



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for Plantronics APV-63 EHS Adapter and Plantronics Savi 700 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 Savi 700 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 Savi 740 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 Savi 700 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 Savi 740 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 Savi 740 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 observation(s):

- Pressing the headset button on the digital phone does not consistently activate the call control button on the MDA 200 to provide dial tone to the headset. As a workaround, press the call control button the MDA 200 to get dial tone on the headset. This is a known issue with the Avaya 9400/9500 Digital Telephones.
- 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.

See **Section 3.1** for instructions on answering, ending, and placing calls with the headset.

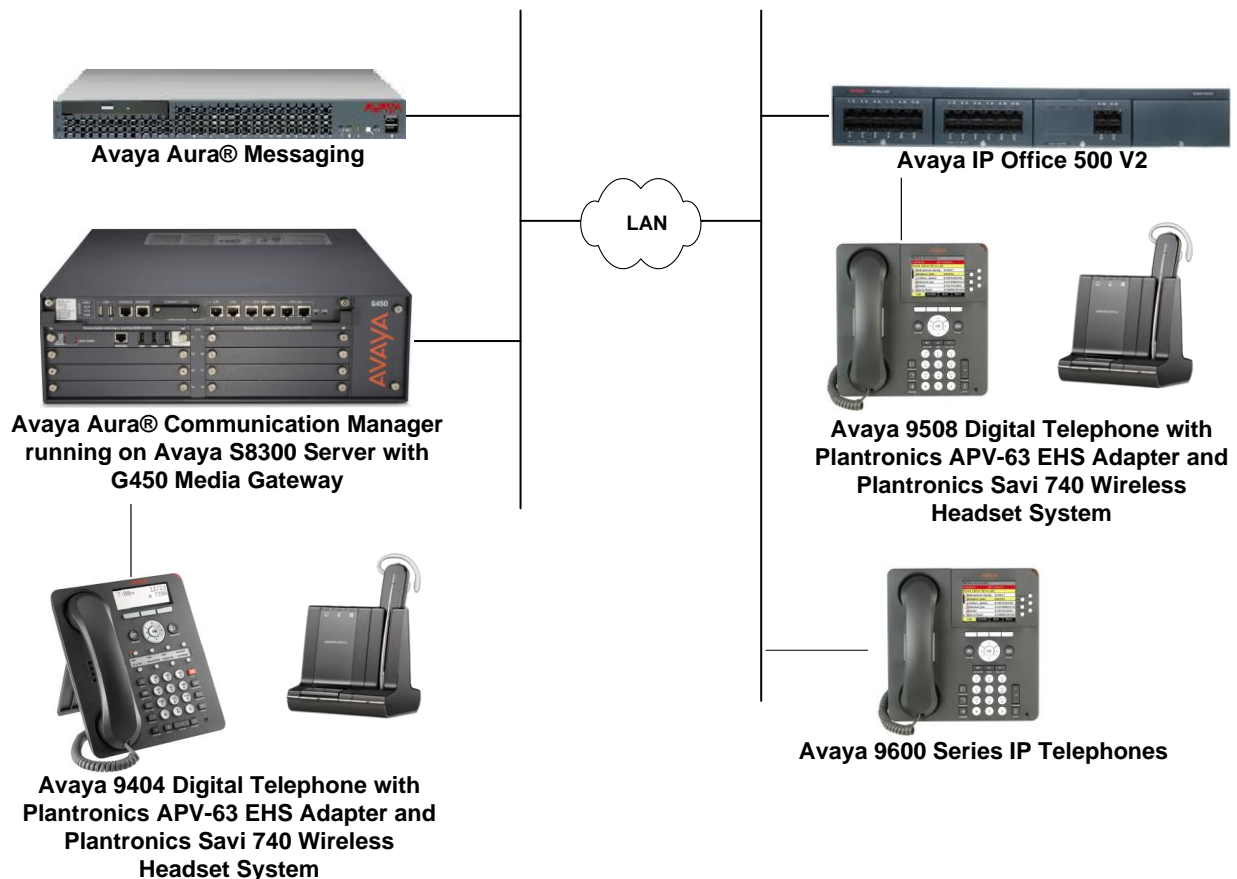
## 2.3. Support

For technical support and information on Plantronics APV-63 EHS Adapter and Plantronics Savi 700 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/](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 Savi 740 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, 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® Messaging was used as the voicemail system.



**Figure 1: Avaya 9400/9500 Series Digital Telephones with Plantronics APV-63 EHS Adapter and Plantronics Savi 740 Wireless Headset System**

### 3.1. 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 always activate the call control button on the headset automatically (see **Section 2.2**).

- The 9404 digital telephone cannot auto-answer directly to the headset, it must first auto-answer to the handset and then switch to the headset. When the far-end drops, the headset button on the digital telephone is de-activated.
- The 9508 digital telephone with Avaya IP Office can auto-answer an internal call on the headset if the headset button on the phone and the call control button on the headset are both activated.

#### To End a Call

Press the call control button on the headset to terminate a call. This automatically deactivates the headset button on the IP 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 sometimes. Note that pressing the headset button on the digital telephone does not always deactivate the call control button on the headset automatically as mentioned above.

#### 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. As mentioned in **Section 2.2**, sometimes pressing the headset button on the digital telephone does not automatically activate the call control button on the headset. In this case, ensure that the call control button on the headset is activated to get dial tone.

## 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 S8300 Server with a G450 Media Gateway | 6.2 SP 3 (R016x.02.0.823.0 with Patch 19926) |
| Avaya IP Office 500 V2   | 8.1 (52)                                     |
| Avaya Aura® Messaging  | 6.0.1 SP 1                                   |
| Avaya 9400 Series Digital Telephones   | FW 18  |
| Avaya 9500 Series Digital Telephones   | FW 44  |
| Avaya 9600 Series IP Telephones  | 3.1 SP 5 (H.323)                             |
| Plantronics APV-63 EHS Adapter   | P/N 38734-11                                 |
| Plantronics Savi 740 Wireless Headset System   | --   |

**Note:** Testing was performed with IP Office 500 R8.1, but it also applies to IP Office Server Edition R8.1. Note that IP Office Server Edition requires an Expansion IP Office 500 v2 R8.1 to support analog or digital endpoints or trunks.

## 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 an available 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 40010         |                                 | Page 1 of 5 |
| STATION                   |                                 |             |
| Extension: 40010          | Lock Messages? n                | BCC: 0      |
| <b>Type: 9404</b>         | <b>Security Code:</b>           | TN: 1       |
| <b>Port: 001V301</b>      | 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: 40010         |             |
| Display Language: english | Mute Button Enabled? y          |             |
| Survivable COR: internal  |                                 |             |
| Survivable Trunk Dest? y  | IP SoftPhone? n                 |             |
|                           | Remote Office Phone: n          |             |
|                           | IP Video? n                     |             |

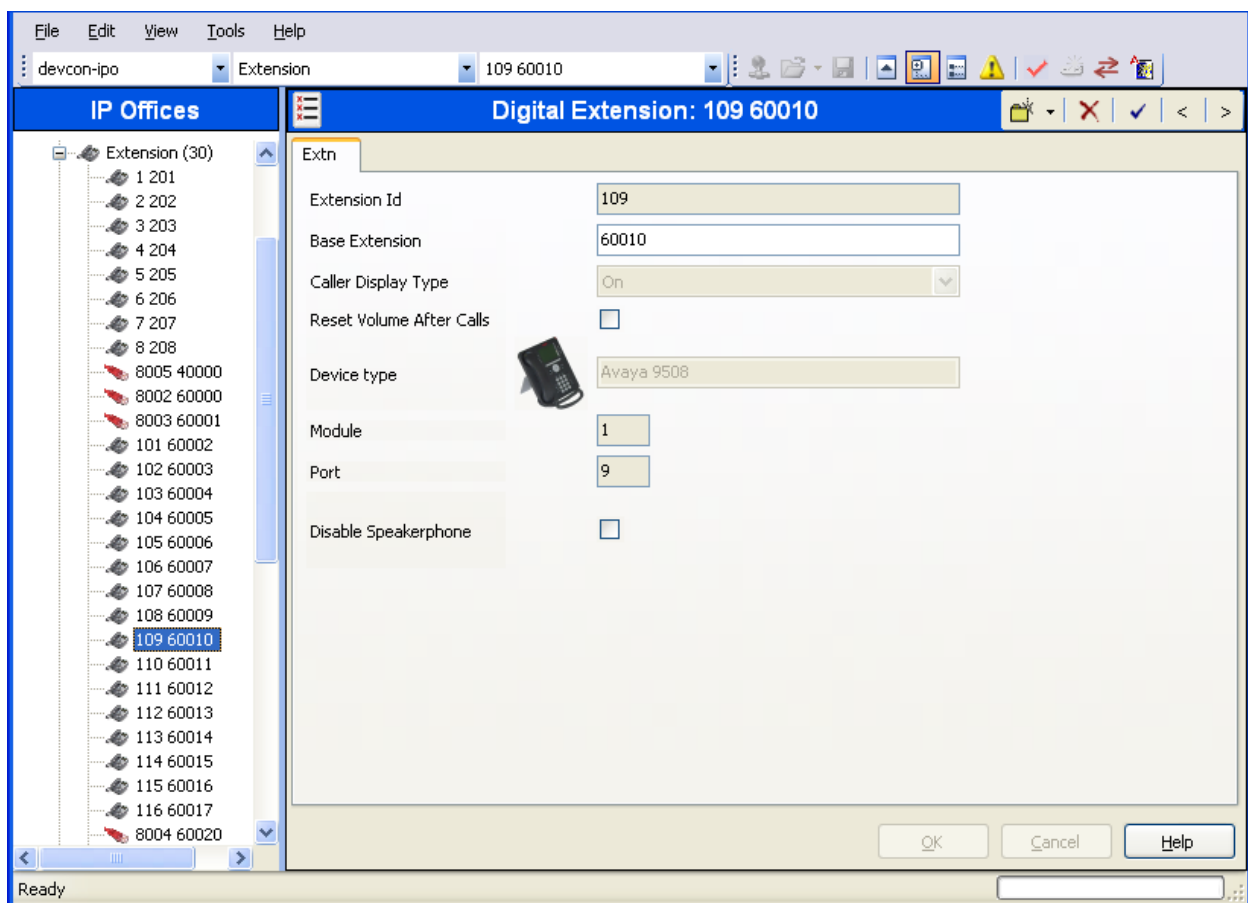
## 6. Configure Avaya IP Office

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 **60010** was used.





## 6.2. User Configuration

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 *60010* was used.

The screenshot shows the Avaya User Configuration window. The left pane displays a tree structure under 'IP Offices' with 'User (31)' expanded. The '60010 Extn60010' user is selected. The right pane shows the configuration for this user, with tabs for 'User', 'Voicemail', 'DND', 'ShortCodes', 'Source Numbers', 'Telephony', 'Forwarding', 'Dial In', 'Voice Recording', and 'Bu'. The 'User' tab is active, showing fields for Name, Password, Confirm Password, Full Name, Extension (60010), Locale, Priority (5), System Phone Rights (None), and Profile (Basic User). Below these are checkboxes for 'Receptionist', 'Enable Softphone', 'Enable one-X Portal Services', 'Enable one-X TeleCommuter', 'Enable Remote Worker', and 'Ex Directory'. The 'Device Type' is set to 'Avaya 9508'. The 'User Rights' section includes 'User Rights view' (User data), 'Working hours time profile' (<None>), 'Working hours User Rights', and 'Out of hours User Rights'. The bottom of the window has 'OK', 'Cancel', and 'Help' buttons.

| Field                        | Value                    |
|------------------------------|--------------------------|
| Name                         | Extn60010                |
| Password                     |                          |
| Confirm Password             |                          |
| Full Name                    |                          |
| Extension                    | 60010                    |
| Locale                       |                          |
| Priority                     | 5                        |
| System Phone Rights          | None                     |
| Profile                      | Basic User               |
| Receptionist                 | <input type="checkbox"/> |
| Enable Softphone             | <input type="checkbox"/> |
| Enable one-X Portal Services | <input type="checkbox"/> |
| Enable one-X TeleCommuter    | <input type="checkbox"/> |
| Enable Remote Worker         | <input type="checkbox"/> |
| Ex Directory                 | <input type="checkbox"/> |
| Device Type                  | Avaya 9508               |
| User Rights view             | User data                |
| Working hours time profile   | <None>                   |
| Working hours User Rights    |                          |
| Out of hours User Rights     |                          |

## 7. Configure Plantronics APV-63 EHS and Plantronics Savi 740 Wireless Headset System

To connect the Savi 740 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. For the 9500 Series Digital Telephone, 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. The 9400 Series Digital Telephone does not require the external ring detect cable to hear incoming call notifications. All other default settings on the wireless base were used.

## 8. Verification Steps

Verify that the Plantronics APV-63 EHS and Plantronics Savi 740 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 Savi 700 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*, Release 6.2, Issue 7.0, December 2012, Document Number 03-300509.
- [2] *Avaya one-X® Deskphone Edition for 9600 Series IP Telephones Installation and Maintenance Guide*, Release 3.1, Issue 7, November 2009, Document Number 16-300694.

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

- [3] *Plantronics APV-63 EHS Adapter Quick Reference Guide*.
- [4] *Plantronics Savi 740 Wireless Headset System Quick Start Guide*.

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