Avaya Solution & Interoperability Test Lab

Application Notes for Phybridge UniPhyer with Avaya Communication Manager – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for the Phybridge UniPhyer LAN appliance to interoperate with Avaya Communication Manager. In the compliance testing, the Phybridge UniPhyer leveraged the existing single-pair telephony wiring to provide dedicated Ethernet voice path and Power over Ethernet to Avaya IP Telephones connected to Avaya Communication 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

The Phybridge UniPhyer is a LAN appliance that leverages the existing single-pair telephony wiring to provide dedicated Ethernet voice path and Power over Ethernet to Avaya IP Telephones.

In the test configuration shown in **Figure 1**, four analog and digital telephones on Avaya Communication Manager were replaced with Avaya IP Telephones by leveraging the existing RJ11 cabling. For each station user, one end of the RJ11 cable was changed to connect to the Phybridge UniPhyer instead of the Analog or Digital Line circuit pack on Avaya Communication Manager, and the other end of the RJ11 cable was connected to a Phybridge Adapter. For each Phybridge Adapter, there was a RJ45 cable connection to an Avaya IP Telephone.

The Phybridge UniPhyer provided power to the connected Avaya IP Telephones, and acted as a straight pass through and transparent to these Avaya IP Telephones in terms of the telephones' network settings.

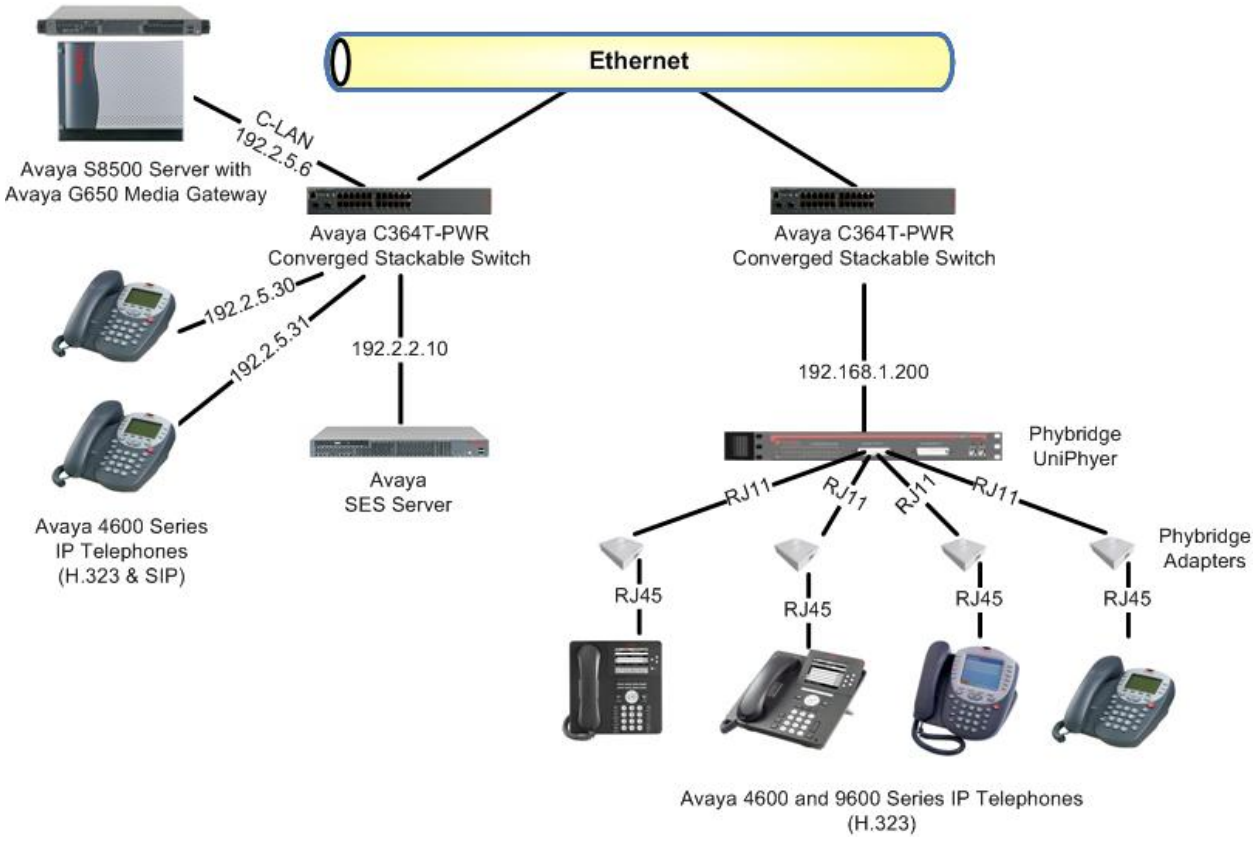


Figure 1: Phybridge UniPhyer with Avaya Communication Manager

2. Equipment and Software Validated

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

Equipment	Software
Avaya S8500 Server	Avaya Communication Manager 5.0, R015x.00.0.825.4
Avaya G650 Media Gateway • TN799DP C-LAN	 HW01 FW024
Avaya 4600 Series IP Telephones (H.323)	2.9
Avaya 4600 Series IP Telephones (SIP)	2.2.2
Avaya 9600 Series IP Telephones (H.323)	2.0
Phybridge UniPhyer	0.77B03
Phybridge Adapters	007-001 Rev 2

3. Configure Avaya Communication Manager

This section provides the procedures for configuring Avaya Communication Manager. The procedures fall into the following areas:

- Pre-configuration
- Modify stations

3.1. Pre-Configuration

Log into the System Access Terminal (SAT). Prior to the start of test, two analog and two digital stations were connected to Avaya Communication Manager, as shown below.

```
list station 61001 count 4

                                 STATIONS

Ext/          Port/   Name/                       Room/         Cv1/ COR/ Cable/
 Hunt-to       Type      Surv GK NN        Move    Data Ext      Cv2  COS  Jack

61001         01A0901 Phybridge User #1                           1
               2500                        no                      1
61002         01A0904 Phybridge User #2                           1
               2500                        no                      1
61003         01A0801 Phybridge User #3                           1
               6408D+                      no                      1
61004         01A0804 Phybridge User #4                           1
               6408D+                      no                      1
```

3.2. Modify Stations

After installation of the Phybridge UniPhyer, each analog and digital telephone set was replaced with an Avaya IP Telephone, and the RJ11 cables were reconnected as described in **Section 1**. This section modifies the station type for each user to match the new Avaya IP Telephone, and allows the users to retain the same extension numbers.

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 "4620", and the **Port** field will be populated automatically. Enter a desired **Security Code**.

```
change station 61001                                        Page   1 of   5
                                    STATION

Extension: 61001                        Lock Messages? n              BCC: 0
     Type: 4620                         Security Code: 61001           TN: 1
     Port: IP                         Coverage Path 1:                COR: 1
     Name: Phybridge User #1          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: 61001
           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

                                              Customizable Labels? Y
```

Repeat this section to modify the station type for all applicable analog and digital stations. In the compliance testing, two analog and two digital stations were changed over to IP.

```
list station 61001 count 4

                                  STATIONS

Ext/          Port/   Name/                        Room/         Cv1/ COR/ Cable/
 Hunt-to       Type      Surv GK NN        Move     Data Ext      Cv2  COS  Jack

61001         S00169  Phybridge User #1                              1
               4620                          no                      1
61002         S00165  Phybridge User #2                              1
               4610                          no                      1
61003         S00167  Phybridge User #3                              1
               9620                          no                      1
61004         S00168  Phybridge User #4                              1
               9630                          no                      1
```

4. Configure Phybridge UniPhyer

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

- Launch web interface
- Administer board IP

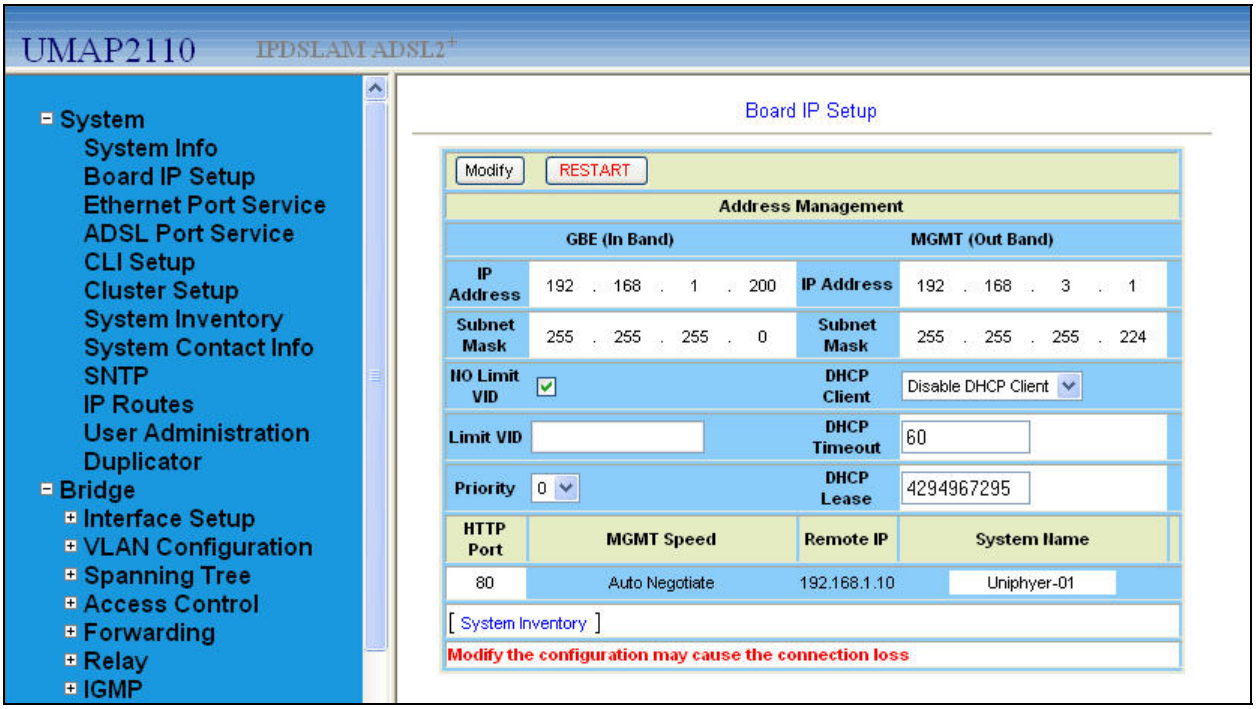
4.1. Launch Web Interface

Access the Phybridge UniPhyer web interface by using the URL "http://ip-address" in an Internet browser window, where "ip-address" is the IP address of the Phybridge UniPhyer. Note that the default IP address of the Phybridge UniPhyer management port is "192.168.1.1". The **Web Interface Login** screen is displayed as shown below. Log in using the appropriate credentials.

4.2. Administer Board IP

In the subsequent screen, select **System > Board IP Setup** to display the **Board IP Setup** screen. Modify the **IP Address** and **Subnet Mask** fields under the **GBE (In Band)** and **MGMT (Out Band)** sections to match the network configuration. Click **Modify**, followed by **RESTART**.

Note that the **MGMT (Out Band)** configuration is optional, and needs to be on a different subnet from the **GBE (In Band)** if used.



5. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing included firmware downloads, registration, audio codec, media shuffling, basic call, hold/reconnect, conference, transfer, display, call forwarding, DTMF, button activation/deactivation, feature access code activation/deactivation, and message waiting lamp scenarios.

The serviceability testing focused on verifying the ability of Phybridge UniPhyer to recover from adverse conditions, such as disconnecting and reconnecting the Ethernet cables to the Phybridge UniPhyer and to the Avaya IP Telephones.

5.1. General Test Approach

All tests were performed manually. The focus was on verifying the Avaya IP Telephones connected via the Phybridge UniPhyer can function seamlessly.

5.2. Test Results

All tests were executed and passed. The one observation noted from the compliance test is that the Avaya IP Telephones connected to the Phybridge UniPhyer must use the HTTP method for firmware downloads.

6. Verification Steps

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

6.1. Verify Avaya Communication Manager

Use the "list registered-ip-stations" command to verify that all IP stations connected via the Phybridge UniPhyer from **Section 3.2** registered successfully with Avaya Communication Manager, as shown below.

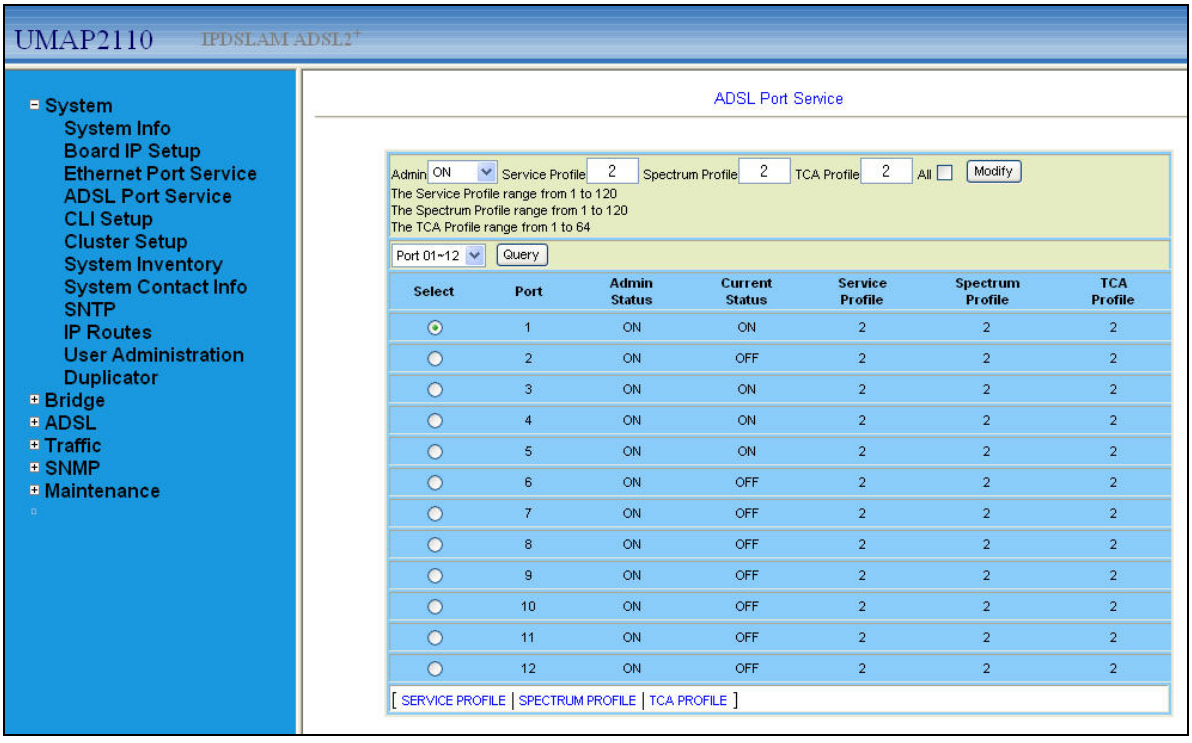
```
list registered-ip-stations

                          REGISTERED IP STATIONS

Station Ext/  Set      Product    Prod   Station         Net Gatekeeper     TCP
 Orig Port    Type     ID         Rel    IP Address      Rgn IP Address     Skt
61001         4620     IP_Phone   2.9000 192.168.1.123   1   192.2.5.6      y
61002         4610     IP_Phone   2.9000 192.168.1.102   1   192.2.5.6      y
61003         9620     IP_Phone   2.0000 192.168.1.103   1   192.2.5.6      y
61004         9630     IP_Phone   2.0000 192.168.1.104   1   192.2.5.6      y
```

6.2. Verify Phybridge UniPhyer

From the Phybridge UniPhyer web interface, select **System > ADSL Port Service**. The **ADSL Port Service** screen is displayed. Verify that the **Current Status** for all physically connected voice ports is in the **ON** state, as shown below.



7. Support

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

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

8. Conclusion

These Application Notes describe the configuration steps required for the Phybridge UniPhyer to interoperate with Avaya Communication Manager via Avaya IP Telephones. All feature and serviceability test cases were completed with one observation noted in **Section 5.2**.

9. Additional References

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

- *Administrator Guide for Avaya Communication Manager*, Document 03-300509, Issue 4.0, Release 5.0, January 2008, available at http://support.avaya.com.
- *Avaya-Phybridge DevConnect Partner Solutions Guide*, Release 1.0, available at http://www.phybridge.com.
- *Phybridge UniPhyer Installation Manual*, Release 1.0, available at http://www.phybridge.com.
- *Phybridge UniPhyer Web Configuration Tool Guide*, Release 1.0, available at http://www.phybridge.com.

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