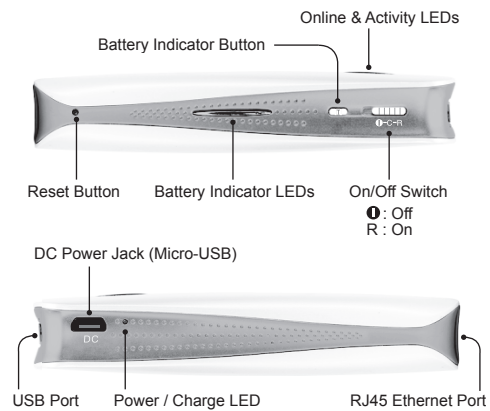


GNCI MRM-X1100 60-Second Setup:



(Please read at least this section!)

1. Plug in:

- Plug your USB modem into the GNCI MRM X1100's USB port.
- Connect the supplied Micro-USB cable to the MRM X1100's DC Power jack. Provide power to the X1100 Gateway either by using an AC adapter or by drawing power from another suitable USB port.
- Connect the MRM X1100 Gateway to your computer using an Ethernet cable.
- Push the On/Off switch to the "On" position

2. Access:

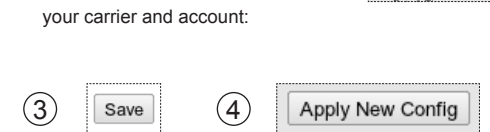
- Make sure your computer's Ethernet port is set to obtain an IP address using DHCP.

User name: **admin** Password: **gnci**

- Point your browser to <http://169.254.0.1> to access the MRM X1100's web-based configuration interface.

3. Configure:

- Click on **3G/4G WWAN**:
- Enter **APN** as required by your carrier and account:



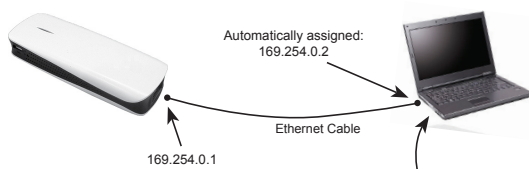
- Click on **Save** at the bottom, then click on **Apply New Config** at the upper left corner of the web page:

The Basics:

Connecting the MRM-X1100 Gateway to a Computer

To access the MRM X1100's web based configuration menu, the unit has to be connected to a computer via an Ethernet cable.

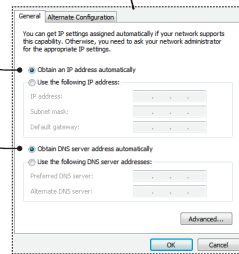
By default, the MRM X1100 Gateway will act as a DHCP server, automatically assigning an IP address to the connected device:



Make sure your computer's Ethernet port is set to obtain an IP address automatically.

Start a web browser and enter **169.254.0.1** in its location bar. You should now see the MRM X1100's web menu.

If you can not access the MRM X1100's web menu, and you suspect the unit might be configured for a different IP address, check the section **Restoring Factory Default Config** of this guide.



Using the Web Interface

When prompted for a user name and password, enter user name **admin** and password **gnci**.

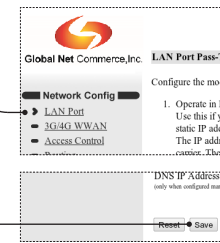
Configuring the MRM X1100 Gateway using the web interface is a 2-step process:

- Select a configuration option from the menu on the left side of the screen.
- Make configuration changes as desired, then click the **Save** button.

Repeat this with other configuration pages until you have made all necessary changes.

- To activate your new configuration, click on the **Apply New Config** button.

Depending on which configuration options have changed, the MRM X1100 Gateway will now restart all affected services with the updated configuration.



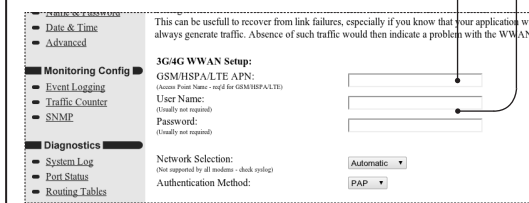
Configuring the WWAN Interface:

Configuring the Desired Mode of Operation

"WWAN" - Wireless Wide Area Network, describes the link to the wireless network established by a 3G/4G Modem.

In the MRM X1100's web interface, click on **3G/4G WWAN** to access the WWAN configuration page. Then follow these steps:

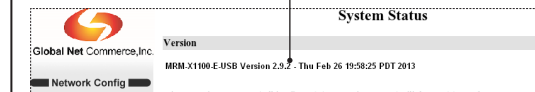
- If you have a CDMA / EVDO modem, make sure it is activated. Typically, the modem can be activated on any computer with the carrier-provided software.
- Most modems normally do not require a user name or password to connect to the wireless network. In this case, you can leave the corresponding fields blank.
- If you have a HSPA / LTE modem, make sure to obtain the APN from your service provider. You may also have to enter a user name and password.
- Regardless of modem type, test your modem with the manufacturer's or service provider's supplied software to make sure it is working and your account with the service provider is active.



Updating the Firmware:

GNCI will periodically develop new firmware to improve the functionality of the MRM X1100 Gateway or to support new 3G/4G modems. Please contact our Technical Support department for additional information.

To determine your current firmware version, click on **System Status** in the web menu.



To upgrade the firmware of your MRM X1100 Gateway:

- Download a new firmware image to your hard drive.
- Connect the MRM X1100 gateway to your computer and click on **Advanced**, then **Flash Upgrade**.



- In the section **HTTP Flash Upgrade** click on **Choose File** or the folder symbol. Select the downloaded firmware image from your hard drive.
- Click on **Start HTTP Upgrade** to start the upgrade process.

During the upgrade process, both the Online LED (blue) and the Activity LED (red) will first light up simultaneously, then flash in an alternating pattern. Upgrading the firmware will take approximately 2 minutes. When completed, the MRM X1100 Gateway will reboot automatically.

DO NOT INTERRUPT THIS PROCESS!

Online & Activity LEDs:

The MRM X1100 Gateway has two LEDs which indicate **Online Status** (blue) and **Activity** (red).

Power-up:

During Power-up, the red **Activity** LED will light up in a distinct pattern:

- On
- Flashing slowly
- Flashing rapidly
- Off - The MRM X1100 Gateway has completed power-up!

Normal Operation:

During normal operation the LEDs will indicate online status and activity:

Online LED (blue)	
Flashing slowly	No modem detected - offline
Flashing rapidly	Establishing connection
On	Connection established - online

Activity LED (red)	
On	WWAN traffic (receive or transmit)

Configuring the LAN Interface:

Selecting NAT or Passthrough

The LAN interface (Ethernet port) can operate in "NAT Mode" or "Passthrough Mode" - both offer distinct advantages:

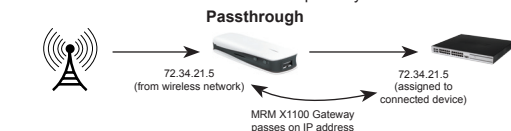
NAT (Network Address Translation) Mode:

- The wireless network assigns an IP address to the MRM X1100 Gateway
- The MRM X1100 Gateway will assign IP addresses from a different (configurable) IP network to connected devices
- The MRM X1100 Gateway will translate between the IP address received from the wireless network and the local IP addresses assigned to connected devices



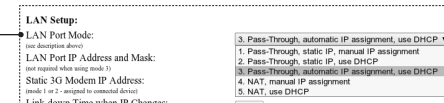
Passthrough Mode:

- The wireless network assigns an IP address to the MRM X1100 Gateway and the MRM X1100 will re-assign it to the connected device
- The MRM X1100 Gateway will use a different IP address on its own Ethernet port (configurable or automatically chosen)
- The MRM X1100 Gateway will pass traffic between the connected device and the wireless network transparently



Configuring the Desired Mode of Operation

In the Oxygen's web interface, click on **LAN Port** to access the LAN port configuration page. Select the desired mode of operation under **LAN Port Mode**.



When configuring the MRM X1100 Gateway for Passthrough, use the table below to determine the correct mode of operation:

	What kind of IP address does your 3G/4G modem receive from the network?	
	Static IP address	Dynamic IP address
Use DHCP to assign IP address to the connected device?	Yes, use DHCP	Select LAN Port Mode 2 or 3
	No, configure manually	Select LAN Port Mode 1

IMPORTANT:

When using mode 3 (the default mode), it is important to realize that the LAN port's IP address will change as soon as the MRM X1100 Gateway connects to a wireless network.

The MRM X1100 Gateway will turn off the Ethernet port (link down) for a few seconds to signal this change - make sure your connected equipment requests a new IP address afterwards!

Restoring Factory Default Config:

- To reset the MRM X1100 Gateway to its factory default configuration, use a bent paper clip or similarly shaped object to press the **Reset** button while the unit is powered on.

- Keep the **Reset** button pressed and observe the Online and Activity LEDs:

- Both LEDs will be off for about 5 seconds
- The Activity LED (red) will be on for about 5 seconds
- The Activity LED (red) will flash slowly for about 5 seconds
- The Activity LED (red) will start to flash rapidly - release the **Reset** button now!

The MRM X1100 will now restart with factory default configuration!

Available Accessories:

- MRM X1100 Gateway and Modem Mounting Bracket (Part-# 2-2001-01)
- AC Adapter (5V/1A, USB receptacle) (Part-# 2-2002-01)
- Cat 5e Ethernet Cable (Part-# 2-2003-01)

Contact:

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