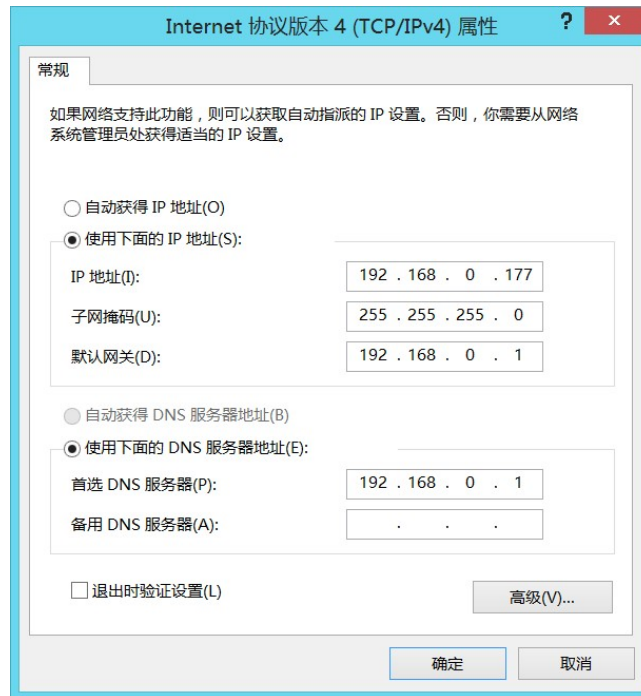


|                                           |           |
|-------------------------------------------|-----------|
| <b>1. Configure network card IP .....</b> | <b>2</b>  |
| <b>2. web login .....</b>                 | <b>2</b>  |
| <b>3. System management .....</b>         | <b>3</b>  |
| 3.1 System Info .....                     | 3         |
| 3.2 Administrator.....                    | 3         |
| 3.3 Network config .....                  | 4         |
| 3.4 System time .....                     | 4         |
| 3.5 System log.....                       | 5         |
| 3.6 System log configure .....            | 5         |
| 3.7 Change web port number.....           | 5         |
| 3.8 Backup Configuration and import.....  | 6         |
| 3.9 Factory setting .....                 | 6         |
| 3.10 System Reboot.....                   | 7         |
| 3.11 System upgrade .....                 | 7         |
| 3.12 Save configuration .....             | 7         |
| <b>4. ONU Management .....</b>            | <b>8</b>  |
| <b>5. Port Management .....</b>           | <b>9</b>  |
| 5.1 OLT PON port.....                     | 9         |
| 5.2 OLT GE port.....                      | 10        |
| 5.3 ONU Port .....                        | 10        |
| <b>6. Statistic.....</b>                  | <b>11</b> |
| <b>7. VLAN Configure .....</b>            | <b>11</b> |
| <b>8. Link Bandwidth.....</b>             | <b>14</b> |
| <b>9. Mac aging time .....</b>            | <b>14</b> |
| 9.1 Default age time is 60 seconds .....  | 14        |
| <b>10. Port aggregation config .....</b>  | <b>14</b> |
| 10.1 Isolation mode.....                  | 14        |
| 10.2 Aggregation .....                    | 15        |
| <b>11. SNMP configuration.....</b>        | <b>15</b> |

## 1. Configure network card IP

OLT default IP is 192.168.0.88. Change the host IP to 192.168.0.X (X cant be 88) ; Subnet mask:255.255.255.0, gateway:192.168.0.1



## 2. web login

Open a browser, input 192.168.0.88 (ping 192.168.0.88 if success before login)

Account:admin password:admin



### 3. System management

#### 3.1 System Info

Check system name, software version, MAC, IP, operating time.

Change system name, system description, system address.

|                   |  |
|-------------------|--|
| System            |  |
| System Info       |  |
| Administrator     |  |
| Network           |  |
| System Time       |  |
| Http Port         |  |
| System Log        |  |
| System Log Config |  |
| Backup Config     |  |
| Factory Setting   |  |
| System Reboot     |  |
| System Upgrade    |  |
| OLT Management    |  |
| ONU Management    |  |
| Port Config       |  |
| Vlan Config       |  |
| Bandwidth Config  |  |
| Rstp Config       |  |

### System Information

|                     |                               |
|---------------------|-------------------------------|
| System Name:        | unknown                       |
| System Description: | unknown                       |
| System Address:     | Shenzhen China                |
| Switch Type:        | HA7302C                       |
| Software Version:   | v7.15                         |
| Revision:           | Release20190327               |
| MAC Address:        | 78.5c.72.a2.1a.8e             |
| IP Address:         | 192.168.0.88                  |
| Run Time:           | 3 hours 31 minutes 47 seconds |
| undefined:          | 3 hours 31 minutes 47 seconds |

OKRefresh

#### 3.2 Administrator

Create Administrator account, set authority

|                   |  |
|-------------------|--|
| System            |  |
| System Info       |  |
| Administrator     |  |
| Network           |  |
| System Time       |  |
| Http Port         |  |
| System Log        |  |
| System Log Config |  |
| Backup Config     |  |
| Factory Setting   |  |
| System Reboot     |  |
| System Upgrade    |  |
| OLT Management    |  |
| ONU Management    |  |
| Port Config       |  |
| Vlan Config       |  |
| Bandwidth Config  |  |
| Rstp Config       |  |

### User List

| Index | User Name | User Group    |
|-------|-----------|---------------|
| 0     | admin     | Administrator |

AddDeleteRefresh

#### 3.3 Network config

Change OLT management IP, add VLAN. If add management VLAN, need to connect the management port to the switch, and config management VLAN to trunk port and access port.

|                   |  |
|-------------------|--|
| System            |  |
| System Info       |  |
| Administrator     |  |
| Network           |  |
| System Time       |  |
| Http Port         |  |
| System Log        |  |
| System Log Config |  |
| Backup Config     |  |
| Factory Setting   |  |
| System Reboot     |  |
| System Upgrade    |  |
| OLT Management    |  |
| ONU Management    |  |
| Port Config       |  |
| Vlan Config       |  |
| Bandwidth Config  |  |
| Rstp Config       |  |

### Management IP Setting

|            |     |     |     |    |
|------------|-----|-----|-----|----|
| Device IP  | 192 | 168 | 0   | 88 |
| Netmask    | 255 | 255 | 255 | 0  |
| Gateway IP | 192 | 168 | 0   | 1  |

SaveReset

### 3.4 System time

Change OLT system time and NTP server address. After input NTP server IP, OLT will synchronize NTP time.

|               |                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>System</b> | <div><div><b>System Time Setting</b></div><div>Current Time : 2017 Year - 01 Month - 01 Day 18 Hour : 00 Minute : 23 Second</div><div><input type="button" value="Apply"/> <input type="button" value="Refresh"/></div></div> <div><b>NTP Configuration</b></div> <div>NTP Server IP : 192.168.0.1</div> <div><input type="button" value="Apply"/> <input type="button" value="Refresh"/></div> |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 3.5 System log

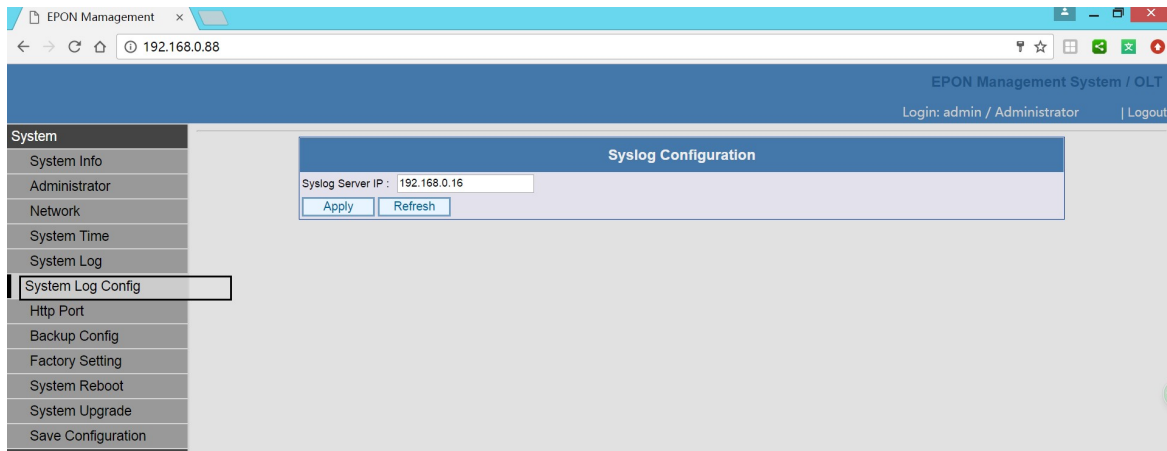
Check system log

Here to check OLT dynamic information, eg: IP access, ONU offline, new device access, parameter config etc.

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>System</b>     | <div><div><b>System Log</b></div><div>Jan 1 17:57:24 EPON: ===== [ System Start ] v7.15 Release20190327 =====</div><div>Jan 1 17:57:35 EPON: Slot 1 Onu 78.5c.72.70.7c.72 Discovery</div><div>Jan 1 17:57:36 EPON: ** FwRetCmdFailed: slot=1, cmd=321</div><div>Jan 1 17:57:37 EPON: ** FwRetCmdFailed: slot=1, cmd=321</div><div>Jan 1 17:58:17 Web: New web connection , current web client=1</div></div> <div><input type="button" value="Clean"/> <input type="button" value="Export"/> <input type="button" value="Previous Page"/> <input type="button" value="Next Page"/></div> |
| System Info       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Administrator     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Network           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| System Time       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Http Port         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| System Log        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| System Log Config |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Backup Config     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Factory Setting   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| System Reboot     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| System Upgrade    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| OLT Management    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| ONU Management    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Port Config       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Vlan Config       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Bandwidth Config  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Rstp Config       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

### 3.6 System log configure

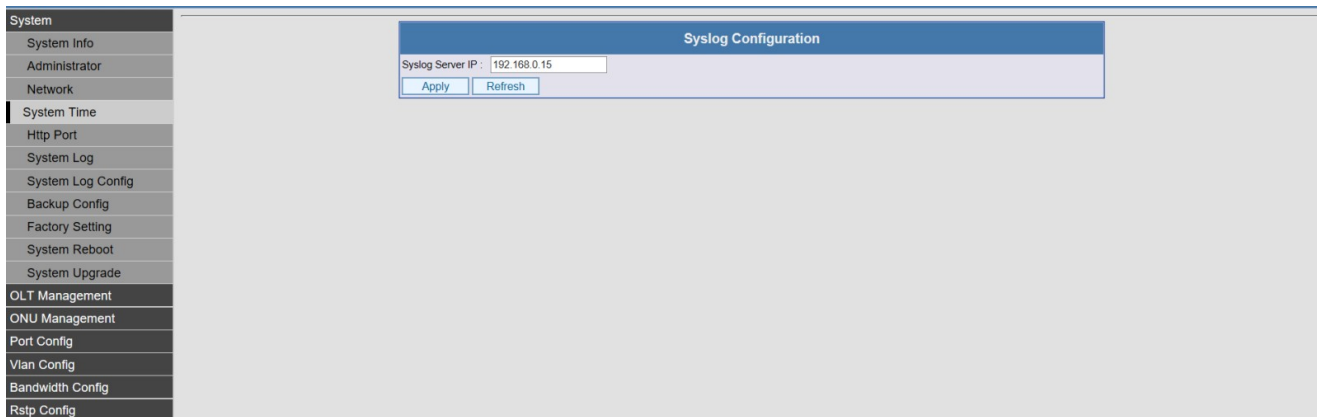
Mainly configure the log server IP, after configured, the system log will auto upload to the log server.  
Firstly, install the log server.



### 3.7 Change web port number

Default port of web access is 80, it is ok to change this port number.

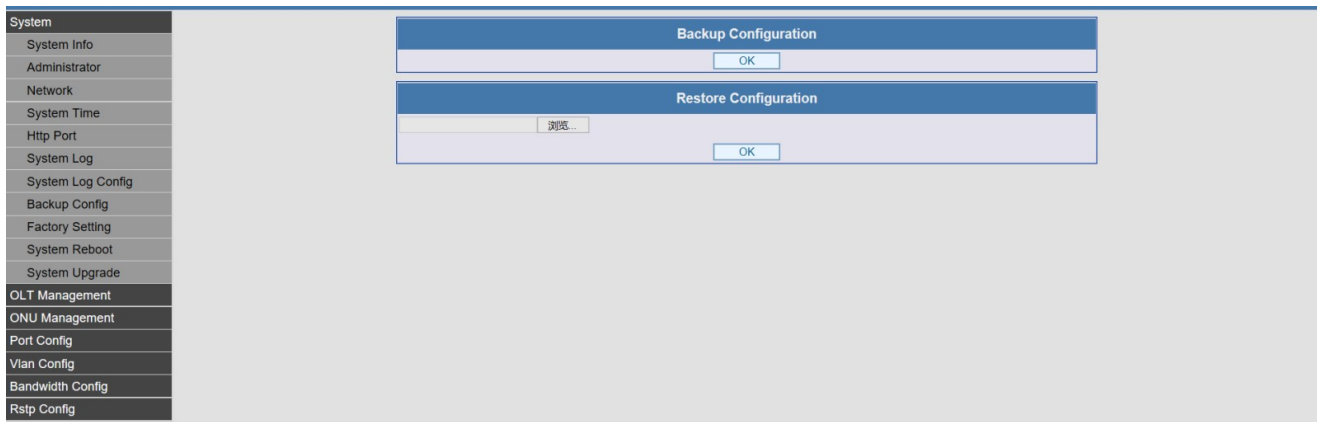
To telnet access the OLT through internet, need to do port mapping at the router (which is connected to the OLT for internet input). Mapping the public network IP to the OLT management IP and port number 80. If the port number 80 changed to other number, mapping to that port number for telnet access.



### 3.8 Backup Configuration and import

Backup the configuration and save.

Import the the configuration file and implement.



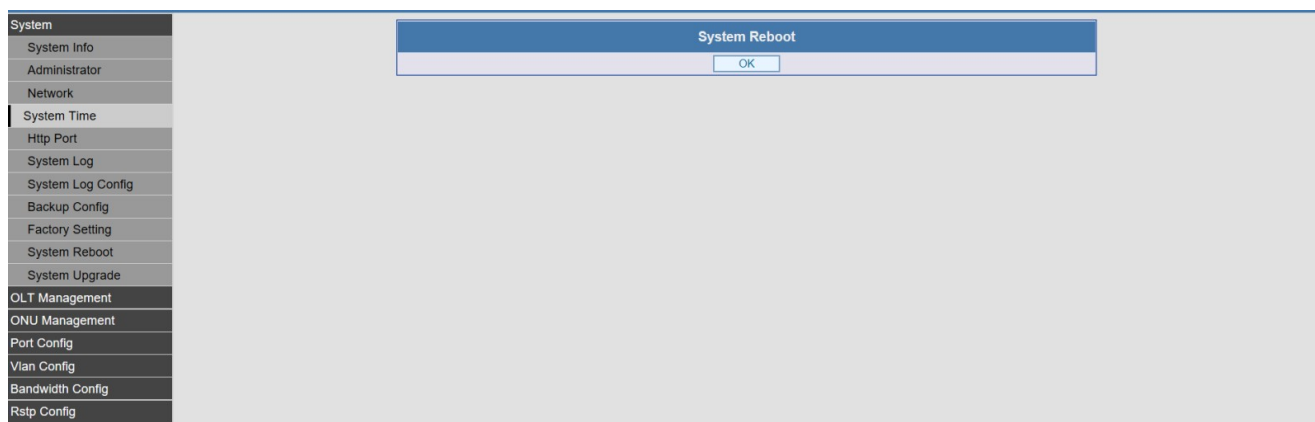
### 3.9 Factory setting

Factory setting, all the configuration will be back to default setting.



### 3.10 System Reboot

When meet problems, try reboot the system.

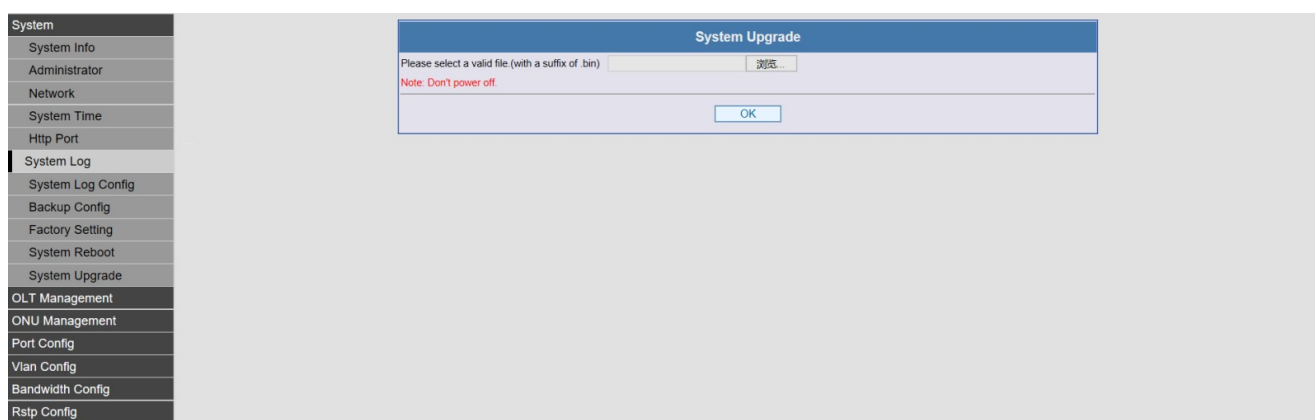


### 3.11 System upgrade

Choose the update file===》execute

When you see upgrade success, reboot the OLT.

Check the OLT version before upgrade, after upgrade, check if OLT version changed.



## 4. ONU Management

4.1 Check the ONU registered, optical power, reboot ONU etc.

Check the ONU online status, version, chip set, and port number

If the online ONU can be seen the chipset type, it can get internet; if the chipset type 0000, the ONU status is abnormal, can't get internet.

|                  |  |
|------------------|--|
| System           |  |
| OLT Management   |  |
| OLT Overview     |  |
| OLT Ctc          |  |
| OLT ONU2ONU      |  |
| OLT Bridge       |  |
| OLT AuthMode     |  |
| ONU Management   |  |
| Port Config      |  |
| Vlan Config      |  |
| Bandwidth Config |  |
| Rstp Config      |  |

| Olt Table |      |                   |         |        |        |
|-----------|------|-------------------|---------|--------|--------|
| Id        | Name | MacAddr           | Version | PonNum | Status |
| 0/1       | NA   | 78 5c 72 50 5b 34 | c230    | 2      | Up     |

Refresh

|                  |  |
|------------------|--|
| System           |  |
| OLT Management   |  |
| OLT Overview     |  |
| OLT Ctc          |  |
| OLT ONU2ONU      |  |
| OLT Bridge       |  |
| OLT AuthMode     |  |
| ONU Management   |  |
| Port Config      |  |
| Vlan Config      |  |
| Bandwidth Config |  |
| Rstp Config      |  |

| OLT 0/1 Configuration |                   |
|-----------------------|-------------------|
| Mac Address :         | 78 5c 72 50 5b 34 |
| Name :                | NA                |
| Status :              | Up                |
| Operation :           | .....             |

OK Refresh Return

Choose the related PON port====> choose ONU. Rename ONU, check ONU online/offline time, check ONU optical power, reboot ONU, disable ONU access, restore to factory set.

### 4.2 Delete ONU

Choose the ONU you want to delete, click Delete.

### 4.3 Search ONU

Input ONU MAC, check the ONU status, which PON port connected to .

|                   |  |
|-------------------|--|
| System            |  |
| OLT Management    |  |
| ONU Management    |  |
| ONU Overview      |  |
| ONU Igmp Snooping |  |
| Delete ONU        |  |
| ONU AuthMode      |  |
| Attempt ONU       |  |
| ONU Port Isolate  |  |
| Port Config       |  |
| Vlan Config       |  |
| Bandwidth Config  |  |
| Rstp Config       |  |

| Please Select one Pon Port |             |
|----------------------------|-------------|
| Pon Id                     | Information |
| 0/1/1                      | N/A         |
| 0/1/2                      | N/A         |

Refresh

## 5. Port Management

### 5.1 OLT PON port

Check ONT PON port status, module temperature,voltage,optical power etc

System

OLT Management

ONU Management

Port Config

OLT Port Status

OLT Port Statistic

ONU Port Status

ONU Port Statistic

Vlan Config

Bandwidth Config

Rstp Config

OLT Port Status

| Port Id | Enable | Link Status | AutoNeg | Speed | Duplex | FlowCtl |
|---------|--------|-------------|---------|-------|--------|---------|
| GE0/1_1 | Enable | LinkDown    | Disable | 1000M | Full   | Disable |
| GE0/1_2 | Enable | LinkDown    | Disable | 1000M | Full   | Disable |

Refresh

System

OLT Management

ONU Management

Port Config

OLT Port Status

OLT Port Statistic

ONU Port Status

ONU Port Statistic

Vlan Config

Bandwidth Config

Rstp Config

OLT Port 0/1\_1 Configuration

Port Enable :

Enable

Port AutoNeg :

Disable

Port Speed :

1000M

Port Duplex :

Full

Port Flow Ctrl :

Disable

PON Port Optic Module Information

Optic Module Temperature :

0.00 C

Optic Module Voltage :

0.00 V

Optic Module Current :

0.00 mA

Optic Module Tx Power :

-inf dBm

OK

Refresh

Return

## 5.2 OLT GE port

Check the OLT uplink GE port status.

System

OLT Management

ONU Management

Port Config

OLT Port Status

OLT Port Statistic

ONU Port Status

ONU Port Statistic

Vlan Config

Bandwidth Config

Rstp Config

OLT Port Statistic

| Port Id  | RxPkt | RxUnicast | RxBroadcast | RxMulticast | TxPkt | TxUnicast | TxBroadcast | TxMulticast | CrcError | Dropped |
|----------|-------|-----------|-------------|-------------|-------|-----------|-------------|-------------|----------|---------|
| PON0/1/1 | 0     | 0         | 0           | 0           | 0     | 0         | 0           | 0           | 0        | 0       |
| PON0/1/2 | 14    | 0         | 0           | 0           | 0     | 0         | 0           | 0           | 0        | 0       |
| GE0/1_1  | 0     | 0         | 0           | 0           | 0     | 0         | 0           | 0           | 0        | 0       |
| GE0/1_2  | 0     | 0         | 0           | 0           | 13    | 0         | 12          | 1           | 1        | 0       |

Refresh

Clean

## 5.3 ONU Port

Check ONU Ethernet port status, if there is device connected or not, enable/disable ports, set the port rate.

System

OLT Management

ONU Management

Port Config

OLT Port Status

OLT Port Statistic

ONU Port Status

ONU Port Statistic

Vlan Config

Bandwidth Config

Rstp Config

PON 0/1/2 ONU List

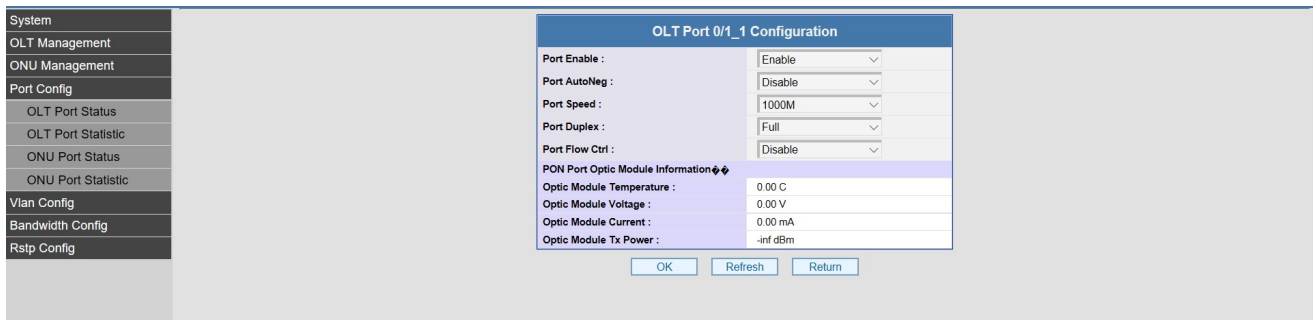
| Id      | Name | MacAddress        | Status | Version | ChipID | PortNumber |
|---------|------|-------------------|--------|---------|--------|------------|
| 0/1/2:1 | NA   | 78:5c:72:70:7c:72 | Up     | 0101    | 9125   | 2          |

Refresh

Return

## 6. Statistic

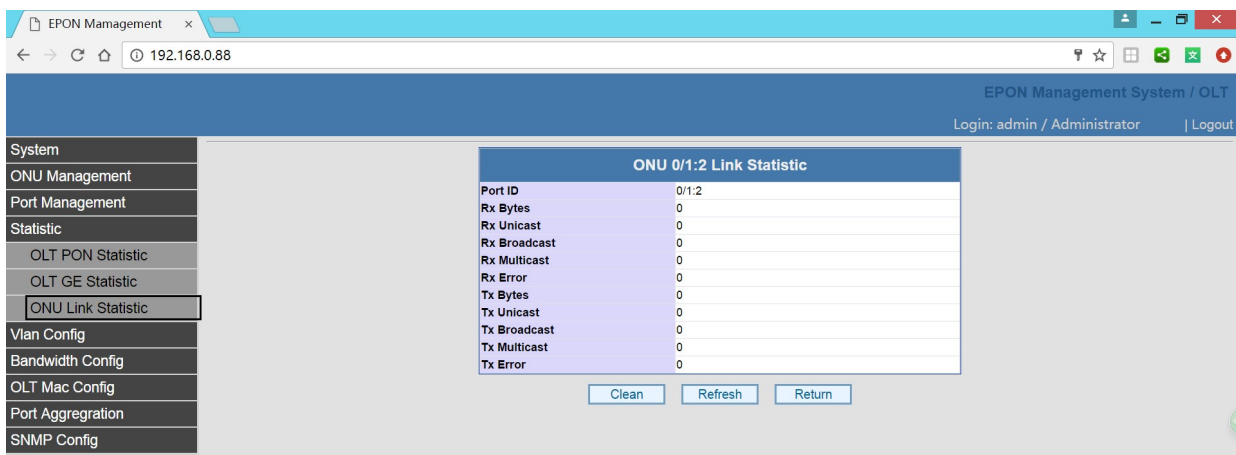
Check the data flow statistic of PON port, uplink ports, ONU link. This to check if there are online users under the ONU. The statistic is changing, means there is online user.



The screenshot shows the 'OLT Port 0/1\_1 Configuration' page. On the left is a navigation menu with options: System, OLT Management, ONU Management, Port Config, Vlan Config, Bandwidth Config, and Rstp Config. Under 'Port Config', there are sub-options: OLT Port Status, OLT Port Statistic, ONU Port Status, and ONU Port Statistic. The main content area displays configuration settings for Port 0/1\_1:

| OLT Port 0/1_1 Configuration      |          |
|-----------------------------------|----------|
| Port Enable :                     | Enable   |
| Port AutoNeg :                    | Disable  |
| Port Speed :                      | 1000M    |
| Port Duplex :                     | Full     |
| Port Flow Ctrl :                  | Disable  |
| PON Port Optic Module Information |          |
| Optic Module Temperature :        | 0.00 C   |
| Optic Module Voltage :            | 0.00 V   |
| Optic Module Current :            | 0.00 mA  |
| Optic Module Tx Power :           | -inf dBm |

At the bottom of the configuration area are three buttons: OK, Refresh, and Return.



The screenshot shows the 'ONU 0/1:2 Link Statistic' page. The browser address bar shows '192.168.0.88'. The page title is 'EPON Management System / OLT'. The navigation menu on the left includes: System, ONU Management, Port Management, Statistic, Vlan Config, Bandwidth Config, OLT Mac Config, Port Aggregation, and SNMP Config. Under 'Statistic', there are sub-options: OLT PON Statistic, OLT GE Statistic, and ONU Link Statistic. The main content area displays link statistics for Port ID 0/1:2:

| ONU 0/1:2 Link Statistic |       |
|--------------------------|-------|
| Port ID                  | 0/1:2 |
| Rx Bytes                 | 0     |
| Rx Unicast               | 0     |
| Rx Broadcast             | 0     |
| Rx Multicast             | 0     |
| Rx Error                 | 0     |
| Tx Bytes                 | 0     |
| Tx Unicast               | 0     |
| Tx Broadcast             | 0     |
| Tx Multicast             | 0     |
| Tx Error                 | 0     |

At the bottom of the statistics area are three buttons: Clean, Refresh, and Return.

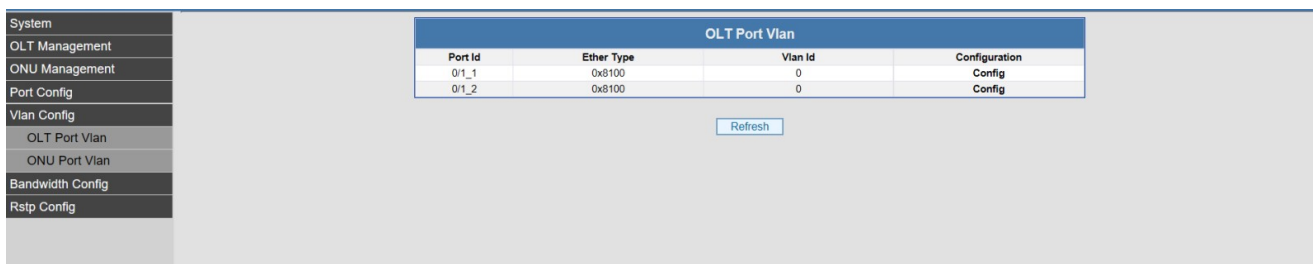
## 7. VLAN Configure

Follow the below steps to set VLAN:

Transparent mode (no matter the data from the Ethernet port with or without VLAN tag, it can pass)

Tag mode (the data will add vlan Tag, the data with Tag will be forwarded with tag removed)

Translate mode (eg, the data with VLAN 200 will change to VLAN100)



The screenshot shows the 'OLT Port Vlan' table. The navigation menu on the left includes: System, OLT Management, ONU Management, Port Config, Vlan Config, Bandwidth Config, and Rstp Config. Under 'Vlan Config', there are sub-options: OLT Port Vlan and ONU Port Vlan. The main content area displays a table with the following data:

| Port Id | Ether Type | Vlan Id | Configuration |
|---------|------------|---------|---------------|
| 0/1_1   | 0x8100     | 0       | Config        |
| 0/1_2   | 0x8100     | 0       | Config        |

Below the table is a 'Refresh' button.

Tag mode

System

OLT Management

ONU Management

Port Config

Vlan Config

OLT Port Vlan

ONU Port Vlan

Bandwidth Config

Rstp Config

ONU Port 0/1/2:1\_1 Vlan Configuration

Port Id :

0/1/2:1\_1

Vlan Mode :

Transparent

Pvid :

Tag

(1-4095)

Translate

Example: 100-200,300-

Pairs :

400

OK

Refresh

Return

Translate mode

System

OLT Management

ONU Management

Port Config

Vlan Config

OLT Port Vlan

ONU Port Vlan

Bandwidth Config

Rstp Config

ONU Port 0/1/2:1\_1 Vlan Configuration

Port Id :

0/1/2:1\_1

Vlan Mode :

Transparent

Tag

Translate

(1-4095)

Pvid :

Translate

Example: 100-200,300-

Pairs :

400

OK

Refresh

Return

8. Link Bandwidth

ONU Link Bandwidth menu supports to configure uplink fixed bandwidth, maximum uplink guaranteed bandwidth, maximum bandwidth, downlink bandwidth etc.

Default uplink maximum bandwidth is 1000000kb, means 1000M.

0 means no limit

System

OLT Management

ONU Management

Port Config

Vlan Config

Bandwidth Config

OLT Port Bandwidth

ONU Link Bandwidth

Rstp Config

Please Select one OLT

| Id  | Name | MacAddr           | Version | PonNum | Status | Configuration |
|-----|------|-------------------|---------|--------|--------|---------------|
| 0/1 | N/A  | 78.5c.72.50.5b.34 | c230    | 2      | Up     | config        |

Refresh

System

OLT Management

ONU Management

Port Config

Vlan Config

Bandwidth Config

OLT Port Bandwidth

ONU Link Bandwidth

Rstp Config

Link 0/1/2\_1 Bandwidth Configuration

Llid Id :

0/1/2\_1

ONU Mac :

78.5c.72.70.7c.72

ONU Name :

Llid Mac :

78.5c.72.70.7c.72

UpStream Max :

0

(0-1000000)kbps

UpStream Min :

0

(0-1000000)kbps

UpStream Burst :

0

(1-256)kb

DownStream Max :

0

(0-1000000)kbps

DownStream Min :

0

(0-1000000)kb

DownStream Burst :

0

(1-256)kbps

OK

Refresh

Return

11. RSTP configuration

System

OLT Management

ONU Management

Port Config

Vlan Config

Bandwidth Config

Rstp Config

ONU Rstp

Please Select one Pon Port

| Pon Id | Information |
|--------|-------------|
| 0/1/1  | N/A         |
| 0/1/2  | N/A         |

Refresh