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Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Agent AG Headsets from Corporate Telecommunications with Avaya 2400 Series Digital Telephones using a HIC chord – Issue 1.0

Abstract

These Application Notes describe the configuration steps for provisioning Agent headsets using a HIC chord from Corporate Telecommunications with Avaya 2400 Series Digital Telephones to ensure full interoperability.

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.

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Solution & Interoperability Test Lab Application Notes
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CT_HICAG_2400

1. Introduction

These Application Notes describe the configuration steps required to integrate Agent AG Headsets using a HIC cord from Corporate Telecommunications with Avaya 2400 Series Digital Telephones. Corporate Telecommunications offer a variety of headsets (listed in **Section 4**) that can be used with the Avaya 2400 Series telephone using the HIC chord to connect the headset to the telephone RJ9 headset jack. The headset then provides two-way audio. This solution does not provide call control features directly from the headset, such as answering or terminating a call from the headset. The headsets do not offer volume control or mute functionality.

Corporate Telecommunications design and develop professional headsets for the Corporate, Financial, Health, Government, Educational, Industrial, Hotel & Hospitality and Contact Centre market sectors.

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 the Avaya 2400 Series Digital Telephones with each Agent headset attached using the HIC chord and verifying two-way audio. The call types included calls to voicemail, to local extensions, and to the PSTN. The Avaya telephone user should be clearly heard and observed without any distortions or audio issues. The serviceability testing focused on verifying the usability of the Agent headset after restarting the Avaya 2400 Series Digital Telephones and re-connecting the Agent headset.

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

The following Agent headsets were used for compliance testing.
- AG-1
- AG-2

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 from/to internal extensions to verify two-way audio.
- Placing calls from/to the PSTN to verify two-way audio.
- Hearing ring back tone for outgoing calls.
- Toggling between handset, speakerphone, and headset.
- Using the volume control buttons on the Avaya telephone to adjust the audio volume.

2.2. Test Results

All compliance test cases passed successfully. The following observations were noted.
- No specific configuration changes were made on the Avaya telephone. The default headset settings that were already in place were used during compliance testing.

2.3. Support

Support from Avaya is available by visiting the website http://support.avaya.com. Support from Corporate Telecommunications is available at:
Corporate Telecommunications
4-6 Commonwealth Close
Leigh Business Park
Leigh
Greater Manchester
WN7 3BD
+44(0)1942 262526
info@agentheadsets.com

3. Reference Configuration

Figure 1 shows the network topology during compliance testing. The Agent headsets are connected to the RJ9 headset port on the Avaya Telephones using a HIC chord supplied by Corporate Telecommunications.
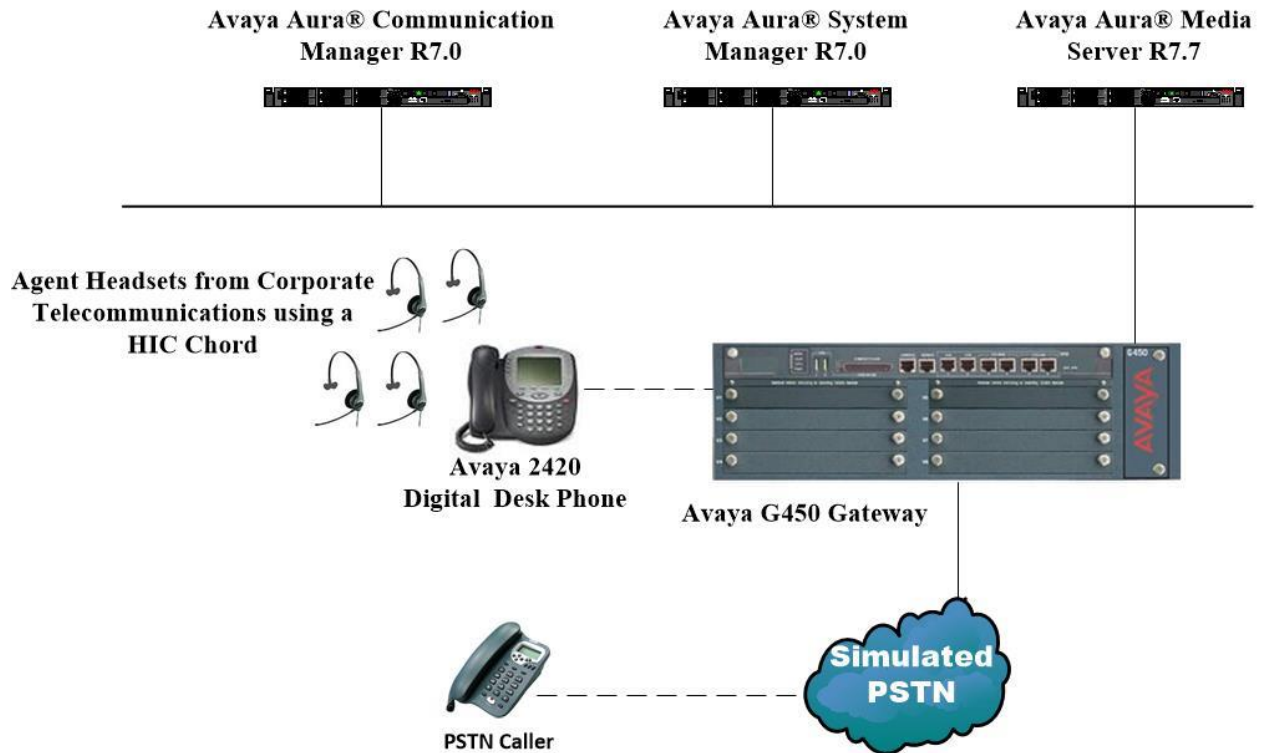

Figure 1: Network Solution of the Agent Headsets from Corporate Telecommunications connecting to Avaya 2400 Series Digital Telephones using a HIC chord

4. Equipment and Software Validated

The following equipment and software was used for the compliance test.

Equipment/Software	Release/Version
Avaya Aura® System Manager running on a virtual server	System Manager 7.0.1.1 Build No. - 7.0.0.0.16266 Software Update Revision No: 7.0.1.1.065378 Service Pack 1
Avaya Aura® Communication Manager running on a virtual server	R7.0 R017x.00.0.441.0 00.0.441.0-23169
Avaya Media Server running on a virtual server	Media Server SYSTEM R7.7.0.8 Media Server R7.7.0.200
Avaya G450 Gateway	37.19.0 /1
Avaya 2420 Digital Deskphone	V5.0
Corporate Telecommunications Agent AG-1 Headset Corporate Telecommunications Agent AG-2 Headset	N/A
Corporate Telecommunications HIC Chord	N/A

5. Configure Avaya Communication Manager

It is assumed that a fully functioning Communication Manager is in place with the necessary licensing. For further information on the configuration of Communication Manager please see **Section 10** of these Application Notes. This section covers the station configuration for the Avaya 2400 series digital telephones. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

5.1. Configure Avaya 2400 Series Digital Telephone

Note: To enable Auto-Answer on the IP telephone set the **Auto Answer** field on **Page 2** to the appropriate value, such as **all**.

```
display station 2500                                          Page   2 of   5
                              STATION
FEATURE OPTIONS
             LWC Reception: spe            Auto Select Any Idle Appearance? n
            LWC Activation? y                       Coverage Msg Retrieval? y
   LWC Log External Calls? n                             Auto Answer: all
              CDR Privacy? n                            Data Restriction? n
     Redirect Notification? y             Idle Appearance Preference? n
  Per Button Ring Control? n              Bridged Idle Line Preference? n
      Bridged Call Alerting? n                    Restrict Last Appearance? y
   Active Station Ringing: single

                                                       EMU Login Allowed? n
         H.320 Conversion? n        Per Station CPN - Send Calling Number?
          Service Link Mode: as-needed                   EC500 State: enabled
          Multimedia Mode: enhanced            Audible Message Waiting? n
   MWI Served User Type:                       Display Client Redirection? n
             AUDIX Name:                       Select Last Used Appearance? n
                                               Coverage After Forwarding? s
                                               Multimedia Early Answer? n
 Remote Softphone Emergency Calls: as-on-local Direct IP-IP Audio Connections? y
  Emergency Location Ext: 2500          Always Use? n IP Audio Hairpinning? n
```

6. Configuring Avaya Telephones

The headset can be used with the Avaya 2400 Series IP Telephones settings all left as default. Calls can be made and answered using the headset button on the telephone set. Some settings can be changed to allow the headset be the default answering device for all incoming calls if required.

6.1. Setting the audio path on an Avaya 2400 Digital Telephone

Each Avaya 2400 digital telephone can be set to go off-hook on the speaker or the headset when an on-hook call is made .If auto-answer is set up, incoming calls are also answered on the default audio path designated here. This setting also determines whether the voice dialling feature gets its input from the speaker or the headset. Procedure is as follows.

1. Press Avaya Menu.
2. Select Call Settings.
3. Press Select or OK.
4. Select Audio Path.
5. Press Change or OK or use the Right/Left arrows to change the speaker or headset setting. Press Save.

7. Configure Agent AG Headsets to work with Avaya Telephones

There are several RJ9 cords available to connect the headset to the Avaya telephone depending on the telephone in question. For the Avaya 2400 series telephones a HIC chord is used with the Agent AG headsets. There are two Agent AG Headsets that will work with the Avaya 2420 Series IP deskphone and they are the AG-1 (mono-aural) and AG-2 (bi- aural).

7.1. Connecting to Avaya 2400 Series Telephones

In connecting the Agent headset to the Avaya 2400 series telephone the suggested cord to use is the HIC chord. Connect each headset to the HIC chord, and then connect the HIC chord directly to the headset port of the Avaya 2400 series digital telephone.

8. Verification Steps

The following steps can be taken to ensure that connections between the Agent headsets and Avaya telephones are achieved.
1. When the headset is connected to the telephone set press the headset key on the telephone set. The headset LED should light up and dial tone should be heard.
2. To answer a call press the headset key when the telephone is ringing again the headset LED should be lit.
3. If Auto Answer has been set as per **Section 5**, then the call should be automatically answered when the telephone extension is called.

9. Conclusion

These Application Notes outline the steps necessary to configure the Agent AG Headsets from Corporate Telecommunications using a HIC chord to allow full interoperability with Avaya 2400 Series Digital Telephones. Please refer to **Section 2.2** of these Application Notes for test results and observations.

10. Additional References

This section references documentation relevant to these Application Notes. Product documentation for Avaya products may be found at http://support.avaya.com

[1] *Administering Avaya Aura® Communication Manager,* Document Number 03-300509.
[2] *Avaya Aura® Communication Manager Feature Description and Implementation,* Document Number 555-245-205.
[4] *Avaya 2400 Series Digital Deskphone User Guide for Avaya Aura® Communication Manager*. 16-603535 Issue 1 August 2011

Agent Headset and HIC Chord product documentation can be found by contacting Corporate Telecommunications whose contact information is contained in **Section 2.3** of these Application Notes.

Appendix

Avaya 2420 Digital Telephone

```
display station 2500                                          Page   1 of   5
                                   STATION

Extension: 2500                        Lock Messages? n              BCC: 0
     Type: 2420                        Security Code: *               TN: 1
     Port: 002V301                  Coverage Path 1:                 COR: 1
     Name: Digital Set             Coverage Path 2:                 COS: 1
                                    Hunt-to Station:
STATION OPTIONS
                                          Time of Day Lock Table:
            Loss Group: 2         Personalized Ringing Pattern: 1
                                          Message Lamp Ext: 2500
          Speakerphone: 2-way            Mute Button Enabled? y
      Display Language: english            Button Modules: 0

         Survivable COR: internal
  Survivable Trunk Dest? y                         IP SoftPhone? y
                                        Remote Office Phone? n
                                        IP Video Softphone? n
                              Short/Prefixed Registration Allowed: default

                                         Customizable Labels? y
```

```
display station 2500                                          Page   2 of   5
                                   STATION
FEATURE OPTIONS
         LWC Reception: spe         Auto Select Any Idle Appearance? n
         LWC Activation? y                 Coverage Msg Retrieval? y
  LWC Log External Calls? n                          Auto Answer: none
          CDR Privacy? n                         Data Restriction? n
     Redirect Notification? y            Idle Appearance Preference? n
 Per Button Ring Control? n            Bridged Idle Line Preference? n
   Bridged Call Alerting? n                  Restrict Last Appearance? y
 Active Station Ringing: single
                                               EMU Login Allowed? n
        H.320 Conversion? n      Per Station CPN - Send Calling Number?
      Service Link Mode: as-needed              EC500 State: enabled
        Multimedia Mode: enhanced           Audible Message Waiting? n
   MWI Served User Type:                  Display Client Redirection? n
            AUDIX Name:                  Select Last Used Appearance? n
                                           Coverage After Forwarding? s
                                            Multimedia Early Answer? n
 Remote Softphone Emergency Calls: as-on-local Direct IP-IP Audio Connections? y
  Emergency Location Ext: 2500        Always Use? n IP Audio Hairpinning? n
```

```
display station 2500                                             Page   3 of   5
                                   STATION

              Conf/Trans on Primary Appearance? n
   Bridged Appearance Origination Restriction? n    Offline Call Logging? y


              Call Appearance Display Format: disp-param-default

Enhanced Callr-Info Display for 1-Line Phones? n

                           ENHANCED CALL FORWARDING
                                 Forwarded Destination        Active
 Unconditional For Internal Calls To: 1001                       n
                External Calls To: 1001                          n
        Busy For Internal Calls To:                              n
                External Calls To:                               n
    No Reply For Internal Calls To:                              n
                External Calls To:                               n

          SAC/CF Override: n
```

```
display station 2500                                             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:
 2: call-appr                        6:
 3: call-appr                        7:
 4:                                  8:

     voice-mail
```