



Document #: 008-003 TS 004
Document: Uniphyer – Pre-Install Guide
Version: 002

1 Introduction

The Phybridge UniPhyer is configured to be a plug-and-play solution. However, depending on your two wire infrastructure setup, the data network configuration that the UniPhyer is being connected to or certain manufacturer's IP phone setup requirements the UniPhyer may need some pre-installation or configuration adjustments to make your IP phone installation plug-and-play.

2 Support

Video on the basic steps for Installing the UniPhyer
<http://www.phybridge.com/ip-phones-installation.aspx>

Video of a customer migration from digital sets to 20 IP sets in less than an hour.
<http://www.youtube.com/watch?v=Jj8Cy6UjJoA>

Uniphyer documentation and links to other support materials and videos can be found on our website.
<http://www.phybridge.com/ip-phone-support.aspx>

3 Hardware Installation Considerations

3.1 *Two-wire infrastructure*

The UniPhyer Line Interface termination requires a female RJ21 connector for terminating your two wire infrastructure to the UniPhyer. The first 24 line pairs of the RJ21 connection provide the 24 ports on the line interface. Your old digital wiring infrastructure may be set up with male RJ21 terminations or have different wiring termination to RJ21 connector (not using the same pair one is port one, pair two is port two, terminations). You may need to use a RJ21 gender bender or consult your Telco administrator to prepare the proper RJ21 termination prior to you installation, see details in UniPhyer Hardware Installation Manual.

On the Wall Jack location, where the old digital telephone set was located, there should be no additional preparation work to plug in the PhyAdapter, a standard two wire RJ11 cable can be used.

3.2 Earth Ground

If you plan to deploy your UniPhyer and PhyAdapters with IP Phones and a PC daisy chained through the IP phone then you will be required to attach the UniPhyer to Earth Ground.

Note: No Earth Ground connection is required using PhyAdapters and only IP Phone/IP devices.

Please refer to UniPhyer Hardware Installation Manual section 3.2.3 for details on this installation.

<http://www.phybridge.com/files/Uniphyer%20Hardware%20Installation%20and%20User%20Guide.pdf>

4 Network considerations

4.1 GBE port operation

Default UniPhyer configuration has GBE 1 configured as Uplink trunk and GBE2 configured as User trunk (for daisy chaining other UniPhyers). You should only plug in GBE1 port into your IP PBX or Voice network switch (you may want a switch for multiple UniPhyers to plug into and then have that switch plug into your IP PBX)

If you want to deploy GBE redundancy between GBE 1 and GBE 2: Please refer to the Spanning Tree configuration in the UniPhyer Web Configuration Tool guide for more details.

<http://www.phybridge.com/files/Uniphyer%20Web%20Configuration%20Tool%20guide.pdf>

4.2 GBE port IP Address

The GBE Default IP Address is 192.168.100.1. Please ensure this address does not conflict with any device on your UniPhyer Parallel voice network. If you need to Change the IP Address on the GBE port on the UniPhyer follow the steps below.

1. Log on to Management GUI
 - o MGMT port IP Address is 192.168.1.1 (use Cross over cable or PC that supports Auto MDIX)
 - o Enter default Username (admin) and Password (password).
2. Change IP Route(optional-as required)
 - o Go to **System→IP Routes**
 - o Enter new System Gateway address select **Set**
3. Change IP Address(es)
 - o Go to **System→Board IP Setup**
 - o Enter desired GBE (in band) IP Address and subnet mask
 - o Select **Modify**
 - o The IP addresses change immediately, if you change the IP address of the port you logged in on you will need to change your PC IP address to match domain of new IP address.
4. Save new IP configuration to Flash (runtime change must be saved to Flash)
 - o Go to **Maintenance→Database**
 - o Select **(D) Save Running Config to Flash (System Config)**
 - o Select Partition 1
 - o Select **Write_Running** dialog button

IP address is now updated and saved to UniPhyer

4.3 VLAN

If you have VLAN tagging on your LAN this is how you set-up the UniPhyer for supporting this VLAN. You must set up VLAN IDs on both the GBE ports and all Line (xDSL) ports.

1. Log on to Management GUI
 - o MGMT port IP Address is 192.168.1.1 (use Cross over cable or PC that supports Auto MDIX)
 - o Enter default Username (admin) and Password (password).
2. From default configuration, add required VLAN Tags to GBE ports
 - o Go to **Bridge→VLAN Configuration→Static VLAN**
 - o Ensure CONFIG VLAN radio button is selected and Select GIGA, for GIGA port 1
 - o Enter desired VLAN IDs with VLAN Tag: Tagged, Isolation: OFF and Priority: Reserved and then select Create. Do this for each VLAN ID required.
 - o Repeat for GIGA port 2
3. Add VLANs to xDSL ports
 - o Go to **Bridge→VLAN Configuration→Static VLAN**
 - o Ensure CONFIG VLAN radio button is selected and Select ADSL for ADSL
 - o Ensure Port-1 and PBC-1 are selected
 - o Enter desired VLAN IDs with VLAN Tag: Tagged, Isolation: OFF and Priority: Reserved and then select Create. Do this for each VLAN ID required.
4. Verify VLAN configuration
 - o Go to **Bridge→VLAN Configuration→Static VLAN**
 - o Ensure SHOW VLAN radio button is selected
 - o Default VLAN ID will be displayed, enter in desired VLAN ID to see if both GIGA ports and XDSL Port-1 VLANs have been entered correctly
5. Copy xDSL port 1 VLAN configuration to all desired x-DSL ports
 - o Go to **System→Duplicator**
 - o Select Templated ADSL Port as 1
 - o Check box for all ports to copy configuration too.
 - o Check Box for PVC VLAN BRIDGE features to be copied
 - o Select Paste
6. Verify final VLAN configuration
 - o repeat of Step 4, but now all x-DSL port VLANs should be updated
7. Save new VLAN configuration to Flash
 - o Go to **Maintenance→Database**
 - o Select **(D) Save Running Config to Flash (System Config)**
 - o Select Partition 1
 - o Select **Write_Running** dialog button

The VLAN configuration is now updated and saved and the UniPhyer is ready to pass VLAN tagged traffic.

For details on VLAN configuration please refer to the Phybridge Tech Support document. 008-003-TS-003 UniPhyer VLAN Configuration.pdf

Please refer to the UniPhyer Web Configuration Tool guide for more details.

<http://www.phybridge.com/files/Uniphyer%20Web%20Configuration%20Tool%20guide.pdf>

5 IP Phone Manufacturer's Equipment Requirements

5.1 Supported POE Classes

UniPhyer supports IEEE 802.3af Class 1 and Class 2 devices (power consumption from 0.44 to 6.45 Watts) and Class 3 devices that draw less than 10.6 Watts.

5.2 Avaya

Most Avaya PBXs and IP Phones are plug and play. Some 9600 and 1600 series phones must have their firmware download mechanism changed from TFPT to HTTP when operating with the UniPhyer. Please refer to Avaya Phone manuals for details on changing this feature.

5.3 Nortel

No identified requirements – all plug and play

5.4 Mitel

No identified requirements – all plug and play

5.5 Cisco

Older Cisco IP phones that use a pre-standard POE mechanism that is not IEEE 802.3af compliant (for example, some 79xx series phones) will not work with the UniPhyer. All IEEE 802.3af compliant Cisco phones should be plug and play.

5.6 Polycom

No identified requirements – all plug and play

5.7 Aastra

No identified requirements – all plug and play

5.8 Grandstream

No identified requirements – all plug and play

5.9 Zultys

No identified requirements – all plug and play

History

Version	Date	Editor	Comment
001	Jul 7, 2009	SBH	Initial
002	Jul 9, 2009	SBH	Corrections to links, spelling, adding links RJ21 info