



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for Phybridge PoLRE with Avaya Aura® Communication Manager 6.2 and Avaya Aura® Session Manager 6.2 – Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for Phybridge PoLRE to interoperate with Avaya Aura® Communication Manager 6.2 and Avaya Aura® Session Manager 6.2. In the compliance testing, the Phybridge PoLRE leveraged the existing single-pair telephony wiring to provide dedicated Ethernet voice path and Power over Ethernet to Avaya H.323 IP Telephones registered to Avaya Aura® Communication Manager and Avaya SIP IP Telephones registered to Avaya Aura® Session Manager.

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 a compliance-tested configuration consisting of Phybridge PoLRE, Phybridge Phylink adapters, Avaya Aura® Communication Manager, Avaya Aura® System Manager Avaya Aura® Session Manager, Avaya H.323 and Avaya SIP IP Telephones.

The Phybridge PoLRE is a LAN appliance that leverages the existing single-pair telephony wiring to provide dedicated Ethernet and Power over Ethernet to Avaya IP H.323 and SIP Telephones.

## 2. General Test Approach and Test Results

The compliance testing focused on the interoperability between Phybridge PoLRE and Avaya IP Telephones to ensure that the phones work as expected. Serviceability testing was also performed.

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.

### 2.1. Interoperability Compliance Testing

Testing consisted of typical call scenarios involving Avaya endpoints connected to PoLRE. External call scenarios were also tested with a PRI PSTN connection. All tests were performed manually and the focus was on verifying interoperability compliance.

Feature testing included, registration, audio codec, media shuffling, basic calls, hold/reconnect, conference, transfer, display, DTMF, and message waiting indicator (MWI) scenarios.

The serviceability testing focused on verifying the ability of Phybridge PoLRE to recover from adverse conditions, such as disconnecting and reconnecting the Ethernet cables to the Phybridge PoLRE and to the Avaya IP Telephones. Reboots and power cycling of Phybridge PoLRE were also tested.

### 2.2. Test Results

All tests were executed and passed.

### 2.3. Support

Technical support on the Phybridge PoLRE can be obtained through the following:

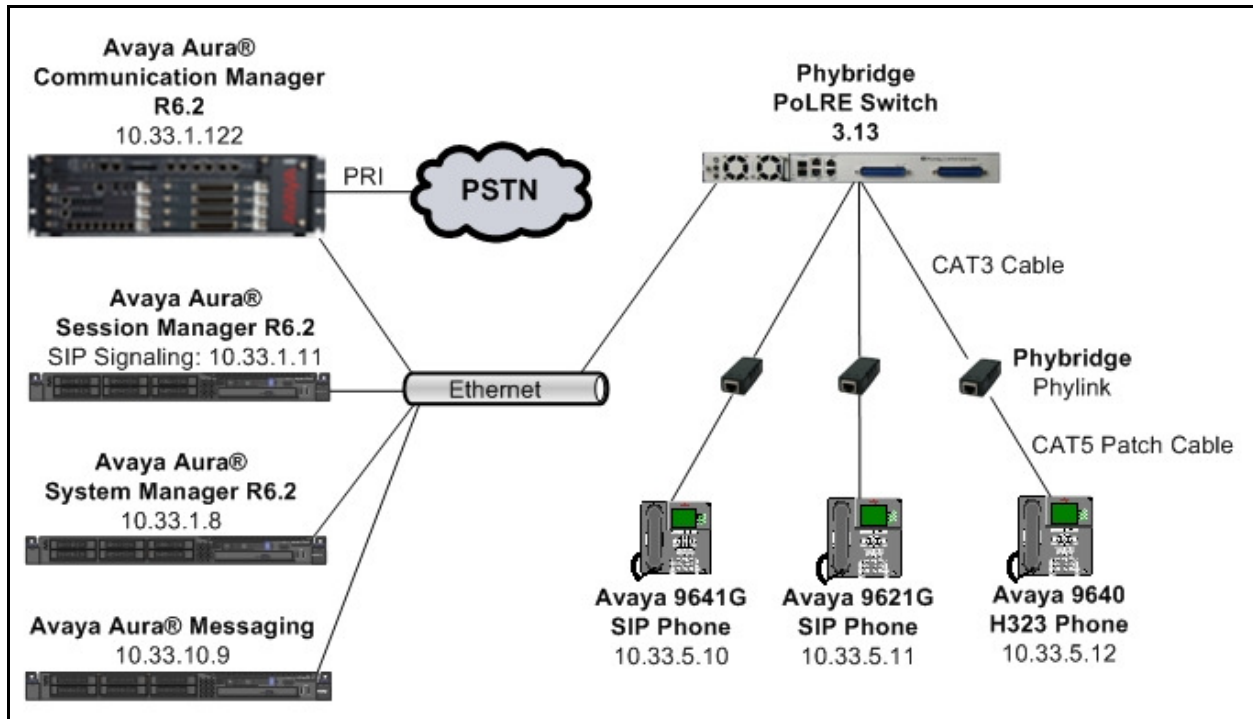
- **Phone:** (888) 901-3633
- **Email:** [techsupport@phybridge.com](mailto:techsupport@phybridge.com)

### 3. Reference Configuration

In the test configuration shown in **Figure 1**, three Avaya IP Telephones are connected to the network via the Phybridge PoLRE leveraging the existing CAT3 cabling that was previously used for Analog and Digital phones. For each station user, one end of the CAT3 cable is changed to connect to the Phybridge PoLRE instead of the Analog or Digital Line circuit pack on Communication Manager. The other end of the CAT3 cable connects to a Phybridge Phylink adapter with an RJ11 connector. Each Phylink adapter is connected using a standard CAT5 Ethernet cable to an Avaya IP Telephone.

In the sample configuration Avaya H.323 IP Telephones register to Communication Manager and Avaya SIP IP Telephones register to Session Manager.

The Phybridge PoLRE provides power to the Avaya IP Telephones, and is transparent to the telephones in terms of the telephones' network settings.



**Figure 1: Phybridge PoLRE 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	Release/Version
Avaya Aura® Session Manager running on S8800 Server	Avaya Aura® Session Manager 6.2 Release: 6.2.2.0.622005
Avaya Aura® System Manager running on S8800 Server	Avaya Aura® System Manager 6.2 Build Number 6.2.0.0.15669
Avaya Aura® Communication Manager running on a S8300D server with G450 Media Gateway	Avaya Aura® Communication Manager 6.2 Manager 6.2 (R016x.02.0.823.0) Patch: 02.0.823.0-20356
Avaya Aura® Messaging	6.1
Avaya 9640 IP Telephone (H.323)	S3.105S
Avaya 9641G IP Telephones (SIP)	6.2.0.69
Avaya 9621G IP Telephone (SIP)	6.2.0.69
Phybridge Phylink PL-PA011	N/A
Phybridge PoLRE Switch PL-048/024	3.13

## 5. Configure Avaya H.323 Phones on Avaya Aura® Communication Manager

No special configuration is required for Avaya H.323 phones to interoperate with PoLRE. For completeness this section provides the procedures for configuring Avaya H.323 phones on Communication Manager. It is assumed that Communication Manager and Session Manager have already been installed and are functioning.

In a typical installation of Phybridge PoLRE analog and digital telephones using existing CAT3 cabling would be replaced with new IP telephones as described in **Section 3**. This section shows an example of modifying an existing station type to match the new Avaya H.323 IP Telephone, and allows the user to retain the same extension number.

Change the station type of an existing analog or digital station by using the command **change station n**, where “n” is the existing extension number. For **Type**, enter the applicable IP station type, in this case “9640”, and the **Port** field will be populated automatically. Enter a desired **Security Code**.

change station 40040		Page 1 of 5
STATION		
Extension: 40040	Lock Messages? n	BCC: 0
<b>Type: 9640</b>	<b>Security Code: 40040</b>	TN: 1
<b>Port: IP</b>	Coverage Path 1:	COR: 1
Name: 9640	Coverage Path 2:	COS: 1
	Hunt-to Station:	
STATION OPTIONS		
	Time of Day Lock Table:	
Loss Group: 19	Personalized Ringing Pattern: 1	
	Message Lamp Ext: 40040	
Speakerphone: 2-way	Mute Button Enabled? y	
Display Language: english	Button Modules: 0	
Survivable GK Node Name:		
Survivable COR: internal	Media Complex Ext:	
Survivable Trunk Dest? y	IP SoftPhone? n	
	IP Video? n	
	Short/Prefixed Registration Allowed: default	
	Customizable Labels? y	

Repeat this section to modify the station type for all applicable analog and digital stations.

Use the **save translation** command to save these changes.

## 6. Configure Avaya SIP Phones

No special configuration is required for Avaya SIP phones to interoperate with PoLRE. For completeness this section provides information for configuring Avaya SIP phones with Session Manager and Communication Manager. It is assumed that Communication Manager and Session Manager have already been installed and are functioning. It is also assumed that dial plan routing has been configured on Session Manager and Communication Manager. For more information refer to **Document 3** listed in **Section 10**.

In a typical installation of Phybridge PoLRE analog and digital telephones using existing CAT3 cabling would be replaced with new IP telephones as described in **Section 3**. This section shows an example of modifying an existing station type to match the new Avaya SIP IP Telephone, and allows the user to retain the same extension number.

### 6.1. SIP Phone Configuration on Avaya Aura® Communication Manager

#### 6.1.1. Change Station Configuration

Change the station type of an existing analog or digital station by using the command **change station n**, where “n” is the existing extension number. For **Type**, enter the applicable IP station type, in this case “9641SIP”, and the **Port** field will be populated automatically. Enter a desired **Security Code**.

<b>change station 40010</b>		Page 1 of 6
STATION		
Extension: 40010	Lock Messages? n	BCC: 0
<b>Type: 9641SIP</b>	<b>Security Code: 40010</b>	TN: 1
<b>Port: IP</b>	Coverage Path 1: 1	COR: 1
Name: Analog 6211 Set	Coverage Path 2:	COS: 1
	Hunt-to Station:	
STATION OPTIONS		
Loss Group: 19	Time of Day Lock Table:	
	Personalized Ringing Pattern: 1	
	Message Lamp Ext: 40010	
Speakerphone: 2-way	Mute Button Enabled? y	
Display Language: english	Expansion Module? n	
Survivable GK Node Name:		
Survivable COR: internal	Media Complex Ext:	
Survivable Trunk Dest? y	IP SoftPhone? n	
	IP Video? n	
	Customizable Labels? y	

Navigate to **Page 4**, add the desired number of **call-appr** entries in the **BUTTON ASSIGNMENTS** section. This governs how many concurrent calls can be supported. In the sample configuration, three call appearances were configured to support transfer and conferencing scenarios.

change station 40010		Page 4 of 6	
STATION			
SITE DATA			
Room:		Headset?	n
Jack:		Speaker?	n
Cable:		Mounting:	d
Floor:		Cord Length:	0
Building:		Set Color:	
ABBREVIATED DIALING			
List1:	List2:	List3:	
BUTTON ASSIGNMENTS			
1: call-appr	5:		
2: call-appr	6:		
3: call-appr	7:		
4:	8:		

Navigate to **Page 6**. Enter **aar** for the **SIP Trunk** setting and use defaults for remaining fields.

change station 40010		Page 6 of 6	
STATION			
SIP FEATURE OPTIONS			
Type of 3PCC Enabled: None			
SIP Trunk: aar			

### 6.1.2. Verify Off-PBX-Telephone Station-Mapping

Use the change off-pbx-telephone station-mapping xxx command where xxx is an extension assigned to a SIP Deskphone to verify an Off-PBX station mapping was automatically created for the SIP station.

On **Page 1**, verify the following fields were correctly populated.

- **Application** Verify “**OPS**” is assigned.
- **Trunk Selection** Verify “**aar**” is assigned.

change off-pbx-telephone station-mapping 40010							Page	1 of	3
STATIONS WITH OFF-PBX TELEPHONE INTEGRATION									
Station	Application	Dial	CC	Phone	Trunk	Config	Dual		
Extension		Prefix		Number	Selection	Set	Mode		
40010	OPS	-		40010	aar	1			

On **Page 2**, verify the following fields were correctly populated.

- **Call Limit:** Verify “**3**” is assigned corresponding to the number of **call-appr** entries assigned in **Section 6.1.1**.
- **Mapping Mode:** Verify “**both**” is assigned.
- **Calls Allowed:** Verify “**all**” is assigned.

change off-pbx-telephone station-mapping 40010							Page	2 of	3
STATIONS WITH OFF-PBX TELEPHONE INTEGRATION									
Station	Appl	Call	Mapping	Calls	Bridged	Location			
Extension	Name	Limit	Mode	Allowed	Calls				
40010	OPS	3	both	all	none				

Use the **save translation** command to save these changes.



## 6.2. SIP Phone Configuration on Avaya Aura® Session Manager

This section describes the procedure to configure a SIP IP phone on Session Manager. It is assumed that Application and Application Sequence have already been configured. For more information refer to **document 3** listed in **Section 10**.

Access the browser-based GUI of System Manager, using the URL **http://<FQDN>/SMGR**, where <FQDN> is the fully qualified domain name of System Manager. Log in to System Manager with the appropriate credentials (not shown).

### 6.2.1. Add SIP User

Add a new SIP user for the SIP station defined in **Section 6.1**.

To add a new SIP user, expand **Users → User Management** and select **Manage Users** from the left navigation menu.

**Step 1:** Click **New** (not shown). Enter values for the following required attributes for a new SIP user in the **Identity** section and use default values for the remaining fields.

- **Last Name:** Enter last name of user.
- **First Name:** Enter first name of user.
- **Login Name:** Enter “**extension number@<domain>**” where “<domain>” matches the domain being used. In this example bvwdev.com was used.
- **Authentication Type:** Verify “**Basic**” is selected.
- **Password:** Enter password used to log into System Manager.
- **Confirm Password:** Repeat value entered above.
- **Localized Display Name:** Enter display name for user [Optional].

The screen below shows results from **Step 1** for a new SIP user.

The screenshot displays the 'New User Profile' form in the Avaya Aura Session Manager GUI. The left navigation pane shows 'User Management' expanded, with 'Manage Users' selected. The main content area has a breadcrumb trail 'Home / Users / User Management / Manage Users' and a 'Help ?' link. Below the breadcrumb is a 'Status' icon and a 'Commit & Continue' button. The form is titled 'New User Profile' and has tabs for 'Identity', 'Communication Profile', 'Membership', and 'Contacts'. The 'Identity' tab is active, showing fields for 'Last Name' (User), 'First Name' (SIP), 'Middle Name' (empty), 'Description' (empty), 'Login Name' (40010@bvwdev.com), 'Authentication Type' (Basic), 'Password' (masked with dots), 'Confirm Password' (masked with dots), 'Localized Display Name' (empty), and 'Endpoint Display Name' (empty). There are also 'Commit', 'Cancel', and 'Commit & Continue' buttons at the top right of the form.

Click **Commit & Continue** to save changes from **Step 1**.

**Step 2:** Select the **Communication Profile** tab and enter the value the endpoint will use to register to Session Manager in the **Communication Profile Password** and **Confirm Password** fields. The **Communication Profile Password** should match the **Security Code** field defined in **Section 6.1.1**.

Verify there is a default entry identified as the Primary profile as shown below:

The screenshot shows the 'User Profile Edit' interface for the user '40010@bvwdev.com'. At the top right are buttons for 'Commit & Continue', 'Commit', and 'Cancel'. Below the header is a tabbed interface with four tabs: 'Identity', 'Communication Profile', 'Membership', and 'Contacts'. The 'Communication Profile' tab is selected and highlighted. Under this tab, there is a 'Communication Profile' section with a dropdown arrow. Below this are two password fields: 'Communication Profile Password' and 'Confirm Password', both containing six dots. A 'Cancel' link is next to the 'Confirm Password' field. Below the password fields are four buttons: 'New', 'Delete', 'Done', and 'Cancel'. Below these buttons is a table with a single row containing the text 'Primary'. Below the table is a 'Select : None' dropdown. At the bottom, there is a field for '\* Name:' containing the text 'Primary', and a 'Default :' checkbox which is checked.

Name
Primary

Select : None

\* Name: Primary

Default : ☒

If an entry does not exist, select **New** and enter values for the following required attributes:

- **Name:** Enter "**Primary**".
- **Default:** Verify that the check box is selected.

**Step 3:** Expand **Communication Address** sub-section and select **New** to define a **Communication Address** for the new user.

Enter values for the following required attributes:

- **Type:** Select “**Avaya SIP**” from drop-down menu.
- **Fully Qualified Address:** Enter same extension number as used for **Login Name** in **Step 1**.
- **Domain:** Verify value matches Domain name defined in **Step 1**.

Click **Add** to save the Communication Address.

**Communication Address** ▼

<input type="checkbox"/>	Type	Handle	Domain
No Records found			

Type:

\* Fully Qualified Address:  @

Enter the following values.

- |  |  |
|--|--|
| • <b>Primary Session Manager:</b>          | Select the appropriate Session Managers. In this example InteropSM was used. |
| • <b>Origination Application Sequence:</b> | Select an <b>Application Sequence</b> .                                      |
| • <b>Termination Application Sequence:</b> | Select an <b>Application Sequence</b> .                                      |
| • <b>Conference Factory Set:</b>           | Retain the default value of “(None)”.  |
| • <b>Survivability Server:</b>             | Select “(None)” from drop-down menu.   |
| • <b>Home Location:</b>                    | Select Location.   |

The screen below shows results from Step 4.

☒ **Session Manager Profile** ▼

\* **Primary Session Manager** InteropSM ▼

Primary	Secondary	Maximum
21	0	21

**Secondary Session Manager** (None) ▼

Primary	Secondary	Maximum

**Origination Application Sequence** Interop CM ▼

**Termination Application Sequence** Interop CM ▼

**Conference Factory Set** (None) ▼

**Survivability Server** (None) ▼

\* **Home Location** Belleville ▼

**Step 5:** Scroll down to the **CM Endpoint Profile** section and select the check box.

Enter the following values and use defaults for remaining fields.

- **System:** Select Managed Element defined for Communication Manager.
- **Profile Type:** Select “**Endpoint**”.
- **Use Existing Endpoints:** Select the check box to use the existing extension.
- **Extension:** Enter same extension number used for Login Name in Step 1.
- **Template:** Select template for type of SIP phone.
- **Security Code:** Enter numeric value used to register the SIP endpoint.  
**Note:** this field should match the value entered for the Communication Profile Password field in Step 2.
- **Port:** Enter “**IP**”.
- **Voice Mail Number:** Enter Pilot Number for Avaya Modular Messaging or Avaya Aura® Messaging if installed. Else, leave field blank.

The screen below shows the results from **Step 5** when adding a new SIP user in the sample configuration.

The screenshot shows a web-based configuration form for a CM Endpoint Profile. At the top, there is a section header "CM Endpoint Profile" with a checked checkbox and a dropdown arrow. Below this, several fields are listed, some marked with a red asterisk indicating they are required. The fields and their values are: "System" (Interop CM6.2), "Profile Type" (Endpoint), "Use Existing Endpoints" (checked checkbox), "Extension" (40010) with an "Endpoint Editor" button, "Template" (DEFAULT\_9641SIP\_CM\_6\_2), "Set Type" (9641SIP), "Security Code" (masked with dots), "Port" (IP), "Voice Mail Number" (empty), and "Preferred Handle" ((None)). At the bottom, there is a checkbox labeled "Delete Endpoint on Unassign of Endpoint from User or on Delete User" which is also checked.

☒ **CM Endpoint Profile**

\* **System** Interop CM6.2

\* **Profile Type** Endpoint

**Use Existing Endpoints** ☒

\* **Extension** 40010 **Endpoint Editor**

**Template** DEFAULT\_9641SIP\_CM\_6\_2

**Set Type** 9641SIP

**Security Code** .....

\* **Port** IP

**Voice Mail Number**

**Preferred Handle** (None)

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

Click **Commit** (not shown) to save definition of the new user.

## 6.2.2. Synchronize Changes with Avaya Aura® Communication Manager

After completing these changes in System Manager, perform an on demand synchronization. Navigate to **Elements → Inventory → Synchronization → Communication System**.

On the **Synchronize CM Data and Configure Options** page, select the row associated with Communication Manager as shown below.

Home / Elements / Inventory / Synchronization / Communication System

### Synchronize CM Data and Configure Options

Note: Please avoid any administration task on CM while sync is in progress.

Synchronize CM Data/Launch Element Cut Through

3 Items [Refresh](#) Show ALL Filter: Enable

<input type="checkbox"/>	Element Name	FQDN/IP Address	Last Sync Time	Last Translation Time	Sync Type	Sync Status	Location
<input type="checkbox"/>	CM62	10.33.10.5	June 17, 2013 11:00:06 PM - 04:00	10:00 pm MON JUN 17, 2013	Incremental	Completed	
<input type="checkbox"/>	DevCM	10.33.97.201	June 17, 2013 11:00:13 PM - 04:00	10:00 pm MON JUN 17, 2013	Incremental	Completed	In the main lab
<input checked="" type="checkbox"/>	Interop CM6.2	10.33.1.22	June 18, 2013 2:28:44 PM - 04:00	2:05 pm TUE JUN 18, 2013	Incremental	Completed	

Select : All, None

☐ Initialize data for selected devices  
☒ Incremental Sync data for selected devices  
☐ Execute 'save trans all' for selected devices

[Now](#) [Schedule](#) [Cancel](#) [Launch Element Cut Through](#)

Select the **Incremental Sync data for selected devices** option and click **Now** to start the synchronization.

Use the **Refresh** button in the table header to verify status of the synchronization. Verify synchronization successfully completes by verifying the status in the **Sync Status** column shows **“Completed”**.

**Note:** Depending on the number of administration changes made, synchronization might take several minutes to complete.

## 7. Configure Phybridge PoLRE

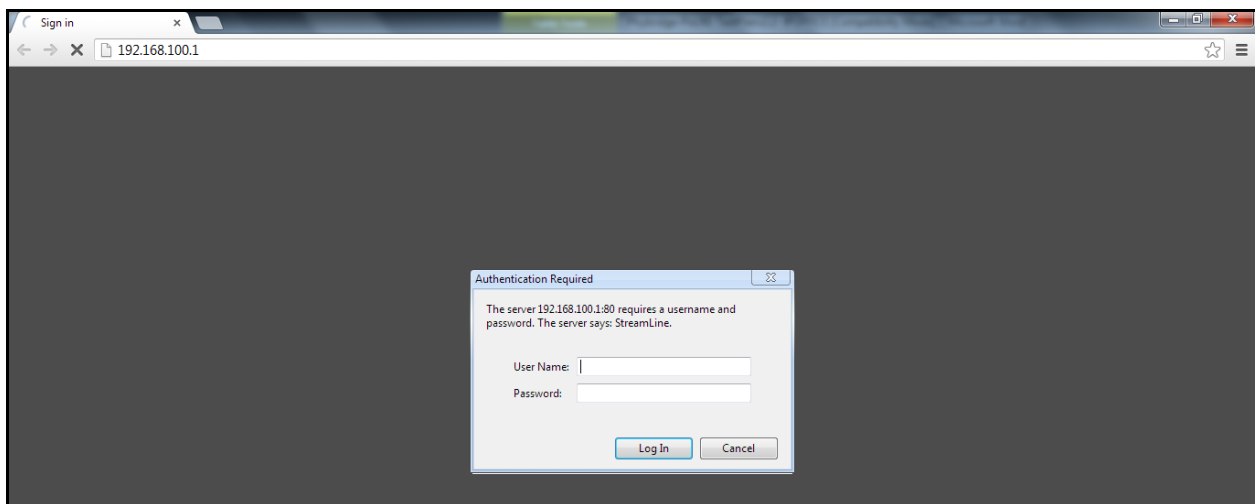
This section provides the procedures for configuring the PoLRE. The procedures fall into the following areas:

- Launch web interface
- Administer Phybridge PoLRE IP Address

All remaining configuration settings on PoLRE were left as default in this sample configuration.

### 7.1. Launch Web Interface

Access the PoLRE web interface by using the URL “http://ip-address” in an Internet browser window (Chrome and Firefox supported), where “ip-address” is a valid IP address of the PoLRE switch. The default IP address of the PoLRE management port is “192.168.1.1” and the default IP address of the PoLRE GBE ports is “192.168.100.1”. In this example the web interface of the PoLRE switch was accessed by one of the GBE ports. The **Web Interface Login** screen is displayed as shown below. Log in using the appropriate credentials.



## 7.2. Administer Phybridge PoLRE IP Address

In the subsequent screen, select **ETHERNET** from the options at the top of the screen, then select the **UPLINK PORTS** tab. On this page the IP Address information of the PoLRE switch can be changed. See below for a sample configuration of the PoLRE switch.

The screenshot displays the configuration interface for a Phybridge PoLRE Switch - 48 Port. The top navigation bar includes tabs for SYSTEM, ETHERNET, VLAN, and ADMIN. The ETHERNET tab is active, and the UPLINK PORTS sub-tab is selected. The interface is divided into three main configuration sections: Configure GbE Interface, Configure Management Port, and Configure IP Route. Each section contains input fields for IP Address, Net Mask, and Broadcast, along with dropdown menus for GbE1 Medium, GbE2 Medium, and Interface. The bottom section contains a Caution icon and a list of important notes regarding IP address changes, gateway assignment, and connectivity. A SAVE CHANGES button is located at the bottom right of the interface.

**Configure GbE Interface**

IP Address: 192.168.100.1  
Net Mask: 255.255.255.0  
Broadcast: 192.168.100.255  
GbE1 Medium: Copper  
GbE2 Medium: Copper  
APPLY

**Configure Management Port**

IP Address: 192.168.1.1  
Net Mask: 255.255.255.0  
Broadcast: 192.168.1.255  
Default PVID: 1001  
APPLY

**Configure IP Route**

Default Gateway: 192.168.100.254  
Interface: GbE  
APPLY

**SAVE CHANGES**

**Caution !**

- If the IP address is changed, the gateway for that port will be cleared if already assigned (reassign if required) and the new IP address will be required to log back into the box.
- The management port IP address and the uplink port IP address must be not on the same subnet.
- You may have your gateway assigned to only one interface, either the GbE ports or the Management port.
- The Default PVID field for the Management port is 1001 and cannot be changed.
- If you switch the interface between Copper and Fiber, it may take several seconds to regain connectivity.
- If you switch from Fiber to Copper, you will need to restart your switch for the changes to take affect after saving.
- If you do not click **SAVE CHANGES**, some changes you have made on this tab may be lost after a system reboot.



## 8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager and PoLRE.

### 8.1. Verify Avaya Aura® Communication Manager

This section verifies the registration of H.323 IP phones on Communication Manager. Use the **list registered-ip-stations** command to verify that all H.323 IP stations connected via the PoLRE registered successfully with Communication Manager, as shown below.

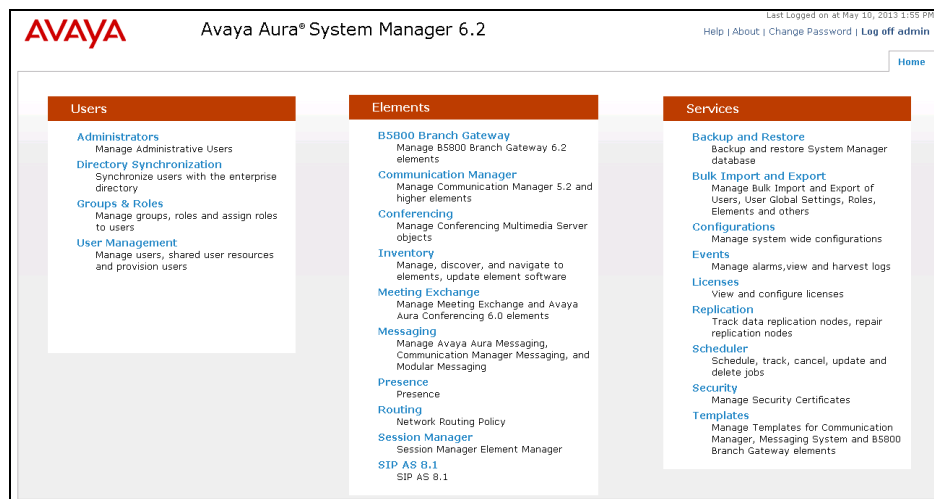
```
list registered-ip-stations
```

REGISTERED IP STATIONS					
Station Ext or Orig Port	Set Type/ Net Rgn	Prod ID/ Release	TCP Skt	Station IP Address/ Gatekeeper IP Address	
<b>40040</b>	<b>9640</b>	<b>IP_Phone</b>	<b>y</b>	<b>10.33.5.193</b>	
	<b>1</b>	<b>3.105S</b>		<b>10.33.1.22</b>	
40041	9620	IP_Phone	y	10.33.98.49	
	1	3.0000		10.33.1.22	
40046	4625	IP_Phone	y	10.33.5.14	
	1	3.102S		10.33.1.22	

### 8.2. Verify Avaya Aura® Session Manager

This section verifies the registration of SIP IP phones on Session Manager. Access the browser-based GUI of System Manager, using the URL **http://<FQDN>/SMGR**, where <FQDN> is the fully qualified domain name of System Manager. Log in to System Manager with the appropriate credentials (not shown).

From the main System Manager page click on the **Session Manager** link in the **Elements** column as shown in the following figure.



In the next screen that opens, expand **System Status** from the navigation tree on the left. Now select **User Registrations** under **System Status**. The last phone in the list was used in this sample configuration. It is shown to be registered by the checkmark in the Prim column as shown below.

**AVAYA** Avaya Aura® System Manager 6.2

Last Logged on at May 10, 2013 1:55 PM  
Help | About | Change Password | Log off admin

Session Manager Home

Home / Elements / Session Manager / System Status / User Registrations

**User Registrations**  
Select rows to send notifications to AST devices. Click on Details column for complete registration status.

AST Device Notifications: Reboot Reload Fallback As of 2:32 PM

20 Items Refresh Show 15 Filter: Enable

	Details	Address	Login Name	First Name	Last Name	Location	IP Address	AST Device	Registered		
									Prim	Sec	Surv
<input type="checkbox"/>	Show	---	40012@bvwdev.com	40012	SIP	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	40018@bvwdev.com	T	M	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	40050@bvwdev.com	x40050	V	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	53008@bvwdev.com	H	T	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	40061@bvwdev.com	x40061	SIP	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	40060@bvwdev.com	40060@bvwdev.com	x40060	SIP	Belleville	10.33.5.37:5060	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	57009@bvwdev.com	C	57009	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	4502@ws.avaya.com	SIP x4502	W	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	40014@bvwdev.com	40014	SIP	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	57008@bvwdev.com	57008	57008	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	53011@bvwdev.com	53011	SIP	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	53007@bvwdev.com	53007@bvwdev.com	SIP	X53007	Belleville	10.33.98.48:5061	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	---	53010@bvwdev.com	53010	SIP	Belleville	---	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	40013@bvwdev.com	40013@bvwdev.com	40013	SIP	Belleville	10.33.98.88:53894	<input type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Show	40010@bvwdev.com	40010@bvwdev.com	CM9641G	x40010	Belleville	10.33.5.38:5060	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (AC)	<input type="checkbox"/>	<input type="checkbox"/>

Select : All, None < Previous Page 1 of 2 Next >

### 8.3. Verify Phybridge PoLRE

From the PoLRE web interface, select **SYSTEM** from the options at the top of the screen, then select the **OVERVIEW** tab. The **System Overview** screen is displayed. Verify in the **Ethernet Port Status** section of the page that all **DOWNLINK** ports are green that have physically connected IP Phones, as shown below for ports 22 to 24.

Phybridge PoLRE Switch - 48 Port

SYSTEM ETHERNET VLAN ADMIN

OVERVIEW PERFORMANCE NETWORK STATS

**System Overview**

Model	PoLRE Switch - 48 Port	Host Name	PoLRE
Product Number	PL-048	IP Address	192.168.100.1
Serial Number	2506570004	MAC Address	00:24:63:02:02:77
Up Time	0 Days, 0H:28M:28S	Subnet Mask	255.255.255.0
Current Time	Wed Feb 15 2012 00:41:37	Default Gateway	192.168.100.254
CPU Load	0.63	IP Address (mgmt)	192.168.1.1
Memory	Used: 22.946MB Free: 32.002MB	PSE Voltage	54 Volts
Temperature	47 C	PSE Power	Used: 47.952W Free: 469.798W
Contact	/http://www.phybridge.com/support/uniphyer/ Tel:1-888-901-3633 Mon-Fri 8am-6pm ET		

**Ethernet Port Status**

UPLINK			DOWNLINK (3 PORTS UP)																																												
F1	G1	M	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24																					
F2	G2		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48																					

## 9. Conclusion

These Application Notes describe the configuration steps required for Phybridge PoLRE to interoperate with Avaya H.323 IP Telephones registered to Avaya Aura® Communication Manager and Avaya SIP IP Telephones registered to Avaya Aura® Session Manager. All feature and serviceability test cases were completed and passed.

## 10. Additional References

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

Documentation for Avaya products may be found at <http://support.avaya.com>.

### Avaya Aura® Communication Manager

- 1) *Administering Avaya Aura® Communication Manager*, Document 03-300509, Issue 7.0, Release 6.2, July 2012
- 2) *Avaya Aura® Communication Manager Feature Description and Implementation*, Document 555-245-205, Issue 9.0, Release 6.2, July 2012
- 3) *Configuring Avaya 9600 Series IP Deskphones running Avaya one-X® SIP firmware with Avaya Aura® Session Manager Release 6.2 and Avaya Aura® Communication Manager Evolution Server Release 6.2 – Issue 1.0*, Jan. 26, 2012

Documentation for Phybridge products may be found at <http://phybridge.com>.

### Phybridge PoLRE Switch

- 4) *Phybridge PoLRE Switch and Phylink Adapter Hardware Installation Guide*, Document No. 8005.01.05, Issue 5, July 2012

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