

WAN Link Aggregation Configuration for NETGEAR Modems and Routers

Supported Cable Modems:

NETGEAR CM1100

NETGEAR CM1200

NETGEAR CM3000

CAX30 (Modem Mode)

CAX80 (Modem Mode)

Supported Router Systems and Resources:

<https://kb.netgear.com/000061095/How-do-I-set-up-WAN-Internet-Ethernet-port-aggregation-on-my-NETGEAR-Nighthawk-router>

<https://kb.netgear.com/000061324/How-do-I-set-up-WAN-aggregation-on-my-Orbi-WiFi-6-System>

Summary:

This details process outlines how to configure and setup WAN Link Aggregation between a cable modem and a router system. This is a WAN side configuration that differs from LAN side Link Aggregation. LAN side Link Aggregation is on the LAN network side of the router that connection two ports on a router to ethernet connected PC or device that also has two LAN ports and supports Link Aggregation. WAN side Link Aggregation is a cable modem that has two ethernet ports that connect to a router system that supports the internet port and 1 LAN port for Link Aggregation on the routers WAN side.

<https://kb.netgear.com/000060678/What-is-the-difference-between-LAN-and-WAN-Ethernet-port-aggregation>

Pre-Conditions:

Both cable modem and a supporting router with WAN Link Aggregation features.

Two CAT UTP cables. CAT6 UTP is recommended. Shortest cable lengths between cable modem and router that is allowable with modem and router placement, is recommended.

Ethernet PC or laptop.

Web Browser. MS Edge is recommended.

Cable modem and router system already setup and running in default Non-Link Aggregation mode. Cable modems and router systems are defaulted to disable Link Aggregation features.

Cable modem should be in good working order and have good ISP signal services up to the modem. If there is a problem, please post in the cable modem forum for help and information to troubleshoot problems or contact the ISP to have them ensure all cabling and signals up to the cable modem are in good working order.

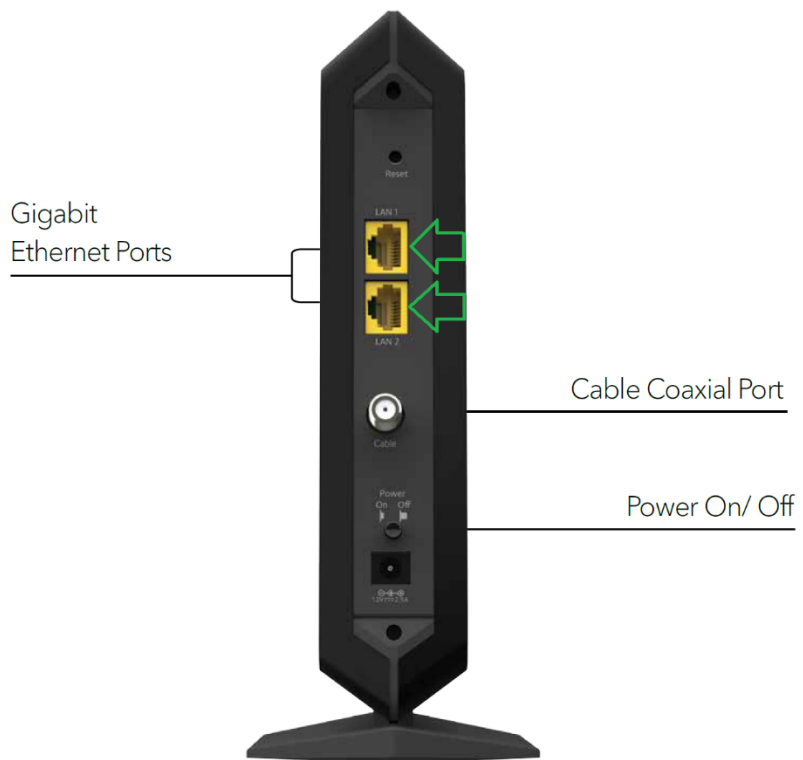
Locate and identify Link Aggregation Ethernet ports in back of the cable modem and router system

Refer to user manuals per model NETGEAR cable modem and NETGEAR Router systems for locations and printed labels of ethernet ports in back panel of these units.

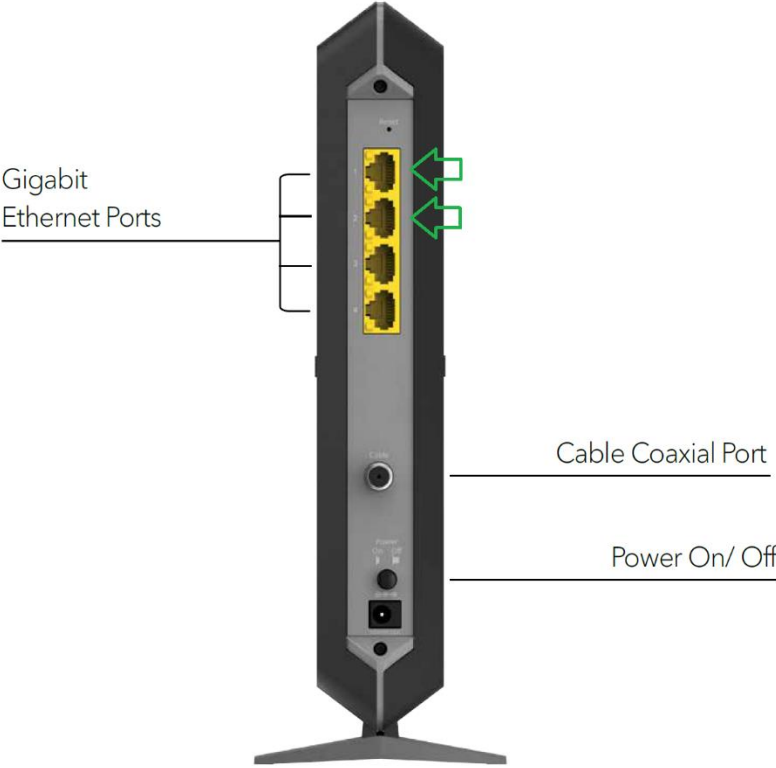
NOTE: Be aware that most ISP service companies only provide one IP address per household subscription. So additional ethernet ports seen on the back of CM series models may not be usable after WAN Link Aggregation is enabled. CM series cable modems do not have any built-in router capabilities. They are cable modems only!

NETGEAR CM1100:

[Connection Diagram](#)



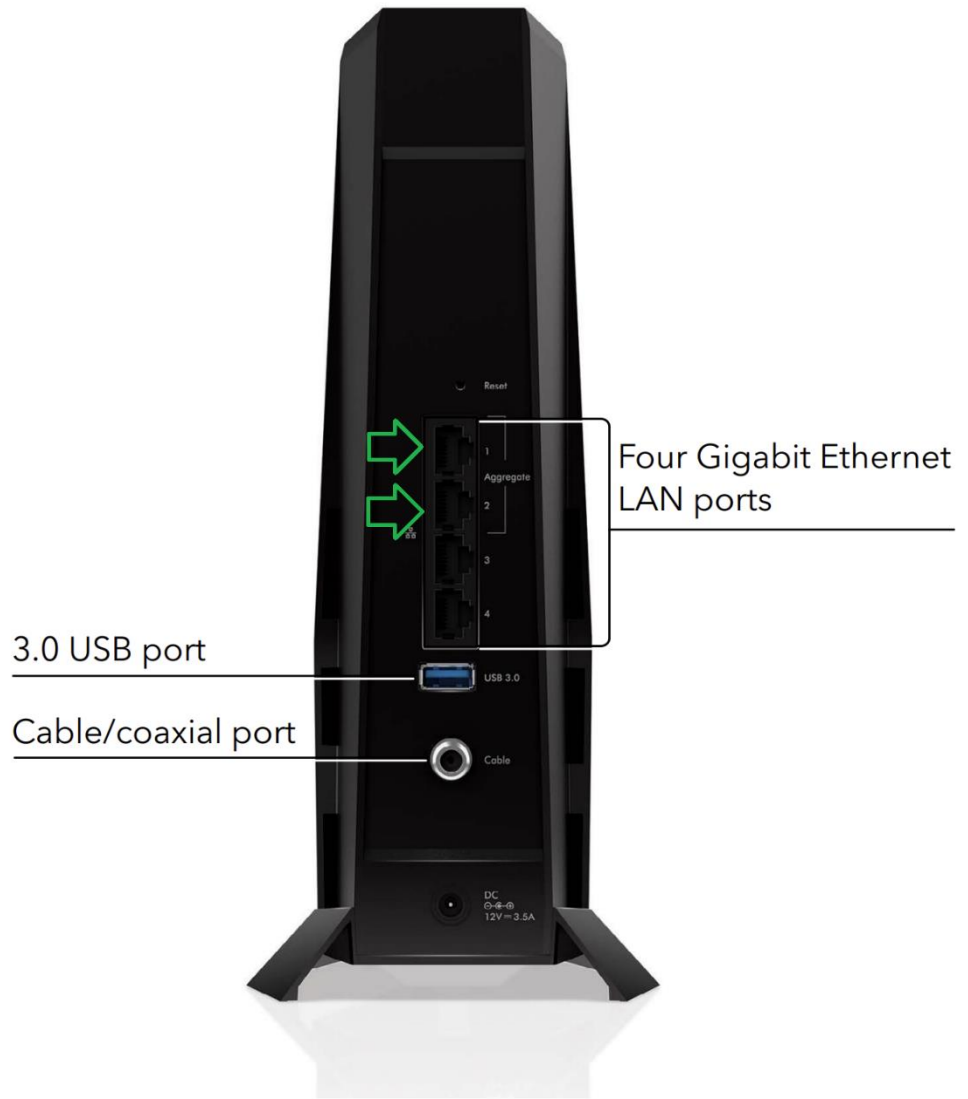
NETGEAR CM1200:
Connection Diagram



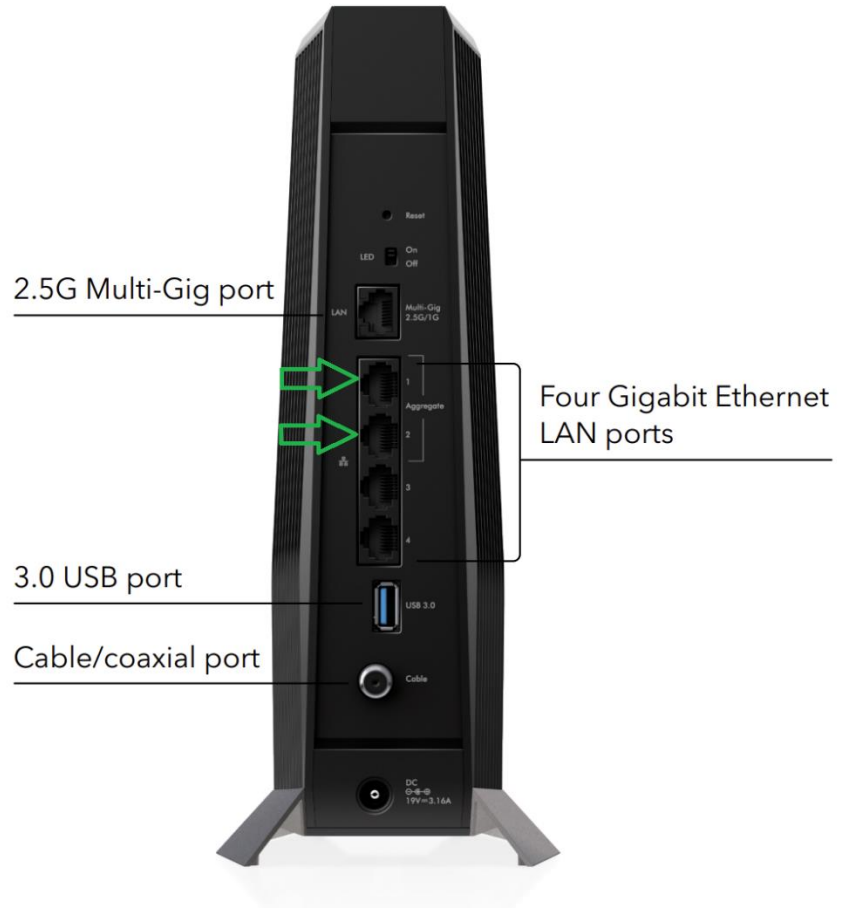
NETGEAR CM3000:



CAX30:
Connection Diagram



CAX80:
Connection Diagram

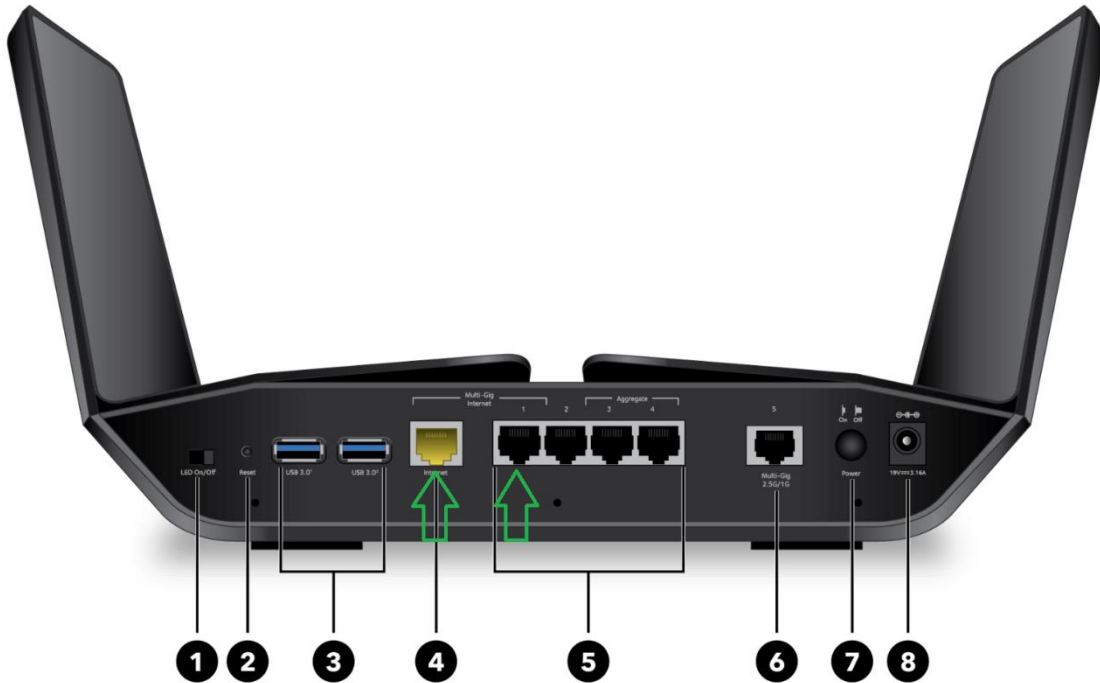


Rear Ethernet Port Identification for NETGEAR RAX120 and RAXE500 router systems:
Rear panel

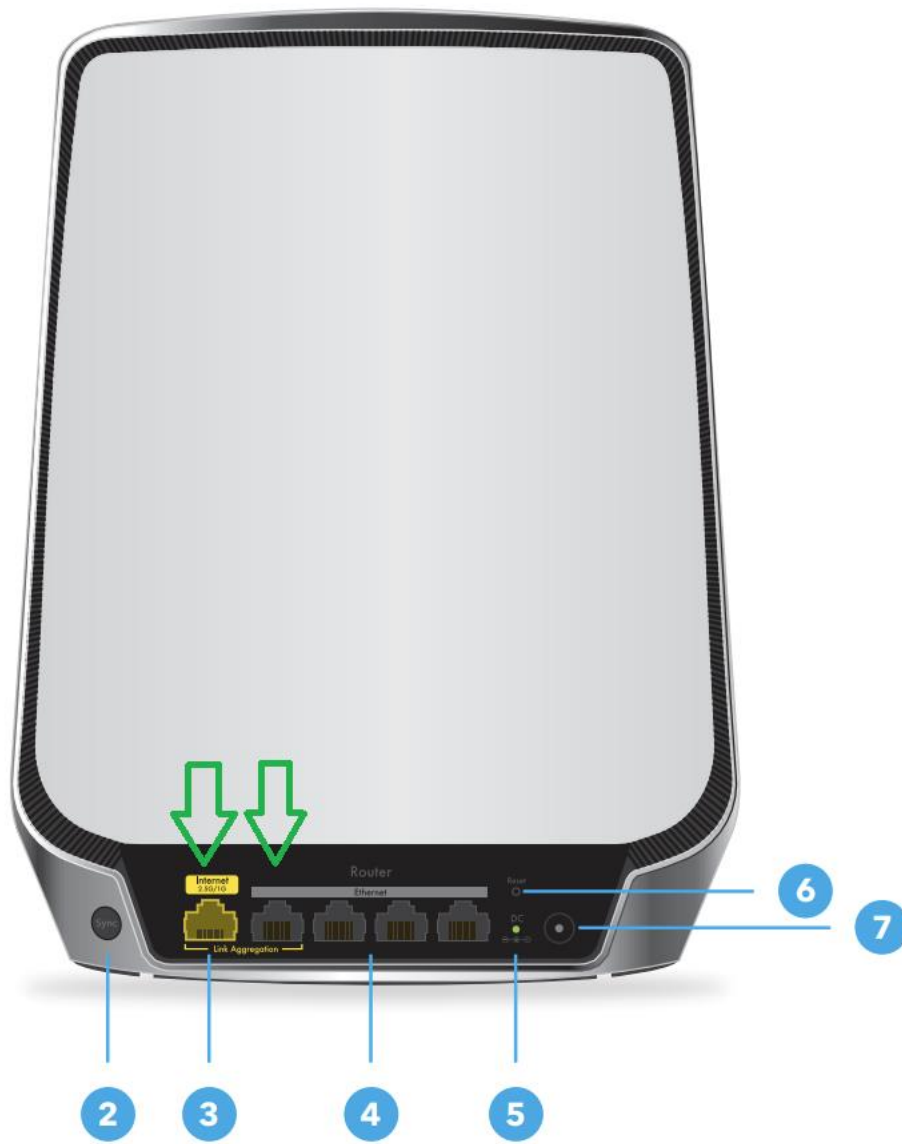
The following figure shows the rear panel connectors and buttons.



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Rear Ethernet Port Identification for Orbi RBR850 router systems:



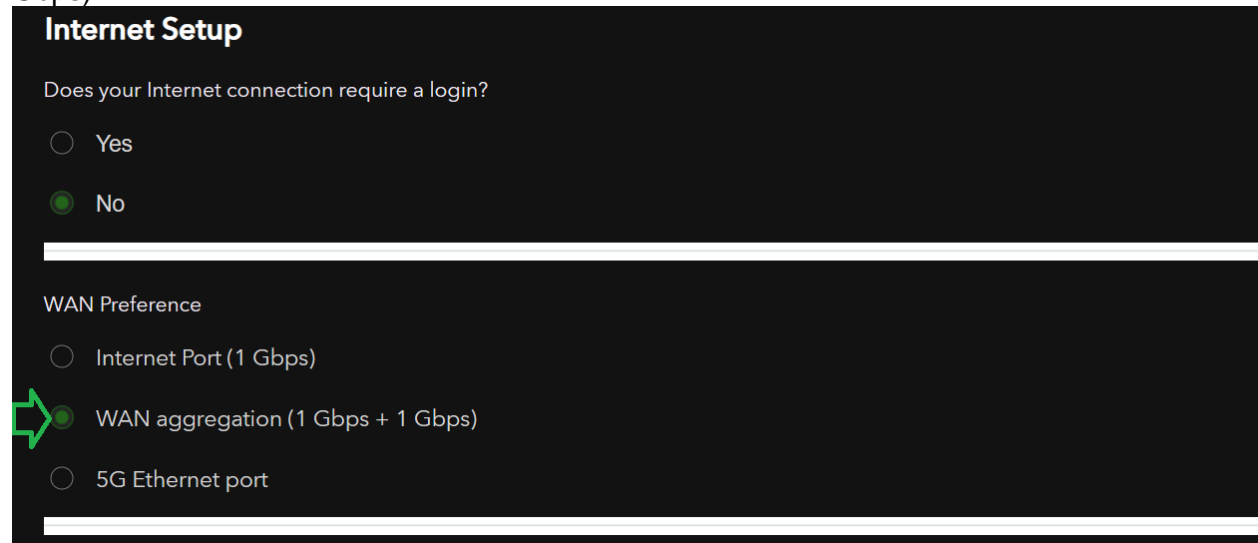
Configure Router System WAN Link Aggregation First

Connect an Ethernet supporting PC or laptop to the router system.

Log into the router systems web page using the admin credentials using a web browser.

Navigate to Advanced tab/Setup/Internet.

Under WAN Preference, select the small round button next to WAN Aggregation (1 Gbps + 1 Gbps)



The screenshot shows a web page titled "Internet Setup". It contains a question: "Does your Internet connection require a login?". Below this question are two radio button options: "Yes" and "No". The "No" option is selected, indicated by a green dot. Below this section is a horizontal separator line. Underneath the line is the "WAN Preference" section, which contains three radio button options: "Internet Port (1 Gbps)", "WAN aggregation (1 Gbps + 1 Gbps)", and "5G Ethernet port". The "WAN aggregation (1 Gbps + 1 Gbps)" option is selected, indicated by a green dot and a green arrow pointing to it from the left.

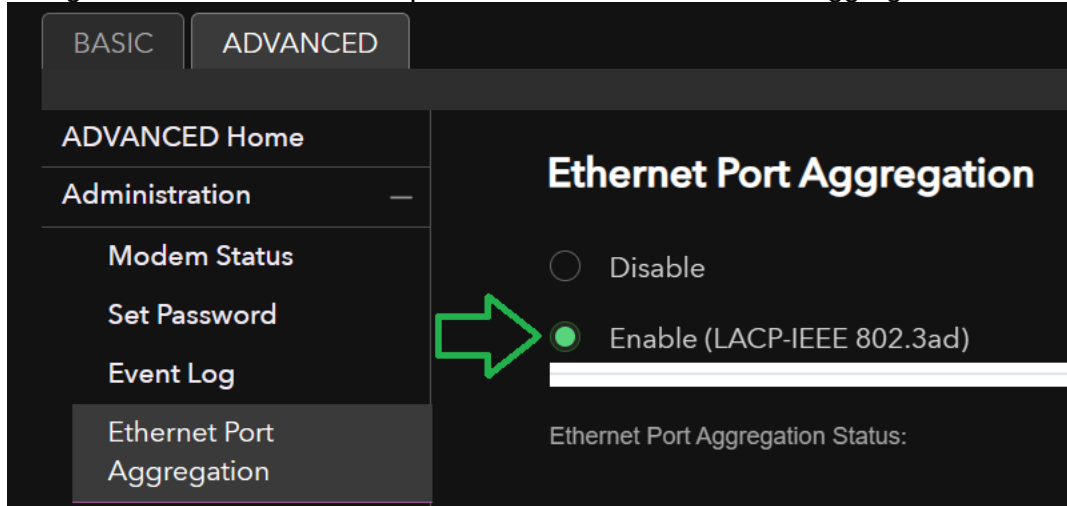
Select the APPLY button at the bottom right side of this web page to apply and enable this feature on the router system.

Configure Cable Modem WAN Link Aggregation

Connect an Ethernet supporting PC or laptop to the router system. While connected to the router system, log into the cable modems web page in a web browser by typing the following address into the browsers URL bar: 192.168.100.1

Log into modems web page using the admin credentials using a web browser.

Navigate to Advanced tab/Setup/Administration/Ethernet Port Aggregation:



Select the APPLY button at the bottom right side of this web page to apply and enable this feature on the cable modem. Take notice of the front LEDs on the cable modem as the modem may reboot soon after you select the APPLY button.

As the modem is rebooting, connect two ethernet cables between the cable modem ethernet WAN Link Aggregation ports and the router system ethernet WAN Link Aggregation ports as identified from the above pictures. Ethernet Port 1 on the back of the cable modem connect to the ethernet port marked INTERNET on the router. Ethernet Port 2 on the back of the cable modem connect to ethernet marked LAN Port 1 on the router. CAT6 is recommended for both cables. Do not mix CAT# version cables.

NOTE: Make sure the 2nd ethernet cable does not connect until both the Cable modem and Router LAN aggregation configurations were set up first and applied. Otherwise, it may create a network loop storm and a need to reboot both cable modem and router again.

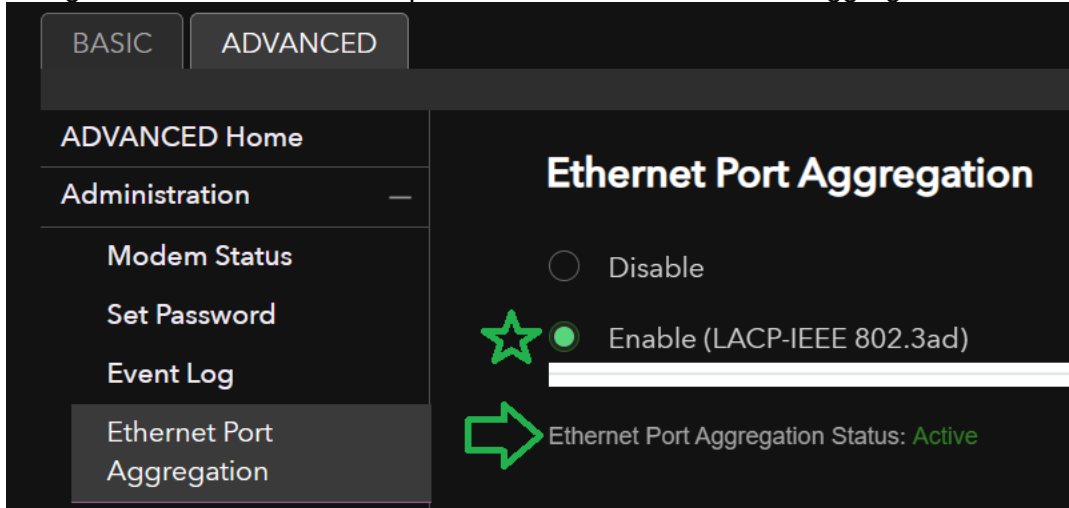
Give about 1 minute for the modem to reboot and come back to ready.

Check WAN Link Aggregation Connection Status

While connected to the router system, log into the cable modems web page in a web browser by typing the following address into the browsers URL bar: 192.168.100.1

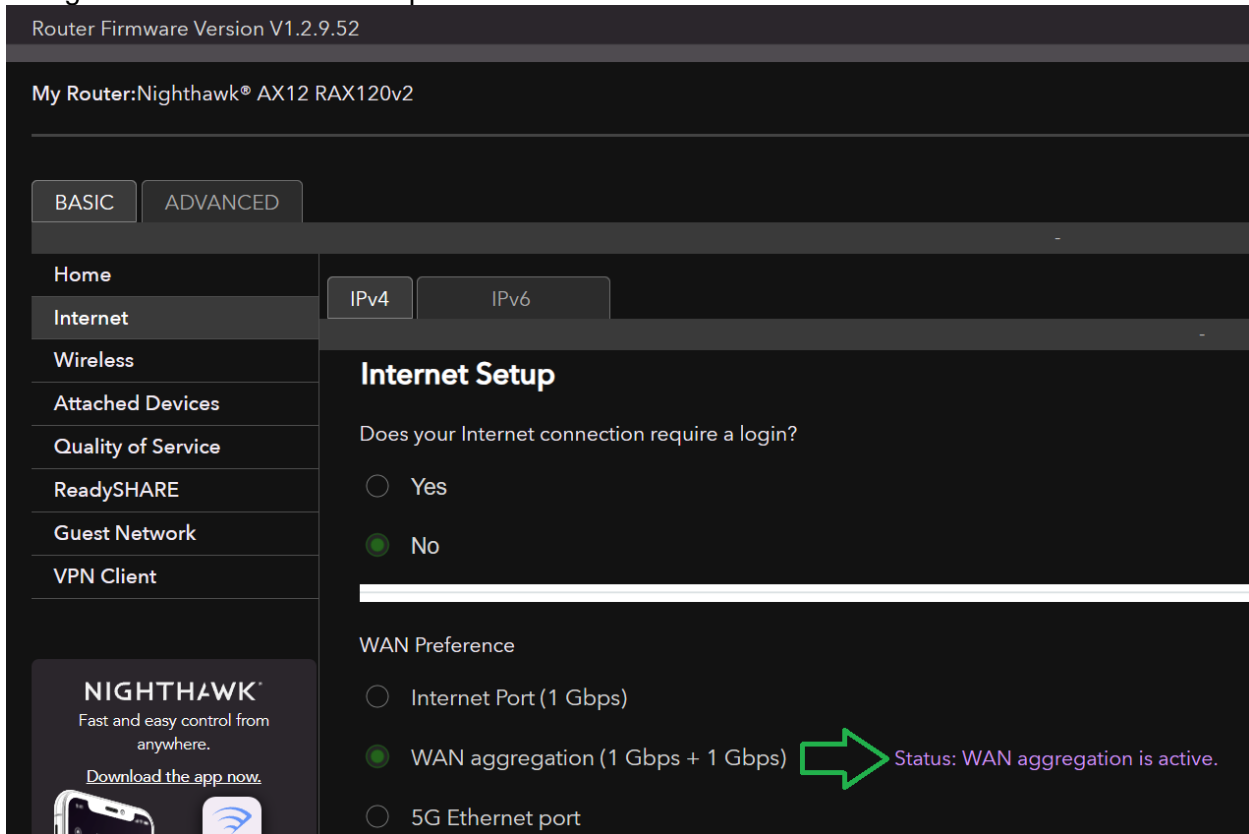
Log into modems web page using the admin credentials using a web browser.

Navigate to Advanced tab/Setup/Administration/Ethernet Port Aggregation:



Ethernet Port Aggregation Status should display Active in GREEN. This means the Link Aggregation connection between the cable modem and router is good and working.

Connect an Ethernet supporting PC or laptop to the router system.
Log into the router systems web page using the admin credentials using a web browser.
Navigate to Advanced tab/Setup/Internet:



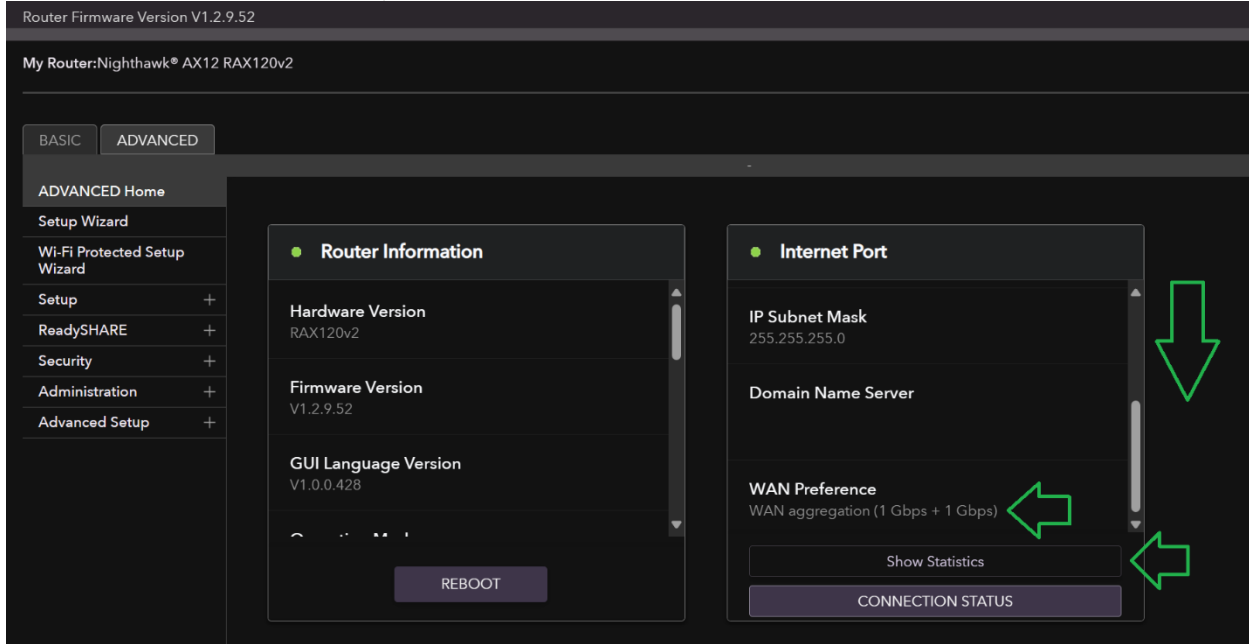
Under WAN Preference for WAN aggregation (1 Gbps + 1 Gbps) the status will display WAN aggregation is active. This means the Link Aggregation connection between the cable modem and router is good and working.

NOTE: If the WAN Link Aggregation Status shows Not Connected or No Active, color maybe in RED, a reboot of the cable modem and router system maybe first step. Or power OFF both cable modem and router for 1 minute then back ON as a trouble shooting step. Be sure to use good quality LAN cables.

Check the router INTERNET port and Show Statistics

Log into the router systems web page using the admin credentials using a web browser.
Navigate to Advanced tab.

On the Internet Port section, scroll down to the bottom of this window:



Wan Preference should display WAN Aggregation (1 Gbps + 1 GPBS).

Select the Show Statistics button:

The screenshot shows the 'Show Statistics' page with a table of network ports. The 'WAN aggregation' row is highlighted with a green arrow. The table shows the status of various ports, including 5G Ethernet, LAN 2, LAN 3, LAN 4, 2.4G WLAN, and 5G WLAN.

Port	Status	TxPkts	RxPkts	Collisions	Tx B/s	Rx B/s	Up Time
5G Ethernet	Link Down	0	0	0	0	0	00:00:00
WAN aggregation	2000M/Full	1426	15450	0	617	3345	00:06:40
LAN 2	Link Down						00:00:00
LAN 3	Link Down	1764	2862	0	18709	867	00:00:00
LAN 4	Link Down						00:00:00
2.4G WLAN b/g/n/ax	1147M	0	0	0	0	0	00:06:41
5G WLAN a/n/ac/ax	4803M	8143	2900	0	19569	958	00:06:35

Under Port and Status and review WAN Aggregation and the speed seen under the Status column. 2000M/Full will be displayed here.

WAN Link Aggregation is now complete and operational and ready for use.