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Avaya Solution & Interoperability Test Lab

Application Notes for JPL EHS-4 Hookswitch cable and JPL-Element-X500 DECT Headset with Avaya J100 Series IP Deskphones (H.323 and SIP) - Issue 1.1

Abstract

These Application Notes describe the configuration steps required to integrate the JPL EHS-4 Hookswitch Cable and JPL-Element-X500 DECT Headset with Avaya J100 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

The JPL EHS-4 Hookswitch cable is an adapter box with a set of cables that connect Avaya J100 Series IP Deskphones with compatible JPL Headsets. The JPL-Element-X500 DECT Headset was used to verify that the JPL EHS-4 Hookswitch cable worked with Avaya J100 Series IP Deskphones (both H.323 and SIP).

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 J100 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 JPL EHS-4 Hookswitch cable and JPL-Element-X500 DECT Headset after restarting the Avaya J100 Series IP Deskphone and moving out of the DECT signal range.

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.
- Answering and ending calls using the call control button on the JPL headset.
- Using the volume control buttons on the Avaya phone to adjust the audio volume.
- Using the mute control button on the Avaya phone and the DECT headset base mute button 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 headset, the phone handset and speaker while in conversation.

For the serviceability testing, the Avaya J100 Series IP phone was restarted to verify proper operation of the JPL EHS-4 with headset after the reboot was completed and moving out of the DECT signal range.

2.2. Test Results

All test cases passed.

2.3. Support

For support on this JPL headset solution, contact JPL at:

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

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the JPL EHS-4 Hookswitch cable with Avaya J100 Series IP Deskphones using JPL-Element-X500 DECT headset. The JPL EHS-4 provides connectivity between Avaya IP Deskphone via the headset port and DECT headset base via the aux and phone cable (see **Figure 2** on **Section 6**).
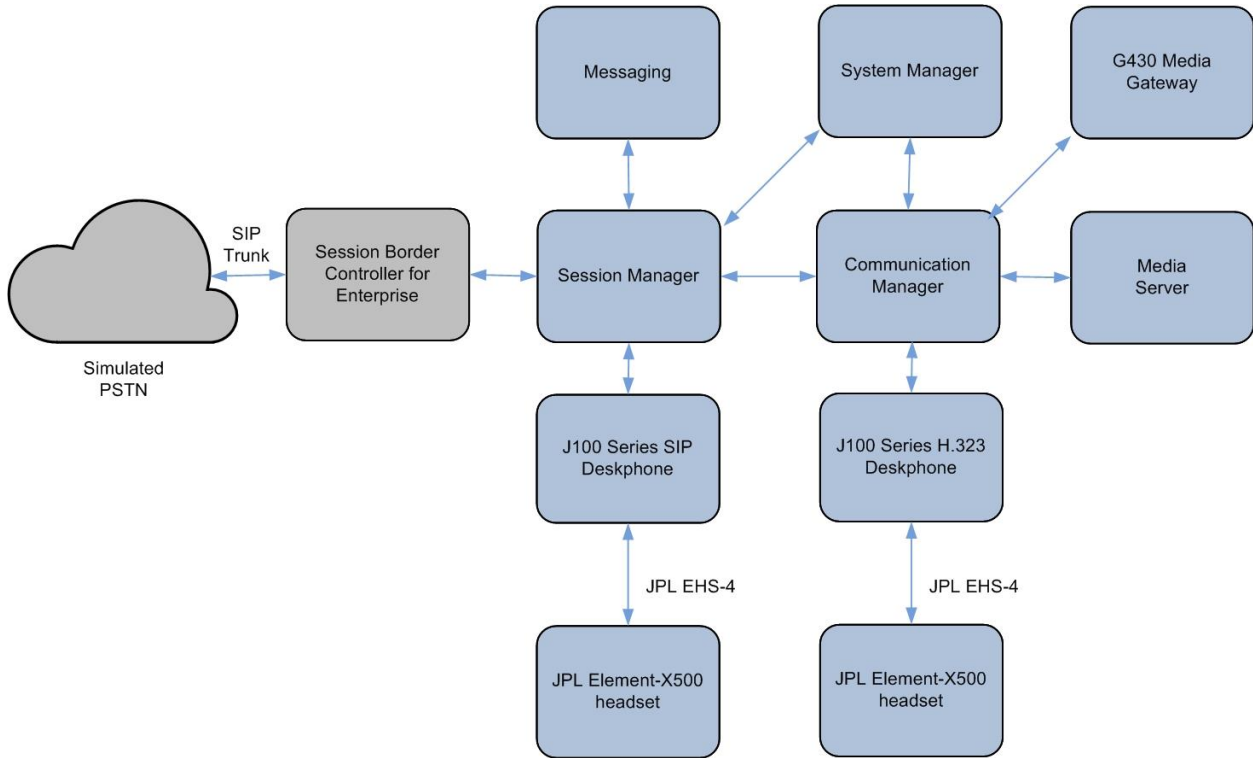

Figure 1: Test Configuration

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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	8.1.3
Avaya Aura® Media Server	8.0.2.138
Avaya Aura® Messaging	7.1 SP2
Avaya Aura® System Manager	8.1.3
Avaya Aura® Session Manager	8.1.3
Avaya J179 IP Deskphone (H.323)	6.8402
Avaya J189 IP Deskphone (SIP)	4.0.7
JPL Element-X500 Headset	0245
JPL EHS-4 Hookswitch cable	N/A

5. Configure Avaya IP Deskphones

It is implied a working Communication Manager system is already in place, including dial plans and SIP trunks to Session Manager. It is assumed that Avaya J100 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**.

6. Setup of JPL EHS-4 with JPL-Element-X500 DECT Headset base

Connect the JPL EHS-4 Hookswitch cable between a Deskphone and the DECT headset base as in the **Figure 2** below.
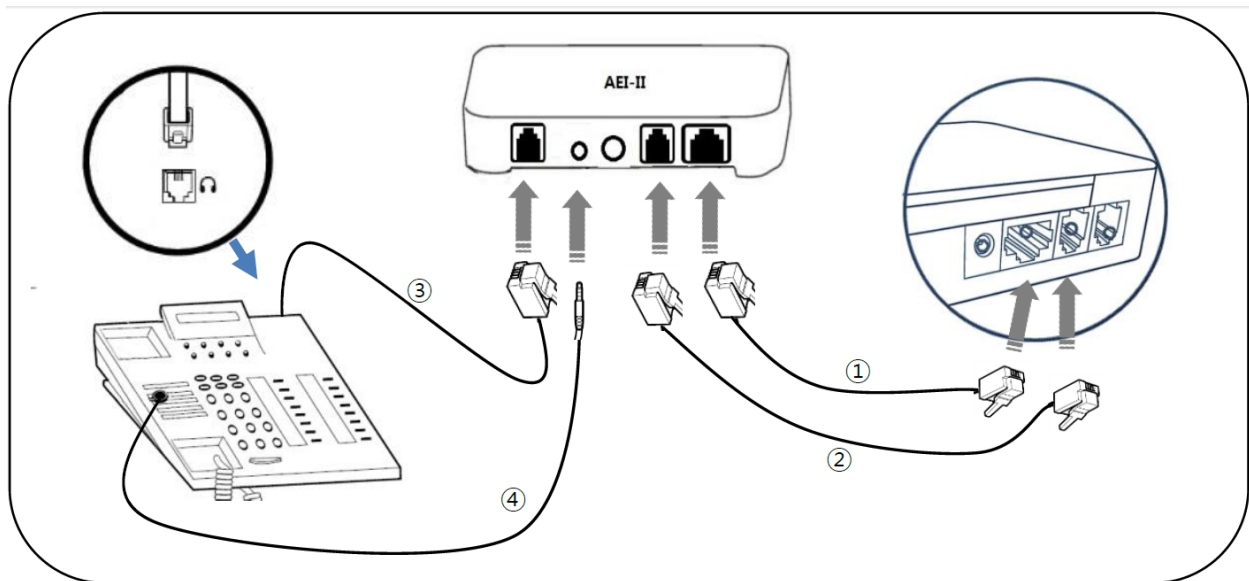
① : Power cable (RJ-45 to RJ-12)

② : Telephone cord (RJ-9 to RJ-9)   Cable length : 600mm

③ : Telephone cord (RJ-9 to RJ-9)   Cable length : 300mm

④ : External Microphone for ring detection

Figure 2: Setup of JPL EHS-4 Hookswitch cable between Deskphone and Headset base

7. Verification Steps

Verify that the JPL EHS-4 with JPL-Element-X500 DECT headset has been connected to the Avaya J100 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 to place a call, answer an incoming call, and end an active call.

8. Conclusion

These Application Notes describe the integration of JPL EHS-4 Hookswitch cable with Avaya J100 Series IP Deskphones. All test cases were completed successfully.

9. Additional References

This section references the Avaya and JPL 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 8.1.x, Issue 8, November 2020.
[2] *Administering Avaya Aura® Session Manager,* Release 8.1.x, Issue 6, August 2020.
[3] *Installing and Administering Avaya J100 Series IP Phones,* Release 4.0.7, Issue 2, November 2020.

The JPL documentation can be obtained at http://www.jpltel.com.
[5] *JPL Bottom Leads Datasheet*
[6] *JPL-Element-X500 User Guide*