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Avaya Solution & Interoperability Test Lab

Application Notes for Jabra Direct with Jabra Engage 50 Stereo/Mono USB-A & USB-C Headsets with Avaya Equinox® for Windows - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate Jabra Direct, with Jabra Engage 50 Stereo/Mono USB-A & USB-C Headsets with Avaya Equinox® for Windows. Jabra Engage headsets connect to the PC via the Jabra Engage Link controller using USB-A or USB-C cables. Jabra Direct is a collection of programs that enable remote call control with Jabra headset and Avaya Equinox® for Windows. With a Jabra headset connected via Jabra Engage Link to the USB interface on a PC, users can directly answer, end, mute/unmute, hold/resume, adjust volume and speed/dial using buttons on the Jabra Engage Link.

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 Engage 50 Stereo/Mono USB-A & USB-C Headsets together with Jabra Direct software allow connection and call control with Avaya Equinox® for Windows (hereafter referred to as Avaya Equinox) via a Jabra Engage Link USB cable. In this compliance test, USB-A cable is used for connection to PC. Jabra Direct is a collection of programs that enable remote call control with Jabra headset and Avaya Equinox. With a Jabra headset connected via Jabra Engage Link to the USB interface on a PC, users can directly answer, end, mute/unmute, hold/resume, adjust volume and speed dial using buttons on the Jabra Engage Link. Hence, the words "Jabra headset" hereafter would include the Jabra Engage link.

Jabra Direct includes two core functions, which were exercised during the compliance testing:

- **Readiness Status:** Status of the device and softphone via a dashboard.
- **Personalized Headset:** This is done via device settings, firmware update and call control.

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 Equinox, answering and ending calls using the call control button on the Jabra headset, and verifying two-way audio. The call types included calls to voicemail, local extensions, and the PSTN. Call hold and resume, mute and un-mute, and speed dial are also tested.

The serviceability testing focused on verifying the usability of the Jabra headset solution after restarting the Avaya Equinox, restarting the PC and disconnecting/reconnecting the USB cable of Jabra Engage Link 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 Jabra headset and the soft button on Avaya Equinox.
- Using the call button on the Jabra headset and the soft button on Avaya Equinox to hold and resume the audio.
- Using the volume buttons on the Jabra headset to adjust the audio volume.
- Using the mute button on the Jabra headset and the soft button on Avaya Equinox to mute and un-mute the audio.
- Using the customizable button for speed dial.
- Verifying incoming call notification on Jabra headset base.
- Verifying call ended notification on Jabra headset base.

The serviceability testing focused on verifying the usability of the Jabra headset solution after restarting the Avaya Equinox, restarting the PC and reconnecting the USB cable to 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
- Email: JabraSupport.US@jabra.com

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Jabra Direct, Jabra Engage 50 Stereo/Mono USB-A & USB-C Headsets with Jabra Engage Link solution. The configuration consists of an Avaya Aura® Communication Manager running on a virtualized server with an Avaya G450 Media Gateway providing connectivity to the PSTN via a simulated public trunk. Avaya Aura® Session Manager was used as the registrar/proxy for Avaya Equinox® for Windows 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. The Jabra Direct software was installed on the PC together with Avaya Equinox® for Windows. The Jabra headsets are connected via Jabra Engage Link USB-A cable to the PC.
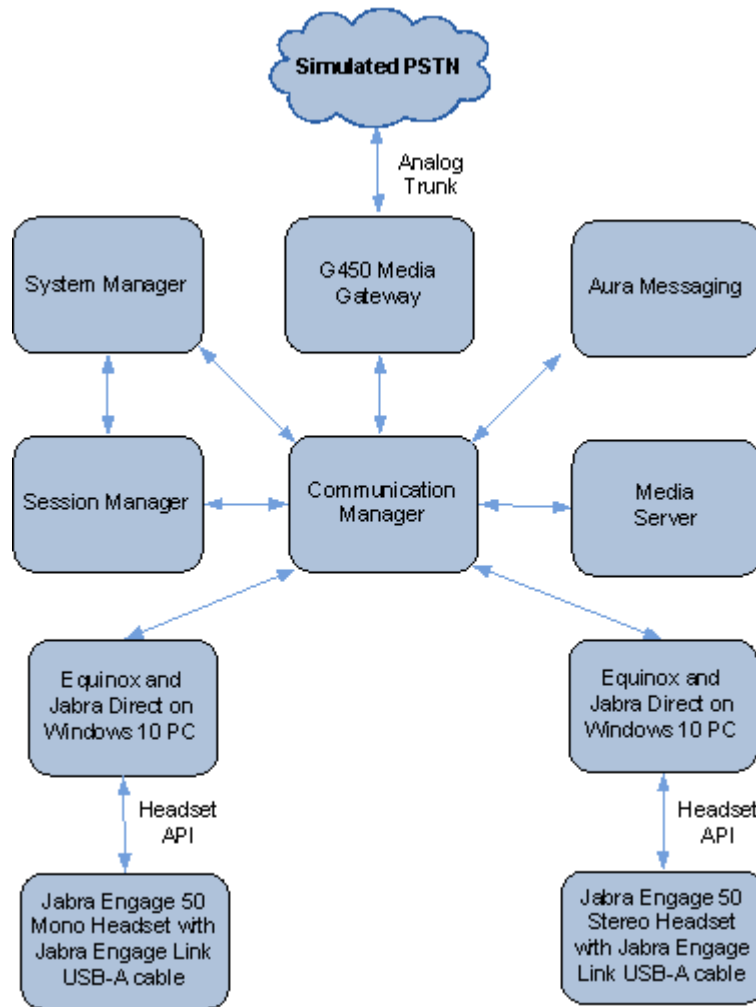

Figure 1: Test Configuration

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	8.0 FP1 (R018x.00.0.822.0 Patch 25031)
Avaya Aura® Media Server	8.0.0.150
Avaya Aura® Messaging	7.0 SP0 Patch 2
Avaya Aura® System Manager	8.0.1.0 Build No. - 8.0.0.0.931077 Software Update Revision No: 8.0.1.0.038826
Avaya Aura® Session Manager	8.0.1.0.801007
Avaya Equinox running on Windows 10 Pro	3.5 SP1 (3.5.1.21.5)
Jabra Direct	4.0.3912.0
Jabra Engage 50 Stereo/Mono Headsets	1.24 (SP2)
Jabra Engage Link USB-A	1.22 (SP1)

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, use 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: 65000 381
                                Maximum Stations: 41000 192
                         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 6
              Maximum Administered Remote Office Trunks: 12000 0
Maximum Concurrently Registered Remote Office Stations: 18000 0
                 Maximum Concurrently Registered IP eCons: 414   0
   Max Concur Registered Unauthenticated H.323 Stations: 100   0
                       Maximum Video Capable Stations: 41000 0
                 Maximum Video Capable IP Softphones: 18000 3
                   Maximum Administered SIP Trunks: 24000 28
   Maximum Administered Ad-hoc Video Conferencing Ports: 24000 0
    Maximum Number of DS1 Boards with Echo Cancellation: 522   0




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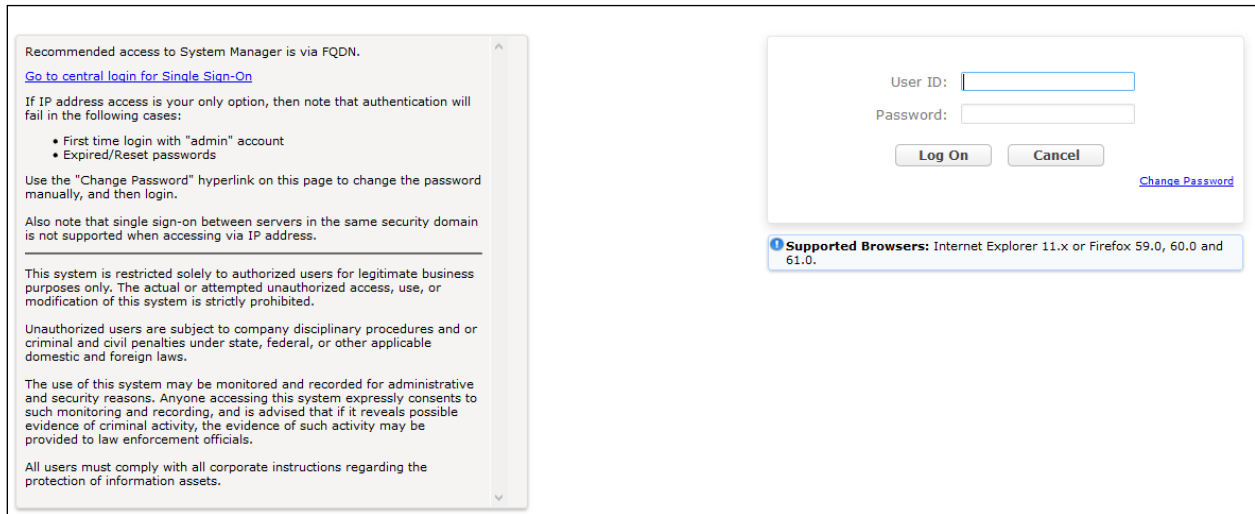
6. Configure Avaya Aura® Session Manager

This section describes aspects of the Session Manager configuration required for Avaya Equinox 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. During the compliance test, Avaya Equinox® for Windows 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 Equinox® for Windows

Avaya Equinox client is a SIP soft phone application that provides users with access to Unified Communications (UC) services. This section shows how to configure the Jabra Engage 50 Stereo/Mono Headsets to use with Avaya Equinox.

From Avaya Equinox window, navigate to **Settings → Accounts → User Preferences → Audio/Videos.**
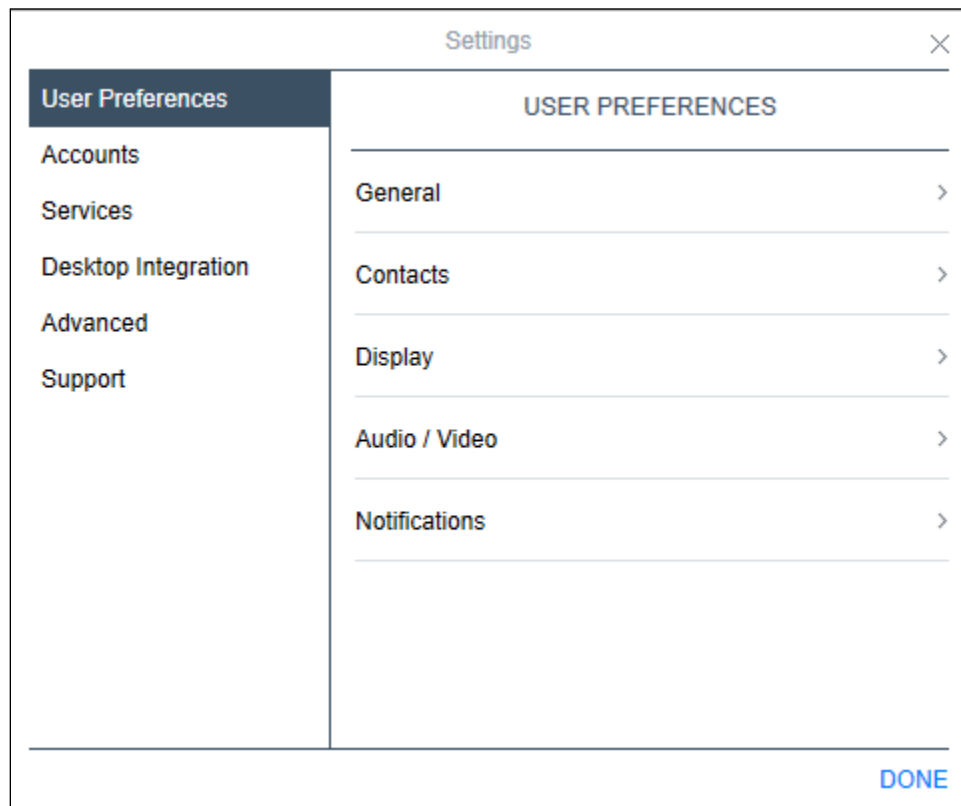
Select **Microphone (Jabra Engage 50)** for *Microphone* 🎤 and **Speaker (Jabra Engage 50)** for *Speaker* 🔊 as shown below. It is optional for *Ringing on incoming calls* 🔔 to be set.
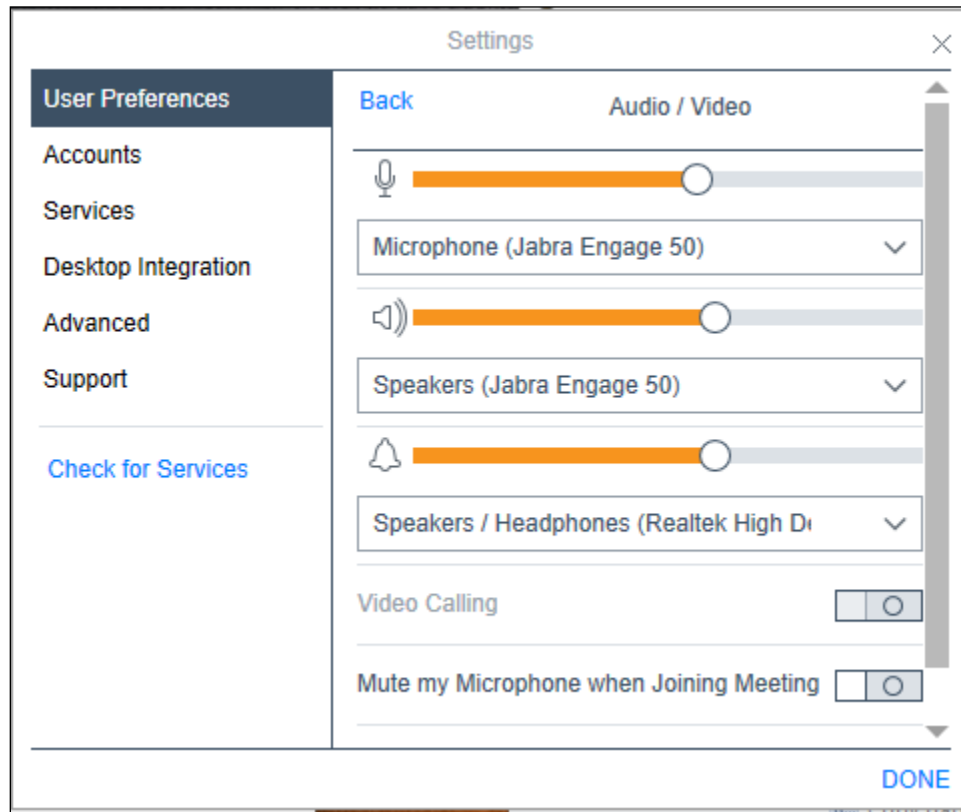
8. Configure Jabra Engage 50 Headset Solutions

This section covers the steps to integrate Jabra Engage 50 headset with Avaya Equinox, including:

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

Note: After successfully performing this procedure, the Jabra headset will be detected in Avaya Equinox as described in **Section 7**.
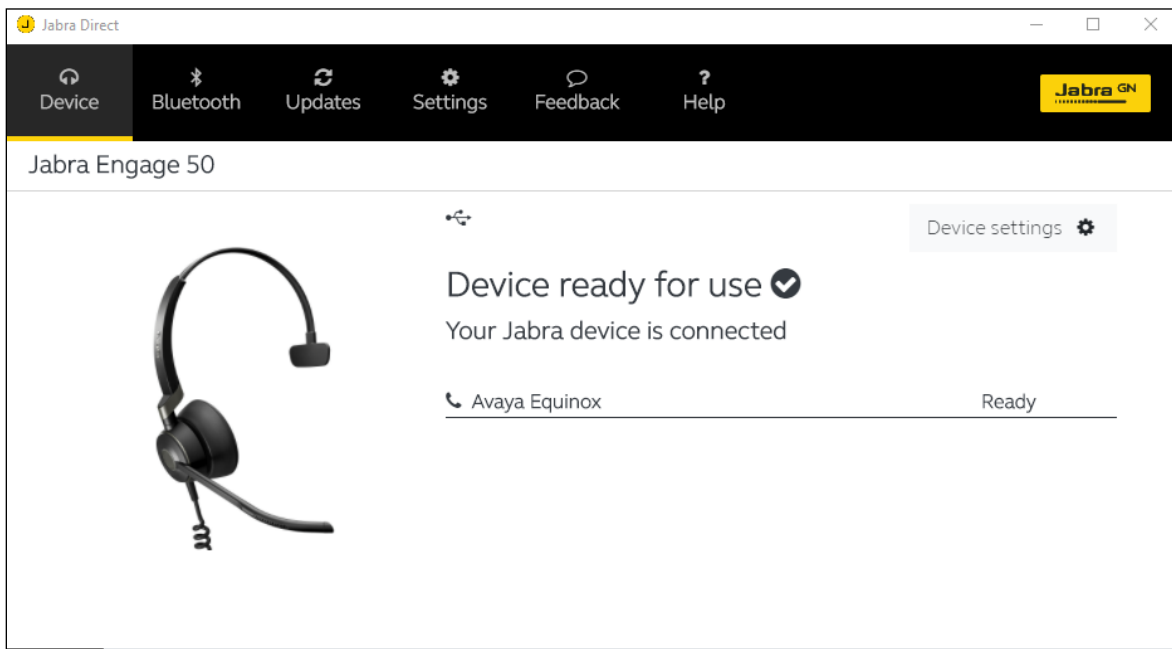
8.1. Installing the Jabra Direct Software

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 Jabra headset

Plug the Jabra Engage 50 headset via Jabra Engage Link to the USB port of the PC. Jabra Engage Link has 2 models, i.e., USB-A and USB-C. In this compliance test, USB-A for the Jabra Engage Link is used. The device drivers will automatically be installed.

Open the Jabra Direct program installed on the PC. Select the **Device** tab on the top menu and **Device ready for use** is shown with a **tick** on the right of the sentence for the Jabra Engage 50. The Avaya Equinox will be in ready state only when it is running but not necessarily logged in. Below shows the **Avaya Equinox** in **Ready** state.

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8.3. Configuring Jabra headset with Jabra Direct

On the default screen (**Device** tab), click on **Device settings** ⚙ near the top right pane shown on the previous screen. Scroll to the lower portion of the screen and expand the **Softphone (PC).** Assuming Avaya Equinox is setup and logged in, set the option for the following:

- **Ringtone in headset:** *Slide to On position* [optional for ringtone to be played on headset]
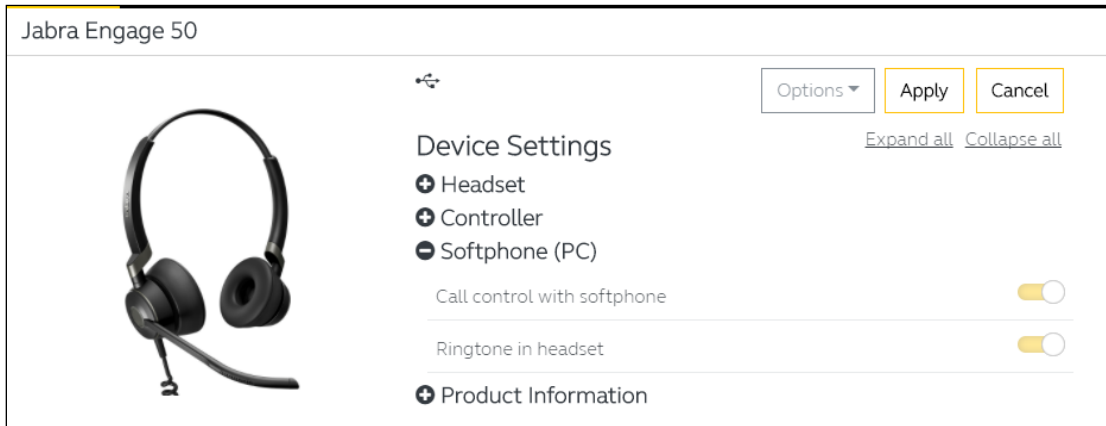
Set the customizable **Speed dial 1** to the number desired after selecting **Speed dial** on the **4 dot icon button.**
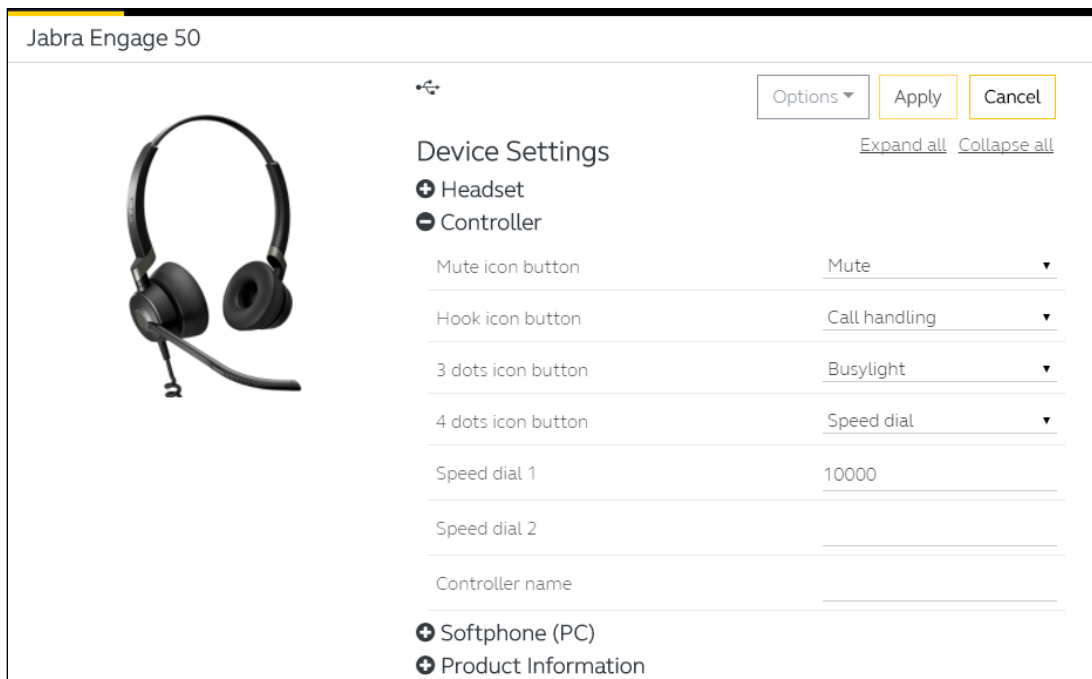

The rest of the settings can be left as default. Click **Apply** (not shown) at the bottom of the screen to confirm the settings and the Jabra Engage Link device will reboot.

9. Verification Steps

This section verifies that the Jabra solution has been successfully integrated with Avaya Equinox PC.

1. Verify that the Jabra headset has been successfully connected for use with Avaya Equinox. From the **Jabra Direct** program, select the **Device** tab. Verify that the **Device ready for use** is ticked as shown in **Section 8.2**.

2. Verify that the **Avaya Equinox** is shown in **Ready** status. Note that the Ready state does not mean Avaya Equinox is logged in. The application can be just running without the user being logged in. Once the Jabra headset is connected to Avaya Equinox, verify that incoming and outgoing calls can be established with two-way audio to the headset. For incoming calls, answer the call by pressing the call button on the Jabra Engage Link as shown below. Refer to **[5]** for Jabra Engage 50 User Manual for more information on the buttons.
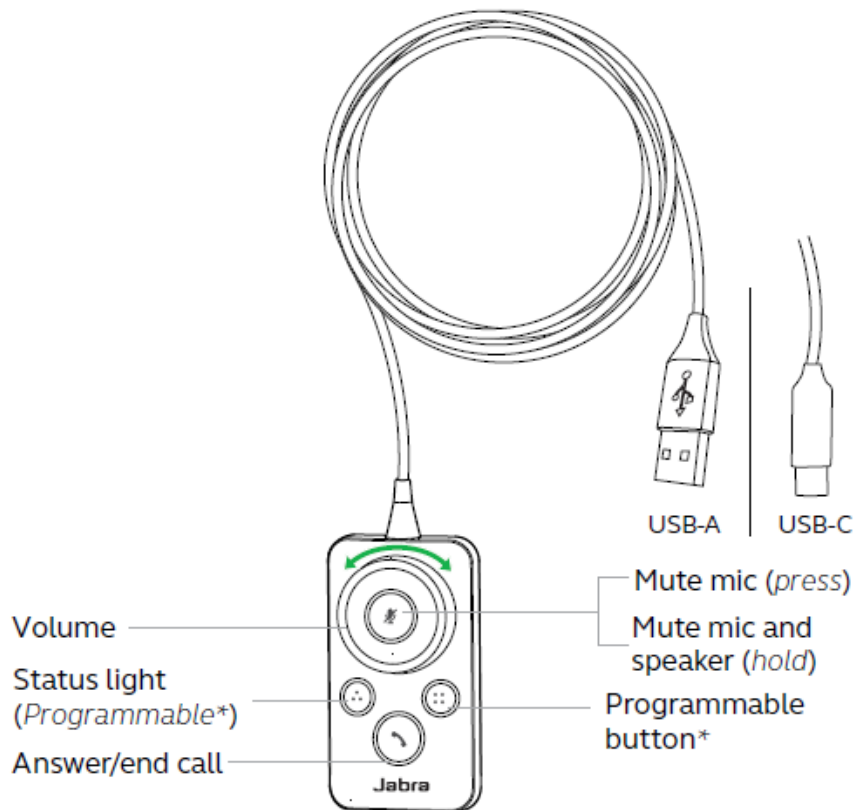
3. End the call by pressing the same call button on the Jabra Engage Link.

4. Verify also that Jabra Headset is able to remotely control call functions such as answer, mute/un-mute, hold/resume and end the call. Call Hold is done by press and hold the call button for a few seconds till you hear a signal. Pressing the call button again will resume the call. Similarly, such call control functions could be done on the Avaya Equinox.

10. Conclusion

These Application Notes describe the configuration steps required to integrate Jabra Direct Engage 50 Stereo/Mono USB-A & USB-C Headsets with Avaya Equinox® 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.

[1] *Administering Avaya Aura® Communication Manager*, Release 8.0.1, Issue 3, December 2018.
[2] *Planning for and Administering Avaya Equinox® for Android, iOS, Mac and Windows,* Release 3.4 FP1, Issue 1, July 2018.
[3] *Using Avaya Equinox® for Android, iOS, Mac, and Windows,* Release 3.4 FP1, Issue 1, July 2018.
[4] *Administering Avaya Aura® Session Manager,* Release 8.0.1, Issue 3, December 2018.

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

[5] *Jabra Engage 50 User Manual.*

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