



Avaya Solution & Interoperability Test Lab

Application Notes for Plantronics APV-63 EHS Adapter and Plantronics CS500XD Series Wireless Headset System with Avaya 9400/9500 Series Digital Telephones - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Plantronics APV-63 EHS (Electronic Hook Switch) Adapter and the Plantronics CS500XD Series Wireless Headset System with Avaya 9400/9500 Series Digital Telephones. 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 CS540XD wireless headset was used to verify the functionality of the EHS adapter.

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 EHS (Electronic Hook Switch) Adapter and the Plantronics CS500XD Series Wireless Headset System with Avaya 9400/9500 Series Digital Telephones. Plantronics APV-63 EHS provides Plantronics headsets the ability to hear ring tones, answer and end calls, and mute/unmute calls directly from the headset when the user is away from their desk. The CS540XD wireless headset was used to verify the functionality of the EHS adapter.

Note: The Avaya 9400 Series Digital Telephone is supported on Avaya Aura® Communication Manager and the Avaya 9500 Series Digital Telephone is supported on Avaya IP Office.

2. General Test Approach and Test Results

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.

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 Telephones with the Plantronics APV-63 EHS Adapter and Plantronics CS540XD wireless headset 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 Plantronics wireless headset after restarting the Avaya 9400/9500 Series Digital Telephones.

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 ring back tone for incoming and outgoing calls.
- Answering and ending calls using the call control button on the headset.
- Using the volume control buttons on the Plantronics headset to adjust the audio volume.
- Using the mute control button on the Plantronics headset to mute and un-mute the audio.

For the serviceability testing, the Avaya 9404/9508 Digital Telephones were restarted to verify proper operation of the headset after the reboot was completed.

2.2. Test Results

All test cases passed with the following observations:

- When the headset button on the Avaya 9508 Digital Telephone is activated, the call control button on the Plantronics headset must also be activated to hear dial tone.
- When auto-answer is enabled on the Avaya 9400/9500 Series Digital Telephones, incoming calls are automatically answered on the handset, but the call control button on the Plantronics headset still needs to be pressed in order to use the headset.

2.3. Support

For technical support and information on Plantronics APV-63 EHS Adapter and Plantronics CS500XD Series Wireless Headset System, contact Plantronics at:

- Phone: 800-544-4660 (toll free)
+1 831-426-5858 (International)
- Website: http://www.plantronics.com/north_america/en_US/support/

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Plantronics APV-63 EHS Adapter and Plantronics CS540XD Wireless Headset System with Avaya 9400/9500 Series Digital Telephones. The configuration consists of an Avaya S8300 Server running Avaya Aura® Communication Manager with an Avaya G450 Media Gateway, which support the 9400 series digital telephone, and an Avaya IP Office 500 V2, which supports the 9500 series digital telephone. The G450 Media Gateway provides connectivity to the PSTN via an ISDN-PRI trunk (not shown). Avaya Aura® Communication Manager Messaging was used as the voicemail system.



Figure 1: Avaya 9400/9500 Series Digital Telephones with Plantronics APV-63 EHS Adapter and Plantronics CS540XD Wireless Headset System

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 running Avaya S8300D Server with a G450 Media Gateway	6.3.0 (R016x.03.0.124.0)
Avaya Aura® Communication Manager Messaging	6.3.0 (N6.326.0)
Avaya Aura® System Manager	6.3.2.4.1399
Avaya Aura® Session Manager	6.3.2.632023
Avaya IP Office Server Edition	v8.1.96.el6
Avaya 9400 Series Digital Telephone	Release 2.0 SP1
Avaya 9500 Series Digital Telephone	Release 0.45
Plantronics APV-63 EHS Adapter	10/13 A 17.09
Plantronics CS540XD Wireless Headset System	V 19.43

5. Configure Avaya Aura® Communication Manager

This section covers the station configuration for the Avaya 9404 Digital Telephone. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

5.1. Configure a Station for Avaya 9400 Series Digital Telephone

Use the **add station** command to create a station for the 9404 Digital telephone. Set the **Type** field to the station type to be emulated. In this example, **9404** was used. Set the **Port** field to the appropriate digital port.

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 62000		Page 1 of 5
STATION		
Extension: 62000	Lock Messages? n	BCC: 0
Type: 9404	Security Code:	TN: 1
Port: 001V301	Coverage Path 1:	COR: 1
Name: Plantronics	Coverage Path 2:	COS: 1
	Hunt-to Station:	
STATION OPTIONS		
Loss Group: 2	Time of Day Lock Table:	
	Personalized Ringing Pattern: 1	
Speakerphone: 2-way	Message Lamp Ext: 62000	
Display Language: english	Mute Button Enabled? y	
Survivable COR: internal		
Survivable Trunk Dest? y	IP SoftPhone? n	
	Remote Office Phone: n	
	IP Video? n	

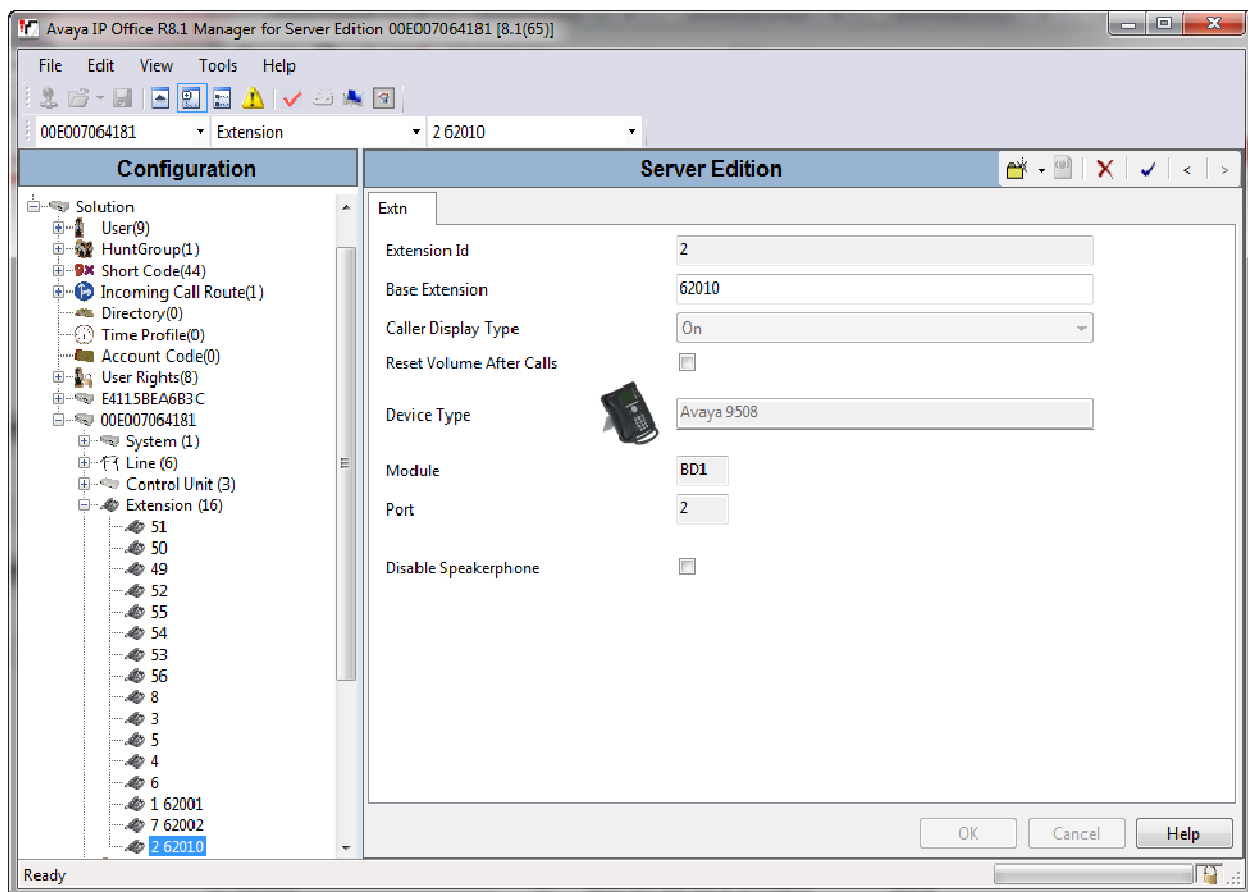
6. Configure Avaya IP Office

Avaya IP Office automatically configured a digital station (extension and user) for the 9508 digital telephone, which will use the Plantronics headset. This section displays the extension and user configuration using the Avaya IP Office Manager application.

From a PC running the Avaya IP Office Manager application, select **Start → Programs → IP Office → Manager** to launch the Manager application. Select the proper IP Office system and log in with the appropriate credentials.

6.1. Extension Configuration

From the configuration tree in the left pane, select the appropriate **Extension** for the digital station to view the configuration, which is shown below. In this example, extension 62010 was used.



From the configuration tree in the left pane, select the appropriate **User** for the digital station to view the configuration, which is shown below. In this example, extension 62010 was used.

The screenshot shows the Avaya IP Office RB.1 Manager for Server Edition 00E007064181 [8.1(65)] interface. The main window is titled 'Configuration' and displays the configuration details for a specific user, '62010 A9508'.

Configuration Hierarchy (Left Pane):

- BOOTP (7)
 - Operator (3)
 - Solution
 - User(9)
 - HuntGroup(1)
 - Short Code(44)
 - Incoming Call Route(1)
 - Directory(0)
 - Time Profile(0)
 - Account Code(0)
 - User Rights(8)
 - E41158EA6B3C
 - 00F007064181
 - System (1)
 - Line (6)
 - Control Unit (3)
 - Extension (16)
 - User (4)
 - NoUser
 - 62010 A9508** (Selected)
 - 62002 Analog1
 - 62001 DCP1
 - Short Code (3)
 - Service (0)
 - RAS (1)
 - WanPort (0)
 - Firewall Profile (1)
 - IP Route (2)
 - License (6)
 - Tunnel (0)
 - ARS (2)
 - ES11 System (0)

User Configuration Details (Right Pane):

User: 62010 A9508

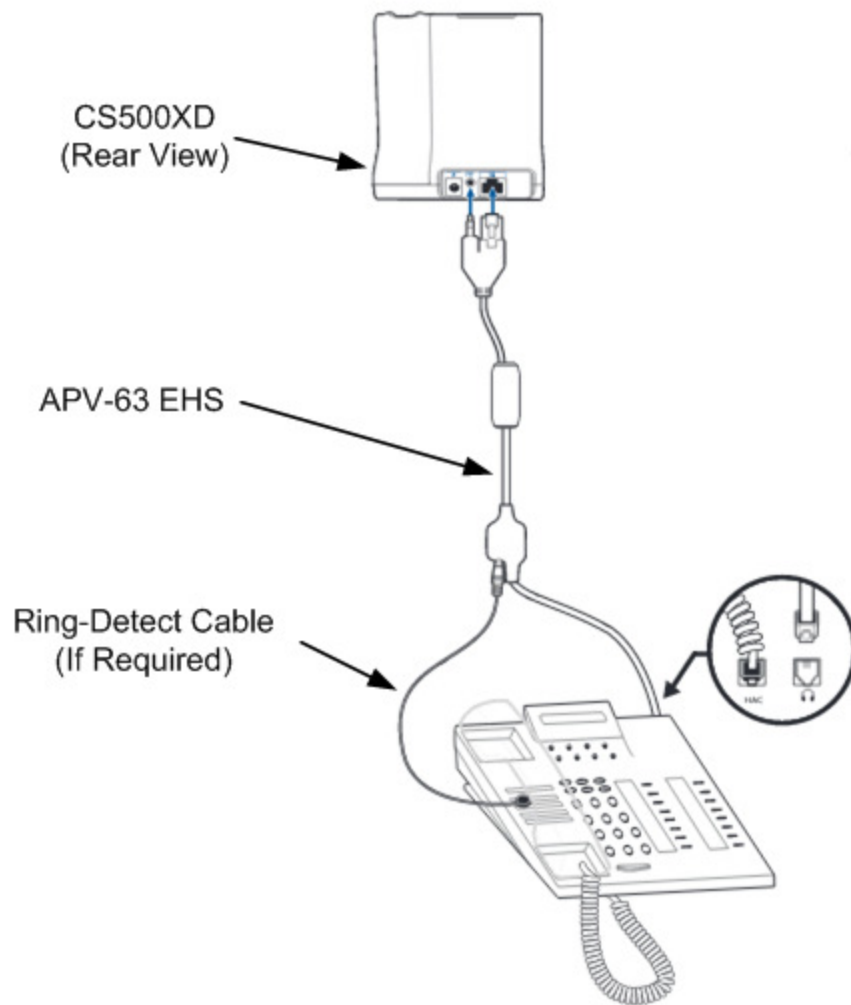
Fields:

- Name: A9508
- Password: *****
- Confirm Password: *****
- Full Name:
- Extension: 62010
- Email Address:
- Locale:
- Priority: 5
- System Phone Rights: None
- Profile: Basic User
 - ☐ Receptionist
 - ☐ Enable Softphone
 - ☐ Enable one-X Portal Services
 - ☐ Enable one-X TeleCommuter
 - ☒ Enable Remote Worker
 - ☐ Enable Flare
 - ☐ Ex Directory
- Flare Mode: Standalone
- Device Type: Avaya 9508
- User Rights:
 - User Rights view: User data
 - Working hours time profile: <None>
 - Working hours User Rights:
 - Out of hours User Rights:

Buttons: OK, Cancel, Help

7. Configure Plantronics APV-63 EHS and Plantronics CS540XD Wireless Headset System

To connect the CS540XD wireless headset to the Avaya 9400/9500 Series Digital Telephone, use the APV-63 EHS adapter to connect the wireless base of the headset to the headset port of the 9404/9508 digital telephone. Neither the 9400/9500 Series Digital Telephone, required an external ring detect cable, to hear incoming call notifications (i.e., beeps) through the headset. All other default settings on the wireless base were used.



7.1. Answering, Ending, and Placing Calls

To answer, end, or place a call using the Plantronics 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 telephone.

Alternatively, if the headset button on the digital telephone 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 telephone does not automatically activate the call control button on the headset.

If auto-answer is enabled and the headset button on the digital telephone *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 telephone.

Alternatively, if the call is terminated by pressing the headset button on the digital telephone, the call control button on the headset remains activated. Note that pressing the headset button on the digital telephone does not automatically deactivate the call control button on the headset.

To Place a Call Press the call control button on the headset or the headset button on the phone to get dial tone and dial the number. For the 9500 series digital phones, the call control button must be activated to get dial tone manually, if the headset button on the phone was pressed first.

8. Verification Steps

Verify that the Plantronics APV-63 EHS and Plantronics CS540XD have been connected to the Avaya 9400/9500 Series Digital Telephones. 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.

9. Conclusion

These Application Notes describe the configuration steps required to integrate the Plantronics APV-63 EHS Adapter and Plantronics CS500XD Series Wireless Headset System with Avaya 9400/9500 Series Digital Telephones. All test cases were completed successfully with observations noted in **Section 2.2**.

10. 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*, Document Number 03-300509.
- [2] *Avaya 9400 Series Digital Deskphone User Guide for Avaya Aura® Communication Manager*, Document Number 16-603535.
- [3] *Avaya IP Office 9500 Series User Guide*, Issue 05d, April 5, 2012.

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

- [4] *Plantronics APV-63 EHS Adapter Quick Reference Guide*.
- [5] *Plantronics CS540XD Wireless Headset System Quick Start Guide*.

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