



Avaya Solution & Interoperability Test Lab

Application Notes for Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets with Avaya 1400 Series Digital Deskphones - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Plantronics APV-63 Electronic Hook Switch (EHS) Adapter and CS500 Series Wireless Headsets with Avaya 1400 Series Digital Deskphones. Plantronics APV-63 EHS provides Plantronics headsets the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the headset when the user is away from their desk.

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

These Application Notes describe the configuration steps required to integrate the Plantronics APV-63 Electronic Hook Switch (EHS) Adapter and CS500 Series Wireless Headsets with Avaya 1400 Series Digital Deskphones. Plantronics APV-63 EHS provides Plantronics headsets the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the headset when the user is away from their desk. The Plantronics CS500 Series wireless headsets consists of a CS052 base and WH300/WH350 headset.

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 Avaya 1400 Series Digital Deskphones with the Plantronics APV-63 EHS adapters and CS500 wireless headset and verifying two-way audio, call control from the headset. 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 Avaya 1400 Series Digital Deskphones and re-connecting the APV-63 adapter to the headset port on the phone, removing the APV-63 cable from the headset, and restarting the CS500 headset.

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 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.
- Incoming call alert notification.
- Hearing ring back tone for outgoing calls.
- Using the call control button on the Plantronics CS500 wireless headset.
- Using the volume control and mute buttons on the Plantronics CS500 wireless headset.
- Answering and terminating the call using Avaya 1400 Series Digital Deskphone to verify status of call control is reflected on the Plantronics CS500 wireless headset.

For the serviceability testing, the Plantronics APV-63 adapter is reconnected to the headset port, and restart Avaya 1400 digital phone to verify proper operation of the headset.

2.2. Test Results

All test cases passed with the following observation(s):

- When the far end hangs up the call, the headset button on the Avaya 1400 Series Digital Deskphones does not go off; this causes the Plantronics CS500 headset to remain in active mode. The user needs to manually press the call control button on the headset to place the headset in inactive mode. This issue is under investigated by Avaya client team.
- Mute/un-mute status is not shared between the 1400 Series Digital Deskphone and the Plantronics CS500, and vice versa. If a user mutes on the headset the call will be muted and the mute indicator on the headset will be active, but the Deskphone will not show the call as muted. If the user un-mutes the call on the headset the call un-mutes and the mute indicator goes off. If a user mutes on the Deskphone, the call is muted and the mute indicator on the Deskphone will be active, but the headset will not show the call as muted. If the user un-mutes the call on the Deskphone the mute indicator goes off.

2.3. Support

For technical support and information on Plantronics APV-63 EHS Adapter and CS500 Series Wireless 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 APV-63 EHS adapter and CS500 Series wireless headset with Avaya 1400 Series Digital Deskphones. The configuration consists of System Manager, Session Manager, Communication Manager, Aura Messaging, and Media Server appliances that were installed in virtual environment which is a VMware server. The testing used both Media Gateway G450 and Media Server to balance DSP resources that connect from/to endpoints in Communication Manager.

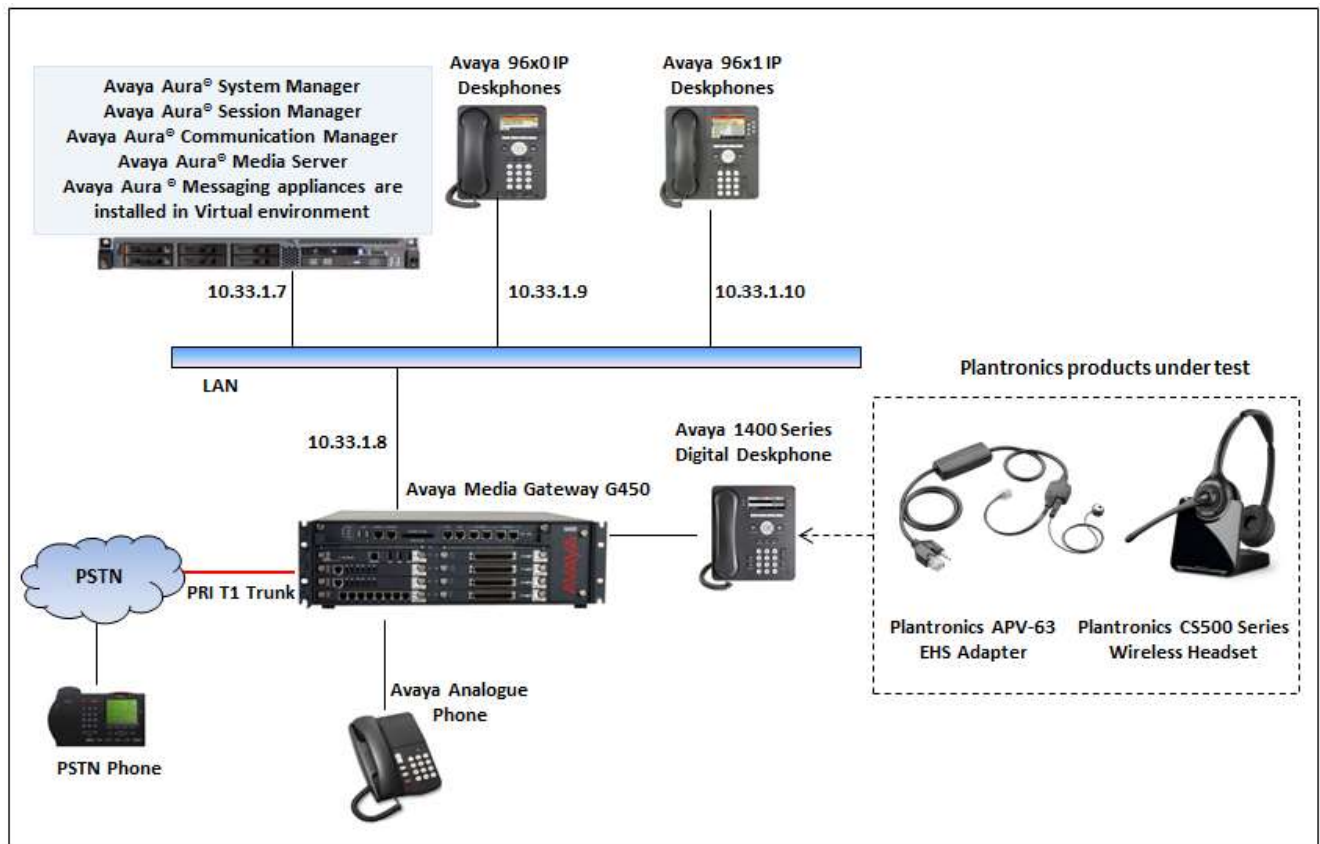


Figure 1: Avaya 1400 Series Digital Deskphones with Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets

4. Equipment and Software Validated

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

| Equipment/Software | Release/Version |
|--|------------------------------------|
| Avaya Aura® System Manager in Virtual Environment | 7.0.0.0.16266 |
| Avaya Aura® Session Manager in Virtual Environment | 7.0.0.0.700007 |
| Avaya Aura® Communication Manager in Virtual Environment | 7.0 (R017x.00.0.441.0) Patch 22477 |
| Avaya Aura® Messaging in Virtual Environment | 6.3.1 |
| Avaya Aura® Media Server in Virtual Environment | 7.7.0.236 |
| Avaya Media Gateway G450 | 37.19.0 |
| Avaya 96x1 Series IP Deskphones | 7.0 (SIP) |
| Avaya 96x0 Series IP Deskphones | 3.25 (H323) |
| Avaya 1400 Series Deskphones | Release 4.0 SP7 (R45) |
| Analog phone | N/A |
| Plantronics APV-63 Adapter | Part# 38734-11 |
| Plantronics CS500 Wireless Headset | Part# 84691-01 |

5. Configure Avaya Aura® Communication Manager

This section assumes the Avaya Aura systems are already installed and configured, this section describes the station configuration for the Avaya 1400 Series Digital Deskphones. Configuration is performed via the System Access Terminal (SAT) on Communication Manager.

5.1. Configure a Station for Avaya 1400 Series Digital Deskphone

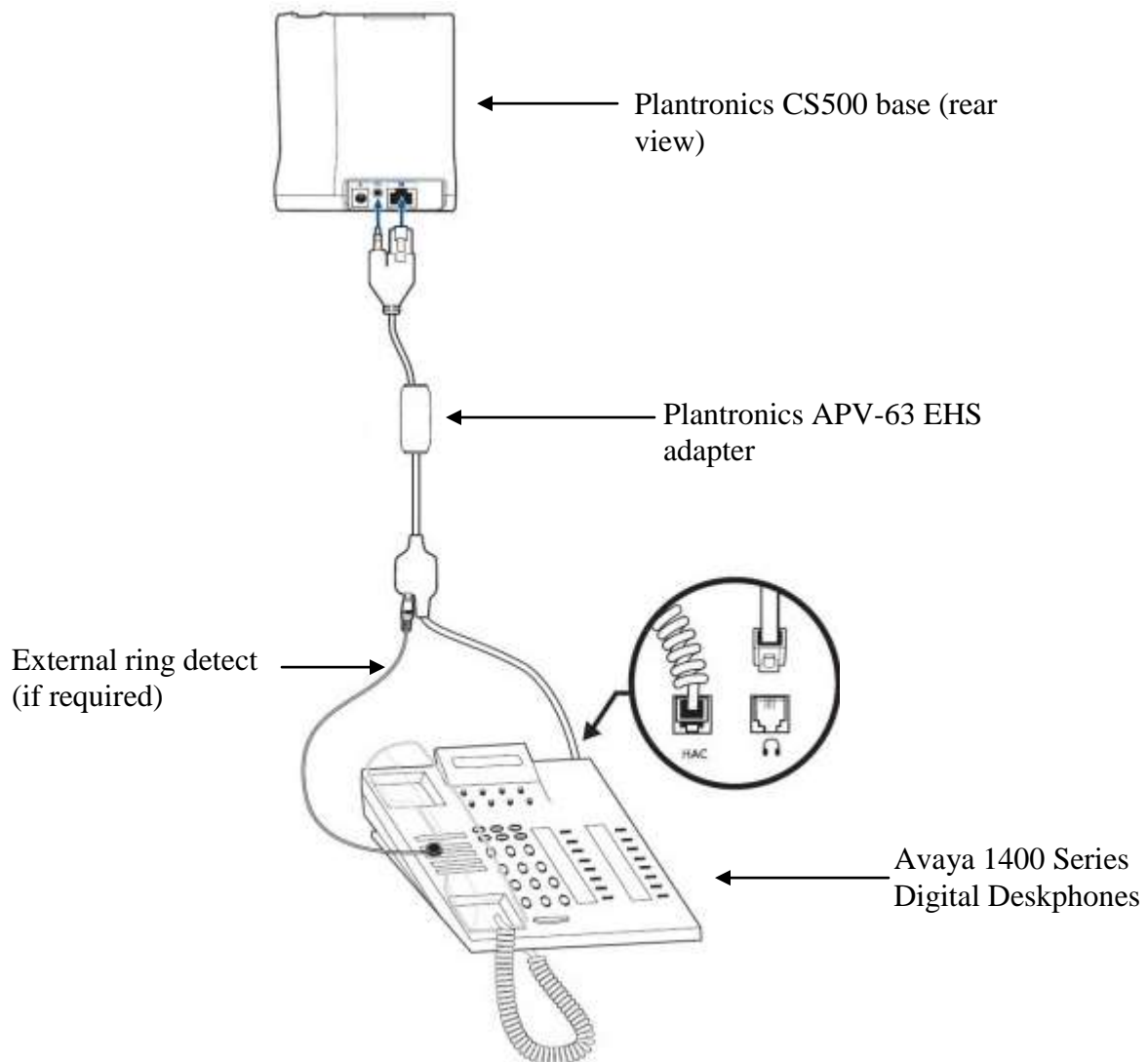
Use the **add station** command to create a station for the 1400 Series Digital Deskphones. Set the **Type** field to the station type to be emulated. In this example, *1408* was used. Set the **Port** field to the appropriate slot location of the digital board and port.

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

| | | | | |
|---------------------------|-------------------------------|------|------|---|
| add station 3311 | | Page | 1 of | 5 |
| STATION | | | | |
| Extension: 3311 | Lock Messages? n | BCC: | 0 | |
| Type: 1408 | Security Code: | TN: | 1 | |
| Port: 002V302 | Coverage Path 1: | COR: | 1 | |
| Name: DCP 1408 | Coverage Path 2: | COS: | 1 | |
| | Hunt-to Station: | | | |
| STATION OPTIONS | | | | |
| | Time of Day Lock Table: | | | |
| Loss Group: 2 | Personalized Ringing Pattern: | 1 | | |
| | Message Lamp Ext: | 3311 | | |
| Speakerphone: 2-way | Mute Button Enabled? | y | | |
| Display Language: english | Button Modules: | 0 | | |
| Survivable COR: internal | | | | |
| Survivable Trunk Dest? y | IP SoftPhone? | n | | |
| | Remote Office Phone? | n | | |
| | IP Video? | n | | |
| | Customizable Labels? | y | | |

6. Configure Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headset

To connect the CS500 wireless headset to the Avaya 1400 Series Digital Deskphones, use the APV-63 EHS adapter to connect the wireless base of the headset to the headset port of the 1400 Series Digital Deskphones. An external ring detect cable provided by Plantronics, is required to hear incoming call notifications (i.e., beeps) through the headset. Connect the adhesive end of the cable to the speakerphone grill of the telephone and the other end to the mic port of the EHS adapter. All other default settings on the CS500 wireless headset were used.



To answer, end, or place a call using the Plantronics CS500 headset follow the instructions below.

- **To Answer a Call:** Press the call control button on the headset to answer an incoming call. This would automatically activate the headset button on the digital deskphone. Alternatively, if the headset button on the digital deskphone is pressed first, then press the call control button on the headset, if it isn't already activated, to answer an incoming call.

Note that pressing the headset button on the digital deskphone does not automatically activate the call control button on the headset. If auto-answer is enabled and the headset button on the digital deskphone and the call control button on the headset are activated, subsequent incoming calls will be answered automatically and a two-way audio path will be established to the headset.

- **To End a Call:** Press the call control button on the headset to terminate a call. This automatically deactivates the headset button on the digital deskphone. Alternatively, if the call is terminated by pressing the headset button on the digital deskphone, the call control button on the headset is also deactivated.
- **To Place a Call:** Press the call control button on the headset to get dial tone and dial the number. This would automatically activate the headset button on the digital deskphone. Alternatively, if the headset button on the digital deskphone is pressed first, the call control button on the headset is also activated.

7. Verification Steps

These typical steps below are used to verify the inter-working between Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headset with Avaya 1400 Series Digital Deskphones.

1. From Avaya 1400 Series Digital Deskphones with Plantronics headset place a local call to another station.
2. Verify the ring back tone is heard through the Plantronics headset and the green light used to indicate status of call on the base keeps flashing.
3. Answer the call on the other station, verify two-way speech path with clear audio between the Avaya 1400 Series Digital Deskphones and the other station.
4. During the call, adjust the volume up and down and mute/un-mute from Plantronics CS500 wireless headset, verify the volume adjusted successfully and status mute/un-mute reflected properly on the base.
5. End the call by pressing the call control button on the Plantronics headset, verify the call is terminated and the headset is idle.

8. Conclusion

These Application Notes describe the configuration steps required to integrate the Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets with Avaya 1400 Series Digital Deskphones. All test cases were completed successfully with observations noted in **Section 0**.

9. Additional References

This section references the Avaya and Plantronics 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 7.0, Issue 1, August 2015, Document Number 03-300509.*
- [2] Avaya Aura® Communication Manager Feature Description and Implementation, Release 7.0, June 2015*

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