AVAYA

Avaya Solution & Interoperability Test Lab

Application Notes for Dasan DSU-11M USB QD Connector Cable and SoftLink software with Avaya one-X® Agent - Issue 1.1

Abstract

These Application Notes describe the configuration steps required to integrate the Dasan DSU-11M USB QD Connector Cable and SoftLink software with Avaya one-X® Agent. In this compliance test, a Dasan Freemate DH series headset is used to connect to DSU-11M Connector Cable which in turn connects to the PC via USB cable. SoftLink is a collection of programs that enable remote call control with Dasan Freemate DH series headsets and Avaya one-X® Agent. With a Dasan Freemate DH Series headset connected via DSU-11M Connector Cable to the USB interface on a PC, users can directly answer, end, mute/unmute calls and adjust speaking volume using buttons on the Dasan cable.

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 DSU-11M USB QD Connector Cable together with SoftLink software allow connection and call control with Avaya one-X® Agent (hereafter referred to as one-X Agent) via USB cable to a PC. In this compliance test, a Dasan Freemate DH Series headset is used to connect to the DSU-11M Connector Cable. SoftLink is a collection of programs that enable remote call control with Dasan Freemate DH Series headsets and Avaya one-X® Agent. With a Dasan Freemate DH Series headset connected via DSU-11M Connector Cable to a USB port on a PC, users can directly answer, end, mute/unmute calls and adjust speaking volume using buttons on the DSU-11M USB QD Connector Cable.

The DSU-11M USB QD Connector Cable can be used with other Dasan headsets, as detailed in Attachment 1. For additional information or support, contact information is provided in section 2.3.

2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls with one-X Agent, answering and ending calls using the call control button on the cable, 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 are also tested.

The serviceability testing focused on verifying the usability of the Dasan headset solution after restarting the one-X Agent, restarting the PC and reconnecting the USB cable of the base to 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 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.

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 DSU-11M cable and the soft button on one-X Agent.
- Using the soft button on one-X Agent to hold and resume the audio.
- Using the volume buttons on the DSU-11M cable to adjust the speaking volume.
- Using the mute button on the DSU-11M cable and the soft button on one-X Agent to mute and un-mute the audio.
- Verifying incoming call notification on DSU-11M cable.
- Verifying call ended notification on DSU-11M cable.

The serviceability testing focused on verifying the usability of the Dasan headset solution after restarting the one-X Agent and restarting the PC, reconnecting the USB cable to the PC.

2.2. Test Results

All test cases were completed successfully.

2.3. Support

For support on this Dasan solution in Asia Pacific, contact Dasan's marketing representative at:

- Phone: +82(0)315004641
- Website: http://www.headsetkorea.com

For support on this Dasan solution in all other regions, contact Dasan's representative, JPL Telecom Limited at:

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

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the DSU-11M USB QD connector cable and SoftLink software with Avaya one-X® Agent. The configuration consists of 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 (not shown). Avaya Aura® Messaging was used as the voicemail system. Avaya Aura® Media Server provides the audio media processing. The SoftLink software was installed on the PC. Dasan Freemate DH Series headsets are connected via a DSU-11M USB QD connector cable to the USB port of the PC.
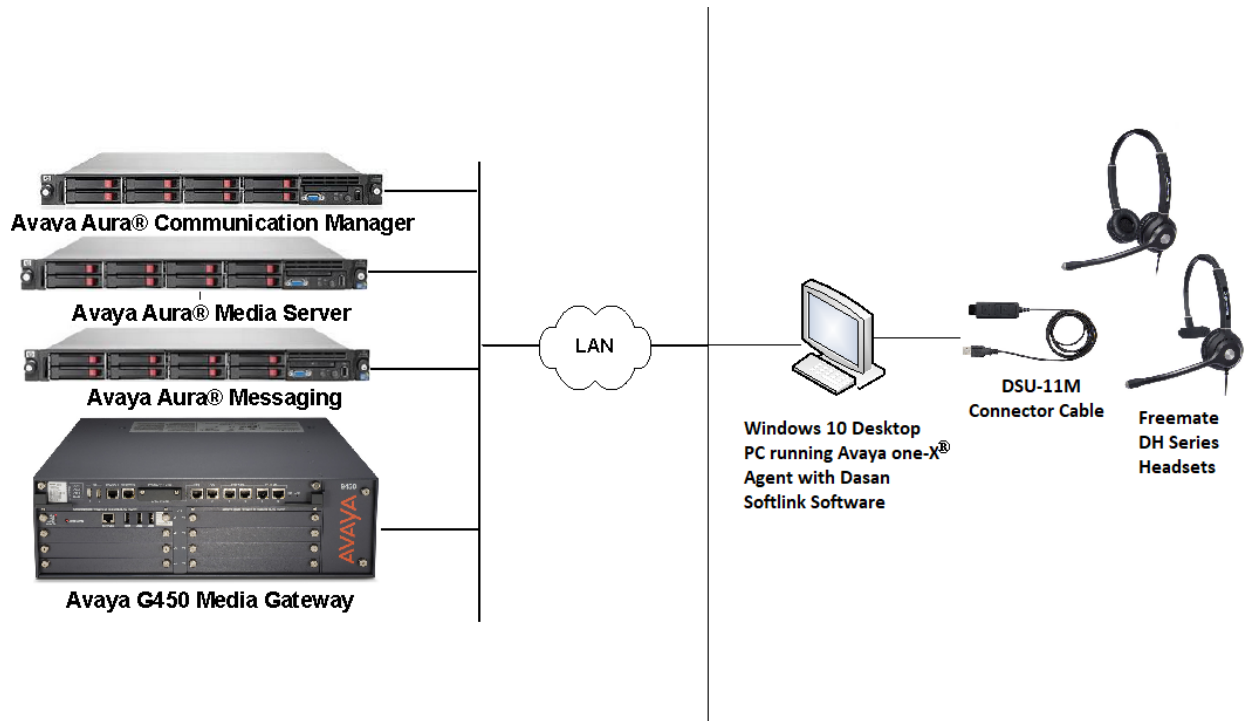
Figure 1: Test Configuration

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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.00.0.822.0 with Patch 24826
Avaya Aura® Media Server	8.0.0.150
Avaya Aura® Messaging	7.0 SP0 Patch 2
Avaya one-X® Agent running on Windows 10 Pro	2.5.12 (H.323)
Dasan Freemate DH Series Headset	-
DSU-11M USB Connector Cable	235
SoftLink	2.7.0

5. Configure Avaya Aura® Communication Manager

This section covers the station configuration for one-X Agent. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

Use the **add station** command to create a station for one-X Agent. Set the **Type** field to the station type to be emulated. In this example, *9641G* was used. Set the **Port** field to *IP* and configure a **Security Code**, which will be used as the password by one-X Agent to log in. Set the **IP Softphone** field to *y*.

```
add station 10004                                            Page   1 of   5
                                  STATION

Extension: 10004                        Lock Messages? n            BCC: 0
    Type: 9641G                         Security Code: xxxxxx        TN: 1
    Port: IP                        Coverage Path 1:              COR: 1
    Name: one-X Agent                   Coverage Path 2:           COS: 1
                                        Hunt-to Station:         Tests? y
STATION OPTIONS
              Location:                 Time of Day Lock Table:
           Loss Group: 19       Personalized Ringing Pattern: 1
                                        Message Lamp Ext: 10003
          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 Softphone? n
                        Short/Prefixed Registration Allowed: default

                                        Customizable Labels? y
```

On **Page 4** of the Station form, configure the additional feature buttons shown in bold, which are used by one-X Agent to log in as an Automatic Call Distribution (ACD) agent.

```
add station 10004                                            Page   4 of   5
                                  STATION
 SITE DATA
     Room:                                      Headset? n
     Jack:                                      Speaker? n
    Cable:                                     Mounting: d
    Floor:                                  Cord Length: 0
  Building:                                     Set Color:

ABBREVIATED DIALING
    List1: system          List2:                    List3:


BUTTON ASSIGNMENTS
 1: call-appr                         5: abrv-dial  List: 1 DC: 01
 2: call-appr                         6: abrv-dial  List: 1 DC: 02
 3: call-appr                         7: auto-in          Grp:
 4:                                   8: aux-work    RC:   Grp:

    voice-mail 10000
```
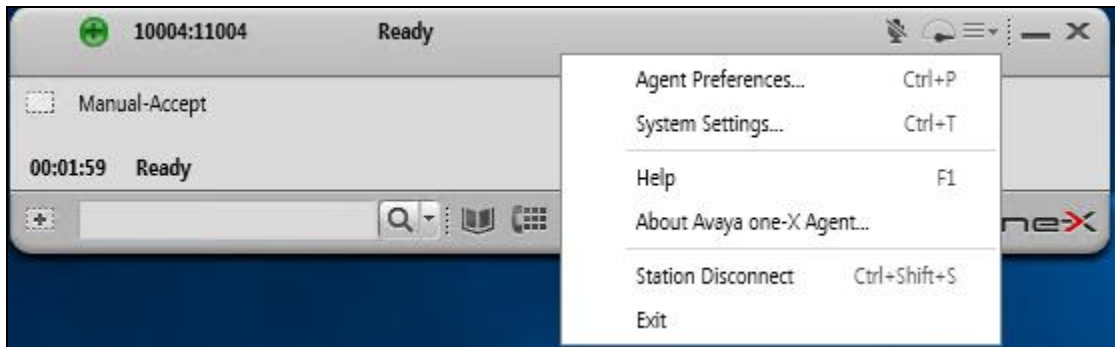
6. Configure Avaya one-X® Agent

Before configuring one-X Agent, the headset has to be configured and provisioned as in **Section 7** first. After logging into one-X Agent, click on ☰▾ and then select **Agent Preferences** as shown below.

In the **Agent Preferences** window, click on **Audio** and then select the **Advanced** tab as shown below. Check that **Playback Device** and **Record Device** fields display *Headset Earphone (DSU-11M)* and *Headset Microphone (DSU-11M), respectively.*
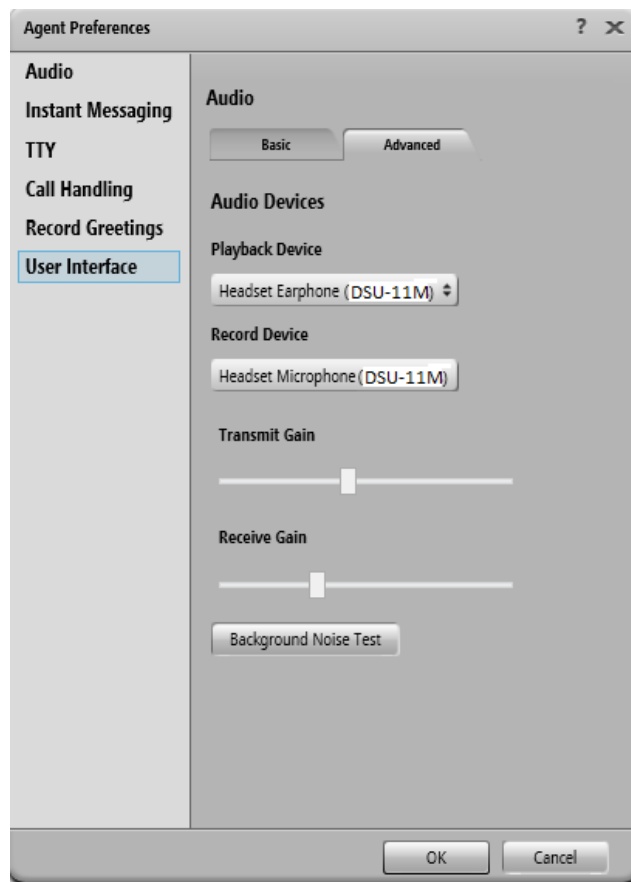
7. Configure Dasan Freemate DH Series headset

This section covers the steps to integrate Dasan Freemate DH Series headset with one-X Agent, including:

- Installing the SoftLink software
- Connect the Dasan Freemate DH Series headset

Note: After successfully performing this procedure, the Dasan headset will be detected in one-X Agent as described in **Section 6**.

7.1. Installing the SoftLink Software

SoftLink software can be obtained from Dasan portal at:
https://headsetkorea.com:458/eng/support/manual.php?admin_mode=read&no=32&make=&search=
Installation of the software is done by executing the .exe file and following the prompts.

7.2. Connect the Dasan headset

Prior to starting and configuring one-X Agent, connect the Dasan Freemate DH Series headset to the DSU-11M cable using the QD connector and in turn connect the USB end to the USB port of the PC; otherwise, one-X Agent will not detect the headset. The device drivers will be installed automatically.

Ensure that the **Sound** properties under Windows 10 Control Panel are set properly. Verify that the Dasan DSU-11M has been detected by Windows 10 and that it has been set as the default device in the **Playback** and **Recording** tabs as shown below.
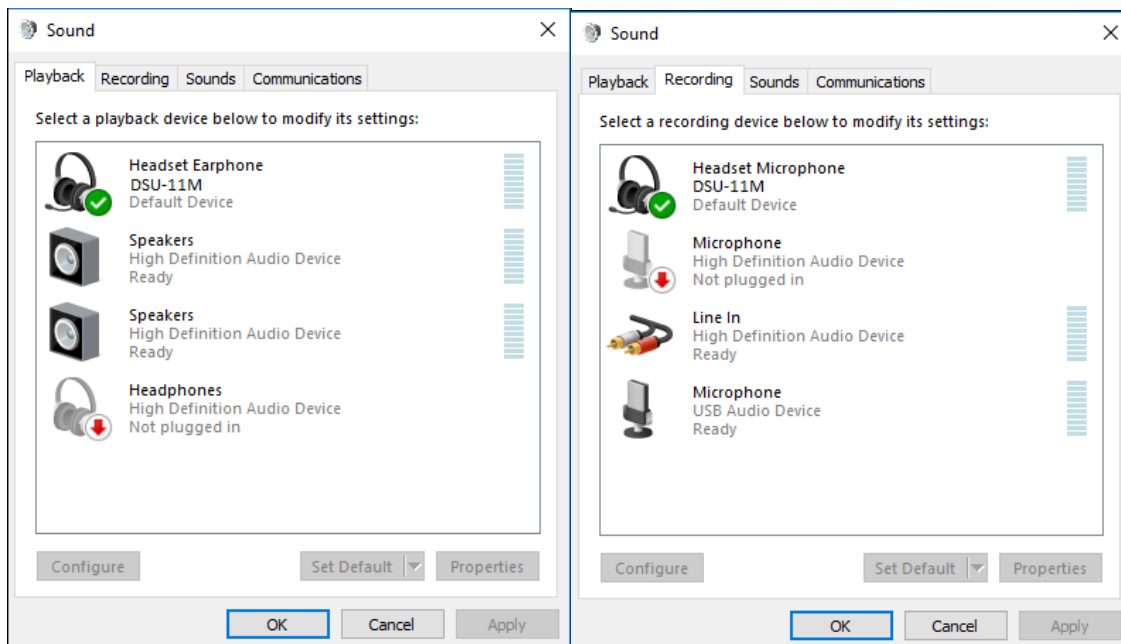
Open the SoftLink program installed on the PC. Select the **Device** tab on the top menu and **Device ready for use** is shown.
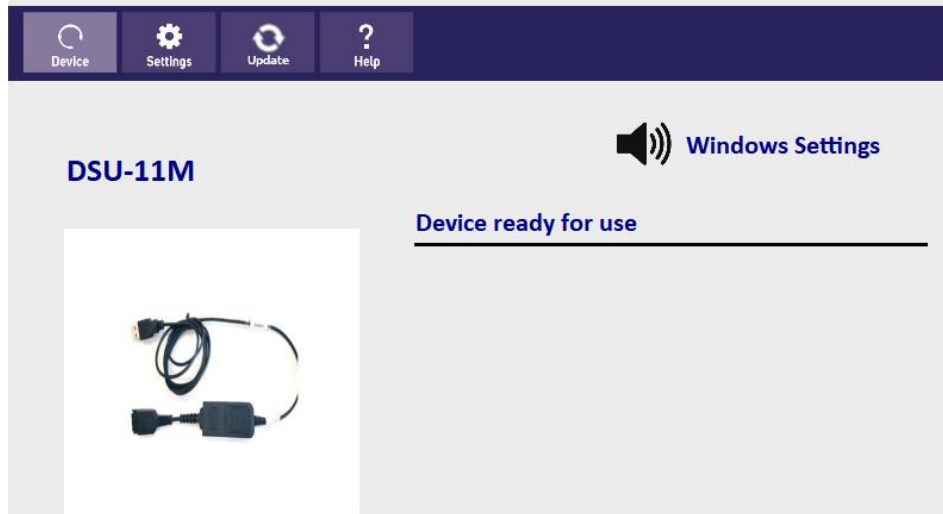
8. Verification Steps

This section verifies that the DSU-11M cable and SoftLink have been successfully integrated with one-X Agent PC.

1. Verify that the DSU-11M cable and SoftLink has been successfully connected for use with one-X Agent. From the **SoftLink** program, select the **Device** tab. Verify that the

   Device ready for use is displayed, and the checkbox is ticked green ✓ indicating Avaya one-X® Agent in **Ready** to be used.
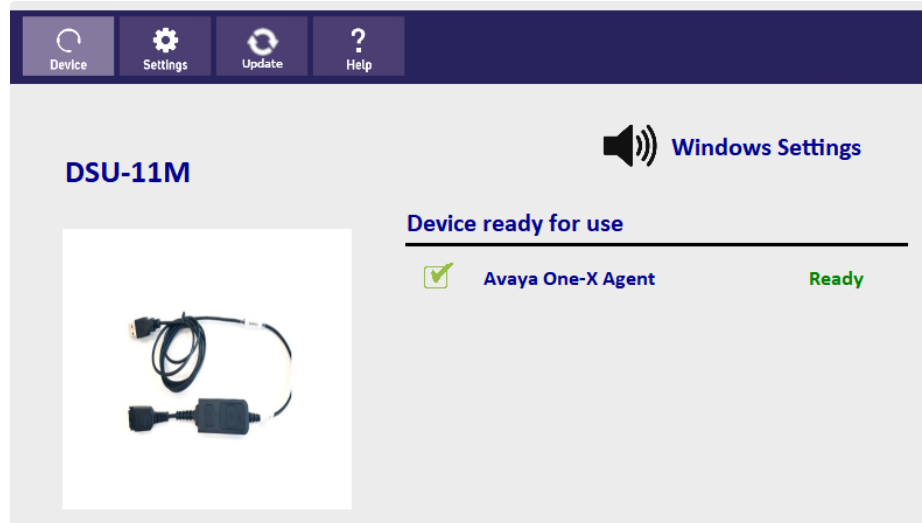
2. Note that the **Ready** state does not mean one-X Agent is logged in. The one-X Agent application can be running without the user being logged in. Once the DSU-11M is connected to one-X Agent, verify that incoming and outgoing calls can be established with two-way audio to the headset. For incoming and outgoing calls, connect to the call by pressing the call button on the headset and adjust the speaking volume from the cable.
3. End the call by pressing the same call button on the cable.
4. Verify that the call is properly disconnected.

9. Conclusion

These Application Notes describe the configuration steps required to integrate Dasan DSU-11M USB QD Connector Cable, a Freemate DH Series headset, and SoftLink software with Avaya one-X® Agent. All test cases were completed successfully.

10. Additional References

This section references the Avaya and Dasan 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] *Using Avaya one-X® Agent, Release 2.5.4 (H.323)*, Issue 1.0, December 2013.

Dasan documentation can be found at http://headsetkorea.com

Declaration of Conformity - Dasan Electron Co., Ltd. Headsets

Company: Dasan Electron Co., Ltd.
Address: 307, P-1 dong, 705, Haean-Ro, Sangrok-Gu, Ansan-Si, Gyeonggi-Do, 15588, KOREA.

Hereby declare that all the wired Dasan Freemate headsets listed herewith, have the technical specification as given below:

Technical Specification:

Microphone:

Impedance:	2.2kΩ
Sensitivity:	-32dB ± 3dB at 1kHz
Directivity:	Bi-directional
Frequency Range:	50Hz~20kHz ± 6dB
Distortion:	Less than 3%
Power Supply:	3V DC
S/N Ratio:	More than 58dB

Speaker:

Impedance:	150Ω ± 15% at 1kHz
Sensitivity:	93 ± 3dB at 1kHz 60mV Input
Max Input Power:	100mV
Frequency Range:	100Hz~6800Hz
Distortion:	Less 3% at 1kHz 60mV

Dasan Freemate Wired Headsets:

DH-07 | DH-037 | DH-035 | DH-036 | DH-031-N | DH-031-V | DH-026 | DH-039 | DH-051

Dasan Freemate Cables:

DSU-11M (Revision: 235) | HIS

Dasan Freemate Connector Software:

SoftLink Software (Version: 2.7.0)

Dasan Electron Co., Ltd. also hereby declare that:

- the DSU-11M USB QD connector cable identified above is used by all of the Dasan Freemate Wired Headsets listed in this letter in combination with the specified Dasan SoftLink Software to connect with Avaya one-X® Agent.

- the Dasan HIS cable identified above is used by all of the Dasan Freemate Wired Headsets listed in this letter to connect to the Avaya 96x0 and 96x1 models of the Avaya 9600 Deskphone Series and to the Avaya 1600 Series Deskphones.

Yongj Lee
CEO

Date: 18/06/2018

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