# AVAYA

**Avaya Solution & Interoperability Test Lab**

# Application Notes for Plantronics DA-70/80 USB Processors Adapters and SupraPlus HW251N/HW261N Headsets with Avaya one-X® Communicator 6.2 FP7 - Issue 1.0

## Abstract

These Application Notes describe the configuration steps required to integrate Plantronics DA-70/80 USB Processors Adapters and SupraPlus HW251N/HW261N Headsets with Avaya one-X® Communicator 6.2 FP7 using H.323 and SIP protocols. The Plantronics DA-70/80 USB Processor adapters connect to PC via USB and to Plantronics SupraPlus HW251N/HW261N headsets via Quick Disconnect connector. The DA-80 adapter provides call control features directly from the adapter, such as answering or terminating a call from the headset, adjusting volume control and mute from the headset while the DA-70 adapter does not have the call control features.

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.

KP; Reviewed:
SPOC 12/9/2015

Solution & Interoperability Test Lab Application Notes
©2015 Avaya Inc. All Rights Reserved.

1 of 19
HW261N-oneXCom

# 1. Introduction

These Application Notes describe the configuration steps required to integrate the Plantronics DA-70/80 USB Processors Adapters and SupraPlus HW251N/HW261N Headsets with Avaya one-X® Communicator 6.2 FP7 using H.323 and SIP protocols.  The Plantronics DA-70/80 USB Processor adapters connect to PC via USB and to Plantronics SupraPlus HW251N/HW261N headsets via Quick Disconnect (QD) connector. The DA-80 adapter provides call control features directly from the adapter, such as answering or terminating a call from the headset, adjusting volume control and mute from the headset while the DA-70 adapter does not have the call control features.

# 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 Avaya one-X® Communicator softphone with the Plantronics DA-70/80 USB Processors Adapters and SupraPlus HW251N/HW261N headsets and verifying two-way audio, call control from the headset. The call types included calls to voicemail, local extensions, and the PSTN.

The serviceability testing focused on verifying the usability of the Plantronics headsets after restarting Avaya one-X® Communicator and re-connecting the DA-70/80 adapter to USB port on the PC which has Avaya one-X® Communicator softphone installed.

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

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 to internal extensions to verify two-way audio.
- Placing calls to the PSTN to verify two-way audio.
- Incoming call alert notification.
- Hearing ring back tone for outgoing calls.
- Using the call control button on the Plantronics DA-80 adapter.
- Using the volume control and mute buttons on the Plantronics DA-80 adapter.
- Answering and terminating the call using Avaya one-X® Communicator to verify status of call control is reflected on the Plantronics DA-80 adapter.
- Using the Plantronics headset with Avaya one-X® Communicator softphone using both H323 and SIP protocols.

For the serviceability testing, the Plantronics adapters are reconnected to USB port, and restarting of Avaya one-X® Communicator softphone to verify proper operation of the headset.

## 2.2. Test Results

All test cases passed with the following observation(s):

- Plantronics DA-80 adapter does not go back to idle mode when Avaya one-X® Communicator completes transfer call to another local station. This issue happens intermittently and Plantronics is investigating the same.

## 2.3. Support

For technical support and information on Plantronics DA-70/80 USB Processor adapters and Plantronics SupraPlus HW251N/HW261N headsets, contact Plantronics Support at:

- Phone:  1-855-765-7878
        1-831-426-5858 (International)
- Website: http://www.plantronics.com/us/support/index.jsp

# 3. Reference Configuration

**Figure 1** illustrates the test configuration used to verify the Plantronics DA-70/80 USB Processors Adapters and SupraPlus HW251N/HW261N Headsets with Avaya one-X® Communicator. The configuration consists of System Manager, Session Manager, Communication Manager, Aura Messaging, and Media Server appliances that were installed in virtual environment which is a VMware server. The testing used both Media Gateway G450 and Media Server to balance DSP resources that connect from/to endpoints in Communication Manager. SIP endpoints registered with Avaya Aura® Session Manager and Avaya Aura® Messaging was used as the voicemail system. The system had PRI/T1 trunk connected to PSTN from the G450. The Plantronics DA-70/80 USB Processor adapters connect to PC via USB and to the HW251N/HW261N headsets via QD connector.
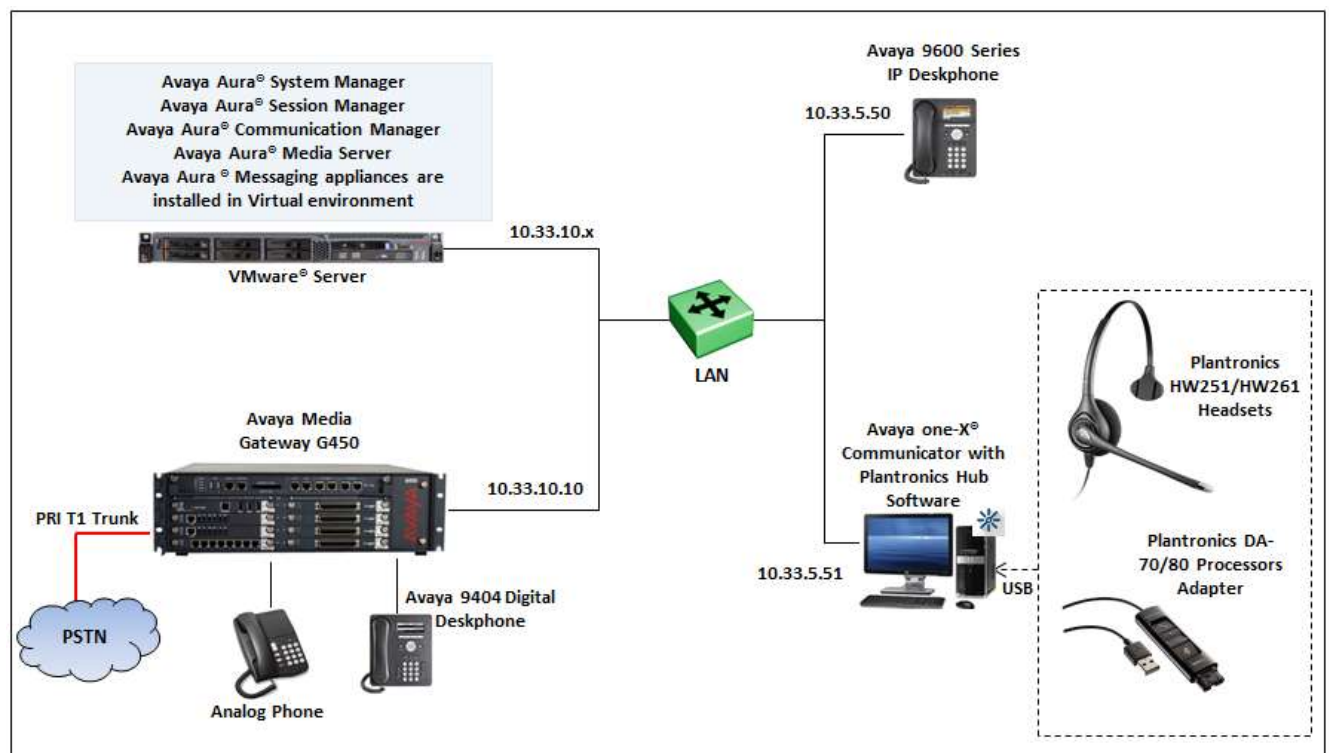


**Figure 1: Avaya one-X® Communicator softphone with Plantronics DA-70/80 USB Processors Adapters and SupraPlus HW251N/HW261N Headsets**

# 4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

| Equipment/Software | Release/Version |
|---|---|
| Avaya Aura® System Manager in Virtual Environment | 7.0.0.0.16266 |
| Avaya Aura® Session Manager in Virtual Environment | 7.0.0.0.700007 |
| Avaya Aura® Communication Manager in Virtual Environment | 7.0 (R017x.00.0.441.0)  Patch 22477 |
| Avaya Aura® Messaging in Virtual Environment | 6.3.1 |
| Avaya Aura® Media Server in Virtual Environment | 7.7.0.236 |
| Avaya Media Gateway G450 | 37.19.0 |
| Avaya 96x1 Series IP Deskphones | 6.5 (SIP) |
| Avaya 96x0 Series IP Deskphones | 3.25 (H323) |
| Avaya one-X® Communicator running on a Microsoft Windows 2007 SP1 | 6.2.7.03-SP7 |
| Avaya 9408 Digital Deskphone | Firmware12 |
| Analog phone | N/A |
| Plantronics DA-70/80 USB Processor Adapters | Base: v.68<br>Tuning: v.26.26<br>USB: v.68 |
| Plantronics SupraPlus HW251N Headset | P/N: 64338-31 |
| Plantronics SupraPlus HW261N Headset | P/N: 64339-31 |
| Plantronics Hub Software | 3.6.51102.21715 |

# 5. Configure Avaya Aura® Communication Manager

This section assumes the Avaya Aura systems are already installed and configured; this section describes the station configuration for the Avaya 9600 one-X® IP endpoint. Configuration is performed via the System Access Terminal (SAT) on Communication Manager or via Avaya Aura® System Manager for SIP station.

## 5.1. Configure a Station for Avaya one-X Communicator H323

Use the **add station** command to create a station for the 9650 IP station. Set the **Type** field to the station type to be emulated. In this example, *9650* was used. Set the **Port** field to *IP* and configure a **Security Code** as that password is to be used by Avaya one-X® Communicator to log in, set **IP Softphone** to *y*.

**Note:** To enable Auto Answer on the IP station set the **Auto Answer** field on **Page 2** (not shown) to the appropriate value, such as *all*.

```
add station 53006                                          Page   1 of   5
                                 STATION

Extension: 53006                     Lock Messages? n            BCC: 0
      Type: 9650                     Security Code: 1234           TN: 1
      Port: IP                     Coverage Path 1:              COR: 1
      Name: H.323 9650             Coverage Path 2:              COS: 1
                                   Hunt-to Station:            Tests? y
STATION OPTIONS
                                       Time of Day Lock Table:
              Loss Group: 19     Personalized Ringing Pattern: 1
                                       Message Lamp Ext: 53006
           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
                    Short/Prefixed Registration Allowed: default

                                      Customizable Labels? y
```

## 5.2. Configure a Station for Avaya one-X Communicator using SIP

This section shows configuration in System Manager to create a SIP user that is used to log on from Avaya one-X® Communicator softphone.

From the homepage of System Manager, navigate to **Home → Users → User Management → Manager Users**, the **User Management** page is displayed in the right hand side as shown below.

Note: The initial installation, configuration, and licensing of System Manager, Session Manager and Communication Manager servers are assumed to have been previously completed and are not discussed in these Application Notes. These Application Notes focus on describing the sample configuration as it relates to SIP user.

KP; Reviewed:
SPOC 12/9/2015

Solution & Interoperability Test Lab Application Notes
©2015 Avaya Inc. All Rights Reserved.

7 of 19
HW261N-oneXCom

Click on **New** button in the **User Management** page shown above to create a new SIP user. The **New User Profile** is displayed; enter parameters of new SIP user in the **Identity** tab as shown below. The fields with red asterisk are mandatory and require to be configured.

Solution & Interoperability Test Lab Application Notes
©2015 Avaya Inc. All Rights Reserved.

Next, select the **Communication Profile** tab; enter a password e.g. 1234 in **Communication Profile Password** and **Confirm Password** fields. Note that this password is used to log intoAvaya one-X® Communicator softphone as a SIP user.

Under **Communication Address** section, click on **New** button to add a new communication address, select Type as **Avaya SIP**, enter a directory number *53117* which will be the directory number of SIP user and select *bvwdev.com* domain in the dropdown menu.
Note: The domain *bvwdev.com* is previously provisioned when Session Manager is installed and configured.

Check on the **Session Manager Profile** section, in the **SIP Registration** subsection, select the Session Manager system *DevSM* in the **Primary Session Manager**, under **Application Sequences** select *DevCM-SEQ* in both **Origination Sequence** and **Termination Sequence** and in the **Call Routing Settings** section, select *Belleville* in the **Home Location**.
Note: Session Manager SIP entity *DevSM*, Application Sequence *DevCM-SEQ* and home location *Belleville* are previously provisioned.

☑ **Session Manager Profile** ⊙

**SIP Registration**

| | |
|---|---|
| * Primary Session Manager | DevSM |
| Secondary Session Manager | (None) |
| Survivability Server | (None) |
| Max. Simultaneous Devices | 1 |
| Block New Registration When Maximum Registrations Active? | ☐ |

**Application Sequences**

| | |
|---|---|
| Origination Sequence | DevCM-SEQ |
| Termination Sequence | DevCM-SEQ |

**Call Routing Settings**

| | |
|---|---|
| * Home Location | Belleville |
| Conference Factory Set | (None) |

**Call History Settings**

| | |
|---|---|
| Enable Centralized Call History? | ☐ |

☐ **Collaboration Environment Profile** ▶

☑ **CM Endpoint Profile** ⊙

| | |
|---|---|
| * System | DevCM |
| * Profile Type | Endpoint |
| Use Existing Endpoints | ☐ |
| * Extension | 🔍 53117  [Endpoint Editor] |
| * Template | 9640SIP_DEFAULT_CM_6_3 |
| Set Type | 9640SIP |
| Security Code | |
| Port | IP |
| Voice Mail Number | |
| Preferred Handle | (None) |

KP; Reviewed:
SPOC 12/9/2015
Solution & Interoperability Test Lab Application Notes
©2015 Avaya Inc. All Rights Reserved.
10 of 19
HW261N-oneXCom

Check on **CM Endpoint Profile**, select Communication Manager System *DevCM* in the **System** field and select *Endpoint* in the **Profile Type** field. In the **Extension** field, enter the number *53117* and select the SIP template *9640SIP_DEFAULT_CM_3* in the **Template** field.

Select the **Endpoint Editor** in the screenshot shown above to configure the features for a SIP user. In the **Feature Options** tab select **IP Softphone** check box as shown in the screenshot below. Retain default values for all other fields and click **Done** (not shown) in this page to go back to the **Communication Profiles** page, and in the **Communication Profiles** page click **Commit** button to complete and save the newly added SIP user.

| * | Template | 9640SIP_DEFAULT_CM_6_3 ▼ | Set Type | 9640SIP |
|---|----------|--------------------------|----------|---------|
| * | Port | IP | Security Code | |
| | Name | SIP,53117 | | |

**General Options (G)** *    **Feature Options (F)**    Site Data (S)    Abbreviated Call Dialing (A)    Enhanced Call Fwd (E)

Button Assignment (B)    Group Membership (M)

| | | | | |
|---|---|---|---|---|
| **Active Station Ringing** | single ▼ | **Auto Answer** | none ▼ | |
| **MWI Served User Type** | None ▼ | **Coverage After Forwarding** | system ▼ | |
| **Per Station CPN – Send Calling Number** | None ▼ | **Display Language** | english ▼ | |
| **IP Phone Group ID** | | **Hunt-to Station** | | |
| **Remote Soft Phone Emergency Calls** | as-on-local ▼ | **Loss Group** | 19 | |
| **LWC Reception** | spe ▼ | **Survivable COR** | internal ▼ | |
| **AUDIX Name** | None ▼ | **Time of Day Lock Table** | None ▼ | |
| **Speakerphone** | 2-way ▼ | | | |
| **Short/Prefixed Registration Allowed** | default ▼ | **Voice Mail Number** | | |
| **EC500 State** | enabled ▼ | **Music Source** | | |

**Features**

- ☐ Always Use
- ☐ IP Audio Hairpinning
- ☐ Bridged Call Alerting
- ☐ Bridged Idle Line Preference
- ☑ Coverage Message Retrieval
- ☐ Data Restriction
- ☑ Survivable Trunk Dest
- ☐ Bridged Appearance Origination Restriction
- ☑ Restrict Last Appearance
- ☐ Turn on mute for remote off-hook attempt

- ☐ Idle Appearance Preference
- ☑ IP SoftPhone
- ☑ LWC Activation
- ☐ CDR Privacy

- ☑ Direct IP-IP Audio Connections
- ☐ H.320 Conversion
- ☐ IP Video Softphone
- ☐ Per Button Ring Control

*Required
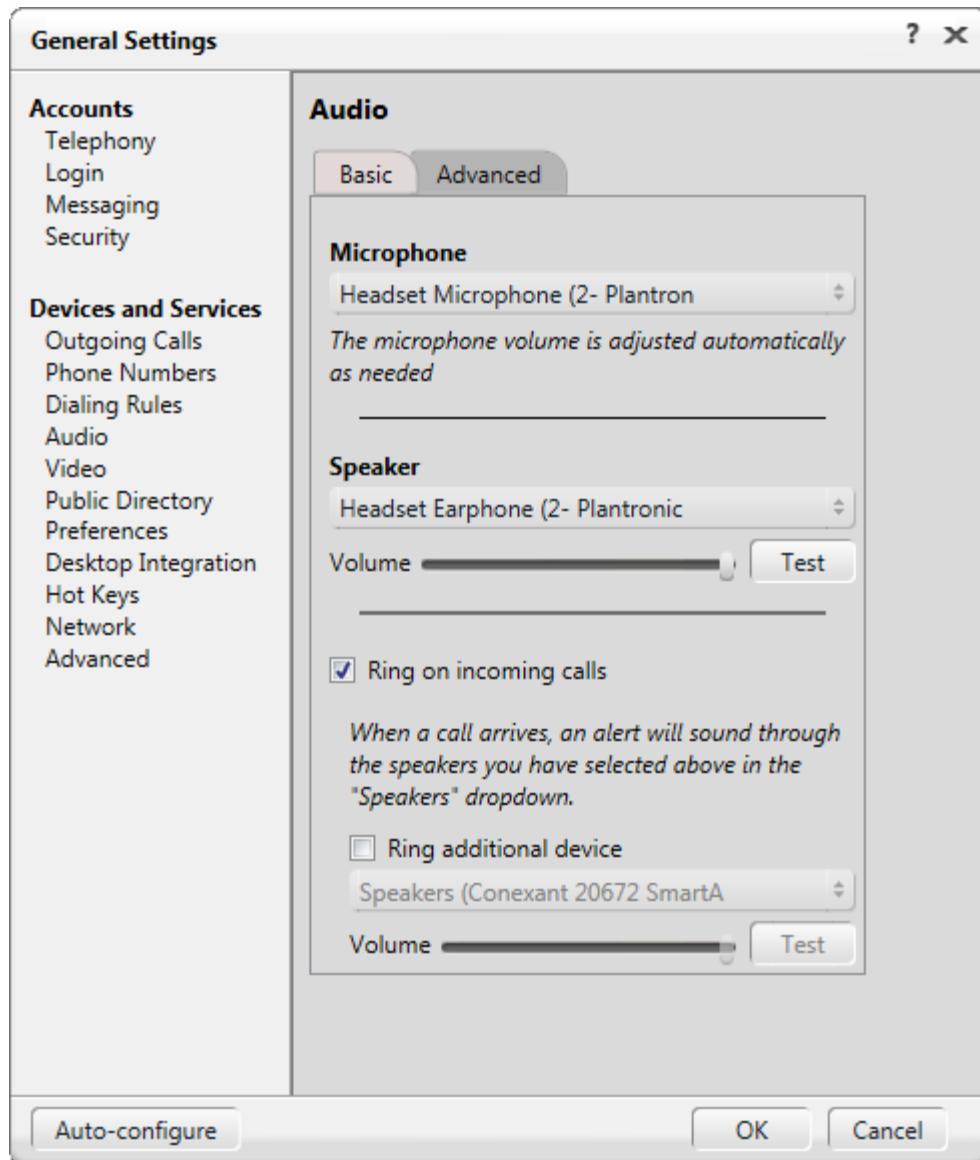
# 6. Configure Avaya one-X® Communicator Softphone

This section provides configuration of Avaya one-X® Communicator softphone to register to Session Manager using the SIP user provisioned in **Section 5.2** above.

Navigate to **Start Menu → All Program → Avaya** and select **Avaya one-X Communicator**. Avaya one-X Communicator softphone is displayed, from Avaya one-X Communicator **Login** window select **Settings** (not shown). The **General Settings** window is displayed, select **Telephony** tab under **Accounts** section. In the **Telephony** section, select **SIP** radio button, enter the number *53117* and its password as configured in **Section 5.2** in the **Extension** and **Password** fields. Select **Add** button to add Session Manager address *10.33.10.26* in the **Server List**, enter the domain *bvwdev.com* in the **Domain** field.
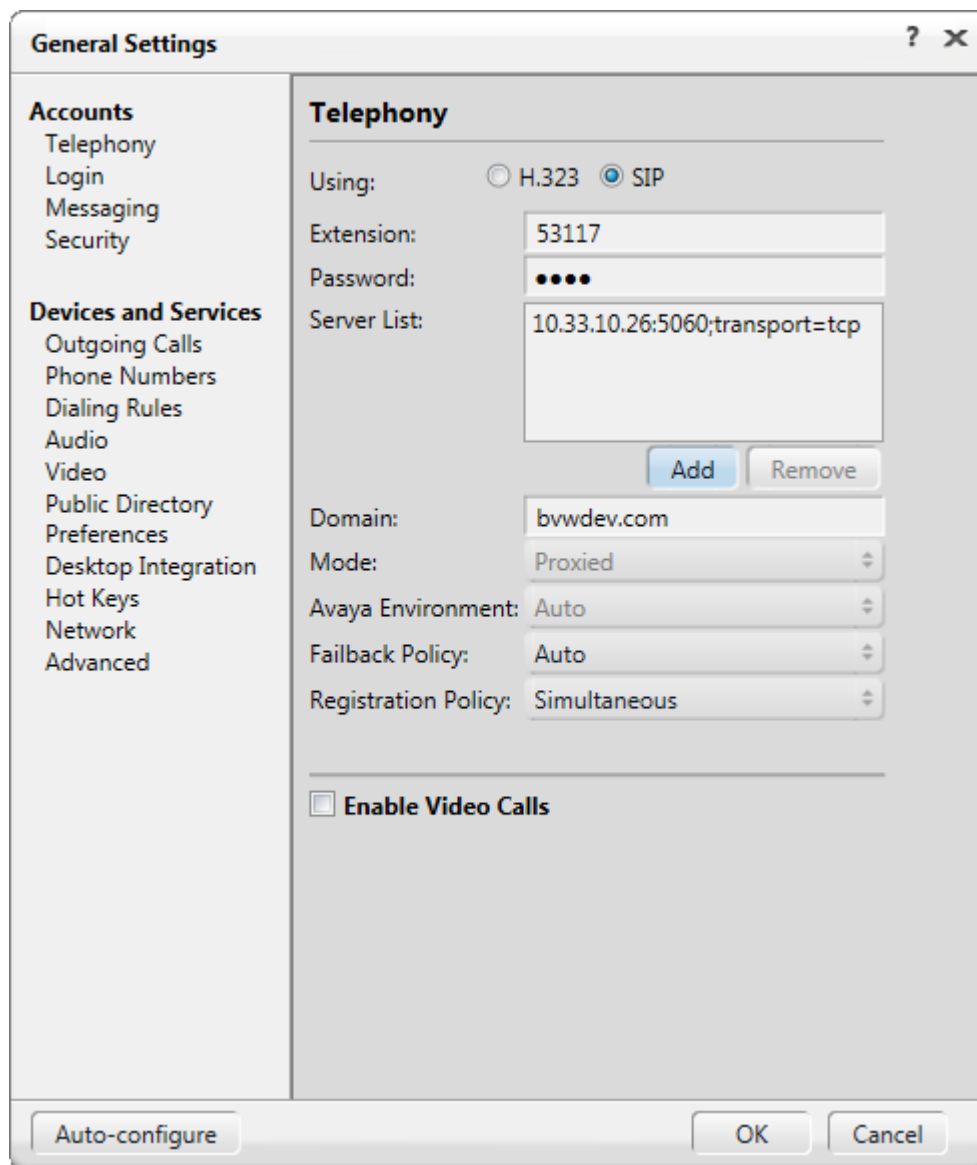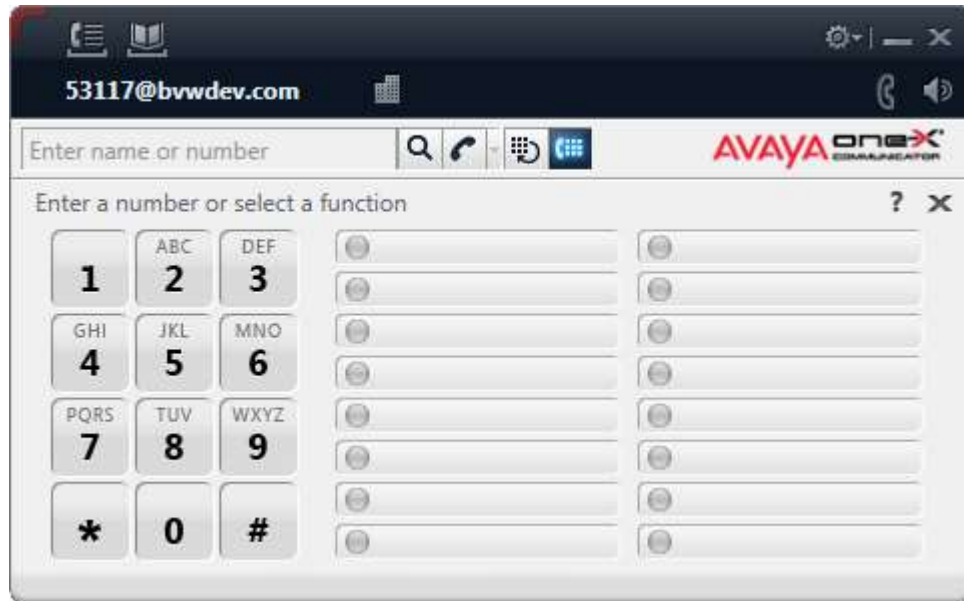
Navigate to **Devices and Services** → **Audio**, the **Audio** tab is displayed in the right hand. In the **Basic** tab, select Plantronics headset in both **Microphone** and **Speaker** dropdown menu.

Click **OK** button to complete and save the configuration.

The screenshot below displays Avaya one-X® Communication softphone successfully registered as a SIP user 53117.

KP; Reviewed:
SPOC 12/9/2015
Solution & Interoperability Test Lab Application Notes
©2015 Avaya Inc. All Rights Reserved.
15 of 19
HW261N-oneXCom

# 7. Configure Plantronics DA-70/80 USB Processors Adapters & SupraPlus HW251N/261N Headsets

This section provides the configuration steps for Plantronics Hub software and Plantronics DA-70/80 USB Processors & SupraPlus HW251N/HW261N Headsets to work with Avaya one-X® Communicator softphone.

1. Install Plantronics Hub software on PC which has Avaya one-X® Communicator softphone installed.
2. Connect Plantronics HW251N/HW26N1 headsets to the DA-70/80 USB adapters via QD connector.
3. Insert the DA-70/80 adapters to an available USB port on the PC.
4. Launch the Plantronics Hub software, there is an icon of the Hub software appears in the System tray bar showing that Plantronics headset is being connected.



5. Launch Avaya one-X® Communicator softphone.
6. Configure Plantronics Hub software to use with Avaya one-X® Communicator softphone, from the Plantronics Hub window, navigate to **Settings → Softphones**. In the **Target Softphone** dropdown menu select **Avaya one-X Communicator** in the list of softphones.
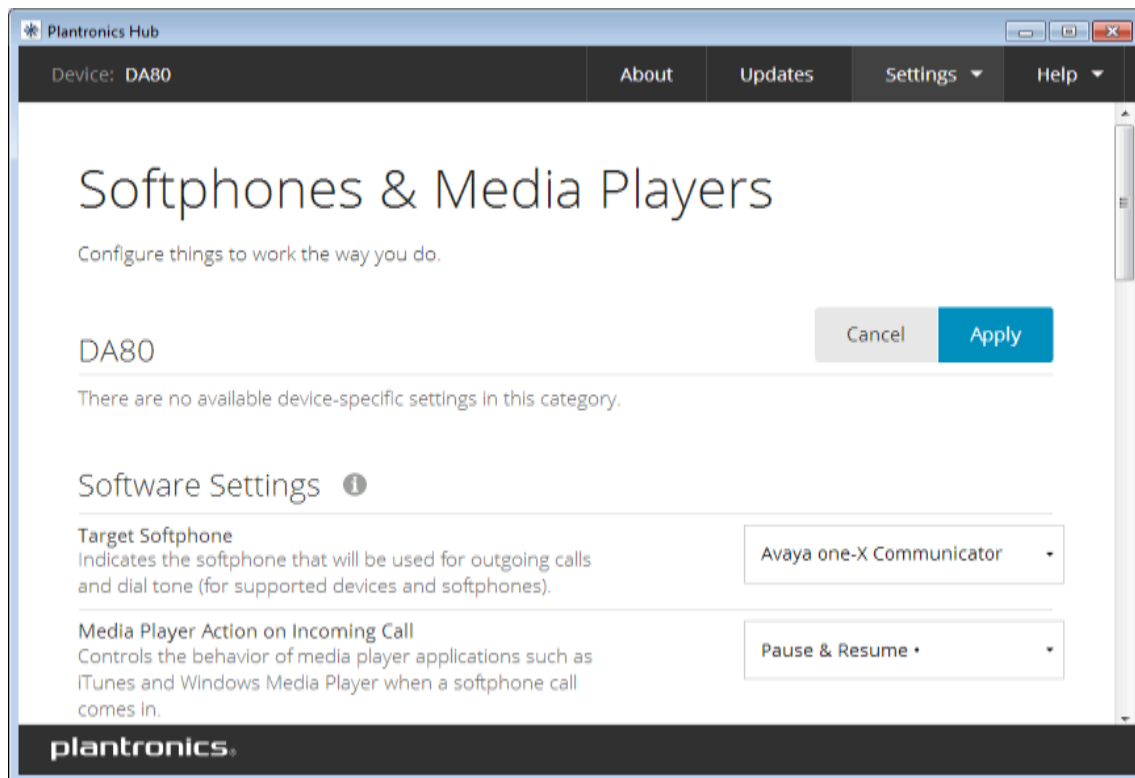
Scroll down to the list of installed softphone, make sure in the **Connected** column the green check is displayed for Avaya one-X Communicator.
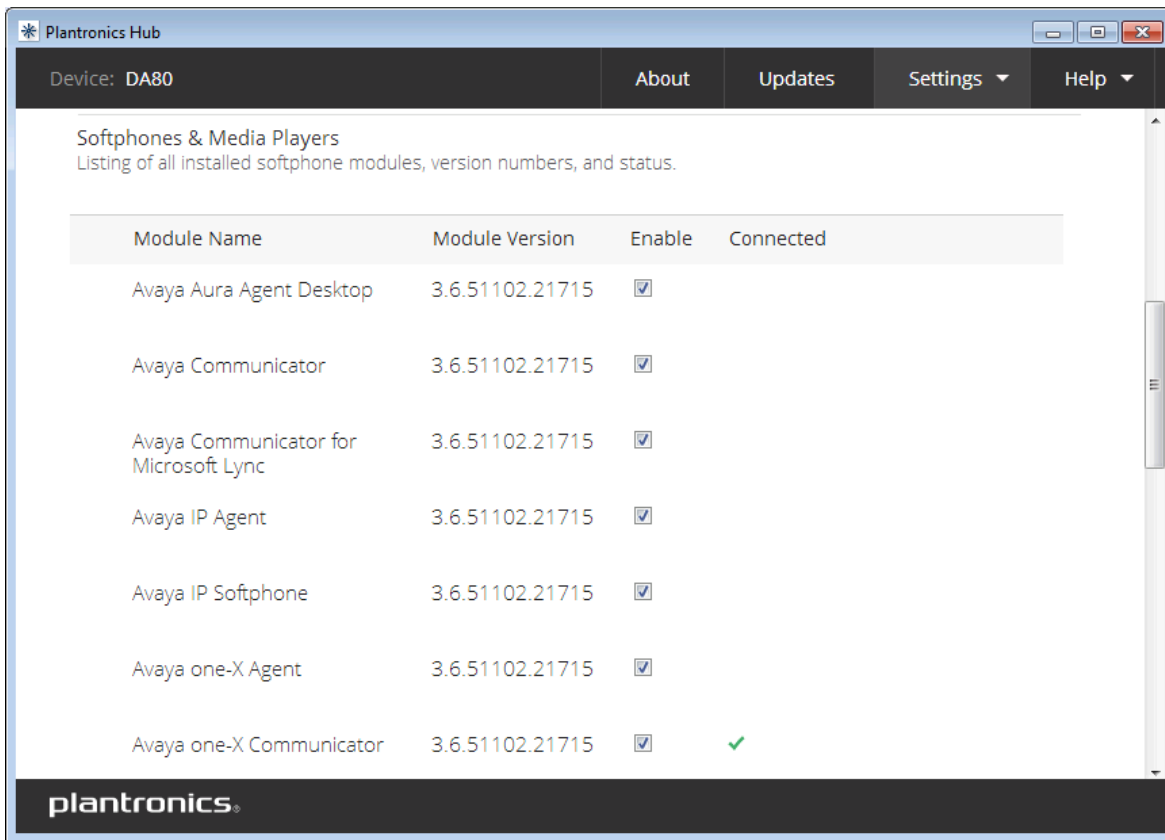


# 8. Verification Steps

These typical steps below are used to verify the inter-working between Plantronics Hub software, Plantronics DA-80 USB adapters, SupraPlus HW251N/HW261N headsets and Avaya one-X® Communicator softphone. Note that these steps below are applied on the Plantronics DA-80 adapter. For Plantronics DA-70 adapter that does not have the call control button, only audio of the calls and call status are verified, the call status is verified based on the beep tone heard through the headsets and changing color of Hub icon in the system tray for actions made on the Avaya one-X® Communicator softphone such as mute/unmute and call answer/end.

1. From Avaya one-X® Communicator softphone with Plantronics headset place a local call to another station.
2. Verify the ringback tone is heard through the Plantronics headset and the light on the call control button on the DA-80 adapter should be lit up.
3. Answer the call on the other station, verify two-way speech path with clear audio between the Avaya one-X® Communicator softphone and the other station.

4. During the call, adjust the volume up and down and mute/unmute from Plantronics DA-80 adapter, verify the volume adjusted successfully and status of mute/unmute reflected properly on Avaya one-X® Communicator softphone.
5. End the call by pressing the call control button on the Plantronics headset, verify the call is terminated and the headset is idle.

# 9. Conclusion

These Application Notes describe the configuration steps required to integrate the Plantronics DA-70/80 USB Processors Adapters and Platronics SupraPlus HW251N/HW261N Headsets and Avaya one-X® Communicator softphone. All test cases were completed successfully with observations noted in **Section 0**.

# 10. Additional References

This section references the Avaya and Plantronics documentation that are relevant to these Application Notes.

The following Avaya product documentation can be found at http://support.avaya.com.

*[1] Administering Avaya Aura® Communication Manager, Release 6.3, Issue 10, August 2015, Document Number 03-300509.*
*[2] Administering Avaya Aura System Manager*, Release 6.3, Issue 8, *September 2015*.
*[3] Administering Avaya Aura Session Manager, Release 6.3, Issue 7, September 2015*.
*[4] Administering Avaya one-X® Communicator, Release 6.2 FP7, Nov 2015*.
*[5] Administering Avaya one-X® Communicator,* Release 6.2 Feature Pack 7
*[6] Using Avaya one-X® Communicator,* Release 6.2 FP7
*[7] Implementing Avaya one-X® Communicator,* Release 6.2 FP7

The Plantronics product documentation can be found at http://www.plantronics.com.