



## **Application Notes for Configuring Agent AP Headsets from Corporate Telecommunications with Avaya 1600 Series IP Telephones using a HIS Chord – Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps for provisioning Agent AP Headsets using a HIS cord from Agent Limited with Avaya 1600 Series IP Telephones using the H.323 protocol 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.

# 1. Introduction

These Application Notes describe the configuration steps required to integrate Agent AP Headsets using a HIS chord from Corporate Telecommunications with Avaya 1600 Series IP telephones using H.323 protocol. Agent Limited offer a variety of headsets (listed in **Section 4**) that can be used with the Avaya 1600 Series telephone using the HIS 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 1600 Series IP telephones with each Agent headset attached using the HIS 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 1600 Series IP 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 interoperability compliance testing was carried out on the latest H323 firmware for Avaya 1600 Series IP telephones. There are two Agent AP Headsets that will work with the Avaya 1600 Series IP telephones and they are the AP-1 mono-aural and AP-2 bi-aural headsets. The following Agent Headsets were used for compliance testing.

- AP-1
- AP-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.
- This solution does not provide call control features directly from the headset, such as answering or terminating a call from the headset.

## 2.3. Support

Support from Avaya is available by visiting the website <http://support.avaya.com>. Support from Corporate Telecommunications is available at:

David Simpson

Corporate Telecommunications

4-6 Commonwealth Close

Leigh Business Park

Leigh

Greater Manchester

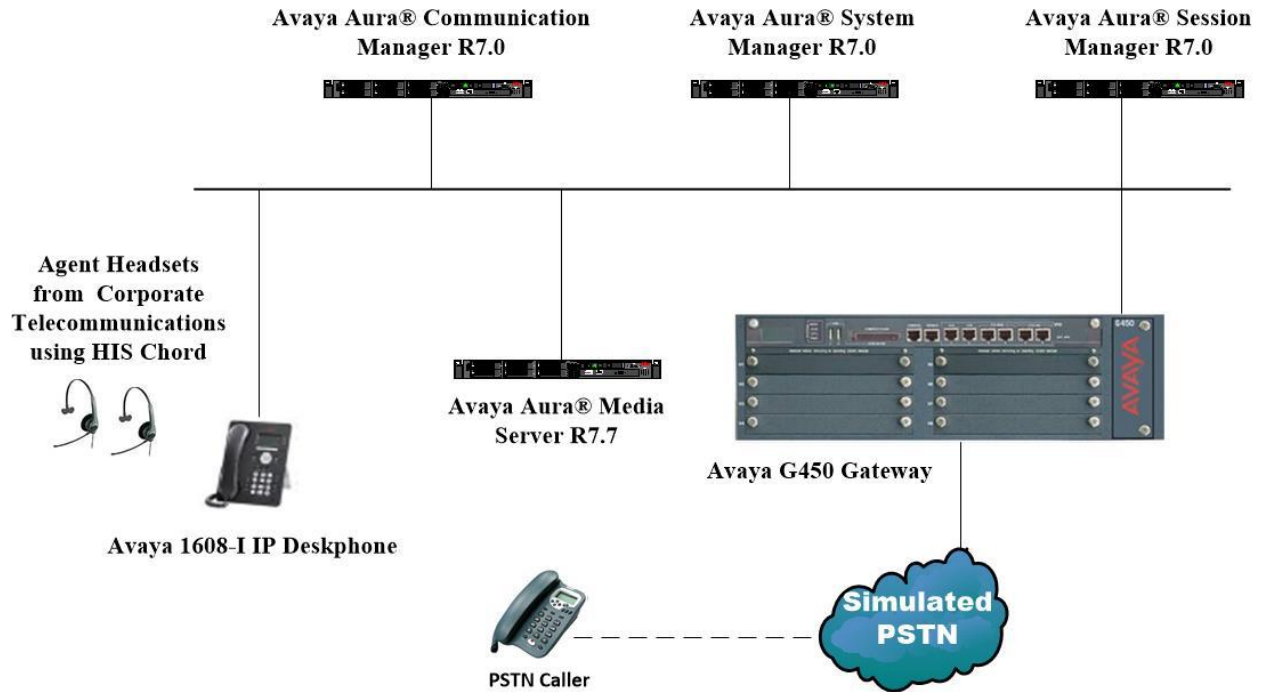
WN7 3BD

+44(0)1942 262526

[info@agentheadsets.com](mailto: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 HIS chord supplied by Corporate Telecommunications.



**Figure 1: Network Solution of the Corporate Telecommunications Agent Headsets connecting to Avaya 1600 Series IP Telephones using a HIS chord**

## 4. Equipment and Software Validated

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

<b>Equipment/Software</b>	<b>Release/Version</b>
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® Session Manager running on a virtual server	R7.0 SP1 Build No. – 7.0.1.1.701114
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 1608 I Deskphone Avaya 1616 I Deskphone	H323 1608UA1_350B.bin
Corporate Telecommunications Agent AP-1 Headset Corporate Telecommunications Agent AP-2 Headset	N/A
Corporate Telecommunications HIS 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 1600 Series IP telephones. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

### 5.1. Configure Avaya 1600 Series H323 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 2016                                     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
                                                    Direct IP-IP Audio Connections? y
Emergency Location Ext: 2016                            Always Use? n IP Audio Hairpinning? n
```

## 6. Configuring Avaya Telephones

The headset can be used with the Avaya 1600 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 1600 Series IP Telephone

Each Avaya 1600 Series IP 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 Options & Settings.
3. Press Select or OK.
4. Select Call Settings.
5. Press Select or OK.
6. Select Audio Path.
7. Press Change or OK or use the Right/Left arrows to change the speaker or headset setting. Press Save.

## 7. Configure Agent AP Headsets to work with Avaya Telephones

There are two Agent AP Headsets that will work with the Avaya 1600 Series IP deskphone and they are the AP-1 mono-aural and AP-2 bi-aural headsets.

### 7.1. Connecting to Avaya 1600 Series Telephones

In connecting the agent headsets to the Avaya 1600 Series IP telephones, the suggested chord to use is the HIS in position 4. The HIS offers 8 switch positions which can be changed by selecting position 1 – 8 along the side of the chord. After compliance testing it was agreed that position 4 proved the best for audio and speech.

## 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 headsets from Corporate Telecommunications using a HIS chord to allow full interoperability with Avaya 1600 Series IP 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.
- [3] *Administering Avaya Aura® Session Manager*, Doc ID 03-603324.
- [4] *Avaya one-X® Deskphone Edition for 1600 Series IP Telephones Installation and Maintenance Guide*, Release 3.1, Issue 7, Document Number 16-300694.

Agent AP Headset and HIS 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 1608 H323 IP Deskphone

```
display station 2016                                     Page 1 of 5
                                                    STATION
Extension: 2016                                         Lock Messages? n      BCC: M
  Type: 1608                                           Security Code: *      TN: 1
  Port: S00102                                         Coverage Path 1:      COR: 1
  Name: CCT Agent2                                     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: 2016
  Speakerphone: 2-way                                 Mute Button Enabled? y
  Display Language: english                           Button Modules: 0
  Survivable GK Node Name:                             Media Complex Ext:
  Survivable COR: internal                             IP SoftPhone? y
  Survivable Trunk Dest? y                             IP Video Softphone? y
                                                    Short/Prefixed Registration Allowed: default
                                                    Customizable Labels? y
```

```
display station 2016                                     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: 2016                         Always Use? n IP Audio Hairpinning? n
```

```

display station 2016                                     Page 3 of 5
                                     STATION
    Conf/Trans on Primary Appearance? n
    Bridged Appearance Origination Restriction? n      Offline Call Logging? y
    Require Mutual Authentication if TLS? n

    Call Appearance Display Format: disp-param-default
    IP Phone Group ID:
    Enhanced Callr-Info Display for 1-Line Phones? n

    ENHANCED CALL FORWARDING
    Forwarded Destination      Active
Unconditional For Internal Calls To: 2015             n
    External Calls To: 2015             n
    Busy For Internal Calls To:             n
    External Calls To:             n
    No Reply For Internal Calls To: 2015             n
    External Calls To: 2015             n

    SAC/CF Override: n

```

```

display station 2016                                     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

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