AVAYA

Avaya Solution & Interoperability Test Lab

Application Notes for Dasan HIS cable with Avaya 1600 Series IP Deskphone - Issue 1.1

Abstract

These Application Notes describe the configuration steps required to integrate the Dasan HIS cable with Avaya 1600 Series IP Deskphones. In this compliance test, a compatible Dasan DH Series QD headset is used.

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

The Dasan HIS cable is a bottom lead that connects Avaya 1600 Series IP Deskphones with compatible Dasan Freemate Headsets. In this compliance test, the Dasan DH Series headset is used to connect the Dasan HIS cable with an Avaya 1600 Series IP Deskphone (H.323).

The Dasan HIS cable can be used with other Dasan headsets, as detailed in Attachment 1. For additional information or support, contact information is provided in section 2.3

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 1600 Series IP Deskphones 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 Dasan HIS cable and Dasan DH Series Headset after restarting the Avaya 1600 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 recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and endpoints utilized enabled capabilities of TLS/SRTP.

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 Deskphones 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.

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 un-hold the call.
- Switching between the Dasan headsets, the phone handset and speaker while in conversation.

For the serviceability testing, the Avaya 1600 Series IP phone was restarted to verify proper operation of the Dasan HIS cable with headset after the reboot was completed.

2.2. Test Results

All test cases passed.

2.3. Support

For support on this Dasan solution in Asia Pacific, contact Dasan's marketing representative at:

- Phone: +82(0)315004641
- Website: http://www.headsetkorea.com

For support on this Dasan solution in all other regions, contact Dasan's representative, JPL Telecom Limited at:

- Phone: +44(0)1258 820100
- Website: http://www.jpltele.com/

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Dasan HIS cable with Avaya 1600 Series IP Deskphones using Dasan DH Series headset. The configuration consists of an Avaya Aura® Communication Manager running on a virtualized server with an Avaya G450 Media Gateway providing connectivity to the simulated PSTN. Avaya Aura® Messaging was used as the voicemail system. The Dasan HIS provides connectivity to Avaya IP Deskphones via the Deskphone headset port (see **Figure 2** on **Section 6**).
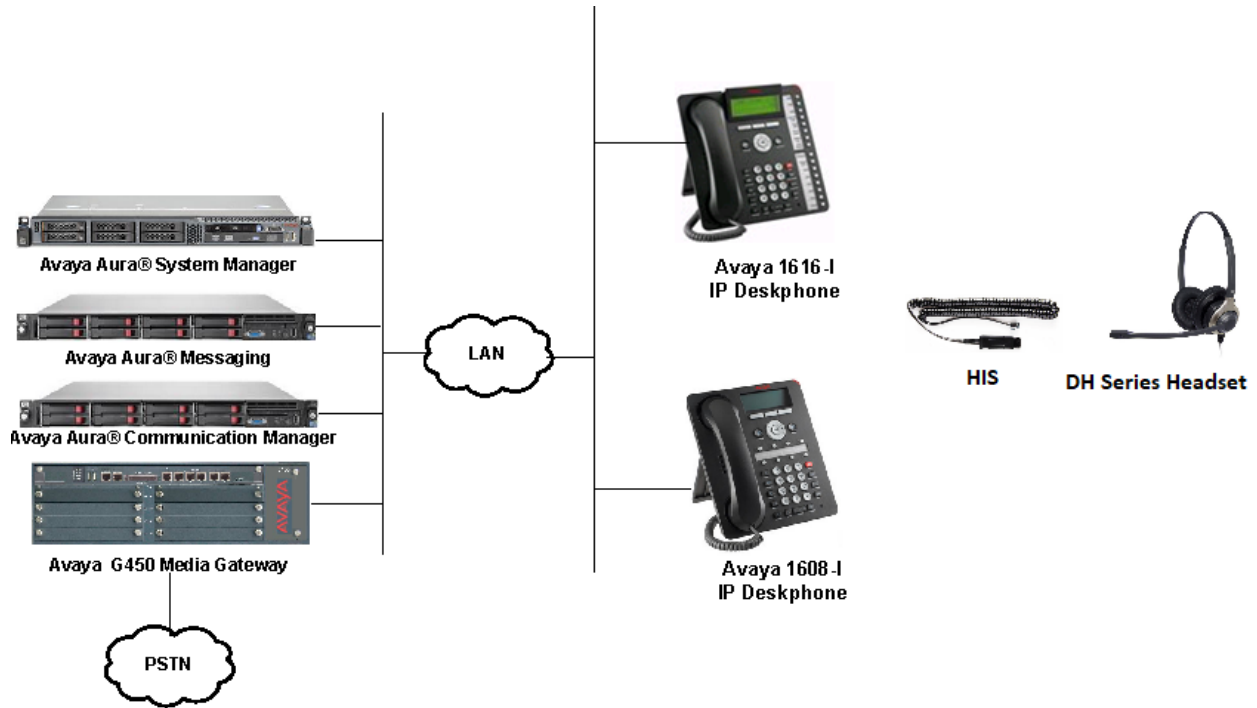
Figure 1: Test Configuration

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	R018x.00.0.822.0 - 24826
Avaya Aura® Messaging	7.0 SP0 Patch 2
Avaya Aura® System Manager	System Manager 8.0.0.0 Build No. - 8.0.0.0.931077 Software Update Revision No: 8.0.0.0.098174
Avaya 1608-I/1616-I IP Deskphone (H.323)	1.3110A
Dasan HIS cable	-
Dasan DH Series Headset	-

5. Configure Avaya IP Deskphones

It is implied a working Communication Manager system is already in place, including dial plans. It is assumed that Avaya 1600 Series Deskphones had been configured and setup. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**.

Configure Avaya IP Deskphones speech path to use the headset instead of Speaker in "Menu → Call Settings → Audio Path and select "Headset".

Note that Avaya 1600 Series Deskphones does not provide switching and alerting signaling for headsets.

6. Setup of Dasan HIS with Dasan Freemate DH Series Headset

Connect the Dasan HIS cable between the Deskphone headset port and the Dasan headset as in the **Figure 2** below.
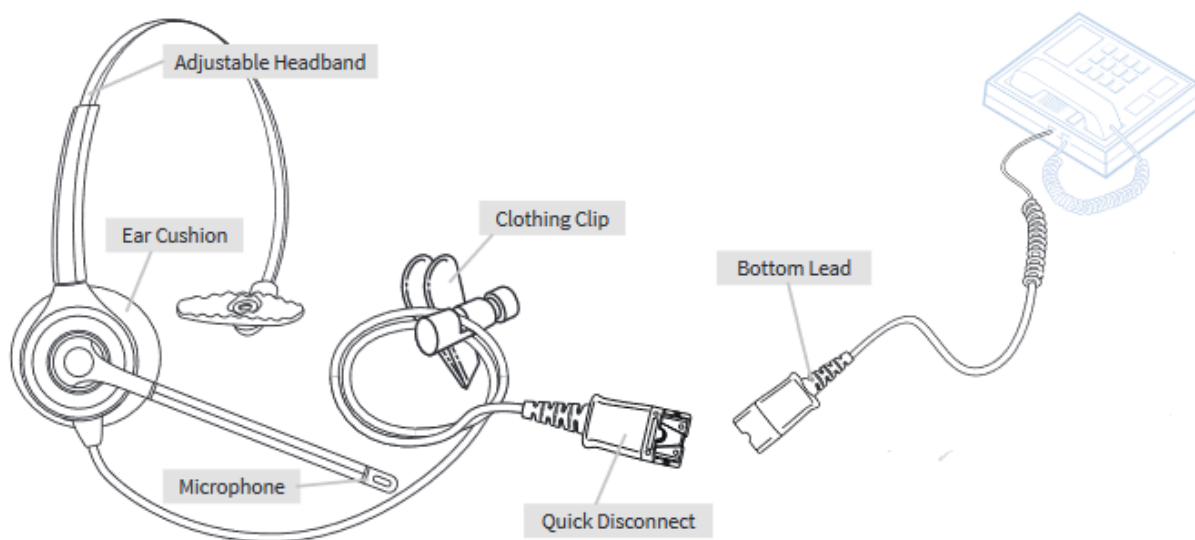
Figure 2: Setup of Dasan HIS cable with Dasan Headset to Deskphone

7. Verification Steps

Verify that the Dasan HIS with Dasan DH Series headset has been connected to the Avaya 1600 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 integration of Dasan HIS cable with Avaya 1600 Series IP Deskphones. All test cases were completed successfully.

9. Additional References

This section references the Avaya and Dasan 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 8.0.1, Issue 3, December 2018.
[2] *Avaya 1600 Series IP Deskphones Administrator Guide,* Release1.3.10, Issue 1, September 2016, Document ID 16-601438

Dasan documentation can be obtained at http://headsetkorea.com

Declaration of Conformity - Dasan Electron Co., Ltd. Headsets

Company: Dasan Electron Co., Ltd.
Address: 307, P-1 dong, 705, Haean-Ro, Sangrok-Gu, Ansan-Si, Gyeonggi-Do, 15588, KOREA.

Hereby declare that all the wired Dasan Freemate headsets listed herewith, have the technical specification as given below:

Technical Specification:

Microphone:

Impedance:	2.2kΩ
Sensitivity:	-32dB ± 3dB at 1kHz
Directivity:	Bi-directional
Frequency Range:	50Hz~20kHz ± 6dB
Distortion:	Less than 3%
Power Supply:	3V DC
S/N Ratio:	More than 58dB

Speaker:

Impedance:	150Ω ± 15% at 1kHz
Sensitivity:	93 ± 3dB at 1kHz 60mV Input
Max Input Power:	100mV
Frequency Range:	100Hz~6800Hz
Distortion:	Less 3% at 1kHz 60mV

Dasan Freemate Wired Headsets:

DH-07 | DH-037 | DH-035 | DH-036 | DH-031-N | DH-031-V | DH-026 | DH-039 | DH-051

Dasan Freemate Cables:

DSU-11M (Revision: 235) | HIS

Dasan Freemate Connector Software:

SoftLink Software (Version: 2.7.0)

Dasan Electron Co., Ltd. also hereby declare that:

- the DSU-11M USB QD connector cable identified above is used by all of the Dasan Freemate Wired Headsets listed in this letter in combination with the specified Dasan SoftLink Software to connect with Avaya one-X® Agent.

- the Dasan HIS cable identified above is used by all of the Dasan Freemate Wired Headsets listed in this letter to connect to the Avaya 96x0 and 96x1 models of the Avaya 9600 Deskphone Series and to the Avaya 1600 Series Deskphones.

Yongj Lee
CEO

Date: 18/06/2018

DASAN ELECTRON