



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

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# **Application Notes for the Jabra LINK 850 Audio Processor with Avaya one-X® Agent – Issue 1.0**

### **Abstract**

These Application Notes describe the compliance test and configuration procedures needed to integrate the Jabra LINK 850 Audio Processor to operate with Avaya one-X® Agent.

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 compliance test and configuration steps required for the Jabra LINK 850 Audio Processor to interoperate with Avaya one-X® Agent.

The Jabra LINK 850 is a professional grade audio processor/amplifier designed to enhance the benefits associated with headset usage in the contact center and office environments. It features Digital Signal Processing (DSP) technology to optimize the quality of the audio signal. Other features include noise cancellation, line quieting, peak level protection and dynamic volume control.

During the compliance tests, Jabra GN2120 corded headsets were used to execute the tests and verify the functionality of the Jabra LINK 850. The Jabra GN2120 is a monaural, noise cancelling headset equipped with Quick Disconnect.

## 2. General Test Approach and Test Results

The interoperability compliance test included functionality and serviceability testing. The functionality testing focused on placing and receiving calls to and from Avaya one-X® Agent softphones using the Jabra LINK 850 Audio Processor and Jabra GN2120 headset, and verifying talk path in both directions. The type of calls made included calls to voicemail, calls to and from internal extensions and the PSTN.

The serviceability testing focused on verifying the usability of the Jabra solution after temporarily interrupting the connection from the Jabra LINK 850 to the USB port on the computer, and restarts of Avaya one-X® Agent and the PC.

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**

The following functionality was verified:

- Placing calls to the voicemail system. Voice messages were recorded and played back to verify the playback volume and recording level.
- Placing and receiving calls to and from internal extensions to verify two way audio path and acceptable quality.
- Placing and receiving calls to and from the simulated PSTN to verify two way audio path and acceptable quality.
- Answering and ending calls using the Avaya one-X® Agent screen interface.
- Using the Volume control on the Jabra LINK 850 to adjust the volume on the headset speakers.
- Using the Mute control button on the Jabra LINK 850 to mute and un-mute the transmitted audio.

The serviceability testing verified the usability of the Jabra audio processor and headset solution after disconnecting and reconnecting the Jabra LINK 850 to the USB port and Avaya one-X® Agent was restarted, and after a reboot of the Avaya one-X® Agent computer.

## **2.2. Test Results**

All compliance test cases passed successfully.

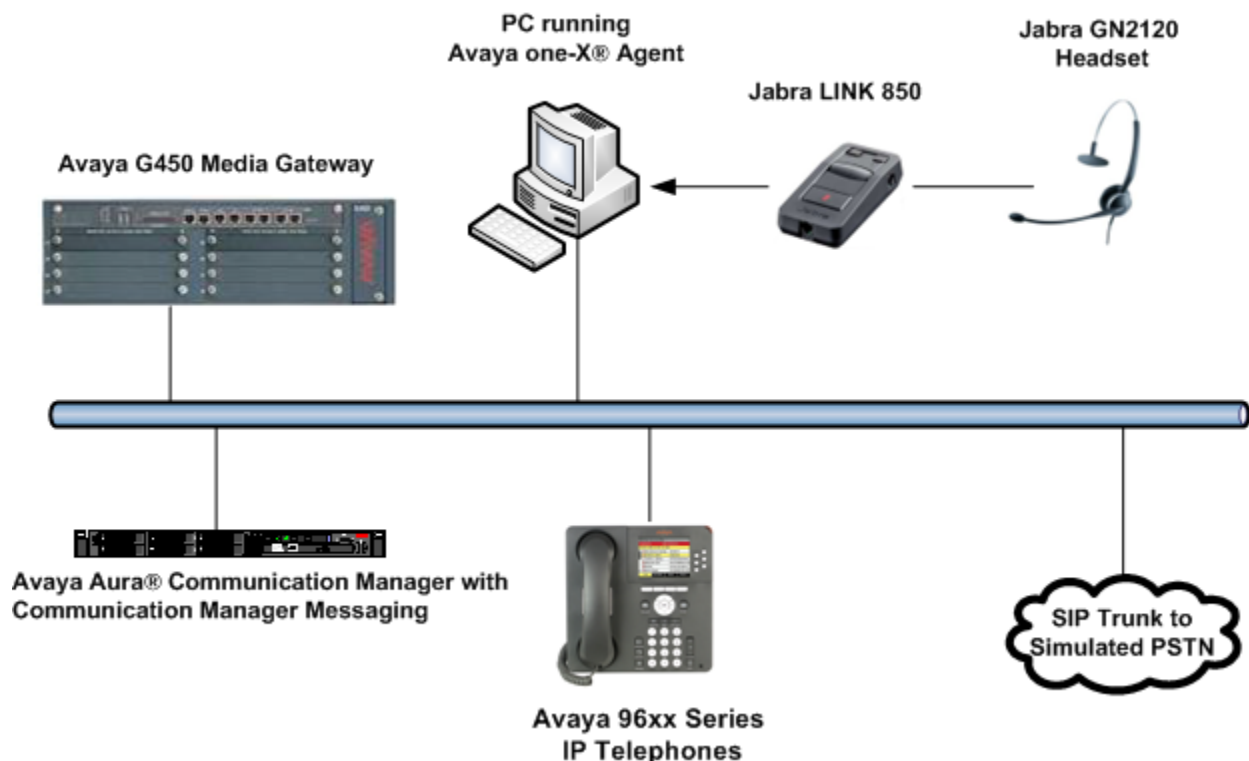
## **2.3. Support**

For technical support and additional information on the Jabra products described in this solution, visit Jabra Support at:

<http://www.jabra.com/support>

### 3. Reference Configuration

**Figure 1** illustrates the test configuration used to verify the Jabra solution. Avaya Aura® Communication Manager and Avaya Aura® Communication Manager Messaging are installed on the HP ProLiant DL360 Server. An Avaya G450 Media Gateway provides the VoIP resources for the connectivity of Avaya IP Telephones and a SIP trunk to the simulated PSTN used during the compliance tests. Avaya one-X® Agent was installed on a computer running Microsoft Windows XP Professional Service Pack 3. The Jabra LINK 850 is connected to an available USB port on the PC. The Jabra LINK 850 is connected to an available USB port on the PC. The GN2120 headsets used during the compliance test connect to the Jabra LINK 850 using a Quick Disconnect cord.



**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, Communication Manager Messaging on the HP ProLiant DL360 Server	6.2 SP 2 (R016x.02.0.823.0)
Avaya G450 Media Gateway	31.22.0
Avaya one-X® Agent	2.5 SP1 Patch 1 (2.5.1072.11082)
Avaya 9600 Series IP Deskphones (H.323)	Avaya one-X® Deskphone Edition Version 3.104
Jabra LINK 850	1.7.0
Jabra GN2120 Headset	N/A

## 5. Configure Avaya Aura® Communication Manager

An extension must be created in Communication Manager for the Avaya one-X® Agent to log in, configure system preferences, make and receive direct calls, or to sign in as an agent. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

Use the **add station** command to create a station for Avaya one-X® Agent. Set the **Type** field to the station type to be emulated. In this example, **9640** was used. Create a **Security Code**, which will be used as the password to log in. Enter a **Name**. Set the **IP Softphone** field to **y**.

```
add station 3036                                     Page 1 of 5
STATION
Extension: 3036                                     Lock Messages? n      BCC: 0
Type: 9640                                           Security Code: *      TN: 1
Port: IP                                             Coverage Path 1:      COR: 1
Name: one-X Agent                                   Coverage Path 2:      COS: 1
                                                    Hunt-to Station:
STATION OPTIONS
Loss Group: 19                                     Time of Day Lock Table:
Personalized Ringing Pattern: 1
Message Lamp Ext: 3036
Speakerphone: 2-way                                Mute Button Enabled? y
Display Language: english                          Button Modules: 0
Survivable GK Node Name:
Survivable COR: internal                           Media Complex Ext:
Survivable Trunk Dest? y                           IP SoftPhone? y
                                                    IP Video? n
Short/Prefixed Registration Allowed: default
Customizable Labels? y
```

On **Page 4** of the Station form, configure the necessary agent work mode buttons that are used in the contact center. These buttons are used by Avaya one-X® Agent to log in as an Automatic Call Distribution (ACD) agent. The work mode buttons used in the sample configuration are highlighted in the screen below.



add station 3036		Page 4 of 5	
<b>STATION</b>			
<b>SITE DATA</b>			
Room: _____		Headset? <u>n</u>	
Jack: _____		Speaker? <u>n</u>	
Cable: _____		Mounting: <u>d</u>	
Floor: _____		Cord Length: <u>0</u>	
Building: _____		Set Color: _____	
<b>ABBREVIATED DIALING</b>			
List1: _____	List2: _____	List3: _____	
<b>BUTTON ASSIGNMENTS</b>			
1: <u>call-appr</u>	5: <u>manual-in</u>	Grp: _____	
2: <u>call-appr</u>	6: <u>after-call</u>	Grp: _____	
3: <u>call-appr</u>	7: <u>aux-work</u>	RC: ____ Grp: _____	
4: <u>auto-in</u>	8: <u>release</u>		
	Grp: _____		
voice-mail			

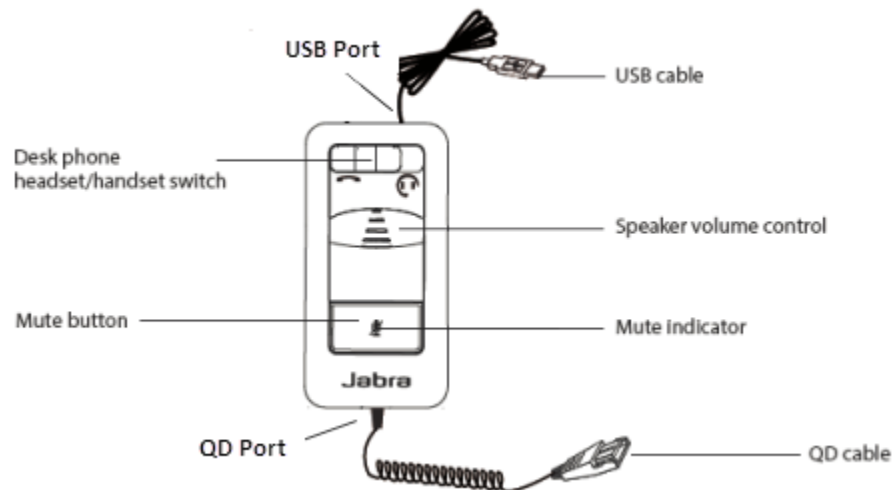
Even though ACD was implemented and used during the compliance tests, ACD and Agents administration is beyond the scope of these Application Notes and this is assumed to be already in place. Logging in to a particular ACD was not necessary to complete the configuration steps for the integration of the Avaya one-X® Agent application with the Jabra LINK 850 Audio Processor.

## 6. Jabra LINK 850 Settings and Connections


The Jabra LINK 850 Audio Processor works as the interface between the Jabra GN2120 headset and the computer running Avaya one-X® Agent.

Take the following steps to connect the Jabra LINK 850 to the headset and to the PC running Avaya one-X® Agent. All cords shown in the figure below are supplied by Jabra and are shipped as part of the content of the Jabra LINK 850 box.

- Set the **Deskphone headset/handset** switch to the  (headset) position.
- Set the **Target phone** switch on the base of the Jabra LINK 850 to the  (softphone) position (not shown).
- Plug the USB cable into the **USB Port** on the Jabra LINK 850. Connect the other end of the USB cable into any available USB port on the PC. The **Mute indicator** will flash red three times to indicate power is present on the Jabra LINK 850.
- Connect the modular end of the QD cable to the **QD Port** on the Jabra LINK 850. Connect the Quick Disconnect end of the QD cable to the headset cord.

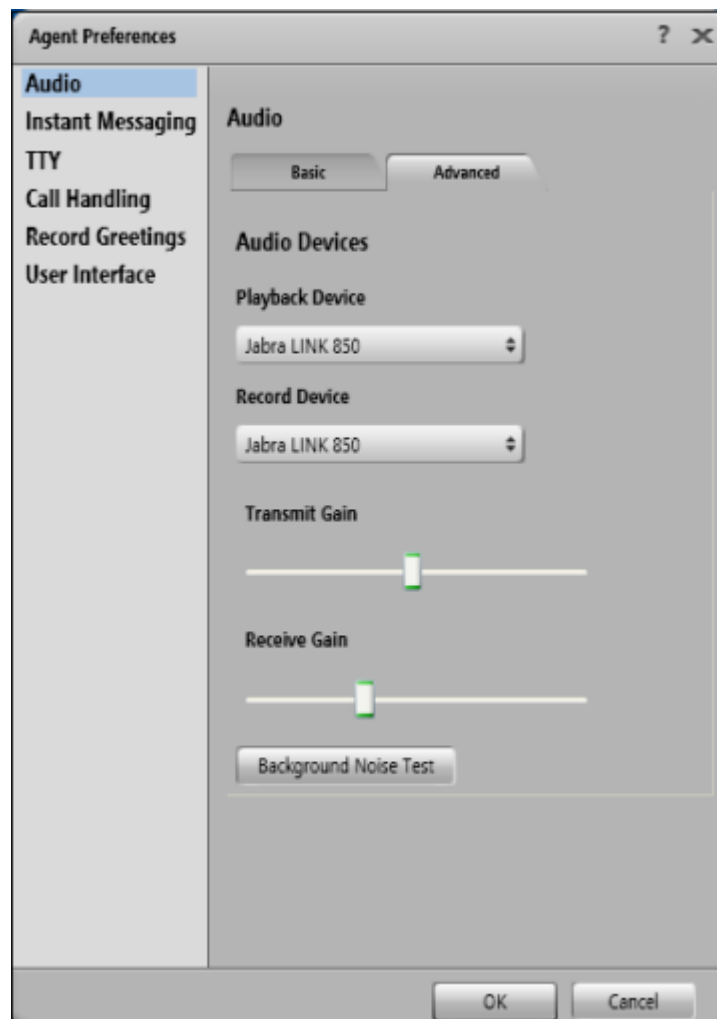


## 7. Configure Avaya one-X® Agent

Launch Avaya one-X® Agent and log in using the extension number and password created previously. Click the **System Options**  icon in the top bar. Select **Agent Preferences**.



In the **Agent Preferences** window, click on **Audio** and then select the **Advanced** tab. Set the **Playback Device** and **Record Device** fields to *Jabra LINK 850*.







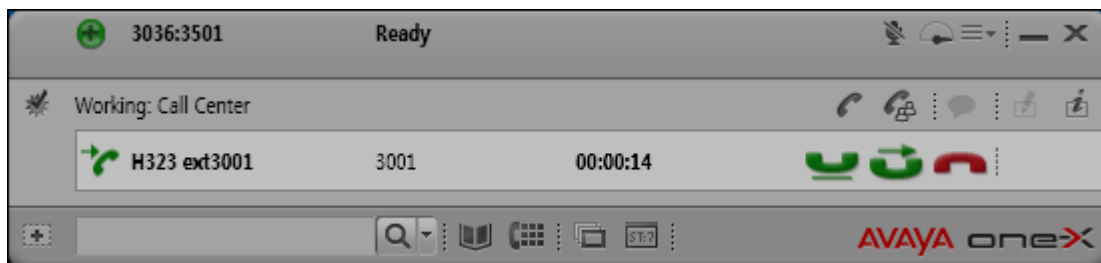
Optionally, the audio level of the headsets microphone and speakers can be set on the previous screen, by adjusting the **Transmit Gain** and **Receive Gain** sliders while on an active call.

Click **Background Noise Test** to determine the normal background noise at the current location. This step helps in preventing Avaya one-X® Agent from transmitting background noise when the user is not speaking during a call. The test should be performed if the ambient noise level changes, or if the user moves to a different location. Click **OK** when done.

## 8. Verification Steps

This section provides the steps that can be performed to verify proper installation of the Jabra LINK 850 Audio Processor with Avaya one-X® Agent:

1. Place a call to Avaya one-X® Agent from another extension. Click the **Answer** icon  on the Avaya one-X® Agent screen.
2. Verify two-way talk path between the headset and the called extension.
3. Press the **Mute** button on the Jabra LINK 850 and verify the call can be muted/unmuted.
4. Verify the volume can be adjusted by using the **Speaker volume** control on the Jabra LINK 850.
5. Disconnect the call from the headset by pressing the **Call End** button  on the screen.
6. Verify that the call is properly disconnected.



## 9. Conclusion

These Application Notes describe the testing conducted to integrate the Jabra LINK 850 Audio Processor with Avaya one-X® Agent. All test cases were completed successfully.

## 10. Additional References

This section references the Avaya and Jabra documentation that is 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.  
<http://downloads.avaya.com/css/P8/documents/100156867>
- [2] *Administering Communication Manager for Avaya one-X Agent*. Release 2.5, June 2011.  
<http://downloads.avaya.com/css/P8/documents/100141171>
- [3] *Using Avaya one-X® Agent*, Release 2.5, March 2011.  
<http://downloads.avaya.com/css/P8/documents/100141198>

Documentation and information for the Jabra products described in these Application Notes can be found at <http://www.jabra.com/Support>

- [4] *Jabra LINK 850 Quick Start Guide*.
- [5] *Jabra LINK 850 User Manual*.
- [6] *Jabra LINK 850 Audio Processor Datasheet*.

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