Avaya Solution & Interoperability Test Lab

Application Notes for Configuring the Polycom SoundStation Duo running UC software release 4.0.2 with Avaya IP Office Release 8.0 - Issue 1.0

Abstract

These Application Notes describe a solution for supporting interoperability between the Polycom SoundStation Duo conference telephone running UC software release 4.0.2 with Avaya IP Office release 8.0. Emphasis of the testing was to verify voice calls of SoundStation Duo as a SIP endpoint registered to the Avaya IP Office.

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.

©2012 Avaya Inc. All Rights Reserved.

1. Introduction

These Application Notes provide detail configurations of Avaya IP Office and the Polycom SoundStation Duo (hereafter referred to as Duo) used during the compliance testing. The Polycom Duo was tested with non-SIP and SIP telephones using IP Office Release 8.0. All the applicable telephony feature test cases of Release 8.0 were executed on the Polycom Duo, where applicable, to ensure the interoperability with IP Office.

2. General Test Approach and Test Results

The general test approach was to have the Polycom Duo to register to the IP Office. Calls were then placed from other IP Office telephone clients/users to and from the Polycom Duo. Other telephony features such as busy, hold, DTMF, transfer, conference and codec negotiation were also verified.

2.1. Interoperability Compliance Testing

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.

The focus of this testing was to verify that the Duo SIP conference telephone was able to interoperate with the IP Office system. The following areas were tested:

- Registration of the Duo to the IP Office.
- Call establishment of Duo with IP Office telephones.
- Telephony features: Basic calls, conference, blind and consultative transfer, DTMF (dual tone multi frequency) RFC2833, leaving and retrieving voicemail message, busy, hold, hunt group, call waiting, bridge appearance and Call forward.
- Codec negotiation – G.711, G.729 and G722.
- Duo calls PSTN telephone via SIP trunk.

2.2. Test Results

The objectives outlined in **Section 2.1** were verified. The Duo was registered to IP Office successfully. Calls have been made between IP Office telephones and Duo with clear voice path. Observation is that feature of Bridge Appearance does not work when the Duo is configured as

©2012 Avaya Inc. All Rights Reserved.

bridge appearance on the IP Office telephones. For understanding of how Bridge Appearance works on Avaya IP Office please refer to reference [1].

2.3. Support

Technical support for the Polycom SoundStation Duo conference phone can be obtained through Polycom global technical support:

- Phone: 1-888-248-4143 or 1-408-474-2067
- Web: http://support.polycom.com

3. Reference Configuration

Figure 1 illustrates the reference configuration used during compliance testing.

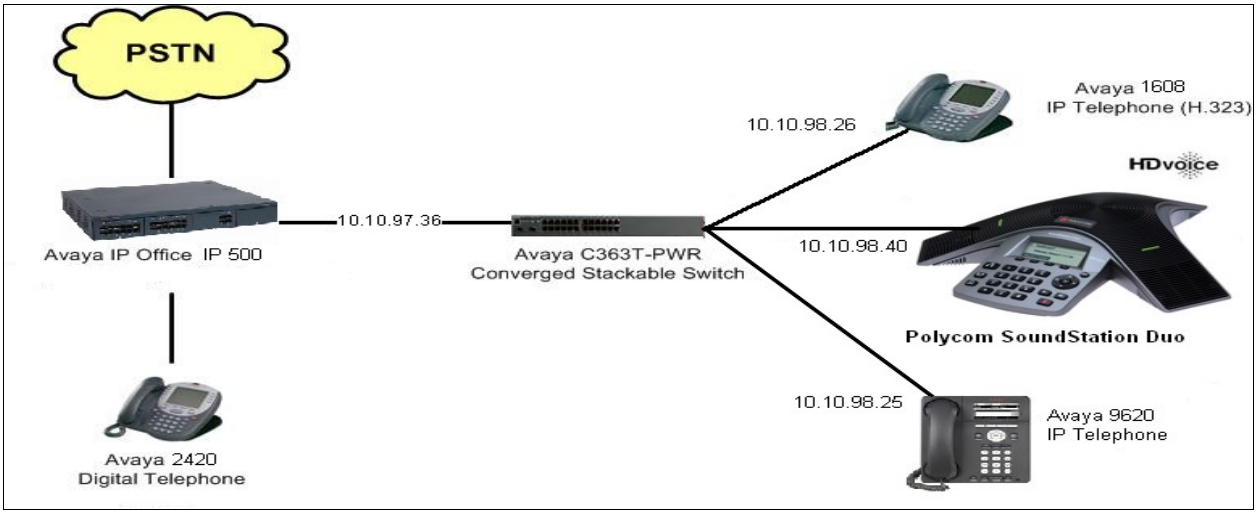

Figure 1: Network Configuration Diagram

4. Equipment and Software Validated

The following equipment and software/firmware were used for the reference configuration:

Equipment	Software Version
Avaya IP Office (IP500 v2)	8.0.16
Avaya IP Office Manager	10.0.16
Analog Telephones Avaya 2420 Series Digital Telephones Avaya 9600 Series IP Telephones Avaya 1608 IP Telephones Avaya 9508 Series Digital Telephones	N/A 6.0 S6.016T R1_30_0_B-111510 N/A
Avaya Voicemail	Embedded
Polycom SoundStation Duo	4.0.2

©2012 Avaya Inc. All Rights Reserved.

5. Avaya IP Office & Extension Configuration

5.1. Avaya IP Office Configuration

This section was included to verify that Avaya IP Office was configured correctly. Except where stated, the parameters in all steps are the default settings and are supplied for reference. For all other provisioning information such as provisioning of the trunks, call coverage and voice mail, please refer to the Avaya IP Office product documentation in **Section 9.**

Step 1

Avaya IP Office is configured via the Avaya IP Office Manager program. Log into the Avaya IP Office Manager PC and select **Start → Programs →IP Office →Manager** to launch the Avaya IP Office Manager application. Select **File →Open** to search for IP Offices in the network. Click on appropriate Avaya IP Office. Click **OK** to continue. Log in to the Avaya IP Office Manager application using the appropriate credentials.

Step 2

The main IP Office Manager window appears. The following steps refer to the Configuration Tree which is in the left pane of the window and under the heading **IP Offices** as shown in **Figure 2**.

©2012 Avaya Inc. All Rights Reserved.

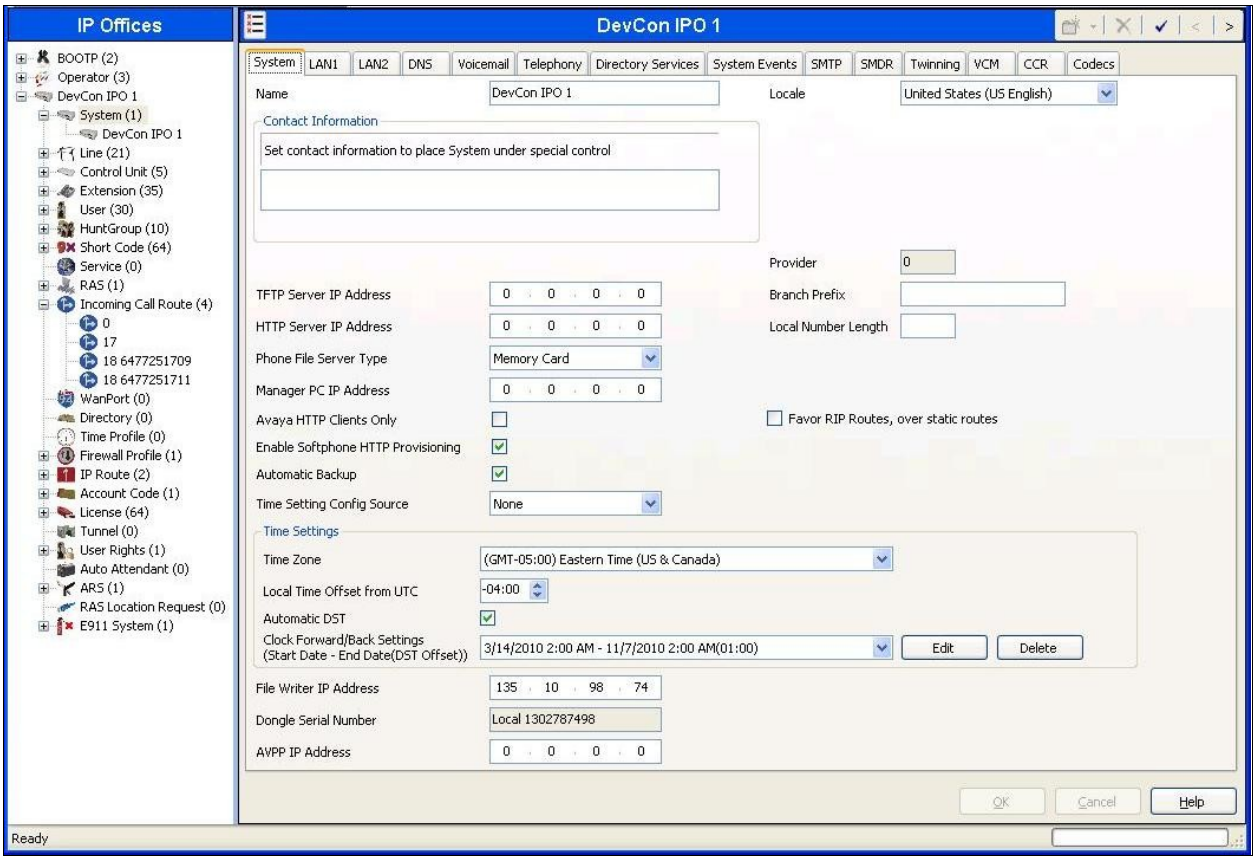

Figure 2: IP Office System

Step 3

Verify VoIP information.

The Avaya IP Telephones will get Differentiated Services information from the Avaya IP Office. In the Manager window, from the Configuration Tree, click **System → LAN1 → VoIP.** Verify that the **DiffServ Settings** for **DSCP** and **SIG DSCP** are both set to **46**. If they are not **46**, change them and then click **OK** to continue as shown in **Figure 3**.

Note: 00E007060E91 is the MAC address of this specific IP Office and will be different for all IP Offices.

©2012 Avaya Inc. All Rights Reserved.

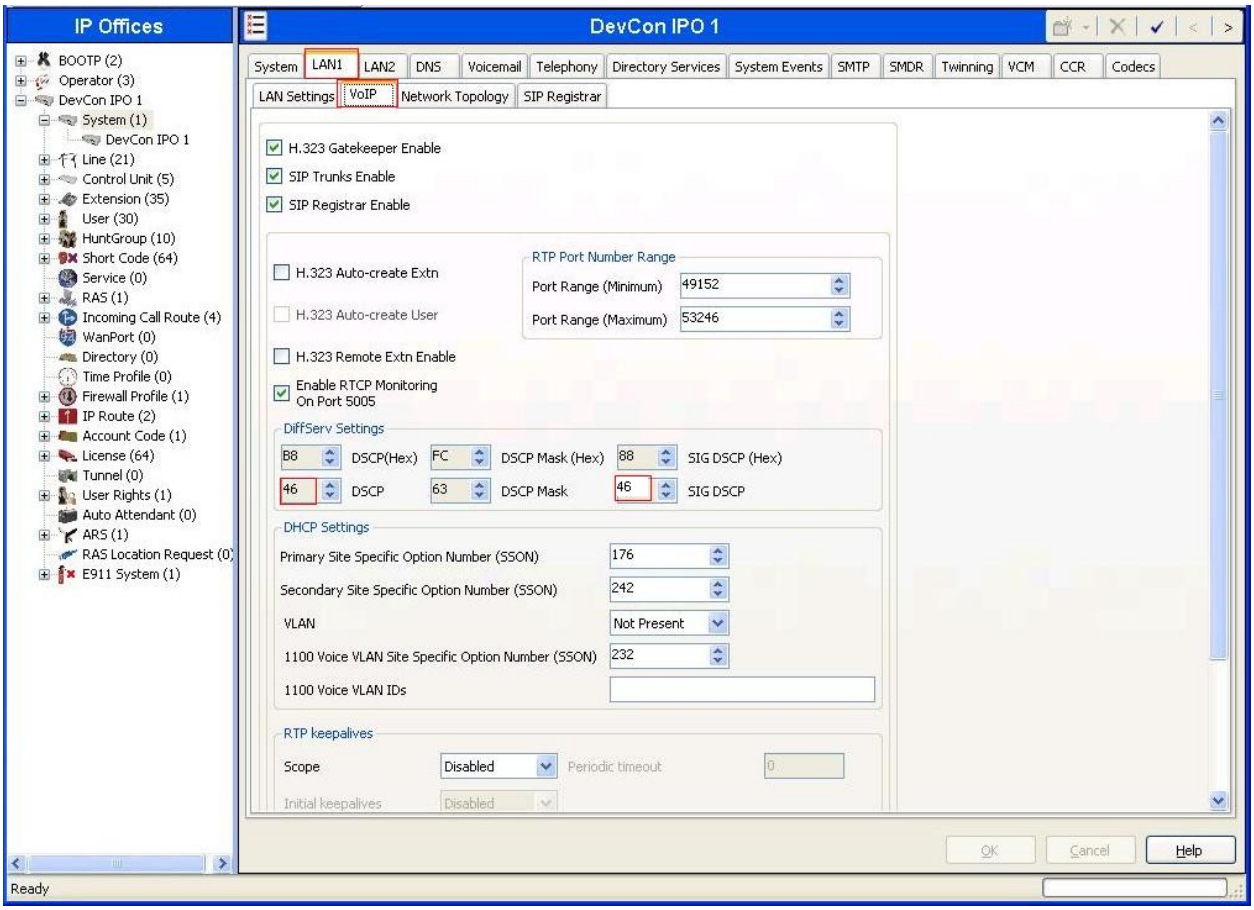

Figure 3: System Lan1 VoIP Settings

Step 4

Disable DHCP server on Avaya IP Office.

From the Configuration Tree, click **System → LAN1 → LAN Settings**. Set the **DHCP Mode** to **Disabled**. Click **OK** to continue as shown in **Figure 4.**

©2012 Avaya Inc. All Rights Reserved.

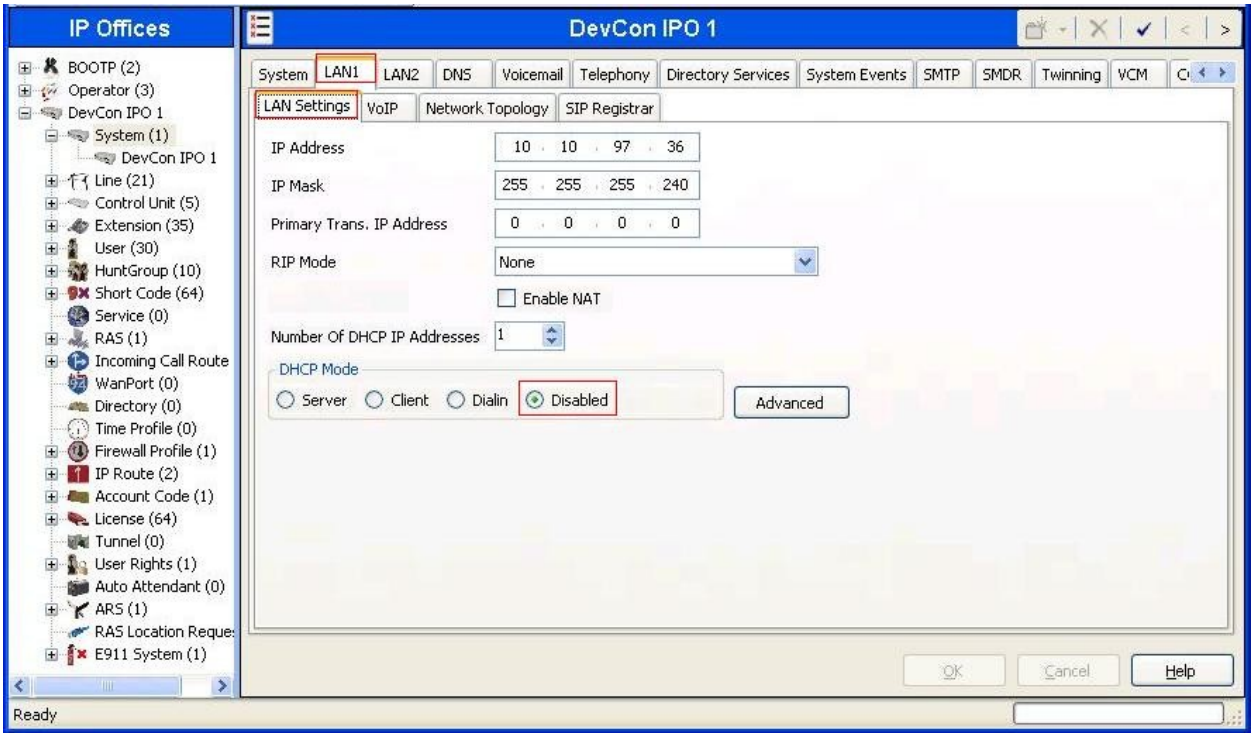

Figure 4: Disable DHCP

5.2. SIP Extension Configuration

This section was included to show basic SIP Extension configuration. Except where stated, the parameters in all steps are the default settings and are supplied for reference. For all other provisioning information such as provisioning of the trunks, call coverage and voice mail, please refer to the Avaya IP Office product documentation in **Section 9.**

Step 1

Avaya IP Office is configured via the Avaya IP Office Manager program. Log into the Avaya IP Office Manager PC and select **Start → Programs → IP Office → Manager** to launch the Avaya IP Office Manager application. Select **File → Open** to search for IP Offices in the network. Click on appropriate Avaya IP Office. Click **OK** to continue. Log in to the Avaya IP Office Manager application using the appropriate credentials.

Step 2

The main IP Office Manager window appears. The following steps refer to the Configuration Tree which is in the left pane of the window and under the heading **IP Offices** as shown in **Figure 2**.

Step 3

Create SIP Extension.

©2012 Avaya Inc. All Rights Reserved.

From the Configuration Tree, right mouse click on **Extension** and select **New → SIP Extension** (not shown). Enter a unique **Base Extension** as shown in **Figure 5.**

Figure 5: Create SIP Extension

Step 4

Verify Direct Media Path.

Click the **VoIP** tab. Verify that **Allow Direct Media Path** is checked. Click **OK** (not shown) to continue as shown in **Figure 6**.

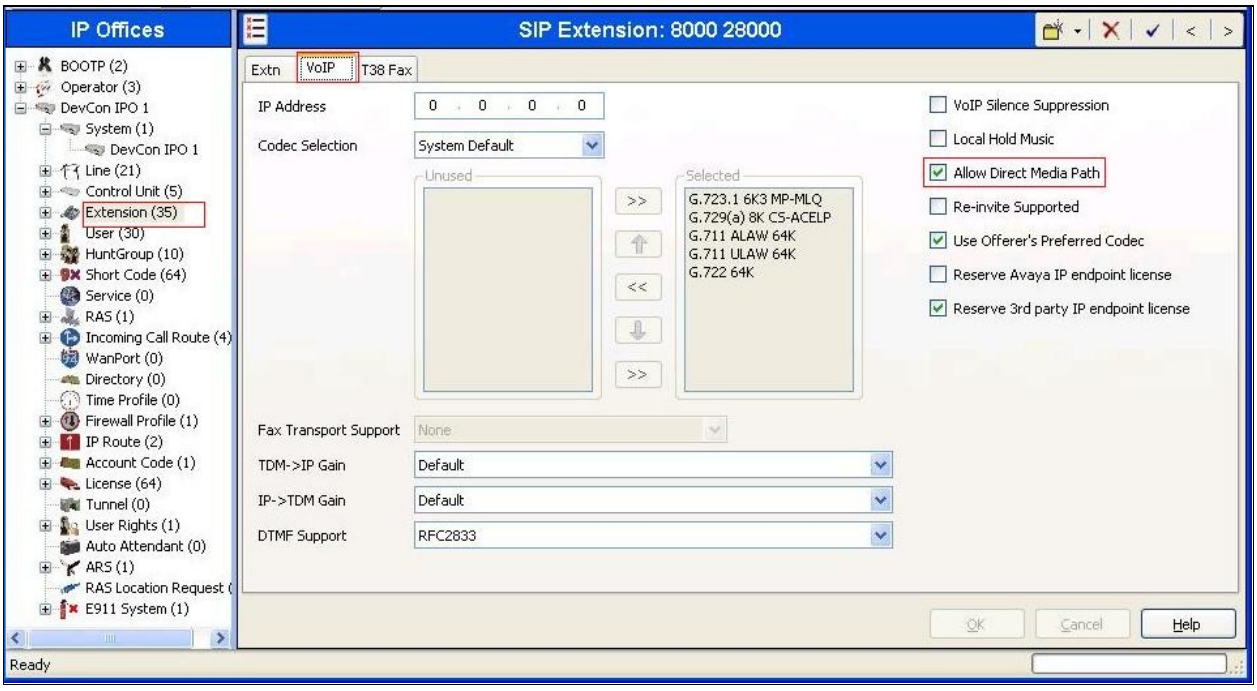

Figure 6: Allow Direct Media Path Setting

Step 5

Create User.

©2012 Avaya Inc. All Rights Reserved.

From the Configuration Tree, right mouse click on **User** and select **New** (not shown). Enter a user **Name** for the extension that was created in **Step 3**. Enter a **Password** and **Confirm Password** value. Enter the **Extension** that was created in **Step 3** as shown in **Figure 7**.

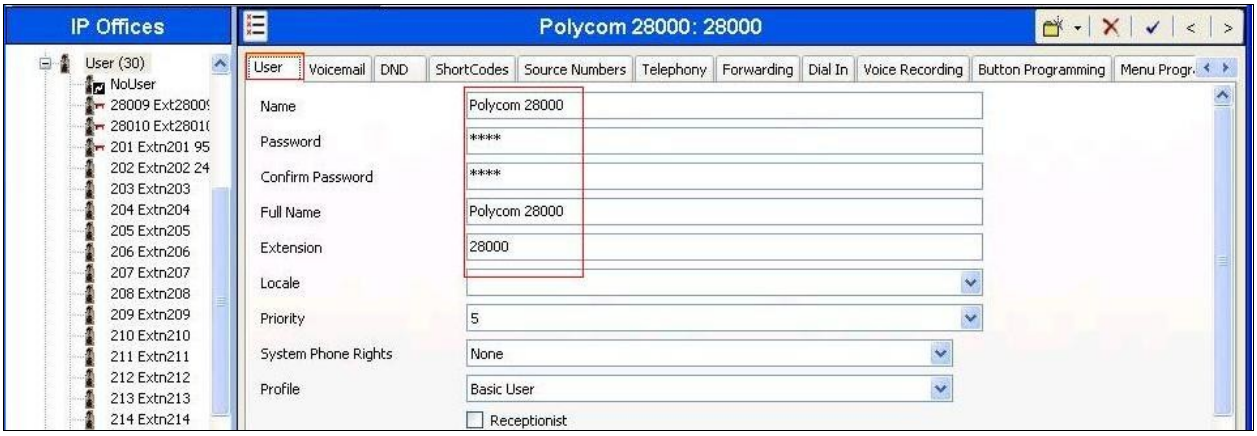

Figure 7: Create User

Step 6

Click **Telephony** tab and **Supervisor Settings** sub-tab. Enter a **Login Code**. 1234 was used for the compliance testing. The **Login Code** is used by the Polycom Duo to log in to the Avaya IP Office**.** Click **OK** (not shown) to continue. The changes must be saved before they will take effect, click to the icon to save the configuration as shown in **Figure 8**.

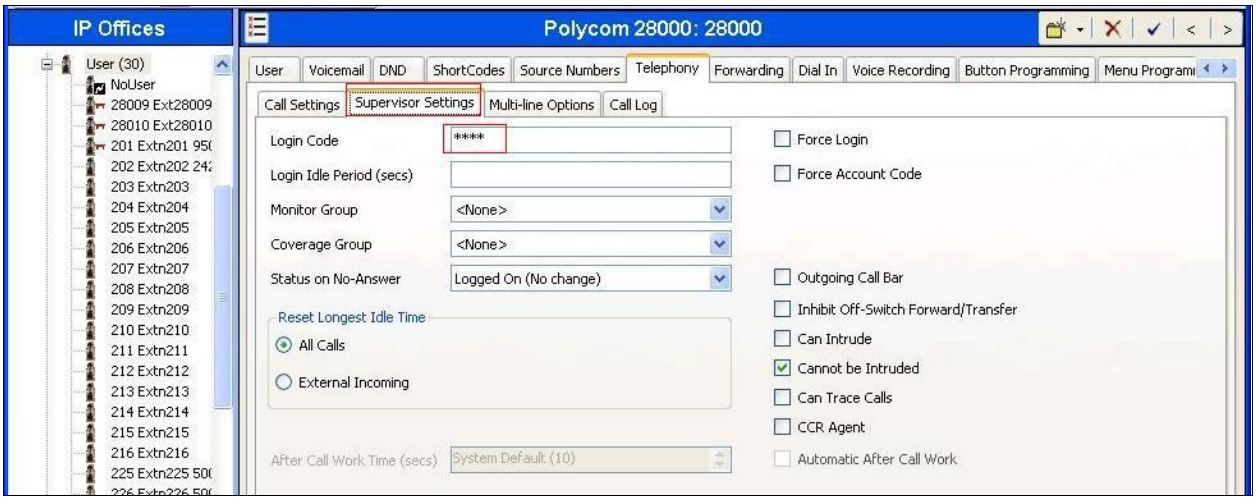

Figure 8: Telephony Supervisor Settings

Step 7

Repeat **Step 3** through to **Step 6** for additional Extensions.

©2012 Avaya Inc. All Rights Reserved.

6. Configure Polycom SoundStation Duo SIP interface

This section describes how to access the Polycom Duo SIP endpoint web interface and configure the Polycom Duo for testing.

6.1. Determine the IP address used by the Polycom Duo

This section shows how to determine the IP address used by the Polycom Duo:

- Push the 'Menu' button on the phone and navigate to 2. Status ➔ 2. Network ➔ 1. TCP/IP Parameters in order to find the currently used IP address

6.2. Login to Polycom Duo SIP Web Browser

This section shows how to log in to the home page of Polycom Duo to manage and configure Duo phone.

Open the web browser, and in the address field enter the Polycom Duo IP address as format http://ipaddress and the Polycom Duo login page will appear as shown in **Figure 9**. Enter default password, **456**.

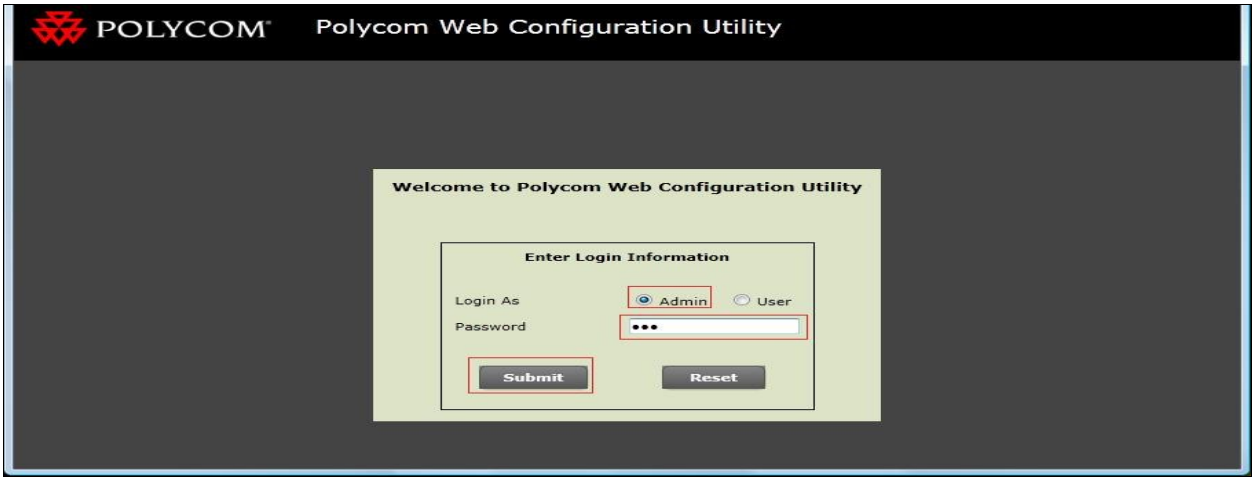

Figure 9: Polycom Duo Login Screen

Click the **Submit** button, the homepage of Polycom Duo appears as in **Figure 10** below.

©2012 Avaya Inc. All Rights Reserved.

Figure 10: Home page of Polycom Duo Conference Phone

6.3. Configure the Lines for Polycom Duo

This section shows how to configure the Polycom Duo to register with IP Office.

On the homepage of configuration screen (see **Figure 10**), click on the **Simple Setup** menu, the **Simple Setup** page appears as shown in **Figure 11**.
Enter values as highlighted in red-box and others are left at default as shown in **Figure 11**.
Click on the **Save** button to save changes.

©2012 Avaya Inc. All Rights Reserved.

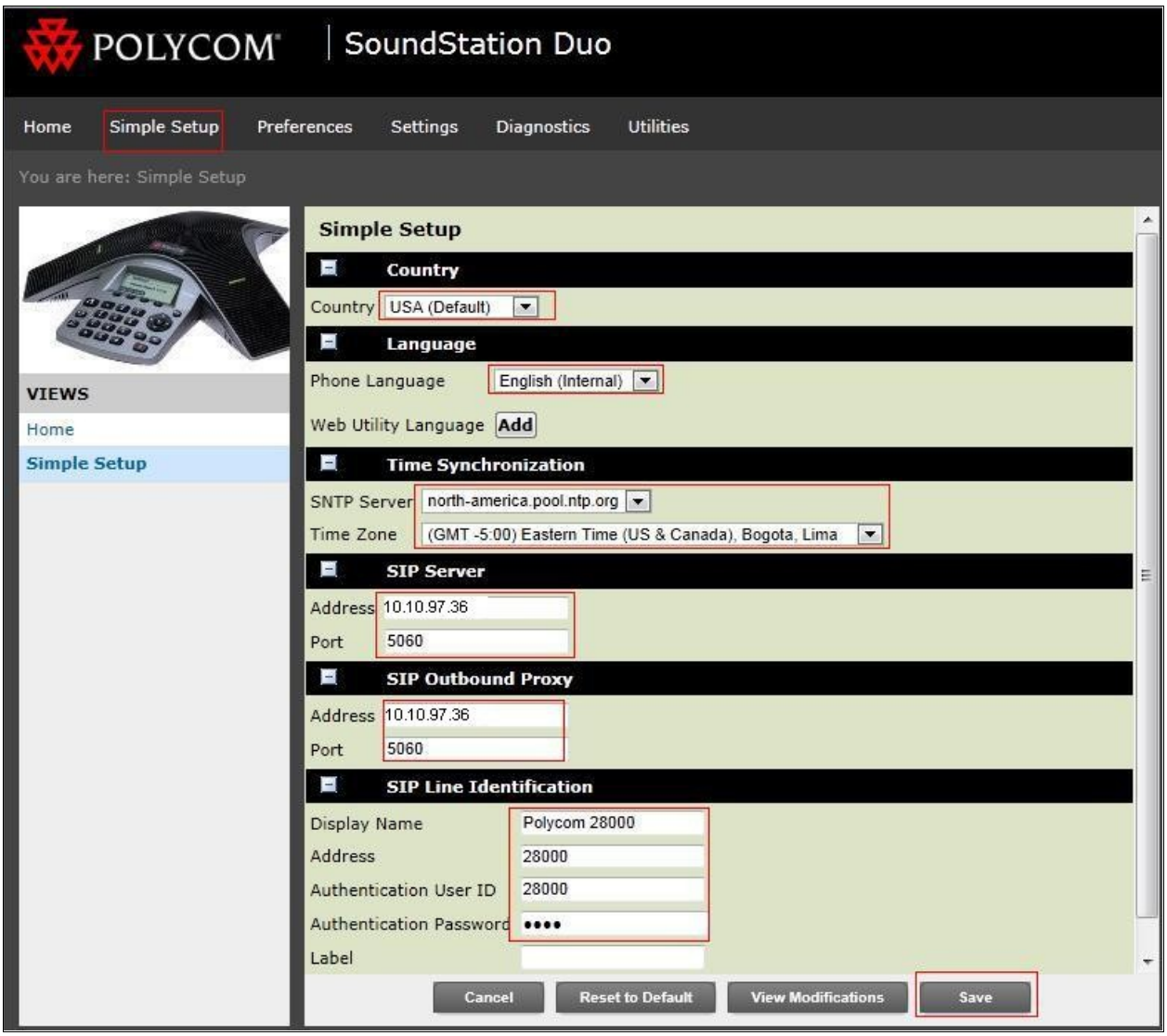

Figure 11: Simple Setup for Polycom Duo

6.4. SIP Settings

This section shows how to set SIP parameters for Polycom Duo.

On the homepage of Polycom Duo (see **Figure 10**), navigate to menu **Settings -> SIP, SIP** page appears as shown in **Figure 12**.
Enter values as highlighted in red-box and others are left at default as shown in **Figure 12**.
Click on the **Save** button to save changes.

©2012 Avaya Inc. All Rights Reserved.

Figure 12: SIP Settings Page

6.5. SIP Line Settings

This section shows how to set SIP parameters for Polycom Duo.

On the homepage of Polycom Duo (see **Figure 10**), navigate to menu **Settings -> Lines** page appears as shown in **Figure 13**.
Enter values (Subscription Address: subscriber extension) as highlighted in red-box and others are left at default as shown in **Figure 13**.

©2012 Avaya Inc. All Rights Reserved.

Click on the **Save** button to save changes.

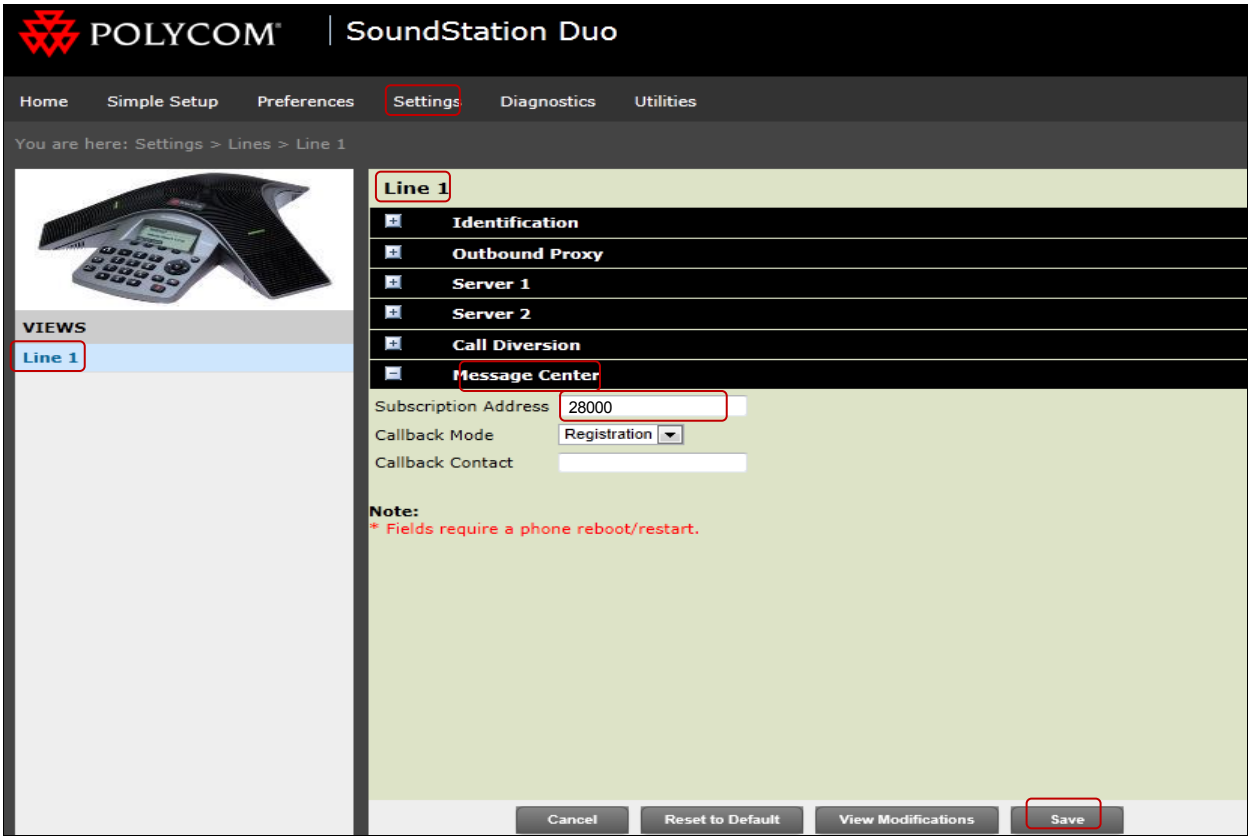

Figure 23: Line Settings Page

©2012 Avaya Inc. All Rights Reserved.

7. Verification Steps

This section includes some steps that can be followed to verify the configuration.

Step 1

Verify that the Polycom Duo registers successfully to the IP Office by logging into the Avaya IP Office Manager PC and select **Start → Programs →IP Office →Monitor** to launch the Avaya IP Office Monitor application. Click on the **Play** button as shown in **Figure 14**. Connect power to the Polycom Duo. Observe the log on the monitor screen, it should show the registration of the Duo to IP Office as shown in **Figure 14**.

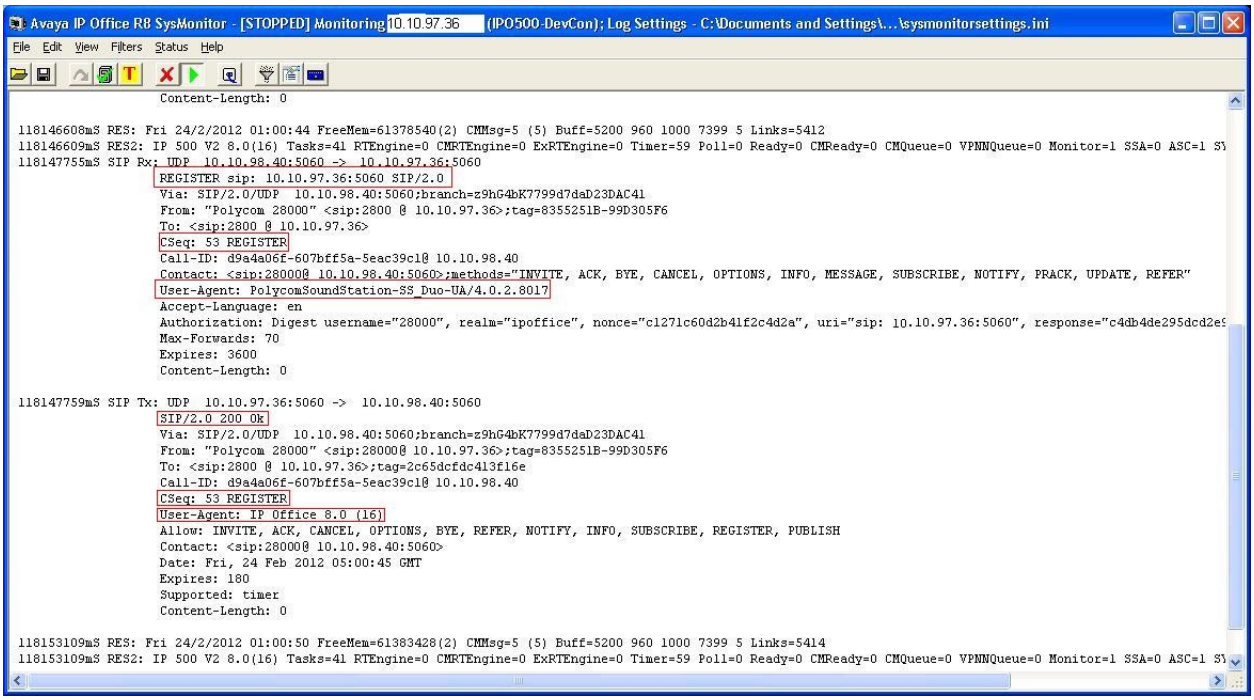

Figure 14: Monitor of Polycom Duo Registration

Step 2

Make a voice call from the Duo extension **28000** to IP Office telephones, verify clear voice path between them.

8. Conclusion

These Application Notes illustrate the procedures necessary for configuring the Polycom Duo to interoperate with the Avaya IP Office. All feature functionality test cases described in **Section 2.2** were passed.

©2012 Avaya Inc. All Rights Reserved.

9. Additional References

This section references documentation relevant to these Application Notes.
[1] Avaya product documentation is available at
http://support.avaya.com/css/Products/P0160/All_Documents

[2] Polycom's technical documentation for Duo is available at
http://support.polycom.com/PolycomService/support/us/support/voice/soundstation_ip_series/soundstationduo.html

©2012 Avaya Inc. All Rights Reserved.

©2012 Avaya Inc. All Rights Reserved.
Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.