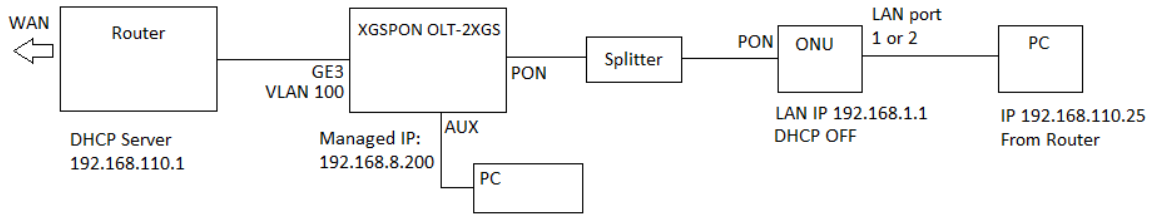
# Setup guide for OLT and ONU in Bridge Configuration

# AirLive XGSPON OLT-2XGS and ONU-10XG(S)-AX304P-2.5G, ONU-10XG(S)-1004-10G

**How to setup the OLT and ONU in Bridge Mode in combination with a Router.**

For the setup an AirLive GPON OLT-2XGS and an Airlive ONU-10XG(S)-AX304P-2.5G and ONU-10XG(S)-1004-10G were 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: NOTE there are 2 different ways to setup bridge mode. Both will be shown in this guide. As **Setup 1** and **Setup 2,** Setup 1 uses WAN port, Setup 2 uses PortVLAN.

**SETUP 1 for ONU-10XG(S)-AX304P-2.5G and ONU-10XG(S)-1004-10G.**

1: Login to the OLT management web interface. The default IP is 192.168.8.200 using the AUX port. Make sure the PON mode is the correct one for the ONU used.

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'', ''gemport'',''Service'', ''Service Port'' and other parameters.

7: On the ''port VLAN'' page, for ONU, the Mode needs to be configured for ''transparent'', Port Type needs to be configured for ''veip'' and Port Id needs to be configured for ''1''.

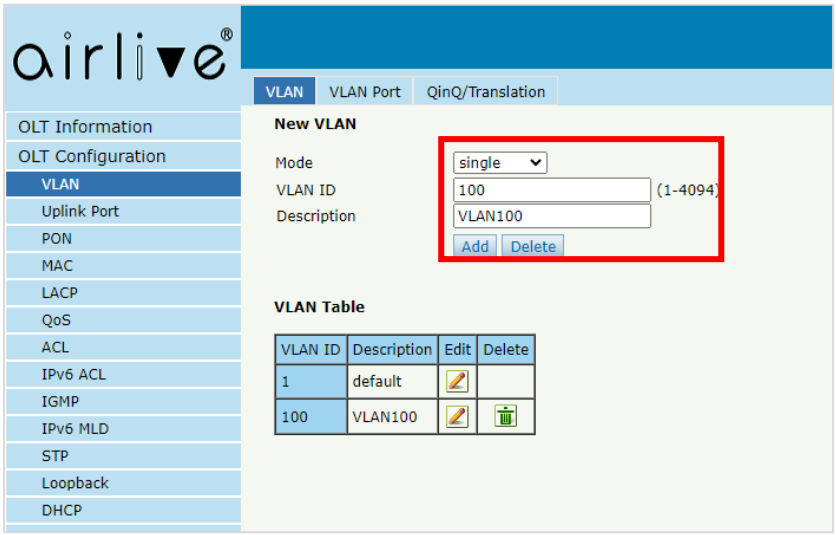
8: Then we need to create an Internet WAN connection for it, click on ''WAN'' page.
WAN setup select “Bridge” Mode and VLAN mode select Tag and enter the VLAN ID, in this example 100. VLAN Cos should be 0. Service mode is Internet. Please “Submit” and again press the second “Submit" button ones the configuration is shown in the “WAN Connect running-config”

Please note: When the configuration is complete, you need to click the “Submit” button. At this point, the configuration is added to running-config list. Finally click the "submit" button.

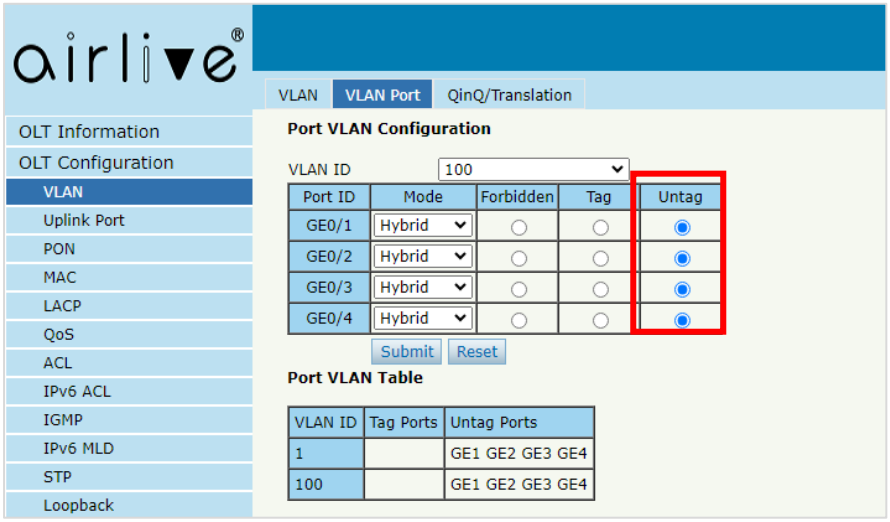
9: You can configure ONU DHCP Server on "DHCP server" page, this should be disabled.

10: Press “SAVE” in the top bar of the OLT so save the complete configuration.

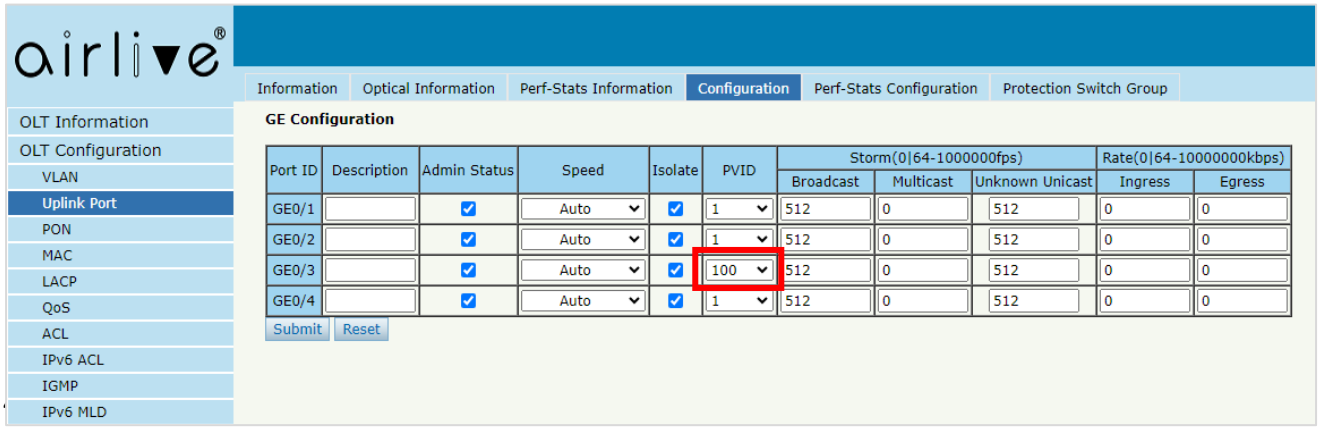
1: In the OLT Configuration select “VLAN” and make a VLAN ID in this example we make VLAN 100.




2: Bind the Uplink GE port go the “VLAN” >> “VLAN Port”, in this example all ports were bind to the VLAN 100. Make sure the Uplink is in “Untag” mode.

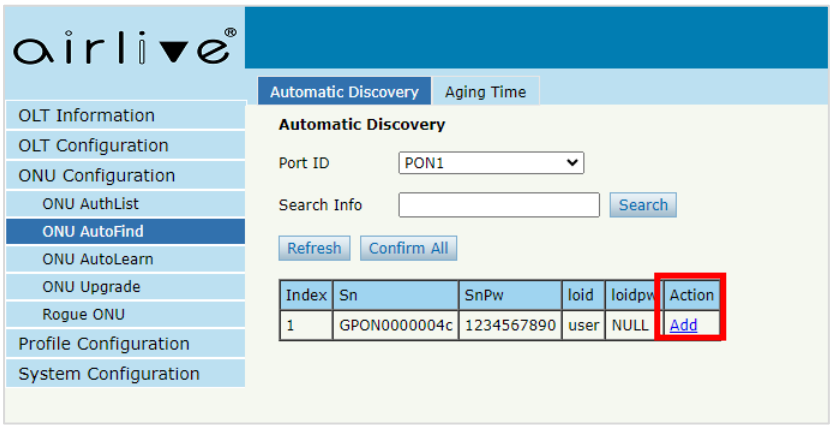



3: When the Uplink port is in “Untag" mode, the PVID (default VLAN id) needs to be configured. Go to “Uplink Port” >> “Configuration”. Change the PVID for the uplink to 100 (in this example).

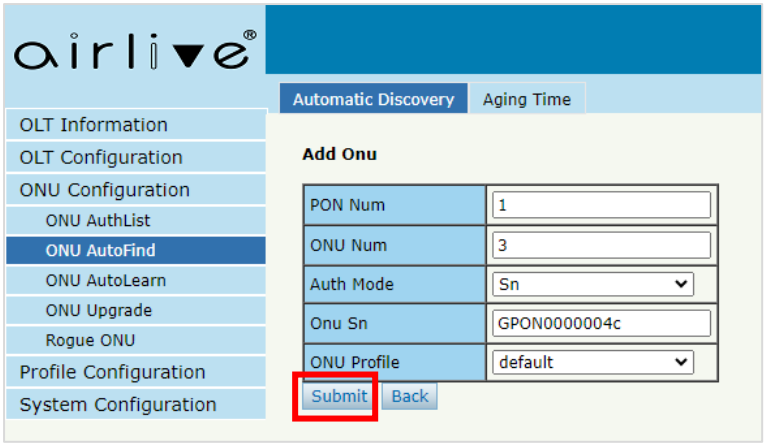


Make sure the ONU has been connected to the OLT via its PON port and a Splitter.
Click ONU “AuthList” it could that your ONU has already been automatically added, if this is the case you can go to step 5 directly. If not follow the steps below.

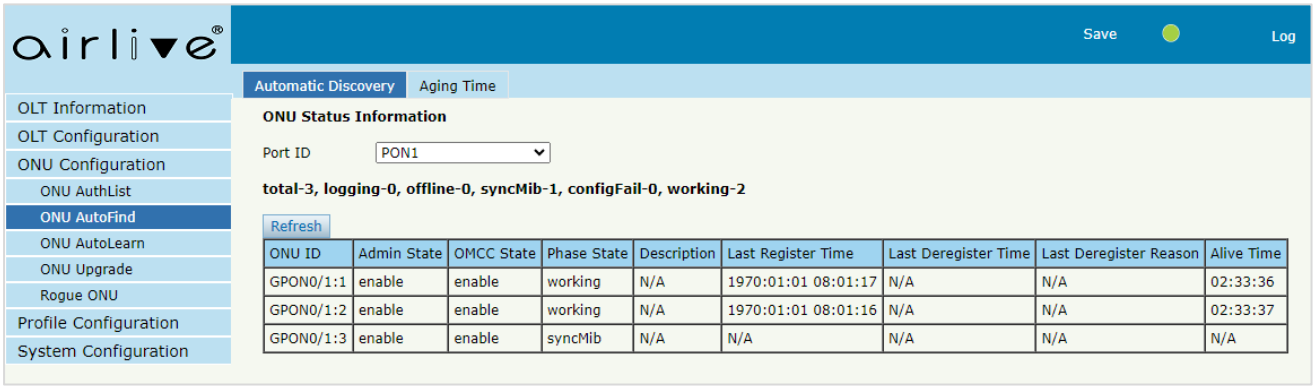
Click on “ONU Configuration” and select “ONU Autofind” when your ONU has been connected correctly. It will show up here. Select the ONU you want to add (when there are several) and click on “Add”.




Click on “Submit” on the next page which will automatically appear.

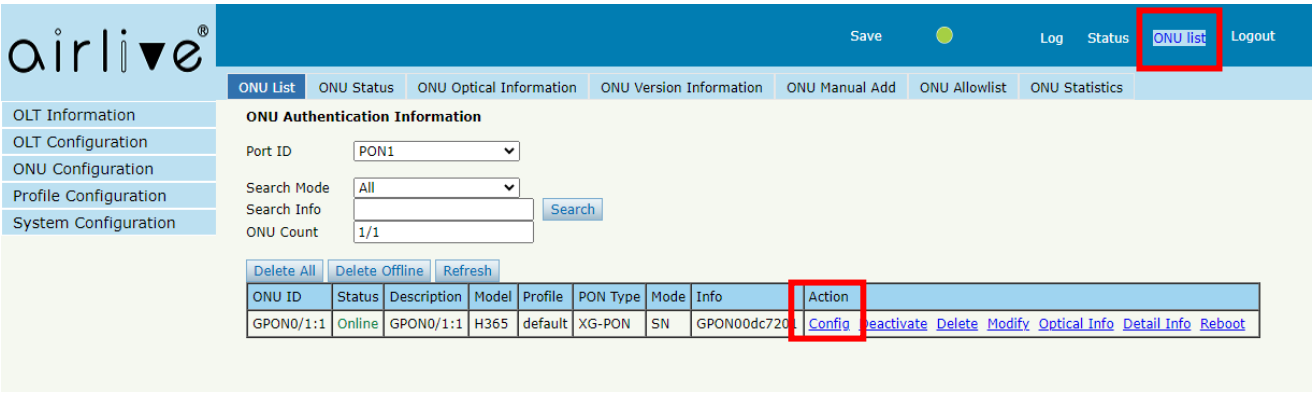



The ONU will now be shown and when connected correctly will show “Enable”



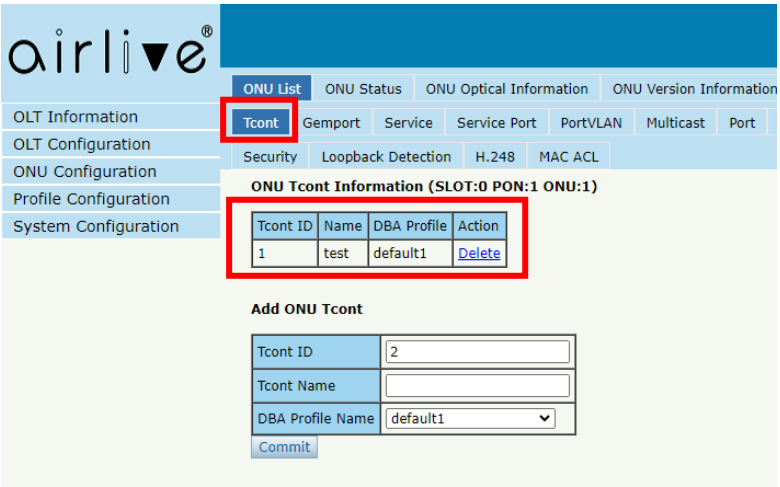
5: Configure the ONU, Click on the “ONU List” in the top right corner of the OLT menu bar.

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.

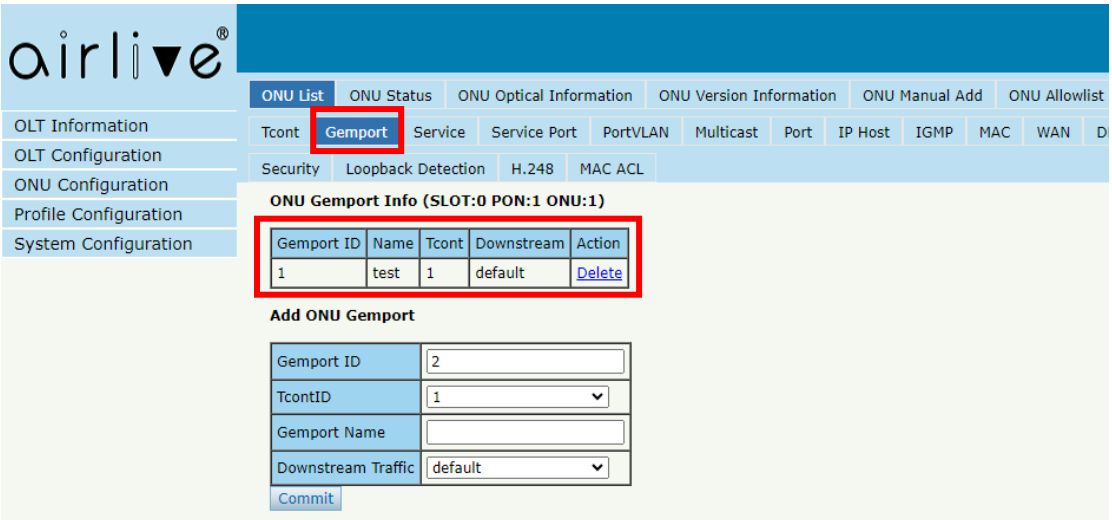



6: Setup the ''tcont'', ''gemport'', ''Service'', ''Service Port'' and other parameters.

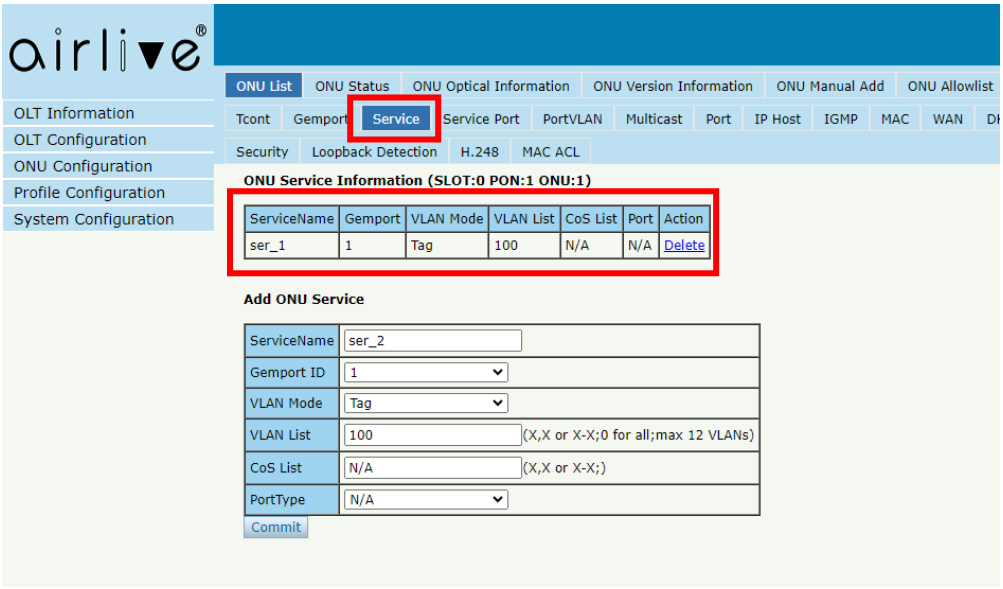
Setup the “tcon” default value is 1, in this example for name, the name test was used.



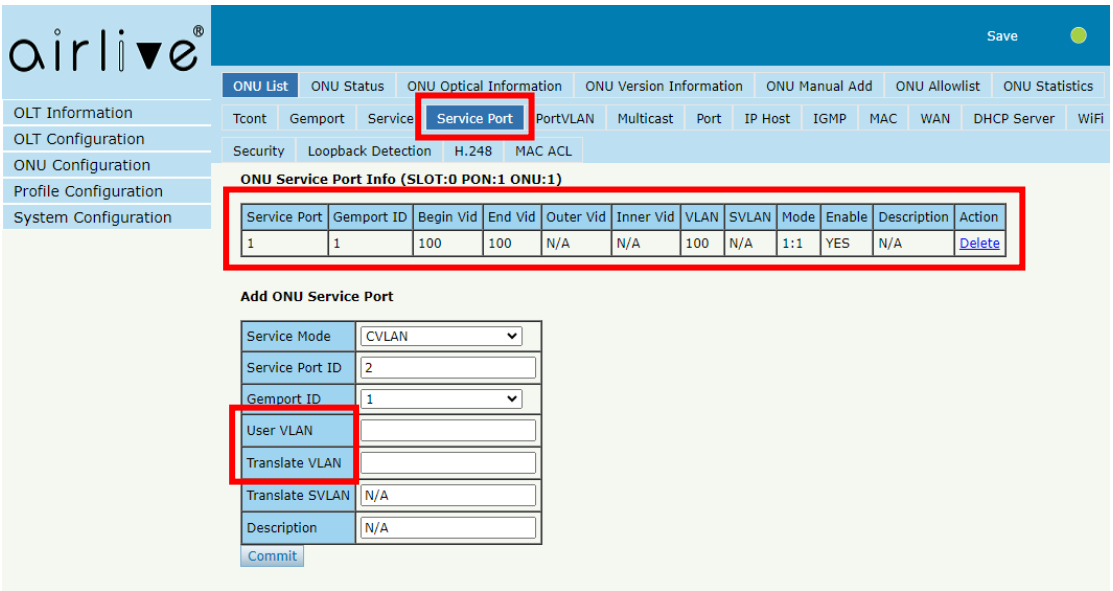

Setup the “gemport” the default value is 1, make sure the TcontID select is 1 (the one previously made. The name used in this example is test.



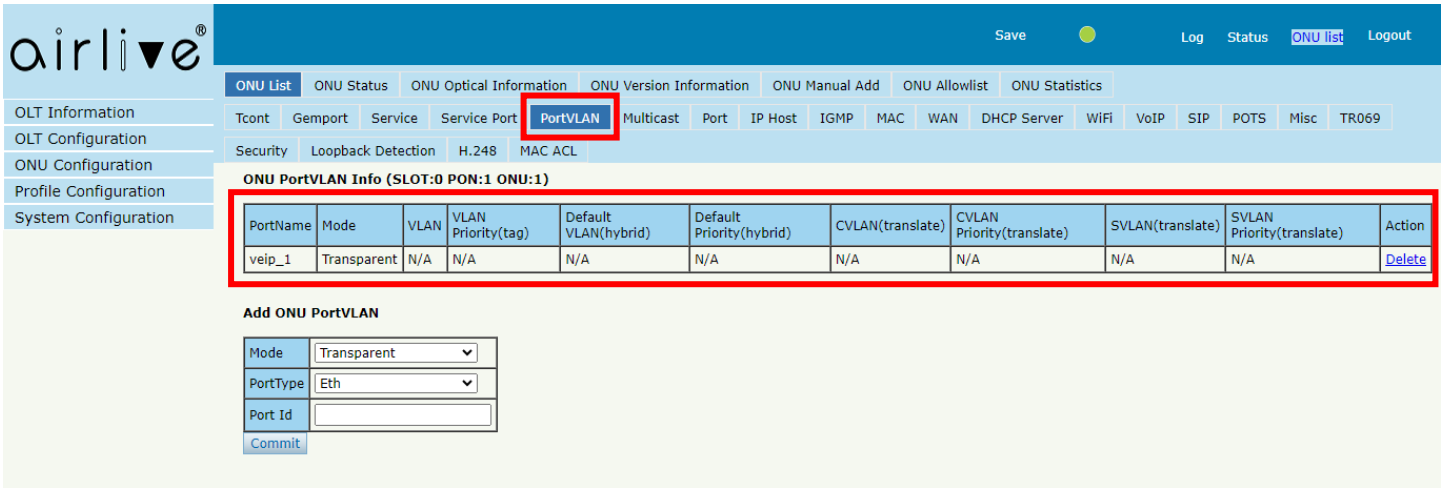
Setup the “Service”, make sure to select Gemport ID 1 (the one just made) and for VLAN mode select “Tag” for “VLAN List” enter the value 100, this is the VLAN id made in the OLT previously.




Setup the “Service Port” enter the User VLAN and Translate VLAN in this example both are 100. (as this example is using VLAN 100).



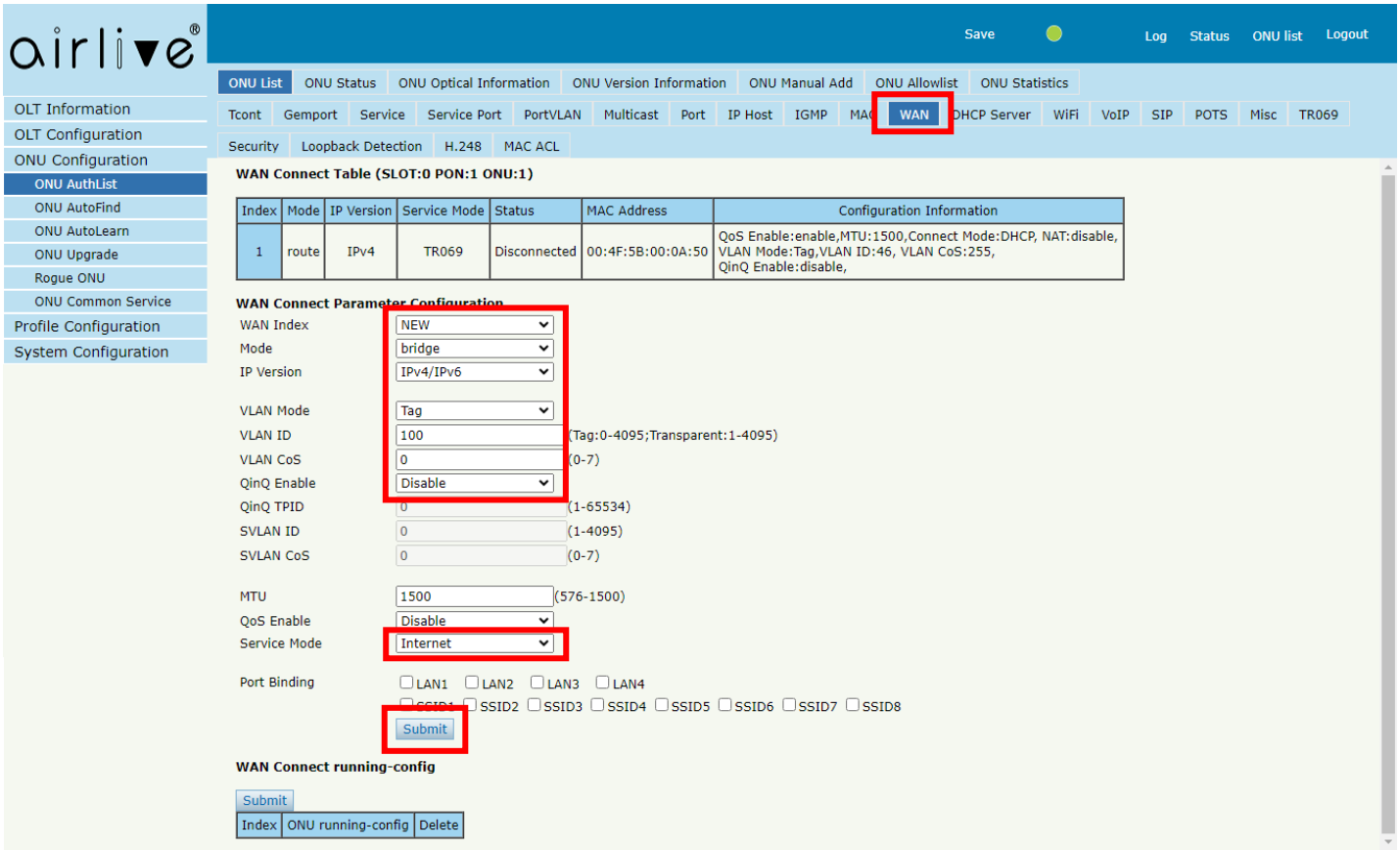
Setup the “PortVLAN” On the “PortVLAN'' page, for HGU the mode needs to be configured for “transparent”, the Port Type needs to be configured for ''veip” and Port Id needs to be configured for “1”.




When using Setup 2 these PortVLAN settings will be different. When you would like to use PortVLAN as your bridge setup please go to page 11 of this guide.

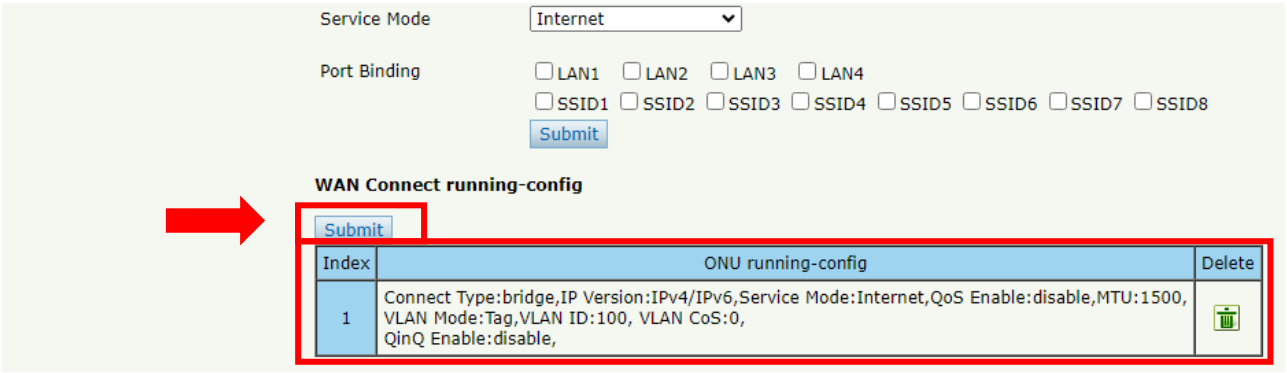
7: Setting up the WAN port information, select “WAN" on the menu page. The Mode is Bridge, Select the IP version you would like to use IPv4, IPv6 or IPv4/IPv6. Then select the VLAN mode “Tag” in this example and fill in the VLAN information in this example 100, VLAN Cos should be 0. And choose service mode is "Internet".

Please note: When the configuration is complete, you need to click “Submit” button. At this point, the configuration is added to running-config list. Finally click the "submit" button to send the configuration to the ONU. Refresh the OLT page and in a few seconds the configuration will be shown. It can take 1/2 min(s) before it will show “connected” when the configuration has been setup correctly.



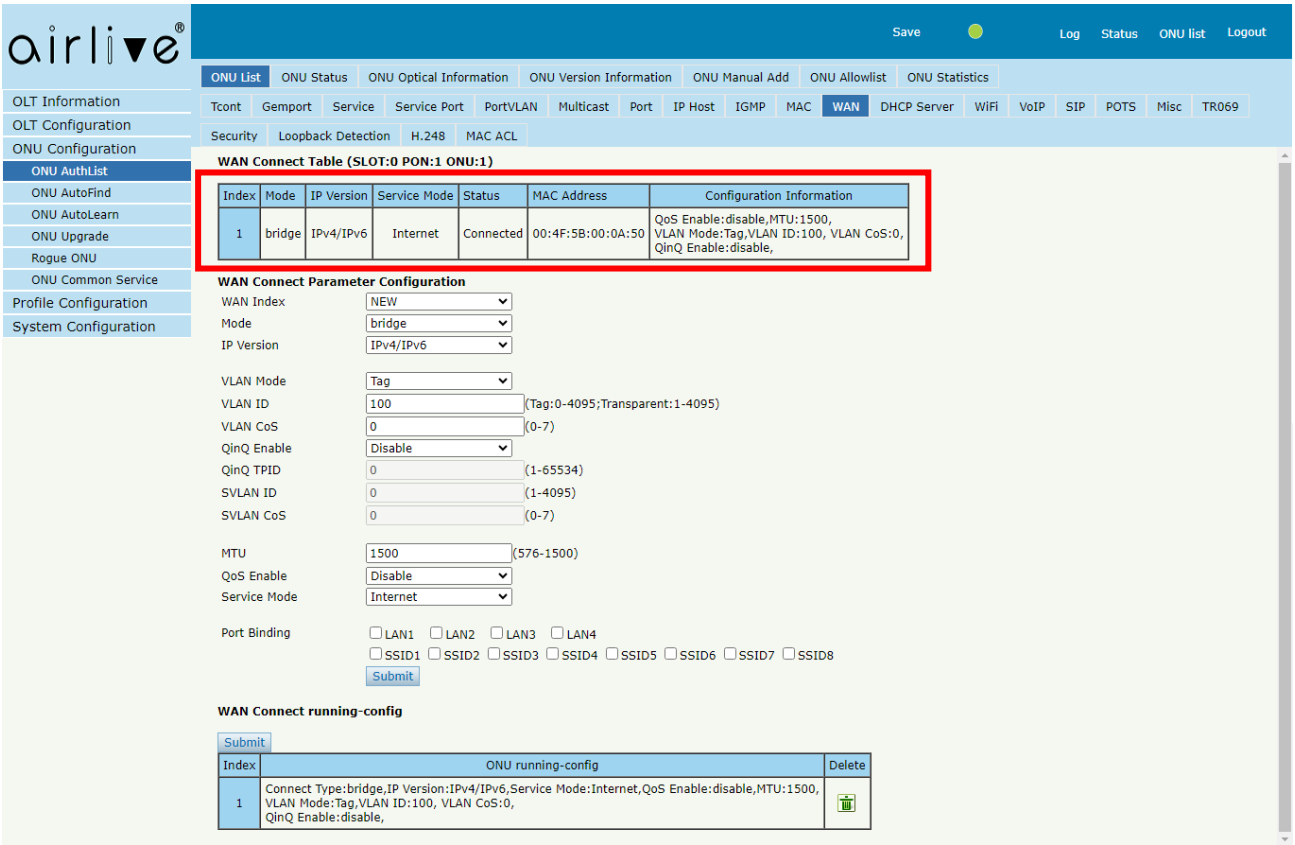
Important after pressing “Submit” your configuration is made but not yet sent to the ONU.

After pressing “Submit” the configuration will be shown as in the below example. Click “Submit” again on the second “Submit” button and the configuration will be sent to the ONU.




The configuration will now be sent to the ONU and the ONU will make an Internet connection. When the setup was done correctly the words “Connected” will be shown.

Note it can take 1 or 2 minutes before the correct information is shown, please refresh the page.

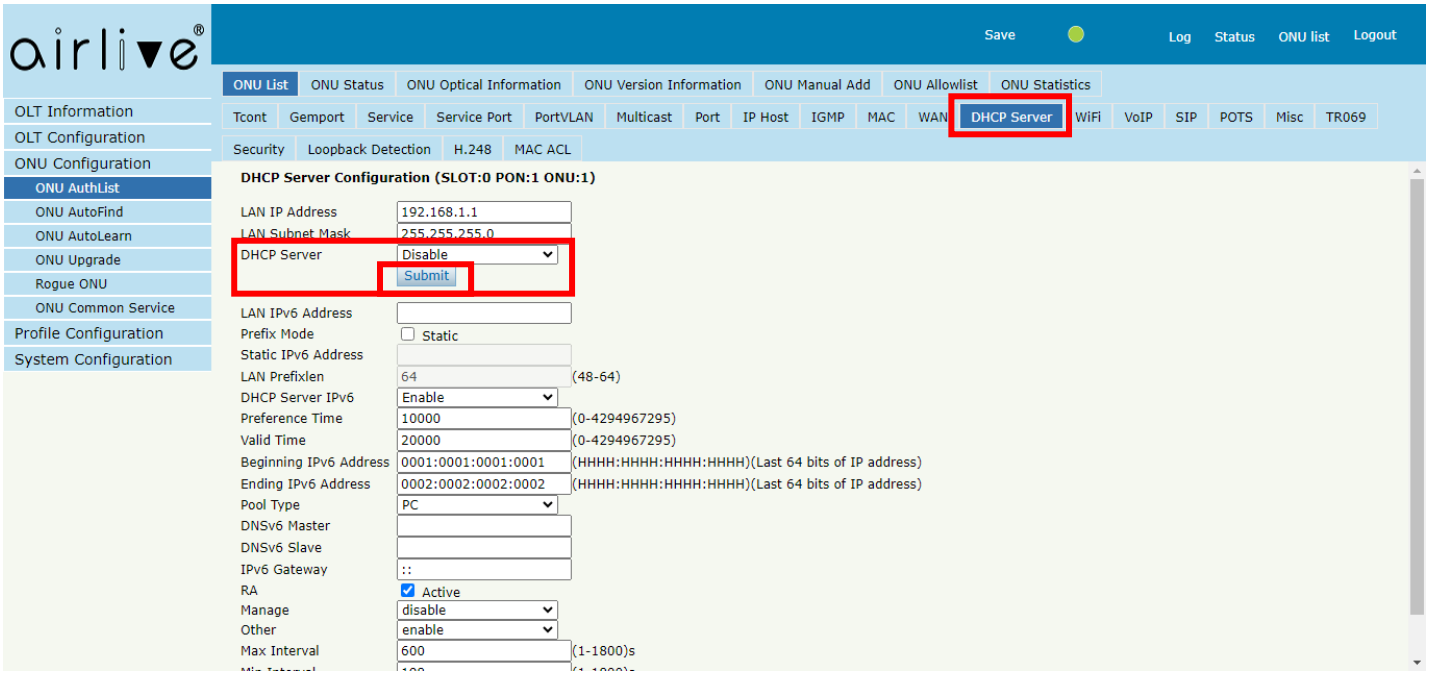



When the Status is shown as “Connected” it means the ONU will have an Internet connection.

To receive the IP address from the Router on the computer, which is connected to the ONU, please make sure the DHCP server on the ONU is turned off. If this is not the case, the computer will get an IP address from the ONU and Internet will not work correctly.

In the setup menu select “DHCP Server”, at DHCP Server select “Disable” from the pull-down menu and press Submit. After 1 to 2 mins the computer connected to the ONU will receive an IP address from the Router. If this is not the case, then please unplug the RJ-45 cable from the computer and plug it back in.

When the DHCP Server is already disabled no settings need to be changed.




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. You would need to enter a Fixed IP address in the network of the computer when the DHCP server of the ONU is turned off.

Setup 1 is now complete.

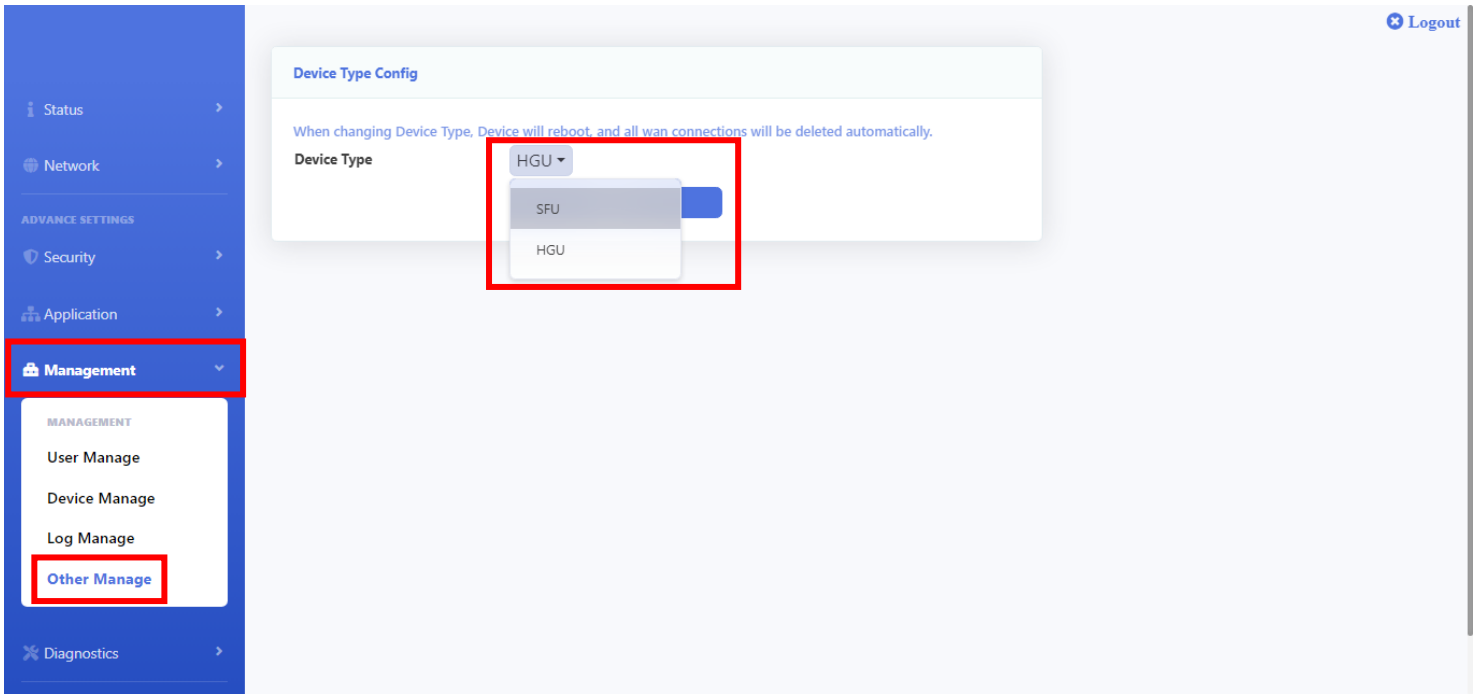
**SETUP 2 ONLY for model ONU-10XG(S)-1004-10G.**

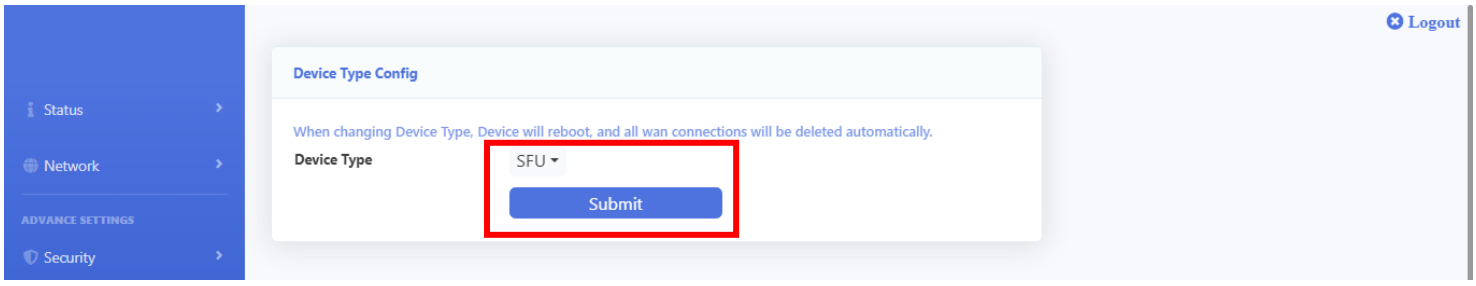
Before you begin the setup in the OLT, the ONU settings need to change. The ONU needs to be changed from HGU mode to SFU. After this is done the OLT setup can begin.

For Setup 2, follow steps 1 to 6 until the PortVLAN settings, these will be different from Setup 1.

1: Change the ONU-10XG(S)-1004-10G from HGU to SFU. Login to the ONU using its default IP address 192.168.1.1, when your computer does not receive an IP address from the ONU, then use a fixed IP address for the network card of the computer in the IP range of the ONU.

In the main menu of the ONU select, “Management >>> Other Manage” In Device Type select “SFU” from the pull-down menu and click Submit. The ONU will now reboot and change from HGU to SFU. This may take 1 to 2 mins.



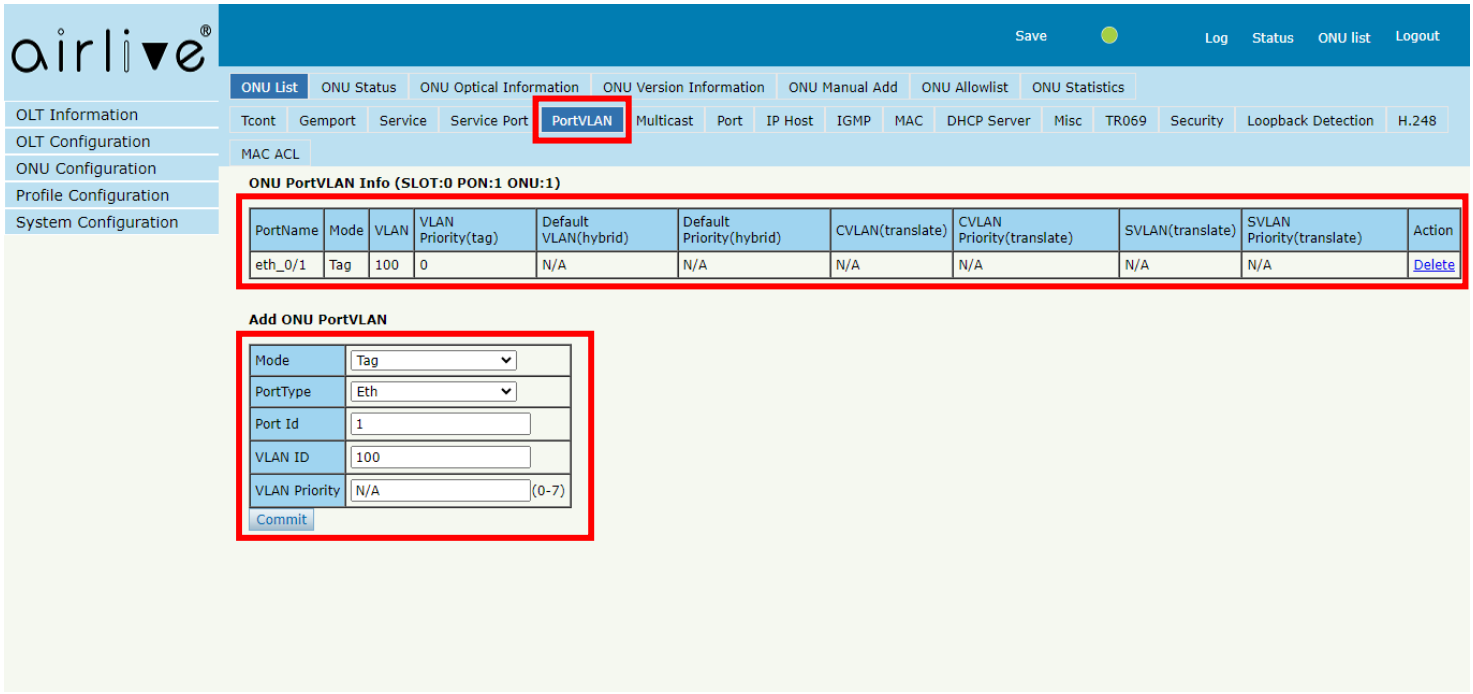



2: The ONU setup is now complete, now continue with the OLT setup. First follow steps 1 to 6 from Setup 1 until PortVLAN. Setup 2 will be different from this point on.

As the ONU is in SFU mode now the Ethernet port(s) needs to be setup directly.

On the ''PortVLAN'' page, for the ONU, the Mode needs to be configured as ''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 4 LAN ports all 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. And again, do the same for ports 3 and 4 and so on. Now the added ports are connected to Internet.

In the below example only LAN port 1 is shown.



3: To receive the IP address from the Router on the computer, which is connected to the ONU, please make sure the DHCP server on the ONU is turned off. If this is not the case, the computer will get an IP address from the ONU and Internet will not work correctly.

In the setup menu select “DHCP Server”, at DHCP Server select “Disable” from the pull-down menu and press Submit. After 1 to 2 mins the computer connected to the ONU will receive an IP address from the Router. If this is not the case, then unplug the RJ-45 cable from the computer and plug it back in.

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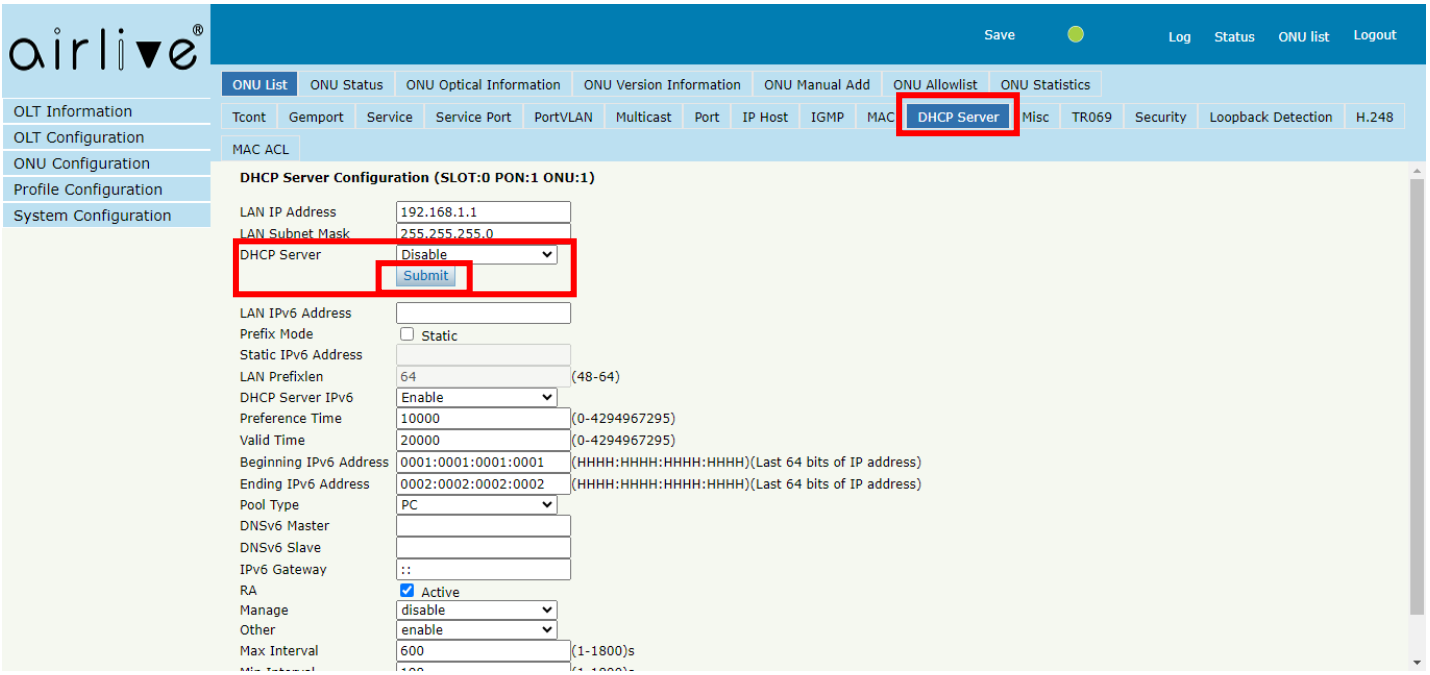


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The setup 2 is now complete.