AVAYA

Avaya Solution & Interoperability Test Lab

Application Notes for Jabra Direct and Jabra Evolve2 40 Mono/Stereo USB-A/USB-C Headset with Avaya Workplace Client for Mac - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate Jabra Direct and Jabra Evolve2 40 Mono/Stereo USB-A/USB-C Headset with Avaya Workplace Client for Mac.

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 Evolve2 40 Mono/Stereo USB-A/USB-C Headset, together with Jabra Direct software, allows connection and call control of Avaya Workplace Client for Mac (hereafter referred to as Avaya Workplace) using cable via the USB interface to the Mac.

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 Jabra Evolve2 40 headset connected to the Mac USB interface, users can directly answer, end, mute/unmute, hold/resume and adjust volume on the headset.

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 headset, 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 headset solution after restarting the Avaya Workplace, restarting the Mac, and reconnecting the headset USB cable to the Mac.

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 headset and the soft button on Avaya Workplace.
- Using the call button on the headset and the soft button on Avaya Workplace to hold and resume the audio.
- Using the volume buttons on the headset to adjust the audio volume.
- Using the mute button on the headset and the soft button on Avaya Workplace to mute and un-mute the audio.
- Verifying incoming call notification.
- Verifying call ended notification.

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

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
- Email: JabraSupport.US@jabra.com

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Jabra Direct and Jabra Evolve2 40 headset 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 Mac together with Avaya Workplace. The headset is connected via cable into the Mac USB-A/USB-C interface. Depending on Mac models, adapter maybe needed for USB interface.
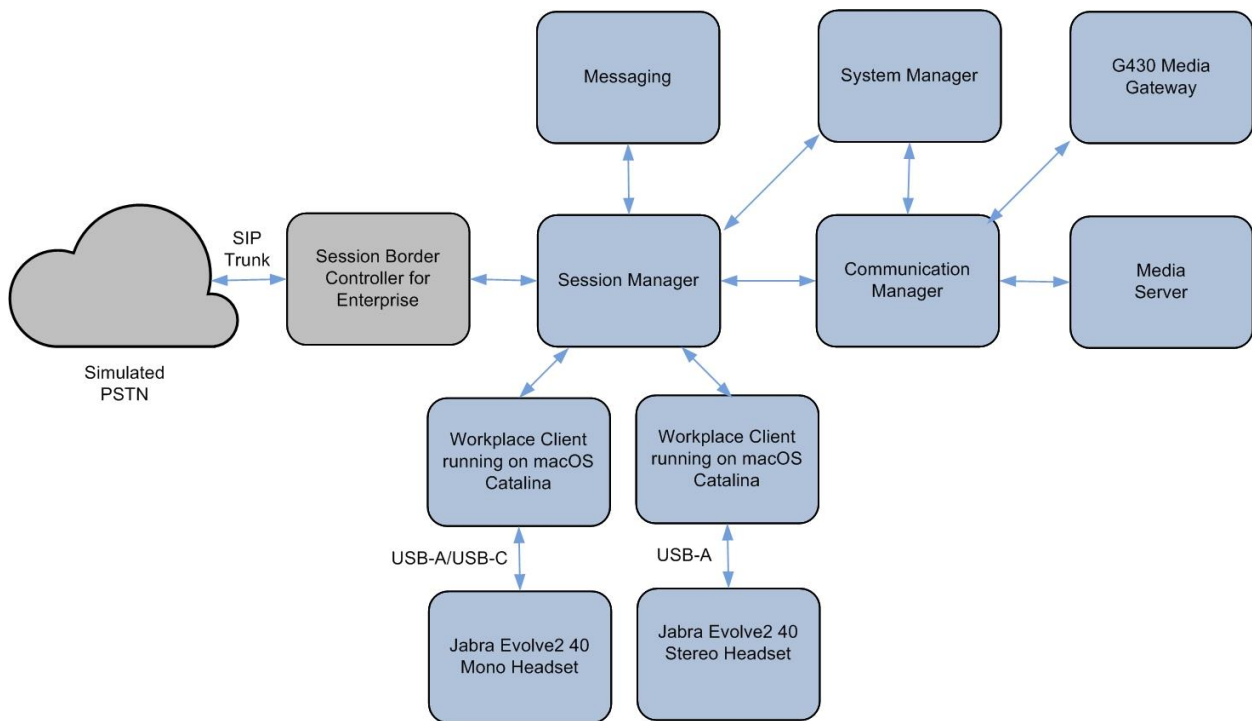
Figure 1: Test Configuration

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	R018x.01.0.890.0- 26095
Avaya G430 Media Gateway • MGP	41.16.0
Avaya Aura® System Manager	8.1.2.0.0611367
Avaya Aura® Session Manager	8.1.2.1.812101
Avaya Aura® Media Server	8.0.2.93
Avaya Aura® Messaging	7.1 SP2
Avaya Workplace Client running on macOS Catalina 10.15	3.9.0.84.8
Jabra Evolve2 40 Stereo/Mono USB-A/USB-C headset	FW 1.15
Jabra Direct for macOS	4.0.6820

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.

```
display system-parameters customer-options                      Page   1 of  12
                            OPTIONAL FEATURES

     G3 Version: V18                           Software Package: Enterprise
       Location: 2                             System ID (SID): 1
       Platform: 28                            Module ID (MID): 1

                                                            USED
                         Platform Maximum Ports:  81000     385
                               Maximum Stations:  41000     186
                        Maximum XMOBILE Stations:  41000       0
               Maximum Off-PBX Telephones - EC500:  41000       1
               Maximum Off-PBX Telephones -   OPS:  41000      33
               Maximum Off-PBX Telephones - PBFMC:  41000       0
               Maximum Off-PBX Telephones - PVFMC:  41000       0
               Maximum Off-PBX Telephones - SCCAN:      0       0
                   Maximum Survivable Processors:    313       2




        (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.

```
display system-parameters customer-options                  Page   2 of  12
                            OPTIONAL FEATURES

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




            (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.

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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]**.
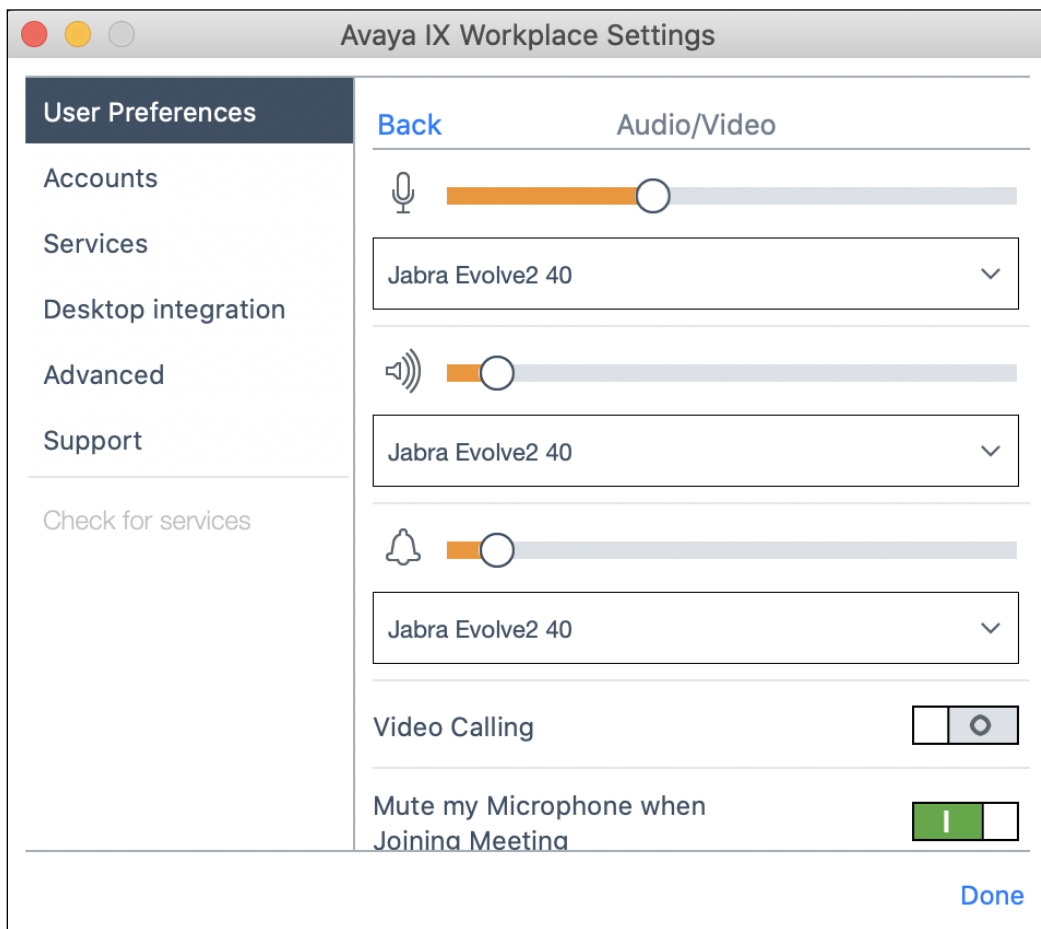
7. Configure Avaya Workplace

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 Evolve2 40 headset to use with Avaya Workplace.

From Avaya Workplace, navigate to **Settings → User Preferences → Audio/Video.**
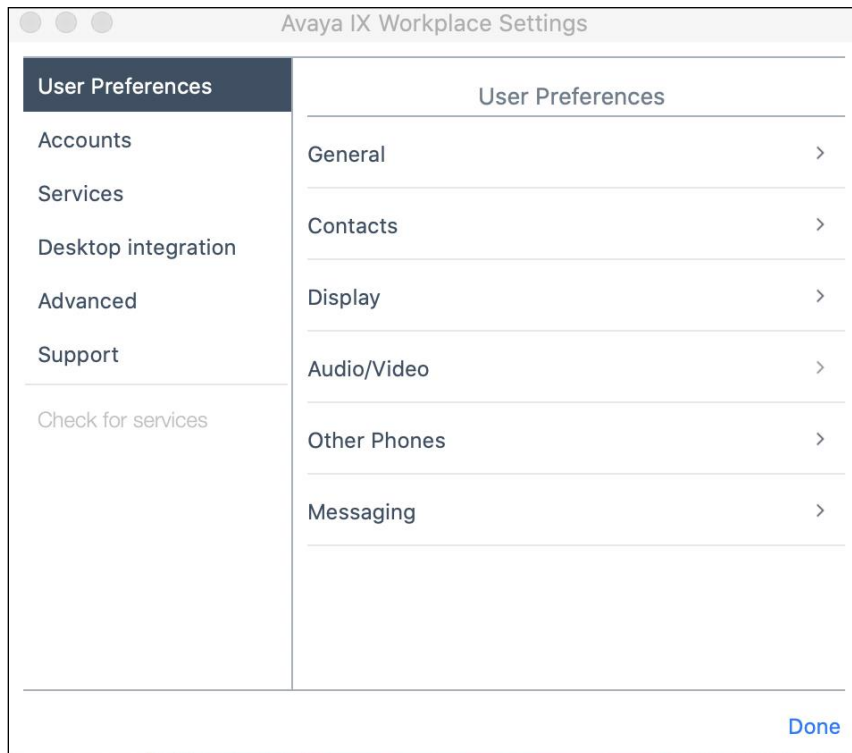
Select **Jabra Evolve2 40** for *Microphone* 🎤 and the same for *Speaker* 🔊 as shown below. It is optional for *Ringing on incoming calls* 🔔 to be set.

8. Configure Jabra Evolve2 40 Headset Solutions

This section covers the steps to integrate Jabra Evolve2 40 headset with Avaya Workplace, including:

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

Note: After successfully performing this procedure, the headset 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 Headset

Plug the Jabra Evolve2 40 headset cable into the USB-A/USB-C port of the Mac. The device drivers will automatically be installed.
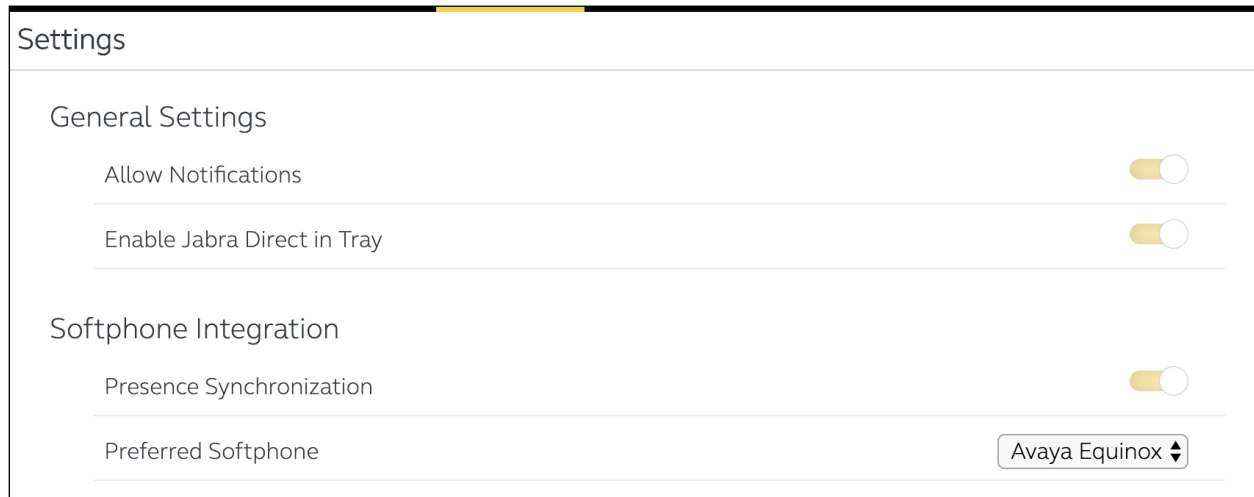
Open the Jabra Direct program installed on the Mac. It shows the **Device ready for use** with a **tick** on the right of the sentence. The Avaya Workplace will be in ready state only when it is running but not necessary logon. Below shows the **Avaya Equinox** in **Not Ready** state.

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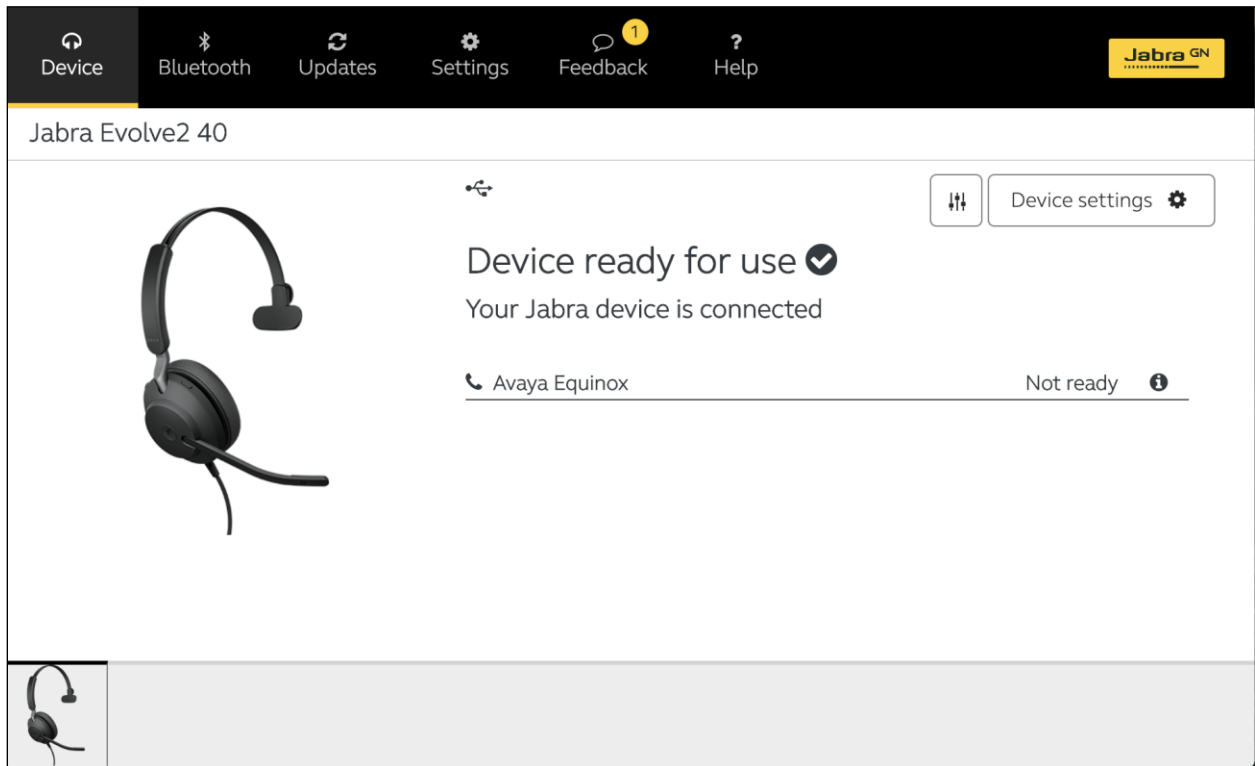
8.3. Configuring Headset with Jabra Direct

Select the **Settings** tab from the Jabra Direct program. Check **that Avaya Equinox** is selected as the **Preferred Softphone** (under **Softphone Integration**).

Leave the rest as default.

9. Verification Steps

This section verifies that the Jabra Evolve2 40 headset has been successfully integrated with Avaya Workplace.

1. Open the Jabra Direct program to verify that the headset has been successfully connected for use with Avaya Workplace. Observed that Jabra Evolve2 40 headset 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 Equinox** 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 call by pressing the multi-function button on the headset.
4. End the call by pressing the same button on the headset.
5. Verify also that the headset 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 pressing the multi-function button for 2 secs. Pressing the same button again will resume the call. Similarly, such call control functions could be done on the Avaya Workplace.
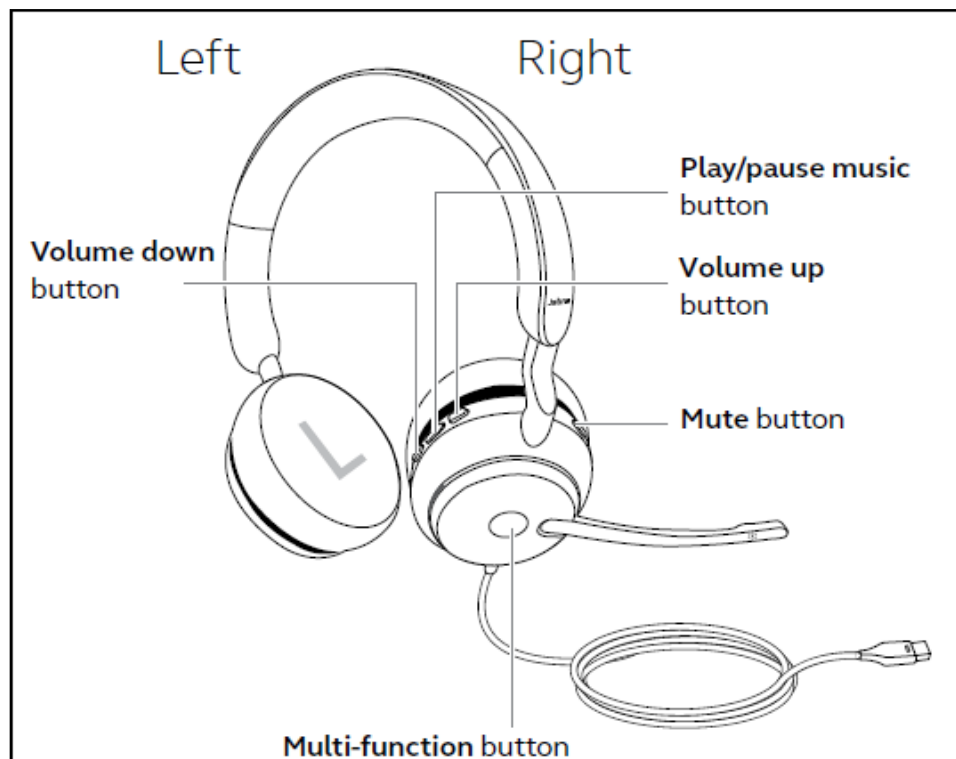
10. Conclusion

These Application Notes describe the configuration steps required to integrate Jabra Direct and Jabra Evolve2 40 Mono/Stereo USB-A/USB-C Headset with Avaya Workplace Client for Mac. 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.
[1] *Administering Avaya Aura® Communication Manager*, Release 8.1.x, Issue 6, Mar 2020
[2] *Planning for and Administering Avaya IX™ Workplace Client for Android, iOS, Mac and Windows,* Sep 25, 2020.
[3] *Using Avaya IX™ Workplace Client for Android, iOS, Mac, and Windows,* Aug 4, 2020.
[4] *Administering Avaya Aura® Session Manager,* Release 8.1.x, Issue 6, Aug 2020.

The following Jabra documentation can be found at http://www.jabra.com.
[1] *Jabra Evolve2 40 User Manual.*