



Avaya Solution & Interoperability Test Lab

Application Notes for the Sennheiser CAVA31 Interface with SH and CC Headsets Connected to Avaya 1600 and 9600 Series IP Telephones – Issue 1.0

Abstract

These Application Notes describe the compliance testing of the Sennheiser CAVA31 Interface with SH and CC headsets connected to Avaya 1600 and 9600 Series IP Telephones with Avaya Aura[®] Communication Manager. 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.

Table of Contents

1.	Introduction.....	3
1.1.	Interoperability Compliance Testing	3
1.2.	Support.....	3
2.	Reference Configuration.....	4
3.	Equipment and Software Validated	5
4.	Configure Avaya Communication Manager.....	6
5.	Configure Sennheiser Headset.....	7
6.	General Test Approach and Test Results.....	7
7.	Verification Steps.....	7
8.	Conclusion	7
9.	Additional References.....	8

1. Introduction

These Application Notes describe the compliance testing of Sennheiser CAVA31 Interface with SH and CC headsets connected to Avaya 1600 and 9600 Series IP Telephones with Avaya Aura[®] Communication Manager. The Sennheiser headsets are connected to the headset port of the Avaya 9600 and 1600 IP telephones via the Sennheiser CAVA31 interface.

1.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from Avaya 9600 and 1600 Series IP Telephones using the Sennheiser headsets attached to the Avaya telephone headset interface via the Sennheiser CAVA31 interface and verifying good talk path in both directions. The type of calls made included calls to internal extensions, PSTN endpoints and voicemail. The serviceability testing focused on verifying the usability of Sennheiser headsets after disconnecting and reconnecting the headset.

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 illustrates the test configuration used to verify the Sennheiser Headset solutions. The configuration consists of a Sennheiser headset, an Avaya 9600 or 1600 series IP telephone, an Avaya S8300 Server running Avaya Aura[®] Communication Manager, with an Avaya G430 Media Gateway providing connectivity to the PSTN via an ISDN PRI trunk. A PSTN-based voicemail system was used to record and playback audio messages to verify audio voice quality.

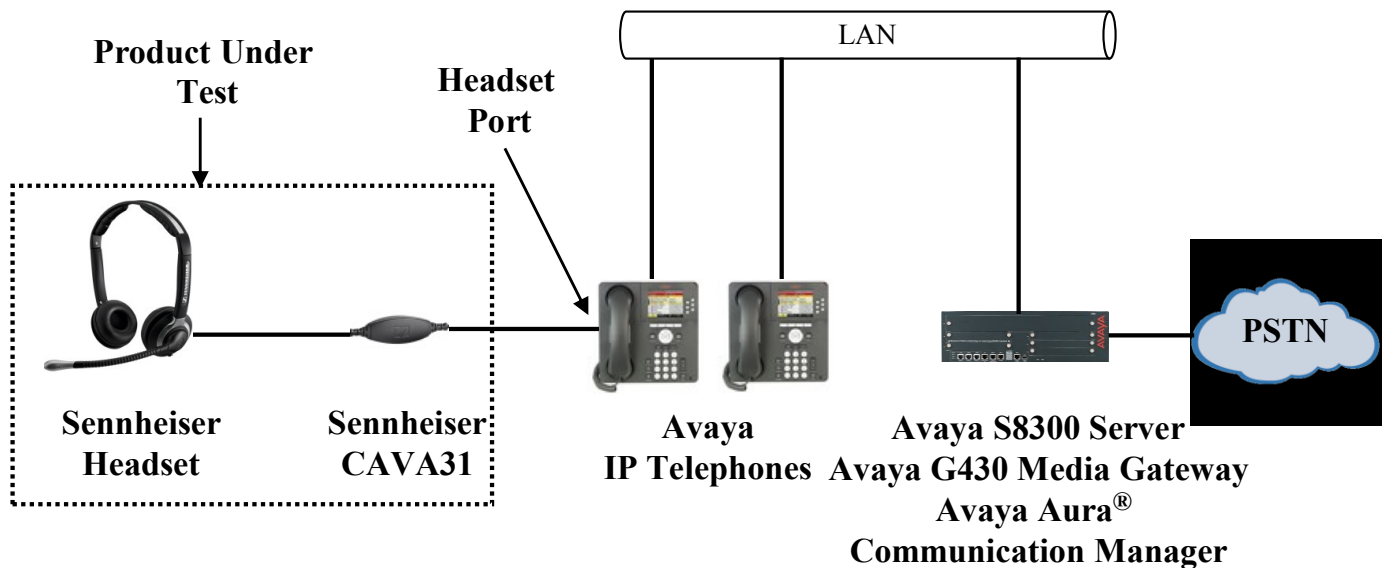


Figure 1: Reference Configuration

The Sennheiser headset in the above diagram interfaces to the headset ports of Avaya 1600 and 9600 Series IP Telephones via the Sennheiser CAVA31 interface. 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.

3. Equipment and Software Validated

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

Component	Version
Avaya G430 Media Gateway	30.14.0
Avaya Aura [®] Communication Manager	R015x.02.1.016.4 Patch: 02.1.016.4-18365
Avaya 9640G Series IP Telephone	3.1.1
Avaya 1608 Series IP Telephone	1.3
Sennheiser CAVA31 Interface	QZZY A11-10009
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 Aura® Communication Manager

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

Note that the configuration of the interface to the PSTN is out of the scope of these Application Notes.

Use the **add station** command to add an extension for the phone to which the headset is attached.

Parameter	Usage
Type (Page 1)	Enter endpoint type which corresponds to the phone to which the headset is attached.
Name (Page 1)	Enter an appropriate name to identify the station.
Security Code (Page 1)	Enter an appropriate security code for the station.

Table 2: IP Station Parameters

```

add station 10091                                     Page 1 of 5
                                     STATION
Extension: 10091                                     Lock Messages? n           BCC: 0
  Type: 9640                                       Security Code: 123456     TN: 1
  Port: S00006                                       Coverage Path 1:          COR: 1
  Name: extn 10091                                   Coverage Path 2:          COS: 1
                                                         Hunt-to Station:
STATION OPTIONS
                                     Time of Day Lock Table:
  Loss Group: 19                                       Personalized Ringing PSennheiser ern: 1
                                                         Message Lamp Ext: 10091
  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
                                                         Customizable Labels? y
  
```

Figure 2: IP Station Form

5. Configure Sennheiser Headset

The Sennheiser CAVA31 interface is used to connect any of the headsets listed in **Section 1** to the headset port of the Avaya 9600 or 1600 IP Series Telephones. The Sennheiser CAVA31 has a 25cm cable on one side which is terminated by an RJ-11 connector which is inserted into the headset port on the bottom of the Avaya 9600 and 1600 Series IP Telephones.

The other side of the Sennheiser CAVA31 has an extendable coiled cable which can be extended from 70cm to a maximum of about 200cm, which is terminated by a snap-in connector to which any of the headsets listed in **Section 1** can be easily connected.

Once the Sennheiser CAVA31 has been connected to the Avaya telephone headset port and one of the Sennheiser headsets, calls can be made and accepted with the “headset” button on the Avaya telephone.

6. General Test Approach and Test Results

The compliance testing of Sennheiser headsets interoperating with Avaya 1600 and 9600 Series IP Telephones was performed manually. The tests were functional in nature, and no performance testing was done. The following tests were performed.

- Placing calls to a PSTN 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 the audio quality.
- Placing calls to the PSTN to verify the audio quality.
- Disconnection and reconnection of the headsets to the Avaya telephone’s headset port and verification of continued functionality.

All tests produced the expected results.

7. Verification Steps

The correct installation and configuration of the Sennheiser headset solution can be verified by using the telephone to which the headset is attached to place and receive calls from other extensions and verifying good audio quality in both directions.

8. Conclusion

These Application Notes contain instructions for configuring Avaya 1600 and 9600 series IP telephones to connect to the Sennheiser headset solution. All test cases were completed successfully.

9. Additional References

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

- [1] *Avaya one-X® Deskphone Edition for 9600 Series IP Telephones Installation and Maintenance Guide*, November 2009, Document Number 16-300694
- [2] *Avaya 1600 Series IP Deskphones Installation and Maintenance Guide*, April 2010, Document Number 16-601438
- [3] *Sennheiser Office Headset SH 230*
- [4] *Sennheiser Office Headset SH 230 IP*
- [5] *Sennheiser Office Headset SH 250*
- [6] *Sennheiser Office Headset SH 330*
- [7] *Sennheiser Office Headset SH 330 IP*
- [8] *Sennheiser Office Headset SH 350*
- [9] *Sennheiser Office Headset SH 350 IP*
- [10] *Sennheiser Call Center Headset CC 515*
- [11] *Sennheiser Call Center Headset CC 515 IP*
- [12] *Sennheiser Call Center Headset CC 520 / CC 540 / CC 550*
- [13] *Sennheiser Call Center Headset CC 520 IP / CC 550 IP*

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