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Avaya Solution & Interoperability Test Lab

Application Notes for ADDASOUND Crystal 2821/2822 and ADDASOUND DN1011 USB Cable with Avaya one-X® Agent - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the ADDASOUND Crystal 2821/2822 Headsets and ADDASOUND DN1011 USB Cable with Avaya one-X® Agent. The DN1011 USB Cable allows the ADDASOUND headset to be connected to a USB port on a desktop PC running Avaya one-X® Agent. Together, the DN1011 USB Cable and headset provide two-way audio, allows the audio volume to be adjusted and the audio to be muted/unmuted directly from the headset. This solution does not provide call control features directly from the headset, such as answering or terminating a call from the headset.

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

These Application Notes describe the configuration steps required to integrate the ADDASOUND Crystal 2821/2822 Headsets and ADDASOUND DN1011 USB Cable with Avaya one-X® Agent. The DN1011 USB Cable allows the ADDASOUND headset to be connected to a USB port on a desktop PC running Avaya one-X® Agent. Together, the DN1011 USB Cable and headset provide two-way audio, allows the audio volume to be adjusted and the audio to be muted/unmuted directly from the headset. This solution does not provide call control features directly from the headset, such as answering or terminating a call from the headset.

2. General Test Approach and Test Results

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.

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from Avaya one-X Agent with the ADDASOUND Crystal 2821/2822 Headsets and ADDASOUND DN1011 USB Cable and verifying 2-way audio. The type of calls made included calls to voicemail, to local stations, and to the PSTN.

The serviceability testing focused on verifying the usability of ADDASOUND Crystal 2821/2822 and ADDASOUND DN1011 USB cable after restarting the Avaya one-X Agent, disconnecting and reconnecting the headset, and rebooting the PC.

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 local stations to verify two-way audio.
- Placing calls to the PSTN to verify two-way audio.
- Using the volume control buttons on the DN1011 USB Cable to adjust the playback volume.

- Using the mute button on the DN1011 USB Cable and on one-X Agent to mute and un-mute the audio. Note that there was no mute synchronization between one-X Agent and the DN1011 USB Cable.

For the serviceability testing, the headset was disconnected and reconnected to verify proper operation. Avaya one-X Agent application was also restarted for the same purpose. The desktop PC was also rebooted to verify that one-X Agent and headset were operational when the PC came back into service.

2.2. Test Results

All test cases passed with the following observation.

- The ADDASOUND does not support the headset API; therefore, there is no mute synchronization between one-X Agent and the DN1011 USB Cable. That is, muting and unmuting the call via the DN1011 USB Cable doesn't reflect the mute status on one-X Agent and vice versa. However, muting and unmuting the call from one-X Agent or the DN1011 USB Cable does properly mute and unmute the audio.
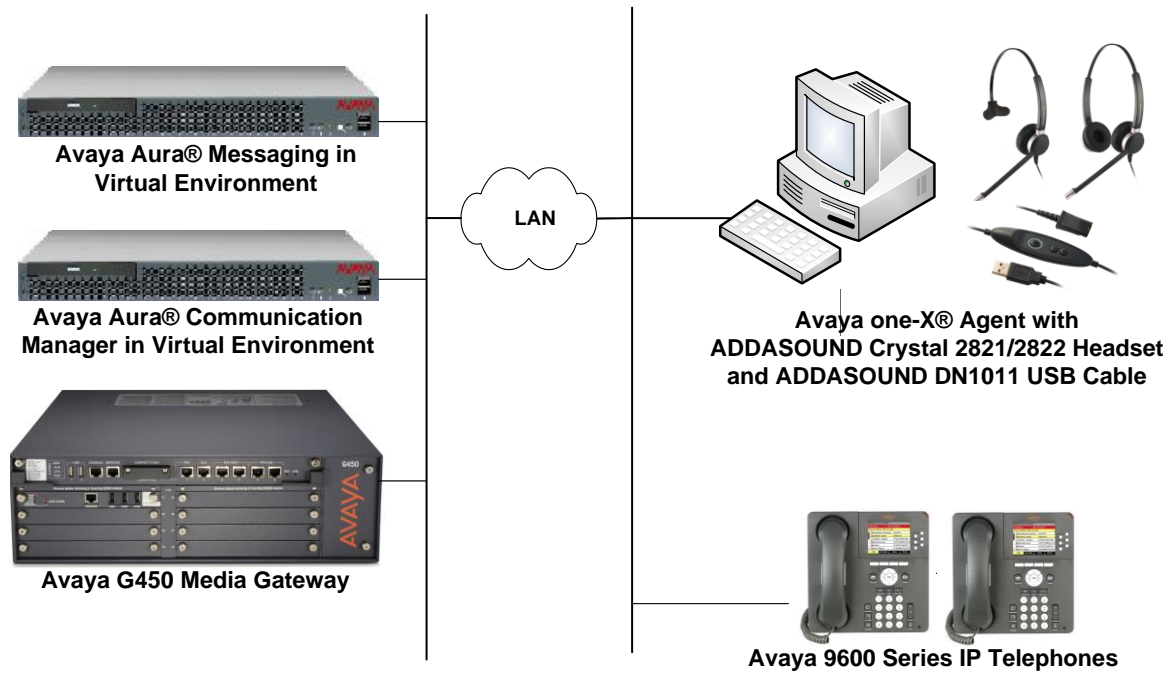
2.3. Support

For technical support and information on ADDASOUND Crystal 2821/2822 Headsets and ADDASOUND DN1011 USB Cable, contact ADDASOUND in Denmark at:

- Phone: +45 72 628 622
- Website: http://addasound.dk/customer-services.aspx
- Email: info@addasound.dk

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3 of 11
ADD-282x-1XA

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the ADDASOUND headset solution. The configuration consists of Avaya Aura® Communication Manager running in a virtual environment with an Avaya G450 Media Gateway providing connectivity to the PSTN via an ISDN-PRI trunk (not shown). Avaya Aura® Messaging was used as the voicemail system. ADDASOUND Crystal 2821/2822 Headsets were connected to a DN1011 USB Cable which in turn was connected to a USB port on the desktop PC running one-X Agent.

Avaya Aura® Messaging in Virtual Environment

Avaya Aura® Communication Manager in Virtual Environment

Avaya G450 Media Gateway

LAN

Avaya one-X® Agent with ADDASOUND Crystal 2821/2822 Headset and ADDASOUND DN1011 USB Cable

Avaya 9600 Series IP Telephones

Figure 1: Avaya one-X Agent with ADDASOUND Crystal 2821/2822 Headsets and ADDASOUND DN1011 Cable

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4 of 11
ADD-282x-1XA

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 in a Virtual Environment with an Avaya G450 Media Gateway	7.0.1.1 FP1 SP1 (R017x.00.0.441.0 with Patch 23169)
Avaya Aura® Messaging	6.3.2 SP 2 Patch 3
Avaya one-X® Agent on Microsoft Windows 10	2.5.8 Patch 6 (2.5.58020.604) (H.323)
Avaya 9600 Series IP Telephone	3.260A (H.323) 2.6.16.1 (SIP)
Avaya 96x1 Series IP Telephone	6.6115 (H.323) 7.0.1.1.5 (SIP)
ADDASOUND Crystal 2821/2822 Headsets	N/A
ADDASOUND DN1011 USB Cable	N/A

5. Configure Avaya Aura® Communication Manager

This section covers the station configuration for Avaya 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 Avaya one-X Agent. Set the **Type** field to the station type to be emulated. In this example, *9630* was used. Set the **Port** field to *IP* and configure a **Security Code** as that password to be used by one-X Agent to log in. Set the **IP Softphone** field to *y*.

```
add station 77400                                             Page   1 of   5
                                 STATION

Extension: 77400                      Lock Messages? n               BCC: 0
      Type: 9630                      Security Code: 1234              TN: 1
      Port: IP                        Coverage Path 1:               COR: 1
      Name: ADDASOUND                 Coverage Path 2:               COS: 1
                                      Hunt-to Station:            Tests? y
STATION OPTIONS
                                      Time of Day Lock Table:
            Loss Group: 19        Personalized Ringing Pattern: 1
                                        Message Lamp Ext: 77400
         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 in bold, which are used by one-X Agent to log in as an Automatic Call Distribution (ACD) agent.

```
add station 77400                                             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:                  List2:                   List3:

BUTTON ASSIGNMENTS
 1: call-appr                     5: manual-in        Grp:
 2: call-appr                     6: after-call       Grp:
 3: call-appr                     7: aux-work   RC:   Grp:
 4: auto-in          Grp:         8: release
    voice-mail
```

6. Configure Avaya one-X® Agent

Prior to configuring one-X Agent, connect the Crystal 2821/2822 Headset and DN1011 USB Cable a USB port on the desktop PC running one-X Agent; otherwise, one-X Agent will not detect the DN1011 USB Cable.

Next, ensure that the **Sound** properties under Windows 10 Control Panel are set properly. Verify that the DN1011 USB Cable 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.
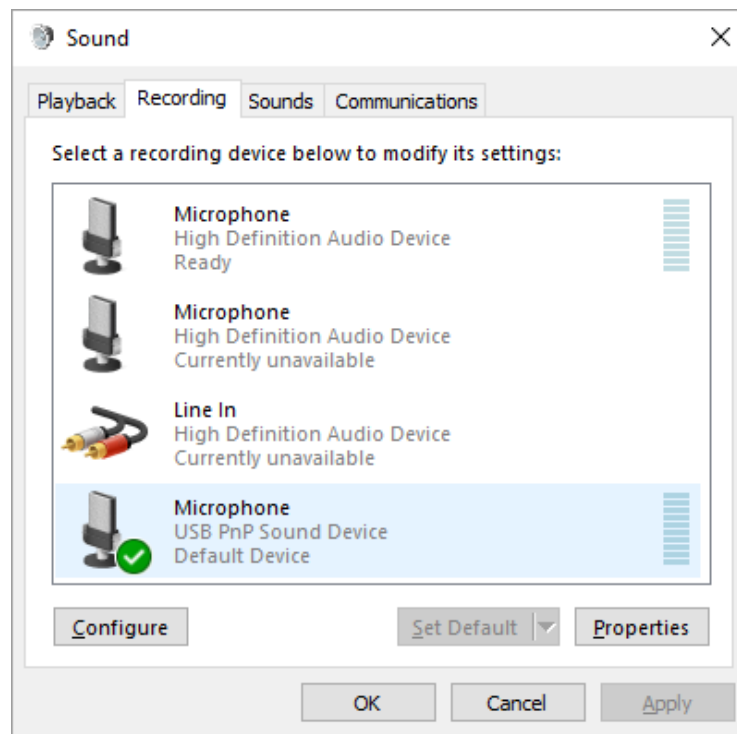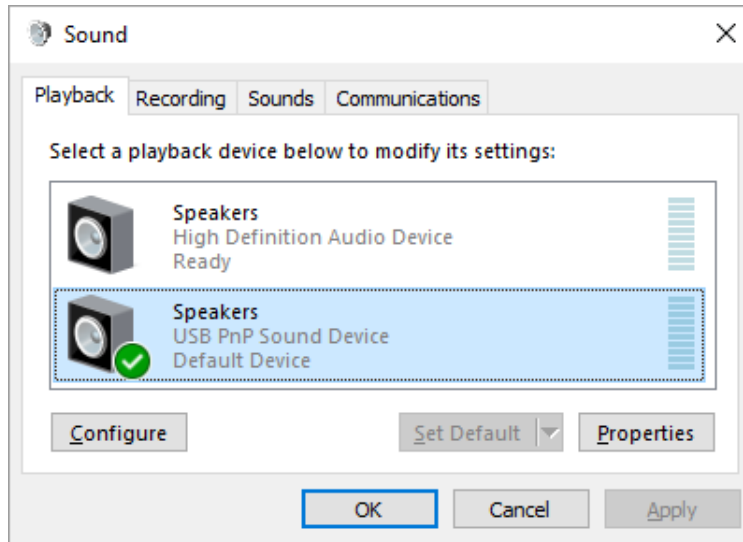
After logging into Avaya one-X Agent, click on ☰▾ and then select **Agent Preferences** as shown below.
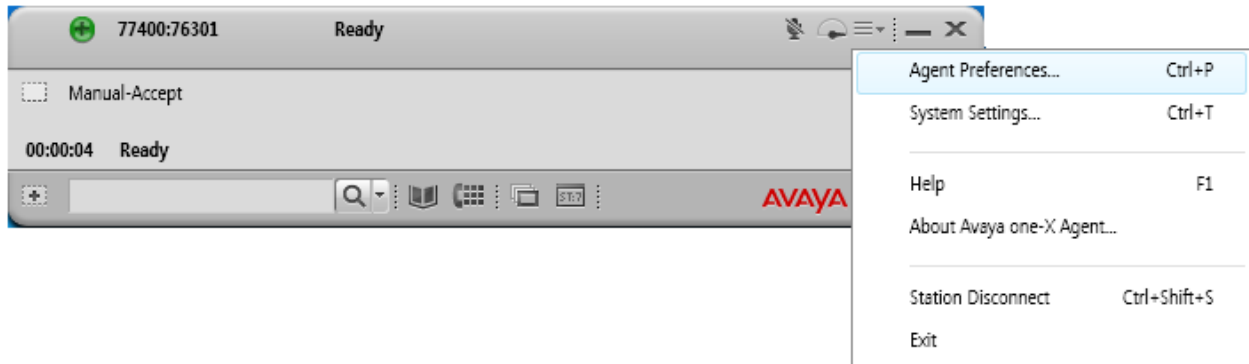
The DN1011 USB Cable is automatically detected by one-X Agent. In the **Agent Preferences** window, click on **Audio** and then select the **Advanced** tab.   Set the **Playback Device** and **Record Device** fields to *Speakers (USB PnP Sound Device)* and *Microphone (USB PnP Sound Device)*, respectively, as shown below. Click the **Background Noise Test** button to determine the normal background noise levels at the location.

After clicking the **Background Noise Test** button, the following window is displayed. Click **Test**. Once the test is completed, click **Close**. Click **OK** in the **Audio → Advanced** tab and restart one-X Agent.
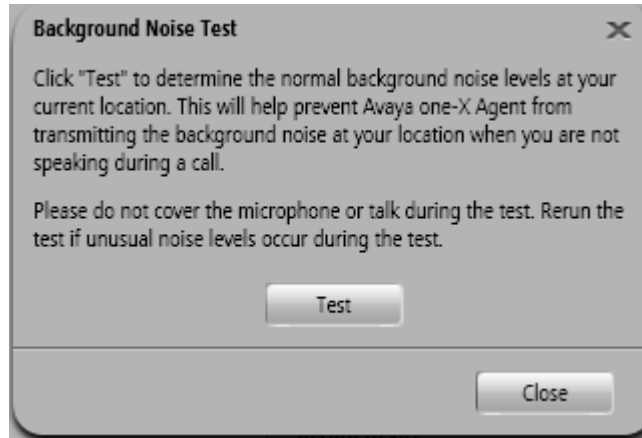
7. Install ADDASOUND Crystal 2821/2822 Headset and ADDASOUND DN1011 USB Cable

Connect the Crystal 2821/2822 Headset to the DN1011 USB Cable, and then connect the DN1011 USB Cable to a USB port on the desktop PC running one-X Agent. Refer to [3] and [4] for additional information.

8. Verification Steps

This section provides the tests that can be performed to verify proper installation and configuration of the ADDASOUND Crystal 2821/2822 Headset and ADDASOUND DN1011 USB Cable with one-X Agent.

1. Start the one-X Agent application.
2. Place an incoming call to one-X Agent from any local phone.
3. Answer the call using via one-X Agent.
4. Verify two-way talk path between the Crystal 2821/2822 Headset and phone.
5. Disconnect the call from one-X Agent
6. Verify that the call is properly disconnected.

9. Conclusion

These Application Notes describe the configuration steps required to integrate the ADDASOUND Crystal 2821/2822 Headsets and ADDASOUND DN1011 USB Cable with Avaya one-X® Agent. All test cases were completed successfully with observations noted in **Section 2.2**.

10. Additional References

This section references the Avaya 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 7.0.1, Issue 2, May 2016, Document Number 03-300509.
[2] *Installing and Configuring Avaya one-X® Agent*, Release 2.5, March 31, 2011.