmware with Avaya Aura® Session Manager*.

The following Sennheiser Communications A/S documentation can be found at <http://en-http://de.sennheiser.com/office-wireless-headsets-dect>.

- [5] *Sennheiser Updater – Mass Deployment Installation Guide*.
- [6] *Sennheiser SP 10 quick guide*.
- [7] *Sennheiser SP 20 quick guide*.

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