Avaya Solution & Interoperability Test Lab

Application Notes for Sennheiser Century Series Headsets and CAVA 31 Adapter with Avaya 96x1 Series IP Telephones - Issue 1.1

Abstract

These Application Notes describe the configuration steps required to integrate the Sennheiser Century Series headsets SC 660, SC 630 and CAVA 31 Adapter with Avaya 96x1 Series IP Telephones using H.323 and SIP protocols.

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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Solution & Interoperability Test Lab Application Notes
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1. Introduction

These Application Notes describe the configuration steps required for Sennheiser Century Series headsets and CAVA 31 headset adapter cable to successfully interoperate with Avaya IP Deskphones. The Avaya telephones used were 96x1 series IP telephones connected to Avaya Aura® Communication Manager. The Sennheiser CAVA 31 headset connected the Sennheiser Century SC 630 and Century SC 660 headsets to the Avaya telephones.

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 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.

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from the Avaya 96x1 Series IP Telephones with the Sennheiser Century Series headsets and CAVA 31 adapter 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 Century Series headsets after restarting the Avaya 96x1 Series IP Telephones and re-connecting the Century Series headsets.

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.
- Incoming call alert notification for 96x1 H.323 telephone only.
- Hearing ring back tone for outgoing calls.
- Toggling between handset, speakerphone, and headset.
- Using the volume control buttons on the Century headset to adjust the audio volume.
- Using the mute control button on the Century headset to mute and un-mute the audio.
- Using the headset with 9608 H.323 and SIP telephones.

For the serviceability testing, a 96x1 IP telephone and headset were restarted to verify proper operation of the headset after the reboot was completed.

In addition to DevConnect Compliance Testing, Acoustic Testing of the Century SC 630/660 headsets using the CAVA-31 Adapter has also been completed by Avaya. The recommended profile for use with these headsets is profile #4. For a detailed list of recommended headsets, and directions on assigning a headset profile, see *Avaya 96XX Series IP Deskphone and H100 Video Collaboration Station Headsets Profiles*, available on support.avaya.com.

2.2. Test Results

The objectives outlined in the Section 2.1 were verified. All test cases have passed.

2.3. Support

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

- Website: www.sennheiser.com/service-support/
- E-mail: support@senncom.com

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Sennheiser Century Series headsets and the CAVA 31 adapter with Avaya 96x1 Series IP Telephones. The configuration consists of an Avaya S8300 Server running Avaya Aura® Communication Manager on Avaya G450 Media Gateway. Avaya Aura® Messaging was used as the voicemail system. The Sennheiser Century Series headsets and the CAVA 31 adapter were connected to the Avaya phone via the headset port.
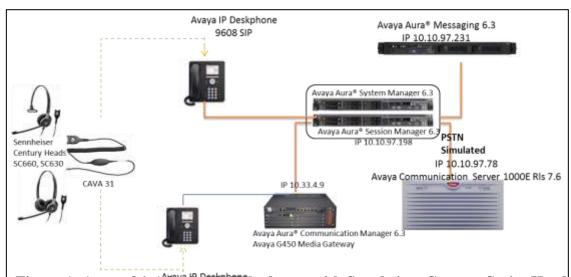

Figure 1: Avaya 96x1 Series IP Telephones with Sennheiser Century Series Headsets and the CAVA 31 Adapter

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 on an Avaya S8300 Server with a G450 Media Gateway	6.3 SP 4 (R016x.03.0.124.0 w/Patch 21291)
Avaya Aura® Messaging	6.3
Avaya Aura® Session Manager	6.3 (6.3.5.0.635005)
Avaya Aura® System Manager	6.3.5 Build No. – 6.3.0.8.5682-6.3.8.2826 Software Update Revision No: 6.3.5.5.2017
Avaya 96x1 Series IP Telephone	6.4014(H.323) 6.4.0.33(SIP)
Sennheiser Century Series Headsets SC630/SC660	N/A
CAVA 31 Adapter	P/N 504149

5. Configure Avaya Aura® Communication Manager

This section covers the station configuration for the Avaya 9608 IP Telephone. The configuration is performed via the System Access Terminal (SAT) on Communication Manager or via Avaya Aura® System Manager for SIP stations.

5.1. Configure a Station for Avaya 96x1 Series IP Telephone

Use the **add station** command to create a station for the 9608 IP telephone. 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** as the password to be used by the Avaya telephone to log in.

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

```
add station 40000                                           Page   1 of   5
                                 STATION

Extension: 40000                      Lock Messages? n              BCC: 0
      Type: 9608                      Security Code: 40000          TN: 1
      Port: IP                        Coverage Path 1:             COR: 1
      Name: Century                   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: 40000
          Speakerphone: 2-way           Mute Button Enabled? y
      Display Language: english
 Survivable GK Node Name:
         Survivable COR: internal        Media Complex Ext:
   Survivable Trunk Dest? y                   IP SoftPhone? n

                                              IP Video? n
                        Short/Prefixed Registration Allowed: default
```

5.1.1. Enable Switchhook & Alerting Option

In the 46xxsettings.txt file, the **HEADSETBIDIR** parameter needs to be set to *1* so that switchhook and alerting are enabled for the H.323 phone. This allows incoming call alert to be heard through the headset. Below is an example for setting the parameter.

```
############  HEADSET SETTINGS (H.323 ONLY)  ###############
##
## HEADSETBIDIR specifies whether bidirectional signaling
##  on the headset interface will be enabled or disabled.
##  Value  Operation
##   0   Disabled (default)
##   1   Switchhook and alerting signaling are both enabled
##   2   Only switchhook signaling is enabled
##  This parameter is supported by:
##      96x1 H.323 R6.3 and later (values 0-2)
##      96x1 H.323 R6.2.1 and later (values 0-1)
##  Note that 96x1 H.323 R6.2 only supported signaling for alerting.
SET HEADSETBIDIR 1
```

Alternatively, the switchhook and alerting options can be enabled through the 96x1 phone menu. Press the **Menu** button on the phone and then navigate to **Options & Settings →Call Settings → Headset Signaling…** Select the **Switchhook & Alerting** option.

5.2. Configure a Station for Avaya 96x1 Series SIP Telephone

The SIP station was configured automatically through Avaya Aura® System Manager. Use the **display station** command to view the station for the 9608 IP telephone. The **Station Type** was set to *9608SIP* and a descriptive **Name** was also provided. Use the default values for the other fields on **Page 1**.

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

```
display station 46010                                        Page   1 of   6
                                   STATION

Extension: 46010                         Lock Messages? n              BCC: 0
      Type: 9608SIP                       Security Code:                TN: 1
      Port: IP                          Coverage Path 1: 50            COR: 1
      Name: Century                    Coverage Path 2:                COS: 1
                                         Hunt-to Station:
STATION OPTIONS
                                            Time of Day Lock Table:
              Loss Group: 19
                                              Message Lamp Ext: 46010

        Display Language: english

           Survivable COR: internal
   Survivable Trunk Dest? y                         IP SoftPhone? n

                                                    IP Video? n
```

6. Connect Sennheiser Century Series Headsets CAVA 31 Adapter

During the compliance test, the Sennheiser CAVA 31 headset adapter cable is used for the connection of the Sennheiser Century Series headsets to the Avaya 96x1 series IP telephones. The procedure for connecting the cable is:

- Connect the Sennheiser CAVA 31 adapter cable's RJ11 port to the headset socket on the Avaya IP phone.
- Connect the Sennheiser CAVA 31 cable and headset through the easy disconnect plug.

7. Verification Steps

- Pick up and put the headset on. Press the headset button on the deskphone and the ring back tone is also heard in the speaker(s) of headsets.
- From the IP phone with adapter and headset, dial an extension of another Avaya IP telephone and answer the call on that telephone.
- Check audio path on the headset and the handset of the other telephone; it should be clear.
- End the call above by either pressing the headset button on the Avaya IP deskphone or hanging up the handset. After ending the call, the light of the headset button on the Avaya IP deskphone goes OFF and the call is now released.

8. Conclusion

These Application Notes describe the configuration steps required to integrate the Sennheiser Century SC 660, SC 630 headsets and the CAVA 31 adapter with Avaya 96x1 Series IP Telephones. All test cases were completed successfully.

9. Additional References

This section references the Avaya and Century 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 9, October 2013, Document Number 03-300509.
[2] Administering Avaya 9601/9608/9608G/9611G/9608G/9641G Deskphones SIP, Release 6.3.1, Issue 3, January 2014, Document Number 16-601944.
[3] Installing and Maintaining Avaya Deskphone SIP 9601/9608/9608G/9611G/9608G/9641G Deskphones, Release 6.3.1, Issue 4, January 2014, Document Number 16-603504.
[4] Administering Avaya IP Deskphone H.323 9608, 9608G, 9611G, 9608G, and 9641G, Release 6.3.1, Issue 17, January 2014, Document Number 16-300698.
[5] Installing and Maintaining Avaya IP Deskphone H.323 9608, 9608G, 9611G, 9608G, and 9641G, Release 6.3.1, Issue 9, January 2014, Document Number 16-603603.

The Century Series product documentation is available with the headsets. Additionally, information and documentation can be found at www. sennheiser.com.