Abstract

These Application Notes describe the configuration steps required to integrate Jabra Direct and Jabra Speak 750 using USB cable with Avaya Workplace Client for Windows. Jabra Speak 750 is a speakerphone that connects using cable into the PC USB-A interface.

Readers should pay attention to Section 2, in particular the scope of testing as outlined in Section 2.1 as well as any 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

The Jabra Speak 750 together with Jabra Direct software allows connection and call control of Avaya Workplace Client for Windows (hereafter referred to as Avaya Workplace) using cable via the USB-A interface to the PC. Jabra Speak 750 is a speakerphone that connects using cable into the PC USB-A interface.

The Jabra Direct is a collection of programs that enable remote call control with Jabra devices and Avaya Workplace for both Windows and Mac. With a Jabra Speak 750 connected to the PC USB interface, users can directly answer, end, mute/unmute, hold/resume and adjust volume on the Speakerphone.

2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls with Avaya Workplace, answering and ending calls using the call control button on the Speakerphone, and verifying two-way audio. The call types include calls to voicemail, local extensions, and the PSTN. Call hold and resume, mute and un-mute, and volume are also tested.

The serviceability testing focused on verifying the usability of the Speakerphone solution after restarting the Avaya Workplace, restarting the PC and reconnecting the Speakerphone USB cable to the PC.

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.

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 internal extensions to verify two-way audio.
- Placing calls to the PSTN to verify two-way audio.
- Answering and ending calls using the call button on the Speakerphone and the soft button on Avaya Workplace.
- Using the call button on the Speakerphone and the soft button on Avaya Workplace to hold and resume the audio.
- Using the volume buttons on the Speakerphone to adjust the audio volume.
- Using the mute button on the Speakerphone and the soft button on Avaya Workplace to mute and un-mute the audio.
- Verifying incoming call notification on Speakerphone base.
- Verifying call ended notification on Speakerphone base.

The serviceability testing focused on verifying the usability of the Speakerphone solution after restarting the Avaya Workplace, restarting the PC and reconnecting the Speakerphone cable to the USB interface of the PC.

### 2.2. Test Results

All test cases passed successfully.

### 2.3. Support

For support on this Jabra headset solution, contact Jabra Technical Support at:

- Phone: +1-866-697-8757
- Website: [http://www.jabra.com/Support](http://www.jabra.com/Support)
- Email: JabraSupport.US@jabra.com
3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Jabra Direct and Jabra Speak 750 with Avaya Workplace. The configuration consists of an Avaya Aura® Communication Manager running on a virtualized server with an Avaya G430 Media Gateway. Avaya Aura® Session Manager was used as the registrar/proxy for Avaya Workplace as SIP softphone and Avaya Aura® System Manager was used to configure Session Manager. Avaya Aura® Messaging was used as the voicemail system. Avaya Aura® Media Server provides the audio media processing. Avaya Session Border Controller for Enterprise was used to complete a SIP trunk connection to simulate a PSTN connection to the Enterprise solution. The Jabra Direct was installed on the PC together with Avaya Workplace. The Speakerphone is connected via cable into the PC USB-A interface.

Figure 1: Test Configuration
## 4. Equipment and Software Validated

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

<table>
<thead>
<tr>
<th>Equipment/Software</th>
<th>Release/Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avaya Aura® Communication Manager</td>
<td>R018x.01.0.890.0-26095</td>
</tr>
<tr>
<td>Avaya G430 Media Gateway</td>
<td></td>
</tr>
<tr>
<td>• MGP</td>
<td>41.16.0</td>
</tr>
<tr>
<td>Avaya Aura® System Manager</td>
<td>8.1.2.0.0611367</td>
</tr>
<tr>
<td>Avaya Aura® Session Manager</td>
<td>8.1.2.1.812101</td>
</tr>
<tr>
<td>Avaya Aura® Media Server</td>
<td>8.0.2.93</td>
</tr>
<tr>
<td>Avaya Aura® Messaging</td>
<td>7.1 SP2</td>
</tr>
<tr>
<td>Avaya Workplace Client running on Windows 10 Pro</td>
<td>3.9.0.84.8</td>
</tr>
<tr>
<td>Jabra Speak 750</td>
<td>FW 2.24.0</td>
</tr>
<tr>
<td>Jabra Direct for Windows</td>
<td>4.0.8560</td>
</tr>
</tbody>
</table>
5. Configure Avaya Aura® Communication Manager

The information provided in this section describes the verification of Communication Manager System Capacity for this solution.

It is implied a working Communication Manager system is already in place, including dial plans and SIP trunks to a Session Manager. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in Section 11.

5.1. Verify System Capacity

Using Avaya Site Administrator Emulation Mode, enter the `display system-parameters customer-options` command to determine the values of user license for Maximum Off-PBX Telephones allowed in the system. One OPS station is required per SIP User.

<table>
<thead>
<tr>
<th>display system-parameters customer-options</th>
<th>Page 1 of 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTIONAL FEATURES</td>
<td></td>
</tr>
<tr>
<td>G3 Version: V18</td>
<td>Software Package: Enterprise</td>
</tr>
<tr>
<td>Location: 2</td>
<td>System ID (SID): 1</td>
</tr>
<tr>
<td>Platform: 28</td>
<td>Module ID (MID): 1</td>
</tr>
<tr>
<td>Platform Maximum Ports: 81000</td>
<td>385</td>
</tr>
<tr>
<td>Maximum Stations: 41000</td>
<td>186</td>
</tr>
<tr>
<td>Maximum XMObILE Stations: 41000</td>
<td>0</td>
</tr>
<tr>
<td>Maximum Off-PBX Telephones - EC500: 41000</td>
<td>1</td>
</tr>
<tr>
<td><strong>Maximum Off-PBX Telephones - OPS:</strong> 41000</td>
<td><strong>33</strong></td>
</tr>
<tr>
<td>Maximum Off-PBX Telephones - PBFMC: 41000</td>
<td>0</td>
</tr>
<tr>
<td>Maximum Off-PBX Telephones - PVFMC: 41000</td>
<td>0</td>
</tr>
<tr>
<td>Maximum Off-PBX Telephones - SCCAN: 0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum Survivable Processors: 313</td>
<td>2</td>
</tr>
</tbody>
</table>

(NOTE: You must logoff & login to effect the permission changes.)
On Page 2 of the **system-parameters customer-options form**, verify that the number of **Maximum Administered SIP Trunks** and **Maximum Concurrently Registered IP Stations** supported by the system is sufficient.

If there is insufficient capacity in either one of these parameters, contact an authorized Avaya sales representative.

<table>
<thead>
<tr>
<th>IP PORT CAPACITIES</th>
<th>USED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Administered H.323 Trunks: 12000</td>
<td>90</td>
</tr>
<tr>
<td><strong>Maximum Concurrently Registered IP Stations:</strong> 18000</td>
<td>17</td>
</tr>
<tr>
<td>Maximum Administered Remote Office Trunks: 12000</td>
<td>0</td>
</tr>
<tr>
<td>Max Concurrently Registered Remote Office Stations: 18000</td>
<td>0</td>
</tr>
<tr>
<td>Maximum Concurrently Registered IP eCons: 414</td>
<td>0</td>
</tr>
<tr>
<td>Max Concur Reg Unauthenticated H.323 Stations: 100</td>
<td>0</td>
</tr>
<tr>
<td>Maximum Video Capable Stations: 41000</td>
<td>0</td>
</tr>
<tr>
<td>Maximum Video Capable IP Softphones: 18000</td>
<td>2</td>
</tr>
<tr>
<td><strong>Maximum Administered SIP Trunks:</strong> 40000</td>
<td>38</td>
</tr>
<tr>
<td>Max Administered Ad-hoc Video Conferencing Ports: 24000</td>
<td>0</td>
</tr>
<tr>
<td>Max Number of DS1 Boards with Echo Cancellation: 999</td>
<td>0</td>
</tr>
</tbody>
</table>

*(NOTE: You must logoff & login to effect the permission changes.)*
6. Configure Avaya Aura® Session Manager

This section describes aspects of the Session Manager configuration required for Avaya Workplace to register. It is assumed that the Domains, Locations, SIP entities, Entity Links, Routing Policies, Dial Patterns and Application Sequences have been configured where appropriate for Communication Manager, Session Manager and Aura® Messaging.

Session Manager is managed via System Manager. Using a web browser, access https://<ip-addr of System Manager>/SMGR. In the Log On screen, enter appropriate User ID and Password and click the Log On button.

6.1. Verify Session Manager Ports for SIP endpoint registration

Each Session Manager Entity must be configured so that the SIP Endpoint can register to it. From the home page, under Elements, click Routing → SIP Entities (not shown) and select the Session Manager entity used for registration. Make sure that TCP, UDP and TLS entries are present under Listen Ports. During the compliance test, Avaya Workplace registered to the Session Manager using TLS transport.

6.2. Add SIP User

The addition of SIP User will not be detailed here. Refer to details in adding user in the administration document for Avaya Aura® Session Manager in [4].

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7. Configure Avaya Workplace

Avaya Workplace is a SIP soft phone application that provides users with access to Unified Communications (UC) services. This section shows how to configure the Jabra Speak 750 to use with Avaya Workplace.

From Avaya Workplace, navigate to Settings ➔ User Preferences ➔ Audio/Video.
Select **Echo Cancelling Speakerphone (Jabra Speak 750)** for *Microphone* and the same for *Speaker* as shown below. It is optional for *Ringing on incoming calls* to be set.

![Settings configuration screen](image)
8. Configure Jabra Speak 750 Solutions

This section covers the steps to integrate Jabra Speak 750 with Avaya Workplace, including:

- Installing the Jabra Direct software
- Connect the Speakerphone
- Configuring Speakerphone with Jabra Direct

Note: After successfully performing this procedure, the Speakerphone will be detected in Avaya Workplace as described in Section 7.

8.1. Installing the Jabra Direct Software

Jabra Direct software can be obtained from Jabra support portal at https://www.jabra.com/support/. Installation of the software is done through executing the setup file and following the prompt.

8.2. Connect the Speakerphone

Plug the Jabra Speak 750 cable into the USB-A port of the PC. The device drivers will automatically be installed.

Open the Jabra Direct program installed on the PC. It shows the Device ready for use with a tick on the right of the sentence. The Avaya Workplace will be in ready state only when it is running but not necessary logon. Below shows the Avaya IX Workplace in Ready state.
8.3. Configuring Speakerphone with Jabra Direct
Select the Settings tab from the Jabra Direct program. Check that Avaya IX Workplace is selected as the Preferred Softphone (under Softphone Integration).

Leave the rest as default.
9. Verification Steps

This section verifies that the Jabra Speak 750 has been successfully integrated with Avaya Workplace.

1. Open the Jabra Direct program to verify that the Speakerphone has been successfully connected for use with Avaya Workplace. Observed that Jabra Speak 750 is detected as detailed in Section 8.2.

2. Run the Avaya Workplace and open the Jabra Direct program. Click the Device tab (if not selected) and check that Avaya IX Workplace is in Ready state.

3. Make incoming and outgoing calls and verify that calls can be established with two-way audio. For incoming calls, answer the Answer call by tapping the call button on the Speakerphone.

4. End the call by tapping the End call button on the Speakerphone.

5. Verify also that the Speakerphone is able to remotely control call functions such as answer, mute/un-mute, hold/resume and adjust the volume (as shown below). Call Hold is done by tapping the Answer call button once. Tapping the Answer call button again will resume the call. Similarly, such call control functions could be done on the Avaya Workplace.
10. Conclusion
These Application Notes describe the configuration steps required to integrate Jabra Direct and Jabra Speak 750 using USB cable with Avaya Workplace Client for Windows. All test cases were completed successfully.

11. Additional References
This section references the Avaya and Jabra documentation that are relevant to these Application Notes.

The following Avaya product documentation can be found at http://support.avaya.com.

The following Jabra documentation can be found at http://www.jabra.com.