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Avaya Solution & Interoperability Test Lab

Application Notes for JPL BT500D Bluetooth Headset using JPL BT220 Bluetooth Dongle with Avaya J100 Series SIP Deskphones - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate JPL BT500D Bluetooth Headset using JPL BT220 Bluetooth Dongle with Avaya J100 Series SIP Deskphones.

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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Solution & Interoperability Test Lab Application Notes
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1 of 9
JPL_BT500D_J100

1. Introduction

The JPL BT500D Bluetooth Headset connects via Bluetooth (BT) to the JPL BT220 BT Dongle plugged into the Avaya J100 Series SIP Deskphones. Configuration on the Avaya J100 Series SIP Deskphones is required for the USB interface.

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 J100 Series IP Deskphones 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 JPL BT500D BT Headset after restarting the Avaya J100 Series IP Deskphone and moving away from Bluetooth range of the 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 Deskphones 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.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and endpoints utilized enabled capabilities of TLS/SRTP.

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 ringing tone for incoming and ring back for outgoing calls.
- Answering and ending calls using the call control button on the Avaya phone.
- Using the volume control buttons on the Avaya phone and headset to adjust the audio volume.
- Using the mute control button on the Avaya phone and headset to mute and un-mute the audio.
- Using the hold control button on the Avaya phone to hold and un-hold the call.
- Switching between the JPL headset, the phone handset and speaker while in conversation.

For the serviceability testing, the Avaya J100 Series IP phone was restarted to verify proper operation of the JPL BT500D BT Headset after the reboot was completed and moving away from Bluetooth range of the headset device.

2.2. Test Results

All test cases passed. The following is the observation made.
- Call Button on headset is used for Hook Off/On or Answer/End call but not used to initiate a call.

2.3. Support

For support on this JPL headset solution, contact JPL at:

- Phone: +44(0)1258 820100
- Website: http://www.jpltele.com/

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the JPL BT500D BT headset with Avaya J100 Series IP Deskphones. The JPL BT220 BT dongle provides connectivity to Avaya J100 Series IP Deskphones via the phone USB port.
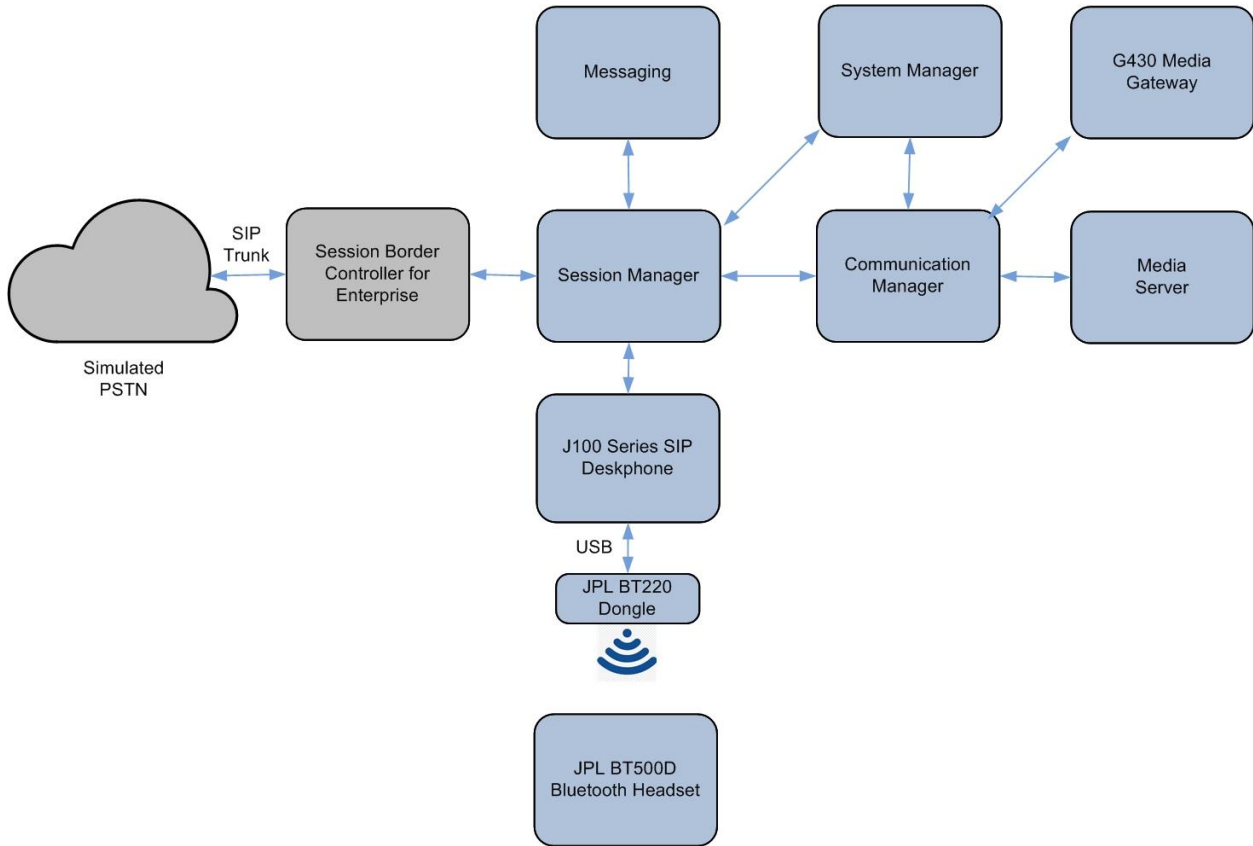

Figure 1: Test Configuration

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	8.1.3.2
Avaya Aura® Media Server	8.0.2.200
Avaya G430 Media Gateway	41.34.3
Avaya Messaging	10.8 SP1SU2
Avaya Aura® System Manager	8.1.3.2
Avaya Aura® Session Manager	8.1.3.2
Avaya J159/J189 IP Deskphone (SIP)	4.0.10.3.2
JPL BT500D	-
JPL BT220	1034

5. Configure Avaya J100 Series Deskphones

It is implied a working Communication Manager system is already in place, including dial plans and SIP trunks to a Session Manager. It is assumed that Avaya J100 Series Deskphones had been configured and setup. The following needs to be configured for the Avaya J100 Series SIP Deskphones.

1. Go to **Settings → USB → USB Device**. Check that this is turn on by sliding the button to the right.
2. Go to **Settings → USB → Headset** and verify the information that JPL BT220 dongle is detected.
3. Go to **Settings → Audio → Audio Path → Headset** is toggle **ON**.
4. Go to **Settings → Audio → Headset selection → USB**.
5. Go to **Settings → Audio → Headset signal → Switch Hook and Alert**.

For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**.
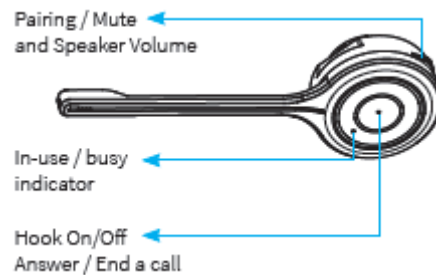
6. Setup of JPL BT500D Headset

Each JPL BT500D headset comes pre-paired with the JPL BT220 BT dongle. Otherwise, consult the user guide mentioned in **Section 9** for instructions to re-pair headset with the dongle. Plug the JPL BT220 dongle into the USB-A port on the back of Avaya J100 SIP Deskphone.

7. Verification Steps

This section verifies that the JPL BT500D headset has been successfully integrated with Avaya J100 Series SIP IP Deskphone.

1. Press the headset button on the Deskphone and verify dial tone is heard.
2. Make incoming and outgoing calls and verify that calls can be established with two-way audio. For incoming calls, answer the call with the JPL headset.
3. End the call by hanging up with the JPL headset.
4. Verify also that the headset is able to use call functions such as mute/un-mute, hold/resume and adjust the volume on the Deskphone. Similarly, verify mute/un-mute and adjust the volume on the headset (see diagram below).

8. Conclusion

These Application Notes describe the integration of JPL BT500D Headset using JPL BT220 BT dongle with Avaya J100 Series SIP Deskphones. All test cases were completed successfully with observations noted in **Section 2.2**.

9. Additional References

This section references the Avaya and JPL 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 8.1.x, Issue 12, Jul 2021.
[2] *Administering Avaya Aura® Session Manager,* Release 8.1.x, Issue 10, Sep 2021.
[3] *Installing and Administering Avaya J100 Series SIP IP Phones in Avaya Aura®,* Release 4.0.10, Issue 4, Dec 2021.

The JPL documentation can be obtained at http://www.jpltel.com.
[5] *JPL-BT500 User Guide.*