Actiontec®

Bonded VDSL2/G.fast Wireless AC Gateway Router

Model # T3200BV

User Guide

0xxx-00xx-000 rev. x

Table of Contents

Introduction 1

Congratulations on purchasing the T3200BV Bonded VDSL2 /G.fast Wireless AC GatewayRouter. The Gateway is a single platform device that supports universal WAN access, FTTN, FTTdp, FTTB, or FTTP. With support for advanced 802.11ac 4x4 WiFi, the Gateway enables blazing fast HD video streaming, with multi-channel HD video throughput. The Gateway also offers an unprecedented level of security, helping protect your network resources. It has also been designed to deliver unparalleled WiFi performance, using dual-band WiFi supporting speeds up to 2.3 Gbps.

Package Contents

- Black Power adapter
- Yellow cable (Ethernet, 6 ft.)
- White cable (Ethernet, 10 ft.)
- Quick Start Guide
- Installation Guide
- Wall-mount template
- Vertical stand

Minimum System Requirements

- Active ADSL2+ service
- Computer with an 10 Mbps or 10/100/1000 Mbps Ethernet connection
- Microsoft Windows 10, 8, 7; Mac OS OS X+
- TCP/IP network protocol installed on each computer

Features

- ADSL2+, VDSL2, G.fast, WAN Ethernet and Fiber in a single CPE
- Dual Band WiFi delivering up to 2.3 Gbps with 802.11ac 4x4 5GHz and 802.11n 3x3 2.4GHz
- Optimized for IPTV and Video over WiFi
- SFP cage for G.fast or EPON/GPON ONT modules

Getting to Know the Gateway

This section contains a quick description of the Gateway's lights, ports, and other features. The Gateway has several indicator lights (LEDs) and a button on its front panel, and a series of ports and switches on its rear panel.

Front Panel

The front panel of the Gateway features 2 LEDs (*Internet* and *Wi-Fi*), and a WPS (Wireless Protected Setup) button.

Internet

The Internet LED illuminates green when the Gateway is properly connected to a WAN Internet connection.

Wi-Fi LED

The Wi-Fi LED illuminates green when the Gateway's wireless network is operating and properly configured.

WPS Button

The WPS button is used when connecting a wireless device to the Gateway's wireless network using WPS.

Rear Panel

The rear panel of the Gateway features 10 ports, and a Reset button.

Power Port

The Power port is used to connect the Power cord (Model No. CDS036-W120U, made by Adapter Technology Co Ltd) to the Gateway.

Reset Button

Depressing the Reset button for 10 seconds will restore the Gateway's factory default settings. The reset process will start after releasing the button.

WARNING! Do not unplug the Power cord from the Gateway during the reset process. Doing so may result in permanent damage to the Gateway.

SFP Cage

The SFP cage is used to connect the Gateway to a service provider connection via optical fiber cable.

WAN Ethernet Port

The WAN Ethernet port is used to connect the Gateway to a WAN connection via an Ethernet cable.

LAN Ethernet Ports (4)

The LAN Ethernet ports are used to connect computers to the Gateway via Ethernet cable. The Ethernet ports are 10/100/1000 Mbps auto-sensing ports, and either a straight-through or crossover Ethernet cable can be used when connecting to the ports.

USB Port

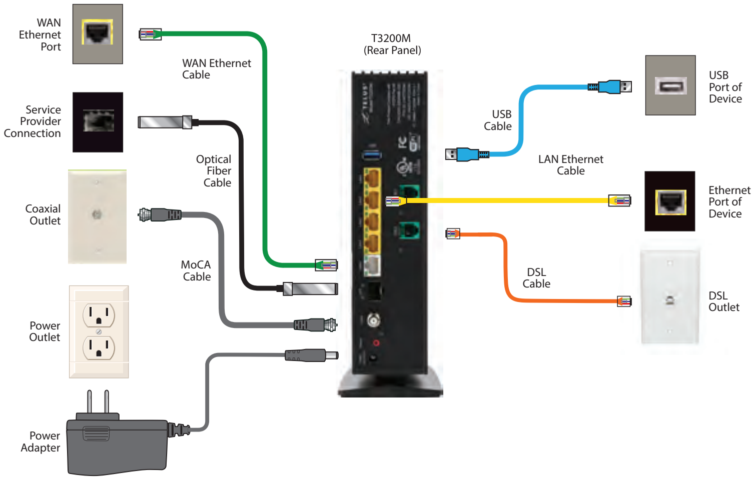
The USB port is used to connect the Gateway to a USB device.

DSL Ports (2)

The DSL ports are used to connect the Gateway to a DSL wall outlet via DSL cable. For single line DSL, use the *DSL 1* port.

Connecting the Gateway

There are many variables involved when connecting the Gateway, depending on the type of Internet service available. The figure below shows all of the possible connections available for the Gateway.



Connecting a Computer to the Gateway

To connect a computer to the Gateway to access the Gateway's graphical user interface (GUI):

1. Get the Gateway and black Power cord from the box.
2. Plug the black Power cord in the black port on the back of the Gateway and then into a power outlet.
3. Plug the yellow Ethernet cable from the box into one of the four yellow Ethernet ports on the back of the Gateway.
4. Make sure the computer is powered on, then plug the other end of the yellow Ethernet cable into an Ethernet port on the computer.
5. Make sure that the LED on the LAN port into which the Ethernet cable is plugged glows steadily green. This may take a few moments.
6. The computer should either be configured with a statically defined IP address and DNS address, or instructed to automatically obtain an IP address using the Network DHCP server. The Gateway is set up, by default, with an active DHCP server, and it is recommended to leave this setting as is.

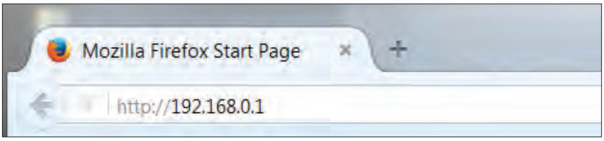
Accessing the Home Screen 2

This chapter gives a short overview of the Home screen of the Gateway's graphical user interface (GUI).

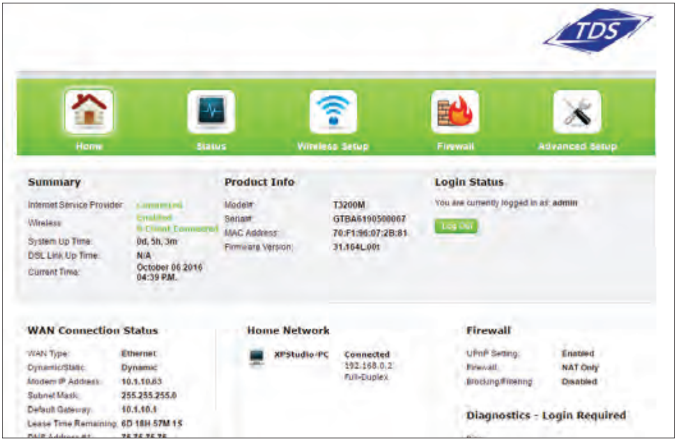
Accessing the Home Screen

To access the Home screen:

1. Open a Web browser on computer connected, via Ethernet cable, to one of the Gateway's LAN ports. In the *Address* text box, type:
   http://192.168.0.1
   then press **Enter** on the keyboard.



2. The Gateway's Home screen appears.



Summary

Internet Service Provider: Connected
Wireless: Enabled
0 Client Connected
System Up Time: 0d, 5h, 3m
DSL Link Up Time: N/A
Current Time: October 06 2016 04:39 P.M.

Product Info

Model#: T3200M
Serial#: GTBA6190500067
MAC Address: 70:F1:96:07:2B:81
Firmware Version: 31.164L.00t

Login Status

You are currently logged in as: admin

WAN Connection Status

WAN Type: Ethernet
Dynamic/Static: Dynamic
Modem IP Address: 10.1.10.63
Subnet Mask: 255.255.255.0
Default Gateway: 10.1.10.1
Lease Time Remaining: 6D 18H 57M 1S

Home Network

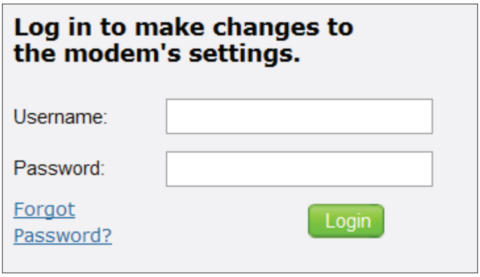
XPStudio-PC Connected 192.168.0.2 Full-Duplex

Firewall

UPnP Setting: Enabled
Firewall: NAT Only
Blocking/Filtering: Disabled

Diagnostics - Login Required

3. Enter the username *admin* and the password found on the sticker on the side of the Gateway in the *Username* and *Password* text boxes at the top right side of the screen, then click **Login**.



Log in to make changes to the modem's settings.

Username:

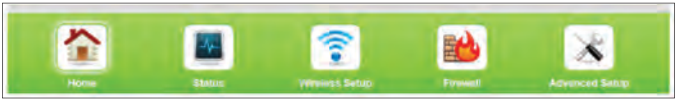
Password:

Note: An option to change the password will appear the first time a user logs in to the Gateway's GUI.

The Gateway's GUI is now accessible.

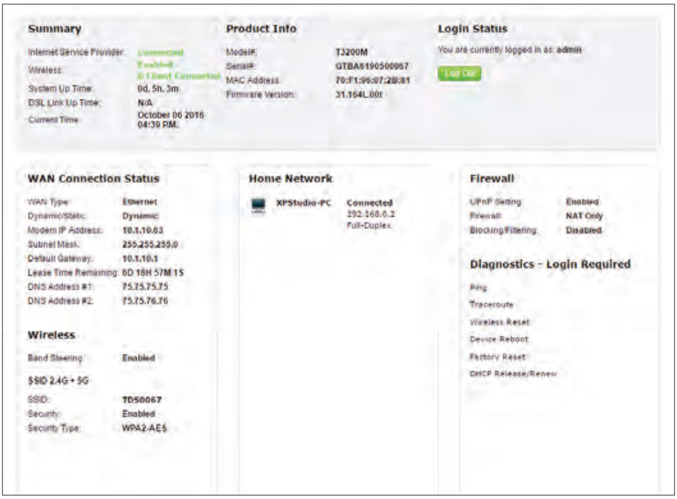
Icon Bar

At the top of the Home screen is the Icon Bar. Here, you can quickly access the other four main sections of the Gateway's GUI by clicking on the appropriate icon: Status (see chapter 3 for more details); Wireless Setup (see chapter 4 for more details); Firewall (see chapter 5 for more details); Advanced Setup (see chapter 6 for more details). Clicking **Home** in any other screen generates the Home screen.



Connection Status

The bottom of the Home screen consists of connection and device information relating to the Gateway. There are no configurable options here.



Summary

Internet Service Provider:	Connected
Wireless:	Enabled 0 Client Connected
System Up Time:	0d, 5h, 3m
DSL Link Up Time:	N/A
Current Time:	October 06 2016 04:39 PM.

Product Info

Model#:	T3200M
Serial#:	GTBA6190500067
MAC Address:	70:F1:96:07:2B:81
Firmware Version:	31.164L.00t

Login Status

You are currently logged in as: admin

WAN Connection Status

WAN Type:	Ethernet
Dynamic/Static:	Dynamic
Modem IP Address:	10.1.10.63
Subnet Mask:	255.255.255.0
Default Gateway:	10.1.10.1
Lease Time Remaining:	6D 18H 57M 1S
DNS Address #1:	75.75.75.75
DNS Address #2:	75.75.76.76

Wireless

Band Steering:	Enabled

SSID 2.4G + 5G

SSID:	TDS0067
Security:	Enabled
Security Type:	WPA2-AES

Home Network

XPStudio-PC	Connected 192.168.0.2 Full-Duplex

Firewall

UPnP Setting:	Enabled
Firewall:	NAT Only
Blocking/Filtering:	Disabled

Diagnostics - Login Required

Checking the Gateway's Status

3

This chapter explains the options available on the Status screens, which display information about the Gateway's network connections.

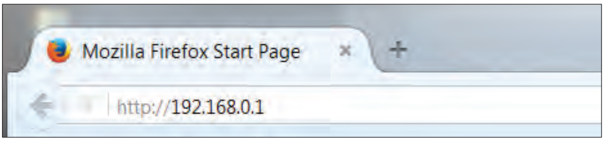
Accessing the Status Screens

To access the Gateway's Status screens:

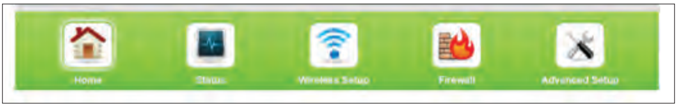
1. Open a Web browser. In the *Address* text box, type:

   http://192.168.0.1

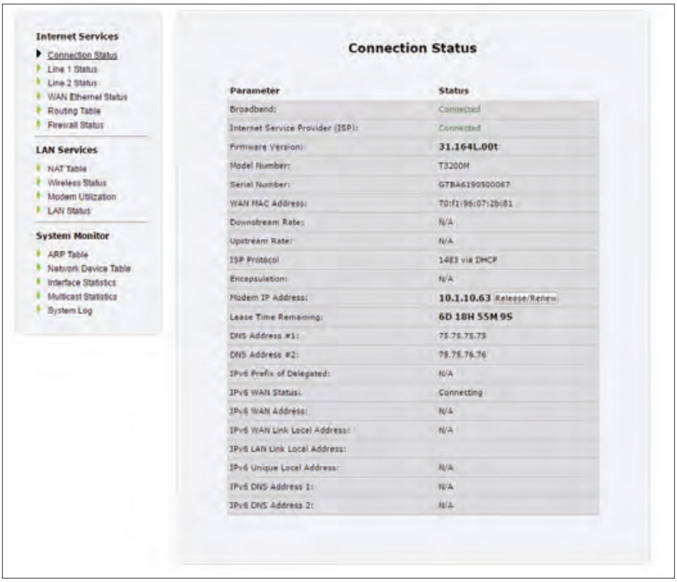
   then press **Enter** on the keyboard.



2. The Gateway's Main screen appears. Click the *Status* icon.



3. The *Connection Status* screen appears.



Connection Status

Parameter	Status
Broadband:	Connected
Internet Service Provider (ISP):	Connected
Firmware Version:	31.164L.00t
Model Number:	T3200M
Serial Number:	GTBA6190500067
WAN MAC Address:	70:f1:96:07:2b:81
Downstream Rate:	N/A
Upstream Rate:	N/A
ISP Protocol	1483 via DHCP
Encapsulation:	N/A
Modem IP Address:	10.1.10.63
Lease Time Remaining:	6D 18H 55M 9S
DNS Address #1:	75.75.75.75
DNS Address #2:	75.75.76.76
IPv6 Prefix of Delegated:	N/A
IPv6 WAN Status:	Connecting
IPv6 WAN Address:	N/A
IPv6 WAN Link Local Address:	N/A
IPv6 LAN Link Local Address:	
IPv6 Unique Local Address:	N/A
IPv6 DNS Address 1:	N/A
IPv6 DNS Address 2:	N/A

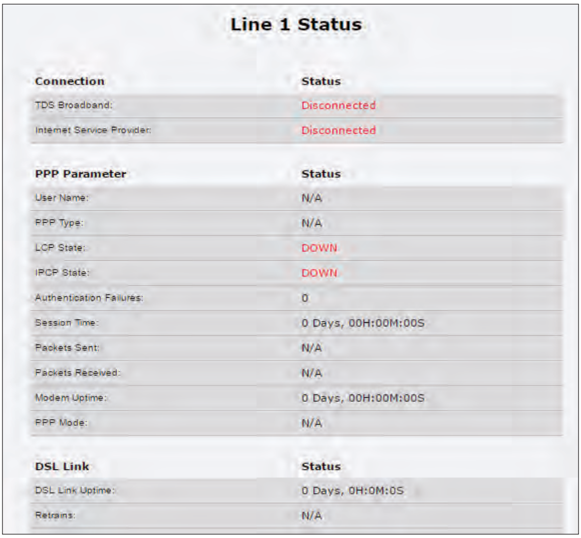
From here, all the Status screens can be accessed from the menu on the left.

Connection Status

Clicking **Connection Status** from any Status screen generates the *Connection Status* (see figure, above). Information concerning the devices connected to the Gateway's network, whether wired or wireless, is displayed here, along with the connected device's IP address, MAC address, and (if applicable) IPv6 address.

Line 1/Line 2 Status

Click **Line 1 Status** from any Status screen to generate the *Line 1 Status* screen. This screen displays the Gateway's DSL connection parameters for *DSL Line 1* port. Clicking **Line 2 Status** genreates the *Line 2 Status* screen, which displays the connection parameters for the Gateway's *DSL Line 2* port.



Line 1 Status

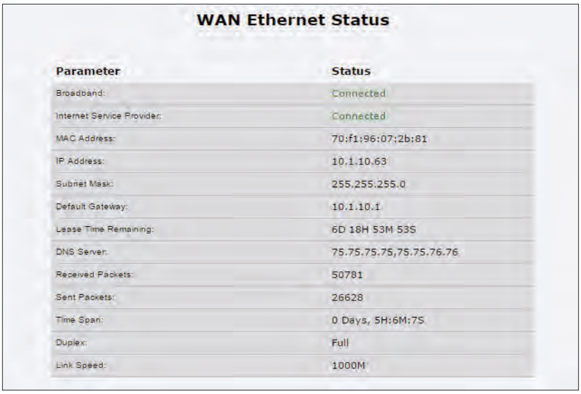
Connection	Status
TDS Broadband:	Disconnected
Internet Service Provider:	Disconnected

PPP Parameter	Status
User Name:	N/A
PPP Type:	N/A
LCP State:	DOWN
IPCP State:	DOWN
Authentication Failures:	0
Session Time:	0 Days, 00H:00M:00S
Packets Sent:	N/A
Packets Received:	N/A
Modem Uptime:	0 Days, 00H:00M:00S
PPP Mode:	N/A

DSL Link	Status
DSL Link Uptime:	0 Days, 0H:0M:0S
Retrains:	N/A

WAN Ethernet

Click **WAN Ethernet** from any Status screen to generate the *WAN Ethernet Status* screen. This screen displays the Gateway's WAN (wide area network) parameters.

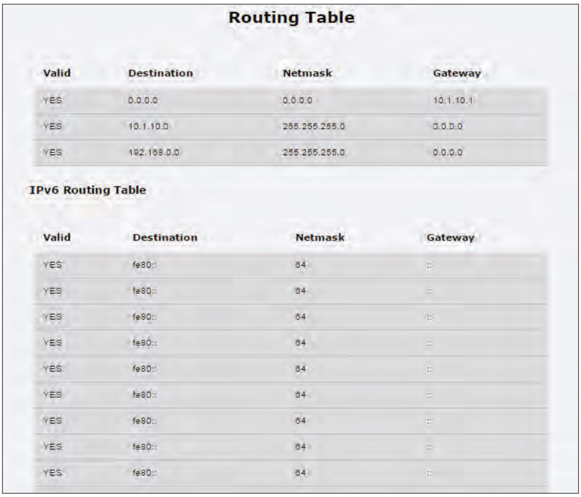


WAN Ethernet Status

Parameter	Status
Broadband:	Connected
Internet Service Provider:	Connected
MAC Address:	70:f1:96:07:2b:81
IP Address:	10.1.10.63
Subnet Mask:	255.255.255.0
Default Gateway:	10.1.10.1
Lease Time Remaining:	6D 18H 53M 53S
DNS Server:	75.75.75.75,75.75.76.76
Received Packets:	50781
Sent Packets:	26628
Time Span:	0 Days, 5H:6M:7S
Duplex:	Full
Link Speed:	1000M

Routing Table

Click **Routing Table** from any Status screen to generate the *Routing Table* screen. This screen displays the Gateway's routes.



Routing Table

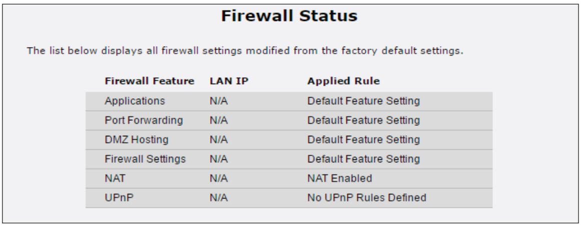
Valid	Destination	Netmask	Gateway
YES	0.0.0.0	0.0.0.0	10.1.10.1
YES	10.1.10.0	255.255.255.0	0.0.0.0
YES	192.168.0.0	255.255.255.0	0.0.0.0

IPv6 Routing Table

Valid	Destination	Netmask	Gateway
YES	fe80::	64	::
YES	fe80::	64	::
YES	fe80::	64	::
YES	fe80::	64	::
YES	fe80::	64	::
YES	fe80::	64	::
YES	fe80::	64	::
YES	fe80::	64	::
YES	fe80::	64	::

Firewall Status

Click **Firewall Status** from any Status screen to generate the *Firewall Status* screen. This screen displays parameters concerning the Gateway's firewall.



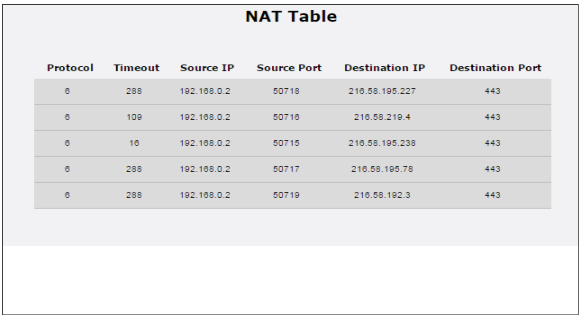
Firewall Status

The list below displays all firewall settings modified from the factory default settings.

Firewall Feature	LAN IP	Applied Rule
Applications	N/A	Default Feature Setting
Port Forwarding	N/A	Default Feature Setting
DMZ Hosting	N/A	Default Feature Setting
Firewall Settings	N/A	Default Feature Setting
NAT	N/A	NAT Enabled
UPnP	N/A	No UPnP Rules Defined

NAT Table

Click **NAT Table** from any Status screen to generate the *NAT Table* screen. This screen displays the Gateway's WAN (wide area network) parameters.

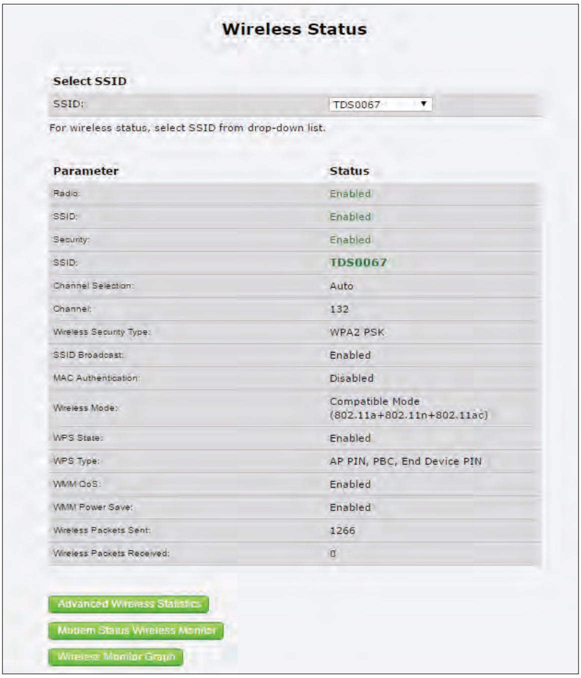


NAT Table

Protocol	Timeout	Source IP	Source Port	Destination IP	Destination Port
6	288	192.168.0.2	50718	216.58.195.227	443
6	109	192.168.0.2	50716	216.58.219.4	443
6	16	192.168.0.2	50715	216.58.195.238	443
6	288	192.168.0.2	50717	216.58.195.78	443
6	288	192.168.0.2	50719	216.58.192.3	443

Wireless Status

Click **Wireless Status** from any Status screen to generate the *Wireless Status* screen. This screen displays the Gateway's wireless network parameters.



Wireless Status

Select SSID

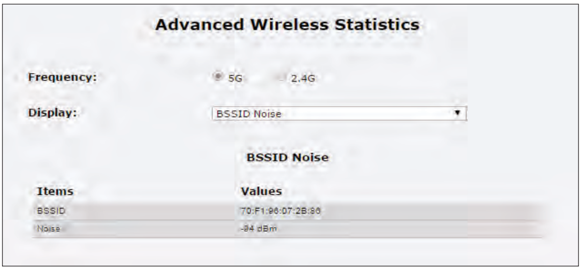
SSID:	TDS0067 ▾

For wireless status, select SSID from drop-down list.

Parameter	Status
Radio:	Enabled
SSID:	Enabled
Security:	Enabled
SSID:	TDS0067
Channel Selection:	Auto
Channel:	132
Wireless Security Type:	WPA2 PSK
SSID Broadcast:	Enabled
MAC Authentication:	Disabled
Wireless Mode:	Compatible Mode (802.11a+802.11n+802.11ac)
WPS State:	Enabled
WPS Type:	AP PIN, PBC, End Device PIN
WMM QoS:	Enabled
WMM Power Save:	Enabled
Wireless Packets Sent:	1266
Wireless Packets Received:	0

Advanced Wireless Status

Click **Advanced Wireless Statistics** from the bottom of the Wireless Status screen to generate the *Advanced Wireless Statistics* screen. This screen displays the Gateway's additional wireless network parameters.



Advanced Wireless Statistics

Frequency: ● 5G ○ 2.4G

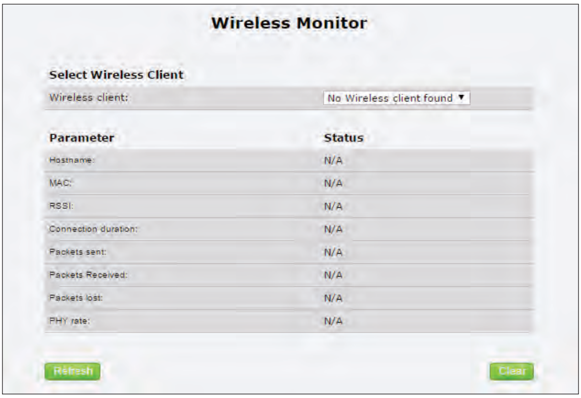
Display: BSSID Noise ▾

BSSID Noise

Items	Values
BSSID	70:F1:96:07:2B:96
Noise	-94 dBm

Wireless Monitor

Click **Modemstatus Wireless Monitor** from the bottom of the Wireless Status screen to generate the *Wireless Monitor* screen. This screen displays parameters for the clients connected to the Gateway's wireless network.



Wireless Monitor

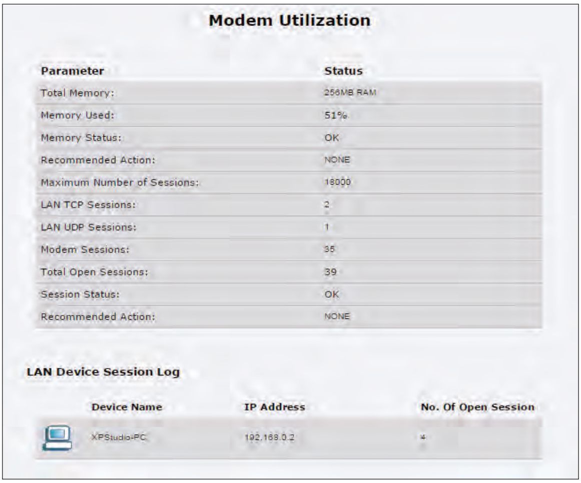
Select Wireless Client

Wireless client: No Wireless client found ▾

Parameter	Status
Hostname:	N/A
MAC:	N/A
RSSI:	N/A
Connection duration:	N/A
Packets sent:	N/A
Packets Received:	N/A
Packets lost:	N/A
PHY rate:	N/A

Modem Utilization

Click **Modem Utilization** from any Status screen to generate the *Modem Utilization* screen. This screen displays statistics related to the Gateway's modem operation.



Modem Utilization

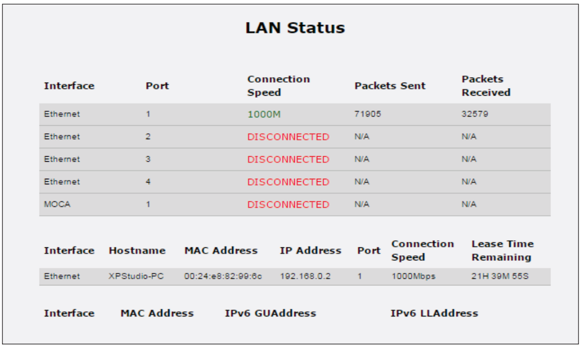
Parameter	Status
Total Memory:	256MB RAM
Memory Used:	51%
Memory Status:	OK
Recommended Action:	NONE
Maximum Number of Sessions:	18000
LAN TCP Sessions:	2
LAN UDP Sessions:	1
Modem Sessions:	35
Total Open Sessions:	39
Session Status:	OK
Recommended Action:	NONE

LAN Device Session Log

	Device Name	IP Address	No. Of Open Session
🖥	XPStudio-PC	192.168.0.2	4

LAN Status

Click **LAN Status** from any Status screen to generate the *LAN Status* screen. This screen displays the Gateway's LAN (local area network) parameters.



LAN Status

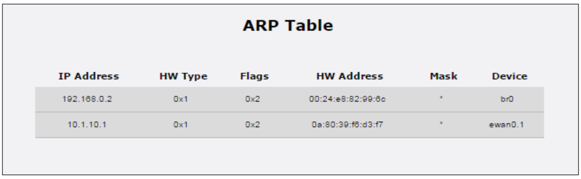
Interface	Port	Connection Speed	Packets Sent	Packets Received
Ethernet	1	1000M	71905	32579
Ethernet	2	DISCONNECTED	N/A	N/A
Ethernet	3	DISCONNECTED	N/A	N/A
Ethernet	4	DISCONNECTED	N/A	N/A
MOCA	1	DISCONNECTED	N/A	N/A

Interface	Hostname	MAC Address	IP Address	Port	Connection Speed	Lease Time Remaining
Ethernet	XPStudio-PC	00:24:e8:82:99:6c	192.168.0.2	1	1000Mbps	21H 39M 55S

Interface	MAC Address	IPv6 GUAddress	IPv6 LLAddress

ARP Table

Click **ARP Table** from any Status screen to generate the *ARP Table* screen. This screen displays the Gateway's ARP (address resolution protocol) table.

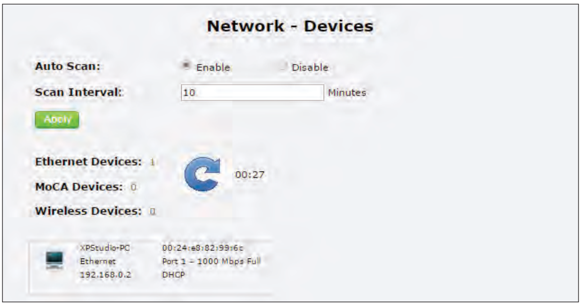


ARP Table

IP Address	HW Type	Flags	HW Address	Mask	Device
192.168.0.2	0x1	0x2	00:24:e8:82:99:6c	*	br0
10.1.10.1	0x1	0x2	0a:80:39:f6:d3:f7	*	ewan0.1

Network Devices

Click **Network Devices** from any Status screen to generate the *Network - Devices* screen. This screen allows the user to scan the Gateway's networks for new devices at a selected time interval.



Network - Devices

Auto Scan: ● Enable ○ Disable

Scan Interval: 10 Minutes

Ethernet Devices: 1

MoCA Devices: 0

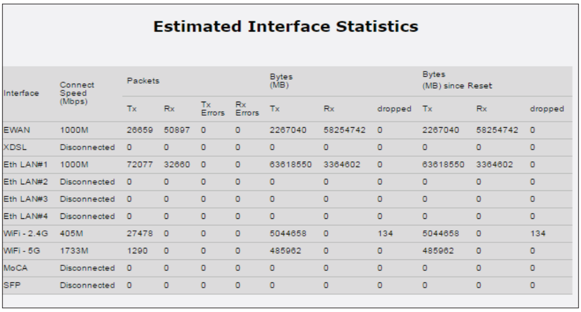
Wireless Devices: 0

00:27

XPStudio-PC 00:24:e8:82:99:6c
Ethernet Port 1 – 1000 Mbps Full
192.168.0.2 DHCP

Interface Statistics

Click **Interface Statistics** from any Status screen to generate the *Estimated Interface Statistics* screen. This screen displays various statistics and parameters relating to the Gateway's connection interfaces.

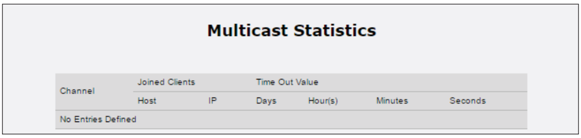


Estimated Interface Statistics

Interface	Connect Speed (Mbps)	Packets				Bytes (MB)			Bytes (MB) since Reset		
		Tx	Rx	Tx Errors	Rx Errors	Tx	Rx	dropped	Tx	Rx	dropped
EWAN	1000M	26659	50897	0	0	2267040	58254742	0	2267040	58254742	0
XDSL	Disconnected	0	0	0	0	0	0	0	0	0	0
Eth LAN#1	1000M	72077	32660	0	0	63618550	3364602	0	63618550	3364602	0
Eth LAN#2	Disconnected	0	0	0	0	0	0	0	0	0	0
Eth LAN#3	Disconnected	0	0	0	0	0	0	0	0	0	0
Eth LAN#4	Disconnected	0	0	0	0	0	0	0	0	0	0
WiFi - 2.4G	405M	27478	0	0	0	5044658	0	134	5044658	0	134
WiFi - 5G	1733M	1290	0	0	0	485962	0	0	485962	0	0
MoCA	Disconnected	0	0	0	0	0	0	0	0	0	0
SFP	Disconnected	0	0	0	0	0	0	0	0	0	0

Multicast Statistics

Click **Multicast Statistics** from any Status screen to generate the *Multicast Statistics* screen. This screen displays the Gateway's multicast statistics.

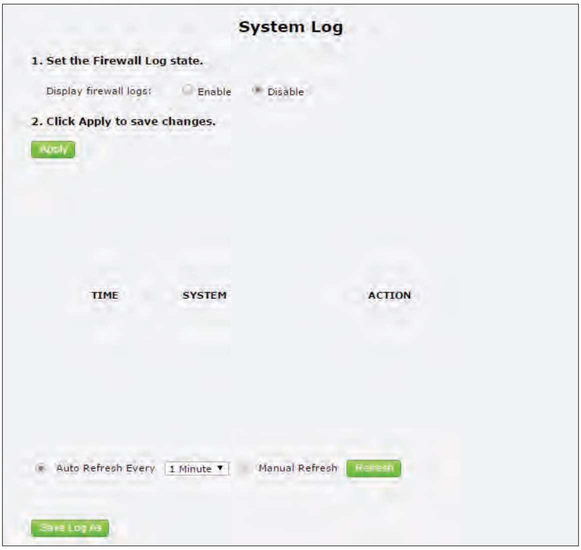


Multicast Statistics

Channel	Joined Clients		Time Out Value			
	Host	IP	Days	Hour(s)	Minutes	Seconds
No Entries Defined						

System Log

Click **System Log** from any Status screen to generate the *System Log* screen. This screen displays the Gateway's system log, which keeps track of all events that occur on the Gateway.



System Log

1. Set the Firewall Log state.

Display firewall logs: ○ Enable ● Disable

2. Click Apply to save changes.

TIME	SYSTEM	ACTION

● Auto Refresh Every 1 Minute ▼ ○ Manual Refresh

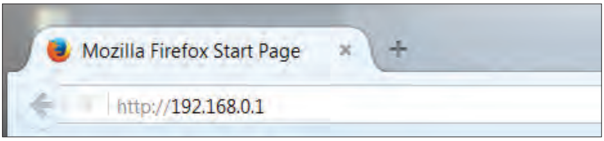
Configuring Wireless Settings 4

This chapter explains the options provided in the *Wireless Settings* section of the Gateway's firmware, including basic and advanced settings, and WPS.

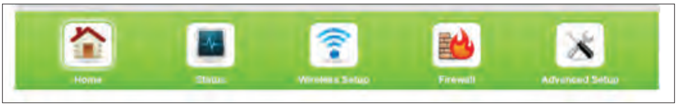
Accessing Wireless Settings

To access the Wireless Settings screens:

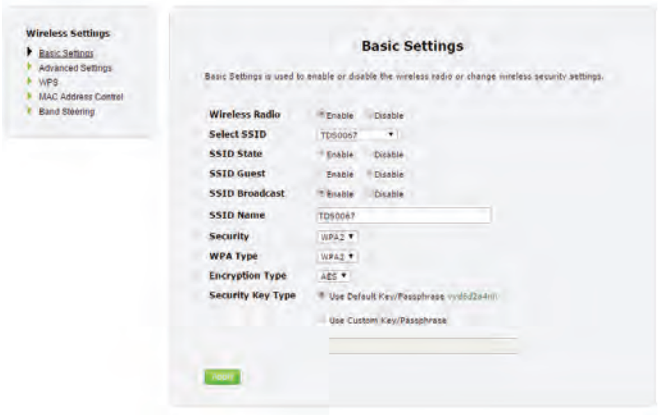
1. Open a Web browser. In the *Address* text box, type:
   http://192.168.0.1
   then press **Enter** on the keyboard.



2. The Gateway's Main screen appears. Enter the user name and password, then click **Wireless Settings** from the row of icons at the top of the screen.



3. The *Basic Settings* screen appears, with a menu of other wireless options listed on the left side of the screen.



Basic Settings

Basic Settings is used to enable or disable the wireless radio or change wireless security settings.

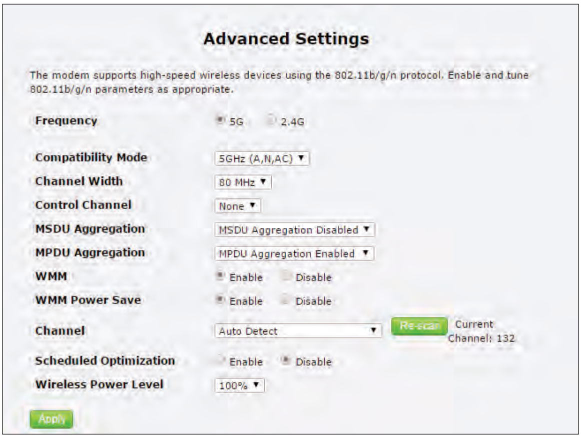
Wireless Radio	● Enable ○ Disable
Select SSID	TDS0067 ▾
SSID State	● Enable ○ Disable
SSID Guest	○ Enable ● Disable
SSID Broadcast	● Enable ○ Disable
SSID Name	TDS0067
Security	WPA2 ▾
WPA Type	WPA2 ▾
Encryption Type	AES ▾
Security Key Type	● Use Default Key/Passphrase vvd6d2a4n ○ Use Custom Key/Passphrase

Basic Settings

Click **Basic Settings** from any Wireless Settings screen to generate the *Basic Settings* screen, as shown in the figure above. This screen displays a series of settings relating to the basic functionality of the Gateway's wireless network, including SSID (network name), frequency, and security.

Advanced Settings

Click **Advanced Settings** from any Wireless Settings screen to generate the *Advanced Settings* screen. This screen displays a series of settings relating to the advanced capabilities of the Gateway's wireless network, including compatibility mode, channel width, and WMM power save.



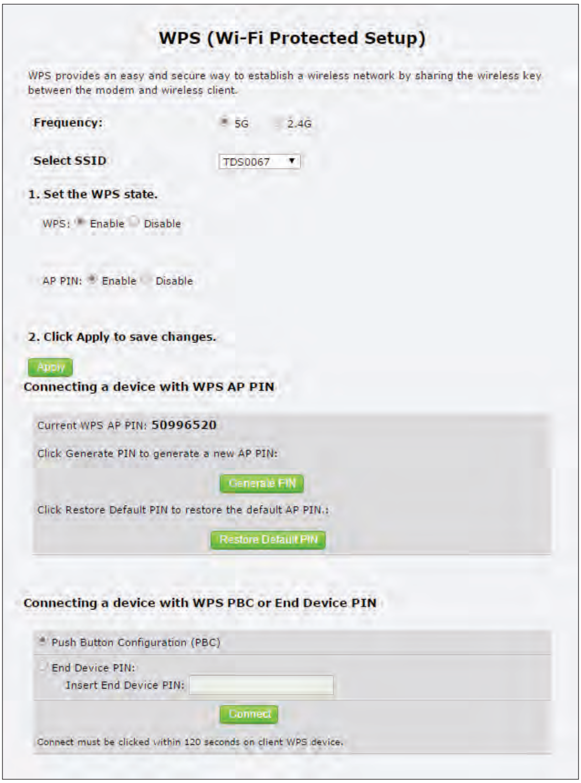
Advanced Settings

The modem supports high-speed wireless devices using the 802.11b/g/n protocol. Enable and tune 802.11b/g/n parameters as appropriate.

Frequency	● 5G ○ 2.4G
Compatibility Mode	5GHz (A,N,AC) ▼
Channel Width	80 MHz ▼
Control Channel	None ▼
MSDU Aggregation	MSDU Aggregation Disabled ▼
MPDU Aggregation	MPDU Aggregation Enabled ▼
WMM	● Enable ○ Disable
WMM Power Save	● Enable ○ Disable
Channel	Auto Detect ▼ Re-scan Current Channel: 132
Scheduled Optimization	○ Enable ● Disable
Wireless Power Level	100% ▼

WPS

Click **WPS** from any Wireless Settings screen to generate the *WPS (Wi-Fi Protected Setup)* screen, which allows the user to configure WPS by following the onscreen instructions.



WPS (Wi-Fi Protected Setup)

WPS provides an easy and secure way to establish a wireless network by sharing the wireless key between the modem and wireless client.

Frequency: ● 5G ○ 2.4G

Select SSID TDS0067 ▾

1. Set the WPS state.

WPS: ● Enable ○ Disable

AP PIN: ● Enable ○ Disable

2. Click Apply to save changes.

Connecting a device with WPS AP PIN

Current WPS AP PIN: **50996520**

Click Generate PIN to generate a new AP PIN:

Click Restore Default PIN to restore the default AP PIN.:

Connecting a device with WPS PBC or End Device PIN

● Push Button Configuration (PBC)

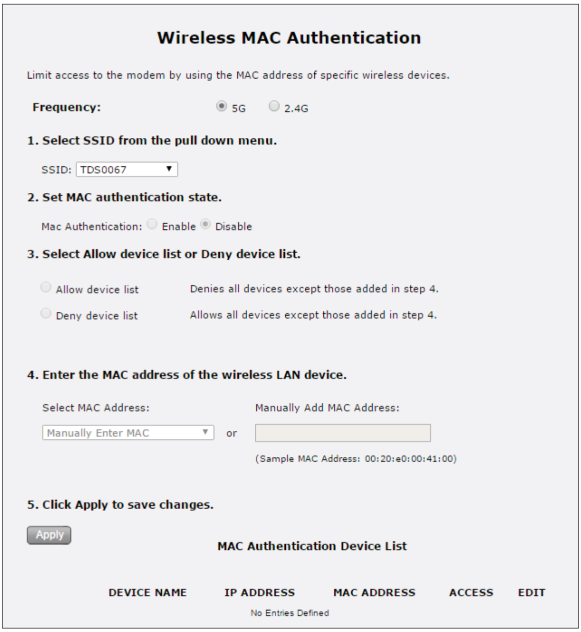
○ End Device PIN:

Insert End Device PIN:

Connect must be clicked within 120 seconds on client WPS device.

MAC Address Control

Click **MAC Address Control** from any Wireless Settings screen to generate the *Wireless MAC Authentication* screen, which allows the user to configure allow or deny access to the Gateway's wireless network using the MAC address of the wireless device. Follow the onscreen instructions to configure.



Wireless MAC Authentication

Limit access to the modem by using the MAC address of specific wireless devices.

Frequency: ● 5G ○ 2.4G

1. Select SSID from the pull down menu.

SSID: TDS0067 ▾

2. Set MAC authentication state.

Mac Authentication: ○ Enable ● Disable

3. Select Allow device list or Deny device list.

○ Allow device list — Denies all devices except those added in step 4.

○ Deny device list — Allows all devices except those added in step 4.

4. Enter the MAC address of the wireless LAN device.

Select MAC Address: Manually Enter MAC ▾ or Manually Add MAC Address:

(Sample MAC Address: 00:20:e0:00:41:00)

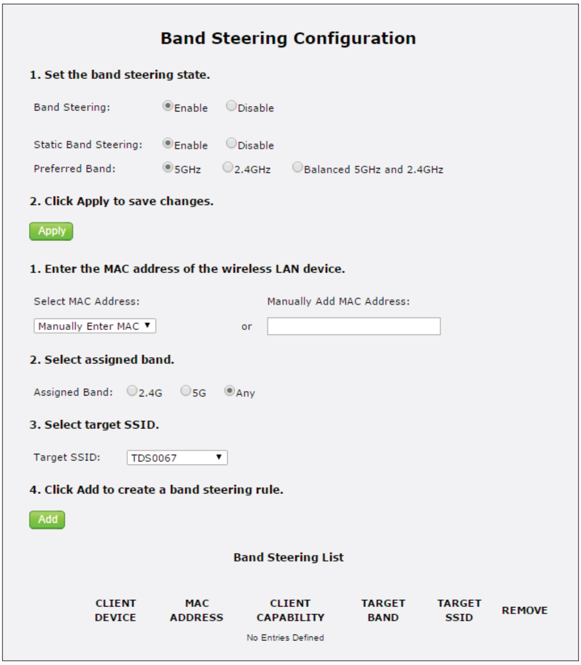
5. Click Apply to save changes.

MAC Authentication Device List

DEVICE NAME	IP ADDRESS	MAC ADDRESS	ACCESS	EDIT
		No Entries Defined		

Band Steering

Click **Band Steering** from any Wireless Settings screen to generate the *Band Steering Configuration* screen, which allows the user to configure the Gateway to automatically connect 2.4GHz and 5GHz wireless devices to the appropriate wireless network bandwidth. Also, this screen can be used to assign a certain wireless network and/or bandwidth to a particular wireless device. Follow the onscreen instructions to configure.



Band Steering Configuration

1. Set the band steering state.

Band Steering: ● Enable ○ Disable

Static Band Steering: ● Enable ○ Disable

Preferred Band: ● 5GHz ○ 2.4GHz ○ Balanced 5GHz and 2.4GHz

2. Click Apply to save changes.

1. Enter the MAC address of the wireless LAN device.

Select MAC Address: Manually Enter MAC ▼ or Manually Add MAC Address:

2. Select assigned band.

Assigned Band: ○ 2.4G ○ 5G ● Any

3. Select target SSID.

Target SSID: TDS0067 ▼

4. Click Add to create a band steering rule.

Band Steering List

CLIENT DEVICE	MAC ADDRESS	CLIENT CAPABILITY	TARGET BAND	TARGET SSID	REMOVE

No Entries Defined

Configuring Firewall Settings

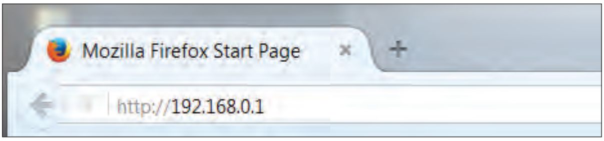
5

This chapter explains the options provided in the *Firewall* section of the Gateway's firmware, including setting up port forwarding and DMZ hosting.

Accessing Firewall Settings

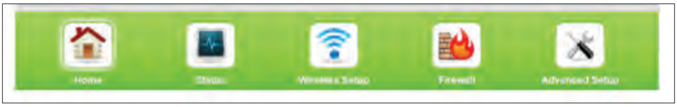
To access the Firewall screens:

1. Open a Web browser. In the *Address* text box, type:
   http://192.168.0.1
   then press **Enter** on the keyboard.

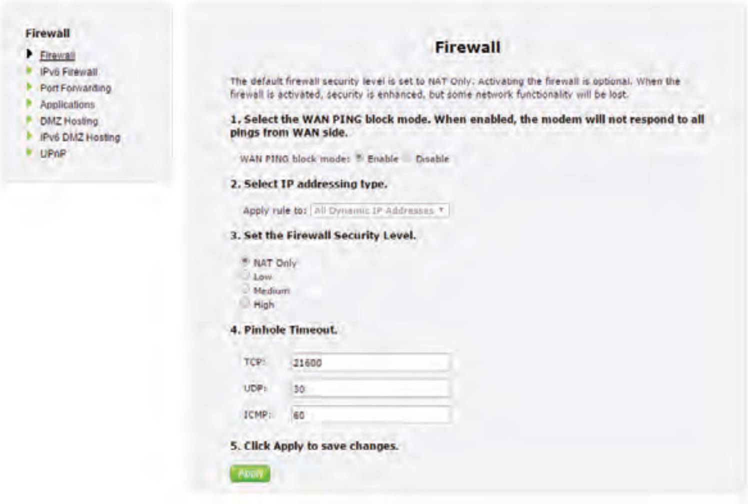


http://192.168.0.1

The Gateway's Home screen appears. Click the *Firewall* icon.



2. The *Firewall* screen appears, with a menu of other wireless options listed on the left side of the screen.



Firewall

The default firewall security level is set to NAT Only. Activating the firewall is optional. When the firewall is activated, security is enhanced, but some network functionality will be lost.

1. Select the WAN PING block mode. When enabled, the modem will not respond to all pings from WAN side.

WAN PING block mode: ● Enable ○ Disable

2. Select IP addressing type.

Apply rule to: All Dynamic IP Addresses

3. Set the Firewall Security Level.

● NAT Only
○ Low
○ Medium
○ High

4. Pinhole Timeout.

TCP: 21600
UDP: 30
ICMP: 60

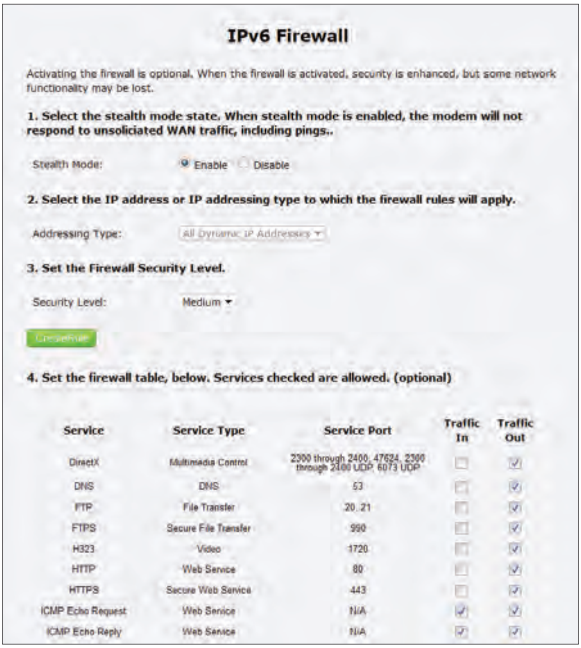
5. Click Apply to save changes.

Firewall

Click **General** from any Firewall Settings screen to generate the *Firewall* screen, as shown in the figure above. To configure basic settings of the Gateway's firewall, follow the onscreen instructions.

IPv6 Firewall

Click **IPv6 Firewall** from any Firewall Settings screen to generate the *IPv6 Firewall* screen. To set up, follow the onscreen instructions.



IPv6 Firewall

Activating the firewall is optional. When the firewall is activated, security is enhanced, but some network functionality may be lost.

1. Select the stealth mode state. When stealth mode is enabled, the modem will not respond to unsoliciated WAN traffic, including pings..

Stealth Mode: ● Enable ○ Disable

2. Select the IP address or IP addressing type to which the firewall rules will apply.

Addressing Type: All Dynamic IP Addresses

3. Set the Firewall Security Level.

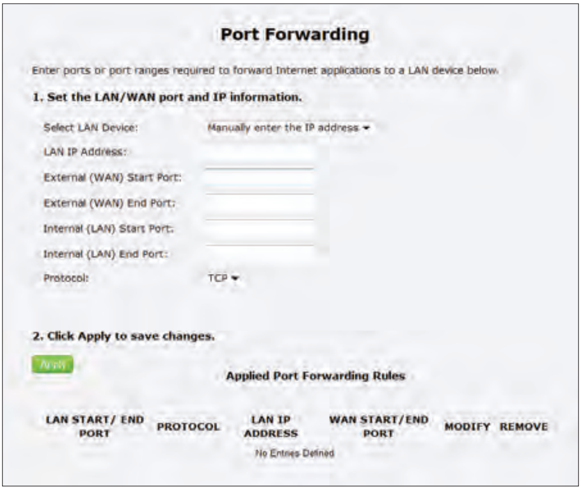
Security Level: Medium

4. Set the firewall table, below. Services checked are allowed. (optional)

Service	Service Type	Service Port	Traffic In	Traffic Out
DirectX	Multimedia Control	2300 through 2400, 47624, 2300 through 2400 UDP, 6073 UDP	□	☑
DNS	DNS	53	□	☑
FTP	File Transfer	20, 21	□	☑
FTPS	Secure File Transfer	990	□	☑
H323	Video	1720	□	☑
HTTP	Web Service	80	□	☑
HTTPS	Secure Web Service	443	□	☑
ICMP Echo Request	Web Service	N/A	☑	☑
ICMP Echo Reply	Web Service	N/A	☑	☑

Port Forwarding

Click **Port Forwarding** from any Firewall screen to generate the *Port Forwarding* screen. Activating port forwarding allows the network to be exposed to the Internet in certain limited and controlled ways, enabling some applications to work from the local network (game, voice, and chat applications, for example), as well as allowing Internet access to servers in the local network. This screen allows you to configure the port forwarding settings of the Gateway. If changes are made in this screen, click **Apply** at the bottom of the screen to save them.



Port Forwarding

Enter ports or port ranges required to forward Internet applications to a LAN device below.

1. Set the LAN/WAN port and IP information.

Select LAN Device: Manually enter the IP address

LAN IP Address:

External (WAN) Start Port:

External (WAN) End Port:

Internal (LAN) Start Port:

Internal (LAN) End Port:

Protocol: TCP

2. Click Apply to save changes.

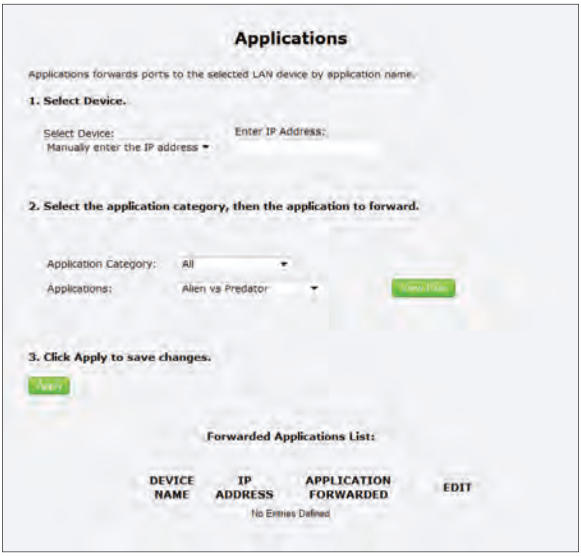
Applied Port Forwarding Rules

LAN START/ END PORT	PROTOCOL	LAN IP ADDRESS	WAN START/END PORT	MODIFY	REMOVE
		No Entries Defined			

Port forwarding settings should only be adjusted by experienced technical users who are extremely familiar with networking concepts.

Applications

Click **Applications** from any Firewall screen to generate the *Applications* screen. This screen allows the user to designate certain applications to be forwarded, circumventing the usual firewall security settings. If changes are made in this screen, click **Apply** at the bottom of the screen to save them.



Applications

Applications forwards ports to the selected LAN device by application name.

1. Select Device.

Select Device: Manually enter the IP address

Enter IP Address:

2. Select the application category, then the application to forward.

Application Category: All

Applications: Alien vs Predator

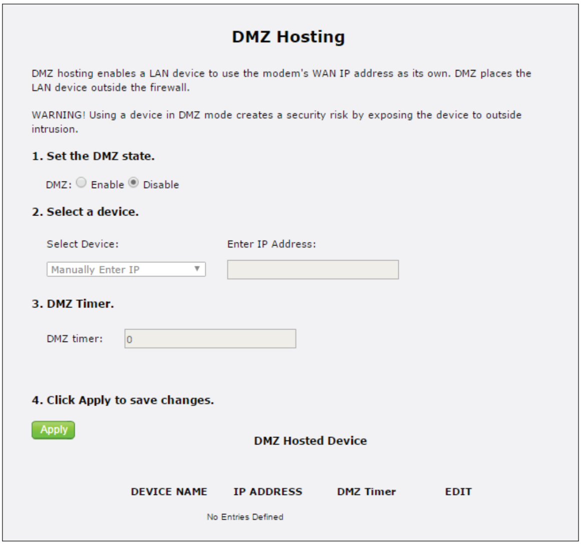
3. Click Apply to save changes.

Forwarded Applications List:

DEVICE NAME	IP ADDRESS	APPLICATION FORWARDED	EDIT
No Entries Defined			

DMZ Hosting

Click **DMZ Hosting** from any Firewall screen to generate the *DMZ Hosting* screen. The DMZ host feature allows one device on the network to operate outside the firewall to use an Internet service that otherwise would be blocked, or to expose a networked device to all services without restriction or security. To activate, click in the *Enable* radio button, then enter the device's IP address in the appropriate text boxes.



DMZ Hosting

DMZ hosting enables a LAN device to use the modem's WAN IP address as its own. DMZ places the LAN device outside the firewall.

WARNING! Using a device in DMZ mode creates a security risk by exposing the device to outside intrusion.

1. Set the DMZ state.

DMZ: ○ Enable ● Disable

2. Select a device.

Select Device: Manually Enter IP

Enter IP Address:

3. DMZ Timer.

DMZ timer: 0

4. Click Apply to save changes.

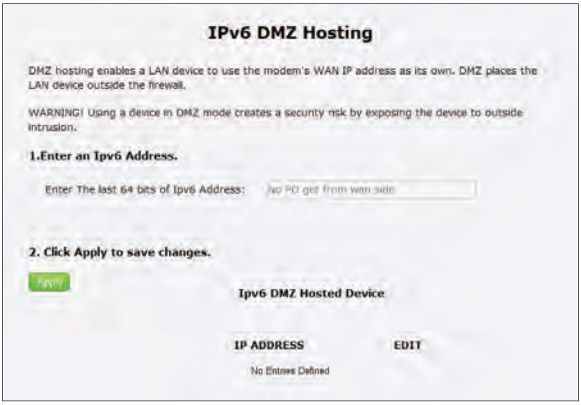
DMZ Hosted Device

DEVICE NAME	IP ADDRESS	DMZ Timer	EDIT
No Entries Defined			

Caution! A DMZ host is not protected by the firewall and may be vulnerable to attack. Designating a DMZ host may also put other computers in the local network at risk. When designating a DMZ host, consider the security implications and protect it if necessary.

IPv6 DMZ Hosting

Click **IPv6 DMZ Hosting** from any Firewall screen to generate the *IPv6 DMZ Hosting* screen. The DMZ host feature allows one device on the network to operate outside the firewall to use an Internet service that otherwise would be blocked, or to expose a networked device to all services without restriction or security. To activate, follow the onscreen instructions.



IPv6 DMZ Hosting

DMZ hosting enables a LAN device to use the modem's WAN IP address as its own. DMZ places the LAN device outside the firewall.

WARNING! Using a device in DMZ mode creates a security risk by exposing the device to outside intrusion.

1.Enter an Ipv6 Address.

Enter The last 64 bits of Ipv6 Address: No PD get from wan side

2. Click Apply to save changes.

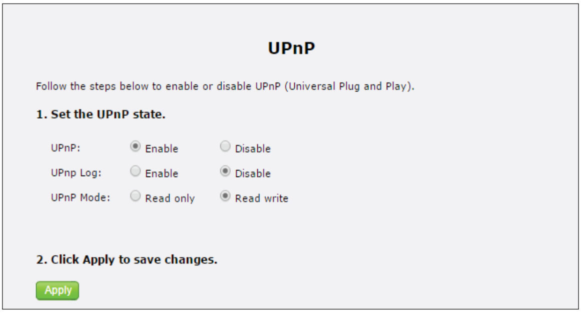
Ipv6 DMZ Hosted Device

IP ADDRESS	EDIT
No Entries Defined	

Caution! A DMZ host is not protected by the firewall and may be vulnerable to attack. Designating a DMZ host may also put other computers in the local network at risk. When designating a DMZ host, consider the security implications and protect it if necessary.

UPnP

Click **UPnP** from any Firewall screen to generate the *UPnP* screen, which activates UPnP (Universal Plug and Play). To activate, set the preferred UPnP options, then click **Apply**.



UPnP

Follow the steps below to enable or disable UPnP (Universal Plug and Play).

1. Set the UPnP state.

UPnP: ● Enable ○ Disable

UPnp Log: ○ Enable ● Disable

UPnP Mode: ○ Read only ● Read write

2. Click Apply to save changes.

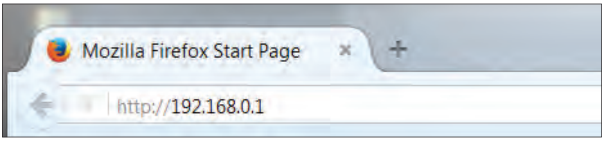
Advanced Settings 6

This chapter explains the options available with the Advanced Setup screens, which configure some of the more complex settings on the Gateway.

Accessing the Advanced Setup Screens

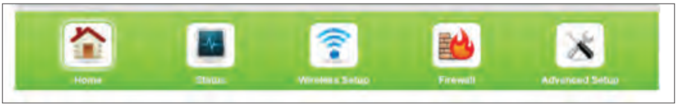
To access the Gateway's Advanced Setup screens:

1. Open a Web browser. In the *Address* text box, type:
   http://192.168.0.1
   then press **Enter** on the keyboard.

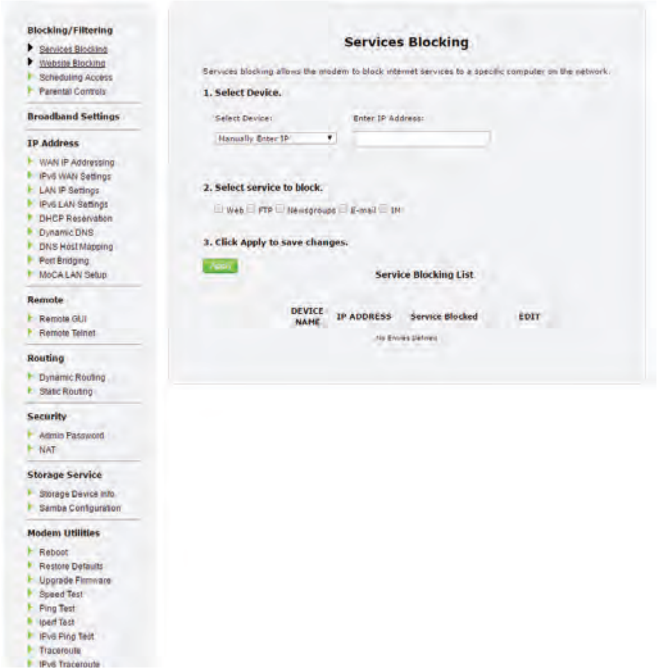


http://192.168.0.1

2. The Gateway's Main screen appears. Click the *Advanced Setup* icon.



3. The *Services Blocking* screen appears.



Services Blocking

Services blocking allows the modem to block internet services to a specific computer on the network.

1. Select Device.

Select Device: Manually Enter IP

Enter IP Address:

2. Select service to block.

□ Web □ FTP □ Newsgroups □ E-mail □ IM

3. Click Apply to save changes.

Service Blocking List

DEVICE NAME	IP ADDRESS	Service Blocked	EDIT

No Entries Defined

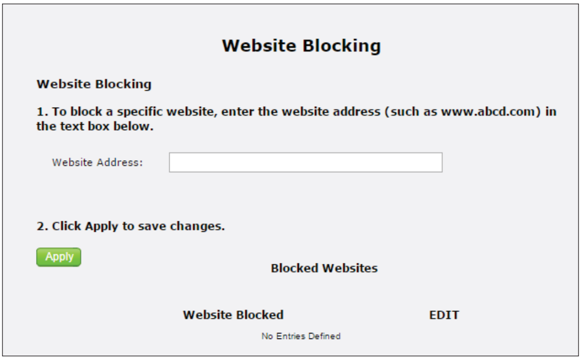
From here, all the Advanced Setup screens can be accessed from the menu on the left.

Services Blocking

Click **Services Blocking** from any Advanced Setup screen to generate the *Services Blocking* screen (see the figure, above). This feature allows the user to block certain services from accessing the Gateway's network(s). Follow the onscreen instructions to configure.

Website Blocking

Click **Website Blocking** from any Advanced Setup screen to generate the *Website Blocking* screen. This feature allows the user to block certain websites from accessing the Gateway's network(s). Follow the onscreen instructions to configure.



Website Blocking

Website Blocking

1. To block a specific website, enter the website address (such as www.abcd.com) in the text box below.

Website Address:

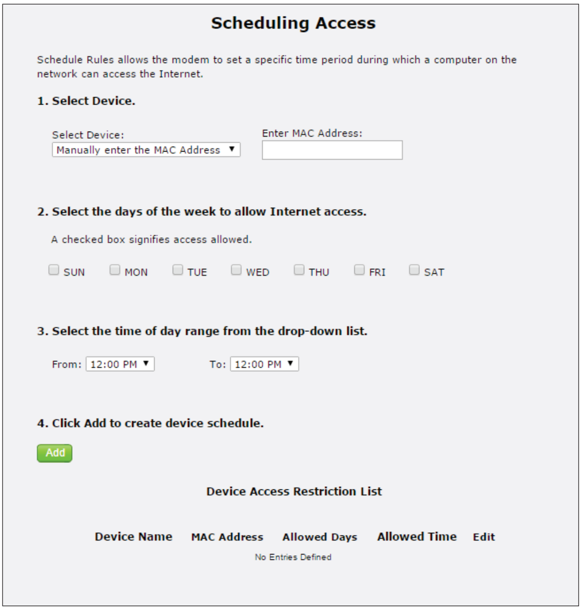
2. Click Apply to save changes.

Blocked Websites

Website Blocked	EDIT
No Entries Defined	

Scheduling Access

Click **Scheduling Access** from any Advanced Setup screen to generate the *Scheduling Access* screen. This feature allows the user to schedule access to the Gateway's network(s) for certain devices. Follow the onscreen instructions to configure.



Scheduling Access

Schedule Rules allows the modem to set a specific time period during which a computer on the network can access the Internet.

1. Select Device.

Select Device: Manually enter the MAC Address ▼

Enter MAC Address:

2. Select the days of the week to allow Internet access.

A checked box signifies access allowed.

□ SUN □ MON □ TUE □ WED □ THU □ FRI □ SAT

3. Select the time of day range from the drop-down list.

From: 12:00 PM ▼ To: 12:00 PM ▼

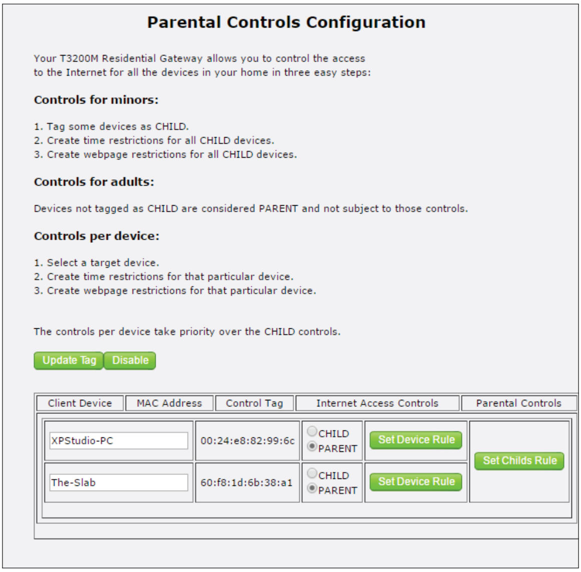
4. Click Add to create device schedule.

Device Access Restriction List

Device Name	MAC Address	Allowed Days	Allowed Time	Edit
No Entries Defined				

Parental Controls

Click **Parental Controls** from any Advanced Setup screen to generate the *Parental Controls Configuration* screen. This feature allows the user to allow or prevent access to certain websites for devices on the Gateway's network. Follow the onscreen instructions to configure.



Parental Controls Configuration

Your T3200M Residential Gateway allows you to control the access
to the Internet for all the devices in your home in three easy steps:

Controls for minors:

1. Tag some devices as CHILD.
2. Create time restrictions for all CHILD devices.
3. Create webpage restrictions for all CHILD devices.

Controls for adults:

Devices not tagged as CHILD are considered PARENT and not subject to those controls.

Controls per device:

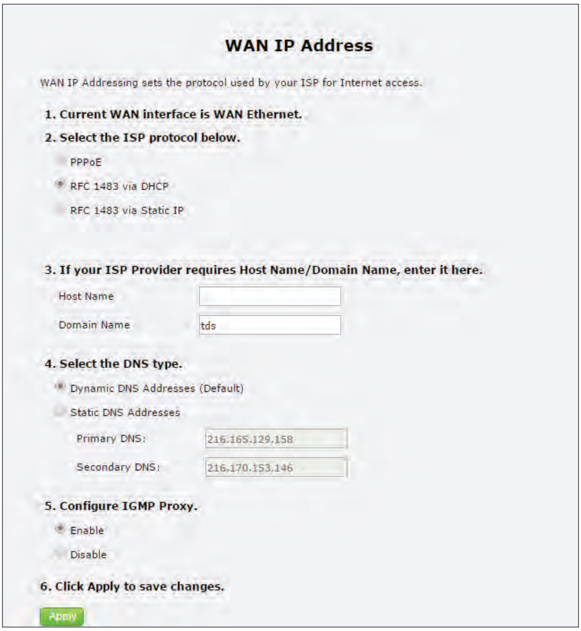
1. Select a target device.
2. Create time restrictions for that particular device.
3. Create webpage restrictions for that particular device.

The controls per device take priority over the CHILD controls.

Client Device	MAC Address	Control Tag	Internet Access Controls	Parental Controls
XPStudio-PC	00:24:e8:82:99:6c	○ CHILD ● PARENT	Set Device Rule	Set Childs Rule
The-Slab	60:f8:1d:6b:38:a1	○ CHILD ● PARENT	Set Device Rule	

WAN IP Addressing

Click **WAN IP Addressing** from any Advanced Setup screen to generate the *WAN IP Address* screen. This feature allows the user to set the protocol used by the ISP for Internet access. Follow the onscreen instructions to configure.



WAN IP Address

WAN IP Addressing sets the protocol used by your ISP for Internet access.

1. Current WAN interface is WAN Ethernet.

2. Select the ISP protocol below.

○ PPPoE

● RFC 1483 via DHCP

○ RFC 1483 via Static IP

3. If your ISP Provider requires Host Name/Domain Name, enter it here.

Host Name:

Domain Name: tds

4. Select the DNS type.

● Dynamic DNS Addresses (Default)

○ Static DNS Addresses

Primary DNS: 216.165.129.158

Secondary DNS: 216.170.153.146

5. Configure IGMP Proxy.

● Enable

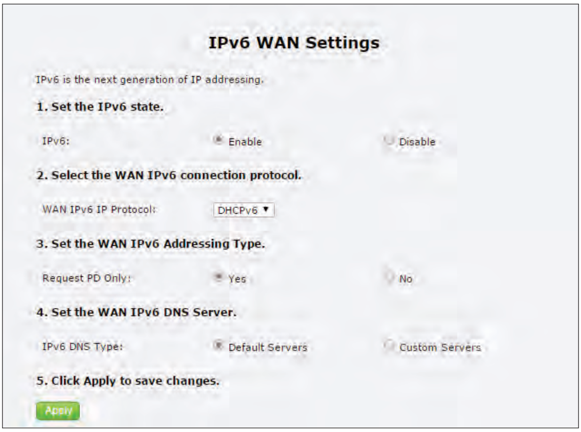
○ Disable

6. Click Apply to save changes.

IPv6 WAN Settings

Click **IPv6 WAN Settings** from any Advanced Setup screen to generate the *IPv6 WAN Settings* screen. This feature allows the user to set the IPv6 protocol used by the ISP for Internet access. Follow the onscreen instructions to configure.

> **WARNING**: This setting should be configured by experienced network technicians only, since any changes could affect the Gateway's IPv6 service.



IPv6 WAN Settings

IPv6 is the next generation of IP addressing.

1. Set the IPv6 state.

IPv6: ● Enable ○ Disable

2. Select the WAN IPv6 connection protocol.

WAN IPv6 IP Protocol: DHCPv6 ▾

3. Set the WAN IPv6 Addressing Type.

Request PD Only: ● Yes ○ No

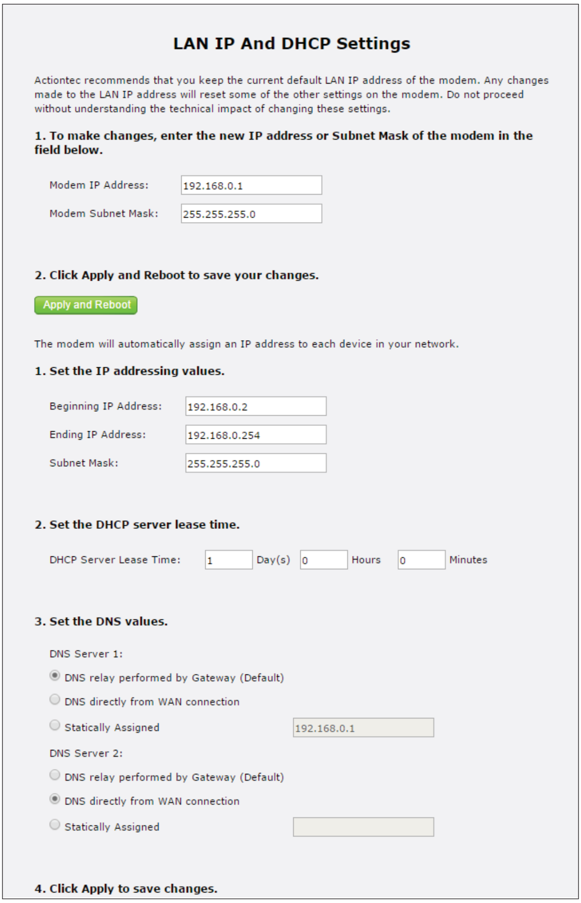
4. Set the WAN IPv6 DNS Server.

IPv6 DNS Type: ● Default Servers ○ Custom Servers

5. Click Apply to save changes.

LAN IP Settings

Click **LAN IP Settings** from any Advanced Setup screen to generate the *LAN IP and DHCP Settings* screen. This feature allows the user to set LAN IP and DHCP server settings on the Gateway. Follow the onscreen instructions to configure.



LAN IP And DHCP Settings

Actiontec recommends that you keep the current default LAN IP address of the modem. Any changes made to the LAN IP address will reset some of the other settings on the modem. Do not proceed without understanding the technical impact of changing these settings.

1. To make changes, enter the new IP address or Subnet Mask of the modem in the field below.

Modem IP Address: 192.168.0.1

Modem Subnet Mask: 255.255.255.0

2. Click Apply and Reboot to save your changes.

The modem will automatically assign an IP address to each device in your network.

1. Set the IP addressing values.

Beginning IP Address: 192.168.0.2

Ending IP Address: 192.168.0.254

Subnet Mask: 255.255.255.0

2. Set the DHCP server lease time.

DHCP Server Lease Time: 1 Day(s) 0 Hours 0 Minutes

3. Set the DNS values.

DNS Server 1:

● DNS relay performed by Gateway (Default)

○ DNS directly from WAN connection

○ Statically Assigned 192.168.0.1

DNS Server 2:

○ DNS relay performed by Gateway (Default)

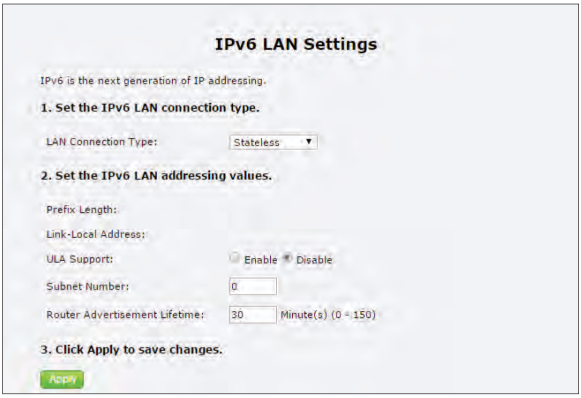
● DNS directly from WAN connection

○ Statically Assigned

4. Click Apply to save changes.

IPv6 LAN Settings

Click **IPv6 LAN Settings** from any Advanced Setup screen to generate the *IPv6 LAN Settings* screen. This feature allows the user to set the IPv6 LAN IP settings on the Gateway. Follow the onscreen instructions to configure.



IPv6 LAN Settings

IPv6 is the next generation of IP addressing.

1. Set the IPv6 LAN connection type.

LAN Connection Type: Stateless ▾

2. Set the IPv6 LAN addressing values.

Prefix Length:

Link-Local Address:

ULA Support: ○ Enable ● Disable

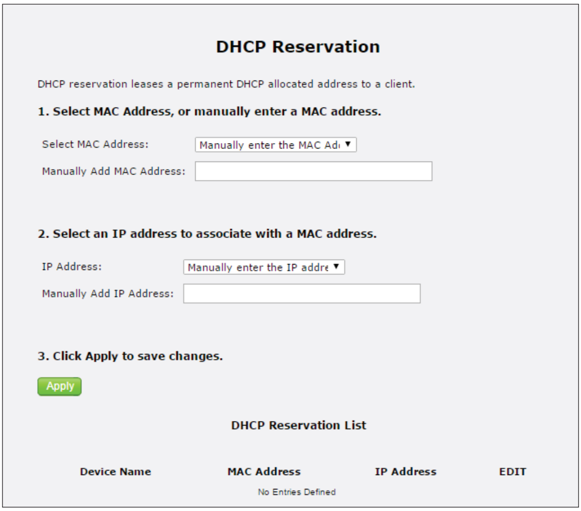
Subnet Number: 0

Router Advertisement Lifetime: 30 Minute(s) (0 - 150)

3. Click Apply to save changes.

DHCP Reservation

Click **DHCP Reservation** from any Advanced Setup screen to generate the *DHCP Reservation* screen. This feature allows the user to lease a permanent DHCP-allocated address to a client on the Gateway's network. Follow the onscreen instructions to configure.



DHCP Reservation

DHCP reservation leases a permanent DHCP allocated address to a client.

1. Select MAC Address, or manually enter a MAC address.

Select MAC Address: Manually enter the MAC Ad▾

Manually Add MAC Address:

2. Select an IP address to associate with a MAC address.

IP Address: Manually enter the IP addre▾

Manually Add IP Address:

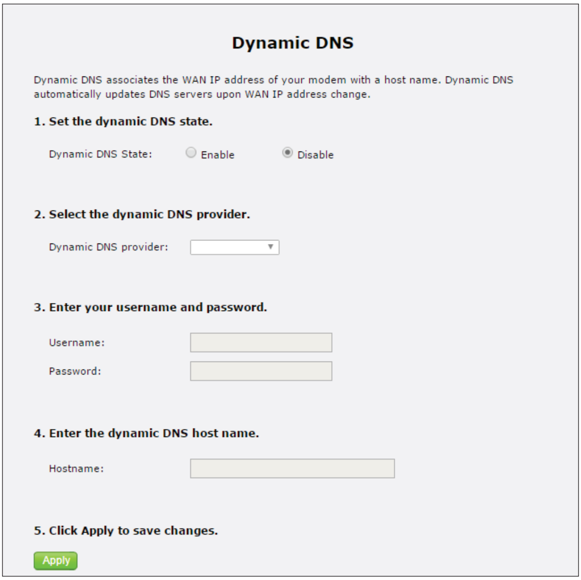
3. Click Apply to save changes.

DHCP Reservation List

Device Name	MAC Address	IP Address	EDIT
	No Entries Defined		

Dynamic DNS

Click **Dynamic DNS** from any Advanced Setup screen to generate the *Dynamic DNS* screen. This feature allows the user to associate the WAN IP address of the Gateway with a host name. Follow the onscreen instructions to configure.



Dynamic DNS

Dynamic DNS associates the WAN IP address of your modem with a host name. Dynamic DNS automatically updates DNS servers upon WAN IP address change.

1. Set the dynamic DNS state.

Dynamic DNS State: ○ Enable ● Disable

2. Select the dynamic DNS provider.

Dynamic DNS provider: ▾

3. Enter your username and password.

Username:

Password:

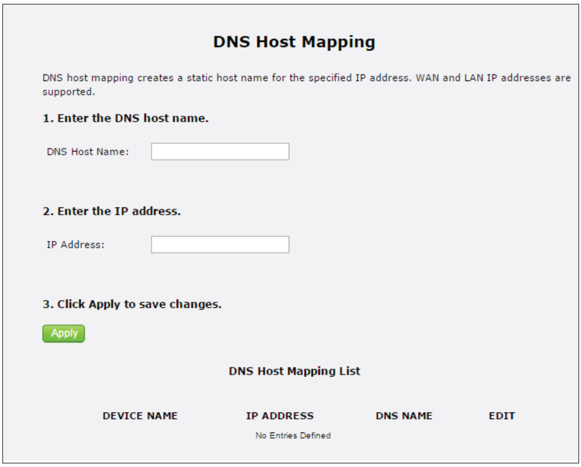
4. Enter the dynamic DNS host name.

Hostname:

5. Click Apply to save changes.

DNS Host Mapping

Click **DNS Host Mapping** from any Advanced Setup screen to generate the *DNS Host Mapping* screen. This feature allows the user to create a static host name for a specified IP address. Follow the onscreen instructions to configure.



DNS Host Mapping

DNS host mapping creates a static host name for the specified IP address. WAN and LAN IP addresses are supported.

1. Enter the DNS host name.

DNS Host Name:

2. Enter the IP address.

IP Address:

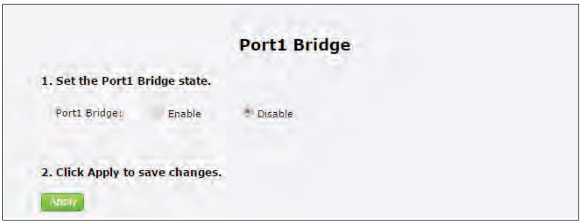
3. Click Apply to save changes.

DNS Host Mapping List

DEVICE NAME	IP ADDRESS	DNS NAME	EDIT
	No Entries Defined		

Port Bridging

Click **Port Bridging** from any Advanced Setup screen to generate the *Port1 Bridge* screen. This feature allows the user to create a port bridge, utilizing LAN Port 1, on the Gateway. Follow the onscreen instructions to configure.



Port1 Bridge

1. Set the Port1 Bridge state.

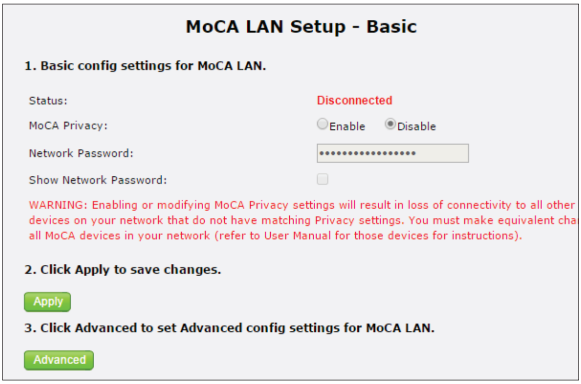
Port1 Bridge: ○ Enable ● Disable

2. Click Apply to save changes.

MoCA LAN Setup

Click **MoCA LAN Setup** from any Advanced Setup screen to generate the *MoCA LAN Setup - Basic* screen. This feature allows the user to enable privacy settings on the Gateway's MoCA LAN. Follow the onscreen instructions to configure.

> **WARNING**: Enabling or modifying MoCA Privacy Settings will result in the loss of connectivity to all other MoCA devices on the network. It is not recommended to make any changes to the MoCA Settings.



MoCA LAN Setup - Basic

1. Basic config settings for MoCA LAN.

Status: Disconnected

MoCA Privacy: ○Enable ●Disable

Network Password: ••••••••••••••••

Show Network Password: □

WARNING: Enabling or modifying MoCA Privacy settings will result in loss of connectivity to all other devices on your network that do not have matching Privacy settings. You must make equivalent cha
all MoCA devices in your network (refer to User Manual for those devices for instructions).

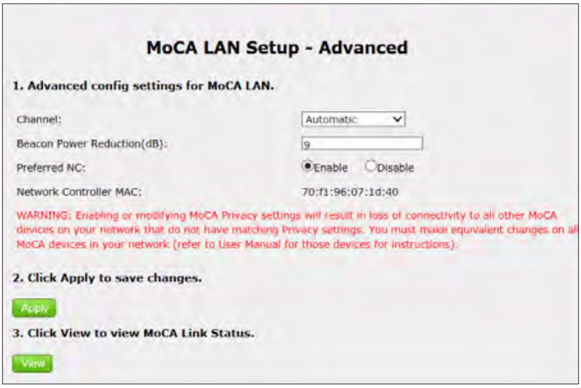
2. Click Apply to save changes.

3. Click Advanced to set Advanced config settings for MoCA LAN.

Advanced MoCA LAN

Click **Advanced** from the *MoCA LAN Setup - Basic* screen to generate the *MoCA LAN Setup - Advanced* screen. This screen allows the user to modify additional MoCA LAN settings. Follow the onscreen instructions to configure.

> **WARNING**: Enabling or modifying MoCA Privacy Settings will result in the loss of connectivity to all other MoCA devices on the network. It is not recommended to make any changes to the MoCA Settings.



MoCA LAN Setup - Advanced

1. Advanced config settings for MoCA LAN.

Channel:	Automatic
Beacon Power Reduction(dB):	9
Preferred NC:	● Enable ○ Disable
Network Controller MAC:	70:f1:96:07:1d:40

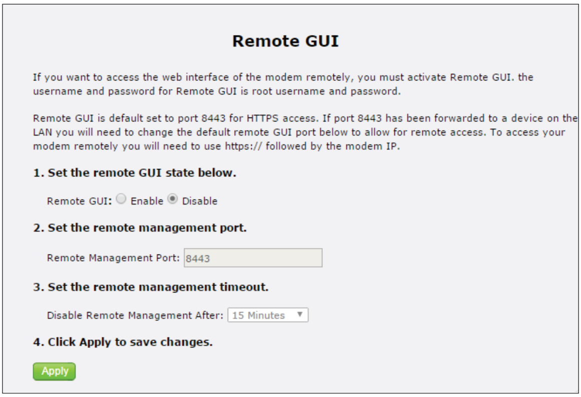
WARNING: Enabling or modifying MoCA Privacy settings will result in loss of connectivity to all other MoCA devices on your network that do not have matching Privacy settings. You must make equivalent changes on all MoCA devices in your network (refer to User Manual for those devices for instructions).

2. Click Apply to save changes.

3. Click View to view MoCA Link Status.

Remote GUI

Click **Remote GUI** from any Advanced Setup screen to generate the *Remote GUI* screen. This feature allows the user to access the Gateway's graphical user interface from a remote location. Follow the onscreen instructions to configure.



Remote GUI

If you want to access the web interface of the modem remotely, you must activate Remote GUI. the username and password for Remote GUI is root username and password.

Remote GUI is default set to port 8443 for HTTPS access. If port 8443 has been forwarded to a device on the LAN you will need to change the default remote GUI port below to allow for remote access. To access your modem remotely you will need to use https:// followed by the modem IP.

1. Set the remote GUI state below.

Remote GUI: ○ Enable ● Disable

2. Set the remote management port.

Remote Management Port: 8443

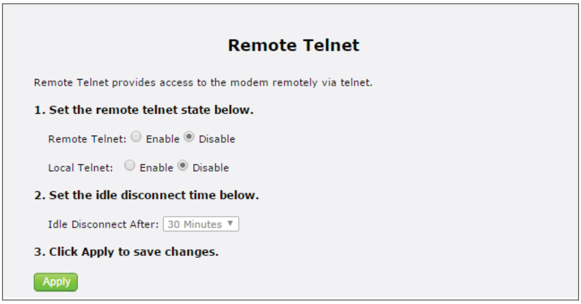
3. Set the remote management timeout.

Disable Remote Management After: 15 Minutes ▼

4. Click Apply to save changes.

Remote Telnet

Click **Remote Telnet** from any Advanced Setup screen to generate the *Remote Telnet* screen. This feature allows the user to access the Gateway from a remote location via telnet. Follow the onscreen instructions to configure.



Remote Telnet

Remote Telnet provides access to the modem remotely via telnet.

1. Set the remote telnet state below.

Remote Telnet: ○ Enable ● Disable

Local Telnet: ○ Enable ● Disable

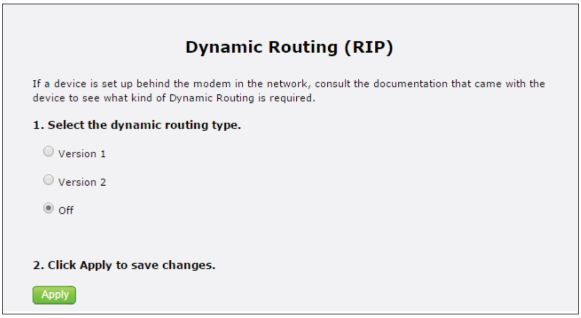
2. Set the idle disconnect time below.

Idle Disconnect After: 30 Minutes ▼

3. Click Apply to save changes.

Dynamic Routing

Click **Dynamic Routing** from any Advanced Setup screen to generate the *Dynamic Routing (RIP)* screen. This feature allows the user to set up the Gateway on the network behind a modem using dynamic routing. Follow the onscreen instructions to configure.



Dynamic Routing (RIP)

If a device is set up behind the modem in the network, consult the documentation that came with the device to see what kind of Dynamic Routing is required.

1. Select the dynamic routing type.

○ Version 1

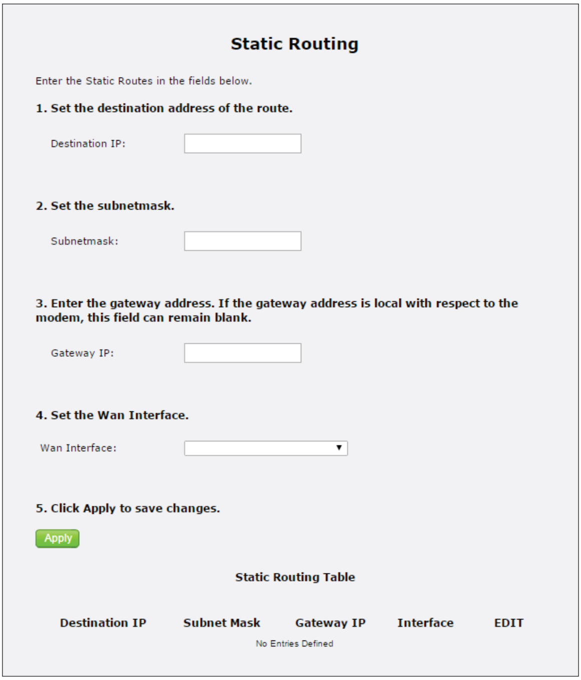
○ Version 2

● Off

2. Click Apply to save changes.

Static Routing

Click **Static Routing** from any Advanced Setup screen to generate the *Static Routing* screen. This feature allows the user to set up the Gateway with static routes. Follow the onscreen instructions to configure.



Static Routing

Enter the Static Routes in the fields below.

1. Set the destination address of the route.

Destination IP:

2. Set the subnetmask.

Subnetmask:

3. Enter the gateway address. If the gateway address is local with respect to the modem, this field can remain blank.

Gateway IP:

4. Set the Wan Interface.

Wan Interface:

5. Click Apply to save changes.

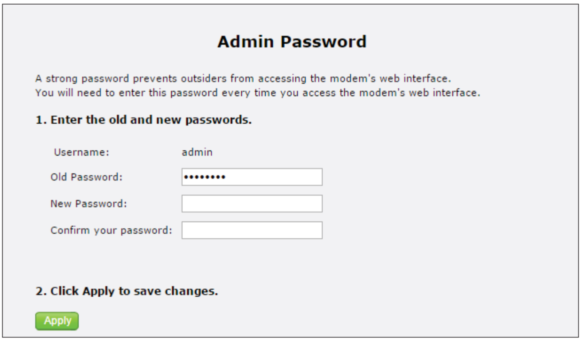
Static Routing Table

Destination IP	Subnet Mask	Gateway IP	Interface	EDIT

No Entries Defined

Admin Password

Click **Admin Password** from any Advanced Setup screen to generate the *Admin Password* screen. This feature allows the user to change the password for accessing the Gateway's graphical user interface. Follow the onscreen instructions to configure.



Admin Password

A strong password prevents outsiders from accessing the modem's web interface.
You will need to enter this password every time you access the modem's web interface.

1. Enter the old and new passwords.

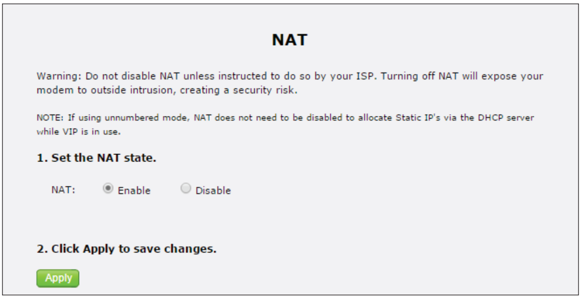
Username: admin
Old Password: ••••••••
New Password:
Confirm your password:

2. Click Apply to save changes.

NAT

Click **NAT** from any Advanced Setup screen to generate the *NAT* screen. Network addresss translation (NAT) allows the Gateway's network to use a single IP address to represent the Gateway's entire network on the internet.

> **WARNING**: Do not disable *NAT* on the Gateway unless instructed to do so by the ISP.



NAT

Warning: Do not disable NAT unless instructed to do so by your ISP. Turning off NAT will expose your modem to outside intrusion, creating a security risk.

NOTE: If using unnumbered mode, NAT does not need to be disabled to allocate Static IP's via the DHCP server while VIP is in use.

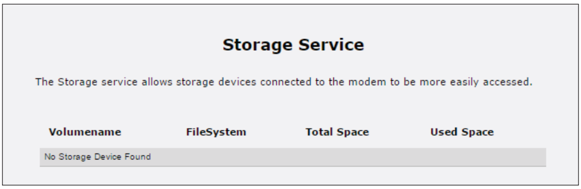
1. Set the NAT state.

NAT: ● Enable ○ Disable

2. Click Apply to save changes.

Storage Device Info

Click **Storage Device Info** from any Advanced Setup screen to generate the *Storage Service* screen. This feature allows storage devices connected to the Gateway to be easily accessed. Any storage devices connected to the Gateway will be listed in the table at the bottom of the screen.



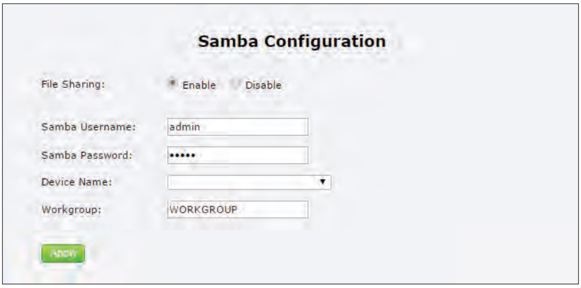
Storage Service

The Storage service allows storage devices connected to the modem to be more easily accessed.

Volumename	FileSystem	Total Space	Used Space
No Storage Device Found			

Samba Configuration

Click **Samba Configuration** from any Advanced Setup screen to generate the *Samba Configuration* screen. This feature allows the user to set up a Samba environment. Follow the onscreen instructions to configure.



Samba Configuration

File Sharing: ● Enable ○ Disable

Samba Username: admin

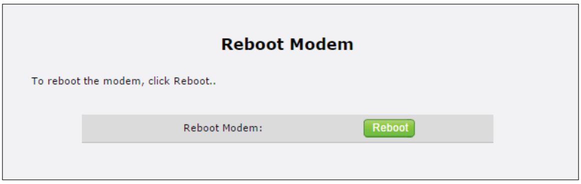
Samba Password: •••••

Device Name:

Workgroup: WORKGROUP

Reboot

Click **Reboot** from any Advanced Setup screen to generate the *Reboot* screen. Reboot the Gateway by clicking **Reboot**.



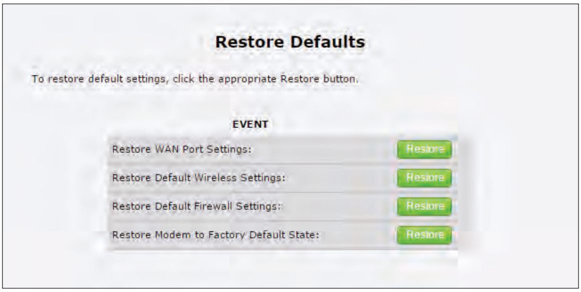
Reboot Modem

To reboot the modem, click Reboot..

Reboot Modem:

Restore Defaults

Click **Restore Defaults** from any Advanced Setup screen to generate the *Restore Defaults* screen. To restore certain settings on the Gateway, click the appropriate *Restore* button.



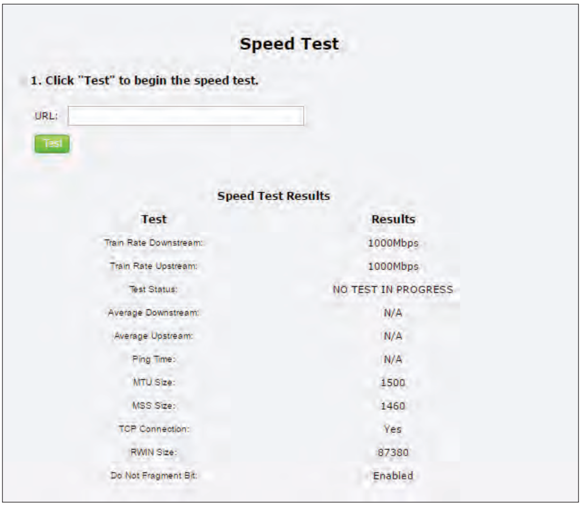
Restore Defaults

To restore default settings, click the appropriate Restore button.

EVENT	
Restore WAN Port Settings:	Restore
Restore Default Wireless Settings:	Restore
Restore Default Firewall Settings:	Restore
Restore Modem to Factory Default State:	Restore

Speed Test

Click **Speed Test** from any Advanced Setup screen to generate the *Speed Test* screen. This screen allows the user to perform a speed test on the Gateway's Internet (or WAN) connection. Enter the URL for a server at a speed test site, then click **Test**.



Speed Test

1. Click "Test" to begin the speed test.

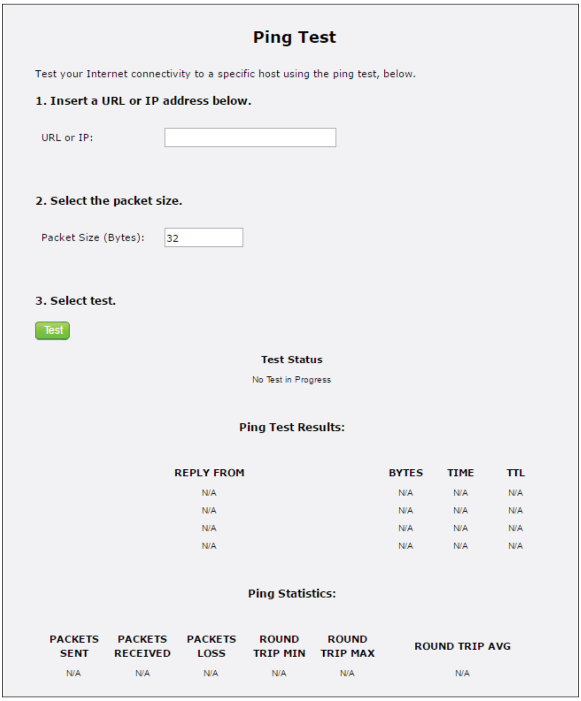
URL:

Speed Test Results

Test	Results
Train Rate Downstream:	1000Mbps
Train Rate Upstream:	1000Mbps
Test Status:	NO TEST IN PROGRESS
Average Downstream:	N/A
Average Upstream:	N/A
Ping Time:	N/A
MTU Size:	1500
MSS Size:	1460
TCP Connection:	Yes
RWIN Size:	87380
Do Not Fragment Bit:	Enabled

Ping Test

Click **Ping Test** from any Advanced Setup screen to generate the *Ping Test* screen. To perform a ping test on the Gateway, follow the onscreen instructions.



Ping Test

Test your Internet connectivity to a specific host using the ping test, below.

1. Insert a URL or IP address below.

URL or IP:

2. Select the packet size.

Packet Size (Bytes): 32

3. Select test.

Test Status

No Test in Progress

Ping Test Results:

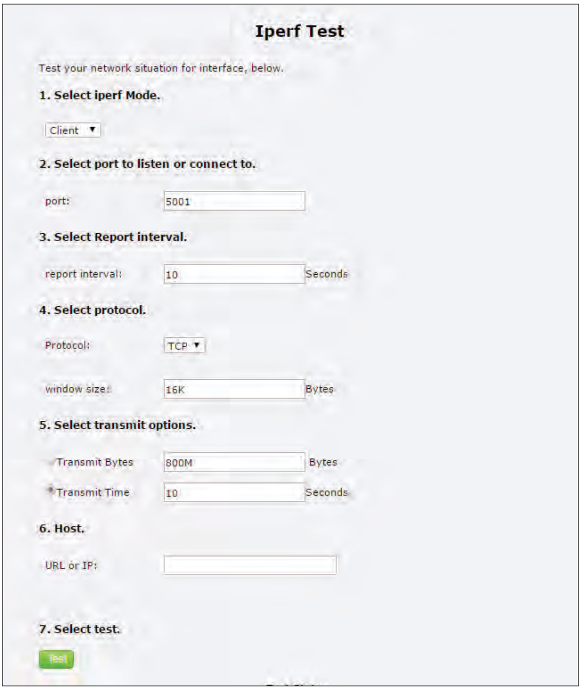
REPLY FROM	BYTES	TIME	TTL
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Ping Statistics:

PACKETS SENT	PACKETS RECEIVED	PACKETS LOSS	ROUND TRIP MIN	ROUND TRIP MAX	ROUND TRIP AVG
N/A	N/A	N/A	N/A	N/A	N/A

Iperf Test

Click **Iperf Test** from any Advanced Setup screen to generate the *Iperf Test* screen. To perform an iperf test on the Gateway, follow the onscreen instructions.



Iperf Test

Test your network situation for interface, below.

1. Select iperf Mode.

Client ▼

2. Select port to listen or connect to.

port: 5001

3. Select Report interval.

report interval: 10 Seconds

4. Select protocol.

Protocol: TCP ▼

window size: 16K Bytes

5. Select transmit options.

○ Transmit Bytes 800M Bytes

● Transmit Time 10 Seconds

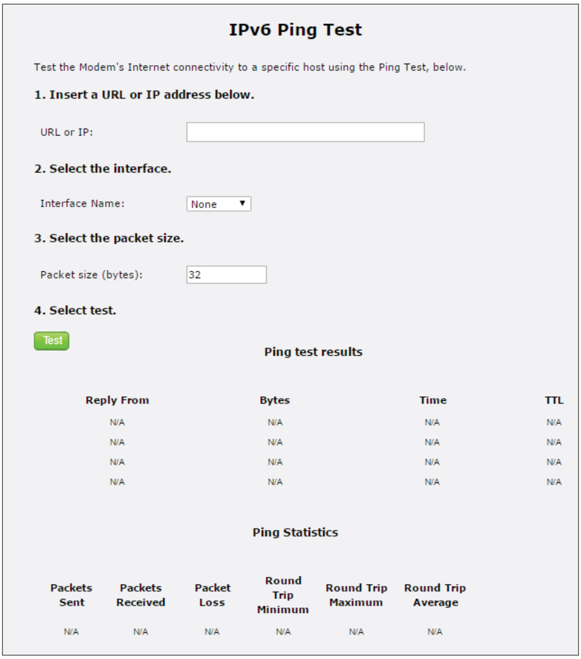
6. Host.

URL or IP:

7. Select test.

IPv6 Ping Test

Click **IPv6 Ping Test** from any Advanced Setup screen to generate the *IPv6 PingTest* screen. To perform an IPv6 ping test on the Gateway, follow the onscreen instructions.



IPv6 Ping Test

Test the Modem's Internet connectivity to a specific host using the Ping Test, below.

1. Insert a URL or IP address below.

URL or IP:

2. Select the interface.

Interface Name: None

3. Select the packet size.

Packet size (bytes): 32

4. Select test.

Ping test results

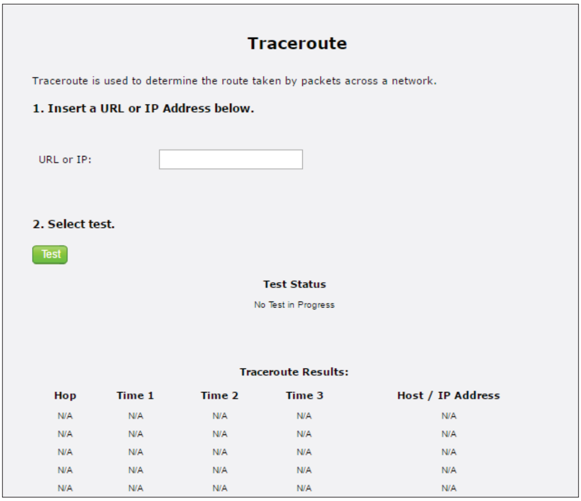
Reply From	Bytes	Time	TTL
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Ping Statistics

Packets Sent	Packets Received	Packet Loss	Round Trip Minimum	Round Trip Maximum	Round Trip Average
N/A	N/A	N/A	N/A	N/A	N/A

Traceroute

Click **Traceroute** from any Advanced Setup screen to generate the *Traceroute* screen. To perform an route trace on the Gateway, follow the onscreen instructions.



Traceroute

Traceroute is used to determine the route taken by packets across a network.

1. Insert a URL or IP Address below.

URL or IP:

2. Select test.

Test Status

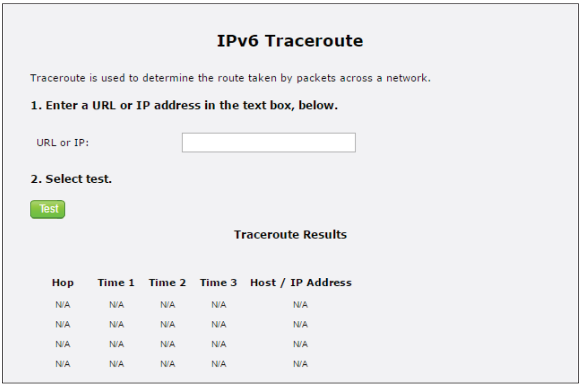
No Test in Progress

Traceroute Results:

Hop	Time 1	Time 2	Time 3	Host / IP Address
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

IPv6 Traceroute

Click **IPv6 Traceroute** from any Advanced Setup screen to generate the *IPv6 Traceroute* screen. To perform an IPv6 route trace on the Gateway, follow the onscreen instructions.



IPv6 Traceroute

Traceroute is used to determine the route taken by packets across a network.

1. Enter a URL or IP address in the text box, below.

URL or IP:

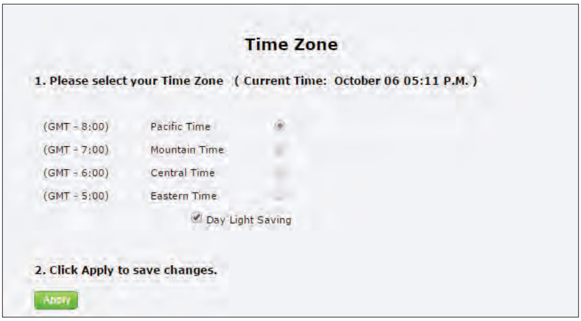
2. Select test.

Traceroute Results

Hop	Time 1	Time 2	Time 3	Host / IP Address
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A

Time Zone

Click **Time Zone** from any Advanced Setup screen to generate the *Time Zone* screen. Use this screen to set the time zone on the Gateway.



Time Zone

1. Please select your Time Zone (Current Time: October 06 05:11 P.M.)

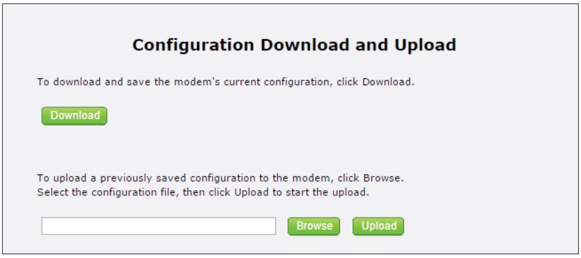
(GMT - 8:00)	Pacific Time	●
(GMT - 7:00)	Mountain Time	○
(GMT - 6:00)	Central Time	○
(GMT - 5:00)	Eastern Time	○

☑ Day Light Saving

2. Click Apply to save changes.

Config Download/Upload

Click **Config Download/Upload** from any Advanced Setup screen to generate the *Configuration Download and Upload* screen. Use this screen to save the Gateway's current configuration and settings, or upload a previously saved configuration file onto the Gateway.



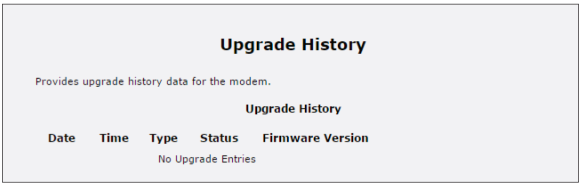
Configuration Download and Upload

To download and save the modem's current configuration, click Download.

To upload a previously saved configuration to the modem, click Browse.
Select the configuration file, then click Upload to start the upload.

Upgrade History

Click **Upgrade History** from any Advanced Setup screen to generate the *Upgrade History* screen. This screen displays a list of firmware upgrades applied to the Gateway.



Upgrade History

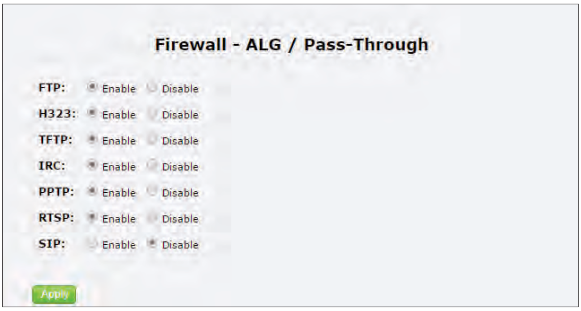
Provides upgrade history data for the modem.

Upgrade History

Date	Time	Type	Status	Firmware Version
		No Upgrade Entries		

ALG

Click **ALG** from any Advanced Setup screen to generate the *Firwall - ALG / Pass-Through* screen. This screen allows the user to configure ALG settings on the Gateway.



Firewall - ALG / Pass-Through

FTP: ● Enable ○ Disable

H323: ● Enable ○ Disable

TFTP: ● Enable ○ Disable

IRC: ● Enable ○ Disable

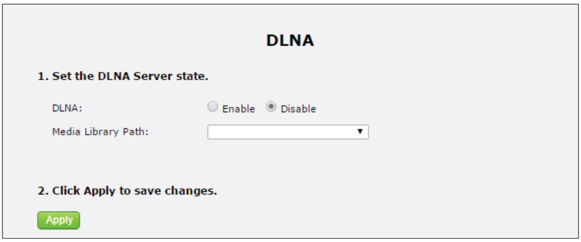
PPTP: ● Enable ○ Disable

RTSP: ● Enable ○ Disable

SIP: ○ Enable ● Disable

DLNA

Click **DLNA** from any Advanced Setup screen to generate the *DLNA* screen. This screen allows the user to configure DLNA settings on the Gateway.



DLNA

1. Set the DLNA Server state.

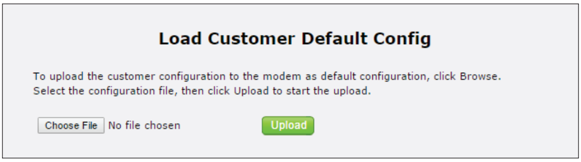
DLNA: ○ Enable ● Disable

Media Library Path:

2. Click Apply to save changes.

Load Customer Default Config

Click **Load Customer Default Config** from any Advanced Setup screen to generate the *Load Customer Default Config* screen. This screen allows the user to load the customer's configuraton as the default configuration on the Gateway.

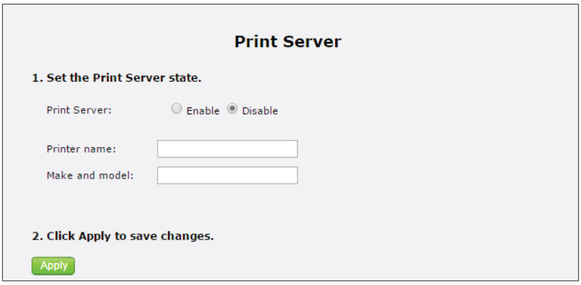


Load Customer Default Config

To upload the customer configuration to the modem as default configuration, click Browse. Select the configuration file, then click Upload to start the upload.

Print Server

Click **Print Server** from any Advanced Setup screen to generate the *Print Server* screen. This screen allows the user to select and configure a print server for the Gateway's network.



Print Server

1. Set the Print Server state.

Print Server: ○ Enable ● Disable

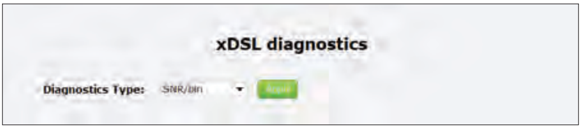
Printer name:

Make and model:

2. Click Apply to save changes.

xDSL Diagnostics

Click **xDSL diagnostics** from any Advanced Setup screen to generate the *xDSL Diagnostics* screen. This screen allows the user to select a type of diagnostics on the Gateway.



xDSL diagnostics

Diagnostics Type: SNR/bin

Specifications

A

General

Model Number(s)

T3200BV (Wireless 11ac Bonded VDSL2 Modem Gateway)

Standards

IEEE 802.3 (10BaseT)
IEEE 802.3u (100BaseTX)
IEEE 802.11 b, g, n, ac (Wireless)
G.dmt
G.lite
t1.413
RFC 1483, 2364, 2516

Protocol

LAN - CSMA/CD
WAN - PPP, DHCP, Static IP

WAN

VDSL2 interface

LAN

10/100/1000 RJ-45 switched ports

Speed

LAN Ethernet: 10/100/1000 Mbps auto-sensing
Wireless: 802.11a, b, g, n, ac; 900 Mbps optimal (see Wireless Operating Range for details)

Cabling Type

Ethernet 10BaseT: UTP/STP Category 3 or 5
Ethernet100BaseTX: UTP/STP Category 5

Wireless Operating Range

Indoors

Up to 91M (300 ft.) @ 300 Mbps

Outdoors

Up to 457M (1500 ft.) @ 300 Mbps

Topology

Star (Ethernet)

LED Indicators

WAN, Wireless, and WPS Push Button

Power Adapter

Model No. - CDS036-W120U
Input - 100-240V~, 50/60Hz, 1.0A
Output - 12.0V, 3.0A
Manufacturer - Adapter Technology Co Ltd

This product is intended to be used with UL Listed Power Adapter # CDS036-W120U with LPS and an operating temperature up to 45 degree C, and below an altitude of 2000 meters. If you need further assistance or information, please contact Actiontec.

Environmental

Power

External, 12V DC, 3A

Certifications

FCC Part 15 Class B, Class C and E, FCC Part 68, UL

Operating Temperature

0º C to 45º C (32ºF to 113ºF)

Storage Temperature

-20ºC to 70ºC (-4ºF to 158ºF)

Operating Humidity

10% to 85% non-condensing

Storage Humidity

5% to 90% non-condensing

Notices

Warranty

This product has a one-year Limited Hardware Warranty and 90-day free software updates from date of purchase.

Local Law

This Limited Warranty Statement gives the customer specific legal rights. The customer may also have other rights, which vary from state to state in the United States, and from country to country elsewhere in the world.

To the extent that this Limited Warranty Statement is inconsistent with local law, this Statement shall be deemed modified to be consistent with such local law. Under such local law, certain disclaimers and limitations of this Warranty Statement may not apply to the customer.

Go to **http://www.actiontec.com/products/warranty.php** for more information.

Important Safety Instructions

Basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and personal injury, including the following:

- Do not use this product near water – for example, near a bathtub, kitchen sink, laundry tub, or swimming pool, or in a wet basement; only clean with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus including amplifiers that produce heat.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- Use only the power cord indicated in this manual.

Coaxial Cable

If applicable, the coaxial cable screen shield needs to be connected to the Earth at the building entrance per ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93, "Grounding of Outer Conductive Shield of a Coaxial Cable," or in accordance with local regulation.

FCC Class B Equipment

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 and correct the interference by implementing one or more of the following measures:

- Reorient or relocate the device;
- Increase the separation between the equipment and receiver;
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Actiontec Electronics, Inc, may void the user's authority to operate the equipment.

Declaration of Conformity for Products Marked With the FCC Logo

This device complies with part 15 of the FCC. Operation is subject to the following two conditions:

1. This device may not cause harmful interference;
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

Important Note on Wi-Fi

If applicable, this equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

The radio has been found to be compliant to the requirements set forth in CFR 47 Sections 2.1091, 15.247 (b) (4),15.407 addressing RF Exposure from radio frequency devices as defined in Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields. The equipment should be installed more than 30 cm (~12 in.) from your body or nearby persons.

For product available in the USA market, only channel 1~11 can be operated. Selection of other channels is not possible.

The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure. Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.

The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

The maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comp with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

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

FCC Part 68 User Manual Information

This equipment complies with Part 68 of the FCC rules. Located on the equipment is a label that contains, among other information, the ACTA registration number and ringer equivalence number (REN.) If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive REN's on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the REN's should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total REN's contact the telephone company to determine the maximum REN for the calling area.

This equipment cannot be used on the telephone company-provided coin service. Connection to Party Line Service is subject to State Tariffs.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right the file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact:

Company Name:	Actiontec Electronics, Inc.
Address:	760 N. Mary Ave., Sunnyvale, CA 94085
TEL:	(408) 752-7700
FAX:	(408) 541-9003

If the trouble is causing harm to the telephone network, the telephone company may request you to remove the equipment from the network until the problem is resolved.

This equipment uses the following USOC jacks: RJ14

It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damaging the equipment caused by local lightening strikes and other electrical surges.