![Avaya logo]

Avaya Solution & Interoperability Test Lab

Application Notes for Plantronics Savi W710 Headsets and APU-72 EHS Adapter with Avaya 1120/1140 IP Deskphones – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Plantronics APU-72 EHS (Electronic Hook Switch) Adapter and Savi W710 wireless headsets with Avaya 1120/1140 IP Deskphones. The Plantronics APU-72 EHS Adapter provides wireless headsets the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the headset including situations when the user is away from their desk. The Plantronics Savi W710 wireless headsets were used to verify the functionality of the APU-72 EHS Adapter.

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 APU-72 EHS (Electronic Hook Switch) Adapter with Avaya 1120/1140 IP Deskphones. Designed for those who spend hours each day on long conference calls, webinars and video conferencing, the Savi W710 Headset makes communications more effective and productive.

The following headsets and accessories were tested:
- APU-72 EHS (Electronic Hook Switch) Adapter – Provides wireless headsets the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the headset including situations when the user is away from their desk.
- Savi W710 Wireless 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 the Avaya 1120/1140 IP Deskphones (both UNIStim and SIP firmware) with Plantronics APU-72 EHS Adapter and Savi W710 wireless headset and verifying two-way audio. The call types included calls to voicemail, to and from local extensions, to and from the PSTN.

The serviceability testing focused on verifying the usability of the Plantronics Savi W710 wireless headsets after restarting the Avaya 1120/1140 IP Deskphones.

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 headset interfaces, different manufacturers utilize different 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 and receiving calls to and from internal extensions to verify two-way audio.
- Placing and receiving calls to and from 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 and Base.
- Using the Volume control buttons on the headset to adjust the audio volume.
- Using the Mute control button on the headset to mute and un-mute the audio.

For the serviceability testing, the Avaya 1120/1140 IP Deskphones was restarted to verify proper operation of the headset after the reboot was completed. Also the APU-72 adapter cable was unplugged and plugged back from the W710 base station to verify operation of the headset.

2.2. Test Results

Testing was completed successfully with the following observations/limitations.

- When Mute button is pressed on the headset, the base station for the headset changes from Green to Red to indicate that the call is muted at the headset. However this mute action on the headset is not passed to the 1120/1140 Deskphone, so the 1120/1140 does not indicate the call is muted. Similarly, when the Mute button on the 1120/1140 Deskphone is activated, the call is muted at the Deskphone and the mute indicator on the 1120/1140 turns red, but the headset base station remains Green, because no mute action was passed from the 1120/1140 to the headset. If the user activates mute on both the headset and the Deskphone, both will indicate the call is muted, and to talk again, the user will have to unmute on both the headset and the Deskphone.

2.3. Support

For technical support and information on Plantronics headsets, contact Plantronics 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 APU-72 EHS (Electronic Hook Switch) Adapter and Savi W710 wireless headsets with Avaya 1120/1140 IP Deskphones. The configuration consists of an Avaya Communication Server 1000 with a SIP Line installed on the same. 1120 and 1140 IP Deskphones running on UNIStim and SIP firmware were used for placing calls to and from the equipment under test.
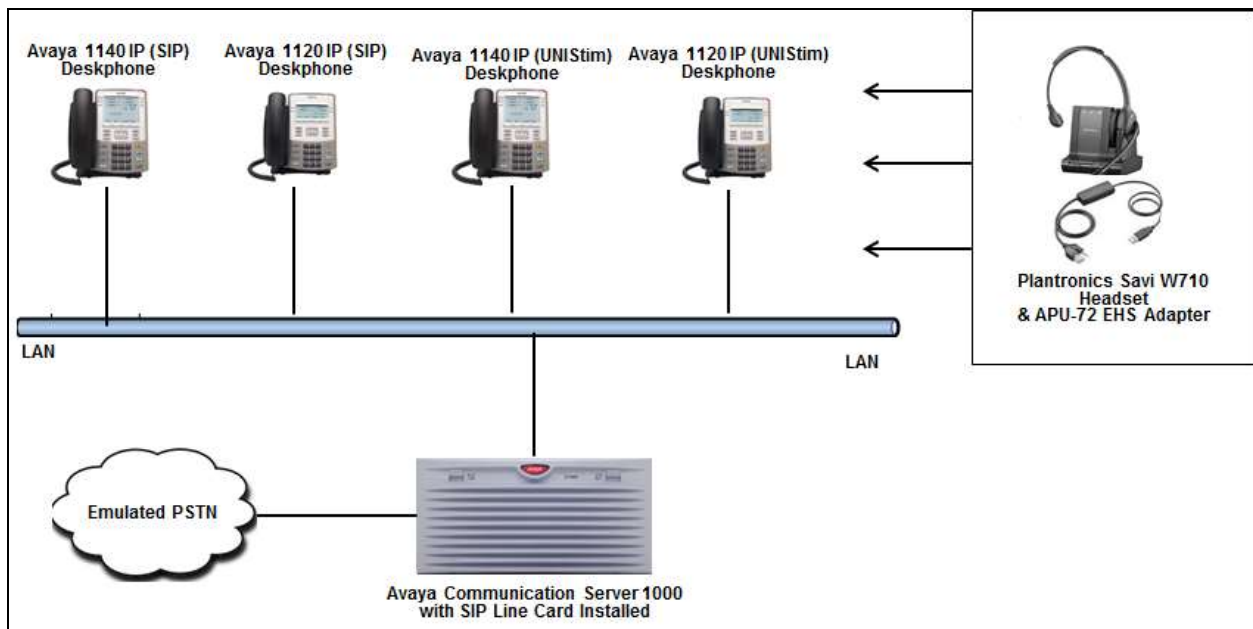

Figure 1: Test Configuration

4. Equipment and Software Validated

The following equipment and software was used for the compliance test.

Equipment/Software	Release/Version
Avaya Communication Server with SIP Line Card installed	7.65P SP 7
Avaya IP Deskphones: • 1120 (UNIStim) • 1120 (SIP) • 1140 (UNIStim) • 1140 (SIP)	 0624C93 04.04.23.00 0625C93 04.04.23.00
Plantronics Savi W710 Headset	Base: v.28.47 Bluetooth: v.02.05.0d, 0e Headset: v.28.25 PIC: v.2.2 Tuning: v. USB: v.179
Plantronics APU-72 EHS	04/16 B 3.09/96.06

5. Configure Avaya Communication Server 1000

It is assumed that a fully functioning Communication Server 1000 and SIP Line Gateway is in place with the necessary licensing. For further information on the configuration of Communication Server and SIP Line Gateway, please see **Section 9** of these Application Notes.

5.1. Configuring 1120/1140 IP Deskphones

These Application Notes assume that the Avaya 1120/1140 IP Deskphones is configured and operational. The Avaya 1120/1140 IP Deskphones is registered as a SIP based station to the SIP Line Gateway and is registered as a UNIStim based station to the Call Server. Since the APU-72 adapter connects to the 1120/1140 via its USB port, ensure that the headset device is selected as USB.

To select the headset device as USB on a station running UNIStim firmware, from the station menu, navigate to **Preferences → Headsets → Active Headset Device** and select **USB** from the drop down menu. On a station running SIP firmware, from the station menu, navigate to **Preferences → Audio → Headset Selection → Active Headset Device** and select **USB** from the drop down menu.


For further information on how to configure the Avaya 1120/1140 IP Deskphones refer to **Section 9** of these Application Notes.

6. Connect the Plantronics APU-72 EHS Adapter and Savi W710 Wireless Headset to Avaya 1120/1140 IP Deskphones

During the compliance testing the Plantronics APU-72 EHS Adapter was used to connect the Savi W710 wireless headset to the Avaya 1120/1140 IP Deskphones. The Plantronics APU-72 EHS Adapter provides Savi W710 wireless headset the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the wireless headset including situations when the user is away from their desk.

6.1. Cable connections

To connect the Plantronics APU-72 EHS Adapter to the Savi W710 wireless headsets and to the Avaya 1120/1140 IP Deskphones, refer to the diagram below. Note that the USB end of the adapter cable connects to the USB port of the stations.
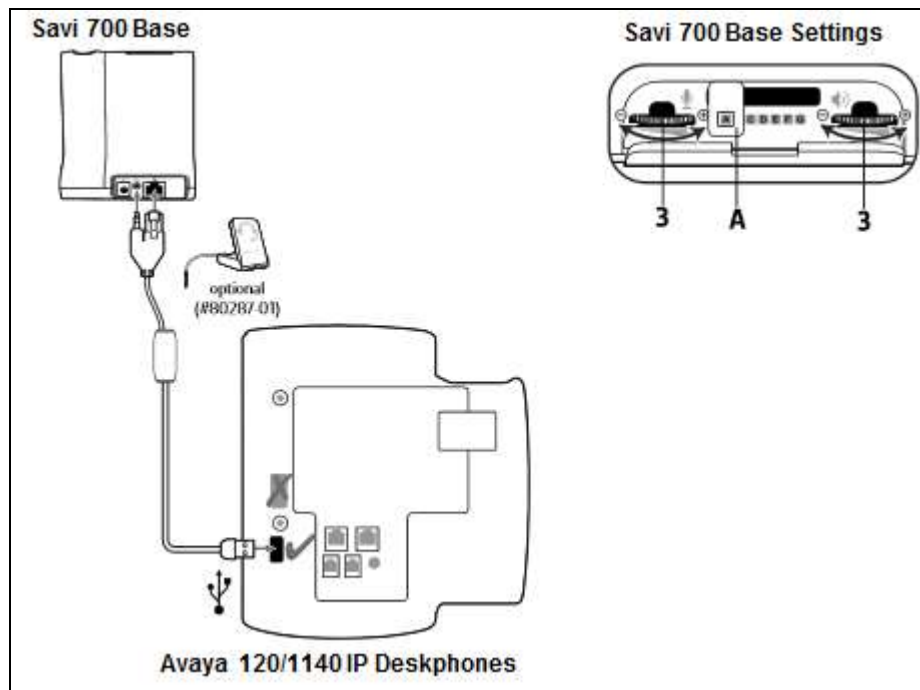
7. Verification Steps

Verify that the Plantronics APU-72 EHS Adapter and the Savi W710 wireless headset have been connected to the Avaya 1120/1140 IP Deskphones. Once the adapter and headset are connected to the desk phone, verify that incoming and outgoing calls can be established with two-way audio to the headset and that the headset can get dial tone and end an active call. Also ensure that the mute button and volume control on the headsets work as intended.

8. Conclusion

These Application Notes describe the configuration steps required to integrate the Plantronics APU-72 EHS Adapter and the Savi W710 wireless headset with Avaya 1120/1140 IP Deskphones. Testing was completed successfully with observations noted in **Section Error! Reference source not found.**.

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] *Avaya Communication Server 1000 SIP Line Fundamentals*, Release 7.6
[2] *Avaya Communication Server 1000 Software Input Output Reference — Administration*, Release 7.6, NN43001-611
[3] *Avaya Communication Server 1000 Co-resident Call Server and Signaling Server Fundamentals*, Release 7.6, NN43001-509
[4] *Avaya Communication Server 1000 Linux Platform Base and Applications Installation and Commissioning*, Release 7.6, NN43001-315
[5] *Avaya Communication Server 1000IP Deskphones Fundamentals*, Release 7.6
[6] *SIP Software for Avaya 1100 Series IP Deskphones-Administration*, Release 4.4 NN43170-600

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

©2016 Avaya Inc. All Rights Reserved.
Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.