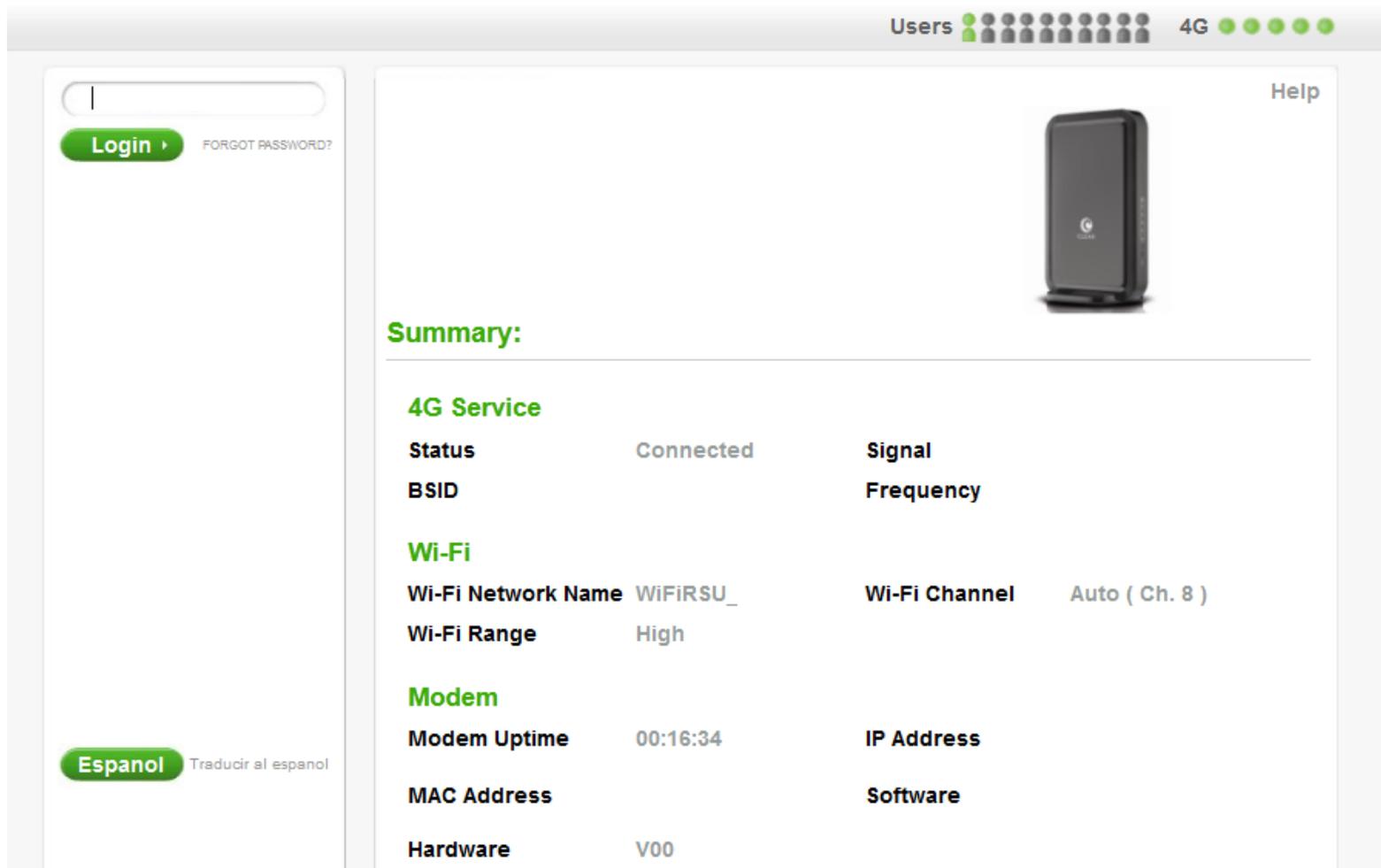


Before you Start!

- Port forwarding works best when using Apple Safari, Microsoft Internet Explorer 8, or Mozilla Firefox.
 - Google Chrome and Microsoft Internet Explorer 9 have been identified to have problems completing port forwarding.
- Please be aware that if any settings are changed outside of the directions outlined below and it renders the modem non-functional, you may be required to purchase another device at full retail price plus any other associated costs (exchange fees, shipping costs, taxes, etc.).
- Complete all necessary tasks that require an Internet connection. This includes any calls made using a VoIP service (phone service that requires Internet connection). This is because there are several steps in the process which may require a reboot of the modem, which will in turn either disconnect a phone call or interrupt Internet connectivity.
- Please note that by default the ability to login to the modem across the internet from a remote location is disabled.

How to set-up Port Forwarding

1. Open an Internet browser and browse to the web address <http://clearmodem>. The password is "admin" (all lowercase without the quotations).



The screenshot shows the ClearModem web interface. At the top right, there are status indicators for 'Users' (a row of 10 icons) and '4G' (four green circles). On the left side, there is a search bar, a 'Login' button, and a 'FORGOT PASSWORD?' link. Below the login area, there is an 'Espanol' button and a 'Traducir al espanol' link. On the right side, there is a 'Help' link and an image of the modem. The main content area is titled 'Summary:' and contains the following information:

4G Service			
Status	Connected	Signal	
BSID		Frequency	

Wi-Fi			
Wi-Fi Network Name	WiFiRSU_	Wi-Fi Channel	Auto (Ch. 8)
Wi-Fi Range	High		

Modem			
Modem Uptime	00:16:34	IP Address	
MAC Address		Software	
Hardware	V00		

2. The modem will default to the "Summary" page when the user interface opens.



LOGOUT

Summary

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Summary:

4G Service

Status Connected

BSID

Signal

Frequency

Wi-Fi

Wi-Fi Network Name WiFIRSU_

Wi-Fi Range High

Wi-Fi Channel Auto (Ch. 8)

Modem

Modem Uptime 00:19:01

MAC Address

Hardware V00

IP Address

Software

3. Select the “Advanced Settings” tab on the left side of the user interface.



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Summary:

4G Service

Status	Connected	Signal	
BSID		Frequency	

Wi-Fi

Wi-Fi Network Name	WiFIRSU_	Wi-Fi Channel	Auto (Ch. 8)
Wi-Fi Range	High		

Modem

Modem Uptime	00:19:01	IP Address	
MAC Address		Software	
Hardware	V00		

4. The modem will default to the "Firewall Settings" after selecting the "Advanced Settings".

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Firewall Settings:

The Firewall authorizes Internet access to your modem. Please refer to Help for information on the settings.

Enable Firewall

Enable Web Login from Internet

Web Login Port from Internet

Enable Ping from Internet

CANCEL APPLY

5. Uncheck the “Enable Firewall” checkbox and check the “Enable ping from internet” checkbox.

- IMPORTANT: If you only need port forwarding for a gaming console or you do not need to be able to connect to devices behind the CLEAR modem remotely, the “Enable ping from internet” checkbox does not need to be selected.



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Firewall Settings:

The Firewall authorizes Internet access to your modem. Please refer to Help for information on the settings.

Enable Firewall

Enable Web Login from Internet

Web Login Port from Internet

Enable Ping from Internet

CANCEL

APPLY

6. Select "Router" under "Advanced Settings".

LOGOUT

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- Modem Update
- Wi-Fi Settings
- Advanced Settings
- Firewall
- Router
- System
- System Log
- Help

REBOOT

Help



Router Settings:

▼ IP Passthrough/Router

IP Passthrough is a useful feature if a host computer or server on the Local Area Network needs to have access into it from the internet with a real public IP address. With IP Passthrough configured, all IP traffic, not just TCP/UDP, is forwarded back to the host computer. This can be necessary with certain types of software that do not function reliably through Network Address Translation.

IP Passthrough Enable Disable
IP Passthrough Type Auto Manual
IP Passthrough MAC : : : : :

- ▶ DNS Servers
- ▶ Dynamic DNS Information
- ▶ UPnP
- ▶ DMZ
- ▶ Port Forwarding
- ▶ DHCP Server
- ▶ DHCP Lease Reservation
- ▶ DHCP Lease Status

7. Select "DHCP Lease Status".

- Confirm the MAC and IP address of the device receiving the forwarded ports and copy them down for later use.

- ▶ DNS Servers
- ▶ Dynamic DNS Information
- ▶ UPnP
- ▶ DMZ
- ▶ Port Forwarding
- ▶ DHCP Server
- ▶ DHCP Lease Reservation
- ▼ DHCP Lease Status

Shows the devices currently connected to your modem.

Host Name	MAC Address	IP Address	Remaining Lease Duration
WST41032153	00:23:15:43:F7:24	192.168.15.62	2257 seconds

REFRESH
AUTO

8. Select the "DHCP Lease Reservation".

- ▶ DNS Servers
- ▶ Dynamic DNS Information
- ▶ UPnP
- ▶ DMZ
- ▶ Port Forwarding
- ▶ DHCP Server

▼ DHCP Lease Reservation

Use these fields to reserve a specific IP address for a device.

Select	Host Name	MAC Address	IP Address	Enabled
--------	-----------	-------------	------------	---------

ADD
DELETE

▼ DHCP Lease Status

Shows the devices currently connected to your modem.

Host Name	MAC Address	IP Address	Remaining Lease Duration
WST41032153	00:23:15:43:F7:24	192.168.15.62	2257 seconds

REFRESH
AUTO

9. Select the “Add” button

- ▶ DNS Servers
- ▶ Dynamic DNS Information
- ▶ UPnP
- ▶ DMZ
- ▶ Port Forwarding
- ▶ DHCP Server

▼ DHCP Lease Reservation

Use these fields to reserve a specific IP address for a device.

Select	Host Name	MAC Address	IP Address	Enabled
--------	-----------	-------------	------------	---------

ADD
DELETE

▼ DHCP Lease Status

Shows the devices currently connected to your modem.

Host Name	MAC Address	IP Address	Remaining Lease Duration
WST41032153	00:23:15:43:F7:24	192.168.15.62	2257 seconds

REFRESH
AUTO

10. Enter the device information:

- Client Host Name
- MAC Address of the device from Step 7

- IP address from Step 7
- The “Select” Checkbox does NOT need to be selected.
- Ensure the “Enabled” checkbox is selected.

▼ DHCP Lease Reservation

Use these fields to reserve a specific IP address for a device.

Select	Host Name	MAC Address	IP Address	Enabled
<input type="checkbox"/>	Rule Name	00 : 23 : 15 : 43 : F7 : 24	192 : 168 : 15 : 62	<input checked="" type="checkbox"/>

▼ DHCP Lease Status

Shows the devices currently connected to your modem.

Host Name	MAC Address	IP Address	Remaining Lease Duration
WST41032153	00:23:15:43:F7:24	192.168.15.62	3026 seconds

11. Select "UPnP and DMZ".

- The “Enable UPnP IGD checkbox is selected.
- The DMZ IP Address field is blank.

► DNS Servers

► Dynamic DNS Information

▼ UPnP

Enable UPnP to allow Windows applications to dynamically configure Port Forwarding rules on the modem.

Enable UPnP IGD

▼ DMZ

DMZ IP Address 192.168.15.

► Port Forwarding

► DHCP Server

▼ DHCP Lease Reservation

Use these fields to reserve a specific IP address for a device.

Select	Host Name	MAC Address	IP Address	Enabled
<input type="checkbox"/>	Rule Name	00 : 23 : 15 : 43 : F7 : 24	192 : 168 : 15 : 24	<input checked="" type="checkbox"/>

▼ DHCP Lease Status

12. Select "Port Forwarding".

- Select the “Add” Button five times so that five blank rows are now available.

13. Enter the Following information:

PLEASE NOTE: TCP and UDP Port 161 and UDP Port 68 are reserved and cannot be forwarded on the CLEAR Hub Express

14. Line 1:

- Protocol
- Select “TCP” from the dropdown
 - WAN Port Begin
 - Enter the number “1”
 - WAN Port End
 - Enter the number “160”
 - LAN IP
 - Enter the IP address that was assigned in the lease reservation

15. Line 2:

- Protocol
- Select “TCP” from the dropdown
 - WAN Port Begin
 - Enter the number “162”
 - WAN Port End
 - Enter the number “65535”
 - LAN IP
 - Enter the IP address that was assigned in the lease reservation

16. Line 3:

- Protocol
- Select “UDP” from the dropdown
 - WAN Port Begin
 - Enter the number “1”
 - WAN Port End
 - Enter the number “67”
 - LAN IP
 - Enter the IP address that was assigned in the lease reservation

17. Line 4:

- Protocol
- Select “UDP” from the dropdown
 - WAN Port Begin
 - Enter the number “69”
 - WAN Port End
 - Enter the number “160”
 - LAN IP
 - Enter the IP address that was assigned in the lease reservation.

18. Line 5:

- Protocol
- Select “UDP” from the dropdown
 - WAN Port Begin
 - Enter the number “162”
 - WAN Port End
 - Enter the number “65535”

LAN IP

- Enter the IP address that was assigned in the lease reservation

▶ DMZ

▼ Port Forwarding

Use these fields to forward inbound connections to a specific client connected to the modem.

Select	Protocol	WAN Port		LAN IP	Enabled
		Begin	End		
<input type="checkbox"/>	TCP ▾	1	160	192 . 168 . 15 . 62	<input checked="" type="checkbox"/>
<input type="checkbox"/>	TCP ▾	162	65535	192 . 168 . 15 . 62	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UDP ▾	1	67	192 . 168 . 15 . 62	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UDP ▾	69	160	192 . 168 . 15 . 62	<input checked="" type="checkbox"/>
<input type="checkbox"/>	UDP ▾	162	65535	192 . 168 . 15 . 62	<input checked="" type="checkbox"/>

ADD

DELETE

▶ DHCP Server

▶ DHCP Lease Reservation

▼ DHCP Lease Status

Shows the devices currently connected to your modem.

Host Name	MAC Address	IP Address	Remaining Lease Duration
WST41032153	00:23:15:43:F7:24	192.168.15.62	3026 seconds

REFRESH

AUTO

19. Scroll to the bottom of the interface and select "Apply".

► DHCP Server

▼ DHCP Lease Reservation

Use these fields to reserve a specific IP address for a device.

Select	Host Name	MAC Address	IP Address	Enabled
<input type="checkbox"/>	Rule Name	00 : 23 : 15 : 43 : F7 : 24	192 . 168 . 15 . 62	<input checked="" type="checkbox"/>

ADD

DELETE

▼ DHCP Lease Status

Shows the devices currently connected to your modem.

Host Name	MAC Address	IP Address	Remaining Lease Duration
WST41032153	00:23:15:43:F7:24	192.168.15.62	3026 seconds

REFRESH

AUTO

CANCEL

APPLY

20. Select the "Reboot" button and wait for the modem to restart.

LOGOUT



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Router Settings:

▼ IP Passthrough/Router

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IP Passthrough Enable Disable

IP Passthrough Type Auto Manual

IP Passthrough MAC : : : : :

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LOGOUT



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Router Settings:

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IP Passthrough Enable Disable

IP Passthrough Type Auto Manual

Would you like to restart ?

OK

Cancel

LOGOUT

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Prepare for reboot.....

IP Passthrough/Router

IP Passthrough is a useful feature if a host computer or server on the Local Area Network needs to have access into it from the internet with a real public IP address. With IP Passthrough configured, all IP traffic, not just TCP/UDP, is forwarded back to the host computer. This can be necessary with certain types of software that do not function reliably through Network Address Translation.

IP Passthrough Enable Disable

IP Passthrough Type Auto Manual

LOGOUT

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Rebooting....

IP Passthrough/Router

IP Passthrough is a useful feature if a host computer or server on the Local Area Network needs to have access into it from the internet with a real public IP address. With IP Passthrough configured, all IP traffic, not just TCP/UDP, is forwarded back to the host computer. This can be necessary with certain types of software that do not function reliably through Network Address Translation.

The modem is now “wide open” and all ports are forwarded to the first NAT capable device hooked up after the modem. Any further issues with port forwarding will need to be addressed with your 3rd party network equipment vendor, or 3rd party software vendor.