Avaya Solution & Interoperability Test Lab

Application Notes for Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets with Avaya H175 Video Collaboration Station - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets with the Avaya H175 Video Collaboration Station. The 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.

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1. Introduction

These Application Notes describe the configuration steps required to integrate the Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets with the Avaya H175 Video Collaboration Station. The 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.

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 H175 Video Collaboration Station with the Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets 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 the Avaya H175 Video Collaboration Station 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.

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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 headset.
- Using the volume control and mute buttons on the Plantronics headset.
- Answering and terminating the call using the Avaya H175 Video Collaboration Station to verify call control status is reflected on the Plantronics headset.

For the serviceability testing, the Plantronics headset is reconnected to the USB port, and the Avaya H175 Video Collaboration Station is restarted to verify proper operation of the headset.

2.2. Test Results

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

- There is only one beep tone provided through the headset for incoming call to the H175 video station. This leads to the green light used to indicate an incoming call on the base of the CS500 headset to stop blinking but the speaker phone of the H175 video station still keep ringing.
- A call can be muted on the headset or on the H175, and these functions are independent of each other and the mute status on the H175 video station and the CS500 headset is not synchronized. If mute is activated on the headset, the call is muted at the headset and the headset base shows the call is muted, but the H175 does not indicate that the call is muted. If mute is activated at the H175, the call is muted at the H175, and the mute indicator on the H175 shows that the call is muted, but the headset base station does not show that the call is muted. A user should select one of the two mute options for consistency. If mute is activated on both, then to speak again the user must unmute both.

2.3. Support

For technical support and information on the 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

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3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets with the Avaya H175 Video Collaboration Station. 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 a 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.

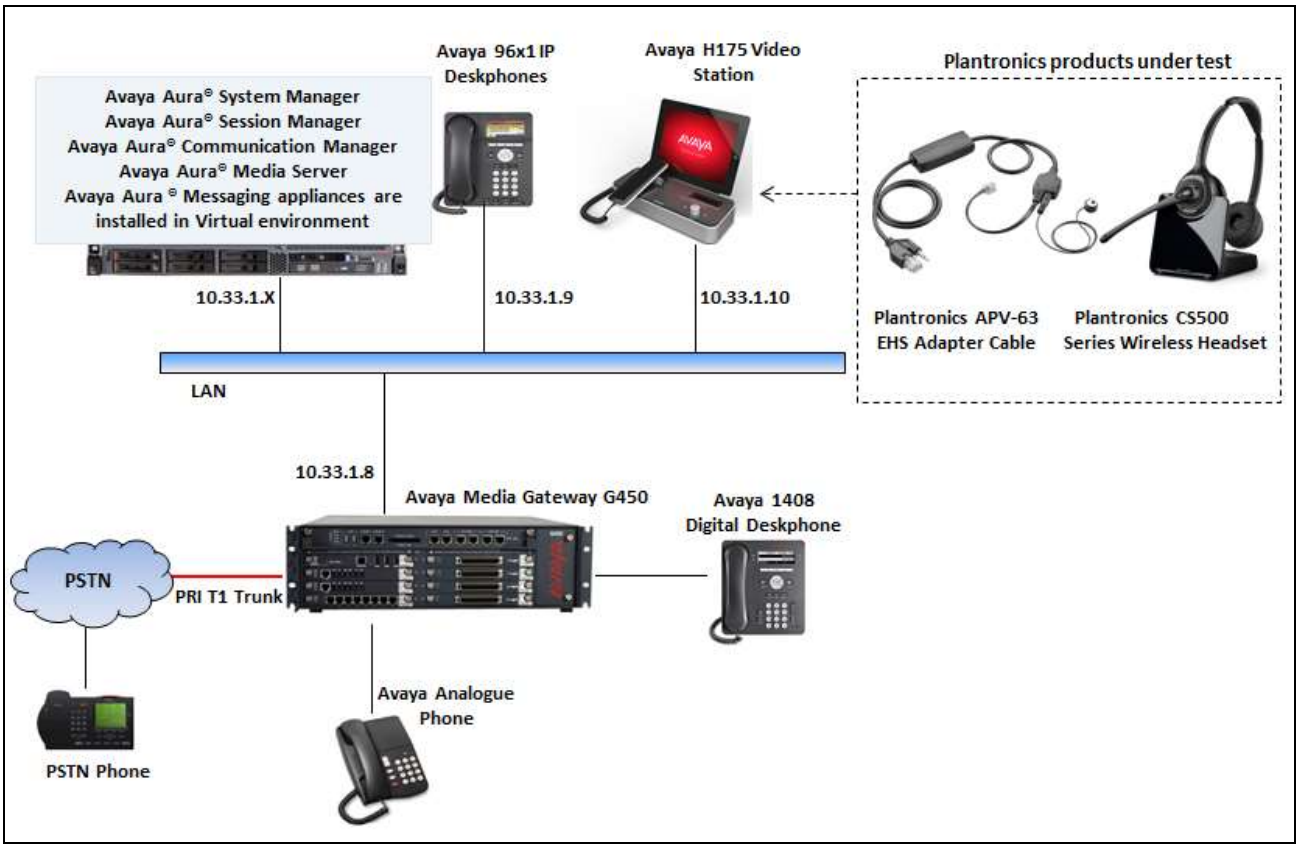

Figure 1: Avaya H175 Video Collaboration Station with Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets

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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 in Virtual Environment	7.0 (R017x.00.0.441.0) Patch 22477
Avaya G450 Media Gateway	37.19.0
Avaya Aura® Session Manager in Virtual Environment	7.0.0.0.700007
Avaya Aura® System Manager in Virtual Environment	7.0.0.0.16266
Avaya Aura® Messaging in Virtual Environment	6.3.1
Avaya 96x1 Series IP Deskphones	7.0 (SIP) 6.615 (H323)
Avaya H175 Video Collaboration Station	1.0 Feature Pack 1 (R 1.0.1)
Avaya 9408 Digital Deskphone	Firmware12
Analog phone	N/A
Plantronics APV-63 Adapter	Part# 38734-11
Plantronics CS500 Wireless Headset Plantronics DECT C052	Part# 84691-01 V28.10 SP2

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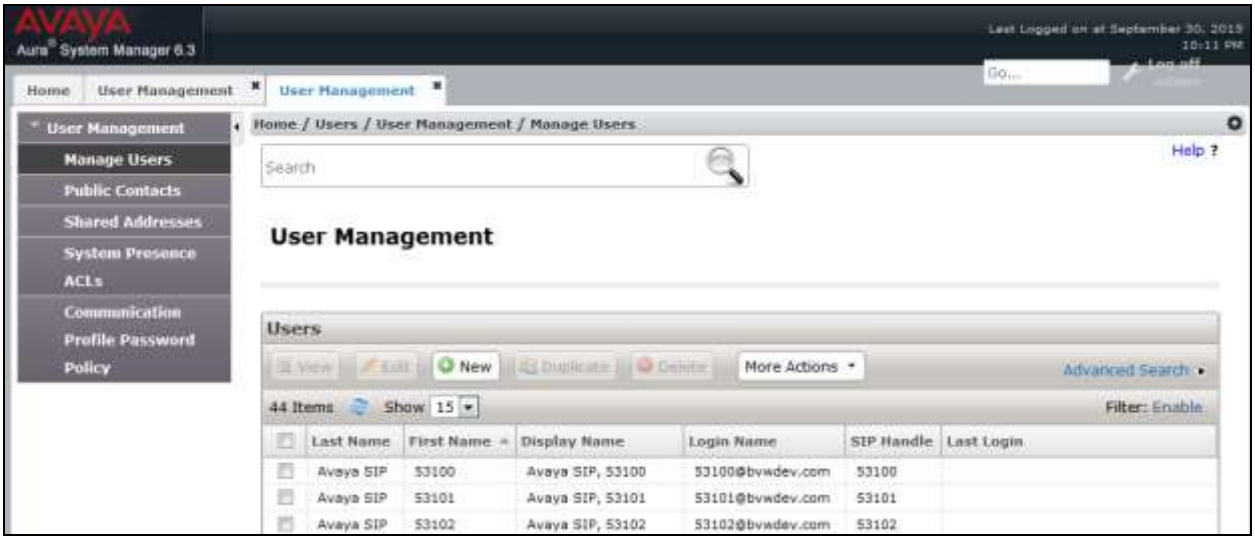
5. Configure a SIP Station for Avaya H175 Video Collaboration Station

This section shows configuration in System Manager to create a SIP user that is used to log on from the Avaya H175 Video Collaboration station.

From the homepage of System Manager, navigate to **Home → Users → User Management → Manager Users**, the **User Management** page is displayed in the right hand side as shown below.

Note: The initial installation, configuration, and licensing of System Manager, Session Manager and Communication Manager servers are assumed to have been previously completed and are not discussed in these Application Notes. These Application Notes focus on describing the sample configuration as it relates to a SIP user.



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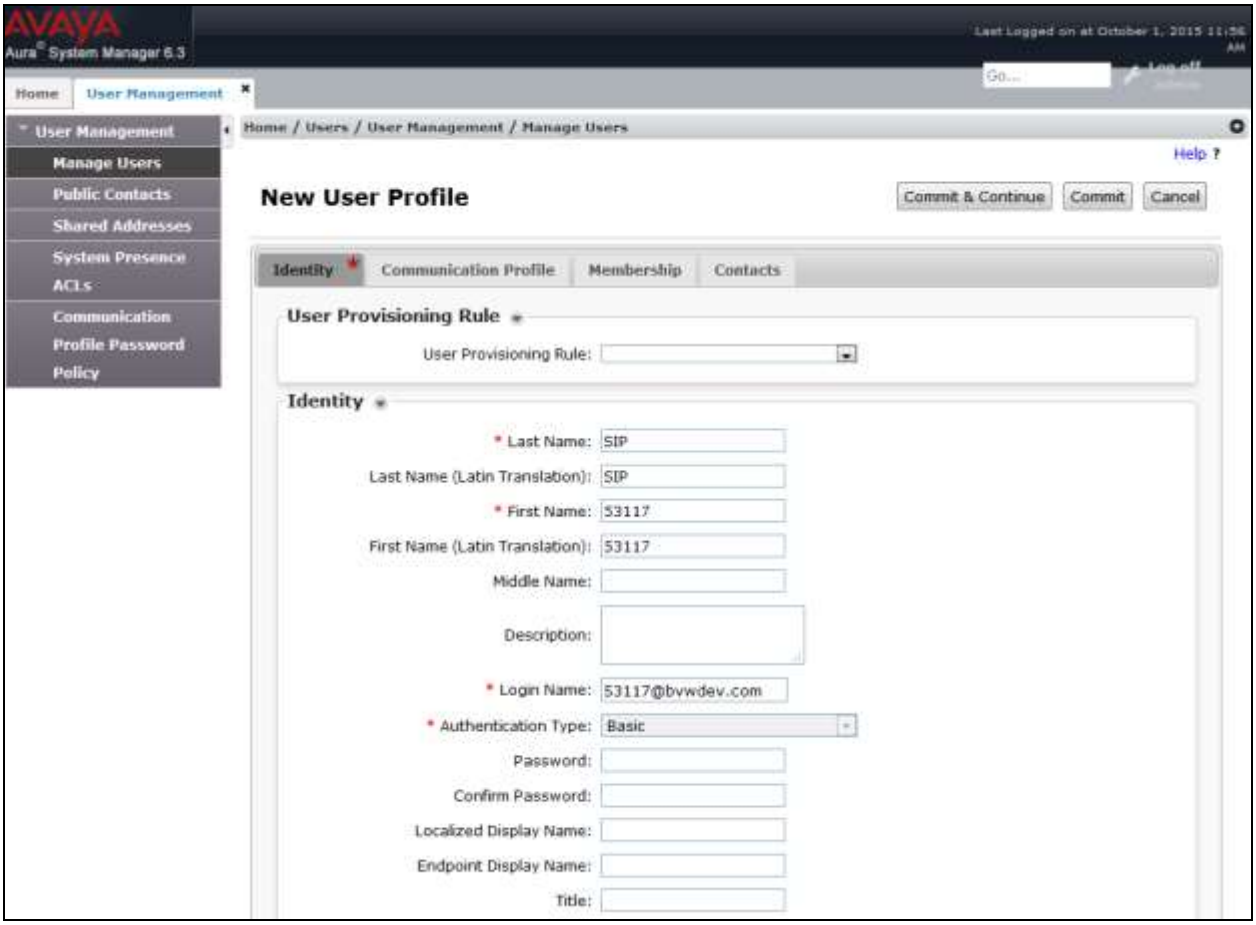
Click on **New** button on the **User Management** page shown above to create a new SIP user. The **New User Profile** page is displayed. Enter parameters of new SIP user in the **Identity** tab as shown below. The fields with red asterisk are mandatory and require to be configured.



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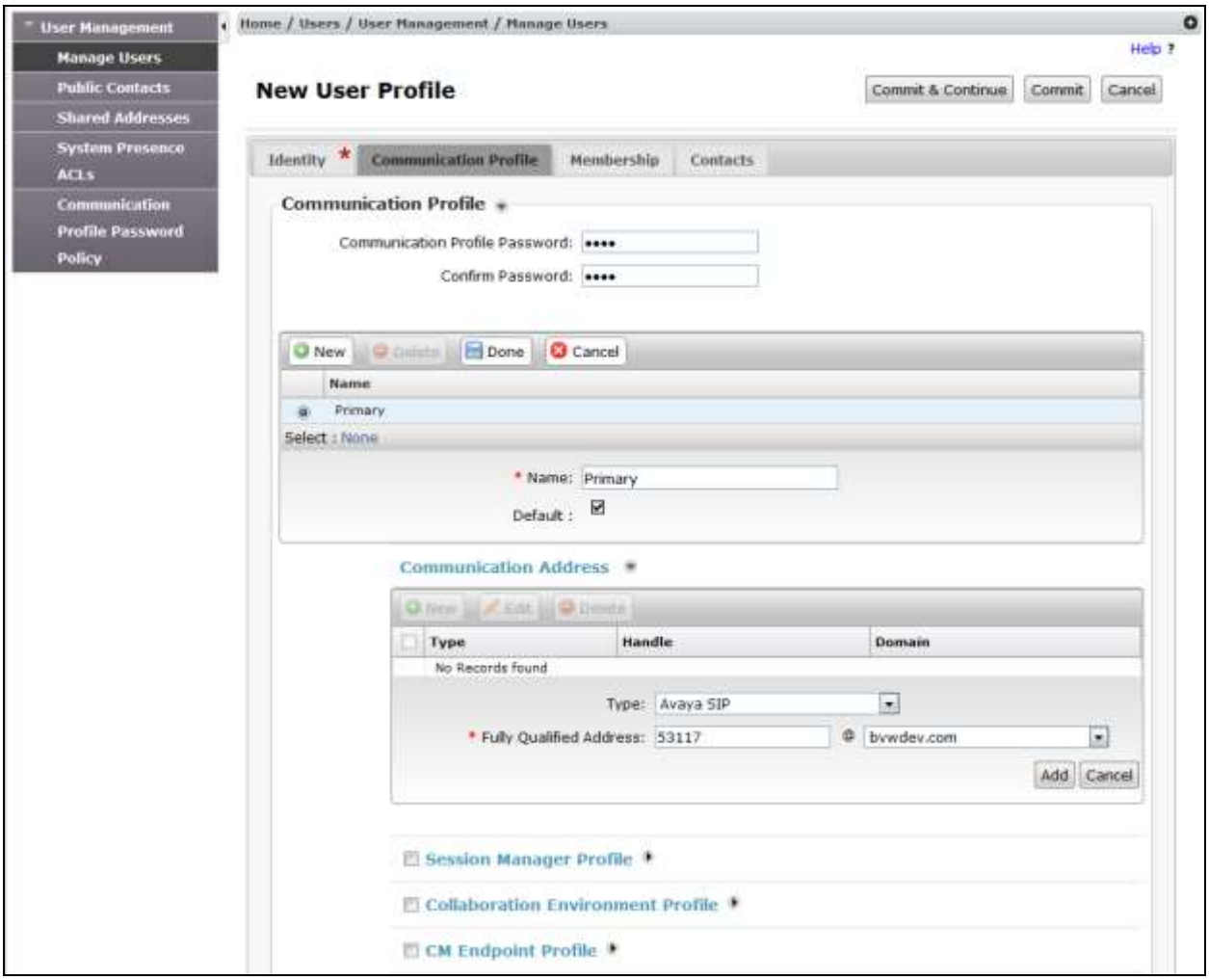
Select the **Communication Profile** tab; enter a password (e.g., 1234) in **Communication Profile Password** and **Confirm Password** fields. Note that this password is used to log into this SIP user from Avaya H175 Video Collaboration Station.

Under **Communication Address** section, click on **New** button to add a new communication address, select Type as **Avaya SIP**, enter a directory number *53117* which will be the directory number of the SIP user and select *bvwdev.com* domain in the drop-down menu.
Note: The domain *bvwdev.com* is previously provisioned when Session Manager was installed and configured.



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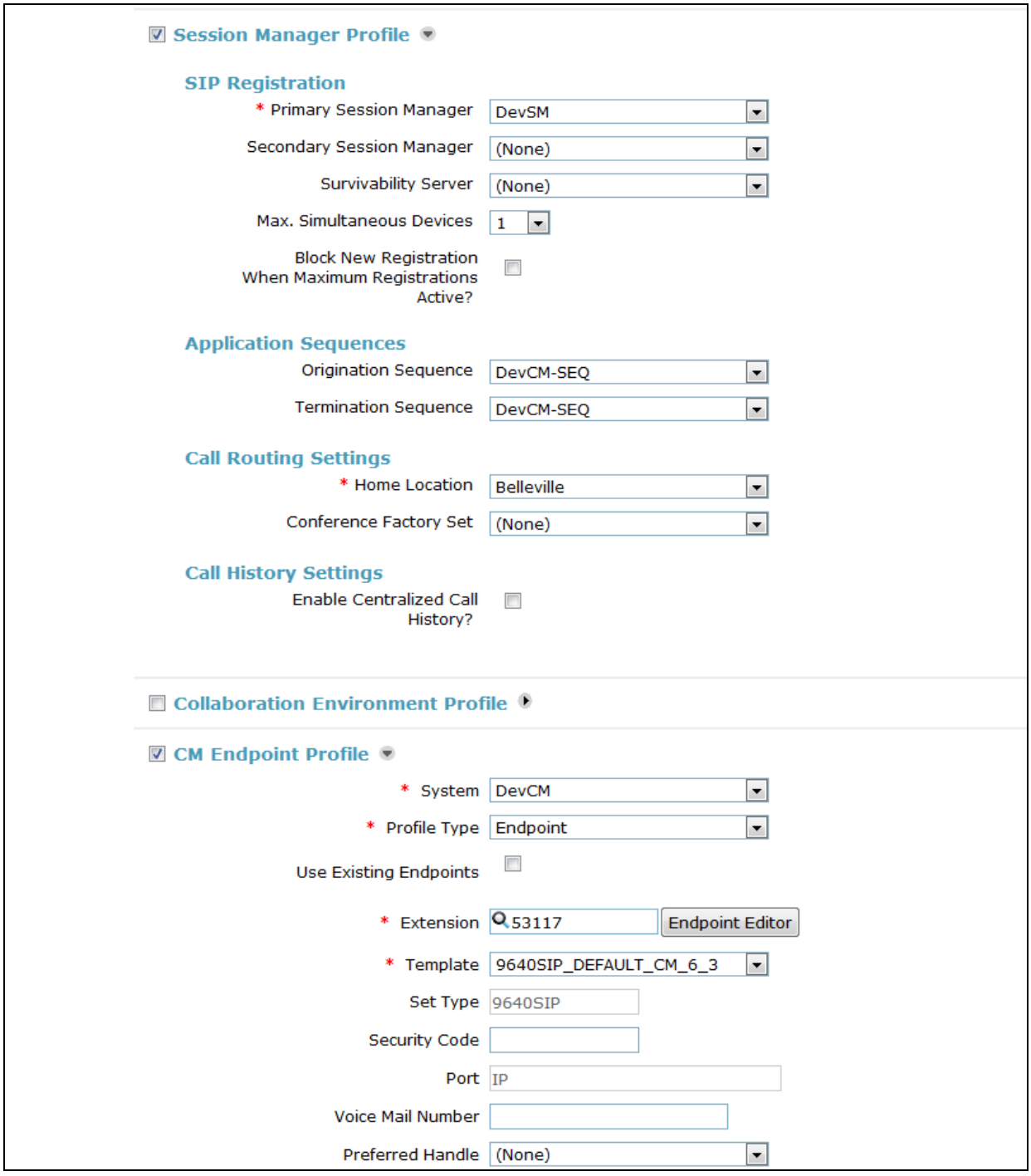
Check on the **Session Manager Profile** section, in the **SIP Registration** subsection, select the Session Manager system *DevSM* in the **Primary Session Manager**. In the **Application Sequences** subsection select *DevCM-SEQ* in both **Origination Sequence** and **Termination Sequence** and in the **Call Routing Settings** subsection, select *Belleville* in the **Home Location**. Note that Session Manager SIP entity *DevSM,* Application Sequence *DevCM-SEQ* and home location *Belleville* are previously provisioned.



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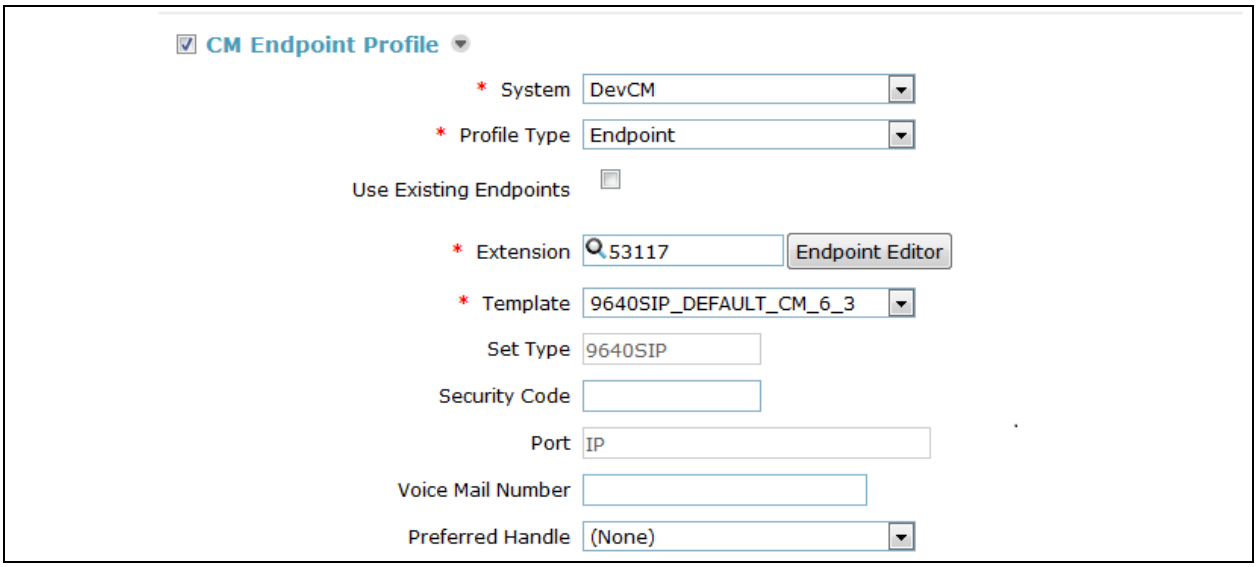
Check on **CM Endpoint Profile**, select Communication Manager System *DevCM* in the **System** field and select *Endpoint* in the **Profile Type** field. In the **Extension** field, enter the number *53117* and select the SIP template *9640SIP_DEFAULT_CM_6_3* in the **Template** field. Click **Commit** button (not shown) to complete and save the newly added SIP user.



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6. Configure Avaya H175 Video Collaboration Station

6.1. Configure 46xxsettings.txt File

In the 46xxsettings.txt file, the HEADSETBIDIR parameter needs to be set to '1' so that switch hook and alerting are enabled for the H175 video station. This allows incoming call alert to be heard through the headset. Alternatively, the switch hook and alerting options can be enabled through the phone menu. Press the **Menu** button on the phone and then navigate to **Home → Settings →Call Settings → Headset Signaling**. Select the **Switchhook & Alerting** option. Below is an example for setting this parameter via the 46xxsettings.txt file.

```
##############################################################################################
##
##    AVAYA IP TELEPHONE CONFIGURATION FILE TEMPLATE
##            ***  30 Aug 2015  ***
##
## This file is intended to be used as a template for configuring Avaya IP telephones.
## Parameters supported by software releases up through the following are included:
##     96x1 H.323 R6.6
##       B189 H.323 R6.6
##     96x1  SIP  R7.0.0
##     96x0 H.323 R3.2.4
##     96x0  SIP  R2.6.14.5
##     46xx H.323 R2.9.2
##     46xx  SIP  R2.2.2
##     364x  SIP  R1.1
##     3631 H.323 R1.3.0
##     16xx H.323 R1.3.3
##     16CC  SIP  R1.0
##     1603  SIP  R1.0
##     1692 H.323 R1.4
##       Softphone  SIP  R2.1
##       H1xx  SIP  R1.0.0.1
##############################################################################################
###########  Headset Signaling  ##############
## HEADSETBIDIR specifies whether bidirectional signaling
##  on the headset interface will be enabled or disabled.
##  Value  Operation
##    0    Disabled (default)
##    1    Switchhook and alerting signaling are both enabled
##    2    Only switchhook signaling is enabled
##  This parameter is supported by:
##         H1xx  SIP  R1.0 and later
##      96x1 H.323 R6.3 and later (values 0-2)
##      96x1 H.323 R6.2.1 and later (values 0-1)
##  Note that 96x1 H.323 R6.2 only supported signaling for alerting.
SET HEADSETBIDIR 1
```


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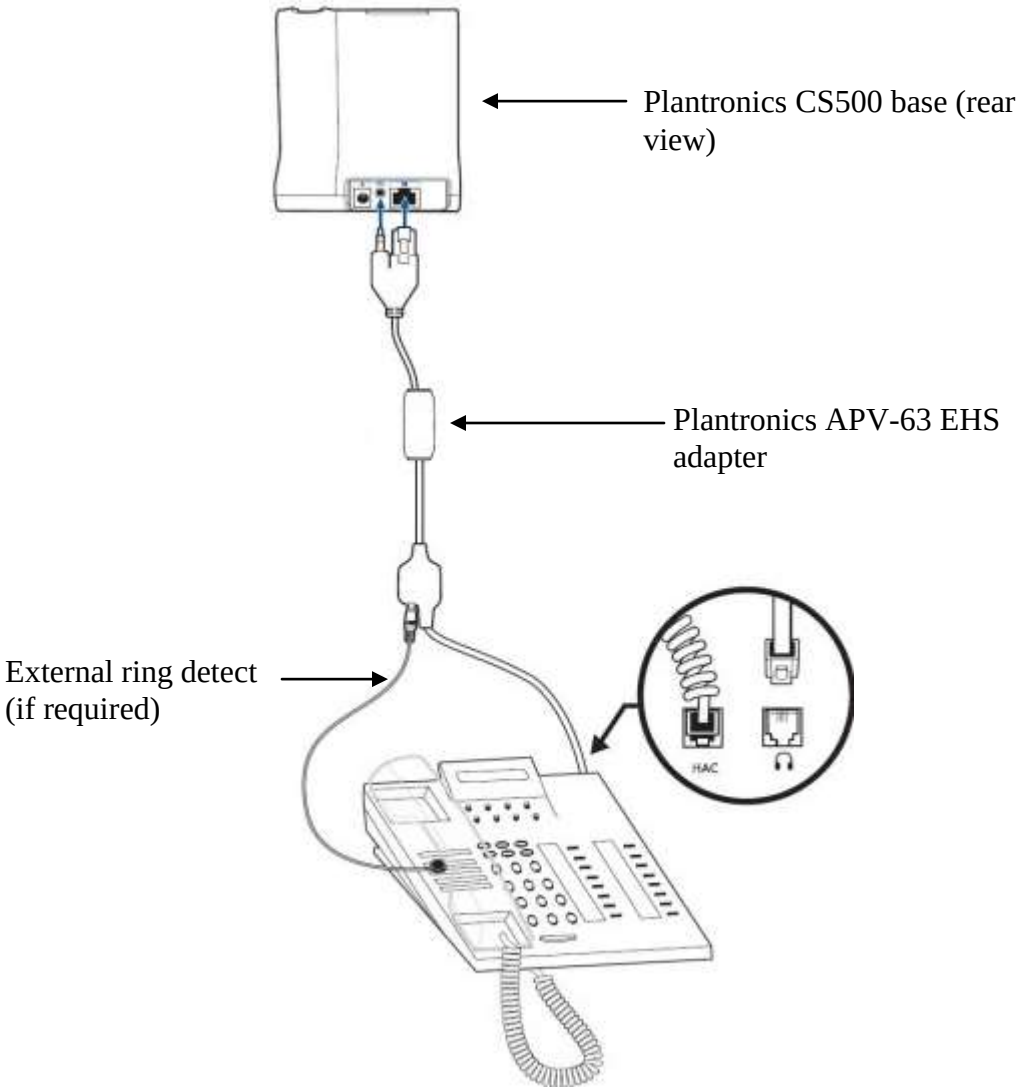
7. Configure Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headset

To connect the CS500 wireless headset to the Avaya H175 Video Collaboration Station, use the APV-63 EHS adapter to connect the wireless base of the headset to the headset port of the H175 station. 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.



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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 H175 station. Alternatively, if the headset button on the H175 station is pressed first, then press the call control button on the headset, if it isn't already activated, to answer an incoming call.

  If auto-answer is enabled and the headset button on the H175 station 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 H175 station. Alternatively, if the call is terminated by pressing the headset button on the H175 station, 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 H175 station. Alternatively, if the headset button on the H175 station is pressed first, the call control button on the headset is also activated.

8. Verification Steps

These typical steps below are used to verify the inter-working between the Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets and the Avaya H175 Video Collaboration Station.

1. From Avaya H175 Video Collaboration Station with Plantronics headset places a local call to another station.
2. Verify the ring back tone is heard through the Plantronics headset and the light on the call control button on the headset should be lighted up.
3. Answer the call on the other station, verify two-way speech path with clear audio between the Avaya H175 Video Collaboration Station and the other station.
4. During the call, adjust the volume up and down and mute/un-mute from Plantronics headset, verify the volume adjusted successfully and status mute/un-mute reflected properly on the base of the CS500 headset.
5. End the call by pressing the call control button on the Plantronics headset, verify the call is terminated and the headset is idle.

9. Conclusion

These Application Notes describe the configuration steps required to integrate the Plantronics APV-63 EHS Adapter and CS500 Series Wireless Headsets and the Avaya H175 Video Collaboration Station. All test cases were completed successfully with observations noted in **Section 0**.

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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 6.3, Issue 10, August 2015, Document Number 03-300509.
[2] Administering Avaya Aura System Manager, Release 6.3, Issue 8, *September 2015*.
[3] Administering Avaya Aura Session Manager, Release 6.3, Issue 7, September 2015.
[4] Administering Avaya H175 Video Collaboration Station, Release 1.0, Nov 2015.

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

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