

Introduction

This Manual is the quick start manual for OT-4020VW GEPON ONU. It shows you how to start configuring the OT-4020VW to your demands. It shows you how to configure DHCP, STATIC IP, PPPOE, VLAN, VoIP and Wireless AP functions.

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Startup Process:

1. Connecting your OT-4020VW to a GEPON OLT with a PLC Fiber Splitter, in which, the OLT has been connected to Internet.
2. Connecting your OT-4020VW to your PC through its Ethernet LAN interfaces.
3. After boot up, please log in the OT-4020VW's WEB GUI at <http://192.168.86.1>
 - 3.1. The default user name is 'admin'
 - 3.2. The default password is 'admin'
 - 3.3. Please see Fig-01 below:

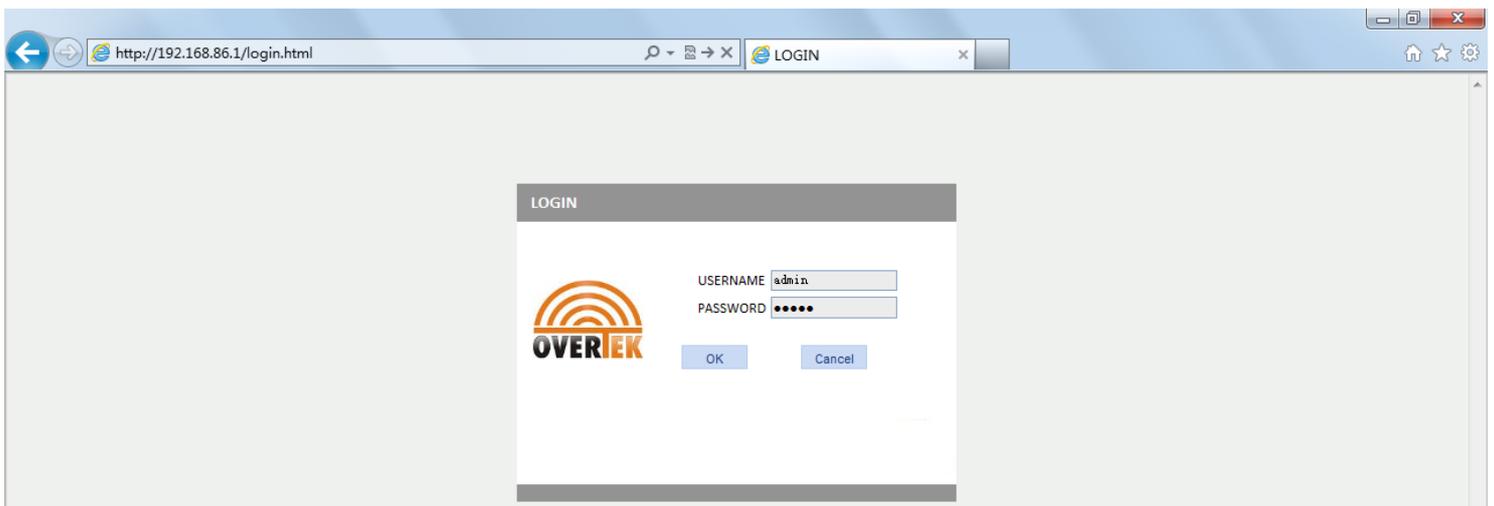


FIG-01

4. After entering 'admin' in both USERNAME and PASSWORD column, please click 'OK' or press 'Enter' to log in.

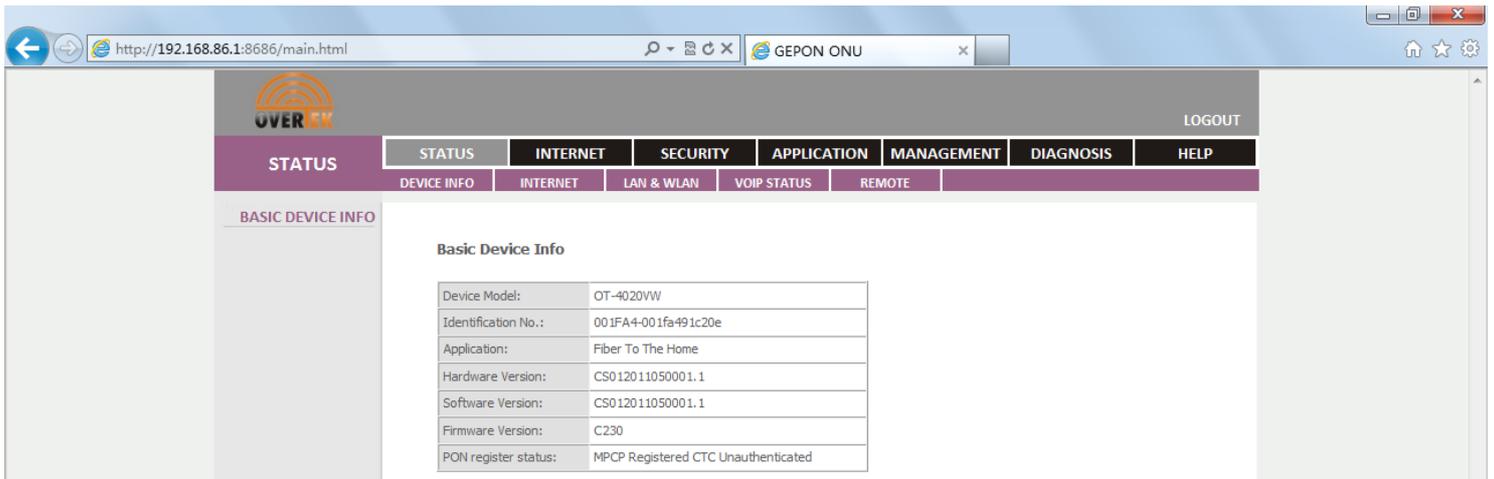


FIG-02

5. Then we are ready to go configure DHCP, STATIC IP, PPPOE, VLAN, VoIP and Wireless.

6. **PPPOE Configuration:**

- 6.1. Please go to 'INTERNET' → 'WAN CONFIG'
- 6.2. Please go to 'WAN Connection Name' → select 'New WAN Connection'
- 6.3. Please go to 'Mode' → select 'Route'
- 6.4. Please go to 'Connection Mode' → select 'IPv4'
- 6.5. Please go to 'PPPOE' and check the box of PPPOE
- 6.6. Please check the first box reading 'Pppoe Proxy Or Mixed Pppoe Bridging/routing Mode Disabled'
- 6.7. See FIG-03

Below:

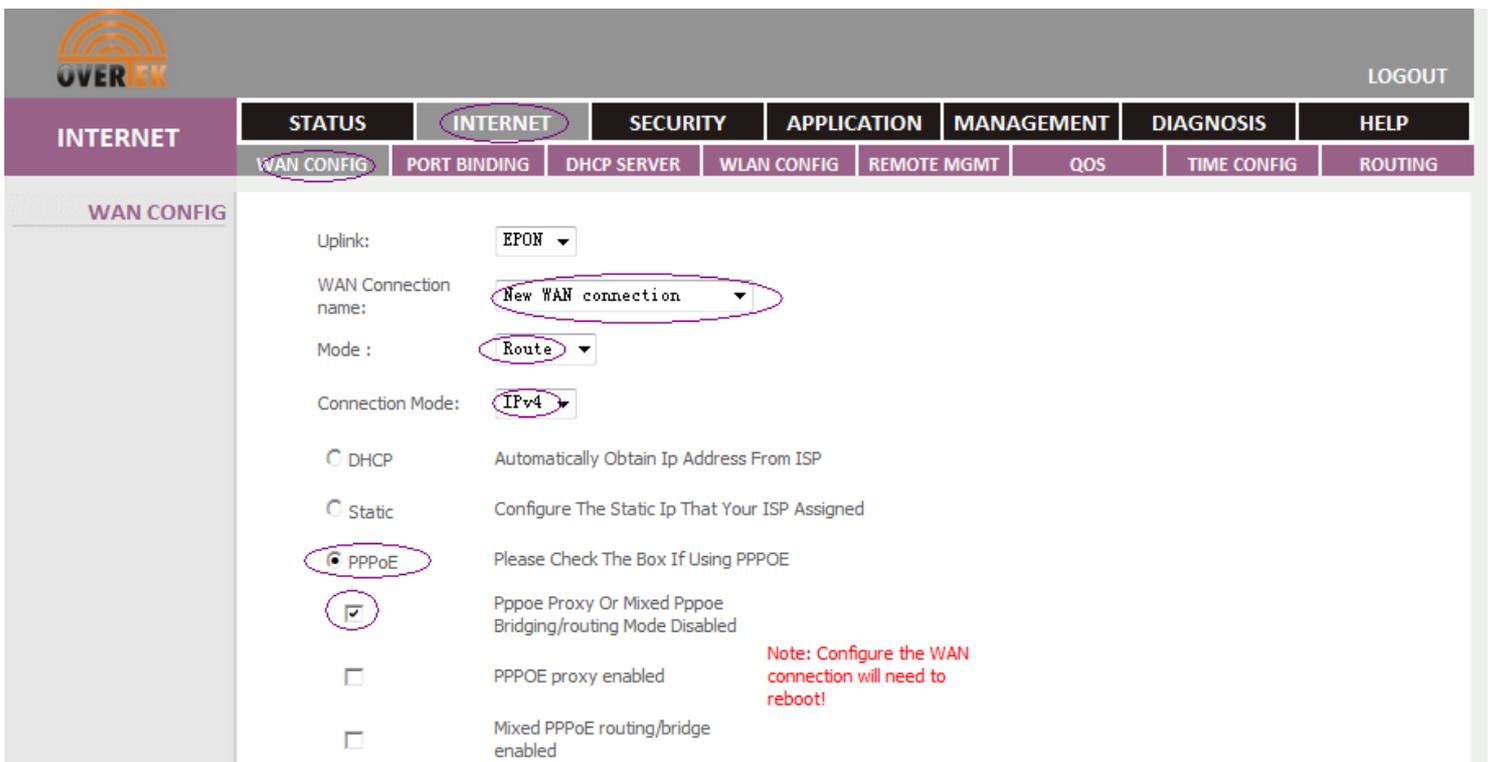
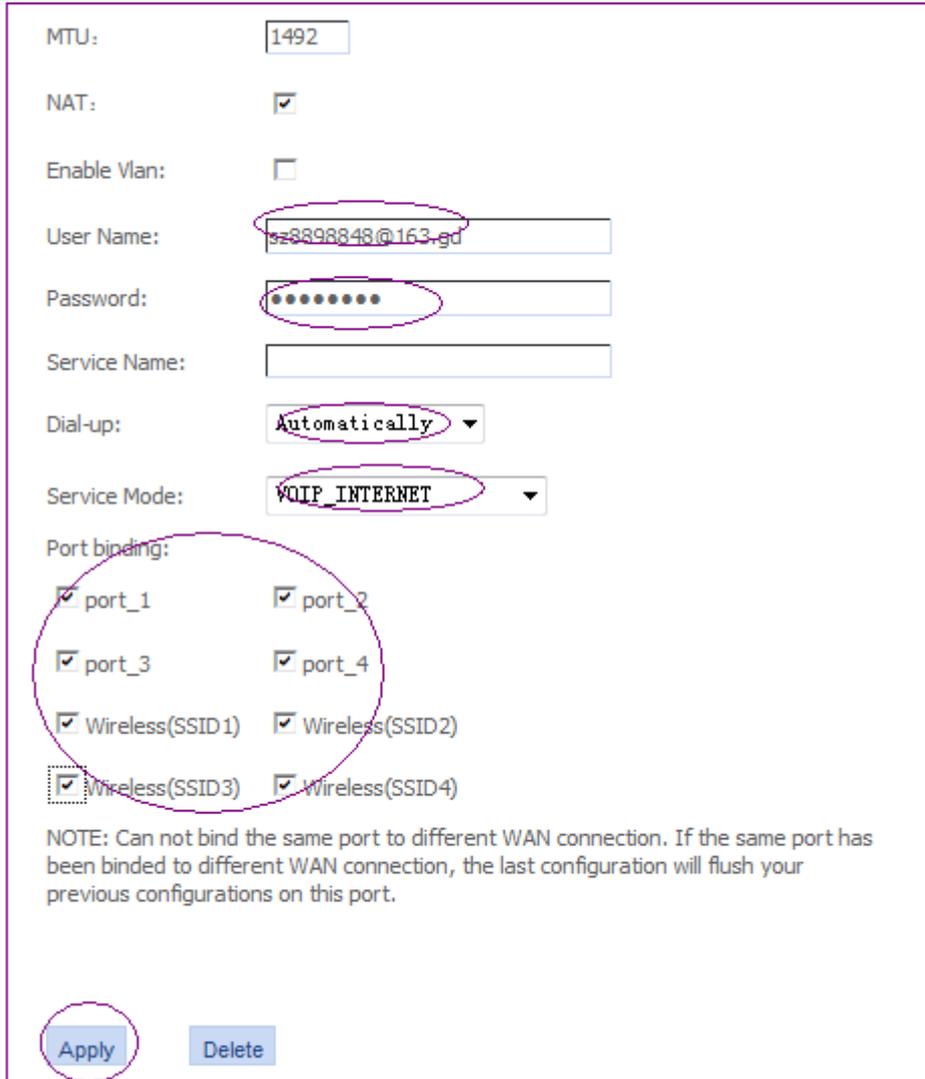


FIG-03

- 6.8. Please go to 'User Name' blank and input your PPPOE User name
- 6.9. Please go to 'Password' to enter the password for your PPPOE account
- 6.10. For the 'Service Name' option, you can leave blank if it's not specified in your PPPOE Server.
- 6.11. Please go to 'Dial-up'  select 'Automatically Connect'
- 6.12. Please go to 'Service Mode' and select 'VoIP_INTERNET'
- 6.13. Please go to 'Binding Port' – check all the boxes for Port 1 to Port 4, and Wireless SSID 1 to SSID 4
- 6.14. Please click 'Apply' button to save and apply the new PPPOE configuration.
- 6.15. After these steps are correctly done, your PPPOE session should be connected.
- 6.16. Please see FIG-04 Below:



MTU:

NAT:

Enable Vlan:

User Name:

Password:

Service Name:

Dial-up:

Service Mode:

Port binding:

<input checked="" type="checkbox"/> port_1	<input checked="" type="checkbox"/> port_2
<input checked="" type="checkbox"/> port_3	<input checked="" type="checkbox"/> port_4
<input checked="" type="checkbox"/> Wireless(SSID1)	<input checked="" type="checkbox"/> Wireless(SSID2)
<input checked="" type="checkbox"/> Wireless(SSID3)	<input checked="" type="checkbox"/> Wireless(SSID4)

NOTE: Can not bind the same port to different WAN connection. If the same port has been binded to different WAN connection, the last configuration will flush your previous configurations on this port.

FIG-04

7. DHCP WAN Configuration

- 7.1. . Please go to 'INTERNET'  'WAN CONFIG'
- 7.2. Please go to 'WAN Connection Name'  select 'New WAN Connection'
- 7.3. Please go to 'Mode' -> select 'Route'
- 7.4. Please go to 'Connection Mode'  select 'IPV4'
- 7.5. Please go to 'DHCP' and check the box of DHCP
- 7.6. Please go to 'Service Mode' and select 'VoIP_INTERNET'
- 7.7. Please go to 'Binding Port' – check all the boxes for Port 1 to Port 4, and Wireless SSID 1 to SSID 4
- 7.8. Please click 'Apply' button to save and apply the new DHCP WAN configuration.

7.9. After these steps are correctly done, your DHCP WAN session should be connected.

7.10. Please see FIG-05 below:

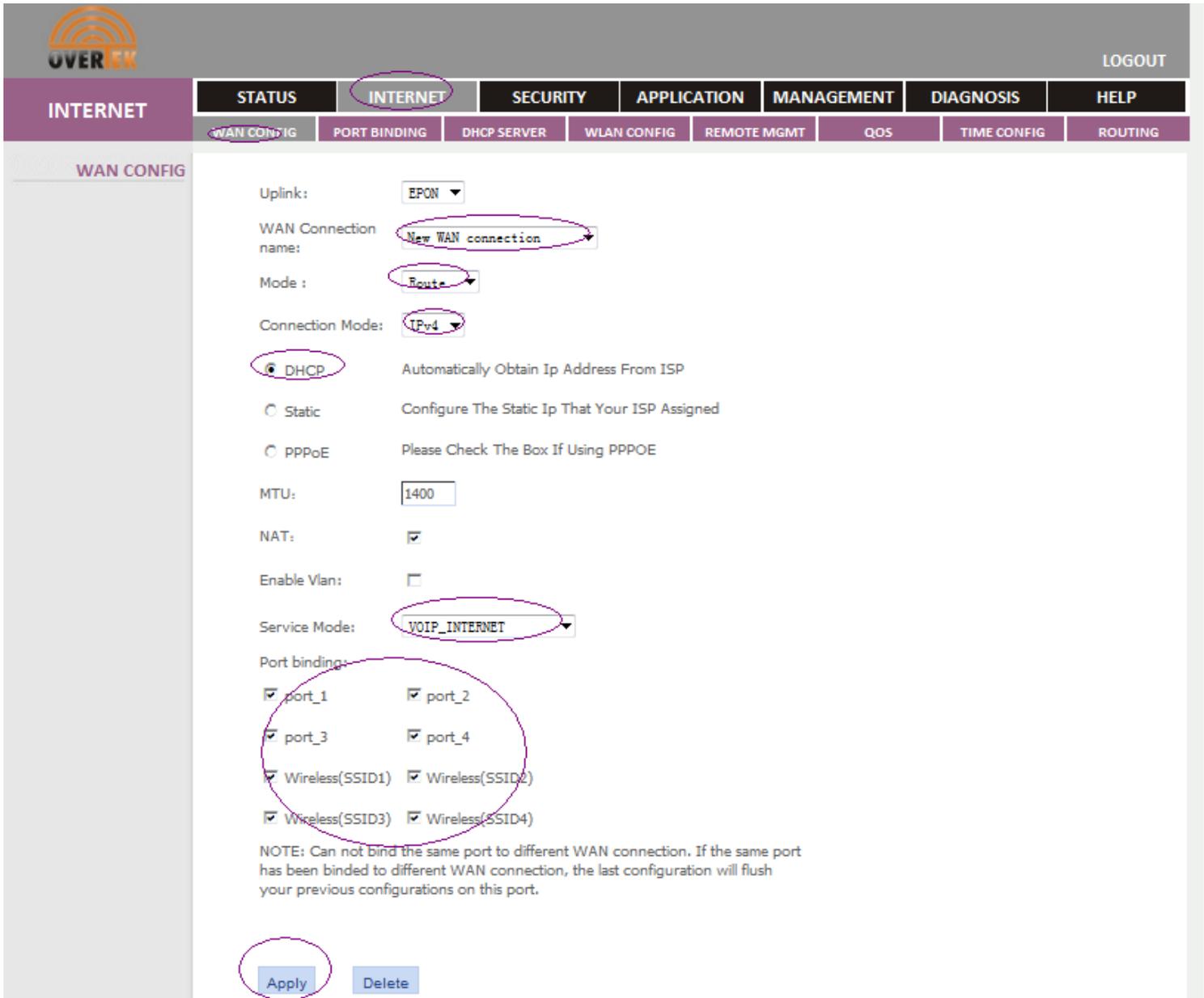


FIG-05

8. STATIC IP WAN Configuration

- 8.1. . Please go to ' INTERNET ' ▢ ' WAN CONFIG '
- 8.2. Please go to ' WAN Connection Name ' ▢ select 'New WAN Connection'
- 8.3. Please go to ' Mode ' -> select ' Route '
- 8.4. Please go to 'Connection Mode' ▢ select 'IPV4'
- 8.5. Please go to 'Static ' and check the box of Static
- 8.6. Please enter the Static IP, Subnet Mask, Gateway and DNS information
- 8.7. Please go to 'Service Mode' and select ' VoIP_INTERNET '
- 8.8. Please go to ' Binding Port ' – check all the boxes for Port 1 to Port 4, and Wireless SSID 1 to SSID 4
- 8.9. Please click ' Apply ' button to save and apply the new Static IP WAN configuration.
- 8.10. After these steps are correctly done, your STATIC IP WAN session should be connected.
- 8.11. Please see FIG-06 and FIG-07 below:

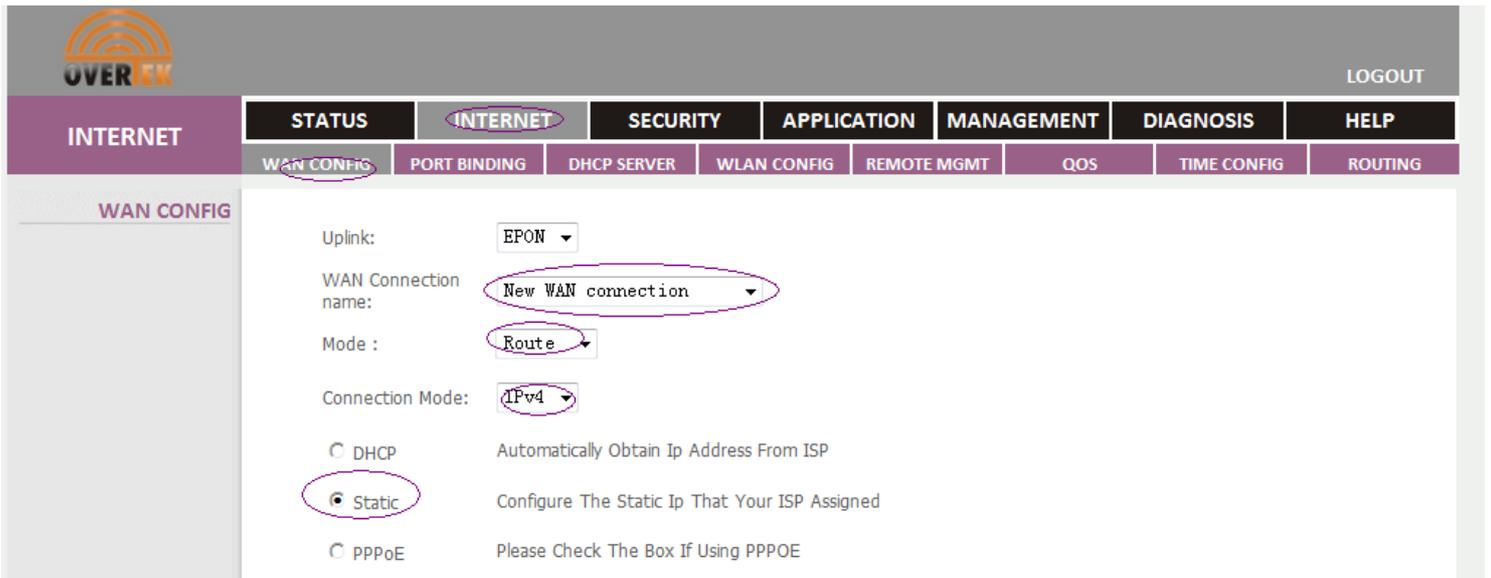


FIG-06

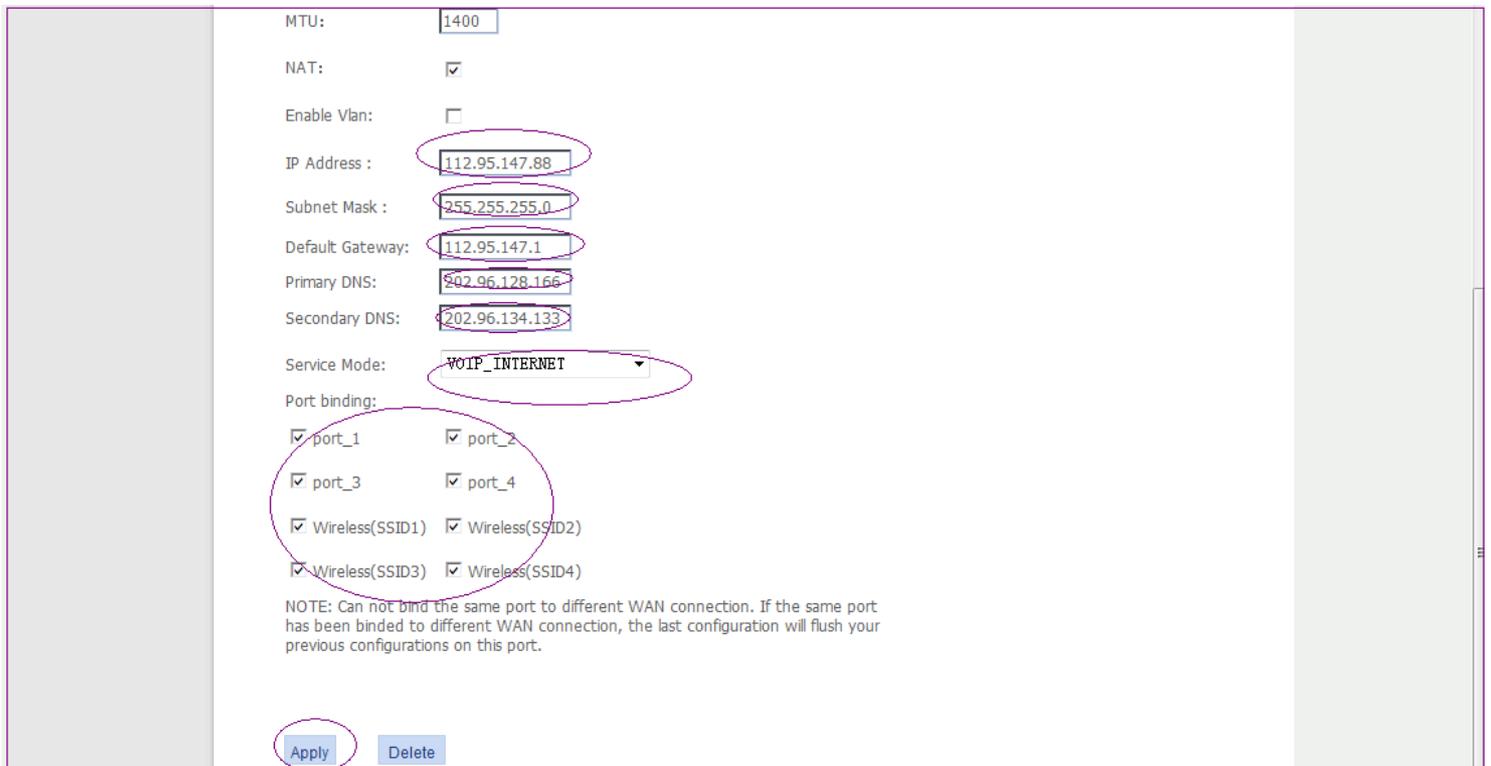


FIG-07

9. **VLAN BRIDGING WAN Configuration.**

For all DHCP, STATIC IP, PPPOE connection modes, you can configure VLAN IDs as you may wish. Below is the example for you to configure VLAN ID on Bridge mode.

- 9.1. . Please go to ' INTERNET ' ▢ ' WAN CONFIG '
- 9.2. Please go to ' WAN Connection Name ' ▢ select 'New WAN Connection'
- 9.3. Please go to ' Mode ' -> select ' Bridge'
- 9.4. Please go to 'Connection Mode' ▢ select 'IPV4'
- 9.5. Please go to 'Enable VLAN ' and check the box of it.
- 9.6. Please enter the IEEE802.1Q VLAN ID.
- 9.7. Please go to 'Service Mode' and select ' INTERNET '
- 9.8. Please go to ' Binding Port ' – check all the boxes for Port 1 to Port 4, and Wireless SSID 1 to SSID 4
- 9.9. Please click ' Apply ' button to save and apply the new Static IP WAN configuration.

9.10. After these steps are correctly done, your IEEE802.1Q VLAN Bridging WAN session should be connected.

9.11. Please see FIG-08 below:

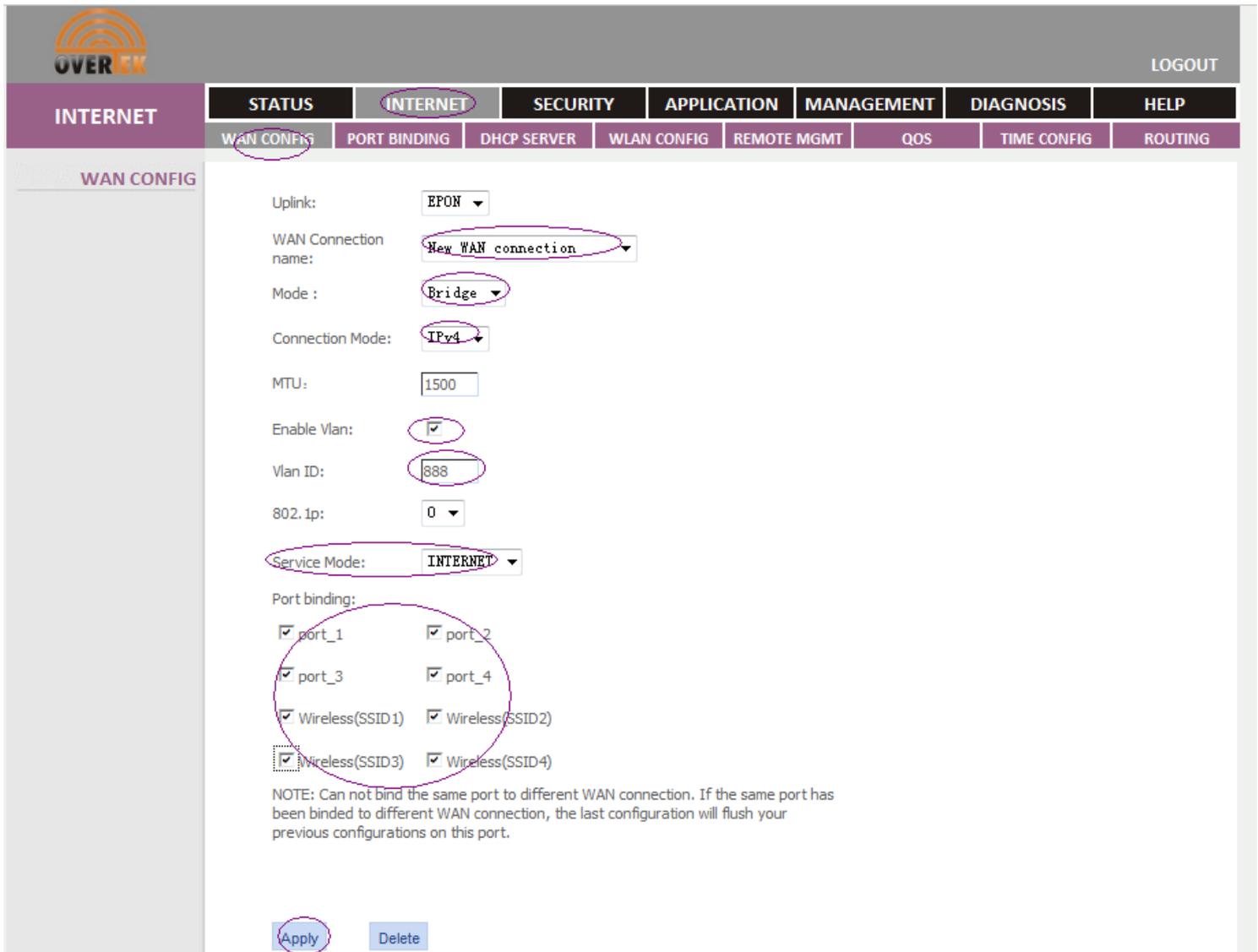


FIG-08

10. VOIP Configuration.

- 10.1. Please go to 'APPLICATION' → 'VOIP CONFIG' to configure new VoIP parameters.
- 10.2. Go to 'Binding Port For VoIP' and select the right WAN interface for your VoIP configuration.
- 10.3. Go to 'Country' and select the right country for your VoIP configuration.
- 10.4. Go to 'SIP Port' to configure the right port for your VoIP sessions.
- 10.5. Check the box for 'Enable Primary SIP Proxy' and configure the right SIP Server and SIP port.
- 10.6. Check the box for 'Enable Primary SIP Registration' and configure the right SIP Server and SIP port.
- 10.7. Go to the SIP account column, configuring the right Account NO., Phone Number, Authentication ID and password.
- 10.8. After done, please click on 'Apply' button to save and apply your new VoIP Configuration. Your VoIP session should be connected after this step done.
- 10.9. Please see below for FIG-09 example:

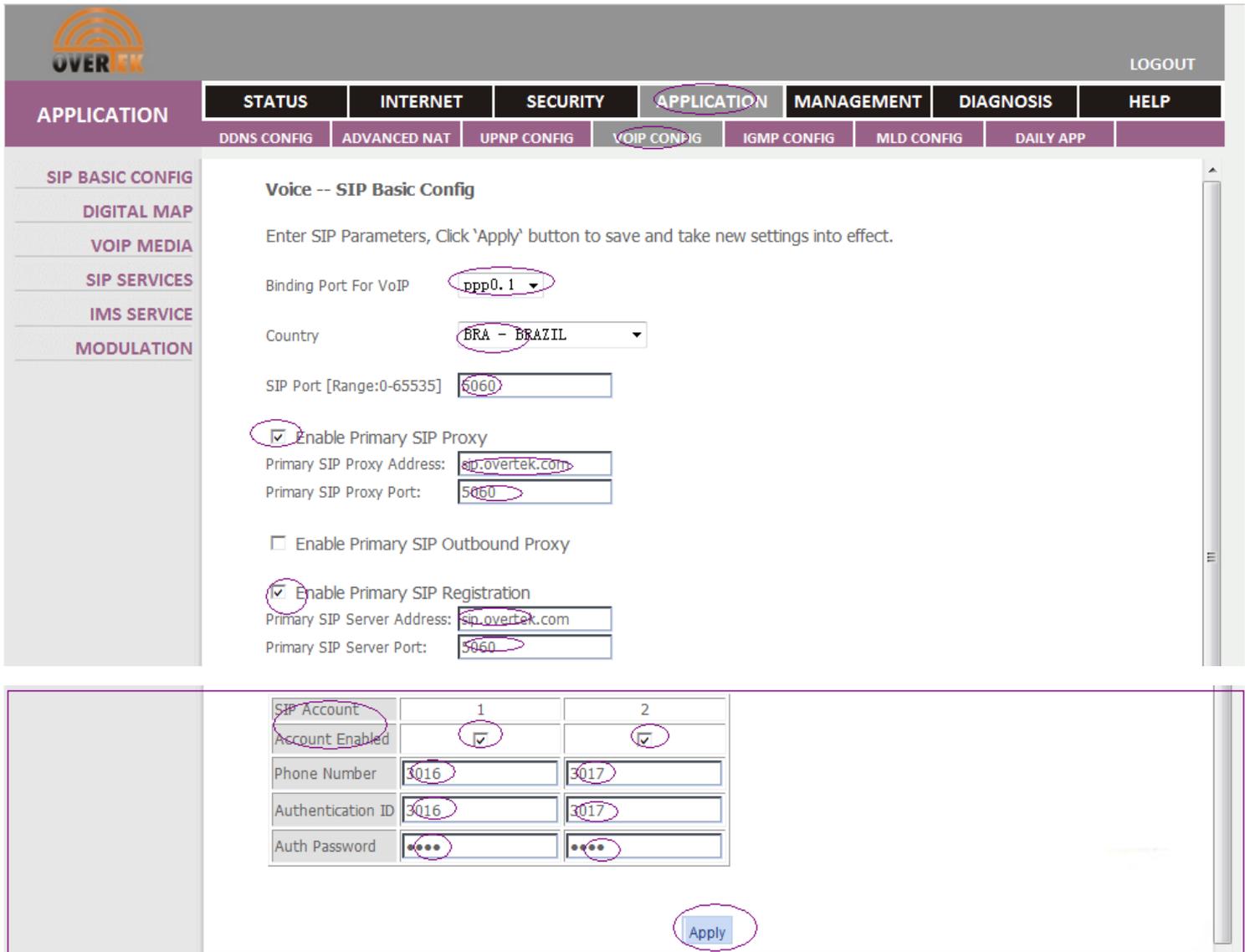
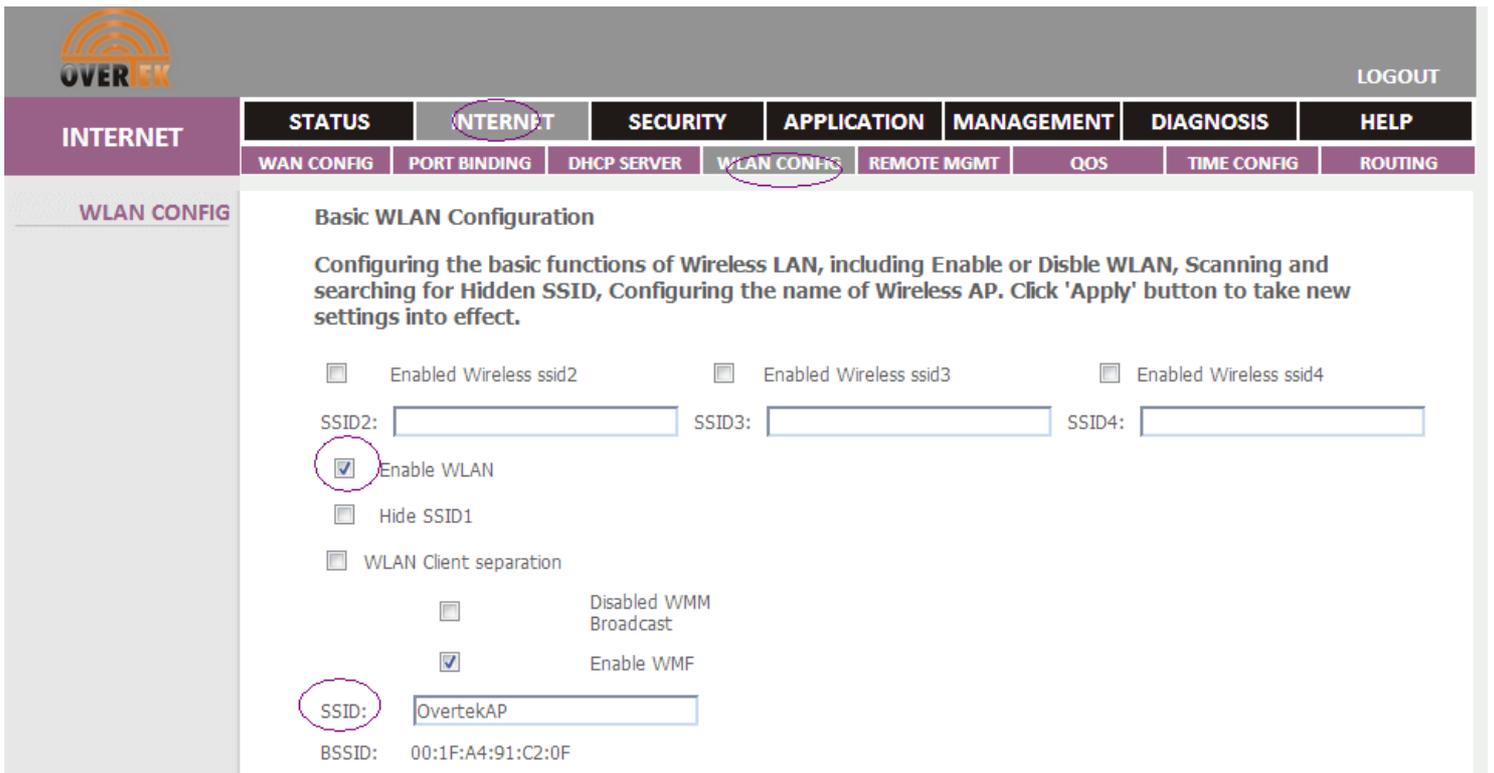


FIG-09

11. Wireless AP Configuration

- 11.1. Please go to 'INTERNET' – 'WLAN CONFIG' to configure Wireless AP parameters
- 11.2. Go to 'Enable WLAN' and check the box for it.
- 11.3. Go to 'SSID' to set the name of your Wireless AP.
- 11.4. Click on 'Apply' button to save and apply your new Wireless AP configurations.
- 11.5. Click on 'Advanced' button to configure your Wireless AP security profiles and authentication methods.
- 11.6. Go to 'Choose SSID' to select the SSID that you want to enable Wireless Security for.
- 11.7. Go to 'WiFi Authentication' to set your Wireless Authentication method.
- 11.8. Go to 'WPA Preshared Key' to set the password of your Wireless AP.
- 11.9. Go to 'WPA Encryption' to set your Wireless Security Encryption method.
- 11.10. See below for FIG-10, FIG-11 and FIG-12 for the examples:



INTERNET LOGOUT

STATUS **INTERNET** **SECURITY** **APPLICATION** **MANAGEMENT** **DIAGNOSIS** **HELP**

WAN CONFIG PORT BINDING DHCP SERVER **WLAN CONFIG** REMOTE MGMT QOS TIME CONFIG ROUTING

WLAN CONFIG

Basic WLAN Configuration

Configuring the basic functions of Wireless LAN, including Enable or Disble WLAN, Scanning and searching for Hidden SSID, Configuring the name of Wireless AP. Click 'Apply' button to take new settings into effect.

Enabled Wireless ssid2 Enabled Wireless ssid3 Enabled Wireless ssid4

SSID2: SSID3: SSID4:

Enable WLAN

Hide SSID1

WLAN Client separation

Disabled WMM Broadcast

Enable WMF

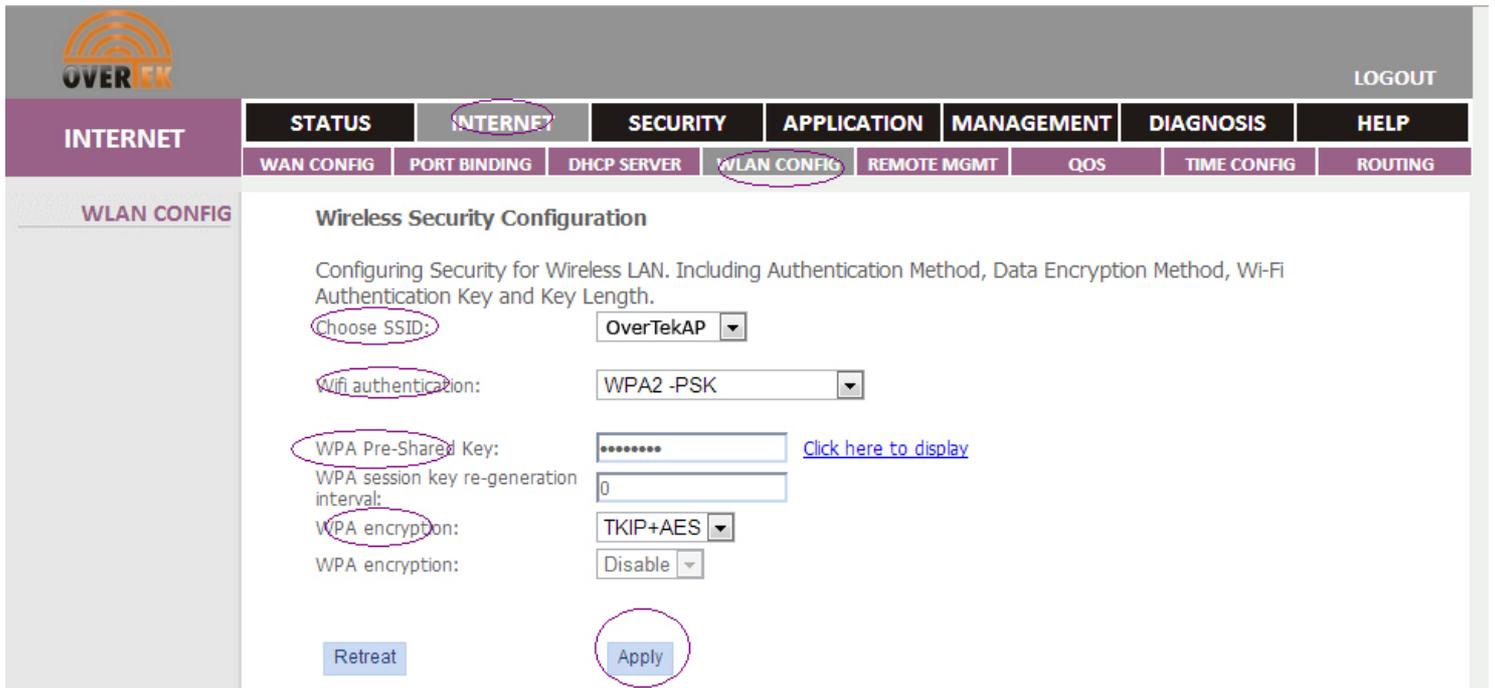
SSID:

BSSID: 00:1F:A4:91:C2:0F

FIG-10

Band:	<input type="text" value="2.4GHz"/>	
Channel selection:	<input type="text" value="Auto"/>	The current channel: 1
802.11n/EWC:	<input type="text" value="Automatic"/>	
Bandwidth:	<input type="text" value="20MHz in Both Bands"/>	Current Bandwidth: 20MHz
Controlled sideband:	<input type="text" value="Lower"/>	Current sideband: None
802.11n rate:	<input type="text" value="Auto"/>	
802.11n protecting mode:	<input type="text" value="Auto"/>	
Only support 802.11n Client:	<input type="text" value="Off"/>	
54g™rate:	<input type="text" value="54 Mbps"/>	
Multicast Rate:	<input type="text" value="Auto"/>	
Basic rate:	<input type="text" value="Default"/>	
XPress™Technology:	<input type="text" value="Enabled"/>	
Transmission power:	<input type="text" value="100%"/>	
WMM:	<input type="text" value="Enabled"/>	
WMM(Quality of service):	<input type="text" value="Forbidden"/>	
WMMAPSD:	<input type="text" value="Enabled"/>	
	<input type="button" value="Apply"/>	<input type="button" value="Advanced"/>

FIG-11



Wireless Security Configuration

Configuring Security for Wireless LAN. Including Authentication Method, Data Encryption Method, Wi-Fi Authentication Key and Key Length.

Choose SSID: OverTekAP

Wifi authentication: WPA2 -PSK

WPA Pre-Shared Key: ***** [Click here to display](#)

WPA session key re-generation interval: 0

WPA encryption: TKIP+AES

WPA encryption: Disable

Retreat Apply

FIG-12

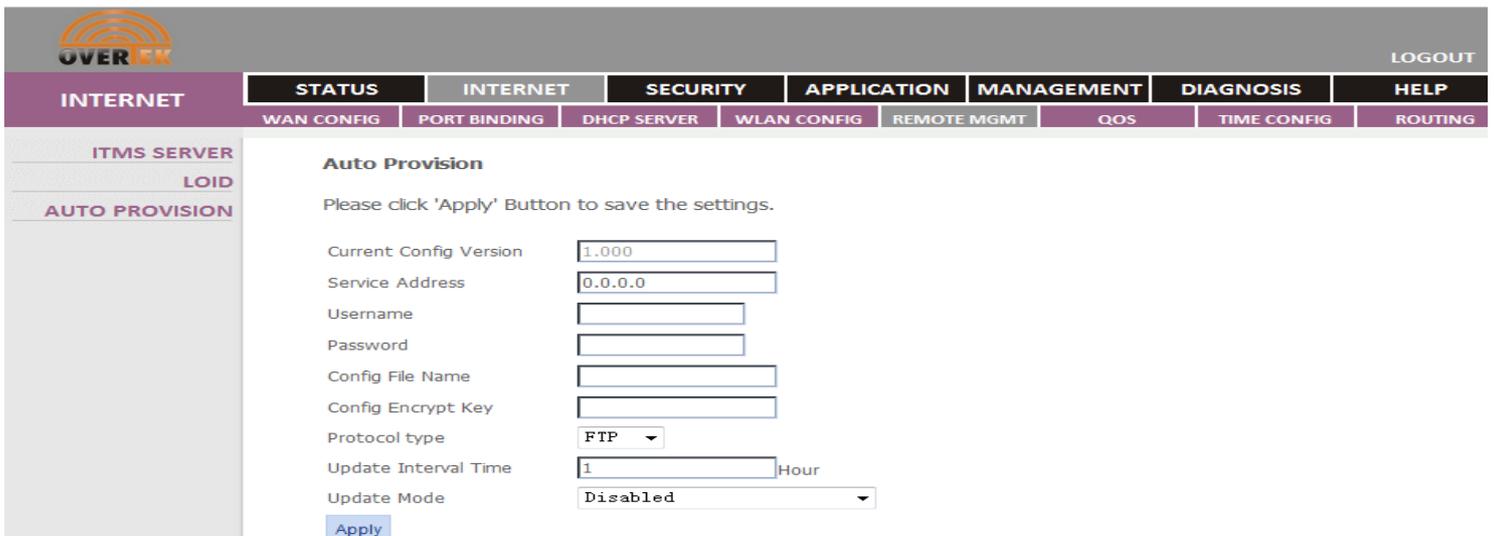
12. AUTO PROVISION

Click 'INTERNET' – 'REMOTE MGMT' – 'AUTO PROVISION' to enable Auto Provision function of your ONU.

The Auto Provision function is for remote update configuration and firmware of your OT-4020VW ONU. Enabling this function, you can configure the ONU remotely without human involvement. You can stay in your office updating the configuration for your Subscribers' device by uploading new configuration files or firmware at Server.

The OT-4020VW support auto provisioning through FTP, TFTP or http servers, you only need to update the configuration files and the firmware on your server, then when the Auto Provision condition is met, the ONU will automatically upgrade to the new configuration or new firmware version.

As the FTP, TFTP, HTTP servers are cost effective to deploy, the Auto Provision function is specially designed for small/medium ISPs to maintain the devices that are placed at Subscriber's house.



Auto Provision

Please click 'Apply' Button to save the settings.

Current Config Version

Service Address

Username

Password

Config File Name

Config Encrypt Key

Protocol type

Update Interval Time Hour

Update Mode

Current Config Version: Indicate the current version number of the configuration file. You do not need to configure this option as the configuration file versions are updated automatically.

Service Name: This is the Auto Provision Server address. You must fill this address in order to enable device know where to get the updated configuration file.

User Name: This is the user name for your Auto Provision Server

Password: This is the password for your Auto Provision Server

Config File Name: This is the configuration file name, it's named using the MAC address of the ONU.

You can leave this blank.

Config Encrypt Key: The OT-4020VW ONU support AES Encryption. You can encrypt the configuration file with AES and upload it onto the Auto Provision Server. You should fill the Encryption key in the ONU so the ONU can decrypt the configuration file.

Protocol Type: You can set Auto Provision server type to FTP, TFTP or HTTP

Update Interval Time: This is the Auto provision interval time, the ONU can be set to auto download the configuration file within the interval set in this blank. The minimum time interval is 1 hour, the max time interval can be 1440 hours.

Update Mode:

Disabled: It means the Auto Provision function is disabled in the ONU;

Update After Reboot: Set to 'Update After Reboot', the ONU will auto download the configuration file from the server when it's booting up.

Update at time interval: Set to 'Update at time interval', the ONU will auto download the configuration file from the server within the time interval set.

Note: 'Update after reboot ' and ' Update at time interval ' work simultaneously.

If you set the Auto Provision mode to ' Update at time interval', the ONU will auto download the configuration file when it's rebooted.

Apply: Click 'Apply' button to save and take new settings into effect.

12.1. Configuration Example for Auto Provision

A. Click 'INTERNET' – 'REMOTE MGMT' – 'AUTO PROVISION' to configure the right Auto Provision parameters. After done, click 'Apply' to save and activate Auto Provision function.

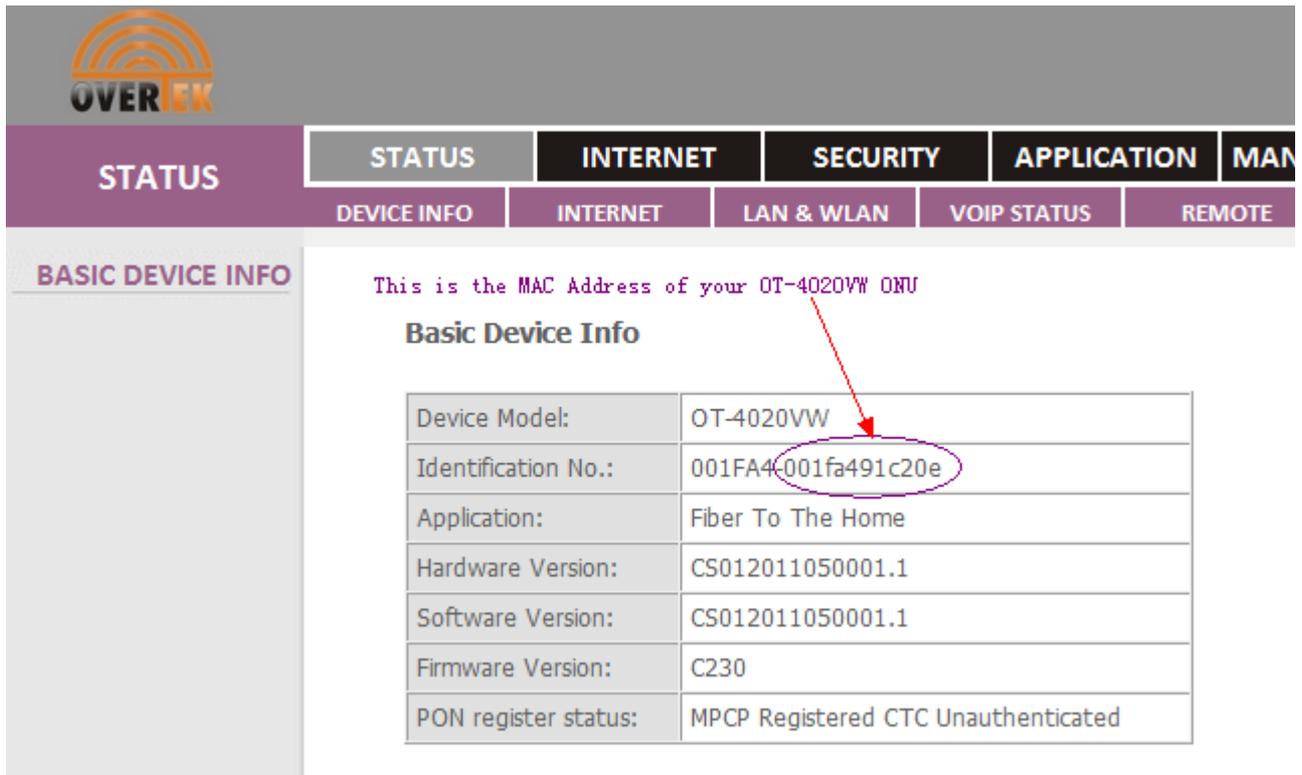
B. Enter into <http://192.168.86.1/backupsettings.html> , click 'Backup Setting' button to download the configuration file to your local folder.

Settings - Backup

Backup Broadband Router configurations. You may save your router configurations to a file on your PC.

Backup Settings

C. Go to 'Status' – 'Device Info' Page to find out the MAC address of OT-4020VW ONU.



This is the MAC Address of your OT-4020VW ONU

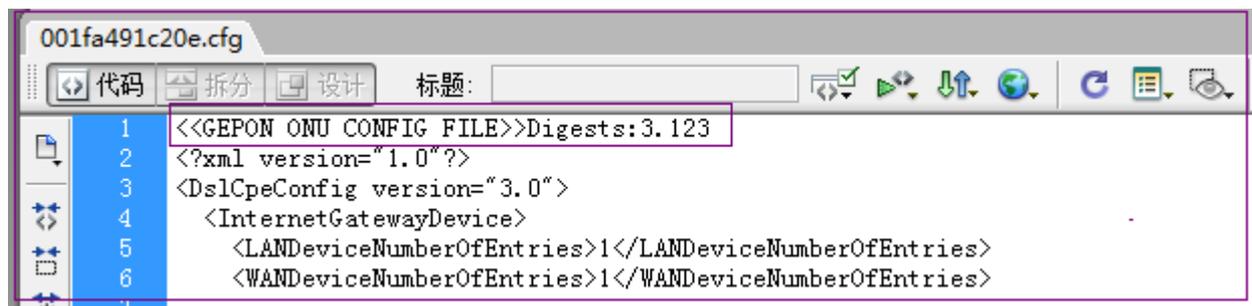
Basic Device Info

Device Model:	OT-4020VW
Identification No.:	001FA4-001fa491c20e
Application:	Fiber To The Home
Hardware Version:	CS012011050001.1
Software Version:	CS012011050001.1
Firmware Version:	C230
PON register status:	MPCP Registered CTC Unauthenticated

D. Name the Configuration file in the format 'mac address +.cfg'. In this example, the MAC address is **001fa491c20e**. So the correct configuration file name should be '**001fa491c20e.cfg**'.

E. Edit the configuration file using any html file editors, such as Dream Weaver.

E.1. To upgrade configuration file, it is **mandatory** that you add '**<<GEPON ONU CONFIG FILE>>Digests:3.123**' into the '**001fa491c20e.cfg**' configuration file to enable Auto Provisioning work correctly. See below for the example:

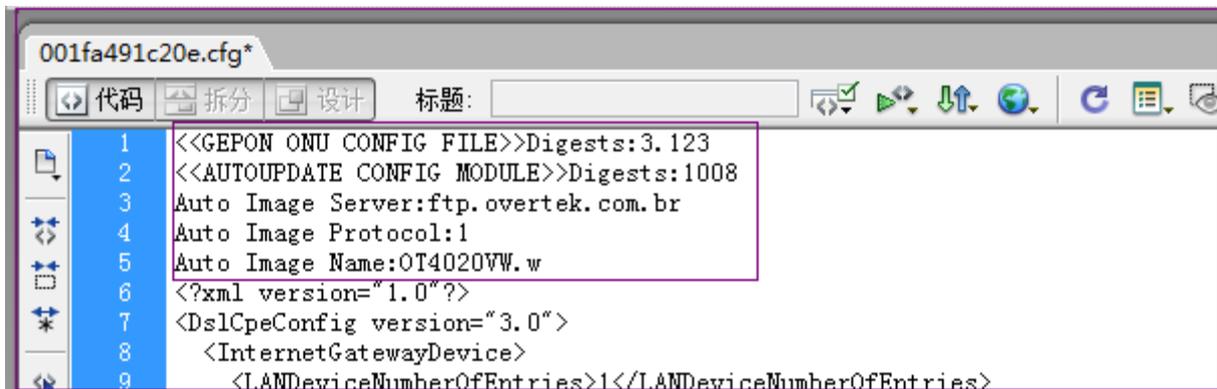


```
001fa491c20e.cfg
<<GEPON ONU CONFIG FILE>>Digests:3.123
<?xml version="1.0"?>
<DslCpeConfig version="3.0">
  <InternetGatewayDevice>
    <LANDeviceNumberOfEntries>1</LANDeviceNumberOfEntries>
    <WANDeviceNumberOfEntries>1</WANDeviceNumberOfEntries>
```

E.2. If you want to update both configuration file and firmware, then you should add the following parameters into the configuration file:

```
<<GEPON ONU CONFIG FILE>>Digests:3.123
<<AUTOUPDATE CONFIG MODULE>>Digests:1008
Auto Image Server:ftp.overtek.com.br
Auto Image Protocol:2
Auto Image Name:OT4020VW.w
```

In the above parameters, the Auto Image Server should be your own server address. The Auto Image protocol definition: 1 = FTP, 2 = TFTP, 4 = HTTP, you can set your preferred method. The Auto Image name can be any name that you prefer, e.g, ' 123.w '. Please see below for the example:



```
001fa491c20e.cfg*
代码  拆分  设计  标题:
1 <<GEPON ONU CONFIG FILE>>Digests:3.123
2 <<AUTOUPDATE CONFIG MODULE>>Digests:1008
3 Auto Image Server:ftp.overtek.com.br
4 Auto Image Protocol:1
5 Auto Image Name:OT4020VW.w
6 <?xml version="1.0"?>
7 <DslCpeConfig version="3.0">
8   <InternetGatewayDevice>
9     <LANDeviceNumberOfEntries>1</LANDeviceNumberOfEntries>
```

F. After you changed all the configuration parameters you want, upload this configuration file onto your Auto Provision server.

G. If you set the ONU 'Update After Reboot' in the step A, then when the ONU is rebooted, it will auto download the new configuration file from the Auto Provision Server, then checksum and apply by itself.

End of The Quick Start Manual.

For the parameters that are not specified in this manual, please find them in the OT-4020VW User Manual

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