

Avaya Solution & Interoperability Test Lab

# Application Notes for Valcom One-way IP Speakers with Avaya Aura<sup>®</sup> Communication Manager and Avaya Aura<sup>®</sup> Session Manager – Issue 1.0

### Abstract

These Application Notes describe the configuration steps required for the Valcom One-way IP Speaker to successfully interoperate with Avaya Aura<sup>®</sup> Communication Manager and Avaya Aura<sup>®</sup> Session Manager. The Valcom One-way IP Speaker is SIP-based device that integrates with Avaya Aura<sup>®</sup> Communication Manager and Avaya Aura<sup>®</sup> Session Manager as 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 One-way IP Speaker device to successfully interoperate with Avaya Aura<sup>®</sup> Communication Manager and Avaya Aura<sup>®</sup> Session Manager. Valcom One-way IP Speakers are SIP-based devices that integrate with Avaya Aura<sup>®</sup> Communication Manager and Avaya Aura<sup>®</sup> Session Manager as SIP endpoints and register to Avaya Aura<sup>®</sup> 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, media shuffling, call on-hold, transfer call, conference call, 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 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, media shuffling, call on-hold, transfer call, conference call, and audio codec negotiation. The feature test cases were performed manually with both Avaya SIP and H.323 deskphones.

The serviceability test cases were performed manually by disconnecting and reconnecting the LAN cables to the Valcom One-way IP Speaker. The specific model used for testing was a VIP-120A.

# 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 <u>http://support.avaya.com</u>. Alternatively, in the United States, (866) GO-AVAYA (866-462-8292) provides access to overall sales and service support menus.

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SPOC 2/2/2015	©2015 Avaya Inc. All Rights Reserved.	CM63SM63-120A

# 3. Reference Configuration

The Valcom One-way IP Speaker device can register with Avaya Aura<sup>®</sup> Session Manager as an SIP endpoint. In the compliance testing, the Valcom One-way IP Speaker VIP-120A was used to register to Avaya Aura<sup>®</sup> Session Manager:

• One-way IP Speaker VIP-120A (extension 30108).

One Avaya 9630 H.323 deskphone (extension 30001) registers to Avaya Aura<sup>®</sup> Communication Manager.



One Avaya 9630G SIP deskphone (extension 30101) registers to Avaya Aura® Session Manager.

Figure 1- Valcom One-way IP Speaker with Avaya Aura<sup>®</sup> Communication Manager and Avaya Aura<sup>®</sup> Session Manager

# 4. Equipment and Software Validated

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

Equipment	Software
Avaya Aura <sup>®</sup> Communication Manager	6.3.8
running on Avaya S8300 Server	(03.0.124.0-21588 (SP8))
Avaya G450 Media Gateway	36.9
MM711AP Analog	FW096, HW46
MM712AP Digital	FW014, HW10
• MM710AP	FW020, HW05
Avaya Aura <sup>®</sup> Session Manager	6.3.7
running on Avaya S8800 Server	(6.3.7.0.637008)
	6.3.9
Avaya Aura <sup>®</sup> System Manager	(Build No 6.3.0.8.5682 - 6.3.8.4417)
running on Avaya S8800 Server	(Software Update Revision No:
	6.3.9.1.2538)
Avaya 9630G IP Telephone - Avaya one-X <sup>®</sup>	
Deskphone SIP Edition	2.6.6.0
Avaya 9630 IP Telephone - Avaya one-X <sup>®</sup> Deskphone	
H.323 Edition	3.2
Valcom VIP-120A - One-way IP 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 Avaya Aura<sup>®</sup> Communication Manager and Avaya Aura<sup>®</sup> Session Manager is not the focus of these Application Notes and will not be described. For administration of basic connectivity Avaya Aura<sup>®</sup> Communication Manager and Avaya Aura<sup>®</sup> Session Manager, refer to the appropriate documentation listed in **Section 12**. This section provides the procedures for the following:

- Verify Avaya Aura<sup>®</sup> Communication Manager License.
- Administer IP codec set.
- Administer IP network region.

### 5.1. Verify Avaya Aura<sup>®</sup> Communication Manager License

Log into the System Access Terminal (SAT) to verify that the Avaya Aura<sup>®</sup> 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 numbers for the Valcom One-way IP Speakers to be installed.

```
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<sup>®</sup> Communication Manager Permission 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 One-way IP Speaker only supports the G.711 codec.

```
change ip-codec-set 1 Page 1 of

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<sup>®</sup> 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**, 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** (not shown) can be used to specify which codec set to use for calls between regions.

```
change ip-network-region 1
                                                               Page
                                                                     1 of 20
                              TP NETWORK REGION
 Region: 1
             Authoritative Domain: bvwdev7.com
Location: 1
   Name: procr
                               Stub Network Region: n
MEDIA PARAMETERS
                               Intra-region IP-IP Direct Audio: yes
     Codec Set: 1
                              Inter-region IP-IP Direct Audio: yes
  UDP Port Min: 2048
                                          IP Audio Hairpinning? y
  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<sup>®</sup> Communication Manager IP Network Region

2

# 6. Configure Avaya Aura<sup>®</sup> Session Manager

This section provides the procedures for configuring Avaya Aura<sup>®</sup> Session Manager. The procedures include the following areas:

- Launch Avaya Aura<sup>®</sup> Session Manager interface.
- Administer users.

### 6.1. Launch Avaya Aura<sup>®</sup> Session Manager Interface

Configuration of Session Manager is accomplished by accessing the browser-based GUI of Avaya Aura<sup>®</sup> 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 - 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.

em Manager 6.3		🖌 Log o
Users	telements	Ø₀ Services
Administrators	Collaboration Environment	Backup and Restore
Directory Synchronization	Communication Manager	Bulk Import and Export
Groups & Roles	Communication Server 1000	Configurations
User Management	Conferencing	Events
User Provisioning Rule	IP Office	Geographic Redundancy
	Meeting Exchange	Inventory
	Messaging	Licenses
	Presence	Replication
	Routing	Reports
	Session Manager	Scheduler
	Work Assignment	Security
		Shutdown
		Software Management
		Templates
		Tenant Management

Figure 6 - Session Manager Log On Menu

### 6.2. Administer Users

The User Management Menu screen is shown below. Select User Management  $\rightarrow$  Manage Users from the left pane to display the User Management screen in Figure 8.

ura <sup>®</sup> System Manager 6.3			Last Logged on at December 4, 2014 8:40
Home User Management	×		
🔻 User Management 🔹	Home / Users / Us	er Management	
Manage Users Public Contacts	User Mana	agement	
Shared Addresses	Sub Pages		
System Presence	Action	Description	Help
Communication	Manage Users	Provides a central user administration to create, view, modify, and delete user profiles. Also, you can manage communication profiles, roles, and groups for users.	Users management
Profile Password	Public Contacts	Create, view, edit, and delete the public contacts that can be shared by all users in the enterprise.	Public Contacts management
Policy	Shared Addresses	Configure and manage common addresses that can be specified for one or more users in the enterprise.	Shared Addresses management
	System Presence ACLs	Configure and manage Presence access rules for users.	Presence ACLs management
	Communication Profile	Configure and manage policy for communication profile password for users.	Communication profile

Figure 7 – User Management Menu

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

AVAYA Aura® System Manager 6.3						Last Logge	ed on at December 4, 2014 8:40 AM
Home User Management	×						
👻 User Management 🔹	Home / Users / User	Management /	Manage Users				0
Manage Users				Q			Help ?
Shared Addresses	User Mana	aement					
System Presence		,					
ACLs							
Communication	Users						
Policy	View Edit	💿 New 🔊	Duplicate 🛛 😂 Delete	More Actions •			Advanced Search •
	19 Items 🍣 Show	15 🗸					Filter: Enable
	Last Name	First Name	Display Name	Login Name	SIP Handle	Last Login	
	Select : All, None					i i	4 4 Page 1 of 2 🕨 🔰

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 endpoints to register to Avaya Aura<sup>®</sup> Session Manager. For the compliance testing, 2 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. 30108).
- Login Name: Enter the unique system login given to the user. It is formatted as username@domain (e.g. 30108@bvwdev7.com) and it is used to create the user's primary handle.
- Authentication Type: leave as **Basic** to allow 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         Members	hip Contacts	
User Provisioning Rule  User Provisioning Rule:		
Identity 🔹		
* Last Name:	Valcom	
Last Name (Latin Translation):	Valcom	
* First Name:	30108	
First Name (Latin Translation):	30108	
Middle Name:		
Description:	$\bigcirc$	
* Login Name:	30108@bvwdev7.com	
* Authentication Type:	Basic	
Password:	•••••	
Confirm Password:	•••••	
Localized Display Name:	30108-LD	
Endpoint Display Name:	30108-ED	
Title:		
Language Preference:	English (Canada)	
Time Zone:	(-5:0)Eastern Time (US & Canad	

Figure 9 – New User - Identity

Solution & Interoperability Test Lab Application Notes ©2015 Avaya Inc. All Rights Reserved. Under **Communication Profile** → **Communication Profile**:

- **Communication Profile Password**: Enter the login password for the SIP user.
- **Confirm Password**: Re-enter the above password.

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

ew User P	rofile				Commit & Continue
dentity * Co	mmunication Profile	Membership Contacts			
Communica	tion Profile 💌				
	Communication Profil Confirm	Password: •••••	•		
Name	elete) 📄Done) 🔇Ca	ncel			
Primary					
Select : None					
		* Name: Primary			
		Default :			
	Communication Ac	dress 💌			
	💿 New 🖉 Edit 💿				
	Туре	Handle		Domain	
	No Records found				

**Figure 10 – New User – Communication Profile** 

Under Communication Profile  $\rightarrow$  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 8.4**.
- Click **Add** button to add a new handle.

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

ew User Pi	ofile				Comm	it & Continue Commit Ca
dentity * Cor	nmunication Profile	e Membership	Contacts			
Communicat	ion Profile 💩					
	Communication Pr	ofile Password:				
	Cor	firm Password:				
	Cor					
(						
ONew ODe	elete 📄 📴 Done 🔯	Cancel				
Name						
Primary						
Select : None						
		* Name: Pri	mary			
		Maine. Pri				
		Default :				
сг	Communication	Address =				7
l	communication	Address				
	New / Edit	Oelete				
	Туре	Ha	andle		Domain	
	No Records found					
			-		7	1
			Type: Avaya SIP	~		
		* Fully Qualified Ad	dress: 30108	@ bvwdev	/7.com	$\checkmark$
						Add Cancel

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 Session Manager			Primary	Secondary	Maximum
		SM63	$\checkmark$	18	0	18
L				<		>
S	econdary Session Manager	(None)	~			
	Survivability Server	(None)	~			
1	Max. Simultaneous Devices					
Applicat	ion Sequences					
	Origination Sequence	SEQ_SP3CM63				
	Origination Sequence Termination Sequence	SEQ_SP3CM63 SEQ_SP3CM63	×			
Call Rou	Origination Sequence Termination Sequence	SEQ_SP3CM63 SEQ_SP3CM63	~			
Call Rou	Origination Sequence Termination Sequence ting Settings * Home Location	SEQ_SP3CM63 SEQ_SP3CM63 Belleville	× ×			

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.

* System	EM_SP3CM63	~
* Profile Type	Endpoint	~
Use Existing Endpoints		
* Extension	Q 30108	Endpoint Edito
* Template	9620SIP_DEFAUL	r_cm_6_3 ∨
Set Type	9620SIP	
Security Code		
Port	IP	
Voice Mail Number		
Preferred Handle	(None)	~
Enhanced Callr-Info display for 1-line phones		
Delete Endpoint on Unassign of Endpoint from User or on Delete User		

Figure 13 – New User – CM Endpoint Profile

The Valcom SIP endpoint was 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 8.4.
- Click the **Done** button to complete.

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

				[Sa	ave As Temp
System	EM_SP3CM63	]	* Extension	Q 30108	
Template	9620SIP_DEFAULT_CM_6_2	~	Set Type	9620SIP	
Port	IP		Security Code	•••••	
Name	30108-ED				
General Options (G) Button Assignment (B	Feature Options (F) Site Data (S ) Group Membership (M)	) Abbre	eviated Call Dialing (A) Enhanc	ed Call Fwd (E)	
General Options (G) Button Assignment (E Class of Restrictio	Feature Options (F) Site Data (S     Group Membership (M)  n (COR)	) Abbre	Class Of Service (COS)	ed Call Fwd (E)	
General Options (G) Button Assignment (E * Class of Restrictic * Emergency Locati * Tonact Number	Feature Options (F) Site Data (S     Group Membership (M)  n (COR)  T  ST  ST  ST  ST  ST  ST  ST  ST  ST	) Abbre	<ul> <li>eviated Call Dialing (A) Enhance</li> <li>Class Of Service (COS)</li> <li>Message Lamp Ext.</li> </ul>	ed Call Fwd (E) 1 30108	
General Options (G) Button Assignment (E * Class of Restrictio * Emergency Locati * Tenant Number * SIP Trunk	Feature Options (F) Site Data (S) Group Membership (M) n (COR) 1 30108 1 Q aar	) Abbre	<ul> <li>* Class Of Service (COS)</li> <li>* Message Lamp Ext.</li> <li>Type of 3PCC Enabled</li> </ul>	ed Call Fwd (E)	
General Options (G) Button Assignment (E * Class of Restrictio * Emergency Locati * Tenant Number * SIP Trunk Coverage Path 1	Feature Options (F) Site Data (S) Group Membership (M) n (COR) 1 30108 1 Qaar	) Abbre	<ul> <li>eviated Call Dialing (A) Enhance</li> <li>Class Of Service (COS)</li> <li>Message Lamp Ext.</li> <li>Type of 3PCC Enabled Coverage Path 2</li> </ul>	1 30108 None V	
General Options (G) Button Assignment (E * Class of Restrictio * Emergency Locati * Tenant Number * SIP Trunk Coverage Path 1 Lock Message	Feature Options (F) Site Data (S) Group Membership (M) n (COR) 1 0n Ext 30108 1 Q.aar	) Abbre	<ul> <li>eviated Call Dialing (A) Enhance</li> <li>Class Of Service (COS)</li> <li>Message Lamp Ext.</li> <li>Type of 3PCC Enabled Coverage Path 2 Localized Display Name</li> </ul>	ned Call Fwd (E)	

Figure 14 – New User – Edit Endpoint

From the User Management screen in Figure 8, select User Management  $\rightarrow$  Manage Users to display the list of two SIP endpoint users created.

AVAVA Aura <sup>®</sup> System Manager 6.3						Last Log	ged on at December 15, 2014 12:44 AM
Home User Management	×						
User Management	Home / Users / User	Management /	Manage Users				0
Manage Users				0			Help ?
Public Contacts				5			
Shared Addresses	lleer Mana	aomont					
System Presence	USCI Mana	yement					
ACLs							
Communication	Users						
Policy	View / Edit	🔘 New 🔌	Duplicate Olelete	More Actions 🔹			Advanced Search 🕨
	13 Items 🍣 Show	v ALL 🗸					Filter: Enable
	Last Name	First Name	Display Name	Login Name	SIP Handle	Last Login	
	Valcom	30108	30108-LD	30108@bvwdev7.com	30108		
	Valcom	30101	Valcom, 30101	30101@bvwdev7.com	30101		
	Select : All, None						

Figure 15 – List of SIP endpoint users

## 7. Launch Valcom Setup Tool and Scan Device

This section provides the procedures for scanning the Valcom One-way IP Speaker VIP-120A.

From a PC running the Valcom VIP-102B IP Solutions Setup Tool application, select Start  $\rightarrow$  All Programs  $\rightarrow$  Valcom IP Solutions  $\rightarrow$  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 device.

III VIP-102B IP Solutions Setup Tool						
File Communications Device Password Programming System Conflicts Help						
\$						
Job Information						
	VIP-102B IP Solutions Setup Tool					
	Scan using the current network settings					
	Modify current network settings before scanning					
	<ul> <li>Use the default settings to perform a new scan</li> <li>Open and work with a saved snapshot file</li> </ul>					
Legend -	Add sample devices using the current settings					
Status Unknown     Status Normal     Status Normal     Status Normal     Status Normal     Error Status     Jupdate Required     Reset Required     Status Annual Password     Invalid Password     Firmware Suggested	Don't show this dialog in the future					

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

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

• One-way IP Speaker VIP-120A device, shown below as **VIP-120A**.

Click **Continue** to add a new device.

		Please	1 new device was dete e select all devices that should	cted during the sca be included in the	in. current system.	
f <b>ilter Res</b> Name:	ults - ( 1 d	evices visible, 0 devi	rces hidden ) IP Address:		Apply F	ilters Clear Filters
Add Us	se Defaults	Name	MAC Address	IP Address	Туре	Version
V		VIP-120A	00-D0-5F-01-AE-0E	192.168.6.203	Speaker Plus (OW)	3.18.6

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

# 8. Configure Valcom One-way IP Speaker VIP-120A

This section provides the procedures for configuring the Valcom One-way IP Speaker VIP-120A. 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 include the following areas:

- Administer properties.
- Administer network
- Administer channels.
- Administer SIP.

#### 8.1. Administer VIP-120A Properties

Select **Speaker Plus (OW)**  $\rightarrow$  **VIP-120A** 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.

IVIP-102B IP Solutions Setup Tool - Backup.mdb - (6.1.0.0)								
<u>File Communications Device Password Programming System Conflicts H</u> elp								
ᆋ 🗟 🔚 💲 · 🕶 🗲 🚧 🏶 🗿 🖬 🔤 🛆 🥡								
Job Information								
⊡	Summary Properties Network Tal	kback Channels Relays Group Membership SIP						
Speaker Plus (OW)								
VIP-120A	Properties							
	Device Name:	VIP-120A						
	Log Level:	1						
	Hours Offset From UTC:	(UTC -05:00) : Eastern Time 🔹						
	Additional Minutes Offset:	0 -						
	Perform DST Correction:							
	Relay Control:	Activate on Keypress						
	Generic Multicast Active:							
	SIP Communications Active:							
	Comments							
Legend 🔻								
- Status Unknown								
- Status Normal								
- Error Status								
🖃 - Update Required								
- Reset Required								
- Kescan Kequired								
- Firmware Suggested								
		Copy Apply Cancel						

Figure 18 – VIP-120A – Properties

#### 8.2. Administer VIP-120A Network

Select **Speaker Plus** (**OW**)  $\rightarrow$  **VIP-120A** 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.

IVIP-102B IP Solutions Setup Tool		
File Communications Device Password	Programming System Conflic	ts Help
🛔 🗟 🔚 💲 · 🛥 4	1 🖓 🕼 🖓 🔤	
Job Information		
Ualcom Device	Summary Properties Network Ta	alkback Channels Relays Group Membership SIP
VIP-120A	Host Name:	
	Domain Name:	
	Use DHCP:	
	Static IP Address:	10.33.5.207
	Subnet Mask:	255.255.255.0
	Gateway IP Address:	10.33.5.1
	Preferred DNS Server:	
	Alternate DNS Server:	
	Stun Server:	
	Time Server:	
	Continuous Beacon:	
	Use Syslog Daemon:	
	Syslog Daemon:	
		·
	Local Network	Copy Apply X Cancel
Legend 👻		

Figure 19 – VIP-120A – Network

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#### 8.3. Administer VIP-120A Channels

Select **Speaker Plus (OW)**  $\rightarrow$  **VIP-120A** from the left pane to display the configuration tabs in the right pane.

Select the **Channels** tab. Select **Channel Mode** as **One-Way** and **Codec Type** as **G.711**. Check **Pre-Announce Tone** option.

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

VIP-102B IP Solutions Setup Tool - Backup.mdb -	- (6.1.0.0)							
<u>File Communications Device Password Programming System Conflicts H</u> elp								
豊 📄 🔚 象 - 🖙 夕 🚧 静 🗃 🔤 🛆 🥡								
Job Information								
⊡	mary Properties Network Ta	alkback Channels Relays Group Membership SIP						
E VIP-120A	1							
	Channel Mode:	Talkback One-Way						
	Dial Code:	803						
	Description:							
	CID Number:	803						
	CID Name:							
	Codec Type:	G.711 •						
	Call Fwd Busy:							
Legend 🗸	Call Fwd No Answer:	4 Vings						
Status Unknown     Status Normal	Audio Input Volume:	0						
<ul> <li>Verification Required</li> </ul>	Audio Output Volume:							
Error Status	Aux Input Enabled:							
- Reset Required	Pre-Announce Tone:	☑ Ringback Alert Tone: ☑						
<ul> <li>Invalid Password</li> <li>Invalid Password</li> <li>Immare Suggested</li> </ul>	Privacy Tone:	✓ Incomplete Call Message: ✓						
		Copy Apply Cancel						

Figure 20 – VIP-120A – Channels

#### 8.4. Administer VIP-120A SIP

Select **Speaker Plus** (**OW**)  $\rightarrow$  **VIP-120A** from the left pane to display the configuration tabs in the right pane.

Select the **SIP** tab and enter the following values for the specified fields, and retain the default values for the remaining fields. Note that the IP address is masked in the screen shot below for privacy.

- **Phone Number**: Input the phone number created on Avaya Aura<sup>®</sup> Session Manager for this speaker (e.g. **30108**).
- **Description**: Input **VIP-120A**.
- Authentication Name: Input the phone number as above (e.g. 30108).
- Secret: Input the Security Code entered for the Endpoint in section 6.2 (123456).
- **Realm**: Input **bvwdev7.com** (It is required).
- Under **SIP Servers**:
- Primary → Server: The IP address of Avaya Aura<sup>®</sup> Session Manager (Enter 10.33.10.26).
- Primary  $\rightarrow$  Port: 5060.
- **Register**: Check this field.

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

VIP-102B IP Solutions Setup Tool							
File Communications Device Password Progr	ramming System Conflict	ts Help					
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Job Information							
Valcom Device	mary Properties Network Ta	alkback Channels Relays G	aroup Membership SIP				
-	Phone Number:	30108					
	Description:	VIP-120A					
	Authentication Name:	30108					
	Secret:	123456					
	Realm:	bvwdev7.com					
	SIP Servers:	Server	r	Port			
		./ Primary 10.33.1	10.26	5060			
		Backup 1		5060			
		Backup 2		5060			
		Васкир 3		5060			
		Register: 🔽 DNS	SRV:				
	Outbound Proxy:		Outbound Port:	5060			
	SIP Port:	5060	Idle Timeout (secs):	0 -			
	RTP Port:	20000	Max Call Timer (secs):	0 -			
	CID Number:	30108					
	CID Name:	VIP-120A					
Legend -							
- Status Unknown - Status Normal							
- Verification Required							
- Error Status			Сору	Apply 🔀 Cancel			
				18			

Figure 21 – VIP-120A – SIP

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### 9. Update All Valcom Devices

Click on **Communication**  $\rightarrow$  **Update All Devices** to update the changes of all devices.

ile <u>Communications</u> <u>D</u> evice Pass <u>w</u> ord	J <u>P</u> rogramming <u>Sy</u> stem Co	onflicts Help
Scan All Devices Scan Single Device Scan Single Device Scan Missing Devices Scan Selected Devices Update All Devices Update Changed Devices Update Selected Devices Reset All Devices Reset Single Device Reset Updated Devices	Summary Properties Networ Name: MAC Address: IP Address: Device Type: Channels:	Image: Second state sta
Verify Devices Verify Single Device	Scan Data Source: Software Rev: Startup Rev:	Device - (data is retrieved from the device ) 3.18.6 4.06
Network Diagnostics Paging Diagnostics Send Sample Page View Syslog Messages	Platform Rev:	G3-1
Program Firmware Upload Device Files		

#### Figure 22 – 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 23 – Reset all Valcom Devices

### 10. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Aura<sup>®</sup> Communication Manager, Avaya Aura<sup>®</sup> Session Manager, and Valcom One-way IP Speaker VIP-120A.

### 10.1. Verify User Registration

On Session Manager, verify the registration status of the Valcom One-way IP Speaker device by navigating to **Elements**  $\rightarrow$  **Session Manager**  $\rightarrow$  **System Status**  $\rightarrow$  **User Registrations**. Verify that all the users are listed as registered users.

AVAYA Aura <sup>®</sup> System Manager 6.3										Last L	ogged on at Dec	ember 15, 2 د Log و	014 12: off adi	:44 AM min
Home Session Manager	×													
Session Manager	Home	/ Element	s / Session Manager / :	System Stat	tus / User F	Registrations								0
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Session Manager	Use	er Reg	istrations											
Administration	Select	rows to sen ration status	d notifications to devices.	Click on Deta	iils column fo	r complete								
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Profile Editor	View	- Defa	ult Force Unregister	AST D	evice R	eboot Relo	ad • Failback	As of 3:54	AM				_	
Network	-			Notific	ations:							Advanced	Searc	:n •
Configuration	11 It	ems ಿ S	how ALL	1				1	-			Fi	lter: E	nable
Device and Location		Details	Address	First Name	Last Name	Actual Location	IP Address	Remote Office	Shared Control	Simult. Devices	AST Device	Registe	red Car	Cum
Configuration	_	b Cham	20100@buudau7.com	20100	Valaras		10 22 5 207					Prim	Sec	Surv
Application		> Show	30103@bvwdev7.com	30108	Valcom	555	10.33.5.207			1/1		(AC)		
System Status	<	Show	50101@DVwdev7.com	30101	valcom		10.33.3.32		Ц	1/1		(AC)		>
STP Entity	Selec	t : All, None	9											
Monitoring														
Managed														
Bandwidth Usage														
Security Module														
Status														
SIP Firewall														
Status														
Registration														
Summary														
User Registrations														
Session Counts														

Figure	24 –	User	Registration	Verification
8		0.00-		

**Note:** The Avaya 9630G SIP deskphone (extension 30101) was created and registered to Avaya Aura<sup>®</sup> Session Manager, but it was not described in this application notes.

#### 10.2. Verify Valcom One-way IP Speaker VIP-120A

Make call to Valcom One-way IP Speaker VIP-120A, verify that the caller hears a pre-announce tone, and is connected to the appropriate speaker from **Section 8.4** with one-way talk path.

### 11. Conclusion

These Application Notes describe the configuration steps required for the Valcom One-way IP Speaker VIP-120A to successfully interoperate with Avaya Aura<sup>®</sup> Communication Manager and Avaya Aura<sup>®</sup> 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<sup>®</sup> Communication Manager, Document ID 03-300509, Release 6.3, Issue 8, May 2013
- 2. Administering Avaya Aura<sup>®</sup> Session Manager, Release 6.3, Issue 2, June 2013
- 3. Maintaining and Troubleshooting Avaya Aura<sup>®</sup> Session Manager, Release 6.3, Issue 2, May 2013
- 4. Administering Avaya Aura<sup>®</sup> System Manager, Release 6.3, Issue 2, May 2013
- 5. Valcom One-way IP Speaker documentation is available at http://www.valcom.com
- 6. Valcom VIP-102B IP Solutions Setup Tool Reference Manual is available at http://www.valcom.com

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