

Installation guide for FCC application

1. Arris each port and LED function are as the Figure1 show .

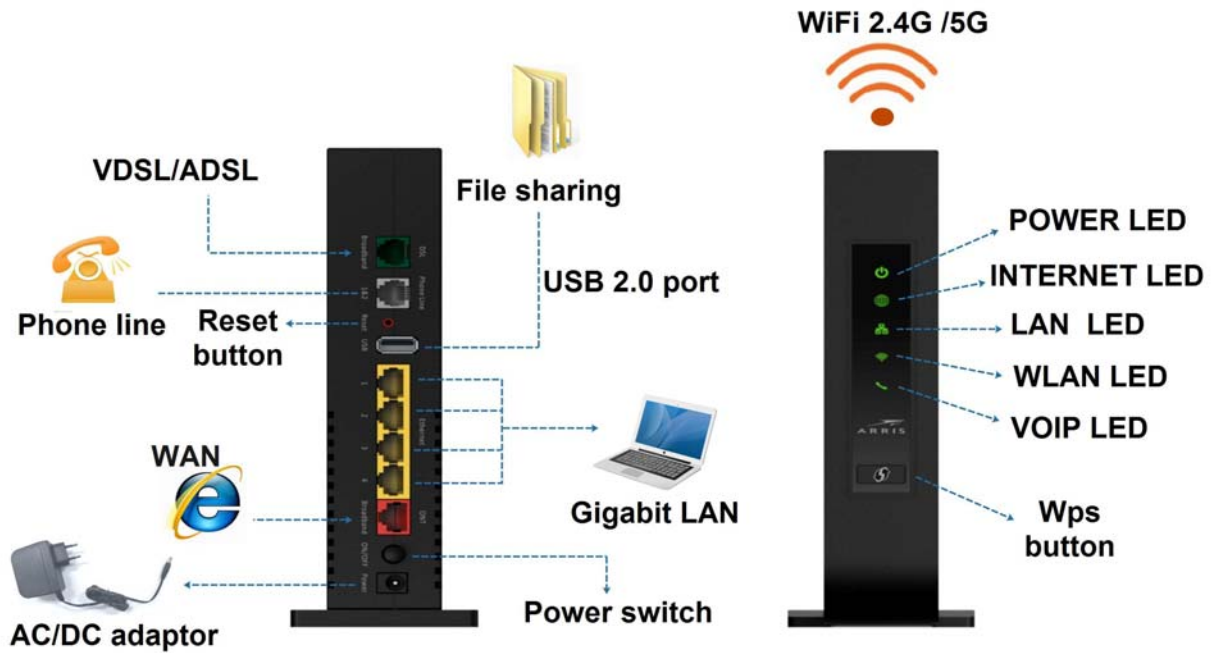
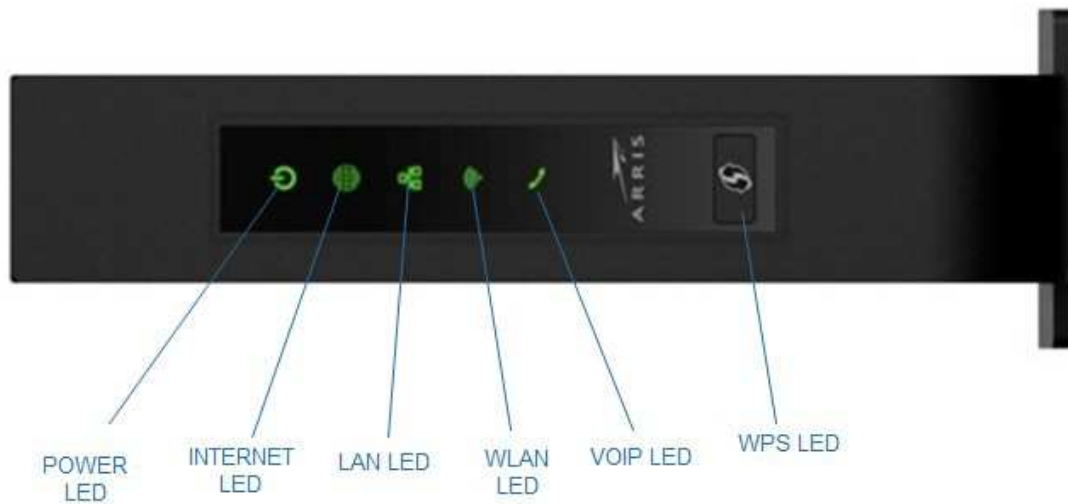


Figure1

1.1ARRIS Gateway Status Indicator Lights

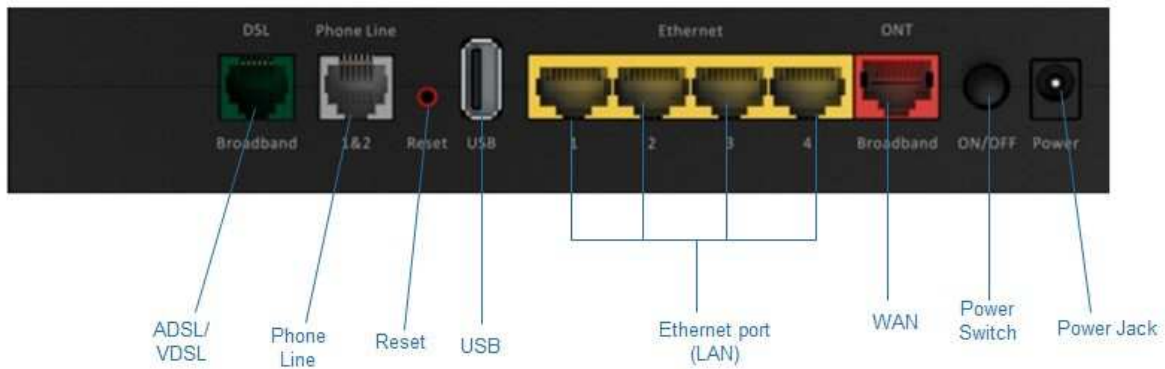
Colored LEDs on your ARRIS Gateway indicate the status of various port activity.(Figure 2)



| LED | Action |
|----------|--|
| POWER | Solid Green = The device is powered. Yellow=The device is bootting up. Off = The device is not powered. |
| INTERNET | Solid Green = Good broadband connection. Red = No broadband connection. Off = The device is not powered. |
| LAN | Solid Green = This led will flash follow the LAN data. Yellow=The led will turn on when the LAN ports exist connect ,and this led will turn off when the LAN ports disconnect . Off = The device is not powered, no cable or no powered devices connected to the Ethernet. |
| WLAN | Solid Green = 5G WIFI is connected. yellow =2.4G WIFI is connected. Red=WLAN function was turned off. Off = The device is not powered. |
| VOIP | Solid Green = This led will turn on when VOIP is calling. Yellow=The LED will turn on when the VOIP ports exist connect ,and this led will turn off when the VOIP ports disconnect . Off = VOIP not in use, line not registered or Gateway power off. |

Figure 2

1.2.Arris each port connecting introduction. (Figure3)



| Item | I/O interface | Description |
|------|-------------------|---|
| b | ADSL/VDSL Port | Connect to a modem. |
| c | VOIP port | Voice ports, please use RJ14 Y cable to connect a phone |
| d | USB port | USB 2.0 connector |
| e | LAN port | Ethernet RJ-45 LAN connect to PC |
| f | WAN port | Ethernet RJ-45 WAN connect to PC |
| h | POWER 12V/2.5A DC | Connect to the 12V/2.5A DC power adapter |

Figure 3

2.Set up the ARRIS Gateway

Refer to your Quick start Guide for instructions on how to connect your ARRIS gateway to your power source, PC or local area network, and your Internet access point, whether it is a Fiber connection or a Gigabit Ethernet connection. Different ARRIS Gateway models are supplied for any of these connections. If Dynamic Addressing is not enabled on your PC, perform the following.(Figure 4)

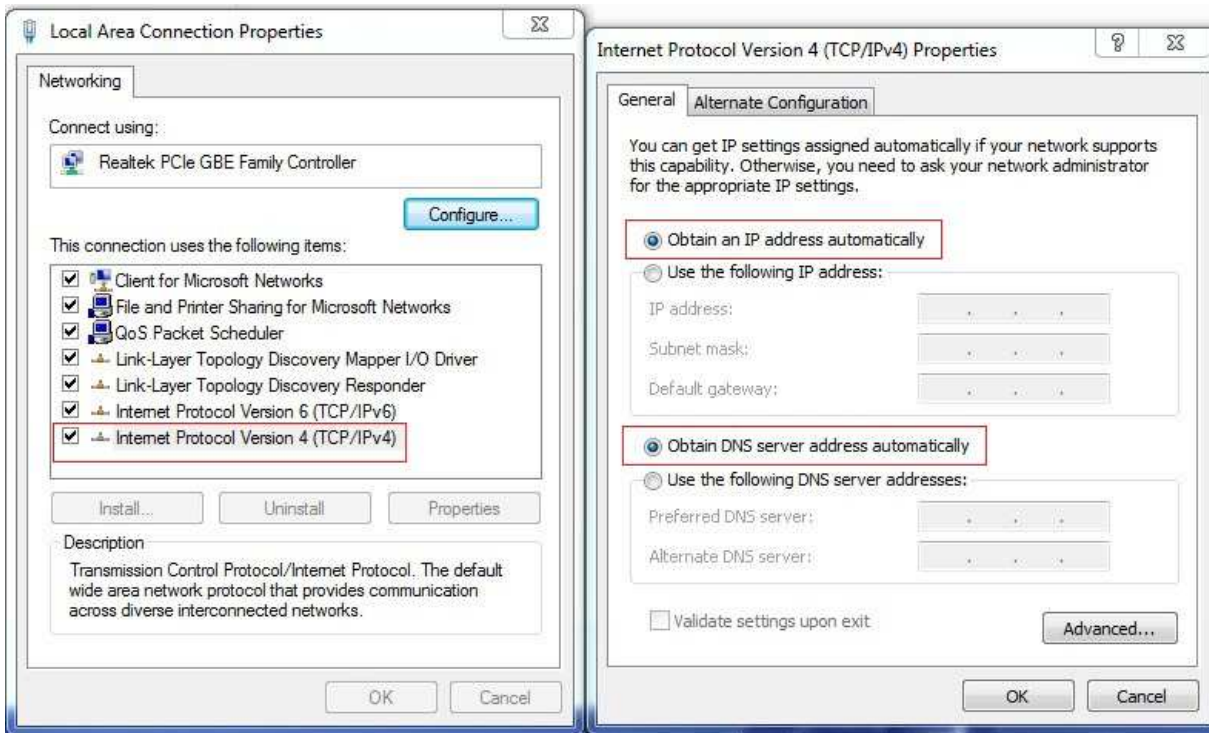


Figure 4

3. Accessing the Web Management Interface

Run your Web browser application, such as Firefox or Microsoft Internet Explorer, from the computer connected to the ARRIS Gateway.

Enter `http://192.168.1.254` in the Location text box. Once the network type is determined, The device Status Page opens. Enter your user name and password and click "OK" button. username and password are both "admin".(Figure 5)

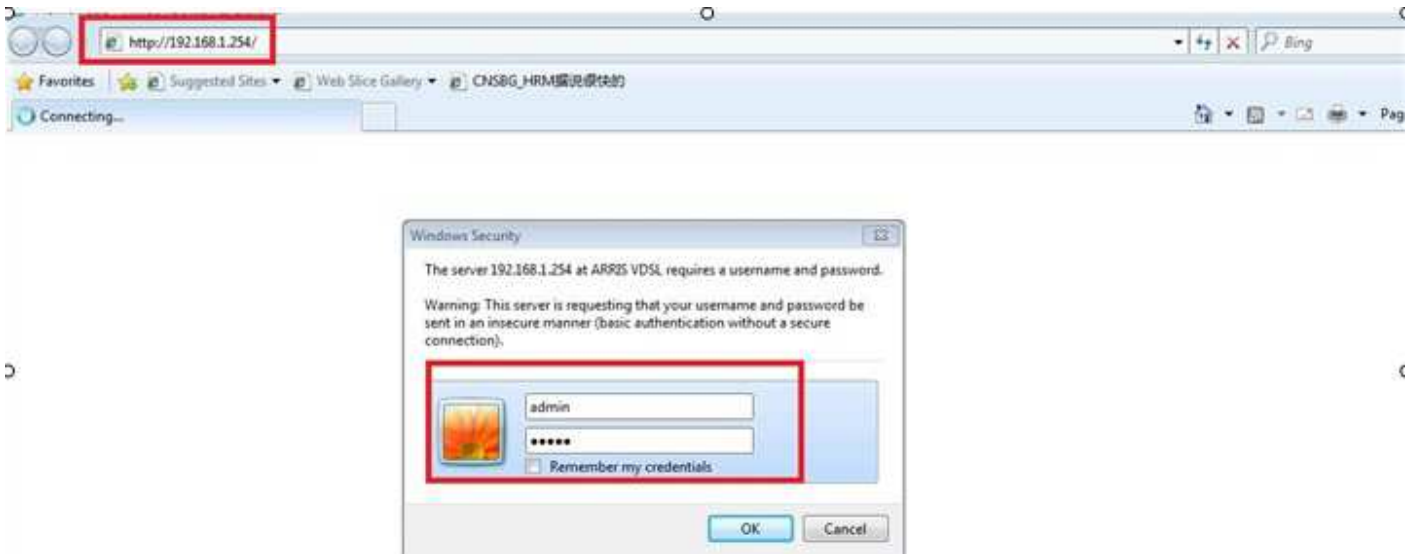


Figure 5

The Device Status Page opens.

The Device Status displays the following information in the center section.(Figure 6)

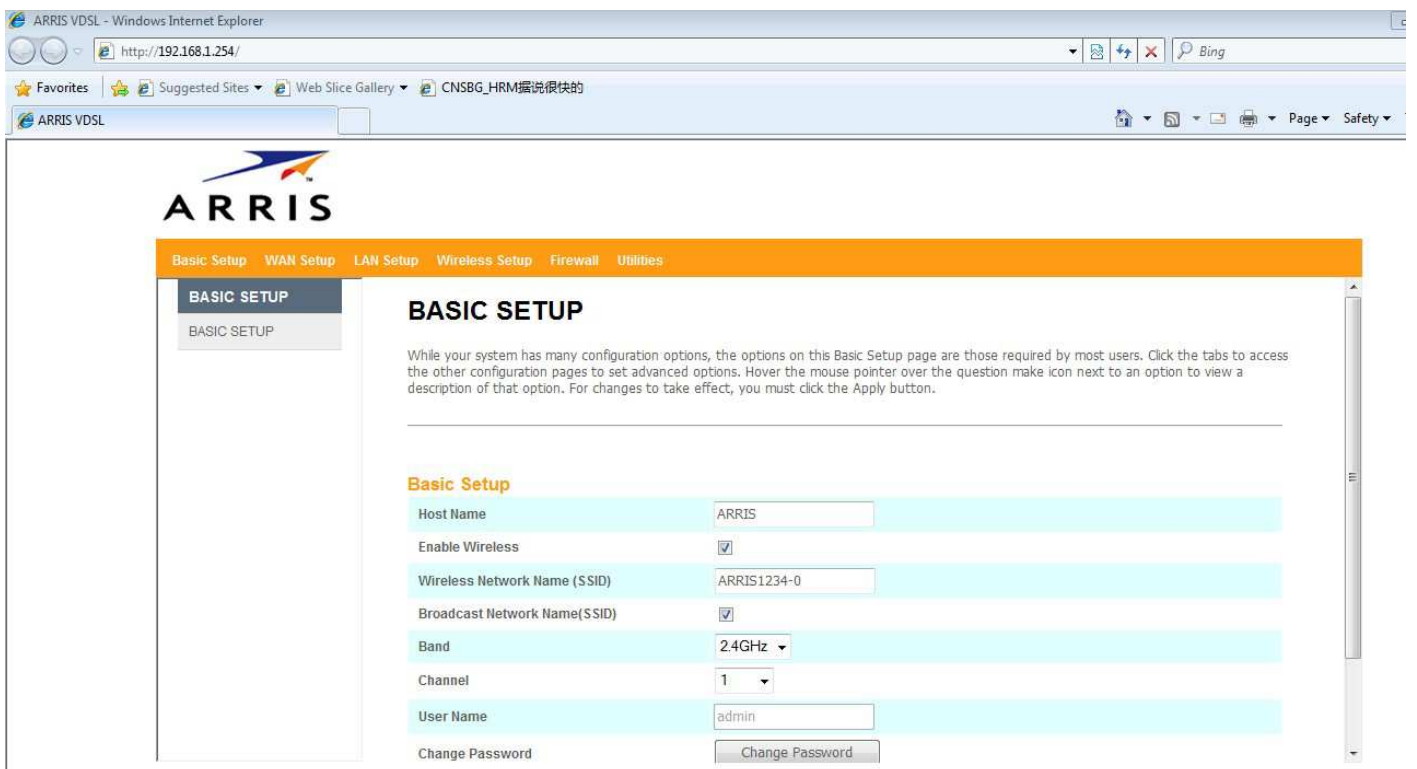


Figure 6

3.1 Links Bar

The links bar at the top of each page allows you to configure different aspects of the features displayed on the page. (Figure 7)



Figure 7

3.2 Basic Setup

Click "Basic Setup", you can change user name and password, and other settings as the figure shows. About WiFi settings, select "2.4G" or "5G" on "Band", then click "Apply/Save". (Figure 8)

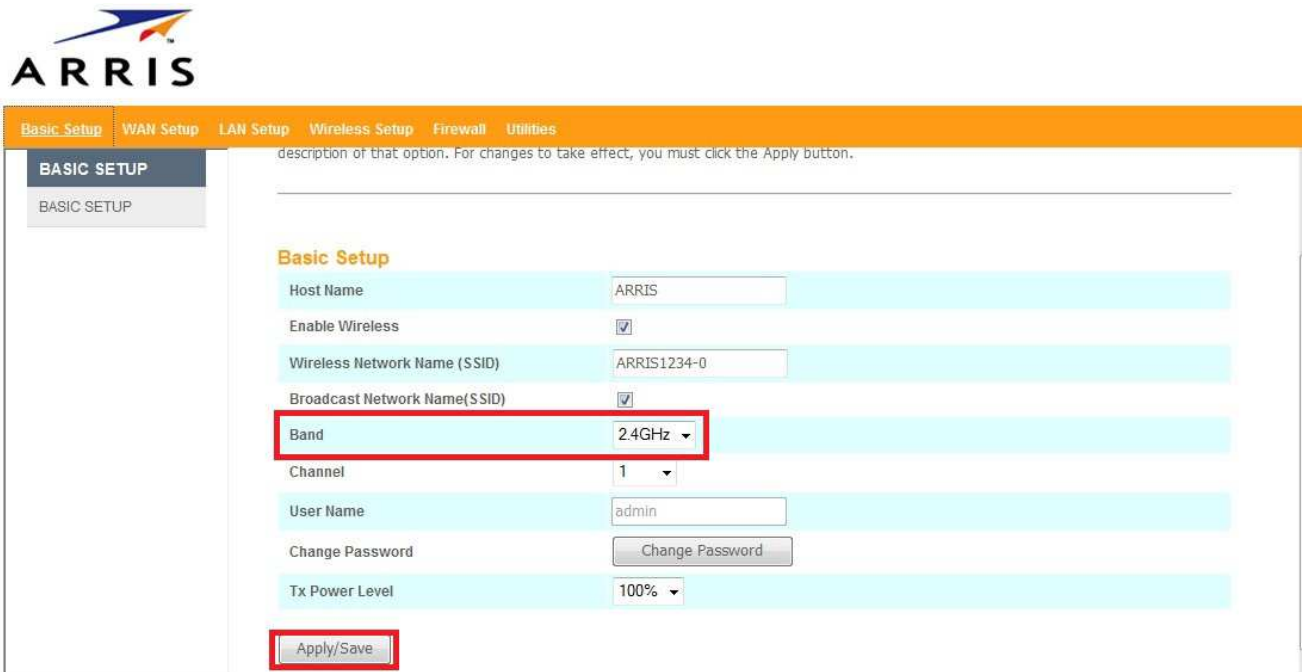


Figure 8

3.3 WIFI setting

Click "Wireless Setup" sub menu "Wireless 2.4G" or "Wireless 5G". Change WIFI SSID in "Wireless Network Name", then click "Apply/Save".(Figure 9)

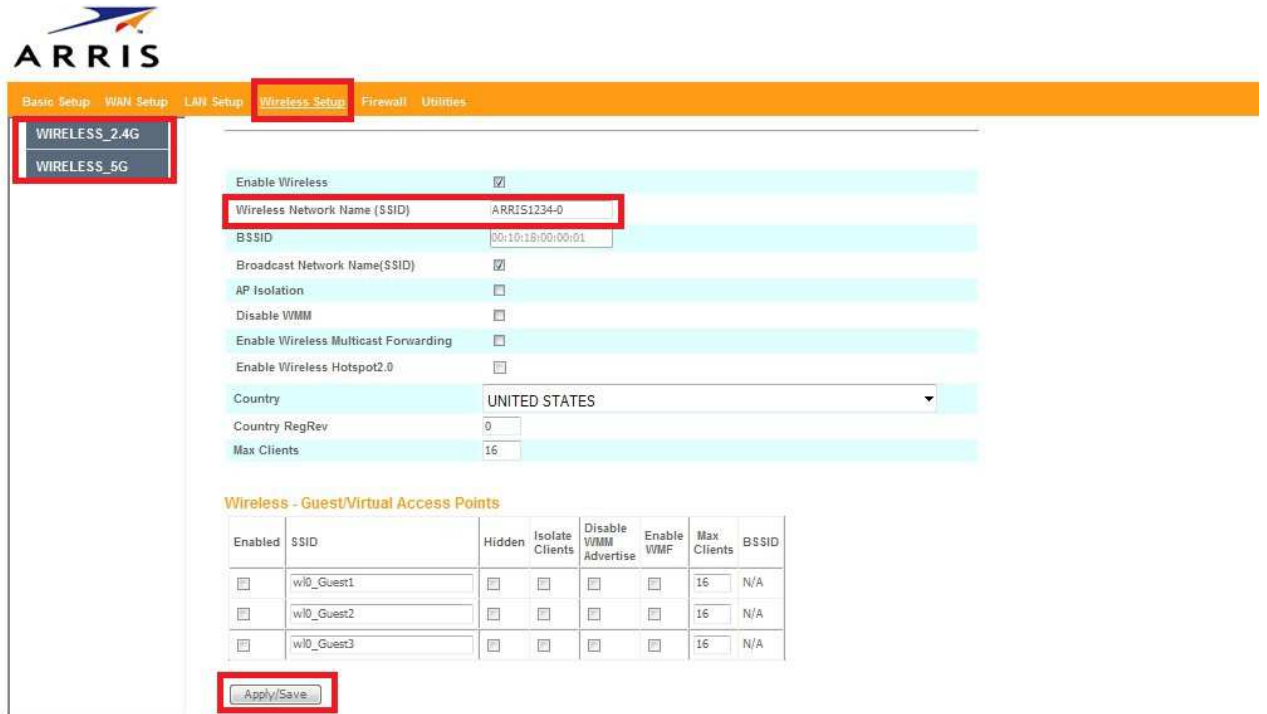


Figure 9

Click sub menu "SECURITY" to change WIFI password .select "WPA2-PSK" in "Network Authentication", then change password in "WPA/WAPI pass phrase"(Figure 10)



Basic Setup WAN Setup LAN Setup **Wireless Setup** Firewall Utilities

WIRELESS_2.4G
BASIC
SECURITY
ADVANCED
MAC FILTER
CLIENT LIST
WIRELESS BRIDGE
WIRELESS_5G

Manual Setup AP

You can set the network authentication method, selecting data, encryption, specify whether a network key is required to authenticate to this wireless network and specify the encryption strength. Click "Apply/Save" when done.

Select SSID: ARRIS1234-0
Network Authentication: WPA2-PSK
WPA/WAPI passphrase: [Click here to display](#)
WPA Group Rekey Interval: 0
WPA/WAPI Encryption: AES
WEP Encryption: Disabled

Apply/Save

Figure 10

3.4 Setup VDSL

click 'Utilities' and select 'PTM INTERFACE'. Click 'add' and configure a PTM flow then apply.



Basic Setup WAN Setup LAN Setup Wireless Setup Firewall **Utilities**

WAN STATISTIC
ETH INTERFACE
ATM INTERFACE
PTM INTERFACE
DIAGNOSTIC
DIAGNOSTIC OAM
SNMP AGENT
TR-069 CLIENT
QUALITY OF SERVICE
QOS QUEUE
QOS CLASSIFICATION

DSL PTM Interface Configuration

Choose Add, or Remove to configure DSL PTM interfaces.

| Interface | DSL Latency | PTM Priority | Conn Mode | IP QoS | Remove |
|-----------|-------------|--------------|-----------|--------|--------|
|-----------|-------------|--------------|-----------|--------|--------|

Add Remove

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ARRIS

Basic Setup | **WAN Setup** | LAN Setup | Wireless Setup | Firewall | Utilities

ACCOUNT/PASSWORD
SYSTEM SETTINGS
SYSTEM LOGS
DYNAMIC DNS
LAN STATISTIC
WAN STATISTIC
ETH INTERFACE
ATM INTERFACE
PTM INTERFACE
DIAGNOSTIC
DIAGNOSTIC OAM
SNMP AGENT
TR-069 CLIENT
QUALITY OF SERVICE
QOS QUEUE

PTM Configuration

This screen allows you to configure a PTM flow.

Select DSL Latency
Path0 (Fast)
Path1 (Interleaved)

Select Scheduler for Queues of Equal Precedence as the Default Queue
Weighted Round Robin
Weighted Fair Queuing

Default Queue Weight: 1 [1-63]
Default Queue Precedence: 8 [1-8] (lower value, higher priority)
Default Queue Minimum Rate: -1 [1-0 Kbps] (-1 indicates no shaping)
Default Queue Shaping Rate: -1 [1-0 Kbps] (-1 indicates no shaping)
Default Queue Shaping Burst Size: 3000 [bytes] (shall be >=1600)

Back | **Apply/Save** 4

Click 'WAN SETUP' select 'wan service', then click 'add'. If you only want to set xDSL interface with default configure. Click next, next....and apply in the end.

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Basic Setup | **WAN Setup** | LAN Setup | Wireless Setup | Firewall | Utilities

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

| Interface | Description | Type | Vlan8021p | VlanMuxId | VlanTpid | Igmp Proxy | Igmp Sourc |
|-----------|-------------|------|-----------|-----------|----------|------------|------------|
| | | | | | | | |

7 **Add** Remove

6 **WAN SERVICE**

Select the interface you have set in step '1'. then next.



Basic Setup **WAN Setup** LAN Setup Wireless Setup Firewall Utilities

WAN SETUP

- WAN INFO
- WAN SERVICE**
- DEFAULT GATEWAY
- STATIC ROUTE
- POLICY ROUTING

WAN Service Interface Configuration

Select a layer 2 interface for this service

Note: For ATM interface, the descriptor string is (portId_vpi_vci)
For PTM interface, the descriptor string is (portId_high_low)
Where portId=0 --> DSL Latency PATH0
portId=1 --> DSL Latency PATH1
portId=4 --> DSL Latency PATH0&1
low =0 --> Low PTM Priority not set
low =1 --> Low PTM Priority set
high =0 --> High PTM Priority not set
high =1 --> High PTM Priority set

ptm0/(0_1_1) was the interface that we sated before in step 1-4

ptm0/(0_1_1) ▼

Back Next **8**

Select WAN service type under your environment. Here I select IPOE. Then next.

| |
|--------------------|
| WAN SETUP |
| WAN INFO |
| WAN SERVICE |
| DEFAULT GATEWAY |
| STATIC ROUTE |
| POLICY ROUTING |

Select WAN service type:

- PPP over Ethernet (PPPoE)
- IP over Ethernet **9**
- Bridging

Enter Service Description:

For tagged service, enter valid 802.1P Priority and 802.1Q VLAN ID.
For untagged service, set -1 to both 802.1P Priority and 802.1Q VLAN ID.

Enter 802.1P Priority [0-7]:

Enter 802.1Q VLAN ID [0-4094]:

Select VLAN TPID:

Internet Protocol Selection:

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Wan IP set ... next and next.

ARRIS

Basic Setup **WAN Setup** LAN Setup Wireless Setup Firewall Utilities

WAN SETUP

- WAN INFO
- WAN SERVICE**
- DEFAULT GATEWAY
- STATIC ROUTE
- POLICY ROUTING

WAN IP Settings

Enter information provided to you by your ISP to configure the WAN IP settings.
Notice: If "Obtain an IP address automatically" is chosen, DHCP will be enabled for PVC in IPoE mode.
If "Use the following Static IP address" is chosen, enter the WAN IP address, subnet mask and default gateway.

Obtain an IP address automatically

Option 60 Vendor ID

Option 61 IAD (8 hexadecimal digits)

Option 61 DUID (hexadecimal digit)

Option 125 Disable Enable

11 Use the following Static IP address:

WAN IP Address **12**

WAN Subnet Mask

WAN gateway IP Address

Default gateway...next.

ARRIS

Basic Setup **WAN Setup** LAN Setup Wireless Setup Firewall Utilities

WAN SETUP

- WAN INFO
- WAN SERVICE**
- DEFAULT GATEWAY
- STATIC ROUTE
- POLICY ROUTING

Network (LAN).

Enable NAT **13**

Enable Fullcone NAT

ONLY IF REQUIRED -- DISABLES NETWORK ACCELERATION AND SOME SECURITY FEATURES

Enable Firewall

IGMP Multicast

Enable IGMP Multicast Proxy

Enable IGMP Multicast Source

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Basic Setup **WAN Setup** LAN Setup Wireless Setup Firewall Utilities

WAN SETUP

- WAN INFO
- WAN SERVICE**
- DEFAULT GATEWAY
- STATIC ROUTE
- POLICY ROUTING

Routing Default Gateway

Default gateway interface list can have multiple WAN interfaces served as system priority with the first being the highest and the last one the lowest priority if the removing all and adding them back in again.

Selected Default Gateway Interfaces

ptm0.1

Available Routed WAN Interfaces

Back Next

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Basic Setup **WAN Setup** LAN Setup Wireless Setup Firewall Utilities

WAN SETUP

- WAN INFO
- WAN SERVICE**
- DEFAULT GATEWAY
- STATIC ROUTE
- POLICY ROUTING

Select DNS Server Interface from available WAN interfaces:

Selected DNS Server Interfaces

Available WAN Interfaces

ptm0.1

Use the following Static DNS IP address:

Primary DNS server:

Secondary DNS server:

Back Next

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In the end, click apply. You can see this

- WAN SETUP**
- WAN INFO
- WAN SERVICE**
- DEFAULT GATEWAY
- STATIC ROUTE
- POLICY ROUTING

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

| | |
|--------------------------------|----------|
| Connection Type | IPoE |
| NAT | Enabled |
| Full Cone NAT | Enabled |
| Firewall | Disabled |
| IGMP Multicast Proxy | Disabled |
| IGMP Multicast Source Enabled: | Disabled |
| MLD Multicast Proxy | Disabled |
| MLD Multicast Source Enabled: | Disabled |
| Quality Of Service | Enabled |

Click "Apply/Save" to have this interface to be effective. Click "Back" to make

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- WAN SETUP**
- WAN INFO
- WAN SERVICE**
- DEFAULT GATEWAY
- STATIC ROUTE
- POLICY ROUTING

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

| Interface | Description | Type | Vlan8021p | VlanMuxId | VlanTpid | Igmp Proxy | Igmp Source | NAT | Firewall | IPv6 | Mld Proxy | Mld Source | Remove | Edit |
|-----------|-------------|------|-----------|-----------|----------|------------|-------------|---------|----------|----------|-----------|------------|---------------------------------------|-------------------------------------|
| ptm0.1 | ipoe_0_1_1 | IPoE | N/A | N/A | N/A | Disabled | Disabled | Enabled | Disabled | Disabled | Disabled | Disabled | <input type="button" value="Remove"/> | <input type="button" value="Edit"/> |

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

For operation within 5.15 ~ 5.25GHz / 5.47 ~5.725GHz frequency range, it is restricted to indoor environment. The band from 5600-5650MHz will be disabled by the software during the manufacturing and cannot be changed by the end user. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 30cm between the radiator & your body.