Huawei GPON (Dual band ONT) User Manual (EG8147X6 EG8145V5)



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1. Introduction

Huawei EG8147X6 is an Optical Network Terminal (ONT) that operates on GPON technology. This device includes following features:

- 4-Gigabit Ethernet Ports
- 1-Telephone Port
- 1-RF Video Port (No RF port in EG8145V5 ; without analogue cable TV option)
- 1-USB Port
- 2.4G and 5G Wi-Fi 6 connectivity

2. ONT Specifications

It includes Interfaces and LED indicators, shown below:

Interfaces:



Backside ports' sequence on Huawei GPON (EG8147X6) ONT	
TEL Port	Telephone Port
LAN 1 – LAN 4	Gigabit Ethernet Ports
USB	USB Port
Power	Input Power Port
ON/OFF	Power ON/OFF Button
CATV	RF TV-Port

LED Indicators:



Light	Status	Indication
Power	Always On	The device is powered on
	Off	Power supply is cut off
WLAN	Always On	WLAN function is enabled
	Blinks	Data is being transmitted on WLAN port
PON	Always On	In case of any other status, contact Nayatel Support
LOS	Always Off	In case of any other status, contact Nayatel Support
LAN1-LAN4	Green Stable	Ethernet connection established
	Green Blinking	Data getting transmitted
TEL	Off	Telephone number not configured
	Green Stable	Number configured
	Green Blinking	Call in progress

3. Web Configuration Guide

It shows how to access ONT within premises.

3.1 Login Credentials

Access ONT web interface by entering the following IP address on browser. 192.168.18.1

This page will appear:



Login into ONT by entering the following credentials:

Username: Epuser

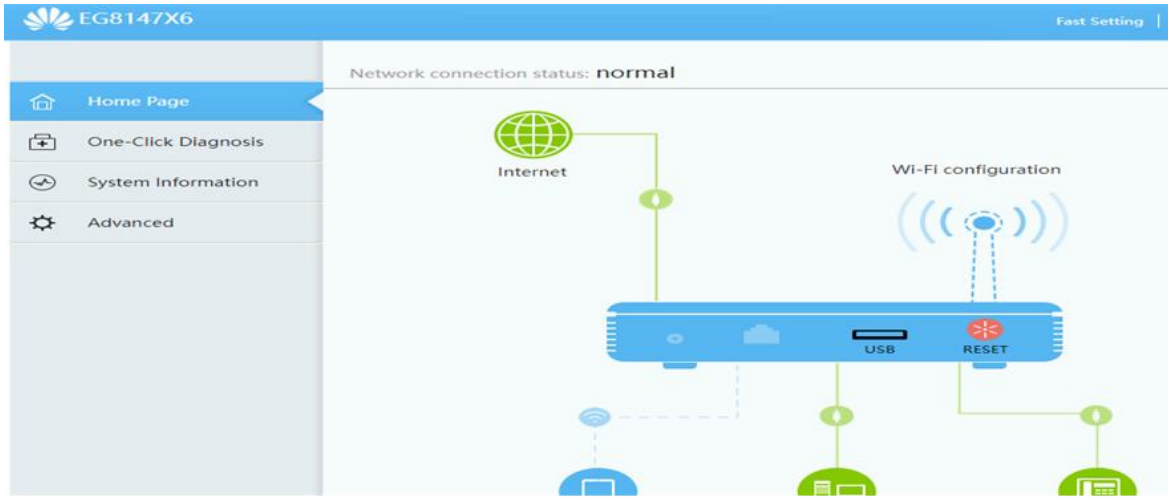
Password: userEp

OR

You can enter the password written on the back of device.

4. System Information

After accessing ONT, you can check device specific information by clicking 'System Information Tab'



4.1 Device

After clicking 'System Information Tab' then click on 'Device'. It shows following details:



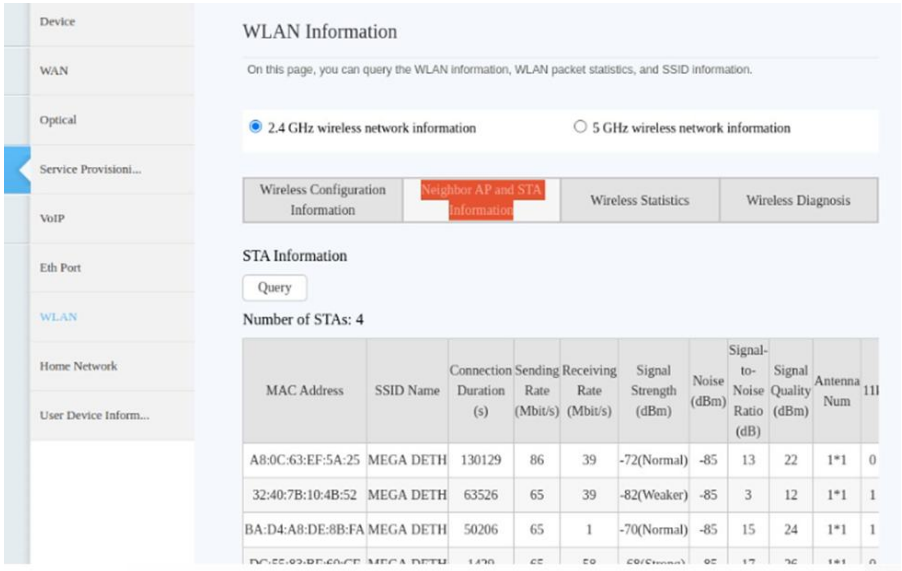
4.2 WLAN

Below Device tab in system information, WLAN option will appear. Here you can check number of devices connected.

4.2.1 Connected devices to 2.4 GHz wireless network

Firstly, click on WLAN, then on 2.4 GHz wireless network. After that click on Neighbors AP and STA Information. Lastly click on STA Query.

All MAC Addresses of devices will appear as shown below:

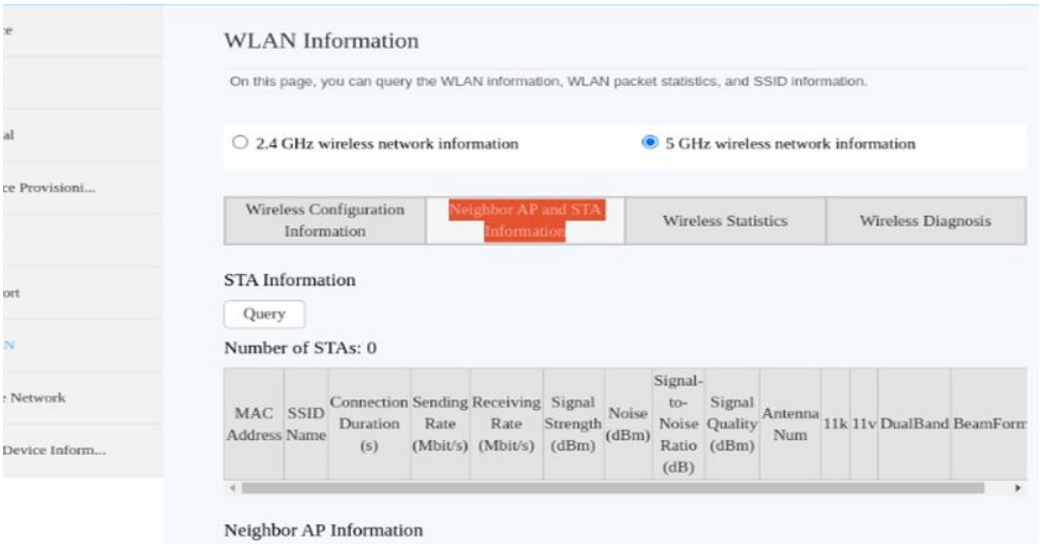


Note: No of STAs showing Mac Address of current users.

4.2.2 Connected devices to 5 GHz wireless network

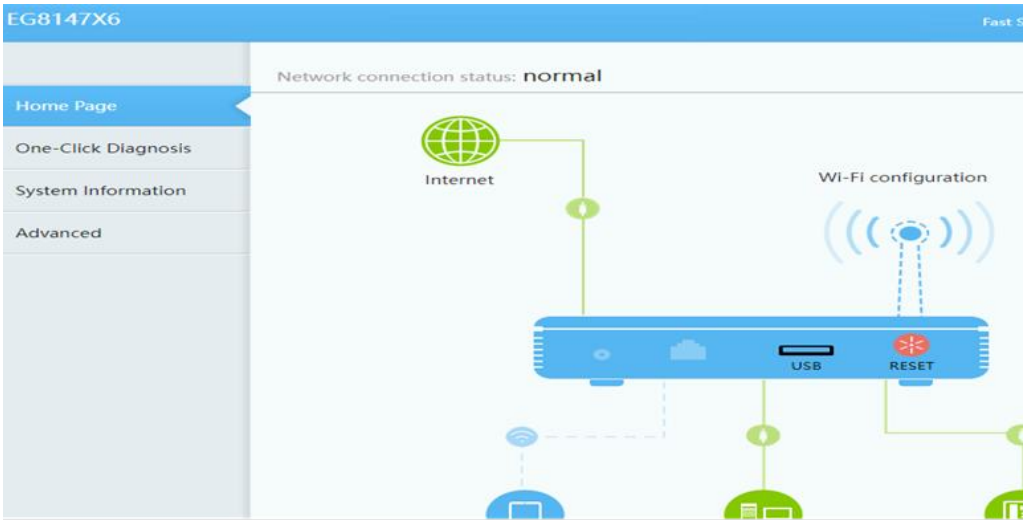
Same steps will be followed to check devices connected to 5g by clicking:

WLAN > 5 GHz wireless network > Neighbors AP and STA Information > STA Query



5. Configuring advanced Network Settings

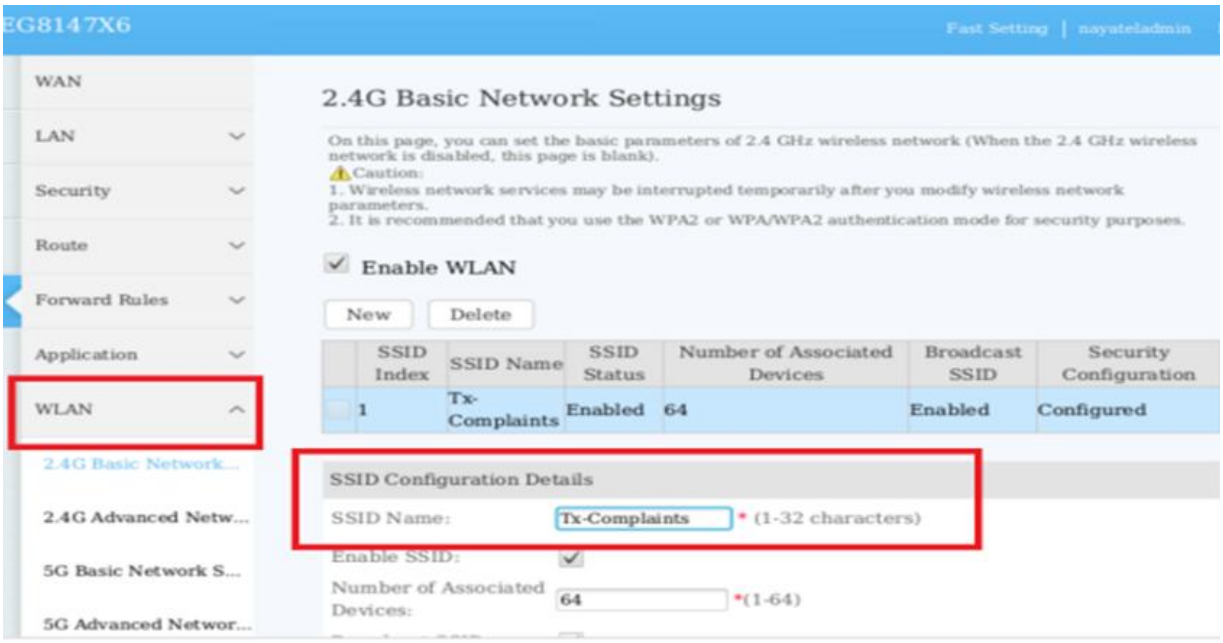
For setting Wireless settings. Click on Advanced setting option.



Steps for configuring 2.4 GHz and 5 GHz

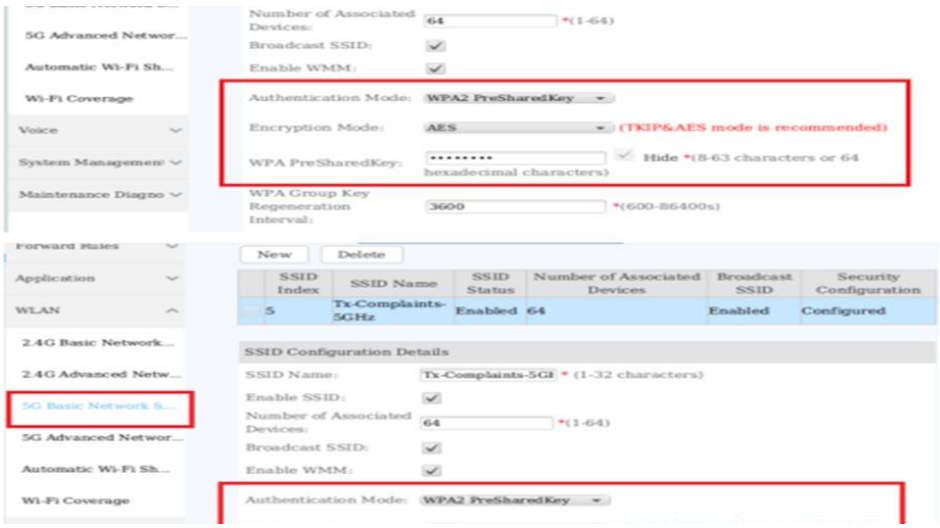
Step 1:

Go to Advanced>WLAN>WLAN 2.4G Basic Network Settings and set the SSID (Network name). Enable the SSID by checking the box. Similarly set the SSID for 5G network as well.



Step 2:

Set the Authentication mode to WPA/WPA2 PreSharedKey and Encryption mode to AES. Set the Wi-Fi security key (Password). It should be 8 to 63 characters. Repeat the same process for 5G network settings.



Step 3:

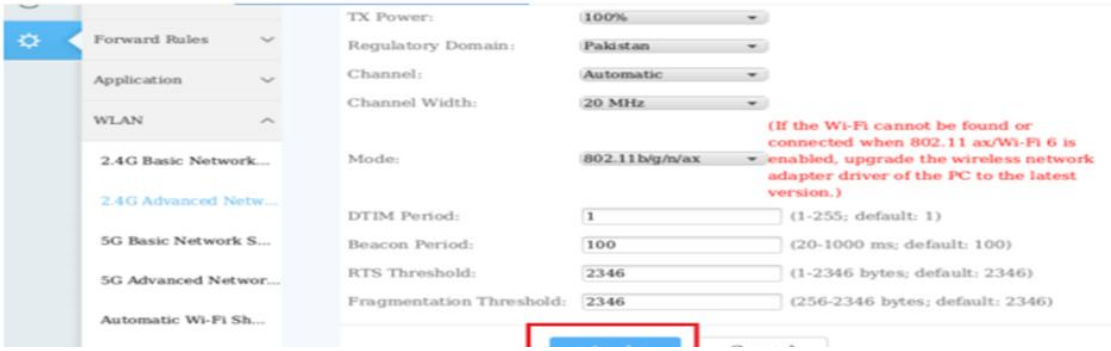
After setting SSID (network name) and password, click on apply button at the end of setting to apply and save the changes.



Step 4:

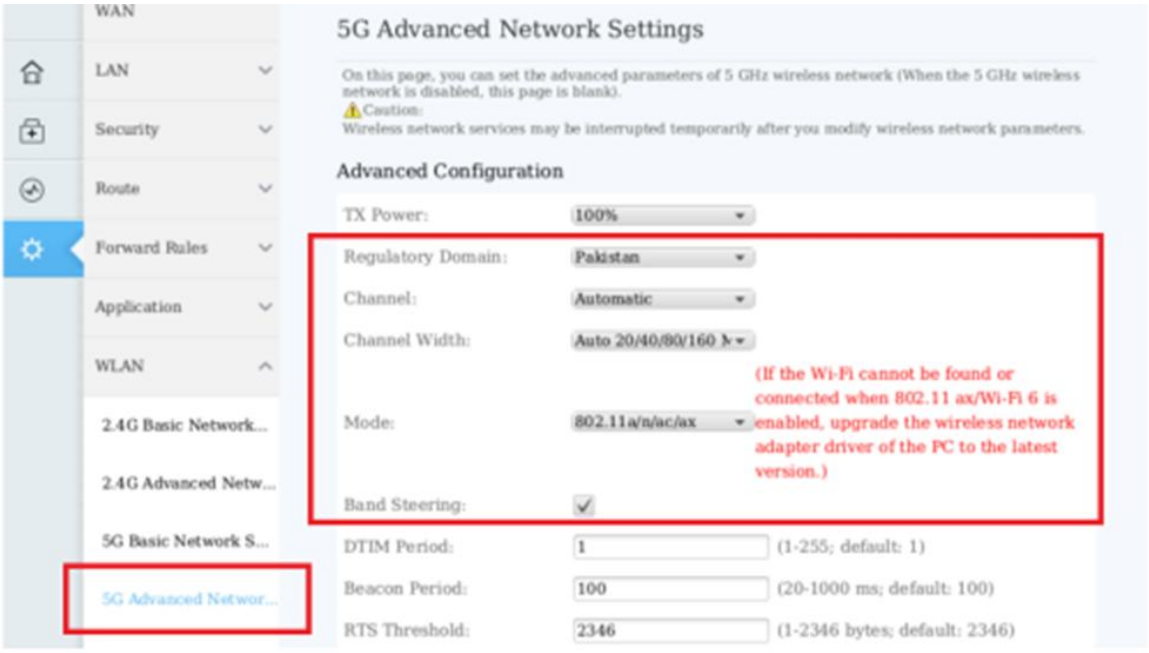
Go to 2.4G Advanced Network Settings. Change the regulatory domain to “Pakistan”, channel to “Automatic” setting and channel width to “20MHz”. Click on apply button to save the changes.

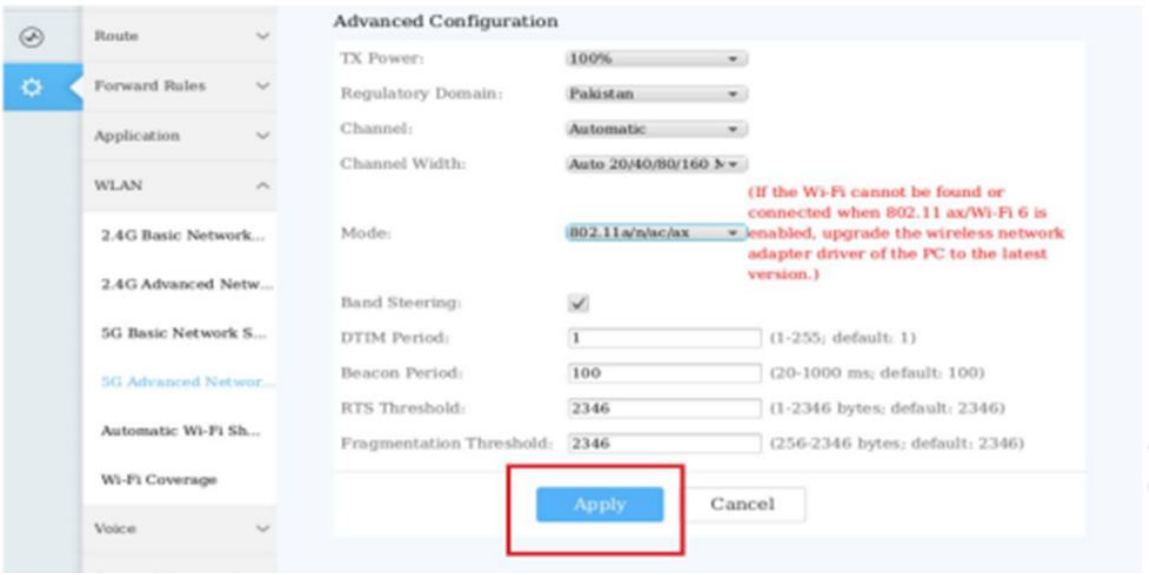




Step 5:

Go to 5G Advanced Network Settings. Change the regulatory domain to “Pakistan”, channel to “Automatic” setting and channel width to “Auto 20/40/80/160MHz”. Check the band steering option. Click on apply button to save the changes





Note: Band steering is used to have single WIFI name for both 2.4 Ghz and 5 Ghz. Wifi will automatically be switched on the supported devices based on the signal strength. To enable this, following things need to be kept same in WLAN settings of 2.4G and 5G.

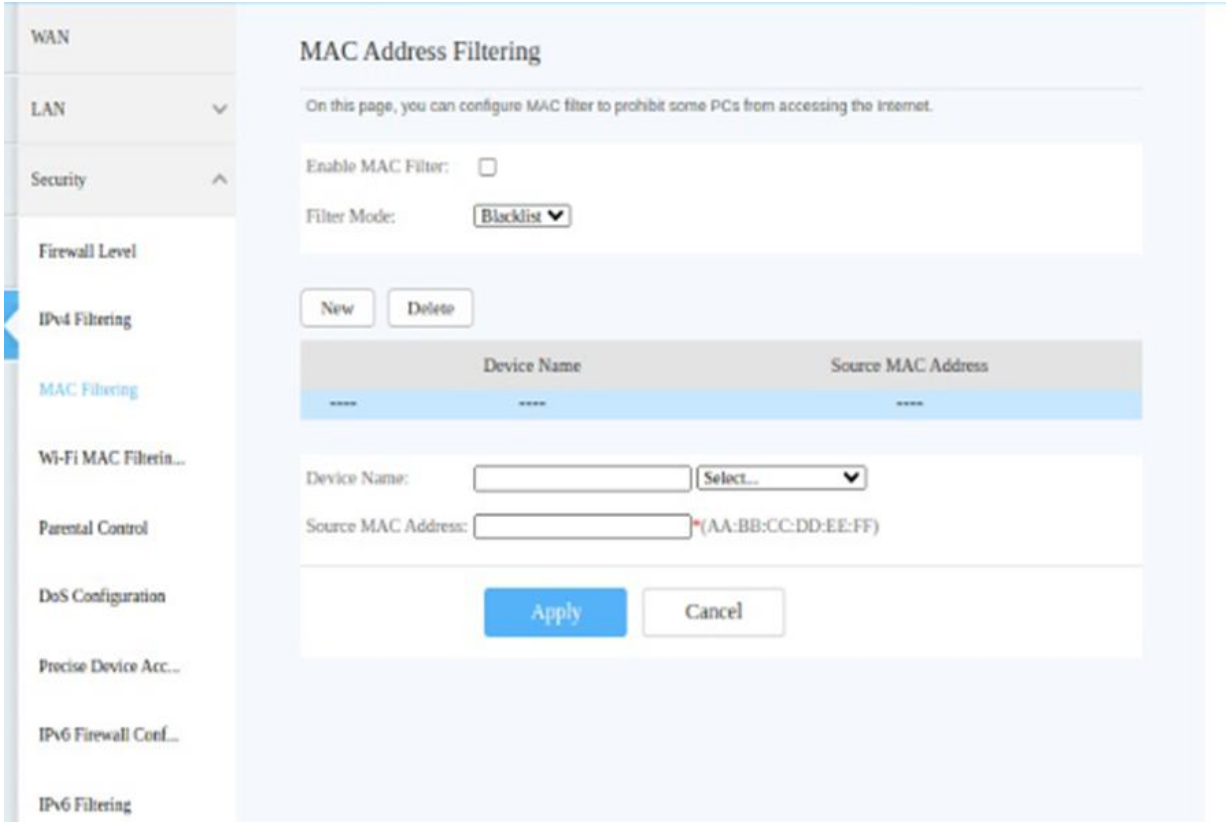
a. SSID Name
b. WPA PreSharedKey
c. Authentication Mode (WPA2 for V5 ONT and WPA3 for X6)
d. Encryption Mode (AES)

6. Security

Under Advanced setting, you can allow and block devices by clicking on MAC Filtering tab.

6.2 Blacklisting

Click on security > Go to Mac Filtering > Select Filter Mode (If you want to block particular devices then select 'Blacklist') > Click on New > Under Device name option > Write Mac Address of the device (to be blocked) > Click on Apply option

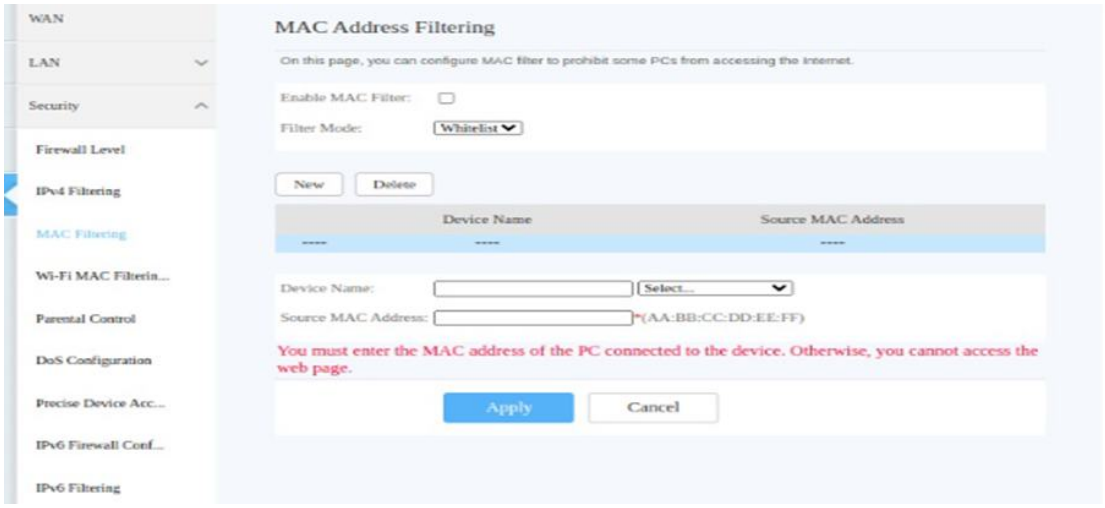


Note: This step block access of particular device to your Network.

6.3 Whitelisting

Click on security > Go to Mac Filtering > Select Filter Mode (If you want to access particular devices then select 'Whitelist') > Click on New > Under Device name option > Write Mac Address of the devices > Click on Apply option.

Note: This step allow only selected devices to have internet access to your Network.



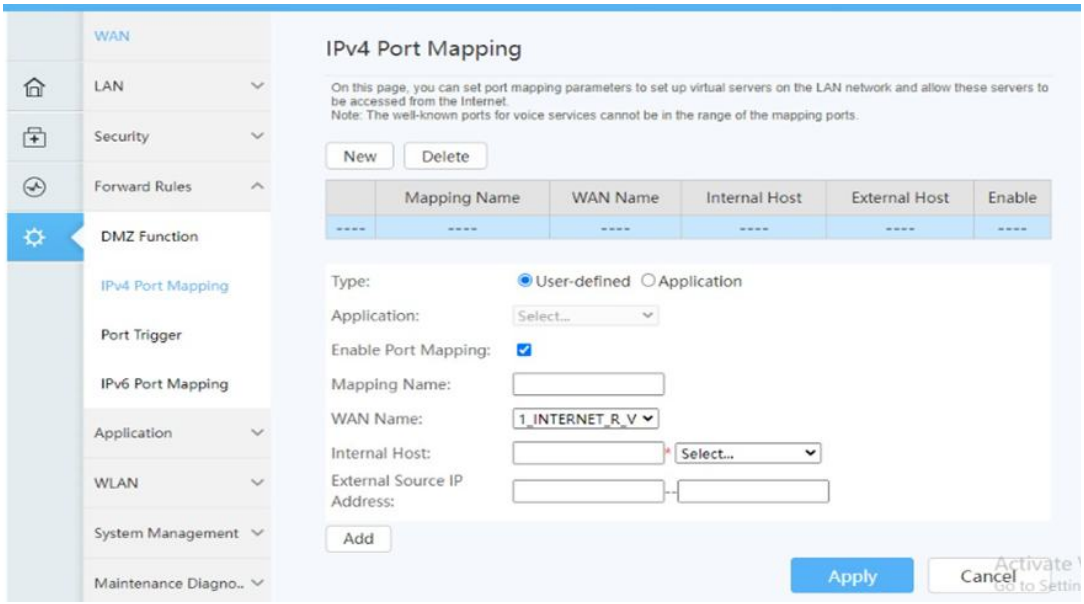
7. Forward Rules

Under Advanced settings, there is Forward Rules option. You can directly allow your device to internet via port forwarding.

Note: This is only valid for E-view/Optimus customers.

On clicking forward rules > Go to IPV4 mapping > Click on New > Always select type: user-defined > WAN name must be Internet > Add IP in Internal Host of particular device which is supposed to be port forwarded (Note: check IP of device by 'ipconfig' command in command prompt) > Keep External Source IP Address to be empty > lastly click on ADD option and apply

Note: Allowed ports will be 7777, 8888, 8080, 8000.



8. Precautionary Measures

1. Never remove the power cable from the ONT as this can damage the ONT.
2. Only connect the ONT with the UPS provided by NAYATEL as other UPS can damage the ONT.
3. Do not cover the ONT as this blocks the ventilation for the ONT circuitry.
4. Never reset the ONT by pressing the Reset button as this will remove all configurations of ONT.
5. Do not change the ONT location as it may damage the optical fiber cable. Please contact NAYATEL Support in this regard