



**NETGEAR**

**10G Network Switch**

**M4300 Series**

**Quick Setup Guide**

Version: 20240919

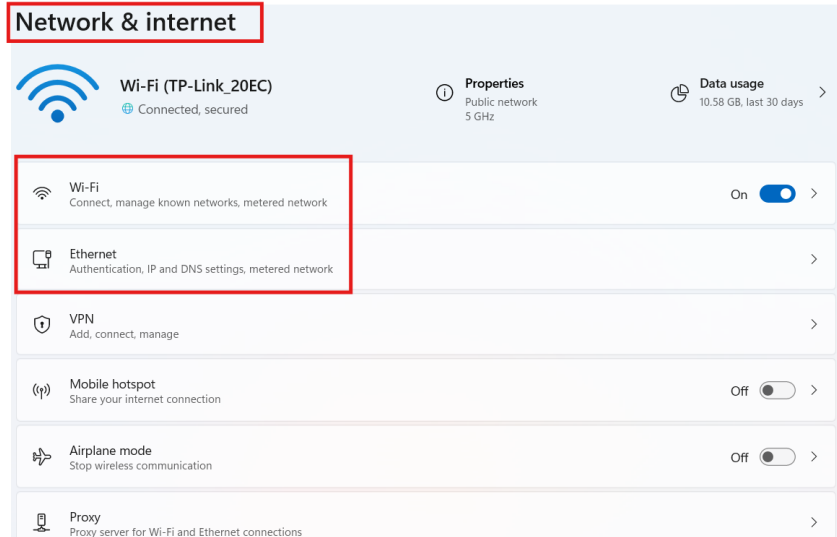
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# Modify computer IP address

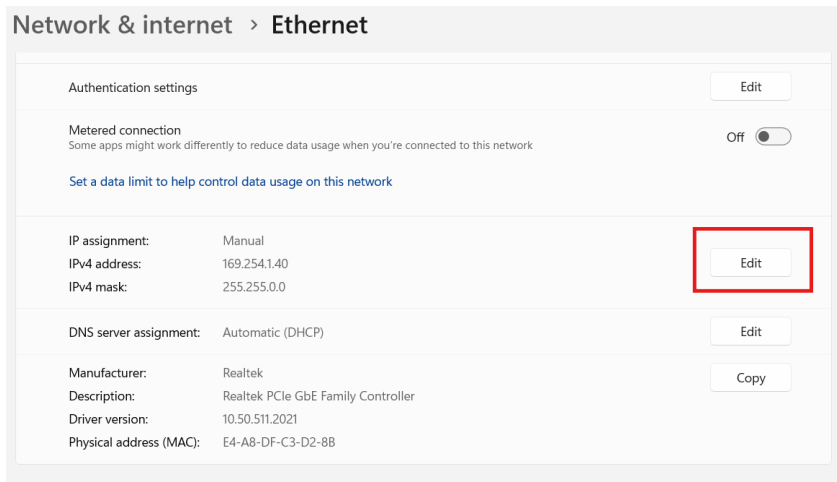
## Windows IP Setup

1. Connect the PC to network setting (Windows 11)
2. Go to Network & Internet and select Ethernet or Wi-Fi



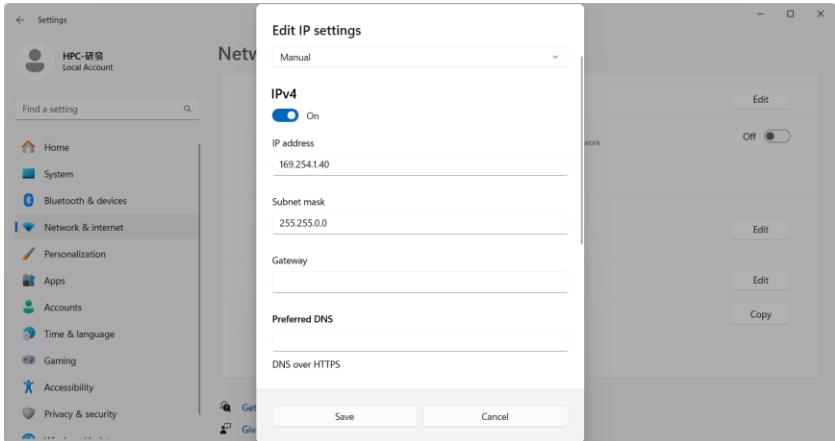
The screenshot shows the Windows 'Network & internet' settings page. The 'Network & internet' title is highlighted with a red box. Below it, the 'Wi-Fi (TP-Link\_20EC)' section is shown as 'Connected, secured'. The 'Ethernet' section is highlighted with a red box and shows 'Authentication, IP and DNS settings, metered network'. Other sections include 'VPN', 'Mobile hotspot', 'Airplane mode', and 'Proxy'.

3. Go to Ethernet and Edit



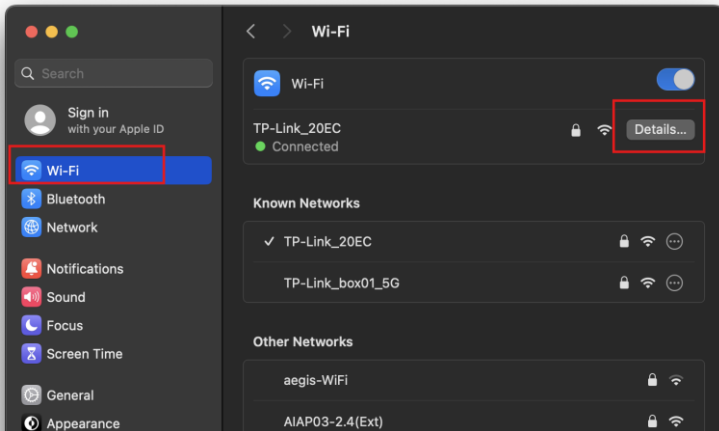
The screenshot shows the 'Network & internet > Ethernet' settings page. The 'Authentication settings' section has an 'Edit' button. The 'Metered connection' section has a toggle switch set to 'Off' and a link 'Set a data limit to help control data usage on this network'. The 'IP assignment' section shows 'Manual' assignment with IPv4 address '169.254.1.40' and mask '255.255.0.0'. The 'Edit' button in this section is highlighted with a red box. The 'DNS server assignment' section shows 'Automatic (DHCP)' with an 'Edit' button. The bottom section shows hardware details like 'Manufacturer: Realtek', 'Description: Realtek PCIe GbE Family Controller', 'Driver version: 10.50.511.2021', and 'Physical address (MAC): E4-A8-DF-C3-D2-8B' with a 'Copy' button.

4. Select IP setting From DHCP to Manual and setup IP Address to make sure with the same subnet as switch

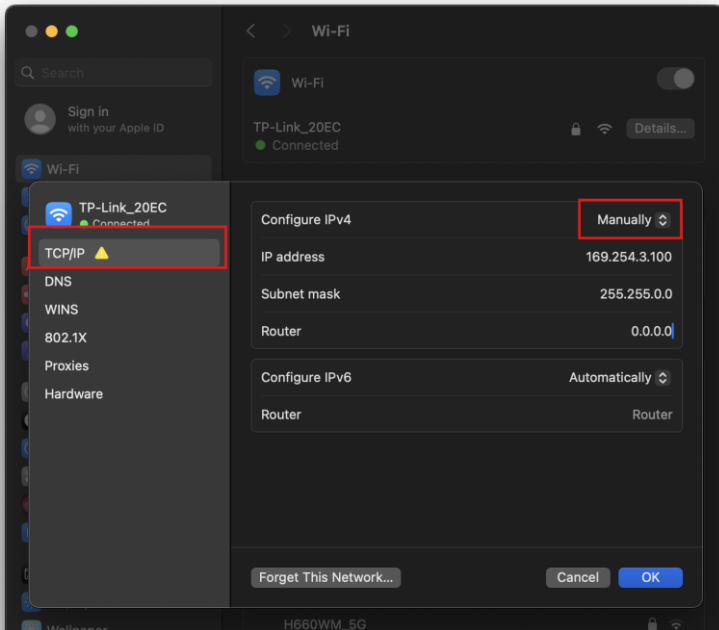


## MAC IP Setup

1. Connect the Mac to network switch via Ethernet or Wifi
2. Go to Wifi / Ethernet interface and select detail



3. Go to TCP/IP and Select Configure IPV4 from DHCP to Manually. Setup IP Address to make sure with the same subnet as switch



## Switch Requirement

The following features need to be enabled on the network switch being used for a Switch

1. Multicast
2. Jumbo Frames / Frame Size / MTU over 9000
3. IGMP Management / Snooping
4. PoE (where being utilised)

## Feature explanation

- **Multicast** : (one-to-many or many-to-many distribution) is a group communication where information is addressed to a group of network devices simultaneously
- **Jumbo Frames / Frame Size / MTU** : are Ethernet frames with more than 1,500 bytes of payload. Conventionally, jumbo frames can carry up to 9,216 bytes of payload and must be activated in order to send large packets of data for HDMI distribution
- **IGMP Management / Snooping** : Internet Group Management Protocol (IGMP) snooping is a feature that allows switches to intelligently forward multicast traffic to avoid broadcasting the traffic to all ports to improve network performance.
- **POE** : (Power over Ethernet) devices are all capable of being powered by PoE. Power Supply Units are available for devices, however, the products are not sold with these included. PoE can be disabled on the switch if external PSU's are being used

## Connecting to the switch Web GUI Interface

1. Open your internet browser (Google Chrome, Mozilla, Internet Explorer etc)
2. Type the network switch default IP address into the web browser bar
3. Enter the default user name and password

Default IP address: **169.254.100.100**

User: admin

Password:

# Configuration Frame Size

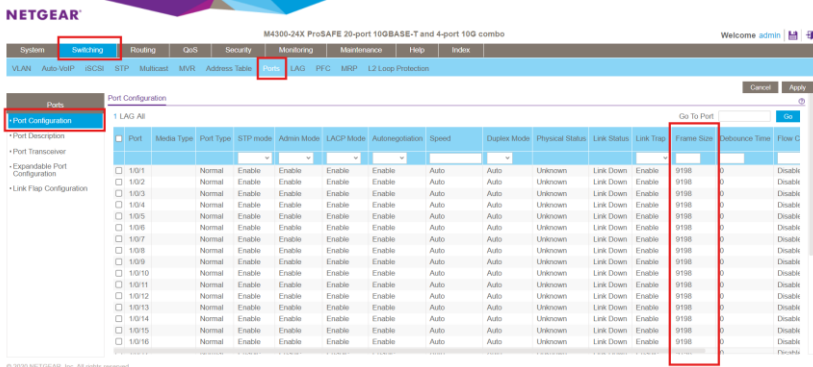
To change the Frame Size

Under “Switching”

Under “Ports”

Under “Port Configuration”

Change Frame Size over 9000 and Click Apply



# Configure IGMP Snooping

You can configure the parameters for IGMP snooping, which is used to build forwarding lists for multicast traffic.

**Note:**

*You must log in as the admin user, which has read/write access privileges to change the data on this page.*

To Enable IGMP Snooping

Under “Switching”

Under “Multicast”

Under “IGMP Snooping”

Under “Configuration”

Enable below feature for IGMP Snooping



System	<b>Switching</b>	Routing	QoS	Security	Monitoring	Maintenance	Help	Index			
VLAN	Auto-VoIP	iSCSI	STP	<b>Multicast</b>	MVR	Address Table	Ports	LAG	PFC	MRP	L2 Loop Protection

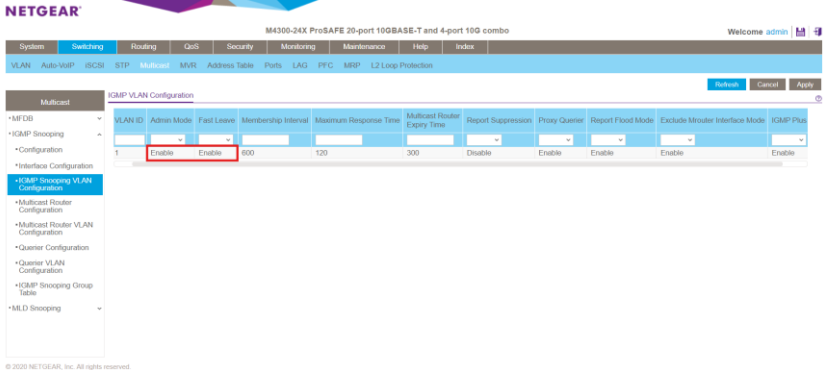
Multicast	IGMP Snooping Configuration
• MFDB	Admin Mode <input type="radio"/> Disable <input checked="" type="radio"/> Enable
• IGMP Snooping	Multicast Control Frame Count 3614
<b>• Configuration</b>	Validate IGMP IP header <input type="radio"/> Disable <input checked="" type="radio"/> Enable
• Interface Configuration	Interfaces Enabled for IGMP Snooping 1/0/1 - 1/0/24
• IGMP Snooping VLAN Configuration	Proxy Querier Mode <input type="radio"/> Disable <input checked="" type="radio"/> Enable
• Multicast Router Configuration	Report Flood Mode <input type="radio"/> Disable <input checked="" type="radio"/> Enable
• Multicast Router VLAN Configuration	Exclude Mrouter Interface Mode <input type="radio"/> Disable <input checked="" type="radio"/> Enable
• Querier Configuration	Fast Leave Auto-Assignment Mode <input type="radio"/> Disable <input checked="" type="radio"/> Enable
• Querier VLAN Configuration	Operational Mode Enable
	IGMP Plus Mode <input type="radio"/> Disable <input checked="" type="radio"/> Enable

To change Interface Configuration  
 Under “Switching”  
 Under “Multicast”  
 Under “IGMP Snooping”  
 Under “Interface Configure”  
 Enable below Settings and Apply

System	<b>Switching</b>	Routing	QoS	Security	Monitoring	Maintenance	Help	Index			
VLAN	Auto-VoIP	iSCSI	STP	<b>Multicast</b>	MVR	Address Table	Ports	LAG	PFC	MRP	L2 Loop Protection

Multicast	IGMP Snooping Interface Configuration							
• MFDB	1 LAG All							
• IGMP Snooping	Interface	Admin Mode	Membership Interval	Max Response Time	Expiration Time	Fast Leave	Proxy Querier	Fast Leave Operational Mode
• Configuration								
<b>• Interface Configuration</b>	<input type="checkbox"/> 1/0/1	Enable	600	120	300	Enable	Enable	Disable
	<input type="checkbox"/> 1/0/2	Enable	600	120	300	Enable	Enable	Disable
• IGMP Snooping VLAN Configuration	<input type="checkbox"/> 1/0/3	Enable	600	120	300	Enable	Enable	Disable
	<input type="checkbox"/> 1/0/4	Enable	600	120	300	Enable	Enable	Disable
• Multicast Router Configuration	<input type="checkbox"/> 1/0/5	Enable	600	120	300	Enable	Enable	Disable
	<input type="checkbox"/> 1/0/6	Enable	600	120	300	Enable	Enable	Disable
• Multicast Router VLAN Configuration	<input type="checkbox"/> 1/0/7	Enable	600	120	300	Enable	Enable	Disable
	<input type="checkbox"/> 1/0/8	Enable	600	120	300	Enable	Enable	Disable
• Querier Configuration	<input type="checkbox"/> 1/0/9	Enable	600	120	300	Enable	Enable	Disable
	<input type="checkbox"/> 1/0/10	Enable	600	120	300	Enable	Enable	Disable
• Querier VLAN Configuration	<input type="checkbox"/> 1/0/11	Enable	600	120	300	Enable	Enable	Disable
	<input type="checkbox"/> 1/0/12	Enable	600	120	300	Enable	Enable	Disable
• IGMP Snooping Group Table	<input type="checkbox"/> 1/0/13	Enable	600	120	300	Enable	Enable	Disable
	<input type="checkbox"/> 1/0/14	Enable	600	120	300	Enable	Enable	Disable
• MLD Snooping	<input type="checkbox"/> 1/0/15	Enable	600	120	300	Enable	Enable	Disable
	<input type="checkbox"/> 1/0/16	Enable	600	120	300	Enable	Enable	Disable
	<input type="checkbox"/> 1/0/17	Enable	600	120	300	Enable	Enable	Disable

To Enable IGMP Snooping VLAN Configuration  
 Under “Switching”  
 Under “Multicast”  
 Under “IGMP Snooping”  
 Under “IGMP Snooping VLAN Configuration”  
 Enable below Settings and Apply



The screenshot shows the configuration page for IGMP Snooping VLAN Configuration on a Netgear switch. The 'Admin Mode' and 'Fast Leave' settings are highlighted with a red box and set to 'Enable'. Other settings include Membership Interval (800), Maximum Response Time (120), Multicast Router Expiry Time (300), Report Suppression (Disable), Proxy Querier (Enable), Report Flood Mode (Enable), Exclude Router Interface Mode (Enable), and IGMP Plus (Enable).

VLAN ID	Admin Mode	Fast Leave	Membership Interval	Maximum Response Time	Multicast Router Expiry Time	Report Suppression	Proxy Querier	Report Flood Mode	Exclude Router Interface Mode	IGMP Plus
1	Enable	Enable	800	120	300	Disable	Enable	Enable	Enable	Enable

To Enable Querier Configuration  
 Under “Switching”  
 Under “Multicast”  
 Under “IGMP Snooping”  
 Under “Querier Configuration”  
 Enable below Settings and Apply

## NETGEAR

M4300-24X ProSAFE 20-port 10GBASE-T and 4-port 10G combo

System	Switching	Routing	QoS	Security	Monitoring	Maintenance	Help	Index			
VLAN	Auto-VoIP	iSCSI	STP	Multicast	MVR	Address Table	Ports	LAG	PFC	MRP	L2 Loop Protection

Multicast	Querier Configuration
• MFDB	Querier Admin Mode <input type="radio"/> Disable <input checked="" type="radio"/> Enable
• IGMP Snooping	Snooping Querier Address <input type="text" value="192.168.2.251"/>
• Configuration	IGMP Version <input type="text" value="2"/> (1 to 2)
• Interface Configuration	Query Interval(secs) <input type="text" value="60"/> (1 to 1800)
• IGMP Snooping VLAN Configuration	Querier Expiry Interval(secs) <input type="text" value="180"/> (60 to 300)
• Multicast Router Configuration	VLAN IDs Enabled for IGMP Snooping Querier
• Multicast Router VLAN Configuration	1
• Querier Configuration	
• Querier VLAN Configuration	
• IGMP Snooping Group Table	
• MLD Snooping	

To Save Configuration  
Under “Maintenance”  
Under “Save Configuration”  
Click the checkbox and Apply

## NETGEAR

M4300-24X ProSAFE 20-port 10GBASE-T and 4-port 10G combo

System	Switching	Routing	QoS	Security	Monitoring	Maintenance	Help	Index
Save Config	Reset	Export	Upgrade	Image Management	Troubleshooting			

Save Config	Save Configuration
• Save Configuration	Saving all applied changes will cause all changes to configuration panels that were applied, but not saved, to be saved, thus retaining their new values across a system reboot. <input checked="" type="checkbox"/>
• Auto Install Configuration	

