



**Application Notes for Sennheiser CC Series Headsets with
CAVA 31 adapter cable Connected to Avaya 96x1 Series IP
Deskphone (H.323 and SIP) - Issue 1.0**

Abstract

These Application Notes describe the configuration steps required to integrate Sennheiser CC Series Headsets with CAVA 31 adapter cable connected to Avaya 96x1 Series IP Deskphones.

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 Sennheiser CC Series Headsets with CAVA 31 adapter cable connected to Avaya 96x1 Series IP Deskphones. The Sennheiser CC 510 and CC 550 IP headsets in the CC series are represented in this Compliance Testing for the headsets. The Sennheiser headset is connected to the headset port of Avaya 96x1 Series IP Deskphones via the Sennheiser CAVA 31 headset adapter cable.

2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from the Avaya 96x1 Series IP Deskphones using the Sennheiser headset and verifying two-way audio. The call types included calls to voicemail, to local extensions, and to the PSTN.

The serviceability testing focused on verifying the usability of the Sennheiser headset after restarting the Avaya 96x1 Series IP Deskphone.

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 that carry the Avaya brand or logo. Avaya may conduct testing of non-Avaya headset to determine interoperability with Avaya phones. However, Avaya does not conduct the testing of non-Avaya headsets 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 Deskphones or with a different generation of the same Avaya telephone.

Since there is no industry standard for headset interfaces, different manufacturers utilize different 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.

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.
- Hearing ringing tone for incoming and ring back for outgoing calls.
- Answering and ending calls using the call control button on the Avaya phone.
- Using the volume control buttons on the Avaya phone to adjust the audio volume.
- Using the mute control button on the Avaya phone to mute and un-mute the audio.
- Using the hold control button on the Avaya phone to hold and resume call.
- Switching between the Sennheiser headset, the phone handset and speaker while in conversation.

For the serviceability testing, the Avaya 96x1 Series IP phone was restarted to verify proper operation of the headset after the reboot was completed.

2.2. Test Results

All test cases passed.

2.3. Support

For support on this Sennheiser headset solution, contact Sennheiser Technical Support at:

- Phone: +45 56180000
- Website: www.sennheiser.com/service-support
- Email: support@senncom.com

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Sennheiser CC Series Headset with Avaya 96x1 Series IP Deskphones. 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 (not shown), Avaya Aura® Session Manager and Avaya Aura® System Manager. Avaya Aura® Messaging was used as the voicemail system.

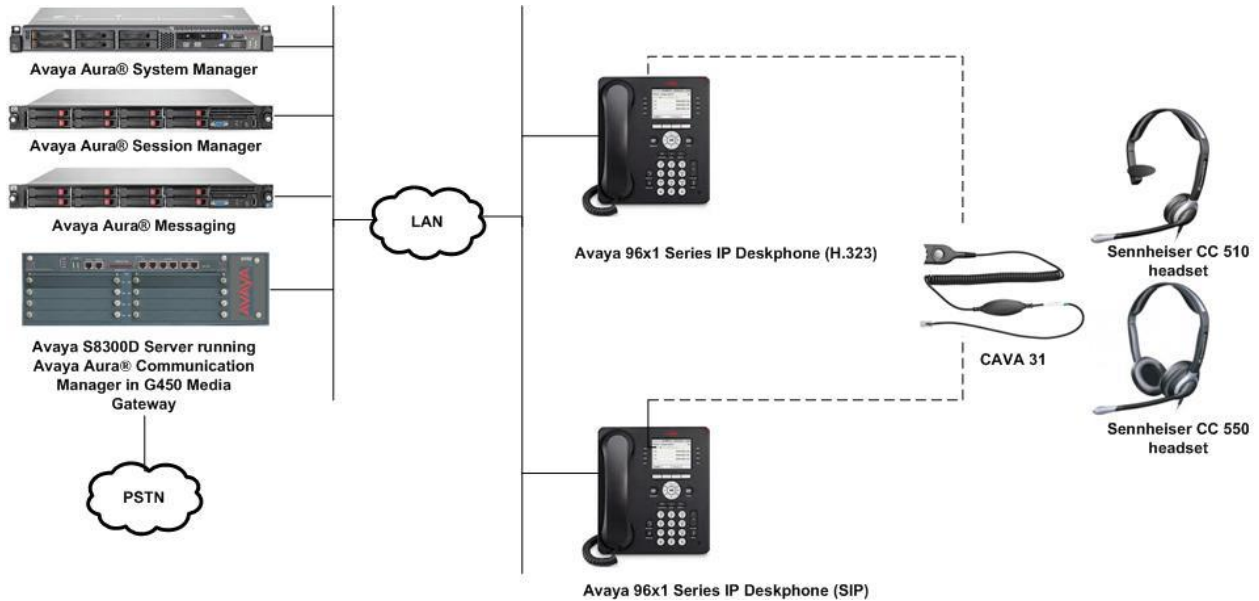


Figure 1: Avaya 96x1 Series IP Deskphones with Sennheiser CC 510/550 Headsets

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 running Avaya S8300D Server with a G450 Media Gateway	6.3.7.0
Avaya Aura® System Manager	6.3.8.5.2376
Avaya Aura® Session Manager	6.3.8.0.638018
Avaya Aura® Messaging	6.3.124.315-1.247325
Avaya 96x1 Series IP Deskphone (H.323)	6.4014
Avaya 96x1 Series IP Deskphone (SIP)	6.4.0.33
Sennheiser CC 510/550 IP headsets	-
Sennheiser CAVA 31 headset adapter cable	-

5. Configure Avaya Aura® Communication Manager

This section covers the station configuration of Avaya 96x1 Series IP Deskphone for both H.323 and SIP.

5.1. Configure a Station for Avaya 96x1 IP Deskphones (H.323)

The configuration for H.323 is performed entirely via the System Access Terminal (SAT) on Communication Manager. The procedures include:

- Configure a station for Avaya 96x1 IP Deskphone.
- Configure 96x1 IP Deskphone for incoming call notifications in headset

Use the **add station** command to create a station for the 96x1 IP Deskphone. Set the **Type** field to the station type to be emulated. In this example, *9611G* was used. Set the **Port** field to *IP* and configure a **Security Code** as that password to be used by the Avaya Deskphone to log in.

Note: To enable Auto Answer on the IP Deskphone, set the **Auto Answer** field on **Page 2** (not shown) to the appropriate value, such as *all*. This works for phones log into ACD only.

```
add station 10001                                     Page 1 of 5
                                                    STATION
Extension: 10001                                     Lock Messages? n          BCC: 0
  Type: 9611G                                       Security Code:         TN: 1
  Port: IP                                           Coverage Path 1: 99      COR: 1
  Name: 96x1 IP Telephone                            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: 10001
  Speakerphone: 2-way                               Mute Button Enabled? y
  Display Language: english                         Button Modules: 0
Survivable GK Node Name:                            Media Complex Ext:
  Survivable COR: internal                           IP SoftPhone? n
  Survivable Trunk Dest? y                           IP Video? n
                                                    Short/Prefixed Registration Allowed: default
                                                    Customizable Labels? y
```

5.1.1. Configure 96x1 IP Deskphone for incoming call notifications in headset

The support for incoming call notification on headset requires to configure 96x1 phone options. Select **Home** → **Options & Settings** → **Call Settings** → **Headset Signalling** → **Switchhook & Alerting** on the phone (not shown). This is supported IP Deskphone of for both H.323 and SIP protocol. When an incoming call arrives, a short beep is heard in the headset regardless if the headset button is active or not.

5.2. Configure a Station for Avaya 96x1 IP Deskphones (SIP)

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 [3] for complete details. Below shows the SIP Station with **Type 9641SIP** configured.

Note: To enable Auto Answer on the IP Deskphone SIP, set the **Auto Answer** field on **Page 2** (not shown) to the appropriate value, such as *all*.

```
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 Sennheiser CC Series Headset

No configuration is required for the Sennheiser headset. The CAVA 31 headset adapter cable has to be connected to the headset port on the Avaya phone on one end and the headset “Easy Disconnect” facility on the other.

7. Verification Steps

Verify that the Sennheiser headset has been connected to the Avaya 96x1 Series IP Deskphone. Once the headset is connected to the phone, verify that incoming and outgoing calls are established with two-way audio to the headset and that the headset can get dial tone and end an active call.

8. Conclusion

These Application Notes describe the configuration steps required to integrate the Sennheiser CC Series Headset with CAVA 31 adapter cable connected to Avaya 96x1 Series IP Deskphones. All test cases were completed successfully.

9. Additional References

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, Jun 2014, Document Number 03-300509.
- [2] *Administering Avaya IP Deskphone H.323 9608, 9611G, 9621G, and 9641G*, Release 6.2 Service Pack 4, Issue 15, Aug 2013, Document Number 16-300698.
- [3] *Application Notes for Configuring Avaya 9600 Series IP Deskphones running Avaya one-X® SIP firmware with Avaya Aura® Session Manager*.
- [4] *Administering Avaya Aura® Session Manager*, Release 6.3, Issue 5, Jun 2014.

The Sennheiser headset and accessories product information can be found at <http://sennheiser.com/office-headsets-call-center>.

- [1] *Sennheiser CC 510 IP headset factsheet*
- [2] *Sennheiser CC 550 IP headset factsheet*

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