



Avaya Solution & Interoperability Test Lab

Application Notes for ADDASOUND Crystal 2831/2832 Headsets 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 2831/2832 Headsets and ADDASOUND DN1011 USB Cable with Avaya one-X® Agent. ADDASOUND DN1011 USB Cable allowed the ADDASOUND Crystal 2831/2832 Headsets to be connected to a USB port on a desktop PC running Avaya one-X® Agent. Together, the DN1011 USB Cable and Crystal 2831/2832 Headsets provided two-way audio, allowed 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 or mute synchronization.

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 2831/2832 Headsets and ADDASOUND DN1011 USB Cable with Avaya one-X® Agent. ADDASOUND DN1011 USB Cable allowed the ADDASOUND Crystal 2831/2832 Headsets to be connected to a USB port on a desktop PC running Avaya one-X® Agent. Together, the DN1011 USB Cable and Crystal 2831/2832 Headsets provided two-way audio, allowed 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 or mute synchronization.

2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from one-X Agent with the Crystal 2831/2832 Headsets and ADDASOUND DN1011 USB Cable and verifying two-way audio. The type of calls made included calls with voicemail, with local stations, and with the PSTN.

The serviceability testing focused on verifying usability of Crystal 2831/2832 Headsets and DN1011 USB Cable after restarting the one-X Agent, disconnecting and reconnecting the headset, and rebooting the PC.

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.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in this DevConnect Application Note 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.

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.
- Establishing incoming and outgoing calls with 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 unmute 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. The 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.

- 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 2831/2832 Headsets and DN1011 Direct Connect Cable, contact ADDASOUND.

- Phone: (800) 781-6729 (North America)
+45 72 628 622
- Website: <http://www.addasound.com>
- Email: info@addasound.com

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® Media Server (not shown) was also used for media processing. Avaya Aura® Messaging was used as the voicemail system. An Avaya Aura® Media Server was also included (not shown). ADDASOUND Crystal 2831/2832 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.

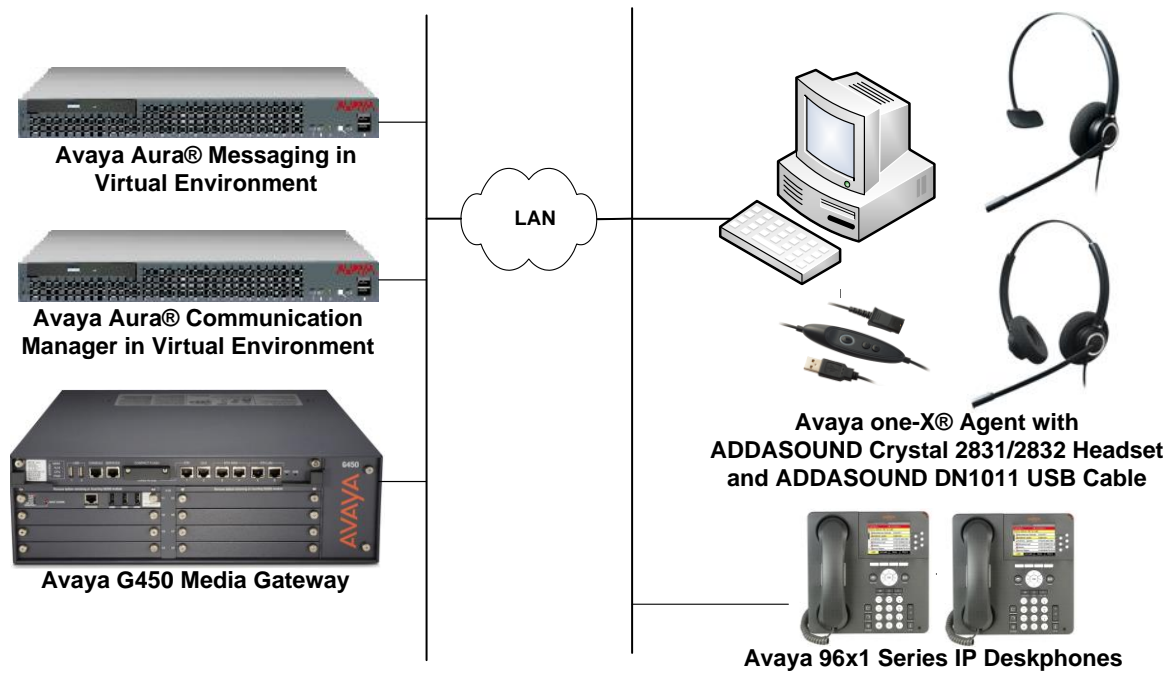


Figure 1: Avaya one-X® Agent with ADDASOUND Crystal 2831/2832 Headsets and ADDASOUND DN1011 Cable

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 | 7.1.1 FP1 (R017x.01.0.532.0 with Patch 23985) |
| Avaya Aura® Media Server | 7.8.0.333 |
| Avaya Aura® Messaging | 7.0.1.2.0 FP1 SP 2 |
| Avaya one-X® Agent on Microsoft Windows 10 | 2.5.60037.0 |
| Avaya 96x1 Series IP Deskphone | 6.6506 (H.323) 7.1.1.0.9 (SIP) |
| ADDASOUND Crystal 2831/2832 Headsets | N/A |
| ADDASOUND DN1011 USB Cable | N/A |

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, *9630* was used. Set the **Port** field to *IP* and configure a **Security Code** as the 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
  Loss Group: 19                                     Time of Day Lock Table:
  Speakerphone: 2-way                               Personalized Ringing Pattern: 1
  Display Language: english                         Message Lamp Ext: 77400
  Survivable GK Node Name:                          Mute Button Enabled? y
  Survivable COR: internal                           Button Modules: 0
  Survivable Trunk Dest? y                           Media Complex Ext:
                                                    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.

```

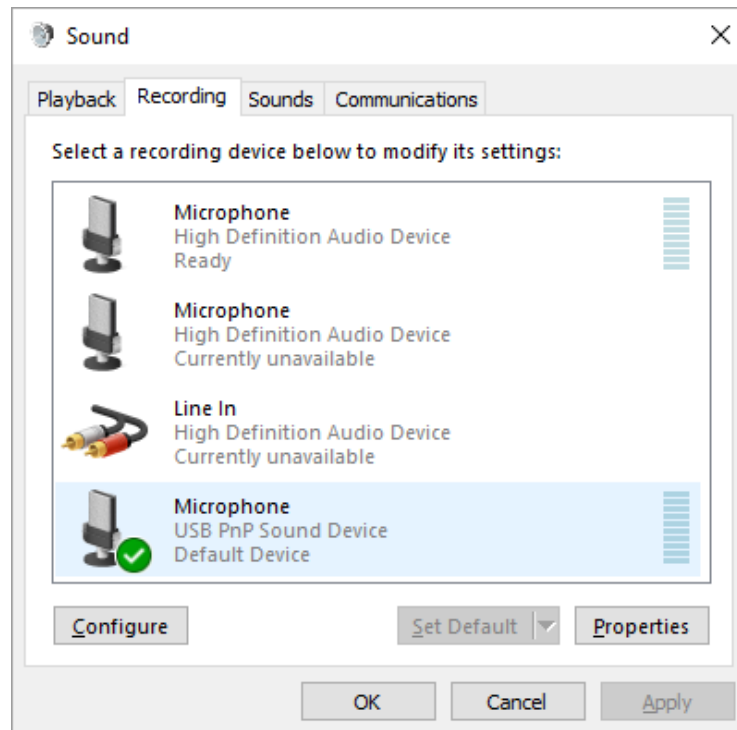
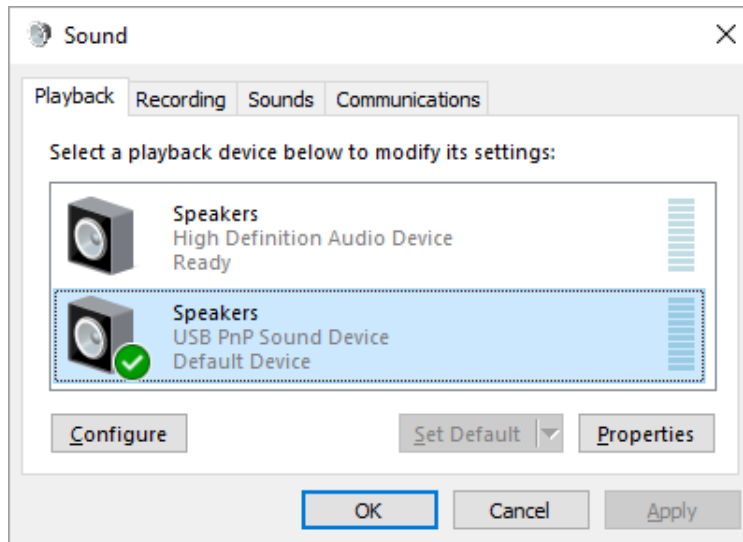
add station 77400                                     Page 4 of 5
                                                    STATION
SITE DATA
  Room:                                             Headset? n
  Jack:                                             Speaker? n
  Cable:                                           Mounting: d
  Floor:                                           Cord Length: 0
  Building:                                        Set Color:


ABBREVIATED DIALING
  List1:                                           List2:                                           List3:

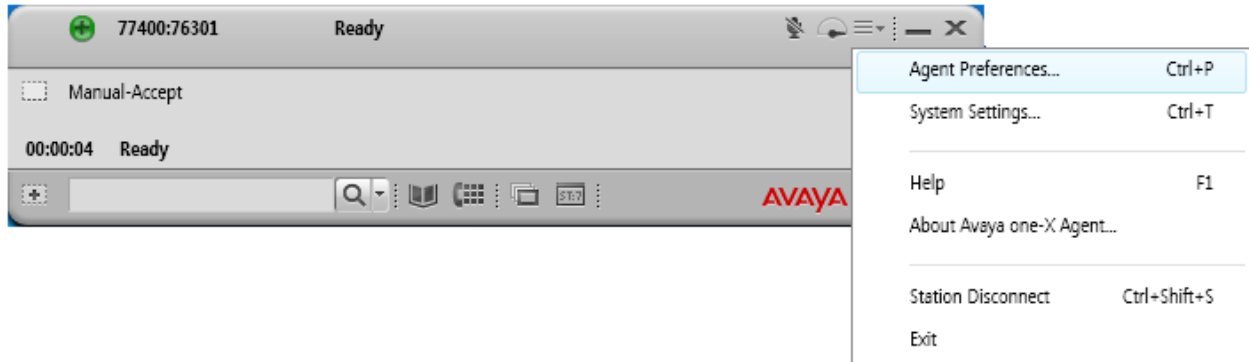
BUTTON ASSIGNMENTS
  1: call-appr                                     5: manual-in                                   Grp:
  2: call-appr                                     6: after-call                                  Grp:
  3: call-appr                                     7: aux-work   RC:       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

6. Configure Avaya one-X® Agent

Prior to configuring one-X Agent, connect the Crystal 2831/2832 Headset and DN1011 USB Cable a USB port on the desktop PC running one-X Agent; otherwise, one-X Agent will not detect the headset. 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.



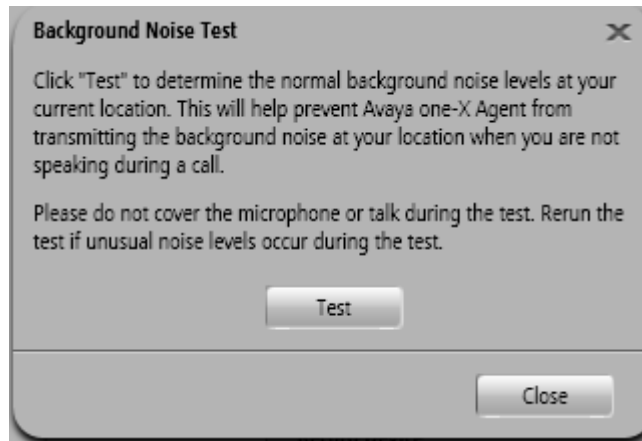
After logging into one-X Agent, click on  and then select **Agent Preferences** as shown below.



The headset 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.



7. Install ADDASOUND Crystal 2831/2832 Headset and ADDASOUND DN1011 USB Cable

Connect the Crystal 2831/2832 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.

8. Verification Steps

This section provides the tests that can be performed to verify proper installation and configuration of the Crystal 2831/2832 Headset and 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 2831/2832 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 2831/2832 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 7.1.1, Issue 2, August 2017.*
- [2] *Installing and Configuring Avaya one-X® Agent, Release 2.5.4, Issue 1, December 2013.*

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