AVAYA

Avaya Solution & Interoperability Test Lab

Application Notes for Valcom One-Way IP Speakers with Avaya IP Office – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for the Valcom One-Way IP Speaker devices to successfully interoperate with Avaya IP Office. The Valcom One-Way IP Speakers are SIP-based devices that integrate with Avaya IP Office as a SIP endpoint.

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.

MJH; Reviewed:
SPOC 2/8/2011

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Valcom-1Way-IPO

1. Introduction

These Application Notes describe the configuration steps required for the Valcom One-Way IP Speakers to successfully interoperate with Avaya IP Office. The Valcom One-Way Speakers enable voice access to a single zone of one-way paging over an IP-based LAN/WAN. The Speakers are SIP-based devices that integrate with Avaya IP Office as a SIP endpoint. The following Valcom One-Way IP Speaker was compliance tested:

- VIP-120

When a call is placed to the Valcom One-Way IP Speaker, the device automatically answers the call and provides one-way communication to the device.

1.1. Interoperability Compliance Testing

The interoperability compliance test plan included feature and serviceability test cases.

The feature testing covered SIP registration, basic calls, display verification, hold/reconnect, conferences, transfers, media shuffling, and audio codec negotiation.

The serviceability testing focused on verifying the ability of the Valcom One-Way IP Speaker to recover from adverse conditions, such as a disconnect and reconnect of the Ethernet cable to the device, and Avaya IP Office reboots.

1.2. Support

Technical support for Valcom can be obtained through the following:

- **Phone:** (800) VALCOM1
- **Email:** support@valcom.com

2. Reference Configuration

The Valcom One-Way IP Speaker was configured as a SIP endpoint that registered with Avaya IP Office. When a call is placed to the Valcom One-Way IP Speaker, the device automatically answers the call and provides one-way communication to the device.
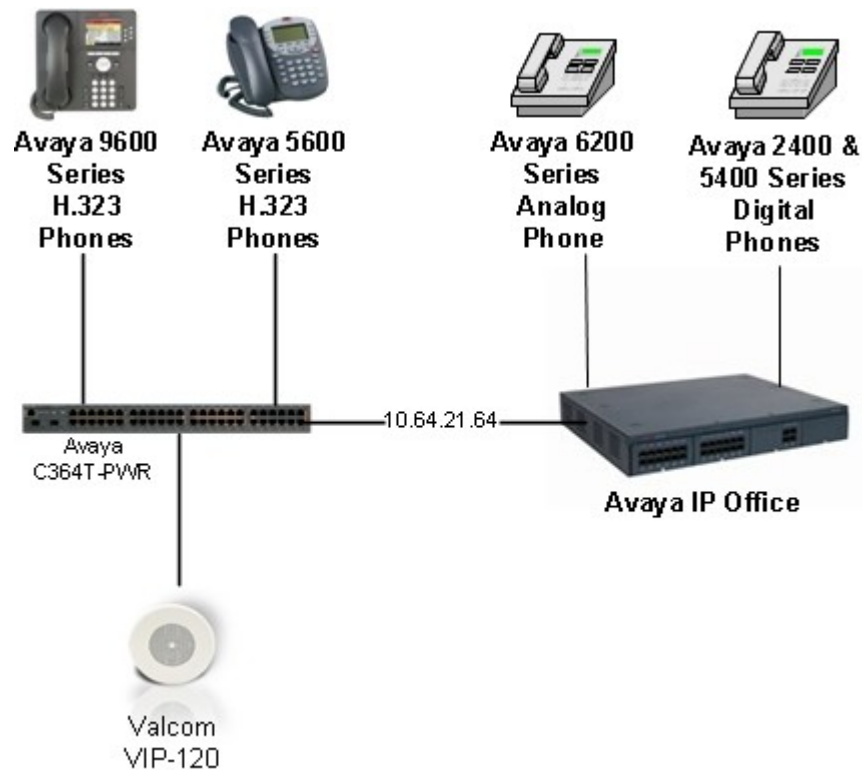
Figure 1: Valcom One-Way IP Speaker with Avaya IP Office

3. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office 500	6.0 (8)
Avaya IP Office 500 Phone Expansion Module Analog POTS 30 V2	6.0 (8)
Avaya IP Office Manager (Windows PC)	8.0 (8)
Avaya 5610SW IP Telephone (H.323)	2.9.1
Avaya 9620 IP Telephone (H.323)	3.002
Avaya 2420 Digital Telephone	R6 Firmware
Avaya 5420 Digital Phone	R6 Firmware
Avaya 6210 Analog Telephone	n/a
Valcom One-Way IP Speaker (VIP-120)	2.17

4. Configure Avaya IP Office

This section describes the steps required to configure SIP extensions and users on IP Office.

IP Office is configured via the IP Office Manager program. Log into the IP Office Manager PC and select **Start → Programs → IP Office → Manager** to launch the Manager application. Log into the Manager application using the appropriate credentials.

4.1. Administer Extensions

Create an extension for the Valcom One-Way IP Speaker. Right-click on **Extension** in the left panel menu, and select **New → SIP Extension**.

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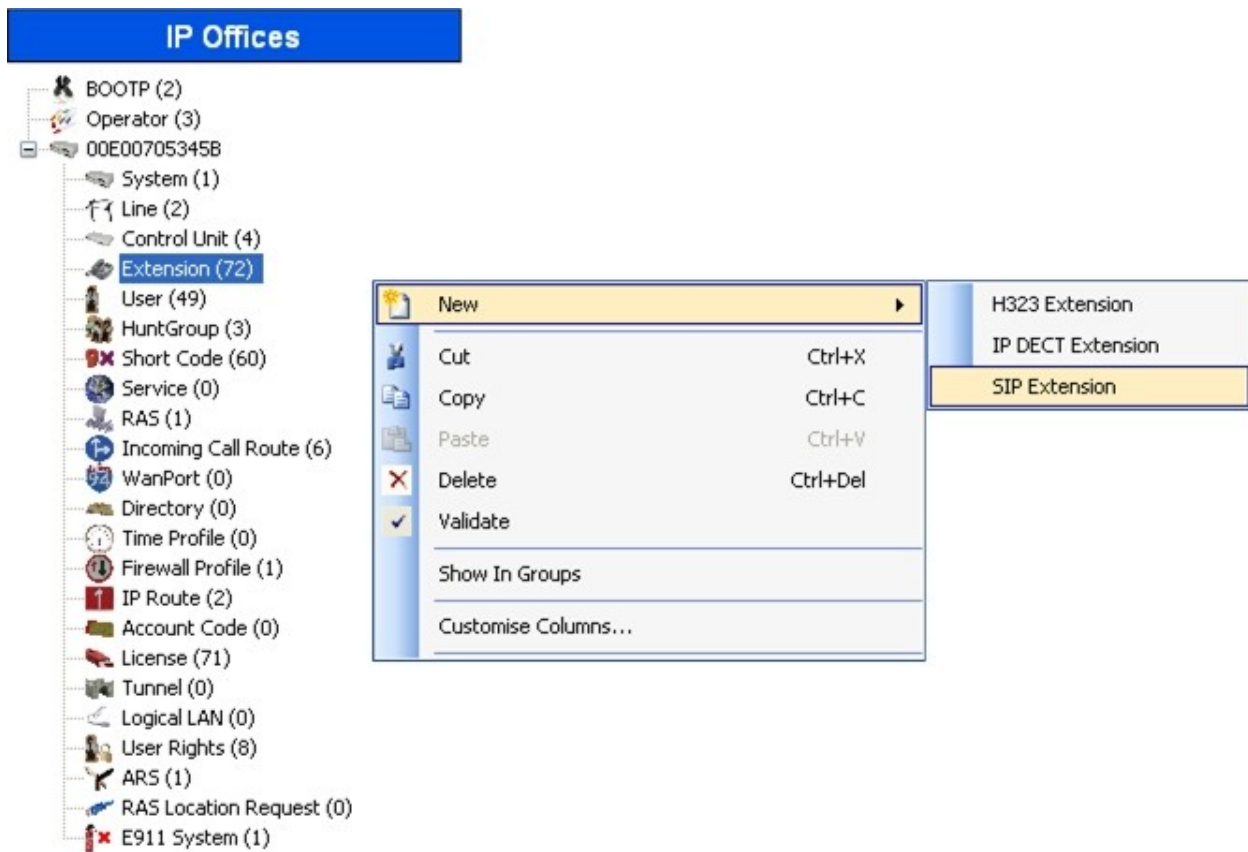
On the **Extn** tab, enter a valid **Base Extension**.

On the **VoIP** tab, select **G.711 ULAW 64K** for **Compression Mode** and **RFC2833** for **DTMF Support**.

Click the **OK** button on the bottom of the screen (not shown).

4.2.   Administer Users

Create a user for the Valcom One-Way IP Speaker. Right-click **User** from the left panel and select **New**.

Under the **User** tab, enter the following values for the specified fields, and retain the default values in the remaining fields.

- **Name**   Enter a desired name.
- **Full Name**   Enter a descriptive name.
- **Extension**   Enter the extension configured in **Section 4.1**.

Under the **Telephony → Supervisor Settings** tab, enter the following value for the specified field, and retain the default values in the remaining fields.

- **Login Code**   Enter the desired login code.

Click the **OK** button on the bottom of the screen.

After making the changes, click **File → Save Configuration** to push the changes to the IP Office system and have them take effect. Changes will not take effect until this step is completed.
** NOTE ** **This may cause a reboot of Avaya IP Office causing service disruption.**

5. Configure Valcom One-Way IP Speakers

This section provides the procedures for configuring Valcom One-Way IP Speakers. The information shown is the minimum for configuring the Valcom device. Complete configuration details may be found in the Valcom documentation listed in **Section 9**. The procedures include the following areas:

- Launch setup tool
- Administer properties
- Administer network
- Administer SIP

5.1. Launch Setup Tool

From a PC running the Valcom VIP-102B IP Solutions Setup Tool application, select **Start** →
All Programs → **Valcom IP Solutions** → **VIP-102B IP Solutions Setup Tool**. The **VIP-102B IP Solutions Setup Tool** screen is displayed. Retain the default values and click **OK** to scan for Valcom devices.
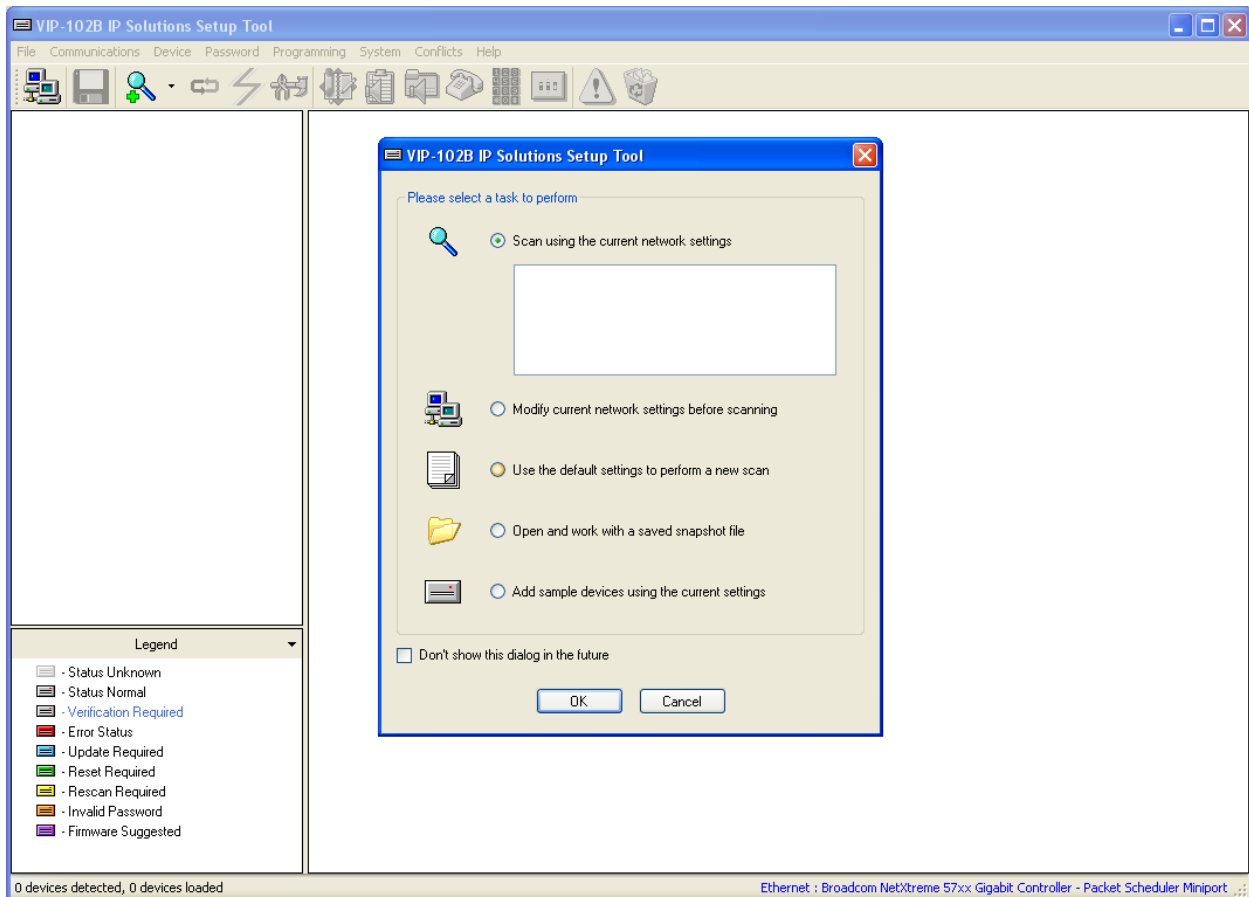
At the conclusion of the scan, the **VIP-102B IP Solutions Setup Tool** screen is updated with the discovered Valcom One-Way IP Speakers as shown below.
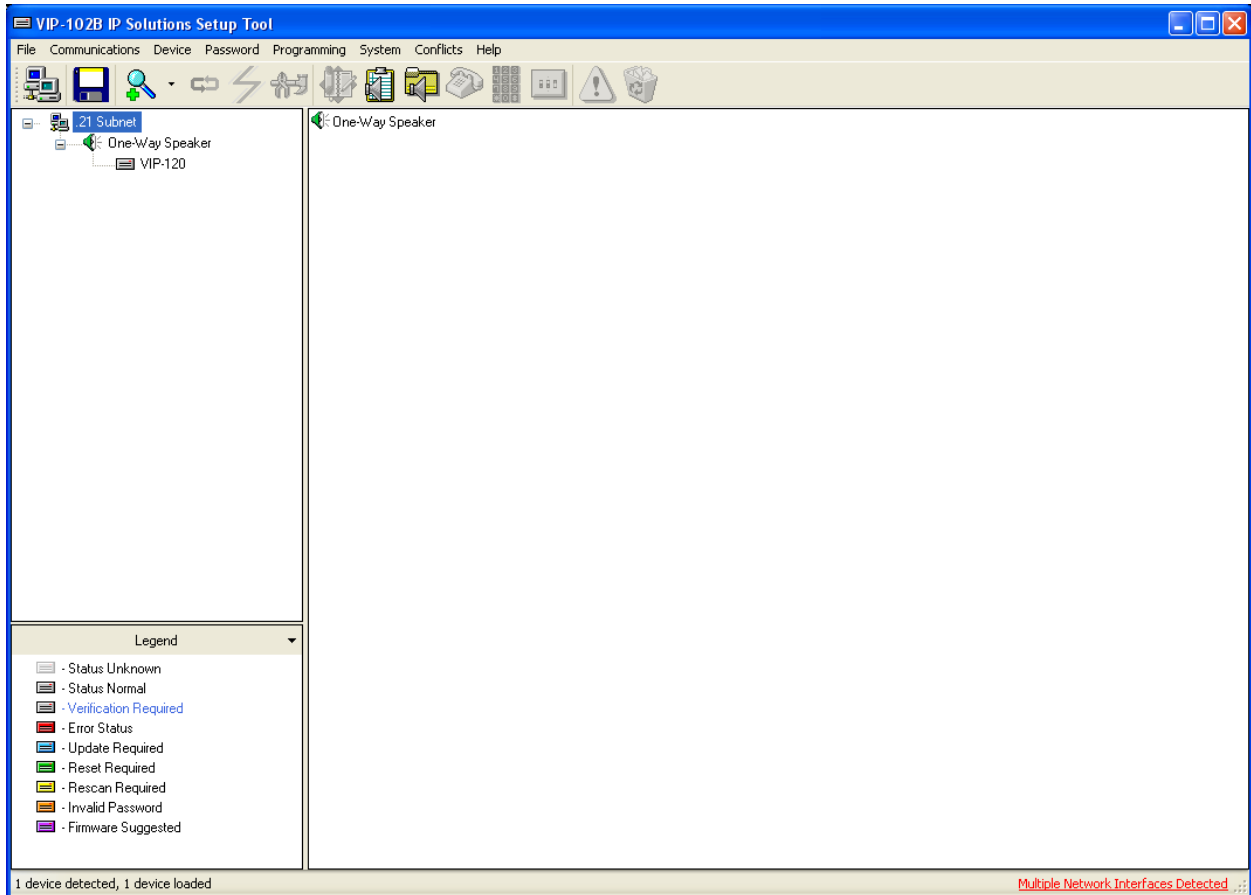
5.2. Administer Properties

Select the speaker from the left pane to display the configuration tabs in the right pane. Select the **Properties** tab, and enter a descriptive **Device Name**. Select the appropriate time zone in the **Offset From UTC** field, and enter any desired **Comments**.
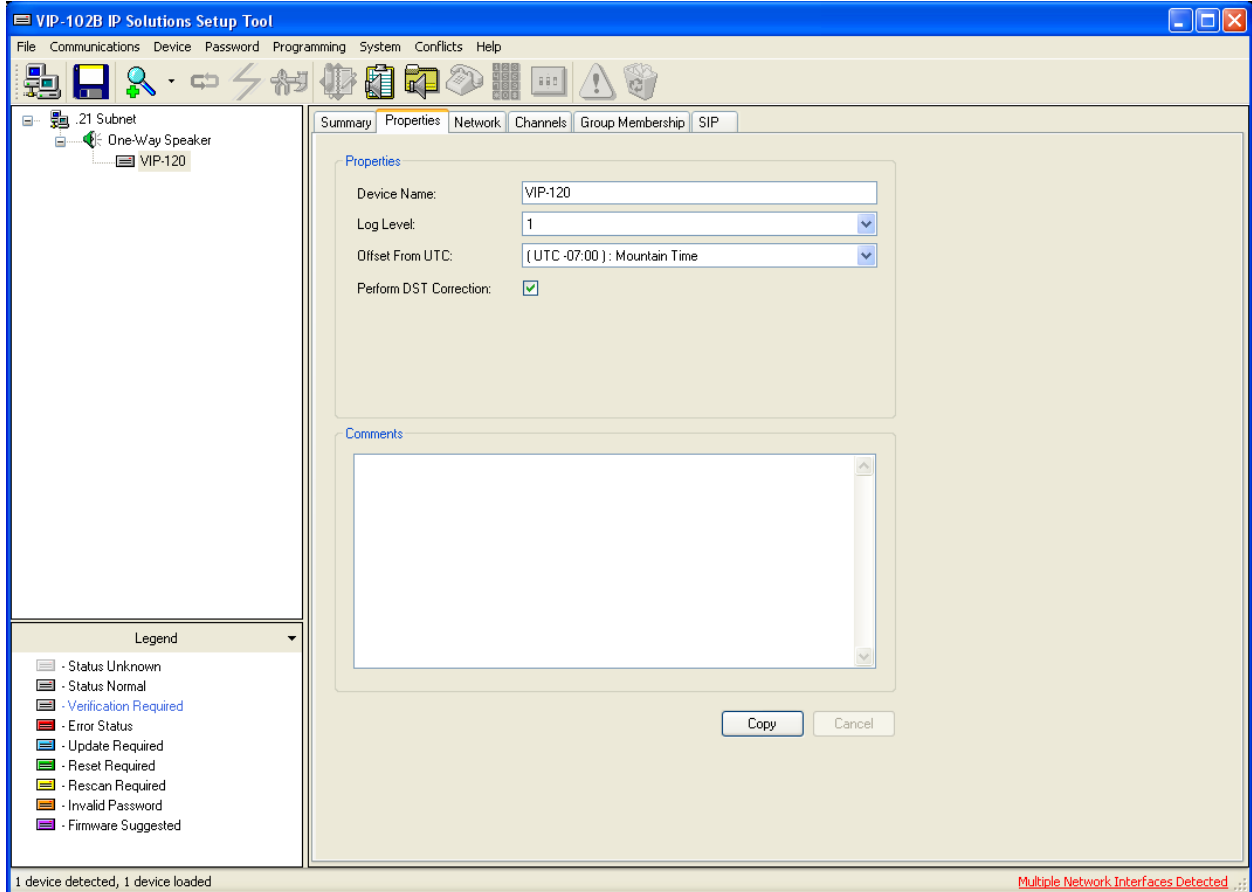
5.3. Administer Network

Select the **Network** tab. Enter the proper values for **Static IP Address**, **Subnet Mask**, and **Gateway IP Address** fields for the network configuration. The default values in the remaining fields may be retained.
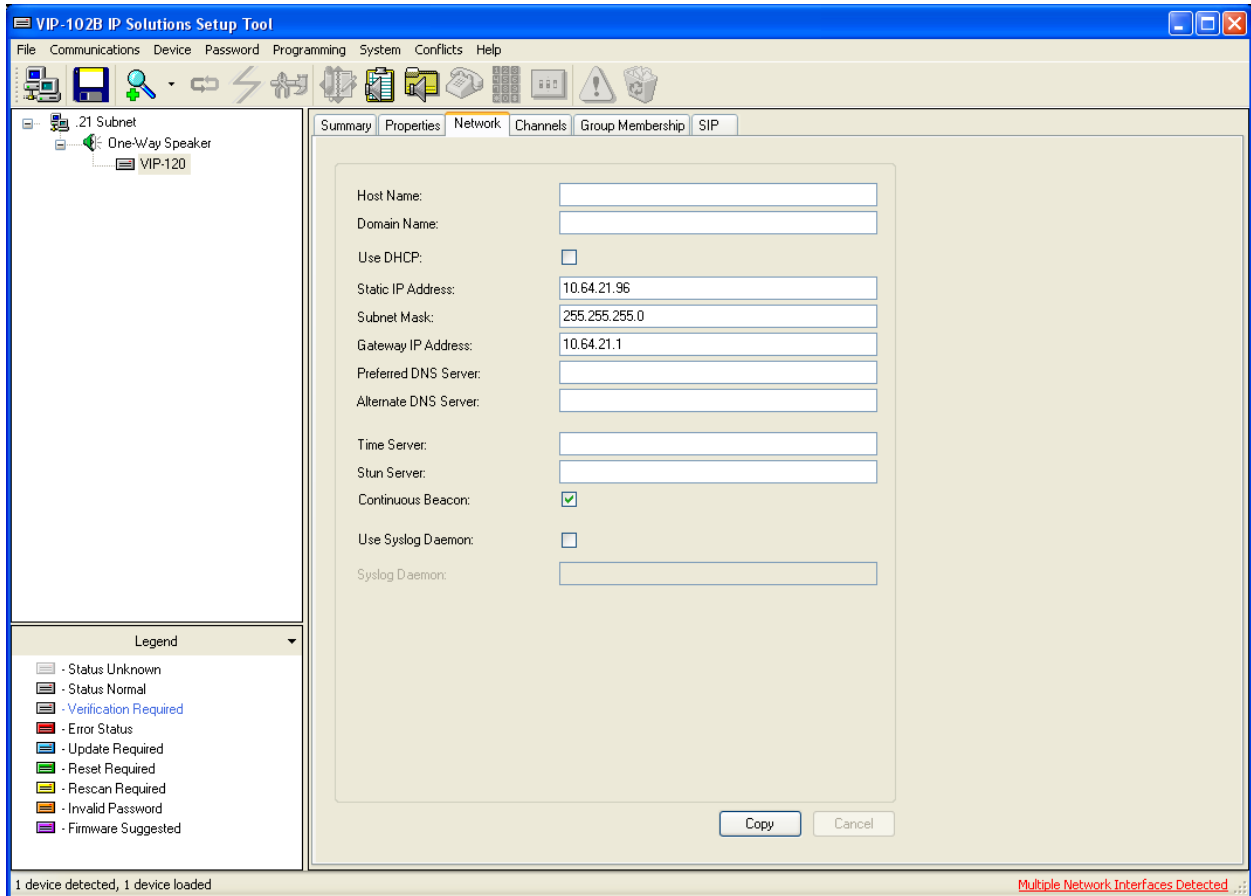
5.4. Administer SIP

Select the **SIP** tab. Enter the following values for the specified fields, and retain the default values for the remaining fields.

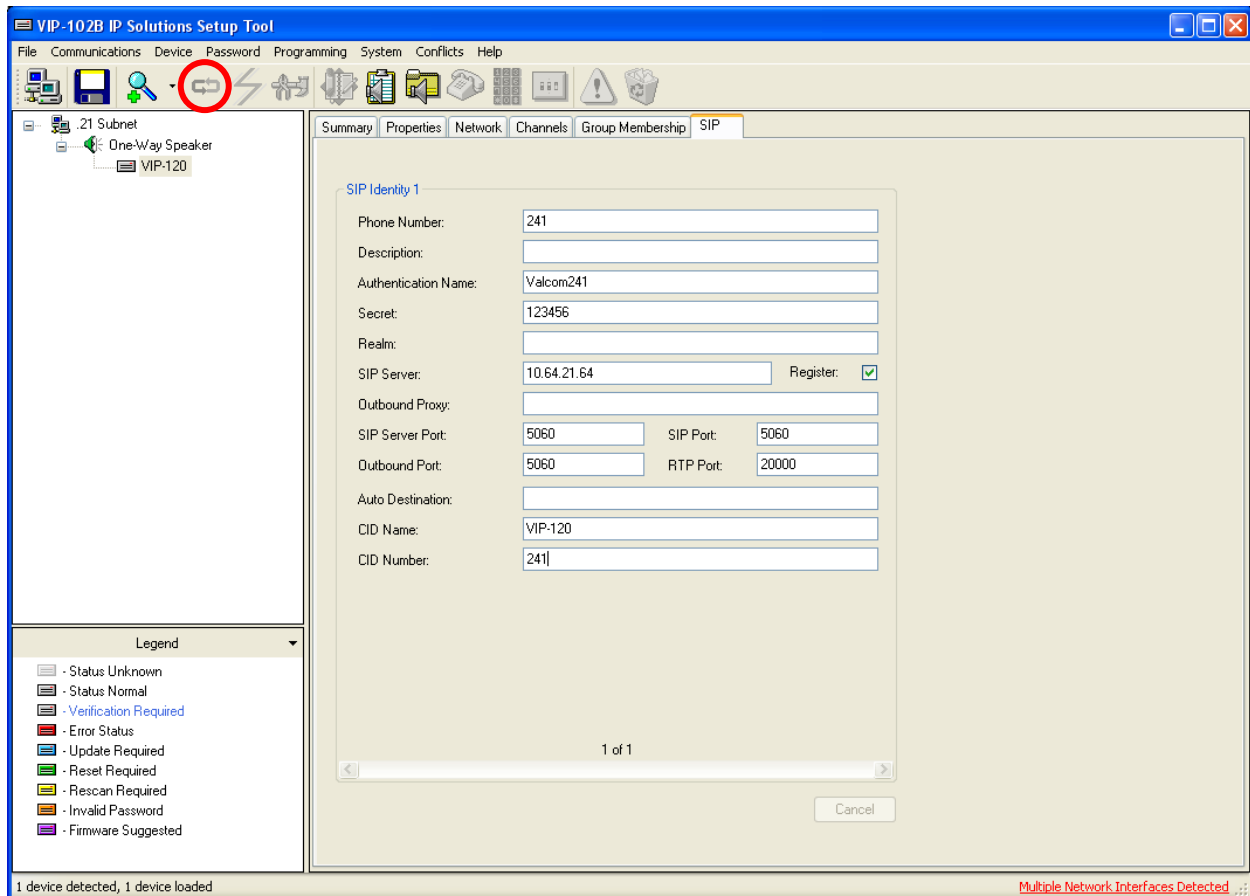- **Phone Number:**   Enter the "Base Extension" from **Section 4.1**.
- **Authentication Name:** Enter the "Name" from **Section 4.2**.
- **Secret:**   Enter the "Login Code" from **Section 4.2**.
- **SIP Server:**   Enter the IP address of Avaya IP Office.
- **Register:**   Check this field.
- **CID Name:**   Enter a descriptive name.
- **CID Number:**   Enter the Caller-ID number (e.g. extension of device).

Click on the **Update Changed Devices** icon circled above. The **Reset Required** dialog box will appear as shown below. Click **Yes** to reset the updated device.
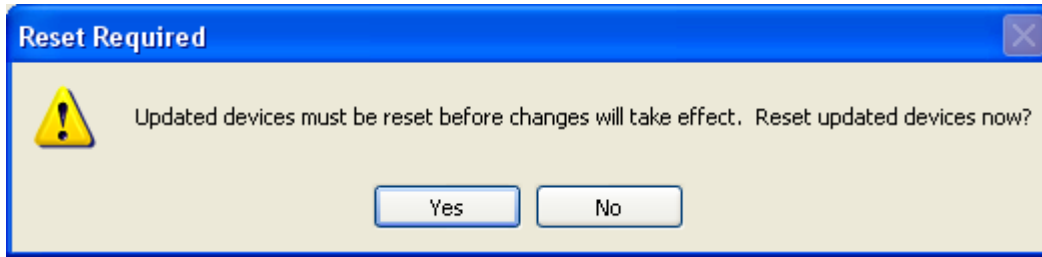
6. General Test Approach and Test Results

The feature test cases were performed manually. Calls were place to the Valcom One-Way IP Speaker from various endpoints within the test environment, and manual call controls from the origination endpoint were exercised to verify proper interactions with features such as "transfer" and "conference".

The serviceability test cases were performed manually by disconnecting and reconnecting the LAN cables to the Valcom One-Way IP Speakers. Additionally, the Avaya IP Office server was rebooted to verify the Valcom One-Way IP Speaker was able to properly register and function normally after the server recovered.

All feature test cases were executed and passed with the following observations:
- When shuffling (Allow Direct Media Path) was enabled on Avaya IP Office, calls involving the Valcom One-Way IP Speakers did not shuffle.
- The Valcom "Pre-Announce Tone" feature was not functioning properly. The pre-annoucement tone did not play. Valcom is aware of the issue and the feature will be enabled in future firmware releases.

7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and the Valcom One-Way IP Speaker.

7.1. Verify Valcom One-Way IP Speakers

Place a call to the Valcom One-Way IP Speaker and verify that the call is connected with a one-way talk path.

8. Conclusion

These Application Notes describe the configuration steps required for Valcom One-Way IP Speakers to successfully interoperate with Avaya IP Office.

All test cases were executed and passed with the observations noted in **Section 6**.

9. Additional References

This section references the product documentation relevant to these Application Notes.

1. *IP Office 6.0 Documentation CD - English*, February 2010, available at http://support.avaya.com

2. Valcom One-Way IP Speaker documentation is available at http://www.valcom.com

3. Valcom VIP-102B IP Solutions Setup Tool Reference Manual is available at http://www.valcom.com

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