

## **Setup guide for OLT and ONU PortVlan**

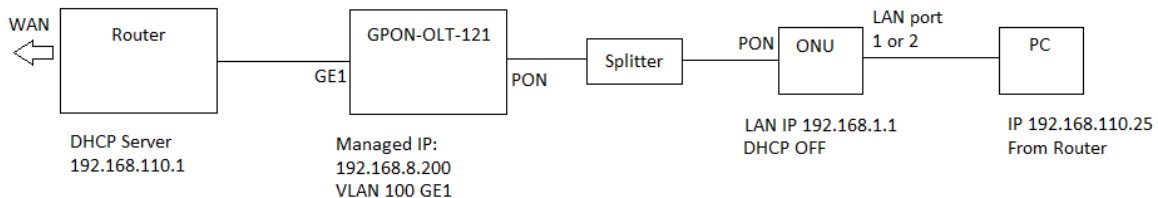
**AirLive GPON OLT-121 with fw 1.1.1 or higher  
and XPON ONU**

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## How to setup the OLT and ONU in combination with a Router with ONU with PortVlan.

For the setup an AirLive GPON OLT-121 with fw 1.1.1 or higher and AirLive 2.5GE XPON ONU was used.

The setup is following the below diagram, please do **not** use VLAN: 0, 1, 2, 9, 8, 10, 4000, 4005, 4012-4017, 4095.



Do **not** use vlan : 0 , 1 , 2 , 9 , 8 , 10 , 4000 , 4005 , 4012-4017 , 4095

### Setup Steps:

- 1: Login to the OLT management web interface. The default IP is 192.168.8.200
- 2: If we want to configure ONU access the Internet, we need to create a VLAN in OLT first.
- 3: Create a VLAN 100 (for this example) for Internet.
- 4: VLAN bindings for uplink GE port  
please note: If the uplink port is in the untag mode, PVID (default vlan id) needs to be configured (100 in this example).
- 5: Open ONU list page, Select the PON port where ONU is located. Find out what ONU you want to configure. Check the ONU status and ensure the ONU is in Online state.
- 6: Click on the ONU configuration page to configure, "Tcont", "Gempport", "Service" and PortVlan parameters.
- 7: The Ethernet ports for the ONU can be setup directly.  
On the "PortVlan" page, for ONU, the Mode needs to be configured for "Tag", PortType needs to be configured for "Eth" and Port Id needs to be configured for each of the ethernet ports of the ONU in this case the ONU has 2 LAN ports for both need to be setup here. First Enter "1" for LAN port 1, then enter the VLAN ID which in this example is 100 and press commit. Now the same thing needs to be setup for LAN port 2. Follow the same steps but now enter "2" at Port Id and press commit again. Now both ports are connected to Internet.
- 10: Press "SAVE" in the top bar of the OLT so save the complete configuration.

A computer connected to the ONU will now receive an IP address from the Router. In this example in the range of 192.168.110.x.

1: In the OLT Configuration select “VLAN” and make a VLAN ID in this example we make VLAN 100.

**New VLAN**

VLAN ID: 100 (1-4094, format as X or X-X)  
 Description: vlan\_100 (max length is 30)

**VLAN Table**

Maximum: 512 vlans  
 Used: 2 vlans

VLAN ID	Description	Edit	Delete
1	vlan_1		
100	vlan_100		

2: Bind the Uplink GE port go the “VLAN” >> “VLAN Port”, in this example all ports were binded to the VLAN100. Make sure the Uplink is in “Untag” mode.

**Port VLAN Configuration**

VLAN ID: 100

Port ID	Mode	Forbidden	Tag	Untag
GE1	Hybrid	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
GE2	Hybrid	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
GE3	Hybrid	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**Port VLAN Table**

VLAN ID	Tag Ports	Untag Ports
1		GE1 GE2 GE3
100		GE1 GE2 GE3

3: When the Uplink port is in “Untag” mode, the PVID (default VLAN id) needs to be configured. Go to “Uplink Port” >> “ Configuration”. Change the PVID for the uplink to 100 (in this example).

**GE Configuration**

Port ID	Description	Admin Status	Speed	Flow Control	Isolate	PVID	Storm(0 64-13000kbps)		Rate(0 64-1000000kbps)		MAC Limit(0-16384)
							Broadcast	Unicast	Ingress	Egress	
GE1		<input checked="" type="checkbox"/>	Auto	<input type="checkbox"/>	<input type="checkbox"/>	100	496	1496	0	0	0
GE2		<input checked="" type="checkbox"/>	Auto	<input type="checkbox"/>	<input type="checkbox"/>	1	1496	1496	0	0	0
GE3		<input checked="" type="checkbox"/>	10G Full	<input type="checkbox"/>	<input type="checkbox"/>	1	1496	1496	0	0	0

#### 4: Adding the ONU to the OLT.

Make sure the ONU has been connected to the OLT via its PON ports and a Splitter.

**\*\*Note if you have "ONU AutoLearn" Enabled then the ONU will be automatically added to the "ONU AuthList" and the below steps for adding do not have to be done\*\***

Click on "ONU Configuration" and select "ONU Autofind" when your ONU has been connected correctly. It will show up here. Select the ONU you want to add (when there are several) and click on "Add".

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Automatic Discovery Aging Time

Automatic Discovery

Port ID: PON1

Search Info:  Search

Refresh Confirm All

Index	Sn	SnPw	loid	loidpw	Action
1	GPON0000004c	1234567890	user	NULL	Add

Click on "Submit" on the next page which will automatically appear.

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Automatic Discovery Aging Time

Add Onu

PON Num: 1

ONU Num: 3

Auth Mode: Sn

Onu Sn: GPON0000004c

ONU Profile: default

Submit Back

The ONU will now be shown and when connected correctly will show "Enable"

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Automatic Discovery Aging Time

ONU Status Information

Port ID: PON1

total-3, logging-0, offline-0, syncMib-1, configFail-0, working-2

Refresh

ONU ID	Admin State	OMCC State	Phase State	Description	Last Register Time	Last Deregister Time	Last Deregister Reason	Alive Time
GPON0/1:1	enable	enable	working	N/A	1970:01:01 08:01:17	N/A	N/A	02:33:36
GPON0/1:2	enable	enable	working	N/A	1970:01:01 08:01:16	N/A	N/A	02:33:37
GPON0/1:3	enable	enable	syncMib	N/A	N/A	N/A	N/A	N/A

5: Configure the ONU, Click on the "ONU List" in the top right corner of the OLT menu bar.

The active ONU's will now be shown, select the ONU you want to configure (make sure the status is "Online") and click on the "Config" button.

The screenshot shows the AirLive OLT web interface. In the top right corner, the 'ONU list' menu item is highlighted with a red box. Below the search filters, there is a table of ONUs. The 'Action' column for the first ONU is highlighted with a red box.

ONU ID	Status	Description	Model	Profile	Mode	Info	Action
GPON0/1:1	Online	GPON0/1:1	V802	default	Sn	GPON00dc7aa	<a href="#">Config</a> <a href="#">Deactivate</a> <a href="#">Delete</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/1:2	Online	GPON0/1:2	V802	default	Sn	GPON00000124	<a href="#">Config</a> <a href="#">Deactivate</a> <a href="#">Delete</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>
GPON0/1:3	Online	GPON0/1:3	V601	default	Sn	GPON0000004c	<a href="#">Config</a> <a href="#">Deactivate</a> <a href="#">Delete</a> <a href="#">Optical Info</a> <a href="#">Detail Info</a> <a href="#">Reboot</a>

6: Setup the "Tcont", "Gempport", and "Service"

Setup the "Tcon" default value is 1, in this example for name, the name test was used.

The screenshot shows the AirLive OLT web interface. In the top left, the 'Tcont' menu item is highlighted with a red box. Below the search filters, there is a table of Tconts. The 'Add ONU Tcont' form is visible below the table.

Tcont ID	Name	DBA Profile	Action
1	test	default1	<a href="#">Delete</a>

Setup the "Gempport" the default value is 1, make sure the Tcont ID select is 1 (the one previously made). The name used in this example is test.

The screenshot shows the AirLive OLT web interface. In the top left, the 'Gempport' menu item is highlighted with a red box. Below the search filters, there is a table of Gempports. The 'Add ONU Gempport' form is visible below the table.

Gempport ID	Name	Tcont	Action
1	test	1	<a href="#">Delete</a>

Setup the "Service", make sure to select Gemport ID 1 (the one just made) and for VLAN mode select "Tag" for "VLAN List" enter the value 100, this is the VLAN id made in the OLT previously.

**ONU Service Information (PON:1 ONU:2)**  
pon untagged vlan : -

ServiceName	Gemport	Vlan Mode	Vlan List	Port	Action
ser_1	1	Tag	100	N/A	<a href="#">Delete</a>

**Add ONU Service**

ServiceName:

Gemport ID:

Vlan Mode:

Vlan List:

PortType:

7: Setup the "PortVlan". On the "PortVlan" page, for ONU, the Mode needs to be configured for "Tag", PortType needs to be configured for "Eth" and Port Id needs to be configured for each of the ethernet ports of the ONU in this case the ONU has 2 LAN ports for both need to be setup here. First Enter "1" at Port Id for LAN port 1, then enter the VLAN ID which in this example is 100 and press commit. Now the same thing needs to be setup for LAN port 2. Follow the same steps but now enter "2" at Port Id and press commit again. Now both ports are connected to Internet.

**ONU PortVlan Info (PON:1 ONU:1)**

PortName	Mode	Vlan	Vlan Priority(tag)	Default Vlan(hybrid)	Default Priority(hybrid)	CVlan(translate)	CVlan Priority(translate)	SVlan(translate)	SVlan Priority(translate)	Action
eth_0/1	Tag	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<a href="#">Delete</a>
eth_0/2	Tag	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<a href="#">Delete</a>

**Add ONU PortVlan**

Mode:

PortType:

Port Id:

Vlan ID:

Vlan Priority:  (0-7)

Press "SAVE" in the top bar of the OLT so save the complete configuration.

The Setup is now complete, and the ONU is connected to Internet.

To see the settings of the ONU (which the OLT sent to the ONU), please connect to the ONU with a PC, and enter the default IP address of the ONU in a browser. The default IP address is 192.168.1.1. Note you need to setup your computer to a fixed IP address in the range of 192.168.1.x . As by default the computer will get an IP address from the router in the 192.192.110.x range (as per example).