



## **Application Notes for Configuring JPL X400 Cordless DECT Headset with Handset Lifter from JPL Limited with Avaya 9400 Series Digital 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 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.

# 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 9400 Series Digital Telephones.

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 9400 Series Digital 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 9400 Series Digital 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 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.
- 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 9400 Series telephones because it difficult for the lifter to lift the handset when it's not placed correctly.

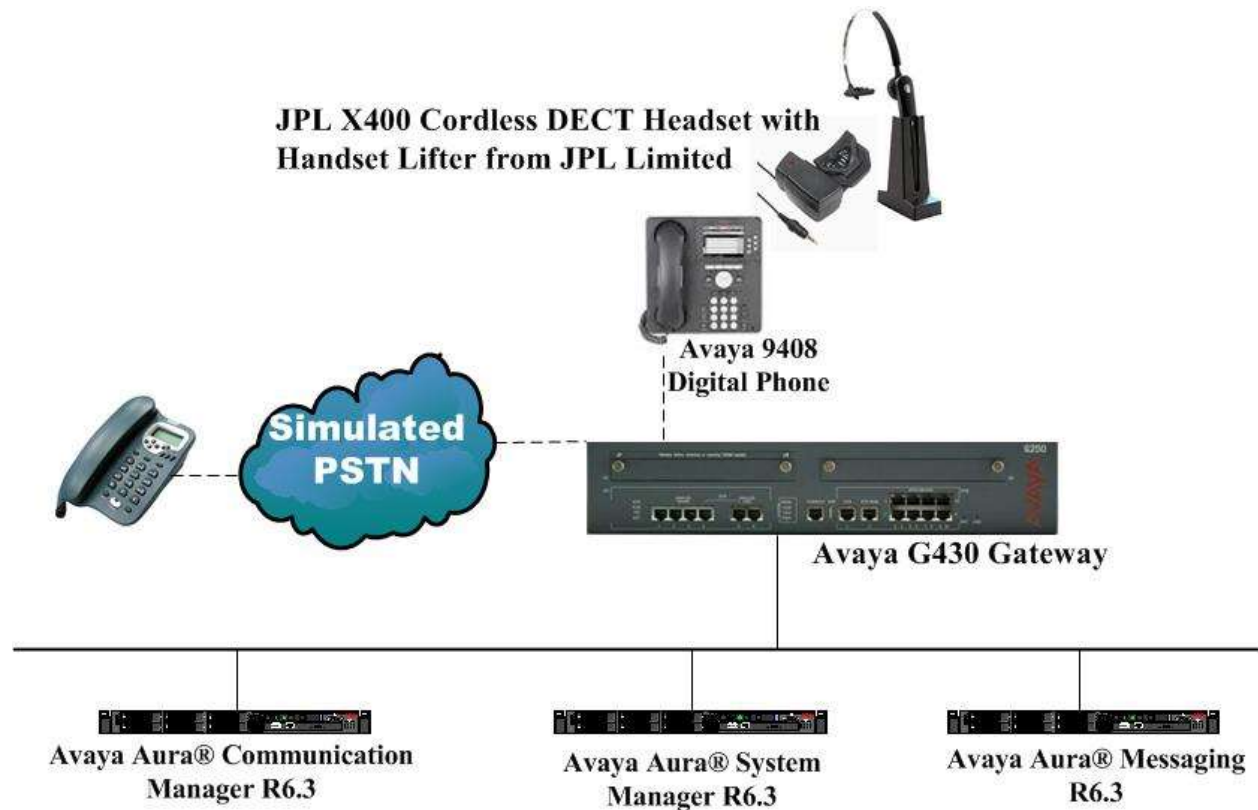
## **2.3. Support**

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](mailto: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 9400 Series Digital 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 9408 Digital Telephone	V2
JPL Limited X400 Cordless DECT Headset with Handset Lifter	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 9400 Digital Telephones. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

### 5.1. Configure Avaya 9400 Series Telephone

**Note:** To enable Auto-Answer on the Digital 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	<b>Auto Answer: all</b>	
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 9400 Series Digital Telephones

Because a lifter is used to answer an incoming call there is no specific configuration required for any of the 9400 Series Digital telephones.

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

The following lifter is used to lift the handset on the 9400 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 9400 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 9400 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 9400 Series Digital 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 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.
- [3] *Administering Avaya Aura® Session Manager*, Doc ID 03-603324.
- [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	

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		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

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STATION

```

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

```

Call Appearance Display Format: disp-param-default

## Enhanced Caller-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

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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-appx      5:
2: call-appx      6:
3: call-appx      7:
4:                8:
```

voice-mail

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