Avaya Solution & Interoperability Test Lab

Application Notes for Configuring the JPL JAC Headset from JPL Limited with Avaya 9400 Series Digital Telephones – Issue 1.0

Abstract

These Application Notes describe the configuration steps for provisioning the JPL JAC headset from JPL Limited with Avaya 9400 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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1 of 12
JPLJAC_9400

1. Introduction

These Application Notes describe the configuration steps required to integrate JPL JAC Headsets from JPL Limited with Avaya 9400 Series Digital Telephones. JPL Limited offer a variety of headsets that can be used with the Avaya 9400 Series Digital telephones these Application Notes focus on the JAC headset from JPL Limited. The JAC headset is a Binaural Office Corded Headset (RJ11) that plugs directly into the Avaya telephone headset port. 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.

JPL Limited 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 9400 Series Digital Telephones with the JPL JAC headset 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 JPL JAC headset after restarting the Avaya 9400 Series Digital Telephones and re-connecting the JPL JAC 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 firmware for Avaya 9400 Series Digital Telephones. 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 JPL Limited is available at:

JPL Limited
Unit 1, Church Close Business Park
Church Close, Todber
Sturminster Newton
Dorset DT10 1JH
England
Phone: +44(0)1258 820100
E-Mail: sales@jpl.uk.com

3. Reference Configuration

Figure 1 shows the network topology during compliance testing. The JPL JAC headset is connected to the RJ11 headset port on the Avaya Telephones.

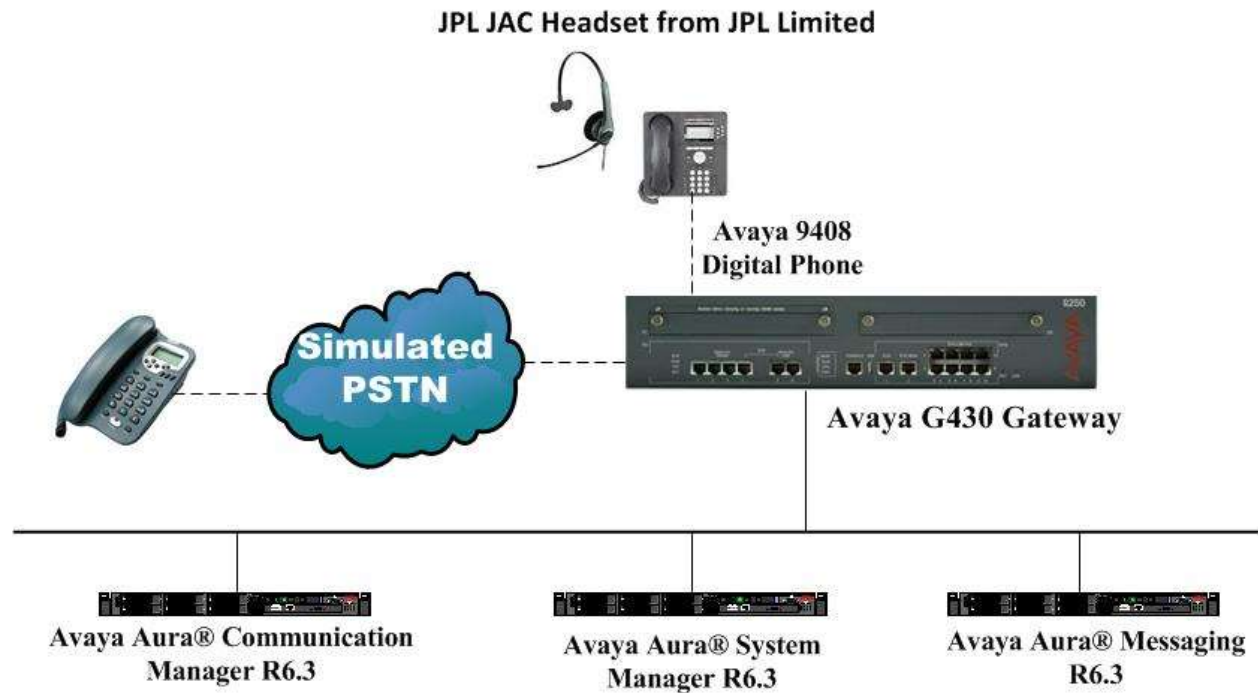**Figure 1: Network Solution of the JPL JAC Headset connecting to Avaya 9400 Series Digital Telephones**

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SPOC 8/3/2015

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4 of 12
JPLJAC_9400

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	6.3.11 (SP11) Build No. – 6.3.0.8.5682-6.3.8.3204 Software Update Revision No: 6.3.7.7.2275
Avaya Aura® Communication Manager running on a virtual server	R6.3 SP9 R016x.03.0.124.0
Avaya Aura® Messaging running on a virtual server	R6.3
Avaya 9408 Digital Telephone	V2
JPL Limited JAC Headset	N/A

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SPOC 8/3/2015

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5 of 12
JPLJAC_9400

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 9400 series digital telephones. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

5.1. Configure Avaya 9400 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 9400 Series IP telephone's 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 9400 Digital Telephone

Each Avaya 9400 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 JPL Headsets to work with Avaya Telephones

In connecting the JPL JAC headset to the Avaya 9400 series telephone, plug the JAC headset cord directly to the headset port of the Avaya 9408 telephone.

Note: There is no separate cord that is supplied with the JAC headset. This headset has the cord attached and it is plugged into the headset port on the telephone.

8. Verification Steps

The following steps can be taken to ensure that connections between the JPL 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 JPL JAC headset from JPL Limited to allow full interoperability with Avaya 9400 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 9400 Series Digital Deskphone User Guide for Avaya Aura® Communication Manager*. 16-603535 Issue 1 August 2011.

JPL headset product documentation can be found at http://www.jpltele.com

Appendix

Avaya 9408 Digital Telephone

```
display station 2500                                           Page   1 of   5
                                 STATION

Extension: 2500                           Lock Messages? n           BCC: 0
    Type: 9408                           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
```