



**Application Notes for Valcom PagePro SIP Paging Gateway
with Avaya Aura[®] Communication Manager R6.3 and
Avaya Aura[®] Session Manager R6.3 – Issue 1.0**

Abstract

These Application Notes describe the configuration steps required for the Valcom PagePro SIP Paging Gateway to successfully interoperate with Avaya Aura[®] Communication Manager R6.3 and Avaya Aura[®] Session Manager R6.3. The Valcom PagePro SIP Paging Gateway is a SIP-based paging device that integrates with Avaya Aura[®] Communication Manager and Avaya Aura[®] Session Manager as a SIP endpoint.

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.

1. Introduction

These Application Notes describe the configuration steps required for the Valcom PagePro SIP Paging Gateway (PagePro IP VIP-201A) device to successfully interoperate with Avaya Aura[®] Communication Manager and Avaya Aura[®] Session Manager. The Valcom PagePro IP SIP Paging Gateway is a SIP-based paging device that integrates with Avaya Aura[®] Communication Manager and Avaya Aura[®] Session Manager as a SIP endpoint and registers to Avaya Aura[®] Session Manager.

2. General Test Approach and Test Results

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.

The interoperability compliance test plan included feature and serviceability test cases. The feature testing covered SIP registration, basic calls, simultaneous calls, media shuffling, and audio codec negotiation. Various SIP access numbers for the Valcom PagePro IP SIP Paging Gateway device were dialed to test connection to the proper speaker groups. The serviceability testing focused on verifying the ability of the Valcom PagePro IP SIP Paging Gateway to recover from adverse conditions, such as disconnecting and reconnecting the Ethernet cable to the device.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing covered SIP registration, basic calls, simultaneous calls, media shuffling, and audio codec negotiation. The feature test cases were performed manually. The various SIP access numbers for the Valcom PagePro IP SIP Paging Gateway device were dialed to test connection to the proper speaker groups.

The serviceability test cases were performed manually by disconnecting and reconnecting the LAN cables to the Valcom PagePro IP SIP Paging Gateway device.

2.2. Test Results

All applicable test cases were executed successfully.

2.3. Support

Technical support for Valcom can be obtained through the following:

Phone: (800) VALCOM1

Email: support@valcom.com

Avaya customers may obtain documentation and support for Avaya products by visiting <http://support.avaya.com>. Alternatively, in the United States, (866) GO-AVAYA (866-462-8292) provides access to overall sales and service support menus.

3. Reference Configuration

The Valcom PagePro IP SIP Paging Gateway can register with Session Manager as eight separate SIP endpoints (access numbers), providing up to eight zones of SIP-based paging. When a call is placed to one of the SIP access numbers, the device answers the call and automatically establishes a one-way communication with a preconfigured group of IP speakers associated with the access number. In the compliance testing, the following Valcom IP Speakers were used as the preconfigured destinations for the access numbers:

- Talkback IP Speaker VIP-160A.
- Intercom IP Speaker VIP-172AL.
- Talkback IP Speaker VIP-148AL.
- One-way IP Speaker VIP-120A.

Eight SIP endpoints are used for the PagePro IP VIP-201A access numbers to register to Session Manager:

- 30111 associated to Paging Group 100.
- 30112 associated to Paging Group 200.
- 30113 associated to Paging Group 300.
- 30114 associated to Paging Group 400.
- 30115 associated to Paging Group 500.
- 30116 associated to Paging Group 100 and 200.
- 30117 associated to Paging Group 100 and 300.
- 30118 associated to Paging Group 100 and 400.

One Avaya 9630 H.323 phone (30001) with physical phone registers to Communication Manager.

One Avaya 9630G SIP phone (30101) with physical phone registers to Session Manager.

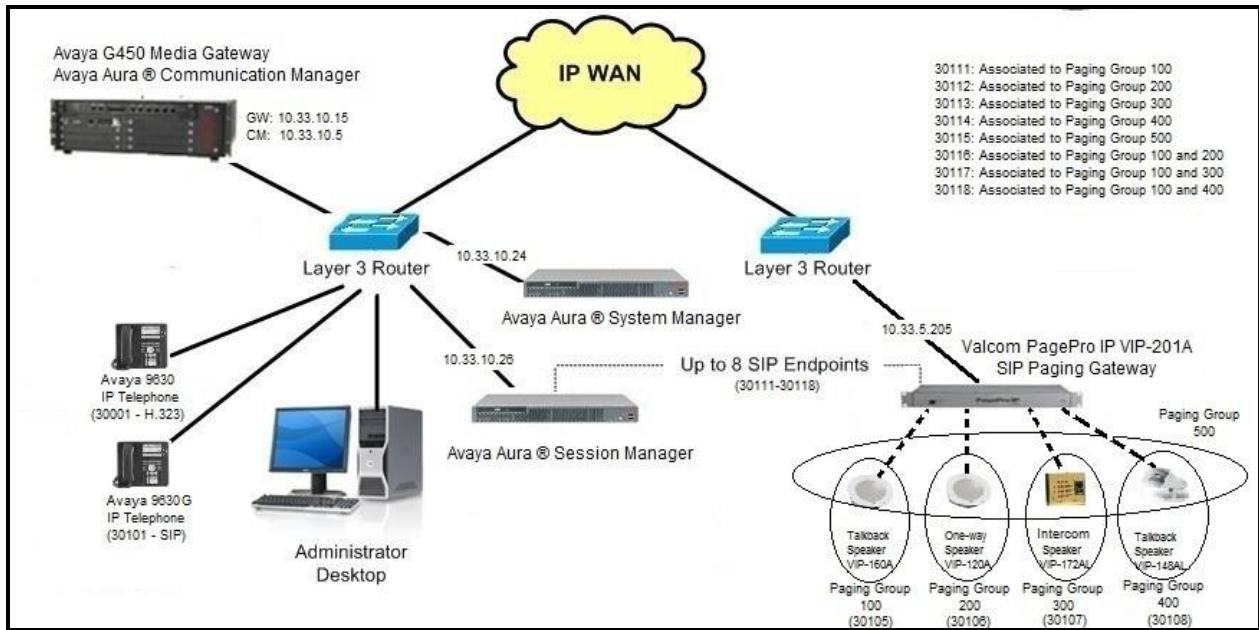


Figure 1- Valcom PagePro IP SIP Paging Gateway with Avaya Aura® Communication Manager and Avaya Aura® Session Manager

4. Equipment and Software Validated

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

Equipment	Software
Avaya Aura [®] Communication Manager running on Avaya S8300 Server	6.3.8 (03.0.124.0-21588 (SP8))
Avaya G450 Media Gateway <ul style="list-style-type: none"> • MM711AP Analog • MM712AP Digital • MM710AP 	FW096, HW46 FW014, HW10 FW020, HW05
Avaya Aura [®] Session Manager running on Avaya S8800 Server	6.3.7 (6.3.7.0.637008)
Avaya Aura [®] System Manager running on Avaya S8800 Server	6.3.9 (Build No. - 6.3.0.8.5682 - 6.3.8.4417) (Software Update Revision No: 6.3.9.1.2538)
Avaya 9630G IP Telephone - Avaya one-X [®] Deskphone SIP Edition	2.6.6.0
Avaya 9630 IP Telephone - Avaya one-X [®] Deskphone H.323 Edition	3.2
Valcom PagePro IP SIP Paging Gateway (VIP-201A)	3.18.4
Valcom VIP-172AL - IP Intercom Flush MT Stainless Steel	3.18.6
Valcom VIP-148AL - IP Talkback Horn Grey	3.18.6
Valcom VIP-160A - IP Talkback 8" Ceiling Speaker	3.18.6
Valcom VIP-120A - IP One-way Speaker	3.18.6
Valcom VIP-102B IP Solutions Setup Tool	6.1

5. Configure Avaya Aura® Communication Manager

The detailed administration of basic connectivity between Communication Manager and Session Manager is not the focus of these Application Notes and will not be described. For administration of basic connectivity Communication Manager and Session Manager, refer to the appropriate documentation listed in **Section 12**. This section provides the procedures for the following:

- Verify Avaya Aura® Communication Manager License.
- Administer IP codec set.
- Administer IP network region.

5.1. Verify Avaya Aura® Communication Manager License

Log into the System Access Terminal (SAT) to verify that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the “display system-parameters customer-options” command to verify that there is sufficient capacity for SIP stations by comparing the **Maximum Off-PBX Telephones - OPS** field value with the corresponding value in the **USED** column. The difference between the two values needs to be greater than or equal to the desired SIP access numbers for the Valcom PagePro IP VIP-201A device.

```
display system-parameters customer-options                               Page 1 of 11
                                OPTIONAL FEATURES

G3 Version: V16                                     Software Package: Enterprise
Location: 1                                         RFA System ID (SID): 1
Platform: 28                                       RFA Module ID (MID): 1

                                                USED
Platform Maximum Ports: 65000 186
Maximum Stations: 41000 27
Maximum XMOBILE Stations: 41000 0
Maximum Off-PBX Telephones - EC500: 41000 0
Maximum Off-PBX Telephones - OPS: 41000 15
Maximum Off-PBX Telephones - PBFMC: 41000 0
Maximum Off-PBX Telephones - PVFMC: 41000 0
Maximum Off-PBX Telephones - SCCAN: 0 0
Maximum Survivable:Processors: 313 0

(NOTE: You must logoff & login to effect the permission changes.)
```

Figure 2 - Avaya Aura® Communication Manager License for Feature

5.2. Administer IP Codec Set

Use the “change ip-codec-set n” command, where “n” is an existing codec set number that will be used for integration with Valcom. Enter the G.711 codec in the **Audio Codec** field. Note that the Valcom PagePro IP SIP Paging Gateway device only supports the G.711MU codec.

```
change ip-codec-set 1                                     Page 1 of 2
                                                         IP Codec Set
Codec Set: 1
Audio           Silence      Frames   Packet
Codec           Suppression Per Pkt   Size(ms)
1: G.711MU      n         2        20
2:
```

Figure 3 - Avaya Aura® Communication Manager Codec

5.3. Administer IP Network Region

Use the “change ip-network-region n” command, where “n” is the existing network region used for integration with Valcom. Set **Codec Set: 1** (Defined in **Section 5.2**). Enable the **Intra-region IP-IP Direct Audio**, **Inter-region IP-IP Direct Audio**, and **IP Audio Hairpinning** fields, as shown below.

For ease of compliance testing, the same network region was used for the Avaya endpoints. If the network configuration uses a different network region for the Avaya endpoints, then **Page 3** can be used to specify which codec set to use for calls between regions.

```
change ip-network-region 1                               Page 1 of 20
                                                         IP NETWORK REGION
Region: 1
Location: 1      Authoritative Domain: bvwdev7.com
Name: procr      Stub Network Region: n
MEDIA PARAMETERS
Codec Set: 1      Intra-region IP-IP Direct Audio: yes
                   Inter-region IP-IP Direct Audio: yes
                   IP Audio Hairpinning? y
UDP Port Min: 2048
UDP Port Max: 3329
DIFFSERV/TOS PARAMETERS
Call Control PHB Value: 46
Audio PHB Value: 46
Video PHB Value: 26
802.1P/Q PARAMETERS
Call Control 802.1p Priority: 6
Audio 802.1p Priority: 6
Video 802.1p Priority: 5      AUDIO RESOURCE RESERVATION PARAMETERS
H.323 IP ENDPOINTS      RSVP Enabled? n
H.323 Link Bounce Recovery? y
Idle Traffic Interval (sec): 20
Keep-Alive Interval (sec): 5
Keep-Alive Count: 5
```

Figure 4 - Avaya Aura® Communication Manager IP Network Region

6. Configure Avaya Aura® Session Manager

This section provides the procedures for configuring Avaya Aura® Session Manager. The procedures covered in this section are the following:

- Launch Avaya Aura® Session Manager interface.
- Administer users.

6.1. Launch Avaya Aura® Session Manager Interface

Configuration of Session Manager is accomplished by accessing the browser-based GUI of System Manager, using the URL “https://<ip-address>/SMGR”, where “<ip-address>” is the IP address of System Manager. Log in using the appropriate credentials with **User ID** and **Password**. Click **Log On** button.

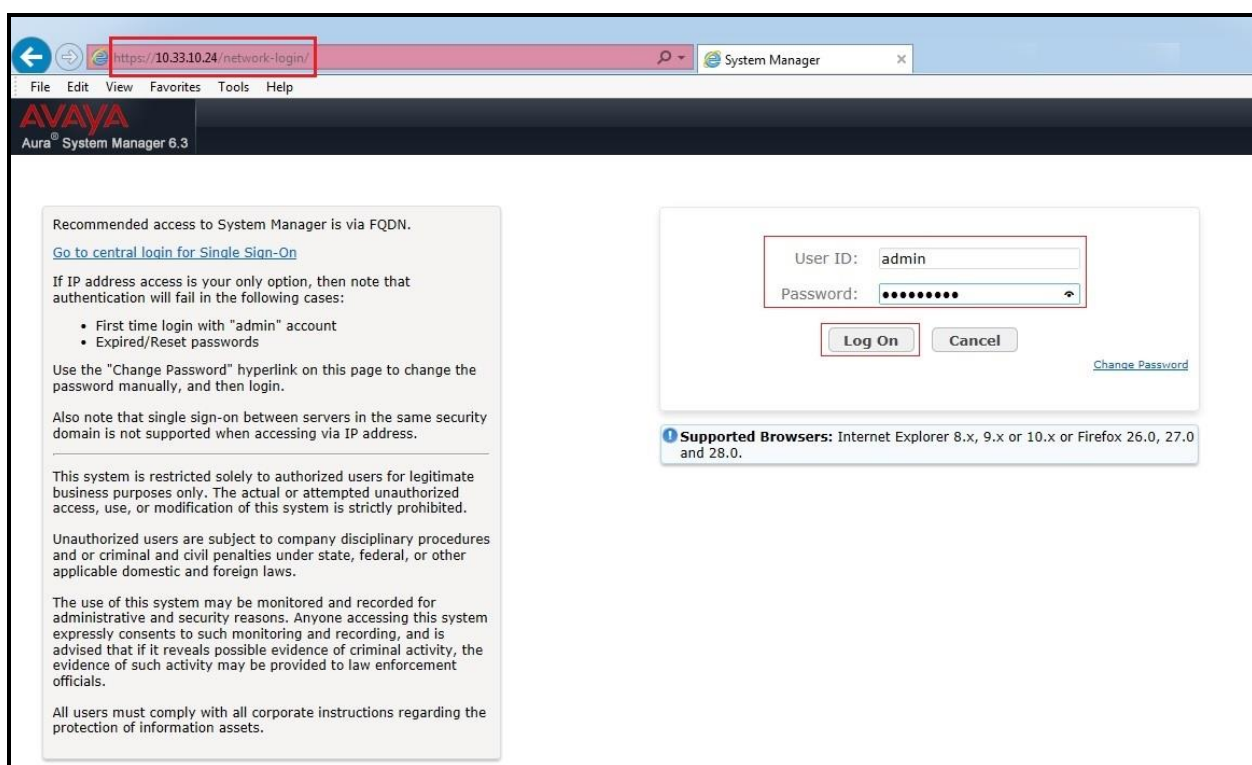


Figure 5 - Avaya Aura® Session Manager Log On

The initial screen shown below is then displayed. Click on **User Management** in the **Users** column to bring up the **User Management Menu** screen (in **Figure 7**).

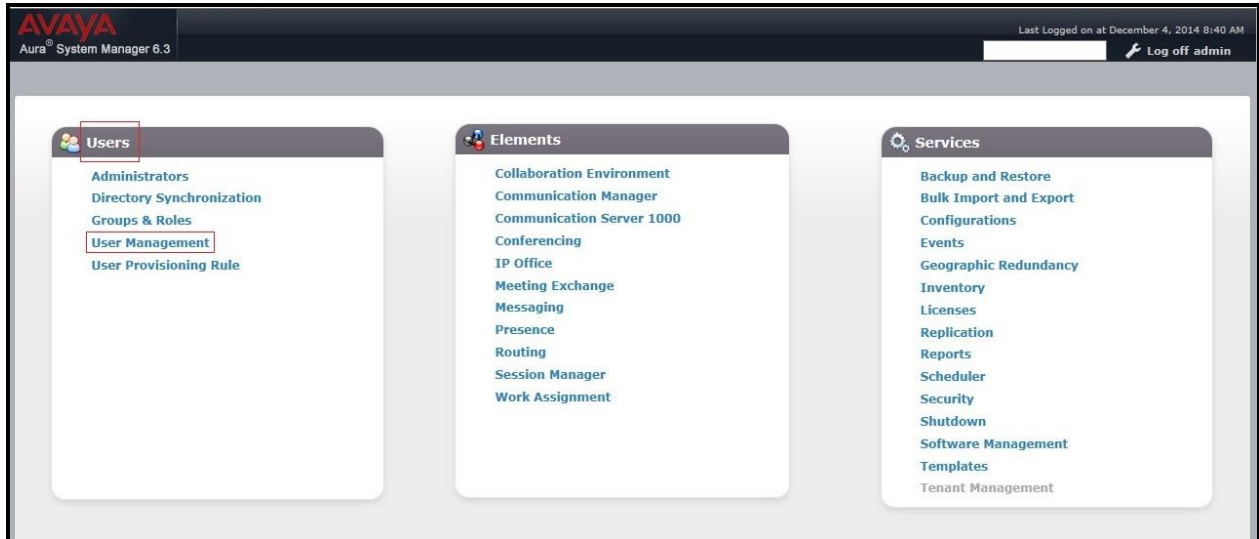


Figure 6 - Avaya Aura[®] Session Manager Log On Menu

6.2. Administer Users

The **User Management Menu** screen is shown below. Select **User Management** → **Manage Users** from the left pane to display the **User Management** screen (in **Figure 8**).



Figure 7 – User Management Menu

The **User Management** screen is shown below. Select **New** to create a new user.

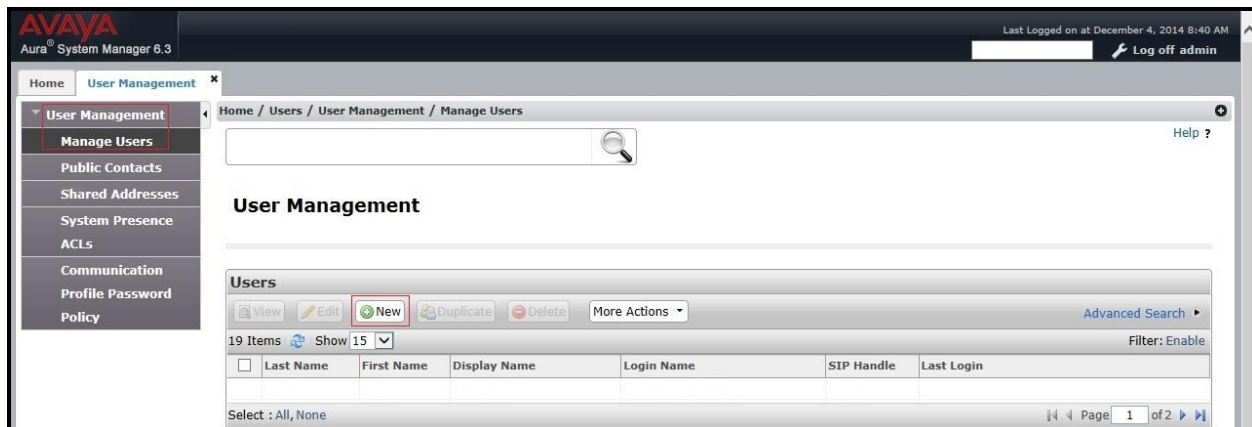


Figure 8 – User Management

Enter the following values for the specified fields, and retain the default values in the remaining fields. Click on **Commit** at the top of the screen to submit these changes.

Note: Repeat this section to create a SIP user for each SIP endpoint to register to Session Manager. For the compliance testing, nine SIP users and extensions were administered.

Under **Identity**:

- **Last Name:** Enter the last name of the user (e.g. **Valcom**).
- **First Name:** Enter the first name of the user (e.g. **30111**).
- **Login Name:** Enter the unique system login given to the user. It is formatted as username@domain (e.g. **30111@bvwdev7.com**) and it is used to create the user's primary handle.
- **Authentication Type:** is as **Basic** to let the user's login authenticated by an Avaya Authentication Server.
- **Password:** Enter the password used to log into System Manger.
- **Confirm Password:** Re-enter the above password.
- **Localized Display Name:** Enter the localized display name of the user.
- **Endpoint Display Name:** Enter the full text name of the user represented in ASCII to support displays that cannot handle localized text.
- **Language Preference:** Select the user's preferred written or spoken language.
- **Time Zone:** Select the preferred time zone of the user.

Click **Commit** button to save the changes.

New User Profile Commit & Continue **Commit** Cancel

Identity * Communication Profile Membership Contacts

User Provisioning Rule ▼
User Provisioning Rule:

Identity ▼

* Last Name:
Last Name (Latin Translation):

* First Name:
First Name (Latin Translation):

Middle Name:

Description:

* Login Name:

* Authentication Type:

Password:
Confirm Password:

Localized Display Name:
Endpoint Display Name:

Title:

Language Preference:

Time Zone:

Employee ID:

Department:

Company:

Figure 9 – New User - Identity

Under **Communication Profile** → **Communication Profile**:

- **Communication Profile Password:** Enter password for user to log into System Manager.
- **Confirm Password:** Re-enter the above password.

Click **Commit** button to save the changes.

The screenshot shows the 'New User Profile' form with the 'Communication Profile' tab selected. The form contains the following elements:

- Buttons:** 'Commit & Continue', 'Commit', and 'Cancel' are located at the top right.
- Tabs:** 'Identity *', 'Communication Profile', 'Membership', and 'Contacts' are visible at the top.
- Communication Profile Section:**
 - Fields for 'Communication Profile Password' and 'Confirm Password' are present, both with masked input (dots).
 - A 'Name' dropdown menu is set to 'Primary'.
 - A 'Default' checkbox is checked.
- Communication Address Section:**
 - A table with columns 'Type', 'Handle', and 'Domain' is shown.
 - The table contains the text 'No Records found'.

Figure 10 – New User – Communication Profile

Under **Communication Profile** → **Communication Address**, select **New** to create a new user's primary handle.

- **Type:** Select **Avaya SIP**.
- **Fully Qualified Address:** Enter the extension and select the appropriate domain for the user. This setting will be used for Authentication Name and Realm in **Section 7.4**.
- Click **Add** button to add a new handle.

Click **Commit** button to save the changes.

The screenshot shows the 'New User Profile' configuration page. At the top right are buttons for 'Commit & Continue', 'Commit', and 'Cancel'. The main content area has tabs for 'Identity', 'Communication Profile', 'Membership', and 'Contacts'. The 'Communication Profile' tab is active, showing fields for 'Communication Profile Password' and 'Confirm Password'. Below this is a table for 'Name' with a 'Primary' entry selected and a 'Default' checkbox checked. The 'Communication Address' section is expanded, showing a table with 'No Records found'. Below the table, the 'Type' is set to 'Avaya SIP' and the 'Fully Qualified Address' is '30111 @ bvwdev7.com'. There are 'Add' and 'Cancel' buttons at the bottom right of this section.

Figure 11 – New User – Communication Address

Under **Communication Profile**, check **Session Manager Profile** option:

- **SIP Registration → Primary Session Manager:** Select the Session Manager instance that should be used as the home server for the currently displayed Communication Profile.
- **Application Sequences → Origination Sequence:** Select an Application Sequence that will be invoked when calls are routed from this user.
- **Application Sequences → Termination Sequence:** Select an Application Sequence that will be invoked when calls are routed to this user.
- **Call Routing Settings → Home Location:** Select the Home Location of this user.

Click **Commit** button (not shown) to save the changes.

Primary	Secondary	Maximum
18	0	18

Figure 12 – New User – Session Manager Profile

Under **Communication Profile**, check **CM Endpoint Profile** option:

- **System:** Select the Communication Manager on which the endpoint exists.
- **Profile Type:** Select **Endpoint**.
- **Extension:** Enter the extension of the endpoint that you want to associate with this user.
- Click **Endpoint Editor** button to edit the endpoint.

CM Endpoint Profile

* System

* Profile Type

Use Existing Endpoints

* Extension

* Template

Set Type

Security Code

Port

Voice Mail Number

Preferred Handle

Enhanced Callr-Info display for 1-line phones

Delete Endpoint on Unassign of Endpoint from User or on Delete User

Override Endpoint Name and Localized Name

Figure 13 – New User – CM Endpoint Profile

The Valcom SIP endpoints were defined using the template for the Avaya 9620 SIP phone during compliance testing. Enter the following values for the specified fields, and retain the default values in the remaining fields.

- **Template:** Select **9620SIP_DEFAULT_CM_6_3**.
- **Security Code:** Enter the desired security code for this endpoint. This security code will be used for the secret in **Section 7.4**.
- Click **Done** button to complete.

Click **Commit & Continue** button (not shown) to save the changes.

System	EM_SP3CM63	Extension	30111
Template	9620SIP_DEFAULT_CM_6_3	Set Type	9620SIP
Port	IP	Security Code
Name	Valcom,30111		

* Class of Restriction (COR)		1	x	* Class Of Service (COS)		1
* Emergency Location Ext		30111		* Message Lamp Ext.		30111
* Tenant Number		1		Type of 3PCC Enabled		None
* SIP Trunk		Qaar		Coverage Path 2		
Coverage Path 1				Localized Display Name		Valcom,30111
Lock Message		<input type="checkbox"/>				
Multibyte Language		Not Applicable				

*Required

Figure 14 – New User – Edit Endpoint

From the **User Management** screen (**Figure 8**), select **User Management** → **Manage Users** to display the list of nine SIP endpoint users created.

The screenshot shows the Avaya Aura System Manager 6.3 interface. The top navigation bar includes the Avaya logo, the text 'Aura System Manager 6.3', and a 'Log off admin' button. The main content area is titled 'User Management' and contains a table of users. The table has columns for 'Last Name', 'First Name', 'Display Name', 'Login Name', 'SIP Handle', and 'Last Login'. There are 19 rows of data, all with 'Valcom' as the last name and SIP handles ranging from 30101 to 30118. The interface also includes a search bar, a 'Manage Users' menu item, and various action buttons like 'New', 'Duplicate', and 'Delete'.

	Last Name	First Name	Display Name	Login Name	SIP Handle	Last Login
<input type="checkbox"/>	Valcom	30101	Valcom, 30101	30101@bvwdev7.com	30101	
<input type="checkbox"/>	Valcom	30111	Valcom, 30111	30111@bvwdev7.com	30111	
<input type="checkbox"/>	Valcom	30112	Valcom, 30112	30112@bvwdev7.com	30112	
<input type="checkbox"/>	Valcom	30113	Valcom, 30113	30113@bvwdev7.com	30113	
<input type="checkbox"/>	Valcom	30114	Valcom, 30114	30114@bvwdev7.com	30114	
<input type="checkbox"/>	Valcom	30115	Valcom, 30115	30115@bvwdev7.com	30115	
<input type="checkbox"/>	Valcom	30116	Valcom, 30116	30116@bvwdev7.com	30116	
<input type="checkbox"/>	Valcom	30117	Valcom, 30117	30117@bvwdev7.com	30117	
<input type="checkbox"/>	Valcom	30118	Valcom, 30118	30118@bvwdev7.com	30118	

Figure 15 – List of SIP endpoint users

7. Configure Valcom PagePro IP SIP Paging Gateway

This section provides the procedures for configuring the Valcom PagePro IP SIP Paging Gateway device. The specific model used for testing was a VIP-201A. The information shown is the minimum for configuring the Valcom device. Complete configuration details may be found in the Valcom documentation listed in **Section 12**. The procedures covered in this section are the following:

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

7.1. 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** (not shown). The **VIP-102B IP Solutions Setup Tool** screen is displayed. Retain the default values and click **OK** to scan for Valcom devices.

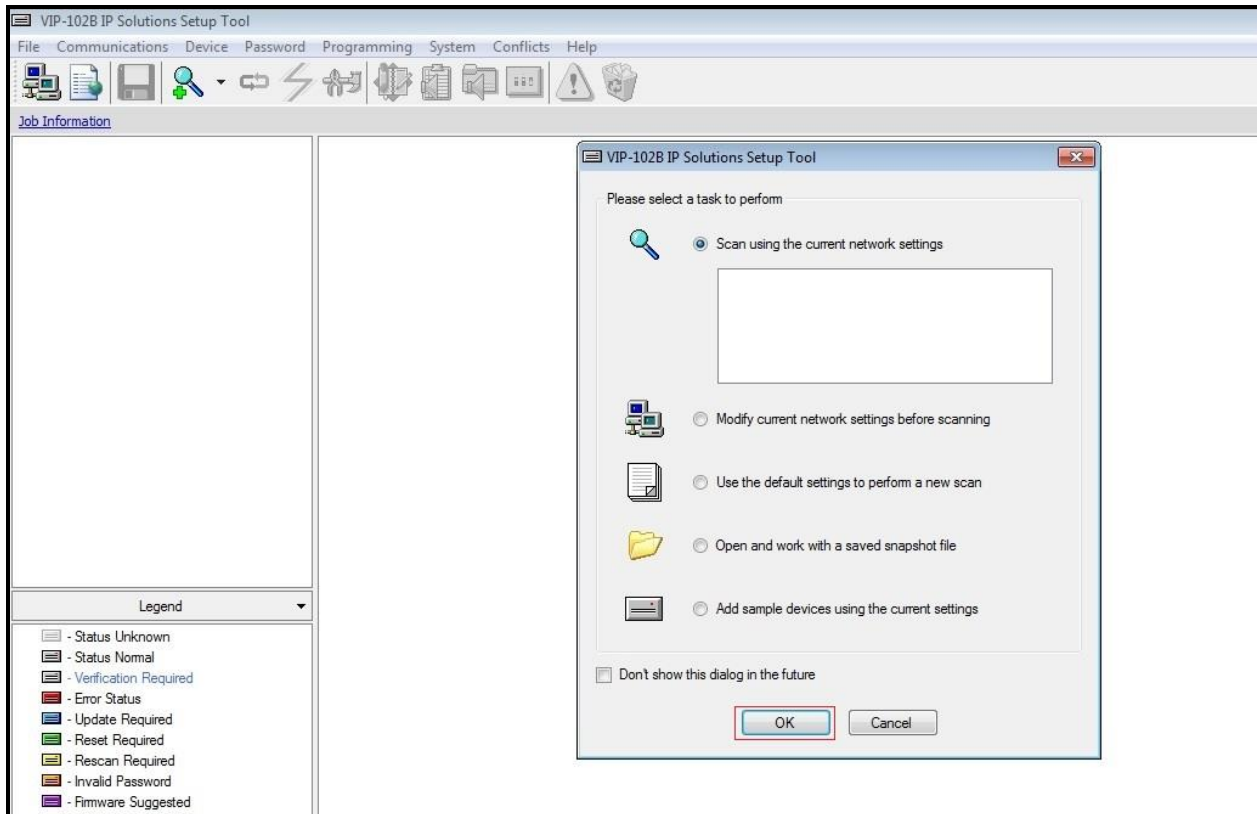


Figure 16 – VIP-102B IP Solutions Setup Tool – Scan Valcom Devices

At the conclusion of the scan, the **VIP-102B IP Solutions Setup Tool** screen is updated with the discovered Valcom devices:

- One-way IP Speaker VIP-120A device, shown below as **VIP-120A**.
- Talkback IP Speaker VIP-148AL device, shown below as **VIP-148AL**.
- Talkback IP Speaker VIP-160A device, shown below as **VIP-160A**.
- Talkback IP Speaker VIP-172AL device, shown below as **VIP-172AL**.
- PagePro IP VIP-201A (SIP Paging Server) device, shown below as **VIP-201A**.

Click **Continue** to add these new devices.

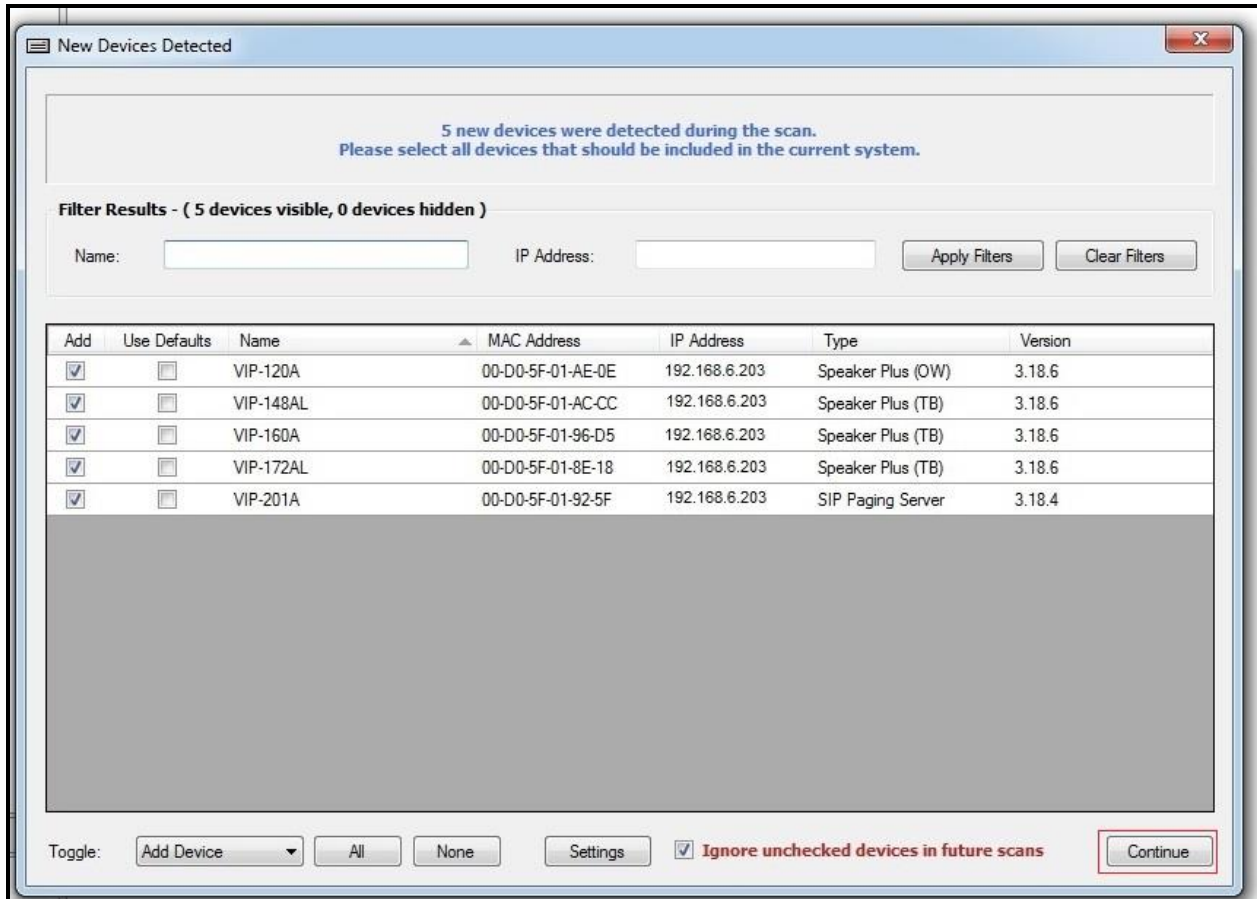


Figure 17 – VIP-102B IP Solutions Setup Tool – List of Valcom Devices

7.2. Administer PagePro VIP-201A Properties

Select **SIP Paging Server** → **VIP-201A** 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 **Hours Offset From UTC** field.

Click **Apply** button to save the changes.

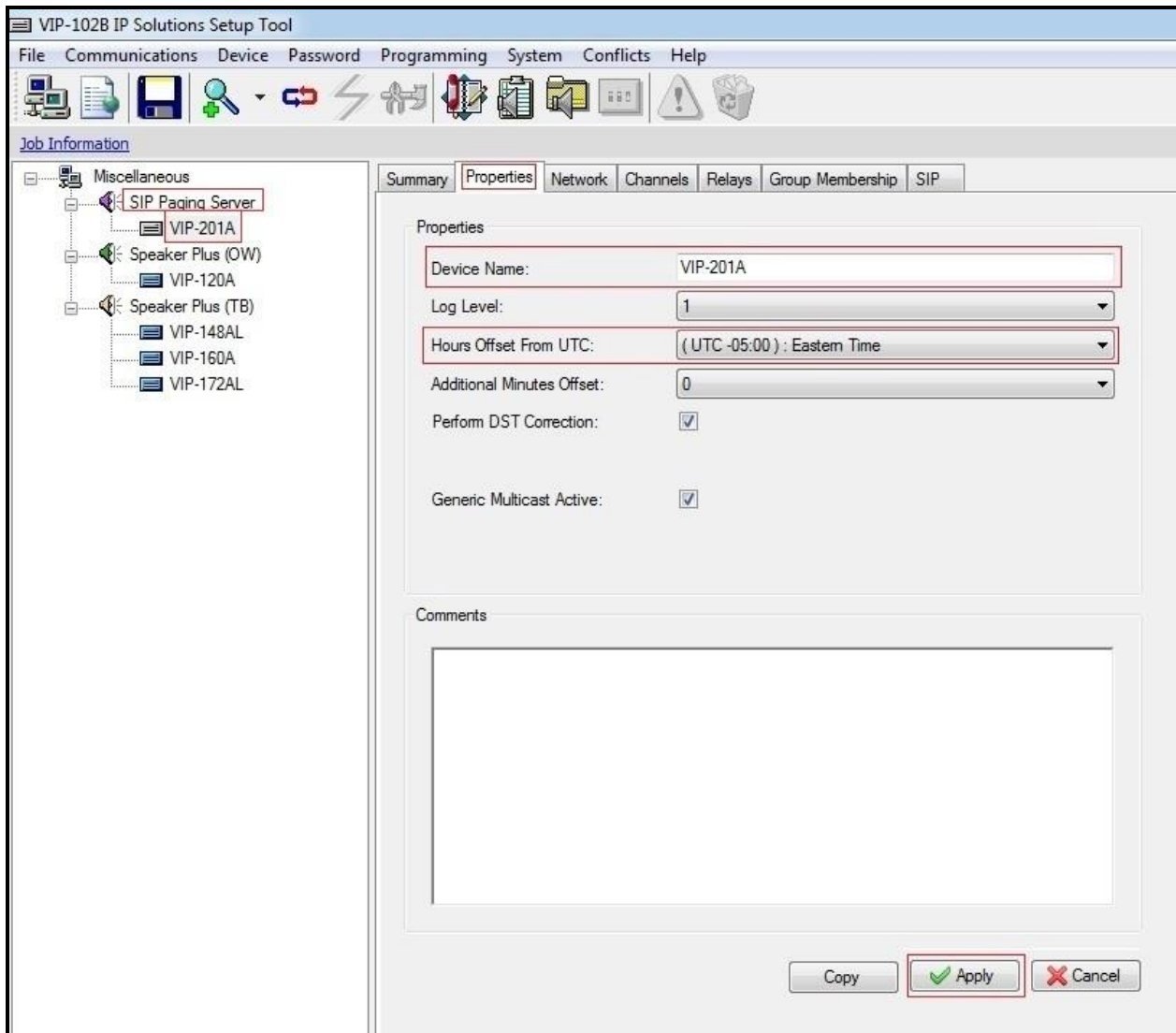


Figure 18 – VIP-201A – Properties

7.3. Administer PagePro VIP-201A Network

Select **SIP Paging Server** → **VIP-201A** from the left pane to display the configuration tabs in the right pane.

Select the **Network** tab. Enter the proper values for **Static IP Address**, **Subnet Mask**, and **Gateway IP Address** fields for the network configuration (Note: The default Static IP Address is 192.168.6.203). Retain the default values in the remaining fields. Note that the IP addresses are masked and replaced with fictitious IP addresses in the screen below for privacy.

Click **Apply** button to save the changes.

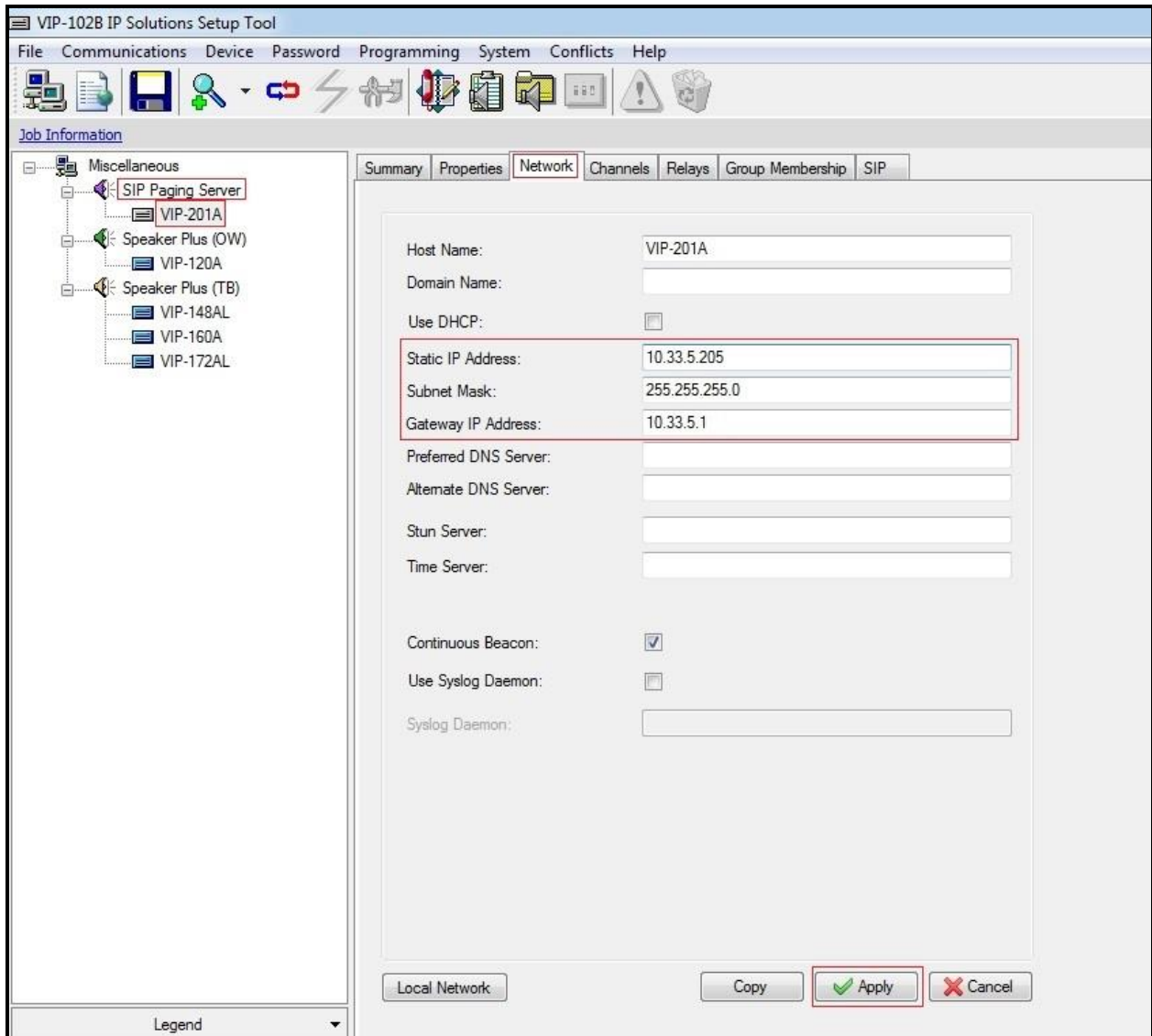


Figure 19 – VIP-201A – Network

7.4. Administer PagePro VIP-201A SIP

Select **SIP Paging Server** → **VIP-201A** from the left pane to display the configuration tabs in the right pane.

Select the **SIP** tab to display the **SIP Identity** screen. Enter the following values for the specified fields, and retain the default values for the remaining fields. Each SIP endpoint is related to each of SIP tabs (from tab 1 to tab 8 associated to maximum 8 SIP endpoints).

Select **Station** for **SIP Mode**.

Under **1** tab:

- **Phone Number:** The first SIP user primary handle from **Section 6.2**.
- **Authentication Name:** The first SIP user primary handle from **Section 6.2**.
- **Secret:** The first SIP user security code password from **Section 6.2**.
- **Realm:** The first SIP user domain name from **Section 6.2**.
- Under **SIP Servers:**
 - **Primary** → **Server:** The IP address of the Session Manager (Enter **10.33.10.26**).
 - **Primary** → **Port:** **5060**.
- **Register:** Check this field.
- **Audio Groups:** Select the desired group(s) of Valcom IP speakers to connect (Check **100 – Group 100**).

Click **Apply** button to save the changes.

Note: Repeat this section to administer all eight SIP identities which are used for PagePro IP VIP-201A as access numbers (30111 to 30118) to register to Session Manager:

- 30111 associated to Paging Group 100.
- 30112 associated to Paging Group 200.
- 30113 associated to Paging Group 300.
- 30114 associated to Paging Group 400.
- 30115 associated to Paging Group 500.
- 30116 associated to Paging Group 100 and 200.
- 30117 associated to Paging Group 100 and 300.
- 30118 associated to Paging Group 100 and 400.

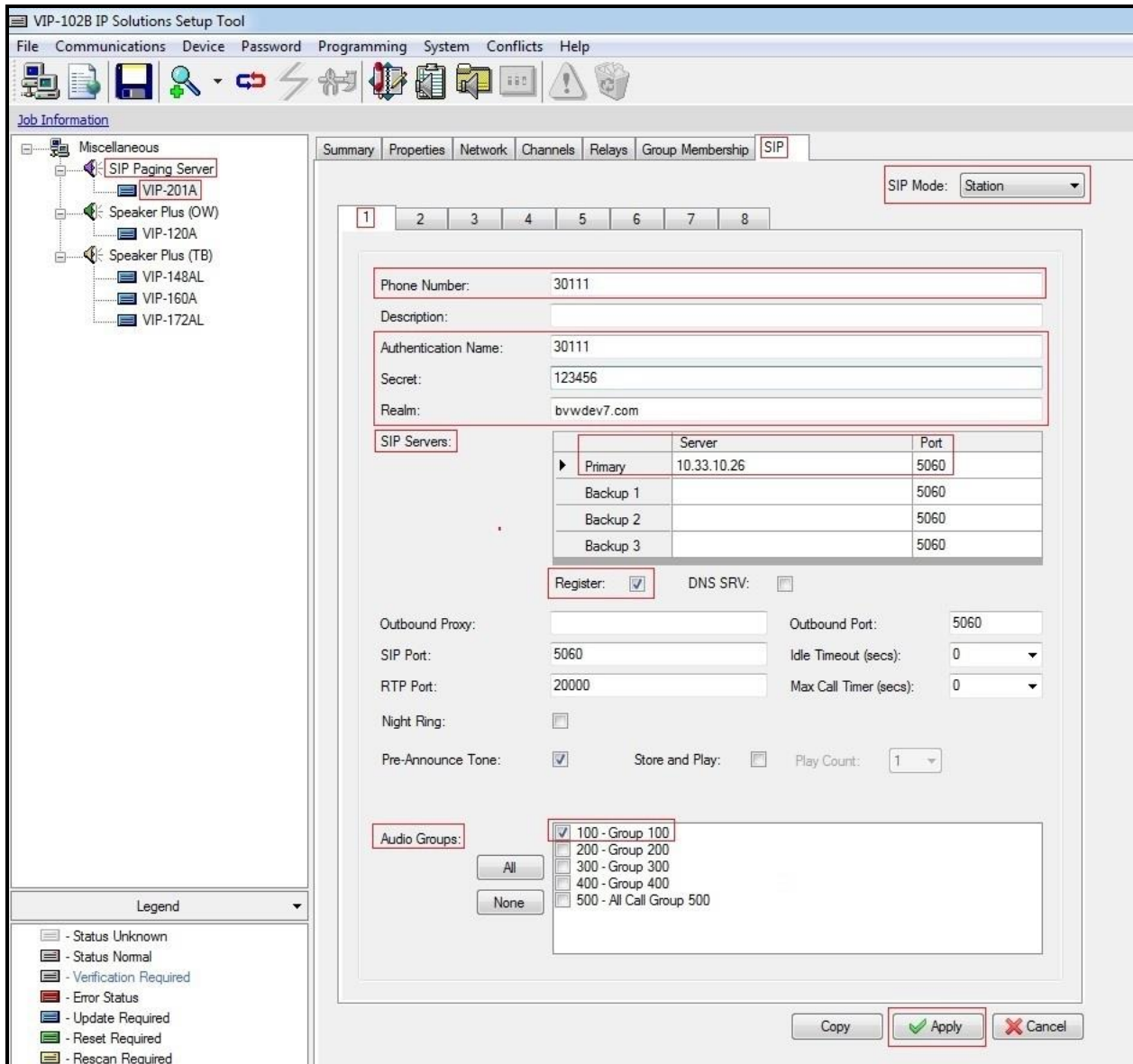


Figure 20 – VIP-201A – SIP

8. Configure Valcom Talkback IP Speaker VIP-160A

This section provides the procedures for configuring the Valcom Talkback IP Speaker VIP-160A. The information shown is the minimum for configuring the Valcom device. Complete configuration details may be found in the Valcom documentation listed in **Section 12**. The procedures covered in this section are the following:

- Administer network.
- Administer group membership.

Note: Repeat this section to administer all four Valcom IP Speakers.

- VIP-160A (30105) associated to Paging Group 100 and 500.
- VIP-120A (30106) associated to Paging Group 200 and 500.
- VIP-172AL (30107) associated to Paging Group 300 and 500.
- VIP-148AL (30108) associated to Paging Group 400 and 500.

8.1. Administer VIP-160A Network

Select **Speaker Plus (TB)** → **VIP-160A** from the left pane of the Valcom VIP-102B IP Solutions Setup Tool to display the configuration tabs in the right pane.

Select the **Network** tab. Enter the proper values for **Static IP Address**, **Subnet Mask**, and **Gateway IP Address** fields for the network configuration (Note: The default Static IP Address is 192.168.2.203). Retain the default values in the remaining fields. Note that the IP addresses are masked and replaced with fictitious IP addresses in the screen below for privacy.

Click **Apply** button to save the changes.

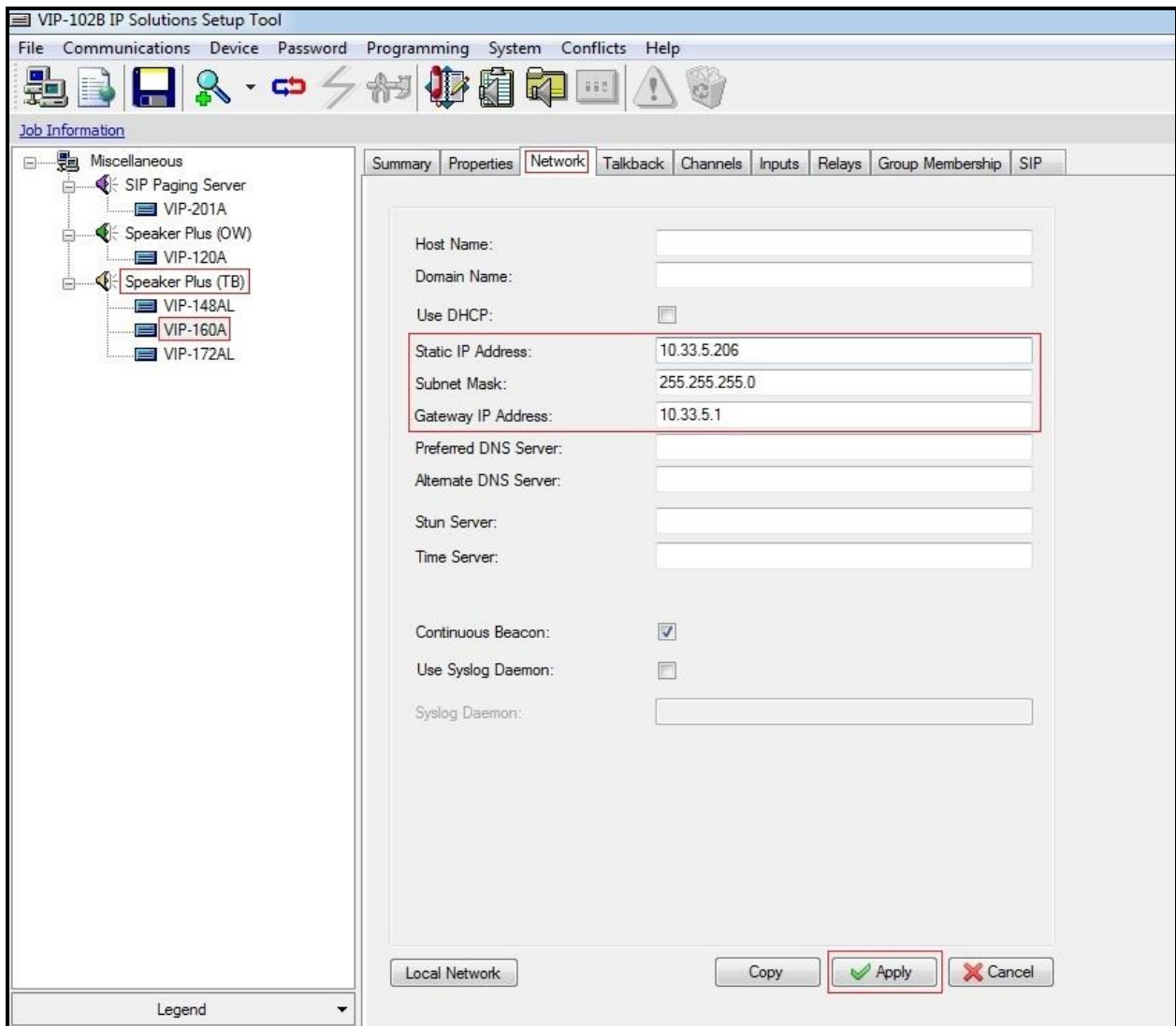


Figure 21 – VIP-160A – Network

8.2. Administer VIP-160A Group Membership

Select **Speaker Plus (TB)** → **VIP-160A** from the left pane to display the configuration tabs in the right pane.

Select the **Group Membership** tab. Under **Group**, check **100 – Group 100** and **500 – All Call Group 500** to make this device to associate to desired groups.

Click **Apply** button to save the changes.

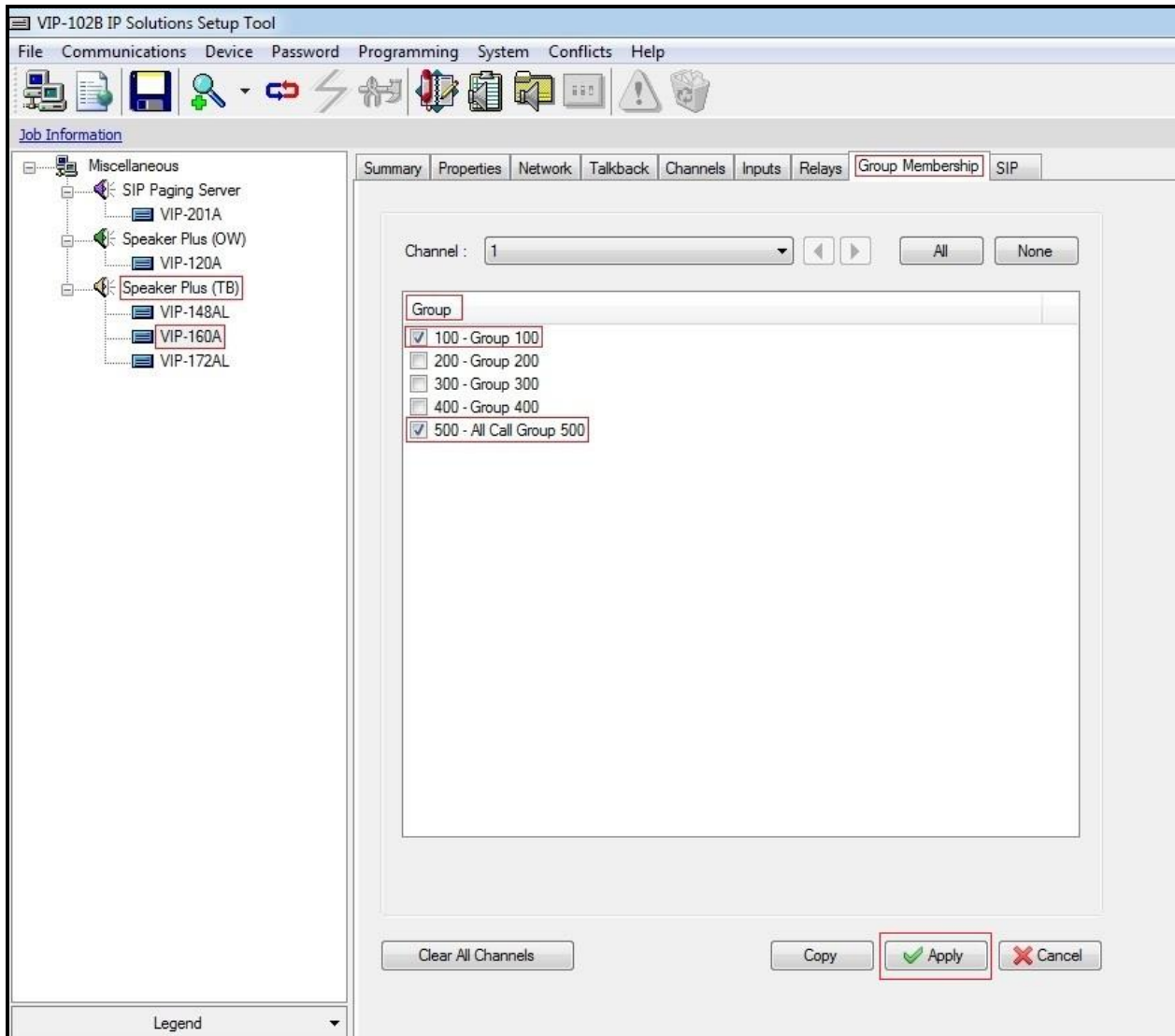


Figure 22 – VIP-160A – Group Membership

9. Update All Valcom Devices

Using the Valcom VIP-102B IP Solutions Setup Tool, click on **Communication** → **Update All Devices** to update the changes of all devices.

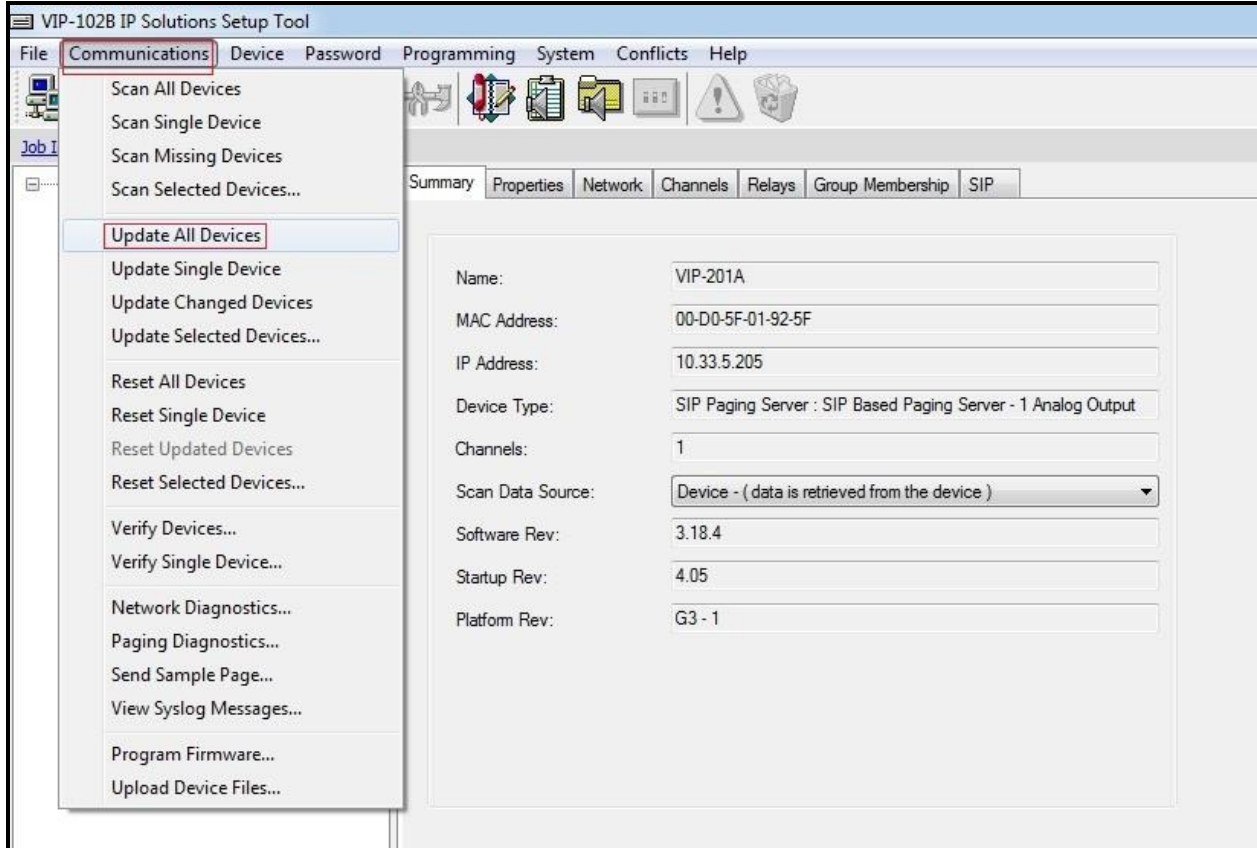


Figure 23 – Update the changes of all Valcom Devices

The **Reset Required** dialog box will appear as shown below. Click **Yes** to reset the updated devices.

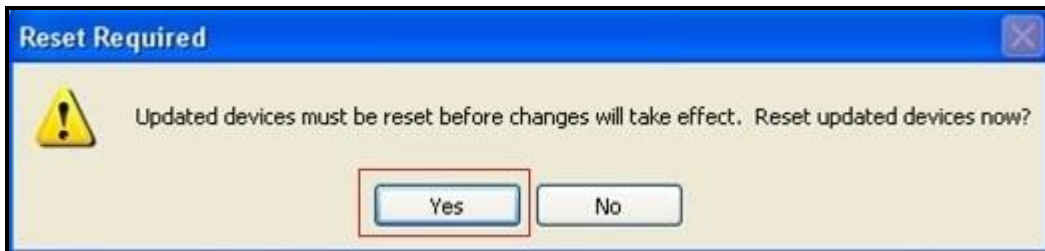


Figure 24 – Reset all Valcom Devices

10. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager, Session Manager, and Valcom PagePro IP VIP-201A.

10.1. Verify User Registration

On Session Manager, verify the registration status of the Valcom PagePro IP SIP Paging Gateway device by navigating to **Elements** → **Session Manager** → **System Status** → **User Registrations** using System Manager. Verify that all the users administered in **Section 7.4** are listed as registered users.

Details	Address	First Name	Last Name	Actual Location	IP Address	Remote Office	Shared Control	Simult. Devices	AST Device	Registered		
										Prim	Sec	Surv
<input type="checkbox"/> Show	30113@bvwddev7.com	30113	Valcom	---	10.33.5.205	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Show	30115@bvwddev7.com	30115	Valcom	---	10.33.5.205	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Show	30118@bvwddev7.com	30118	Valcom	---	10.33.5.205	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Show	30117@bvwddev7.com	30117	Valcom	---	10.33.5.205	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Show	30112@bvwddev7.com	30112	Valcom	---	10.33.5.205	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Show	30114@bvwddev7.com	30114	Valcom	---	10.33.5.205	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Show	30101@bvwddev7.com	30101	Valcom	---	10.33.5.32	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Show	30111@bvwddev7.com	30111	Valcom	---	10.33.5.205	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Show	30116@bvwddev7.com	30116	Valcom	---	10.33.5.205	<input type="checkbox"/>	<input type="checkbox"/>	1/1	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>

Figure 25 – User Registration Verification

Note: The Avaya 9630G SIP phone (30101) with physical phone was created and registered to Session Manager, however it was not described in this application notes.

10.2. Verify Valcom IP SIP Paging Gateway

Make a call to one of the SIP access number for the Valcom PagePro IP SIP Paging Gateway device, verify that the caller hears a pre-announcement tone, and is connected to the appropriate speaker group from **Section 7.4** with one-way talk path.

11. Conclusion

These Application Notes describe the configuration steps required for the Valcom PagePro IP SIP Paging Gateway to successfully interoperate with Avaya Aura[®] Communication Manager, and Avaya Aura[®] Session Manager.

All feature and serviceability test cases were completed successfully.

12. Additional References

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

1. Administering Avaya Aura[®] Communication Manager, Document ID 03-300509, Release 6.3, Issue 8, May 2013
2. Administering Avaya Aura[®] Session Manager, Release 6.3, Issue 2, June 2013
3. Maintaining and Troubleshooting Avaya Aura[®] Session Manager, Release 6.3, Issue 2, May 2013
4. Administering Avaya Aura[®] System Manager, Release 6.3, Issue 2, May 2013
5. PagePro IP SIP Based Paging Server documentation is available at <http://www.valcom.com>
6. Valcom Talkback/One-way IP Speaker documentation is available at <http://www.valcom.com>
7. Valcom VIP-102B IP Solutions Setup Tool Reference Manual is available at <http://www.valcom.com>

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