Avaya Solution & Interoperability Test Lab

Application Notes for Plantronics APU-72 EHS Adapter and CS500 Series Wireless Headsets with Avaya 1120E and 1140E IP Deskphones - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Plantronics APU-72 Electronic Hook Switch (EHS) Adapter and CS500 Series Wireless Headsets with Avaya 1120E and 1140E IP Deskphones. Plantronics APU-72 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 APU-72 Electronic Hook Switch (EHS) Adapter and CS500 Series Wireless Headsets with Avaya 1120E and 1140E IP Deskphones. Plantronics APU-72 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 1120E and 1140E IP Deskphones with the Plantronics APU-72 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 1120E and 1140E Series IP Deskphones and re-connecting the APU-72 adapter to the headset port on the phone, removing the APU-72 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/from internal extensions to verify two-way audio.
- Placing calls to/from 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 CS500 wireless headset.
- Using the volume control and mute buttons on the Plantronics CS500 wireless headset.
- Answering and terminating the call using Avaya 1120E and 1140E IP Deskphone to verify status of call control is reflected on the Plantronics CS500 wireless headset.

For the serviceability testing, the Plantronics APU-72 adapter is reconnected to the headset port, and the Avaya 1120E and 1140E IP phone is restarted to verify proper operation of the headset.

2.2. Test Results

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

- Mute/un-mute status on the 1120E and 1140E 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 APU-72 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 APU-72 EHS adapter and CS500 Series wireless headset with Avaya 1120E and 1140E Series IP Deskphones. The configuration consists of Avaya Communication Server 1000 Common Processor Pentium Mobile (CPPM) card and Avaya Communication Server 1000 SIP Line gateway. The 1120E and 1140E Unistim IP phones connects to TPS server that running on CPPM card while 1120E and 1140 SIP IP phones registers to Avaya Communication Server 1000 SIP Line gateway.

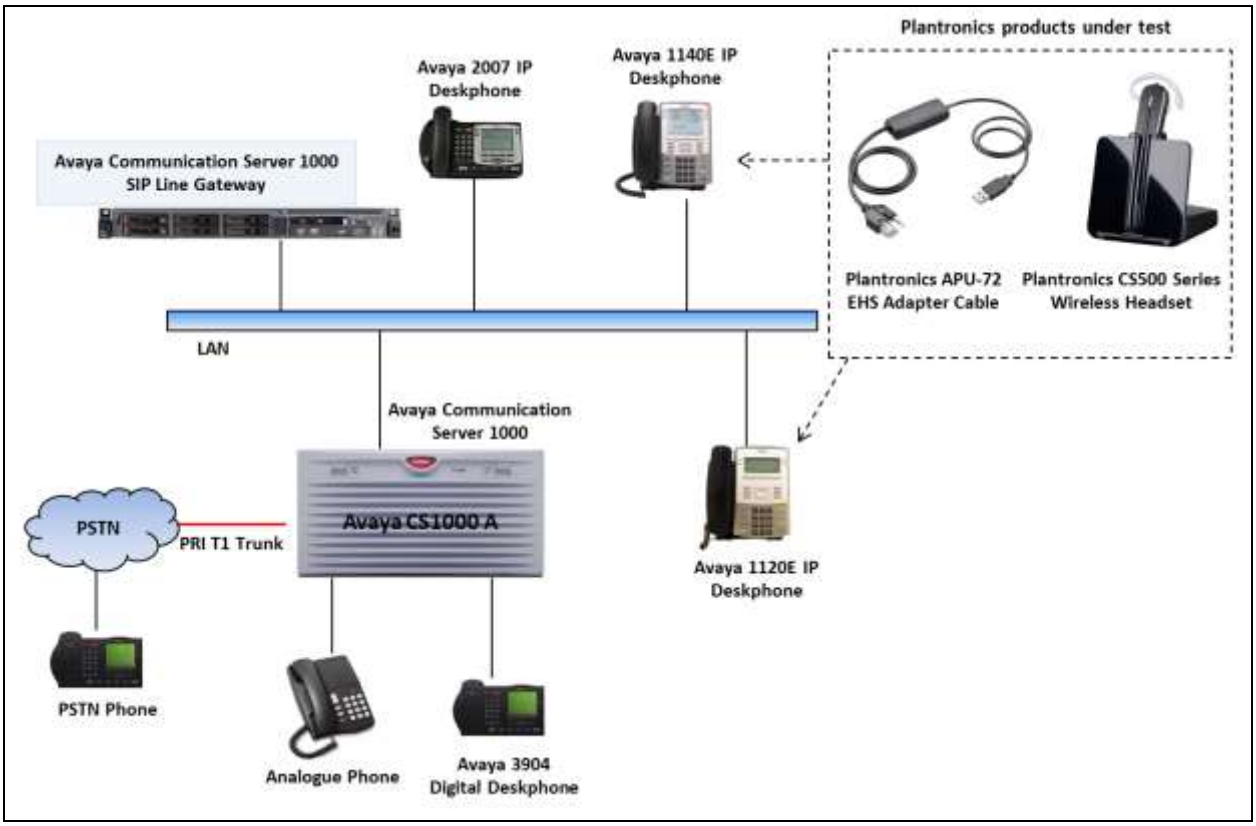


Figure 1: Avaya 1120E and 1140E IP Deskphones with Plantronics APU-72 EHS Adapter and CS500 Series Wireless Headsets

4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

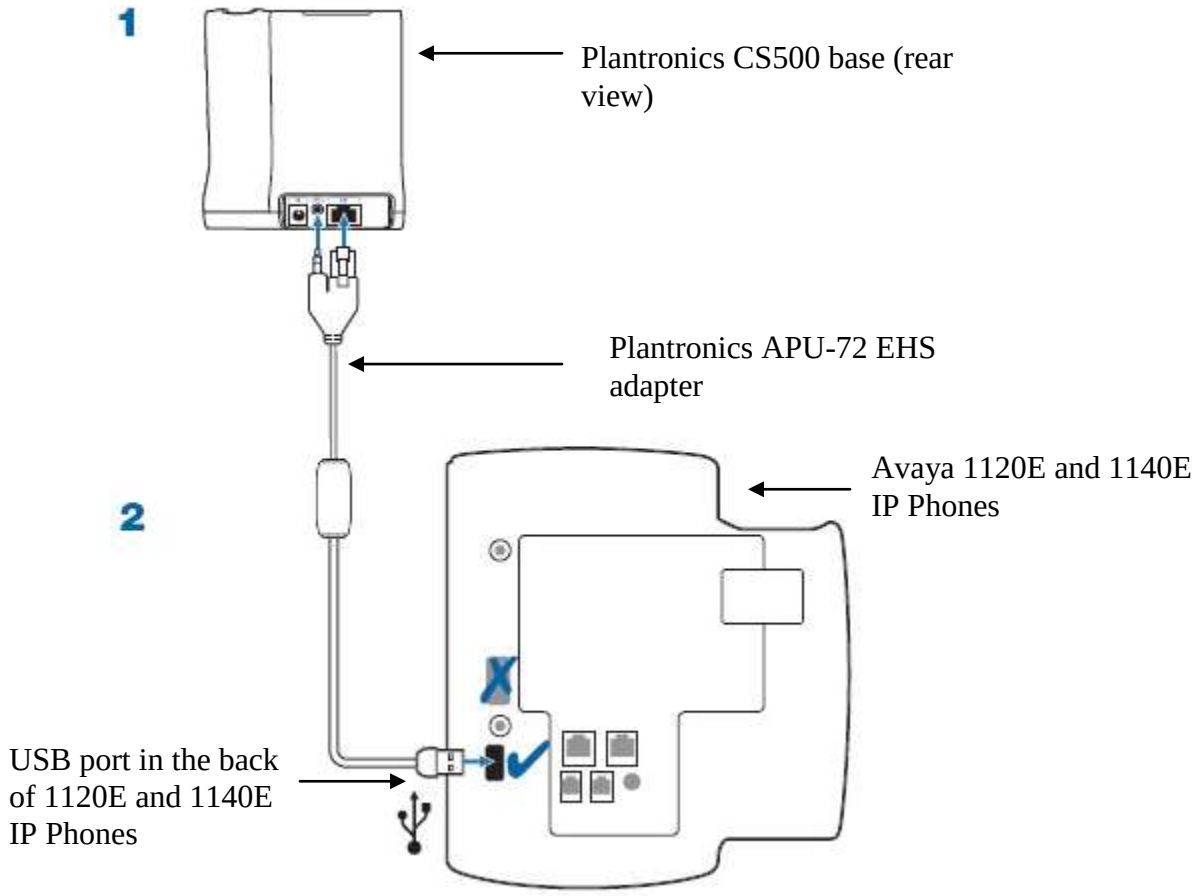
Equipment/Software	Release/Version
Avaya Communication Server 1000	7.6 Service Pack 7
Avaya 1120E, 1140E Unistim IP Deskphone	Release 5.5.5 (C93)
Avaya 1120E, 1140E SIP IP Deskphone	Release 4.04.23
Avaya 2007 IP Unistim Deskphone	Release 5.5.5
Avaya 3904 Digital Deskphone	-
Analog Phone	-
Plantronics APU-72 Adapter	B 3.09/96.06
Plantronics C052 BASE	V28.10 SP2

5. Configure Avaya Communication Server 1000

This section assumes the Avaya Communication Server 1000 system is already installed and configured. The configuration for Unistim and SIP phones is out of scope of this document. For more information of how to configure 1120E and 1140E IP Deskphones, refer **Section 9**.

6. Configure Plantronics APU-72 EHS Adapter and CS500 Series Wireless Headset

In order to 1120E and 1140E IP Phones recognize the APU-72 adapter cable and the CS500 headset device via USB port, first the headset needs to be powered on and the APU-72 adapter cable connects to the C052 base of the headset as shown in the step 1 and the next step is connect USB header of the adapter cable to USB port in the back of the 1120E and 1140E IP Phones as shown in the step 2.



7. Verification Steps

These typical steps below are used to verify the interworking between Plantronics APU-72 EHS Adapter and CS500 Series Wireless Headset with Avaya 1120E and 1140E IP Deskphones.

1. Verify whether Plantronics APU-72 adapter cable and CS500 headset is recognized by the 1120E and 1140E IP Phones.
   - From the 1120E and 1140E SIP phone: press **Services** button to access the **Services** menu. Select **Phone Information** option (#8), in the **Phone Information** screen press **USB** button to show the USB Devices. The display should be like "***Port 0: Plantronics/Plantronics APU72***".
   - From the 1120E and 1140E Unistim phone: press **Services** button twice to access to Service menu, in the Service menu select **Local Diagnostics** option (#2) and then select **USB Devices** option (#5). In the USB Devices, it should show like "***Port 0: Plantronics/Plantronics APU72***".

2. From Avaya 1120E and 1140E Series IP Deskphones with Plantronics headset places a local call to another station.
3. Verify the ring back tone is heard through the Plantronics headset and the green light used to indicate status of call on the base is steady.
4. Answer the call on the other station, verify two-way speech path with clear audio between the Avaya 1120E and 1140E IP Deskphones and the other station.
5. 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.
6. 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 APU-72 EHS Adapter and CS500 Series Wireless Headsets with Avaya 1120E and 1140E 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] Avaya Communication Server 1000 SIPLine Fundamentals Release 7.6, Issue 04.03, December2015
[2] Avaya Communication Server 1000 IP Deskphones Fundamentals Release 7.6, Issue 09.05 Standard, July 2015
[3] Avaya Communication Server 1000 Installation and Commissioning Release 7.6, June 2014

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

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.