Avaya Solution & Interoperability Test Lab

Application Notes for Plantronics Voyager Legend CS Bluetooth Headset System and EHS Cable APV-63 with Avaya 9400/9500 Series Digital Deskphone – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Plantronics Voyager Legend CS Bluetooth headset system and EHS Cable APV-63 with Avaya 9400/9500 Series Digital Deskphone. The Plantronics EHS Cable APV-63 provides wireless headsets the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the headset including situations when the user is away from their desk. The Plantronics Voyager Legend CS Bluetooth headset system was used to verify the functionality of the EHS Cable APV-63.

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.

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1. Introduction

These Application Notes describe the configuration steps required to integrate the Plantronics Voyager Legend CS Bluetooth headset system and EHS Cable APV-63 with Avaya 9400/9500 Series Digital Deskphone. The Voyager Legend headset provides smart sensor technology reacts when put the headset on the ear; it will answer a call without a click or simply tap the call button to answer if headset is already worn. This solution provides call control features directly from the headset, such as answering or terminating a call, volume control and mute.

The following headsets and accessories were tested:
- EHS Cable APV-63 – Provides wireless headsets the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the headset including situations when the user is away from their desk.
- Voyager Legend CS is Bluetooth Headset System includes: Over-the-ear headset and docking station.

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 9400/9500 Series Digital Deskphones with the Plantronics Voyager Legend CS headsets and verifying two-way audio. The call types included calls to voicemail, local extensions, and the PSTN.

The serviceability testing focused on verifying the usability of the Plantronics headsets after restarting the Avaya 9400/9500 Series Digital Deskphones and re-connecting EHS cable.

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 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 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.

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 acceptable.
- Placing and receiving calls to and from internal extensions to verify two-way audio.
- Placing and receiving calls to and from the PSTN to verify two-way audio.
- Incoming call alert notification.
- Hearing ring back tone for outgoing calls.
- Toggling between handset, speaker phone and headset.
- Using the volume control buttons on headset to adjust the audio volume.
- Using the mute control button on headset to mute and un-mute the audio.
- Using the headset with 9404 and 9504 Avaya Digital Deskphones.

For the serviceability testing, the 9400/9500 Series Digital Deskphone was restarted to verify proper operation of the headset after the reboot was completed.

2.2. Test Results

Testing was completed successfully with the following observations/limitations.
1. The Avaya 9400/9500 Series Digital Deskphones do not support status synchronization for mute/unmute from the headset, therefore the call can be muted/unmuted successfully from the headset but the muted/unmuted status change via the headset will not be reflected on the physical telephone.
2. The headset button on the digital deskphone remains activated when the far-end drops the call, allowing subsequent calls to be answered automatically on the headset when auto-answer is enabled. This is the default behavior for the Avaya Digital Deskphones.
3. When a call is disconnect via headset button on the phone or the far-end hangs up the call, the call is disconnected but the headset will not go inactive. The headset light still lit at the docking base.
4. If auto-answer is enabled, the headset is in inactive mode (headset light at the docking base is off/or headset button on the phone is off), upon an incoming call, the call is auto answered, the audio is connected but the headset will not be activated, user needs to manually press call button on headset in order to hear the audio. This only applies to 9500 Series. Issue reported to Avaya development and tracked by DCP9500-13.
5. While Avaya phone is active on a call using the handset, press headset button on the phone will not transfer the audio to the headset or activate the headset. Work around is use headset button on the headset instead. This only applies to 9500 Series. Issue reported to Avaya development and tracked by DCP9500-13.
6. While the Avaya phone is active on call using headset, lift handset to transfer the call to hand set, the call is transferred but the headset will not go inactive, the headset light at the CS base still lit. This only applies to 9500 Series. Issue reported to Avaya development and tracked by DCP9500-13.
7. During the call, if user walks out of support range, about 30 feet away from docking station the call will be dropped.

2.3. Support

For technical support and information on Plantronics Legend CS Headsets, contact Plantronics Support at:

- Phone: 1-855-765-7878
        1-831-426-5858 (International)
- Website: http://www.plantronics.com/us/support/index.jsp

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Plantronics Voyager Legend CS Bluetooth headset system and EHS Cable APV-63 with Avaya 9400/9500 Series Digital Deskphones. The configuration consists of an Avaya Aura® Communication Manager with Avaya Aura Media Server and an Avaya G450 Media Gateway which supports the 9400 Series Digital Deskphones and an Avaya IP Office 500 V2, which supports the 9500 Series Digital Deskphones. The Session Manager/System Manager provides connectivity to the simulated PSTN via SIP trunk (not shown). Avaya Aura® Messaging was used as the voicemail system. The Plantronics Voyager Legend CS docking was connected to the Plantronics EHS Cable APV-63 which in turn connected to the headset port of the Avaya digital deskphone.
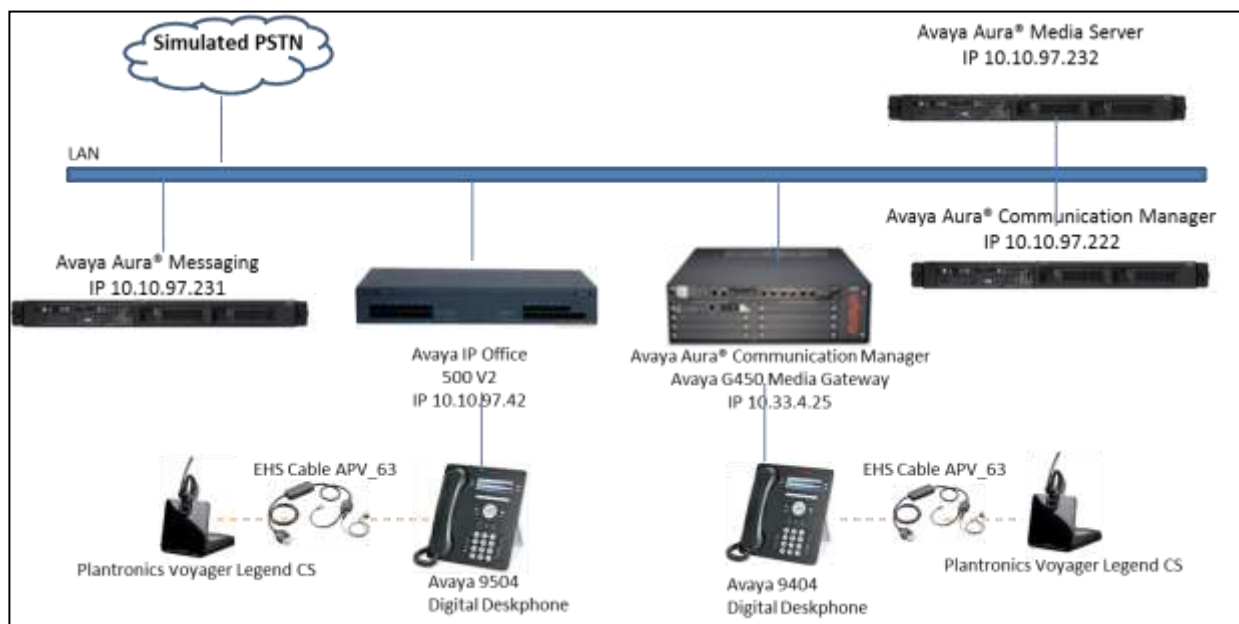

Figure 1: Test diagram for Avaya 9400/9500 Series Digital Deskphone with Plantronics Voyager Legend CS Bluetooth Headset System and EHS Cable APV-63

4. Equipment and Software Validated

The following equipment and software were used for the compliance test:

Equipment/Software	Release/Version
Avaya Aura® Communication Manager in Virtual Environment	7.0 SP1
Avaya G450 Media Gateway	37.20.0
Avaya Aura® Media Server in Virtual Environment	7.7 SP2 (v.7.7.0.281)
Avaya IP Office 500 V2	9.1 SP5
Avaya Aura® Messaging	6.3.2
Avaya 9404 Digital Deskphone	Release 2 SP4 (R15)
Avaya 9504 Digital Deskphone	Release 2 SP4 (R15)
Plantronics Voyager Legend CS	P/N: 88863-01
Plantronics EHS Cable APV-63	P/N: 38734-11

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5. Configure Avaya Aura® Communication Manager and Avaya IP Office

It is assumed that a fully functioning Communication Manager and IP Office are in place with the necessary licensing. For further information on the configuration of Communication Manager or IP Office, please see **Section 9** of these Application Notes.

5.1. Configure a Station for Avaya 9400 Series Digital Deskphone

These Application Notes assume that the Avaya 9400 Series Digital Deskphones are configured and operational in Avaya Aura® Communication Manager. There are no additional settings required for the Voyager Legend CS headset and EHS cable APV-63 to work with Avaya 9400 Series Digital Deskphones. For further information on how to configure these Avaya Digital Deskphones refer to **Section 9** of these Application Notes.

On 9400 Series Digital Deskphone, press **Menu** button, in **Main Menu** → **Advance** and make sure **Remote Headset** is ON. This setup makes the headset active and user able to hear the off-hook tone when press headset button on the phone.

5.2. Configure a Station for Avaya 9500 Series Digital Deskphone

These Application Notes assume that the Avaya 9500 Series Digital Deskphones are configured and operational in Avaya IP Office. There are no additional settings required on IP Office for the Voyager Legend CS headset and EHS cable APV-63 to work with Avaya 9500 Series Digital Deskphones. For further information on how to configure these Avaya Digital Deskphones refer to **Section 9** of these Application Notes.
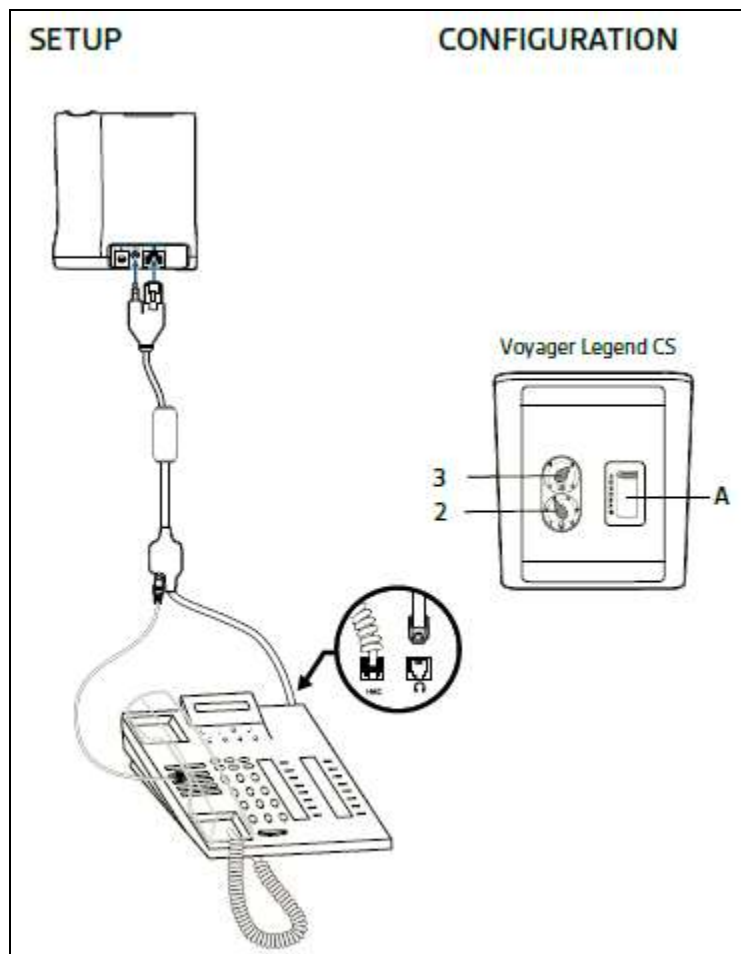
On the 9500 Series Digital Deskphone, press **Home** button, in **Main Menu** → **Advance Options** → **Audio …** verify **Remote Headset** is **ON**; click **Save** to save chances if any. This option makes the headset active and user able to hear the off-hook tone when press headset button on the phone.

6. Connect Plantronics Voyager Legend CS

During the compliance testing the Plantronics EHS cable APV-63 was used to connect the Voyager Legend CS headset to the Avaya 9400/9500 Series Digital Deskphones. The Plantronics EHS cable APV-63 provides Voyager Legend CS headset the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the wireless headset including situations when the user is away from their desk.

6.1. Cable Connections

To connect the Plantronics EHS cable APV-63 to the Voyager Legend CS headset and to the Avaya 9400/9500 Series Digital Deskphone, refer to the diagram below.

7. Verification Steps

Verify that the Plantronics Voyager Legend CS Bluetooth headset system and EHS Cable APV-63 have been connected to the Avaya 9400/9500 Series Digital Deskphones. Once the headset is connected to the phone, verify that incoming and outgoing calls are established with two-way audio to the headset.

8. Conclusion

These Application Notes describe the configuration steps required to integrate the Plantronics Voyager Legend CS Bluetooth headset system and EHS Cable APV-63 with Avaya 9400/9500 Series Digital Deskphone. Testing was completed successfully with observations noted in **Section 2.2**.

9. Additional References

The following Avaya product documentation can be found at http://support.avaya.com.
[1] *Administering Avaya Aura® Communication Manager, Release 7.0 03-300509 Issue 1 August 2015*
[2] *Avaya 9400 Series Digital Deskphones for Avaya Aura® Communication Manager Installation and Maintenance Guide Release 1.0, 16-603533, Issue 1, August 2011.*

The following Plantronics documentation can be found at:
[1] *http://www.plantronics.com/us/media/media-resources/literature/user_guides/ehs_guide_en.pdf*
[2] *http://www.plantronics.com/us/support/product/voyager-legend-cs*
[3] *http://www.plantronics.com/us/support/product/apv-63*

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