Avaya Solution & Interoperability Test Lab

Application Notes for Configuring JPL X400 Cordless DECT Headset with Handset Lifter from JPL Limited with Avaya 9600 Series IP Telephones – Issue 1.0

Abstract

These Application Notes describe the configuration steps for provisioning JPL X400 Cordless DECT Headset with Handset Lifter from JPL Limited with Avaya 9600 Series IP Telephones using both H323 and SIP protocols 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. Introduction

These Application Notes describe the configuration steps required to integrate JPL X400 Cordless DECT Headset with Handset Lifter (JPL-X400) from JPL Limited with Avaya 9600 Series IP Telephones using both H323 and SIP protocols.

The JPL-X400 is a wireless DECT headset; ideal for use at home, in a call centre and in any sized office. The noise cancelling microphone produces quality sound and digital volume control allows the adjustment of noise levels with ease. With 9 hours of talk time and 150 metre range, the JPL-X400 gives freedom and flexibility around a working environment.

This solution does not provide call control features directly from the headset, such as answering or terminating a call from the headset. This is done mechanically using the handset lifter provided with the JPL-X400 wireless DECT 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 9600 Series IP Telephones with each JPL-X400 headset attached 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 headset after restarting the Avaya 9600 Series IP Telephones and re-connecting the JPL 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 SIP and H323 firmware for Avaya 9600 Series IP 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.
- 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 observation was noted.

- No configuration changes were made on the individual telephone. Whatever default settings for the headset were in place was used to test with.
- The positioning of the handset lifter is important for the 9600 Series telephones because it difficult for the lifter to lift the handset when it's not placed correctly.

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-X400 headset is connected to the telephone via an RJ9 cord from the DECT base station and a lifter is used to lift the handset of the telephone to answer a call.
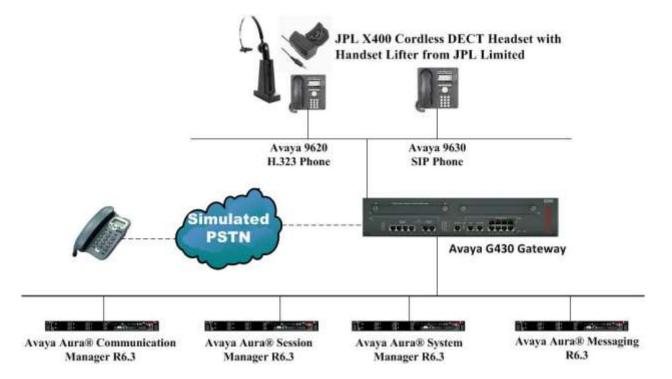

Figure 1: Network Solution of the JPL X400 Cordless DECT Headset with Handset Lifter connecting to Avaya 9600 Series IP Telephones

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® Session Manager running on a virtual server	R6.3 SP11 Build No. – 6.3.11.0.631103
Avaya Aura® Messaging running on a virtual server	R6.3
Avaya 9620 IP Telephone running Avaya one-X® Deskphone H323	Release S3.220A
Avaya 9630 IP Telephone running Avaya one-X® Deskphone SIP	V2.6.13.1
JPL Limited X400 Cordless DECT Headset with Handset Lifter	N/A

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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 9600 IP Telephones. The configuration is performed via the System Access Terminal (SAT) on Communication Manager or via Avaya Aura® System Manager for SIP stations.

5.1. Configure Avaya 9600 Series 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 2015                                        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: 2015       Always Use? n IP Audio Hairpinning? n
```

6. Configuring Avaya 9600 Series IP Telephones

Because a lifter is used to answer an incoming call there is no specific configuration required for any of the 9600 Series telephones.

7. Configure JPL X400 Wireless Headset to work with Avaya Telephones

The following lifter is used to lift the handset on the 9600 series telephone. This is manually fitted under the handset and can be adjusted to lift the handset a certain height.

Note: With the JPL-X400 headset the base station is connected to the handset port on the 9600 series telephone using the RJ9 cord provided. Typically with a headset the headset port is used but because the lifter is used the handset port is used.

Plug out the handset cord on the Avaya 9600 telephone and plug in the RJ9 cord from the base station.

8. Verification Steps

The following steps can be taken to ensure that connections between the JPL headsets and Avaya 9600 Series IP Telephones are achieved.
1. To answer a call press the button on the headset when the telephone is ringing the lifter should operate and lift the handset of the telephone. The call is then heard on the headset.

9. Conclusion

These Application Notes outline the steps necessary to configure the JPL X400 Cordless DECT Headset with Handset Lifter from JPL Limited to allow full interoperability with Avaya 9600 Series IP telephones, with both H323 and SIP firmware. 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 9600 Series IP Telephones Installation and Maintenance Guide*, Release 3.1, Issue 7, Document Number 16-300694.

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

Appendix

Avaya 9620 H323 IP Deskphone

```
display station 2015                                       Page   1 of   5
                              STATION

Extension: 2015                      Lock Messages? n              BCC: 0
    Type: 9620                      Security Code: *                TN: 1
    Port: S00018                  Coverage Path 1:                 COR: 1
    Name:                         Coverage Path 2:                 COS: 1
                                  Hunt-to Station:
STATION OPTIONS
              Location:                Time of Day Lock Table:
           Loss Group: 19      Personalized Ringing Pattern: 1
                                      Message Lamp Ext: 2015
          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? n

                                             IP Video? n
                      Short/Prefixed Registration Allowed: default


                                      Customizable Labels? y
```

```
display station 2015                                       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
                                    Direct IP-IP Audio Connections? y
 Emergency Location Ext: 2015     Always Use? n IP Audio Hairpinning? n
```

```
display station 2015                                          Page   3 of   5
                                STATION

             Conf/Trans on Primary Appearance? n
   Bridged Appearance Origination Restriction? 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:                        n
                 External Calls To:                           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 2015                                          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
```

Avaya 9630 SIP IP Deskphone

```
display station  3017                                       Page   1 of   6
                              STATION

Extension: 3017                       Lock Messages? n          BCC: 0
    Type: 9630SIP                     Security Code: *           TN: 1
    Port: S00032                    Coverage Path 1:            COR: 1
    Name:                           Coverage Path 2:            COS: 1
                                    Hunt-to Station:
STATION OPTIONS
                Location:                Time of Day Lock Table:
            Loss Group: 19

                                         Message Lamp Ext: 3017

      Display Language: english            Button Modules: 0


        Survivable COR: internal
  Survivable Trunk Dest? y                     IP SoftPhone? n

                                                IP Video? n
```

```
Display station 3017                                        Page   2 of   6
                              STATION
FEATURE OPTIONS
          LWC Reception: spe
          LWC Activation? y                    Coverage Msg Retrieval? y
                                                      Auto Answer: none
            CDR Privacy? n                         Data Restriction? n
                                            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

        H.320 Conversion? n      Per Station CPN - Send Calling Number?
                                                  EC500 State: enabled

   MWI Served User Type:
            AUDIX Name:

                                      Coverage After Forwarding? s

                                      Direct IP-IP Audio Connections? y
 Emergency Location Ext: 3017    Always Use? n IP Audio Hairpinning? n
```

```
display station 3017                                       Page   3 of   6
                                 STATION


   Bridged Appearance Origination Restriction? n



                              IP Phone Group ID:


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

```
display station 3017                                       Page   4 of   6
                                 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:                                7:
 4:                                8:
```