



Avaya Solution & Interoperability Test Lab

Application Notes for GN Netcom Jabra PRO 9470 headset and Jabra PC Suite with Avaya one-X® Communicator and Avaya one-X® Agent - Issue 1.0

Abstract

These Application Notes describe a compliance-tested configuration comprised of a GN Netcom Jabra PRO 9470 headset and Jabra PC Suite with Avaya one-X® Communicator and Avaya one-X® Agent.

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 compliance tested configuration using GN Netcom's Jabra PRO 9470 headsets and Jabra PC suite with Avaya one-X® Communicator and Avaya one-X® Agent. For this compliance test the Avaya one-X® clients, are connected to Avaya Aura™ Communication Manager and installed as standalone clients.

The Jabra PRO 9470 headset is a wireless headset with a touch screen base for easy call control. For this compliance test the Jabra PRO 9470 connects via DECT to the touch screen base which plugs into a PC USB port enabling the use of the Jabra PRO 9470 headset together with one-X® Communicator or one-X® Agent. The Jabra PC Suite integrates with one-X® Communicator and one-X® Agent to provide basic call control functions to the Jabra PRO 9470 such as answering or hanging up a call. The Jabra PRO 9470 is equipped with a multi function button at the rear of the headset for answering and ending calls and a touch sensitive pad on the side of the headset for mute activation and volume control.

1.1 Interoperability Compliance Testing

Avaya 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 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.

The interoperability compliance test included both feature functionality and serviceability testing. The feature functionality testing focused on placing calls from Avaya one-X® Communicator and Avaya one-X® Agent endpoints equipped with the Jabra PRO 9470 headset and verifying that good quality audio was sent and received. Additional features of the Jabra PRO 9470 headset such as muting the microphone, adjusting incoming volume and the visual confirmation of feature activation were also verified. Intra-switch calls were made on the Communication Manager and inbound and outbound calls to and from a simulated PSTN.

The serviceability testing focused on verifying the usability of the Jabra PRO 9470 headset after restarting Avaya one-X® Communicator or Avaya one-X® Agent and disconnecting and reconnecting the USB headset from the desktop PC running the one-X endpoint.

1.2 Support

Technical support for the Avaya products can be obtained from Avaya. See the support link at support.avaya.com for contact information.

Technical support can be obtained for GN Netcom Jabra products from GN Netcom. See the support link at www.jabra.com/avaya for contact information.

2 Reference Configuration

Figure 1 illustrates the test configuration used during compliance testing to verify the GN Netcom solution. The configuration comprised of Avaya S8730 Server running Communication Manager and an Avaya G650 Media Gateway as the PBX. Avaya one-X Communicator and one-X Agent is installed on a desktop PC and are connected to the PBX via H.323. GN Netcom's Jabra PC Suite is installed on the desktop PC. Jabra PRO 9470 headsets connect to a USB port on the PC running the Avaya one-X clients and Jabra PC Suite.

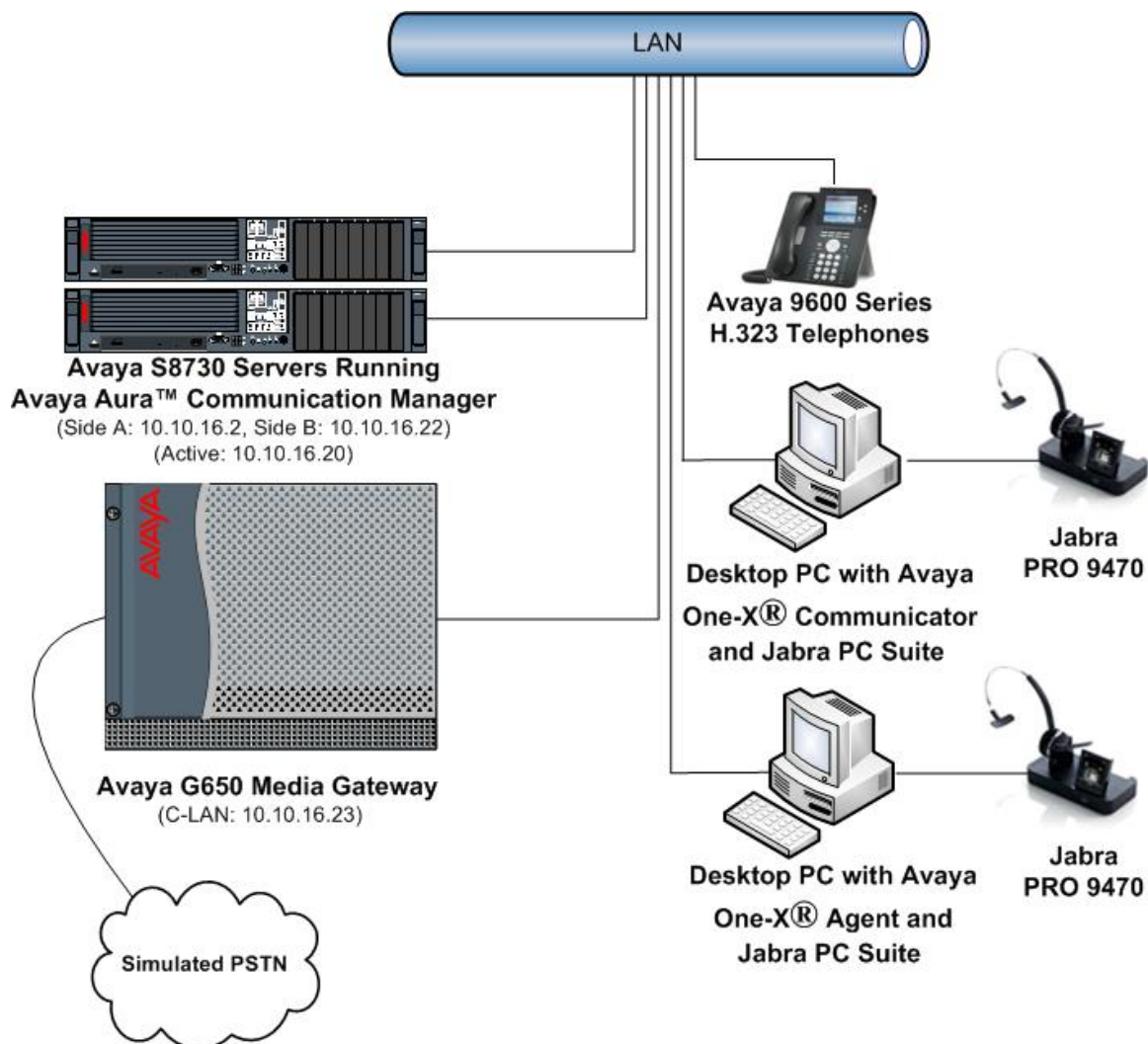


Figure 1: Network Topology

3 Equipment and Software Validated

All the hardware and associated software used in the compliance testing is listed below.

Equipment	Software Version
Avaya S8730 Server	Avaya Aura™ Communication Manager 5.2.1 (R015x.02.1.016.4)
Avaya G650 Media Gateway - CLAN TN799DP - IP Media Processor TN2602AP	HW16, FM38 HW08, FM55
Desktop PC, Windows XP Professional SP3	Avaya one-X® Communicator 5.2 (5.2.0.14)
Desktop PC, Windows XP Professional SP3	Avaya one-X® Agent 2.0 (2.0.016.3)
GN Netcom Jabra PC Suite	Release 2.2.6.0
GN Netcom Jabra PRO 9470 Headsets	Firmware 2.5.0

Table 1: Hardware and Software Version Numbers

4 Configuration of Avaya Aura™ Communication Manager

These Application Notes assume that Communication Manager is configured and operational. This section focuses only on the configuration of the station and agent. The values configured in this section were used during the compliance tests, default values may be used for any fields not configured in these Application Notes. The compliance tests with the Jabra PRO 9470 headsets and Jabra PC suite were carried out with the default server settings for audio parameters. Please refer [1] in **Section 12**. The configuration in this section is performed via the System Access Terminal (SAT) on Communication Manager.

4.1 Configure Station for Avaya one-X® Communicator

To create a station to be used by Avaya one-X Communicator use the **add station n** command; where **n** is an available extension in the dial-plan. Set the **Type** field to the IP Telephone type that will be emulated. In this compliance test the type was set to **9630**. In the **Security Code** field enter a password to be used by Avaya one-X Communicator to log in. Ensure that **IP SoftPhone?** is set to **y**. All other fields can be left as default.

add station 6640		Page 1 of 5
STATION		
Extension: 6640	Lock Messages? n	BCC: 0
Type: 9630	Security Code: 6640	TN: 1
Port: IP	Coverage Path 1: 1	COR: 1
Name: 1XC Station	Coverage Path 2:	COS: 1
	Hunt-to Station:	
STATION OPTIONS		
Loss Group: 19	Time of Day Lock Table:	
	Personalized Ringing Pattern: 1	
Speakerphone: 2-way	Message Lamp Ext: 6640	
Display Language: english	Mute Button Enabled? y	
Survivable GK Node Name:	Button Modules: 0	
Survivable COR: internal	Media Complex Ext:	
Survivable Trunk Dest? y	IP SoftPhone? y	
	IP Video Softphone? n	
	Customizable Labels? y	

4.2 Configure Station for Avaya one-X® Agent

To create a station to be used by Avaya one-X Agent use the **add station n** command; where **n** is an available extension in the dial-plan. Set the **Type** field to the IP Telephone type that will be emulated. In this compliance test the type was set to **9630**. In the **Security Code** field enter a password to be used by Avaya one-X Communicator to log in. Ensure that **IP SoftPhone?** is set to **y**.

add station 6641		Page 1 of 5
STATION		
Extension: 6641	Lock Messages? n	BCC: 0
Type: 9630	Security Code: 6641	TN: 1
Port: IP	Coverage Path 1: 1	COR: 1
Name: 1XA Station	Coverage Path 2:	COS: 1
	Hunt-to Station:	
STATION OPTIONS		
	Time of Day Lock Table:	
Loss Group: 19	Personalized Ringing Pattern: 1	
	Message Lamp Ext: 6641	
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? y	
	IP Video Softphone? n	
	Customizable Labels? y	

On **Page 2** of the station **Auto Answer** is set to **acd** to allow any agents logged in to the station to automatically answer Automatic Call Distribution (ACD) calls.

add station 6641		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: acd	
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		
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: 6641	Always Use? n IP Audio Hairpinning? n	
Precedence Call Waiting? y		

On **Page 4** assign the necessary agent work mode buttons. The assignment of **after-call**, **aux-work**, **release** and either **auto-in** or **manual-in** buttons are mandatory. For the compliance test both manual-in and auto-in buttons were provisioned.

add station 6641		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: enhanced 1	List2:	List3:	
BUTTON ASSIGNMENTS			
1: call-appr	5: manual-in	Grp:	
2: call-appr	6: after-call	Grp:	
3: call-appr	7: aux-work	RC:	Grp:
4: auto-in	8: release		
voice-mail Number:			

4.3 Configure Agent Login ID for Avaya one-X® Agent

To create an agent login ID to be used by Avaya one-X Agent use the **add agent-loginID n** command; where **n** is an available extension in the dial-plan. Enter and confirm a **Password** to be used by Avaya one-X Agent to log in the agent login ID. Set **Auto Answer** to **station** so that the agent login ID will follow the Auto Answer configuration of the station it logs in to.

add agent-loginID 6642		Page 1 of 2	
AGENT LOGINID			
Login ID: 6642		AAS? n	
Name: 1XA Agent		AUDIX? n	
TN: 1		LWC Reception:	spe
COR: 1		LWC Log External Calls?	n
Coverage Path:		AUDIX Name for Messaging:	
Security Code:		LoginID for ISDN/SIP Display?	n
		Password:	6642
		Password (enter again):	6642
		Auto Answer:	station
		MIA Across Skills:	system
		ACW Agent Considered Idle:	system
		Aux Work Reason Code Type:	system
		Logout Reason Code Type:	system
		Maximum time agent in ACW before logout (sec):	system
		Forced Agent Logout Time:	:
WARNING: Agent must log in again before changes take effect			

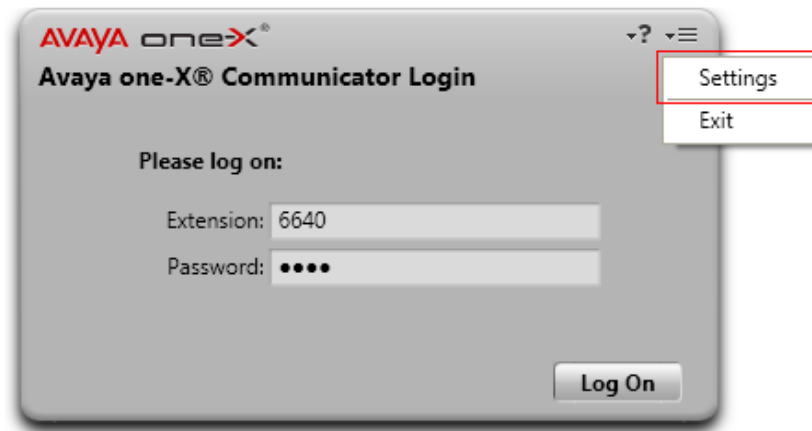
On **Page 2** under **SN** enter the required ACD skill group and under **SL** enter an associated skill level. In the example screen skill group **3** is used with a skill level of **1**

add agent-loginID 6642										Page 2 of 2																
										AGENT LOGINID																
Direct Agent Skill:										Service Objective? n																
Call Handling Preference: skill-level										Local Call Preference? n																
SN			RL			SL			SN			RL			SL			SN			RL			SL		
1: 3			1			16:			31:			46:														
2:						17:			32:			47:														
3:						18:			33:			48:														
4:						19:			34:			49:														

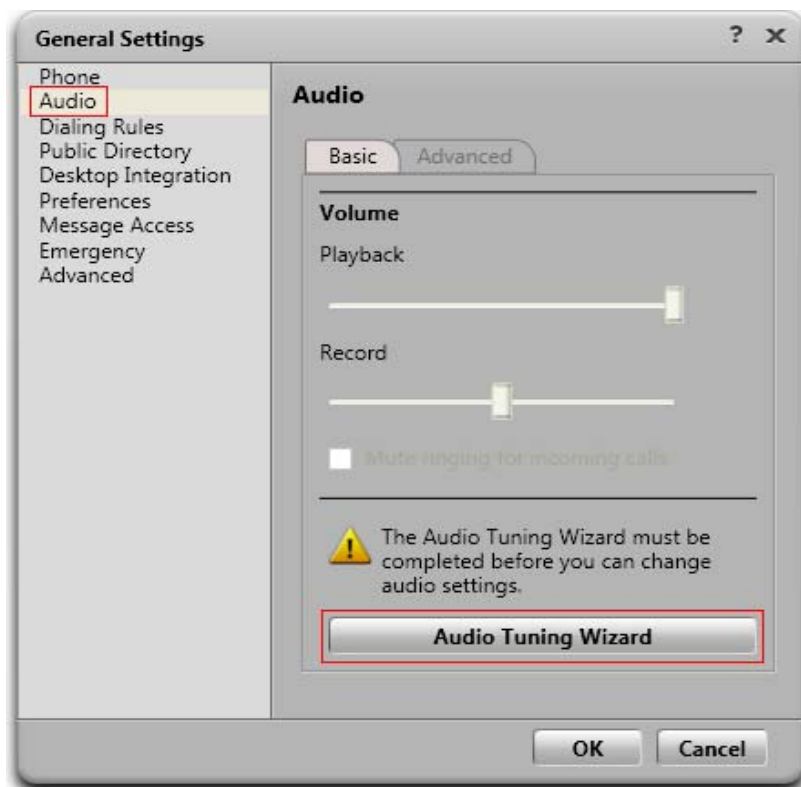
5 Configure Avaya One-X® Communicator

These Application Notes assume that Avaya one-X Communicator is already configured and operational. This section focuses only on the configuration for the Jabra PRO 9470 USB headset.

After starting Avaya one-X Communicator, select  → **Settings** from the menu as shown below.




In the resulting screen select **Audio** from the left panel and click the **Audio Tuning Wizard** button in the right panel.



The Jabra PRO 9470 headset is automatically detected in Microsoft Windows XP as **Jabra PRO 9470**. Select this device as the **Playback Device** and **Recording Device** as shown below. Click **Next** and follow the remaining procedures to tune the audio.

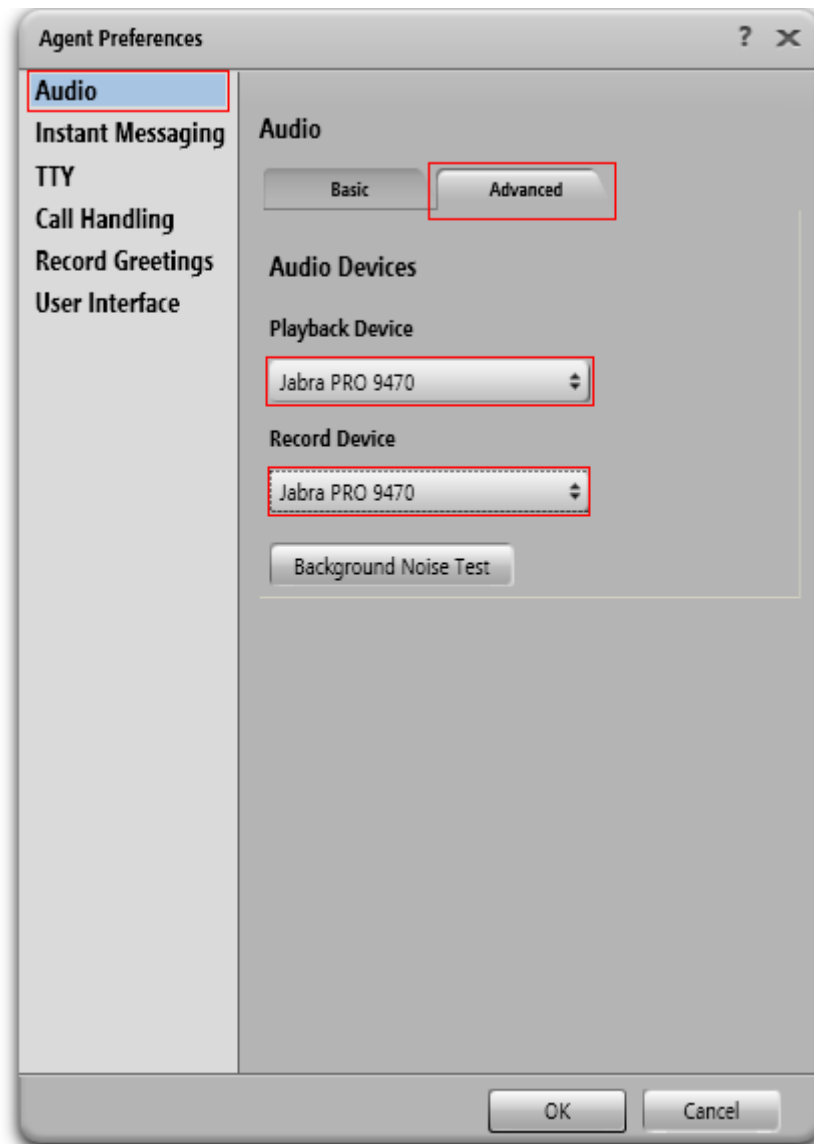


6 Configure Avaya One-X® Agent

These Application Notes assume that Avaya one-X Agent is already configured and operational. This section focuses only on the configuration for the Jabra PRO 9470 USB headset. After logging into Avaya one-X Agent, select  → **Agent Preferences** from the menu as shown below.

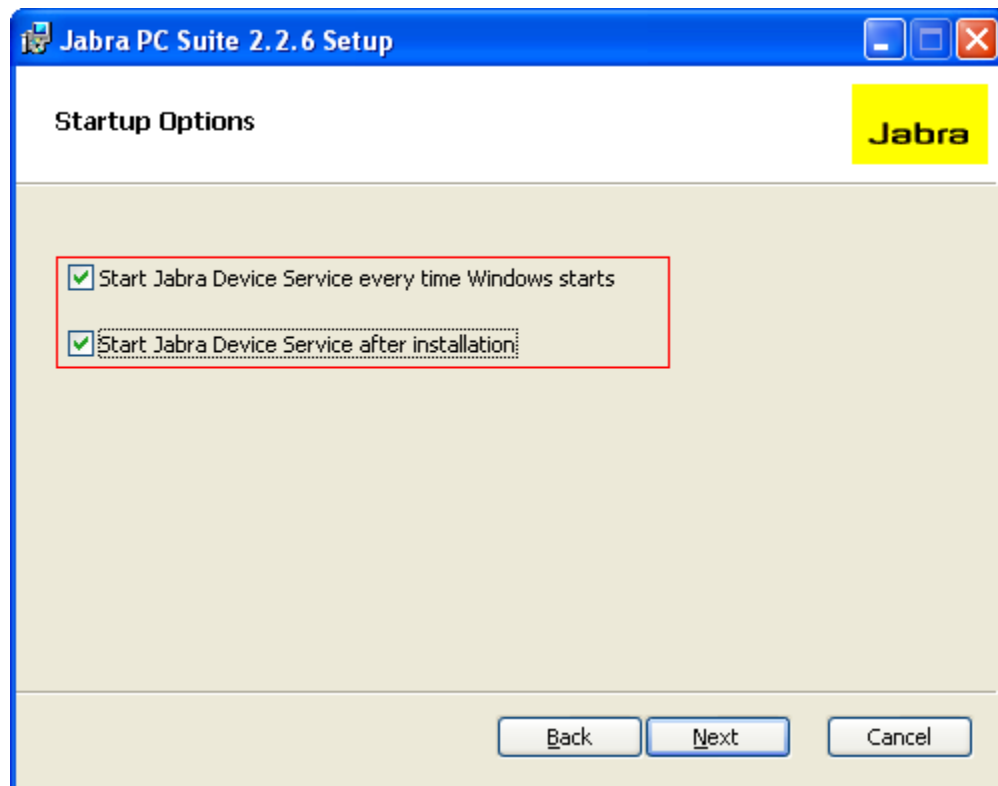


Select **Audio** from the left panel and click the **Advanced** tab. The Jabra PRO 9470 headset is automatically detected in Microsoft Windows XP as **Jabra PRO 9470**. Select this device as the **Playback Device** and **Record Device** as shown below. Click **OK**.



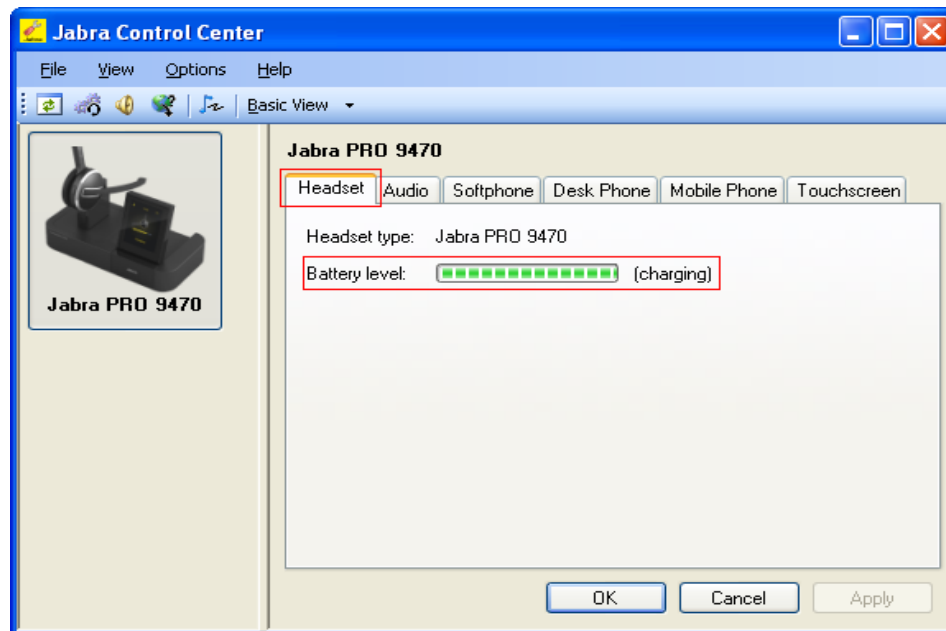
7 Configure Jabra PC Suite

Insert the CD-ROM that came with the Jabra product or download the Jabra PC Suite installer from www.jabra.com. Double-click on the **JabraPcSuiteSetup.exe** file to launch the installer. Click **Next** on the welcome screen and accept the end user license agreement. Click next until the **Startup Options** page is displayed, make sure the **Start Jabra Device Service every time Windows starts** and **Start Jabra Device Service after installation** check boxes are selected as shown below. Click **Next** and follow the remaining on screen instructions to complete the installation.

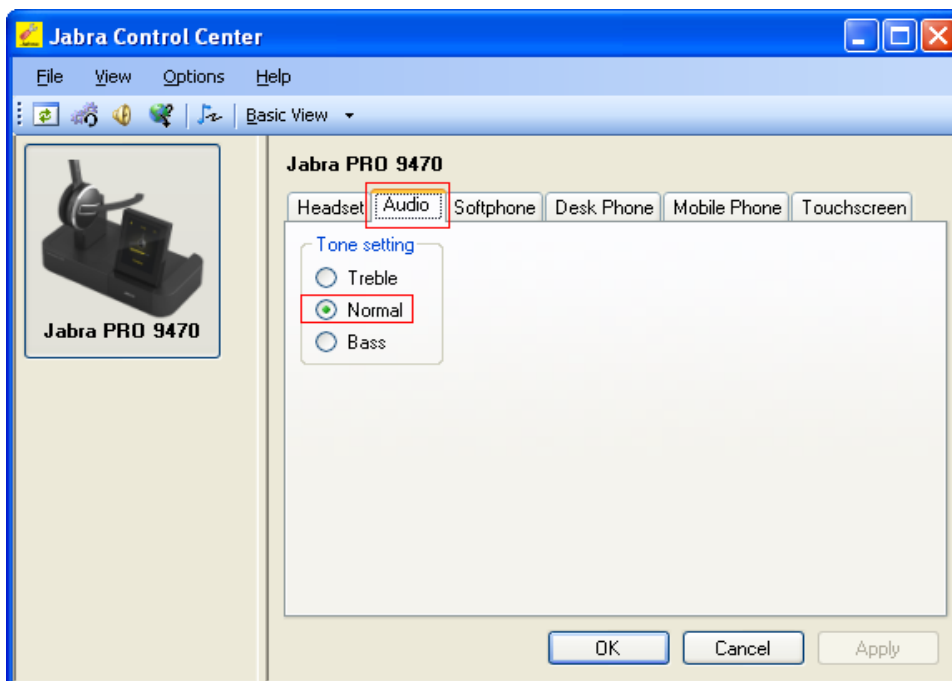


8 Configure Jabra PRO 9470 Headset

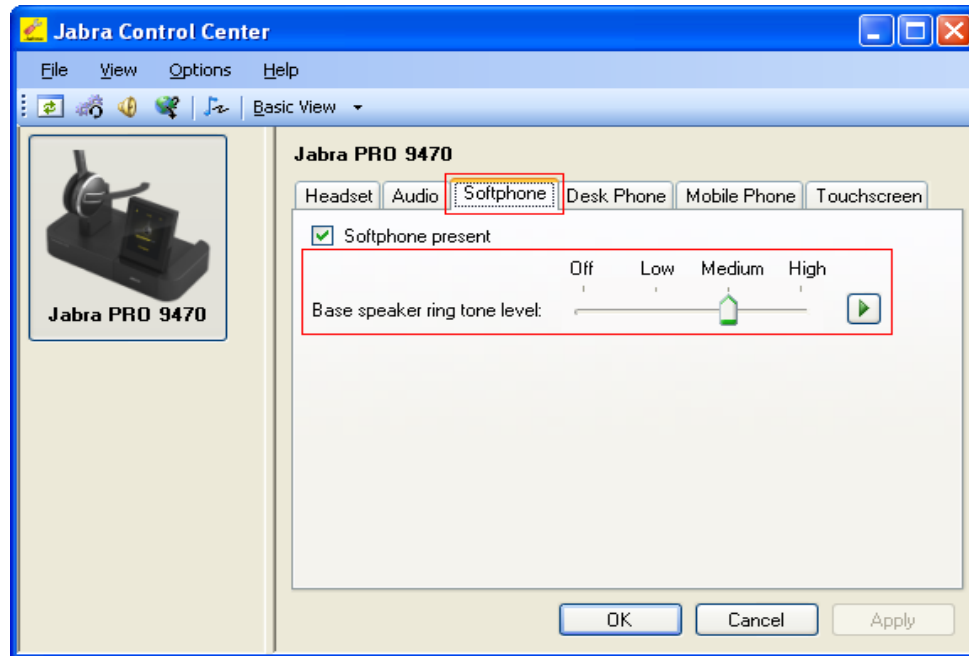
The Jabra PRO 9470 headset has a number of user programmable options, to program these options connect a Jabra PRO 9400 series headset to a PC running Jabra PC Suite and open the Jabra Control Center. In the right pane select the **headset** tab and confirm that the headset battery level is sufficient for the intended duration of use.



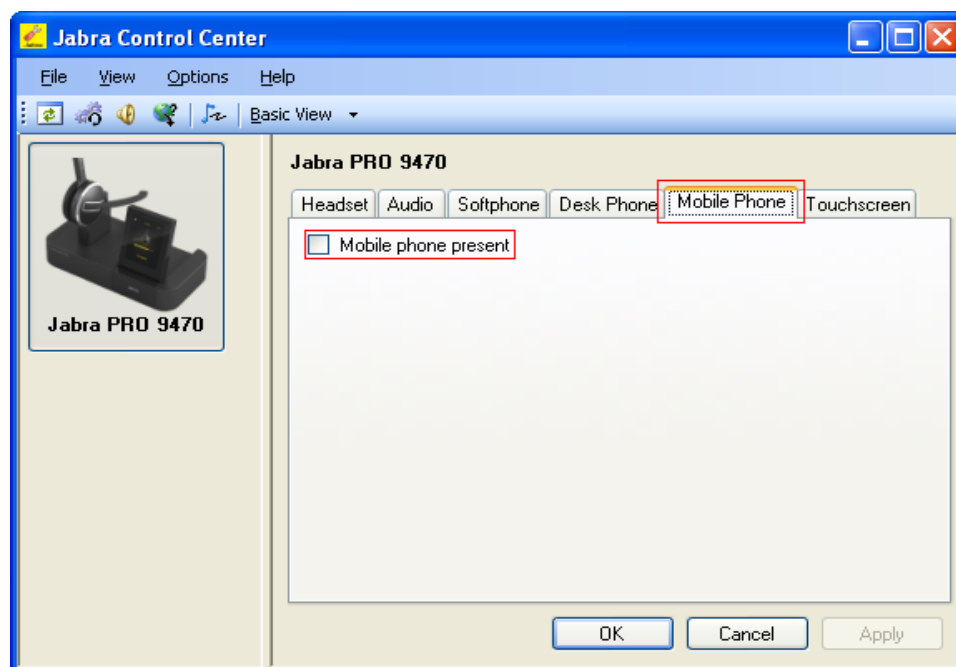
Under the **Audio** tab there is a choice of three audio tone settings. Select the **Tone setting** according to user preference, for the compliance test **Normal** was used.



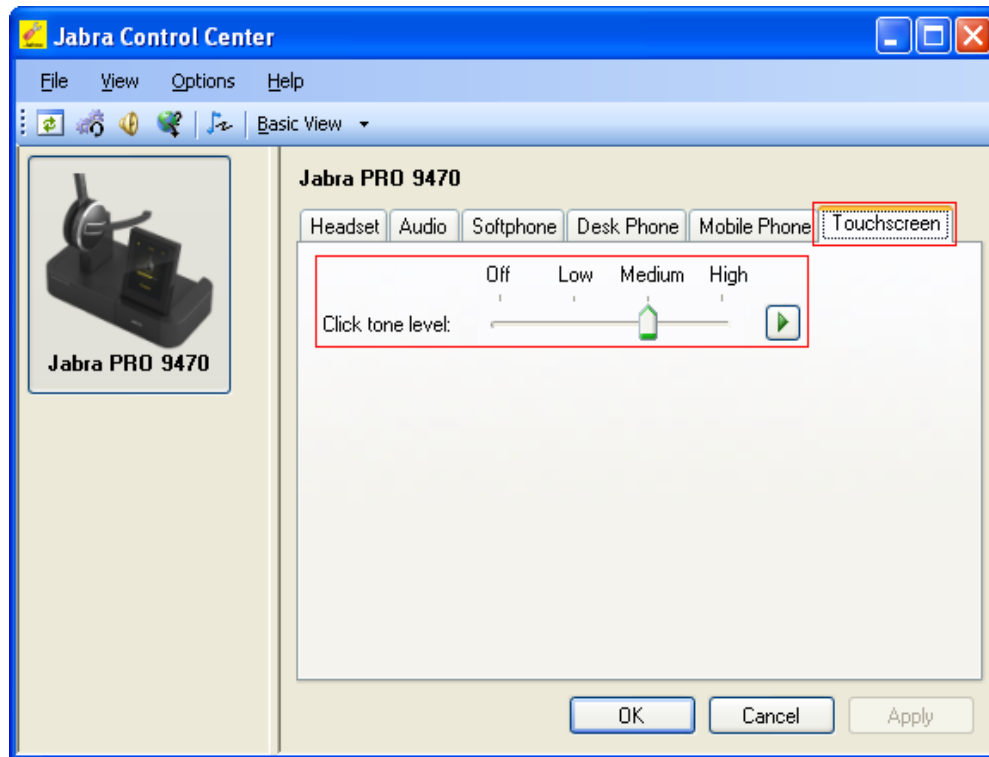
Under the **Softphone** tab there is the ability to alter the **Base speaker ring tone level**; this is the volume of the ring tone that will be heard from the 9470 base when an incoming call is received to an associated one-X client. Select the ring tone level according to user preference, for the compliance test **Medium** was used.



This compliance test only covers the use of one-X softphone clients so the **Desk Phone** and **Mobile Phone** tabs remain inactive as shown in the **Mobile Phone** tab below.



Under the **Touchscreen** tab there is the ability to alter the **Click tone level**; this is the volume of the click sound that is heard from the 9470 base when a soft button or option is selected using the 9470 base touchscreen. Select the click tone level according to user preference, for the compliance test **Medium** was used.



When finished, click **OK** to save changes and exit the Jabra Control Centre.

9 General Test Approach and Test Results

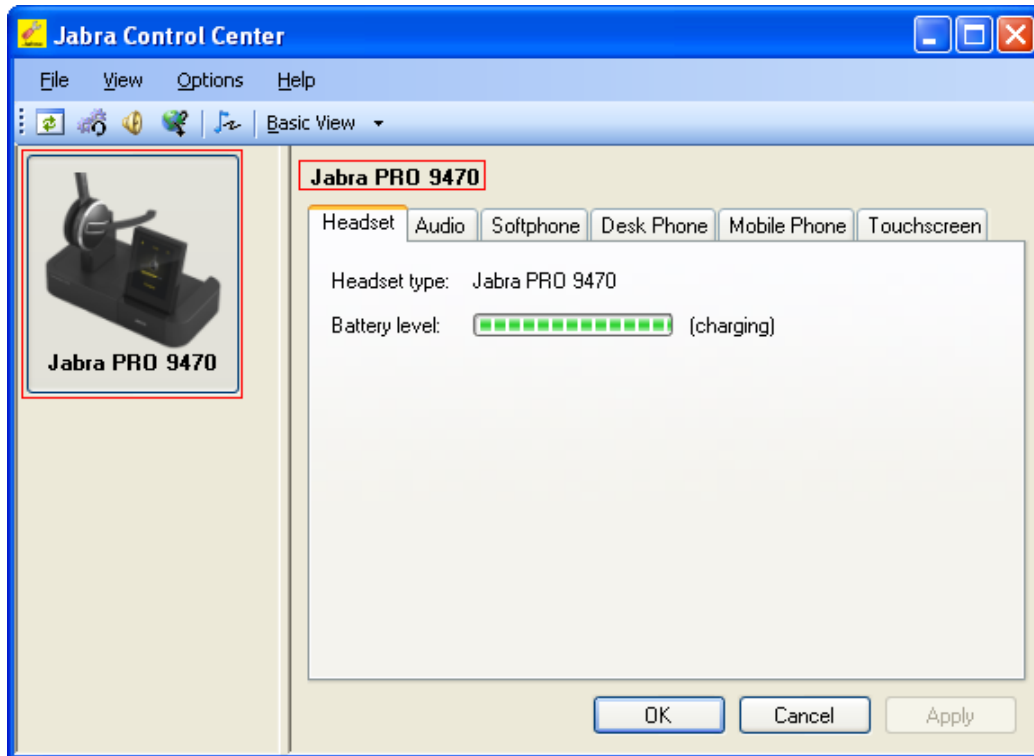
The compliance testing focused on the ability of the Jabra PRO 9470 headsets to work with Avaya one-X Communicator and Avaya one-X Agent. Functionality was verified by placing and receiving calls using the Jabra PRO 9470 headsets. The PRO 9470 headset functioned correctly with good audio transmitted and received. Functionality was tested during a range of basic telephony operations.

- Calls originating and terminating to the Avaya one-X endpoint equipped with the Jabra PRO 9470
- Calls answered and released using Avaya one-X controls, the Jabra PRO 9470 controls and the base touch screen controls
- Mute activation and deactivation using Avaya one-X controls, the Jabra PRO 9470 controls and the base touch screen controls
- Volume control using Avaya one-X controls, the Jabra PRO 9470 controls and the base touch screen controls
- Calls placed on hold and retrieved
- Attended and unattended transfers to and from the one-X endpoint equipped with the Jabra PRO 9470 headset
- Call made to and received from a simulated PSTN

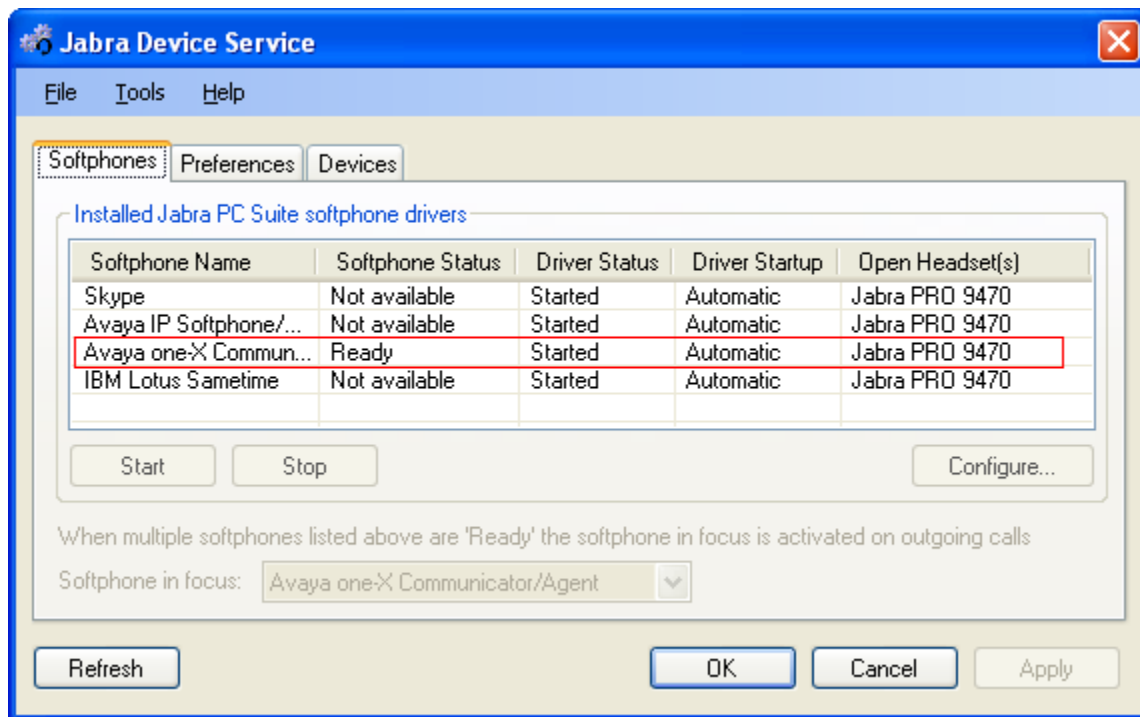
The serviceability tests were performed by disconnecting and reconnecting the Jabra PRO 9470 headsets from the PC and restarting either one-X communicator or one-X Agent depending on which client was in use.

10 Verification Steps

Connect a Jabra PRO 9470 headset to a PC running Jabra PC suite and either one-X Communicator or one-X Agent. Open the Jabra control center and confirm the correct headset is displayed.



Login to either one-X Communicator or one-X Agent and from the Jabra control Center navigate to **View → Device Service Window** and confirm the **Softphone Status** for **Avaya one-X Communicator** displays **Ready**.



Make a call from the Avaya one-X endpoint equipped with the Jabra PRO 9470 headset to confirm audio is heard at both ends of the call.

11 Conclusion

These Application Notes describe the configuration steps required to use the Jabra PRO 9470 headsets with Jabra PC Suite integration to Avaya one-X® Communicator and Avaya one-X® Agent. All feature functionality and serviceability test cases were completed successfully.

12 Additional References

This section references the Avaya and GN Netcom product documentation that are relevant to these Application Notes.

Product documentation for Avaya products may be found at <http://support.avaya.com>

1. *Administering Avaya Aura™ Communication Manager, Release 5.2; Document No. 03-300509, May 2009*
2. *Administering Communication Manager for Avaya one-X Agent, Dec-2009*
3. *Using Avaya one-X Agent, Dec 2009*
4. *Avaya one-X® Communicator Getting Started, Nov-2009*

Product documentation for GN Netcom Jabra products may be found at: <http://www.jabra.com/avaya>

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