



Avaya Solution & Interoperability Test Lab

Application Notes for GN Netcom Jabra GN2000 USB 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 GN2000 USB series 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 GN2000 USB series 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 GN2000 USB series headsets support the full IP network bandwidth for applications such as speech recognition, voice-over-IP calling and computer-based training. The Jabra PC Suite integrates with one-X® Communicator and one-X® Agent to provide basic call control functions such as answering or hanging up a call to the Jabra GN2000 USB which is equipped with an inline control module.

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 GN2000 USB headset and verifying that good quality audio was sent and received. Additional features of the Jabra GN2000 USB 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/from a simulated PSTN.

The serviceability testing focused on verifying the usability of the Jabra GN2000 USB 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 and the Jabra GN2000 USB series headsets connect to a USB port of the PC's running the Avaya one-X clients and Jabra PC Suite.

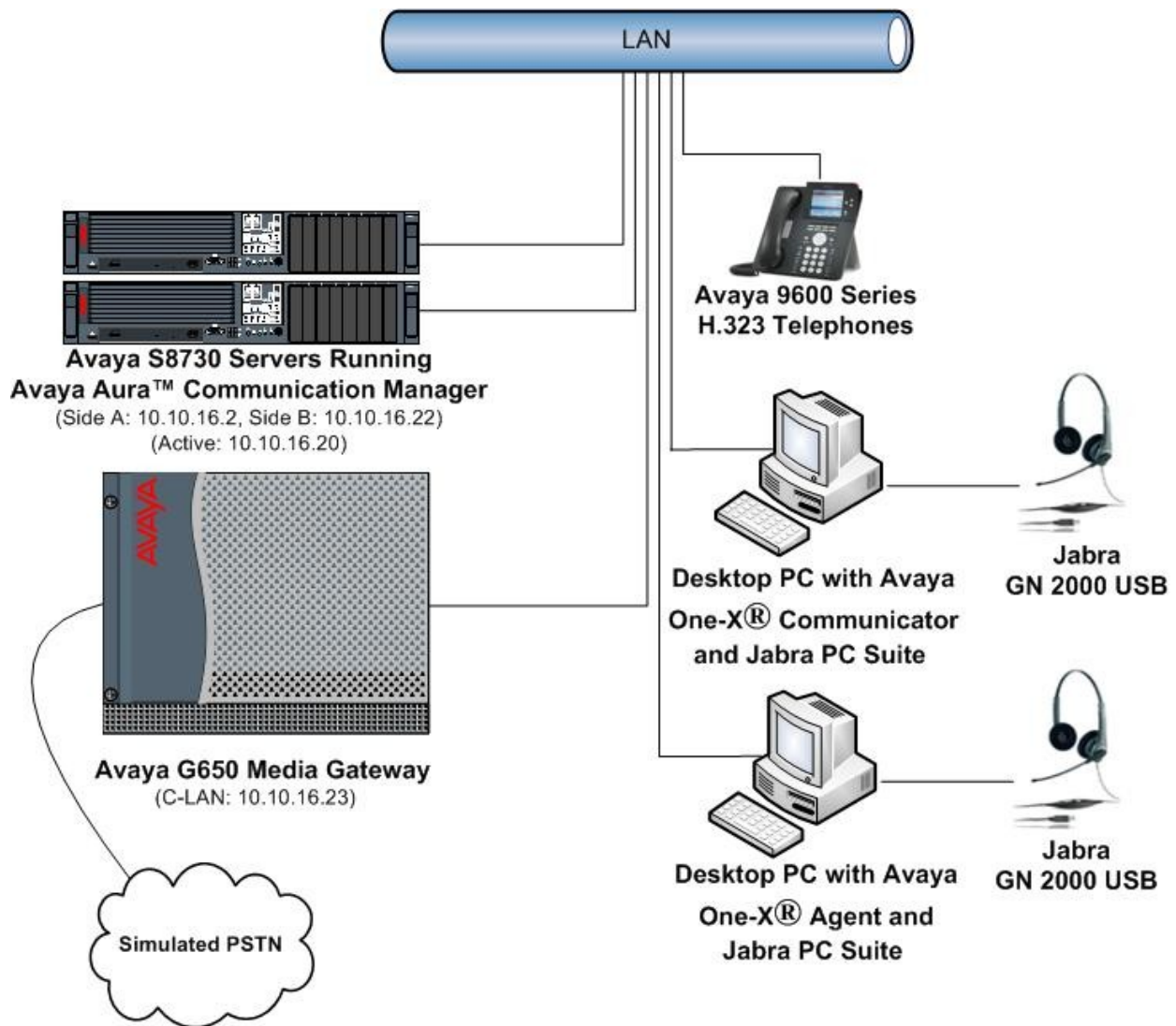


Figure 1: Network Topology

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, FW038 HW08, FW055
Desktop, Windows XP Professional SP3	Avaya one-X® Communicator 5.2 (5.2.0.14)
Desktop, 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 GN2000 USB 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 GN2000 USB series headsets and Jabra PC suite were carried out with the default server settings for audio parameters. Please refer [1] in **Section 11** for additional information. The configuration 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**.

```
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

                                Time of Day Lock Table:
      Loss Group: 19                Personalized Ringing Pattern: 1
                                Message Lamp Ext: 6640
      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
```

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		
Loss Group: 19	Time of Day Lock Table:	
	Personalized Ringing Pattern: 1	
Speakerphone: 2-way	Message Lamp Ext: 6641	
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	

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	
Precedence Call Waiting? y	IP Audio Hairpinning? n	

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.

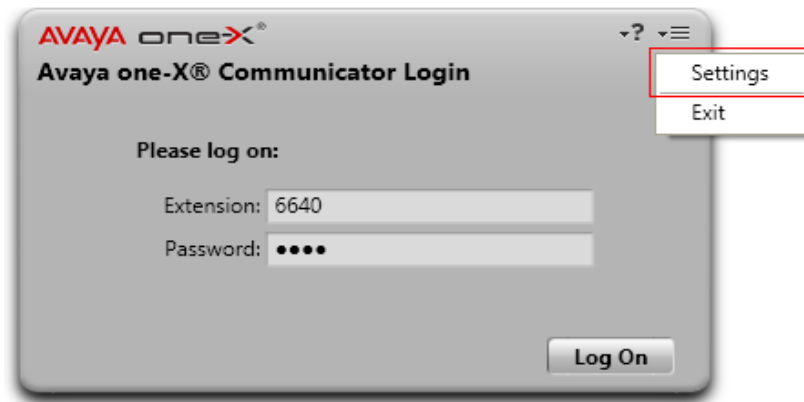
add agent-loginID 6642		Page 1 of 2	
AGENT LOGINID			
Login ID: 6642		AAS? n	
Name: 1XA Agent		AUDIX? n	
TN: 1		LWC Reception: spe	
COR: 1		LWC Log External Calls? n	
Coverage Path:	AUDIX Name for Messaging:		
Security Code:	LoginID for ISDN/SIP Display? n		
		Password: 6642	
		Password (enter again): 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**

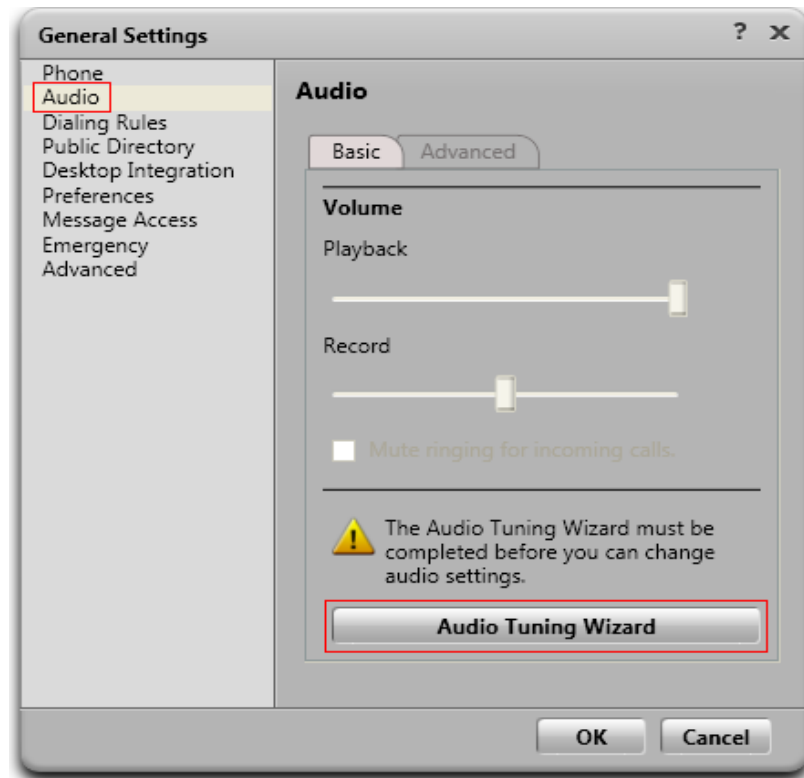
add agent-loginID 6642										Page 2 of 2																
										AGENT LOGINID																
Direct Agent Skill:										Service Objective? n																
Call Handling Preference: skill-level										Local Call Preference? n																
SN			RL			SL			SN			RL			SL			SN			RL			SL		
1: 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 of the Jabra GN2000 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 GN2000 USB headset is automatically detected in Microsoft Windows XP as **GN 2000 USB**. Select this device as the **Playback Device** and **Recording Device** as shown below. Click **Next** and follow the remaining procedures to tune the audio.

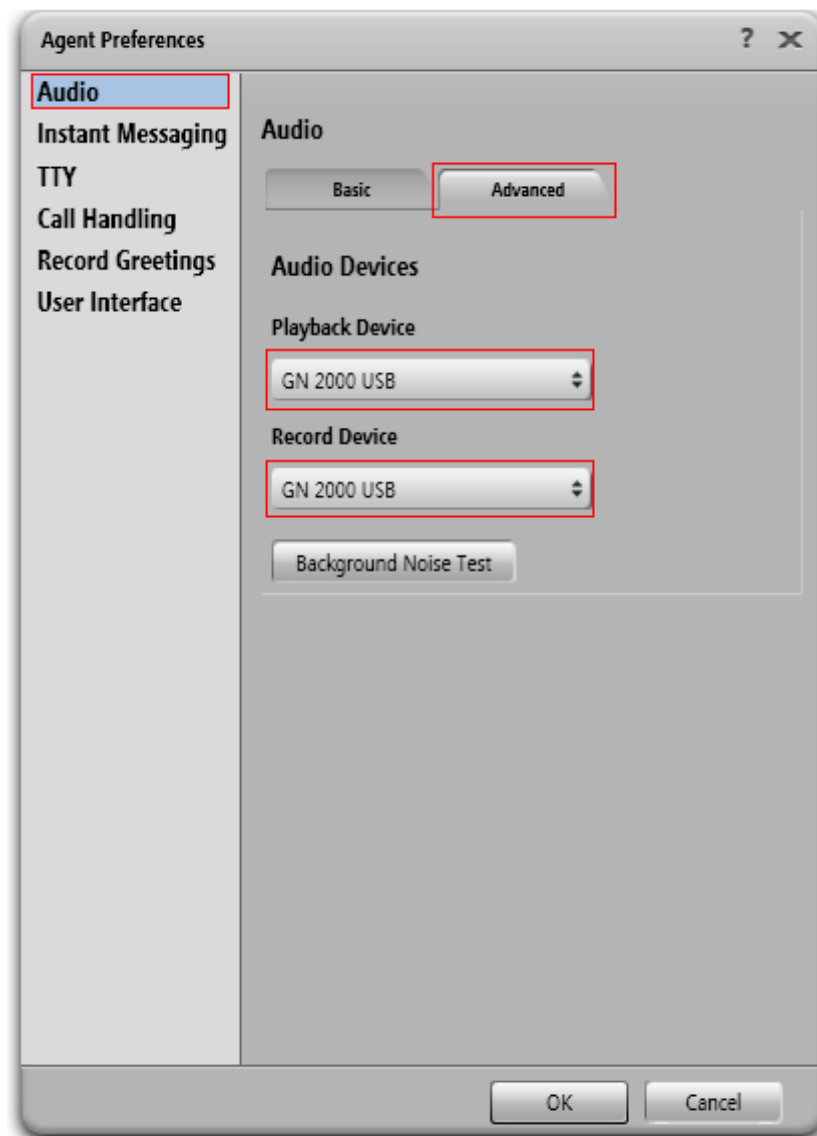


6 Configure Avaya One-X® Agent

These Application Notes assume that Avaya one-X® Agent is already configured and operational. This section focuses only on the configuration of the Jabra GN2000 USB headset. After logging into Avaya one-X® Agent, select  → **Agent Preferences** from the menu as shown below

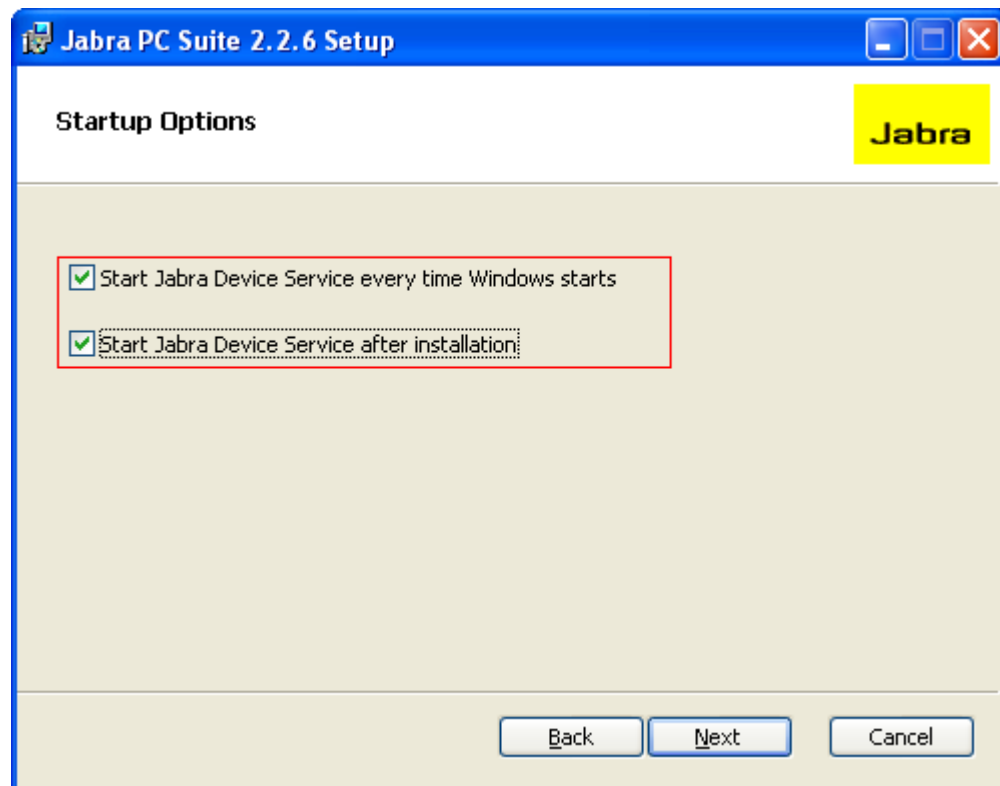


Select **Audio** from the left panel and click the **Advanced** tab. The Jabra GN2000 USB headset is automatically detected in Microsoft Windows XP as **GN 2000 USB**. Select this device as the **Playback Device** and **Record Device** as shown below. Click **OK**.



7 Configure Jabra PC Suite

Insert the CD-ROM that came with your 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 General Test Approach and Test Results

The compliance testing focused on the ability of the Jabra GN2000 USB series headsets to work with Avaya one-X® Communicator and Avaya one-X® Agent. Functionality was verified by placing and receiving calls using the Jabra GN2000 USB headsets. The GN2000 USB headset functioned correctly with good quality audio in both directions. Functionality was tested during a range of basic telephony operations.

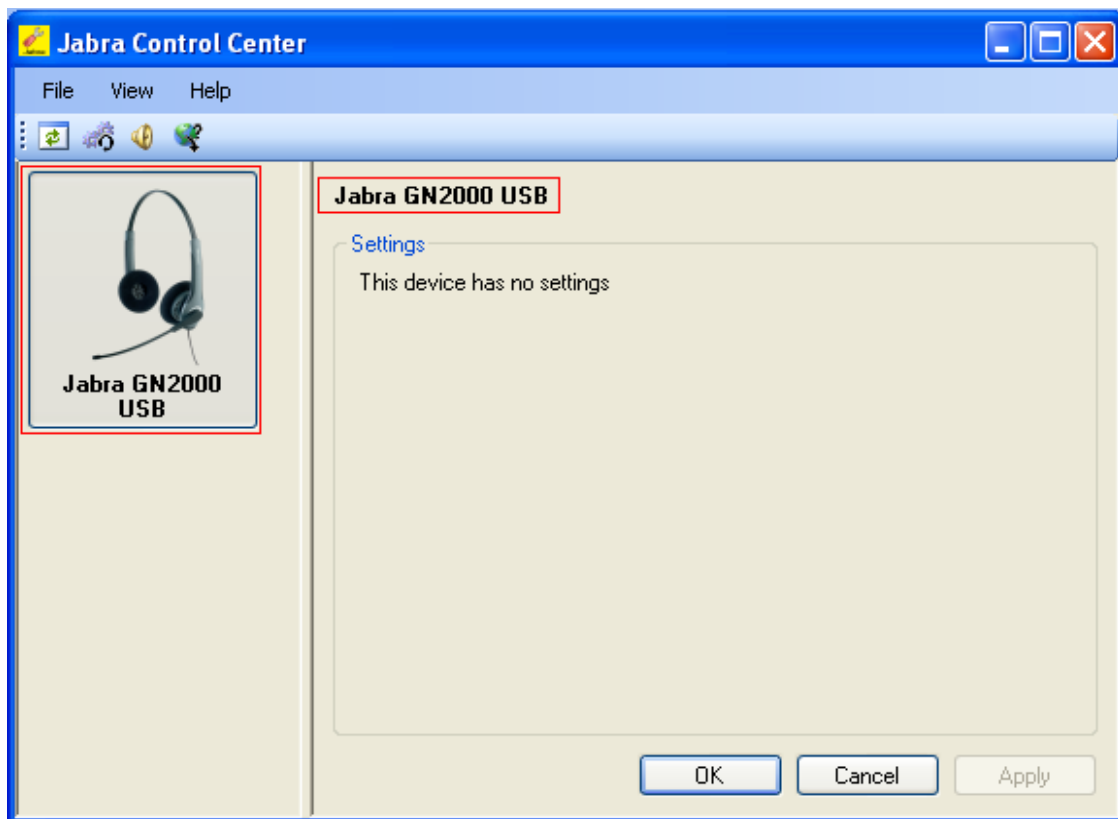
- Calls originating and terminating to the Avaya one-X endpoint equipped with the Jabra GN2000 USB
- Calls answered and released using both Avaya one-X controls and the Jabra GN2000 USB inline control
- Mute activation and deactivation using both Avaya one-X controls and the Jabra GN2000 USB inline control
- Volume control using both Avaya one-X controls and the Jabra GN2000 USB inline control
- Calls placed on hold and retrieved

- Attended and unattended transfers to and from the one-X endpoint equipped with the Jabra GN2000 USB headset
- Call made to and received from a simulated PSTN

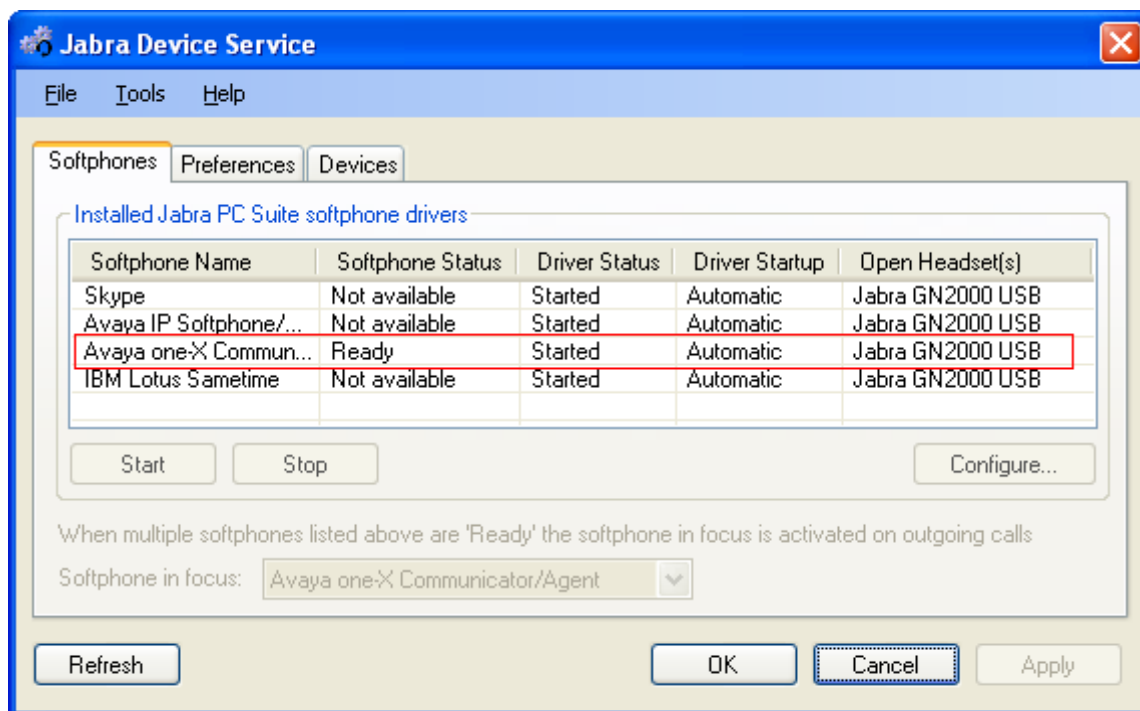
The serviceability tests were performed by disconnecting and reconnecting the Jabra GN2000 USB headsets from the PC and restarting either one-X® communicator or one-X® Agent depending on which client is in use.

9 Verification Steps

Connect a Jabra GN 2000 USB series 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 GN2000 USB headset to confirm audio is heard at both ends of the call.

10 Conclusion

These Application Notes describe the configuration steps required to use the Jabra GN2000 USB series headsets with Jabra PC Suite integration to either Avaya one-X® Communicator or Avaya one-X® Agent. All feature functionality and serviceability test cases were completed successfully.

11 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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