



## Avaya Solution & Interoperability Test Lab

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# Application Notes for Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets with Avaya 1600 Series IP 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 1600 Series IP 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 1600 Series IP 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 1600 Series IP Deskphones with the Plantronics APV-63 EHS adapters and CS500 wireless headset and verifying two-way audio, and 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 1600 Series IP 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 ringback 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 1600 Series IP 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 the Avaya 1600 IP phone is restarted to verify proper operation of the headset.

## 2.2. Test Results

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

- Avaya 1600 Series IP Deskphones do not support phone to headset controls; therefore, pressing the headset button on the phone does not activate the headset or if the far end hangs up the call it does not deactivate the headset as well. User should use the call control button on the headset instead.
- Mute/un-mute status on the 1600 Series IP Deskphones and Plantronics CS500 wireless headset are not synchronized but their mute function are working fine. The user is able to mute/un-mute a call from either the phone or the headset.

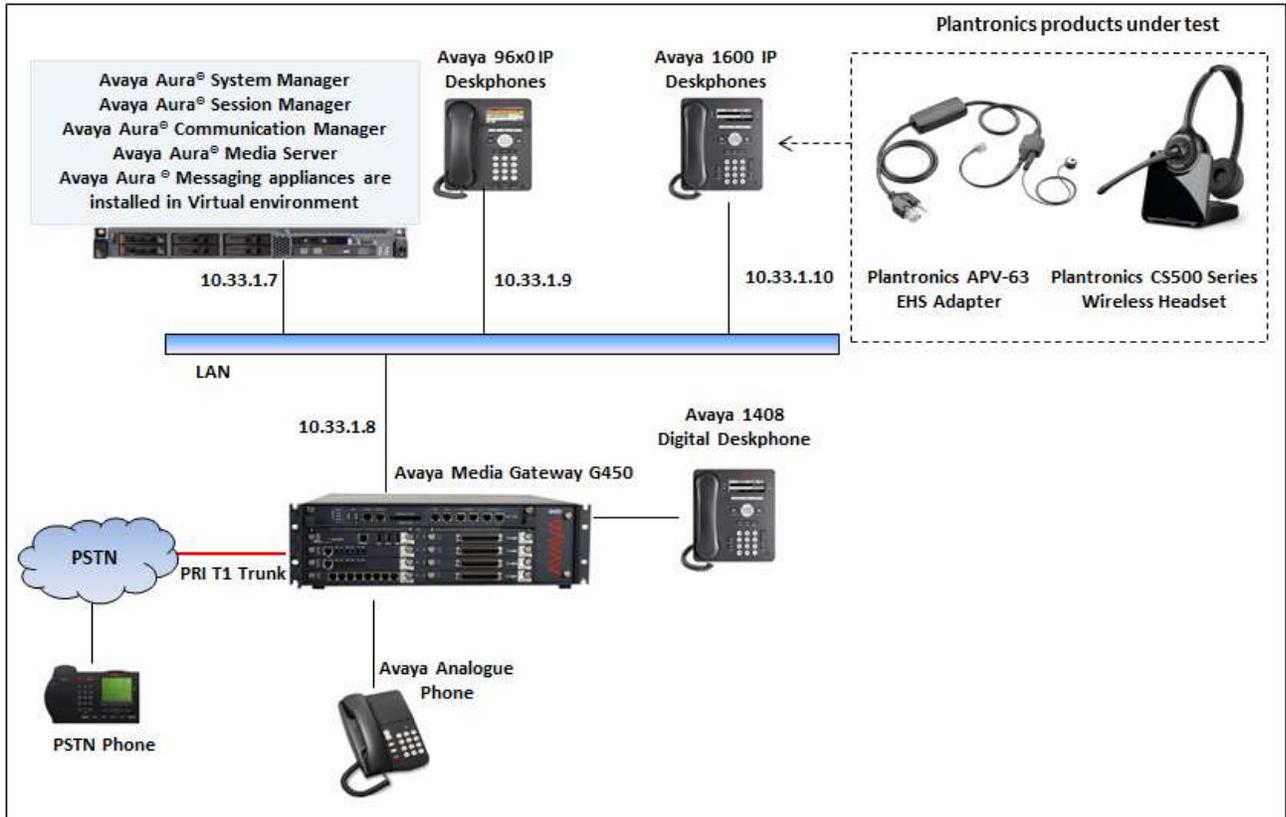
## 2.3. Support

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 1600 Series IP Deskphones. The configuration consists of Avaya Aura® System Manager, Avaya Aura® Session Manager, Avaya Aura® Communication Manager, Avaya Aura® Messaging, and Avaya Aura® Media Server appliances that were installed in virtual environment which is a VMware server. The testing used both an Avaya G450 Media Gateway and Avaya Aura® Media Server to balance DSP resources that connect from/to endpoints in Communication Manager.



**Figure 1: Avaya 1600 Series IP 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 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 IP Office Server Edition in Virtual Environment	9.1.4 Build 137
Avaya G450 Media Gateway	37.19.0
Avaya 96x0 Series IP Deskphones	3.25 (H323)
Avaya 1600 Series Deskphones	1.3.8
Avaya 1408 Digital Deskphone	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 systems are already installed and configured, this section describes the station configuration for the Avaya 1600 Series IP Deskphones. Configuration is performed via the System Access Terminal (SAT) on Communication Manager.

### 5.1. Configure a Station for Avaya 1600 Series IP Deskphone

Use the **add station** command to create a station for the 1600 Series IP Deskphones. Set the **Type** field to the station type to be emulated. In this example, 1608 was used. Set the **Port** field to IP, enter a pass code in the **Security Code** field and leave other fields at default.

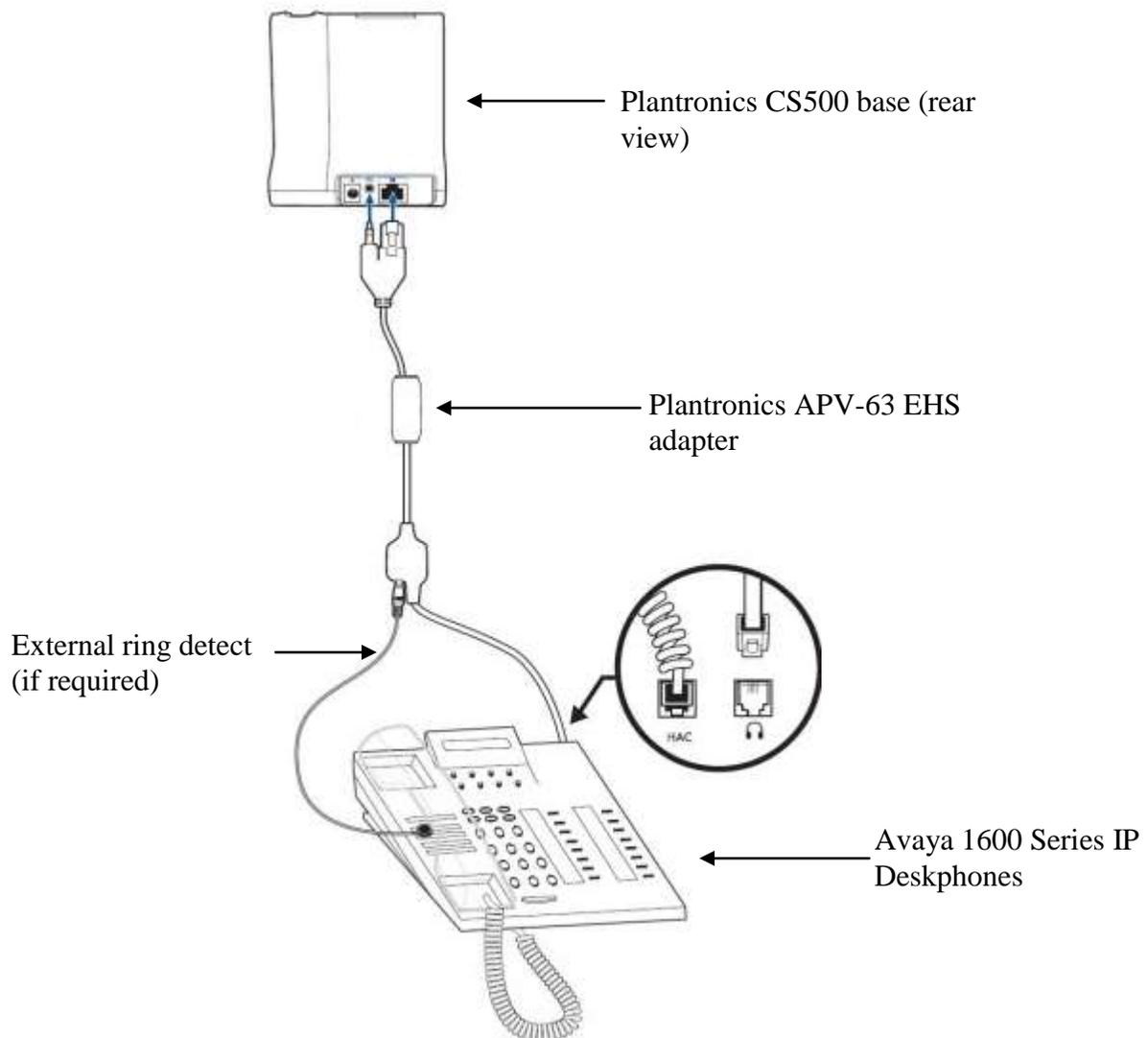
**Note:** To enable Auto-Answer on the IP telephone set the **Auto Answer** field on **Page 2** (not shown) to the appropriate value, such as *all*.

```
add station 3301                                     Page 1 of 4
                                                    STATION
Extension: 3301                                     Lock Messages? n          BCC: 0
Type: 1608                                          Security Code: 1234       TN: 1
Port: IP                                           Coverage Path 1:         COR: 1
Name: H.323 3301                                   Coverage Path 2:         COS: 1
                                                    Hunt-to Station:        Tests? y

STATION OPTIONS
Loss Group: 19                                     Time of Day Lock Table:
Speakerphone: 2-way                               Personalized Ringing Pattern: 1
Display Language: english                         Message Lamp Ext: 3301
Survivable GK Node Name:                          Mute Button Enabled? y
Survivable COR: internal                           Media Complex Ext:
Survivable Trunk Dest? y                           IP SoftPhone? n
                                                    IP Video? n
Short/Prefixed Registration Allowed: default
```

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

To connect the CS500 wireless headset to the Avaya 1600 Series IP Deskphones, use the APV-63 EHS adapter to connect the wireless base of the headset to the headset port of the 1600 Series IP 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 will automatically activate the headset button on the IP deskphone. Alternatively, if the headset button on the IP 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 1600 IP deskphone does not automatically activate the call control button on the headset. If auto-answer is enabled and the headset button on the IP 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 1600 IP deskphone.
- **To Place a Call:** Press the call control button on the headset to get dial tone and dial the number. This will automatically activate the headset button on the IP deskphone.

## 7. Verification Steps

These typical steps below are used to verify the interworking between Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headset with Avaya 1600 Series IP Deskphones.

1. From Avaya 1600 Series IP Deskphones with Plantronics headset places a local call to another station.
2. Verify the ringback 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 1600 Series IP 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 1600 Series IP 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*
- [3] *Avaya 1600 Series IP Deskphones Administrator Guide Release 1.3.8, Issue 7, May 2015, Document 16-601438*

The Plantronics product documentation can be found at <http://www.plantronics.com>.

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