

ASRockind Technical Reference - Q&A

Question	How do I set up the Realtek teaming network and what's the benefit?
Release date	2021/01/22
Product	All model
FAQ type	<input type="checkbox"/> Specification <input type="checkbox"/> OS & Driver <input checked="" type="checkbox"/> Application <input type="checkbox"/> BIOS/FW <input type="checkbox"/> Others

Answer:

With the Realtek teaming function, multiple physical network adapters can be grouped into one virtual network adapter, providing effective transmission, bandwidth increase and fault tolerance for the application that requires enhanced bandwidth and stable network connectivity.

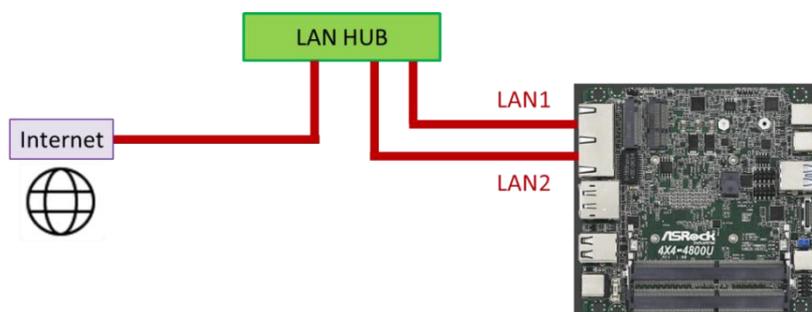
Here is the demonstration video for your reference : <https://youtu.be/vIYpfF3o3Fc>

Requirements for setting up the Realtek teaming network :

- a. Realtek LAN driver.
- b. Realtek teaming driver.
- c. A LAN hub.

Please follow the steps below to setup the Realtek teaming network.

1. Please connect the LAN cable as picture shown below.



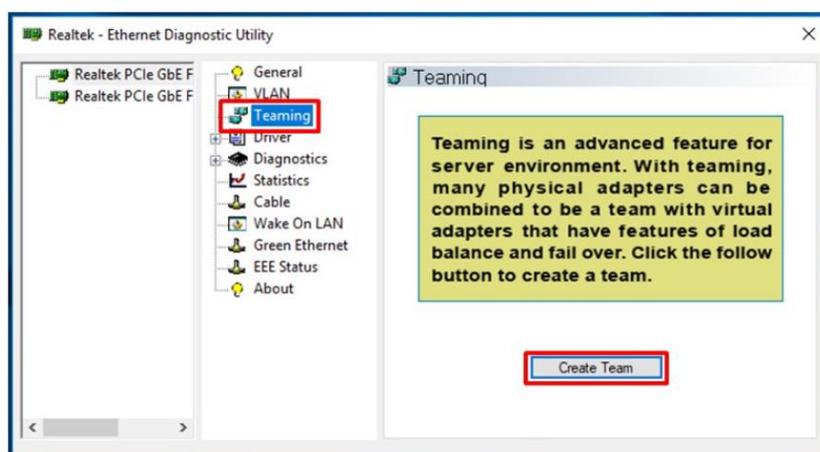
- Download and install the corresponding Realtek LAN driver and Realtek Teaming driver from the ASRockind website.

Download

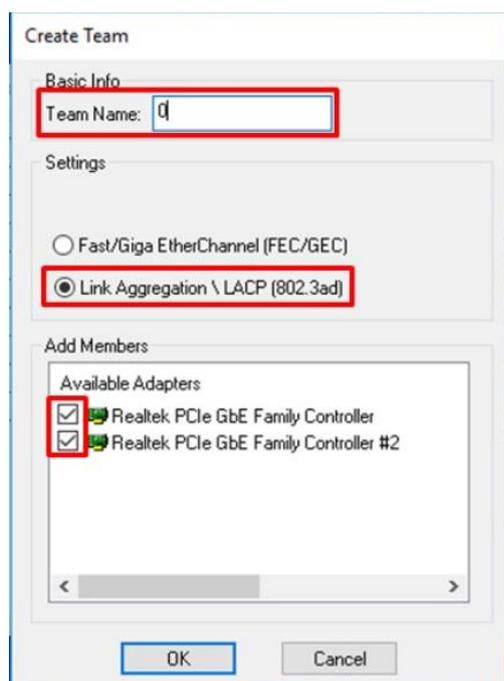
Select your OS: Windows 10 64bit

Description	OS	Size	Date	Download
Realtek high definition audio driver ver.8492_FF00	Windows® 10 64bit	280.79MB	2019/10/14	Global China
Realtek Lan driver ver:10031_10232018	Windows® 10 64bit	10.4MB	2019/10/14	Global China
Realtek Teaming driver ver:2.0.3.0	Windows® 10 64bit	13.08MB	2019/10/14	Global China
COM Port driver ver:1.0.2011.1109	Windows® 10 64bit	4.46MB	2019/10/14	Global China
VGA driver ver:18.50.33.01.190522a	Windows® 10 64bit	447MB	2019/10/14	Global China

- Run "Realtek - Ethernet Diagnostic Utility", and press "Create Team" on the Teaming page.



- Enter a Team Name, select "Link Aggregation \ LACP (802.3ad)" and choose both Realtek controllers. Then press OK.



FEC/GEC:

FEC/GEC is a performance technology developed by Cisco to increase both the transmission and reception throughputs of your server, while also providing load balancing and fault tolerance. The mode needs the switch supports FEC/GEC. So, the switch has to setup FEC/GEC mode and which ports are using for teaming.

Advantage: With the fault tolerance feature, it prevents the LAN disconnecting when there is connecting error during networking.

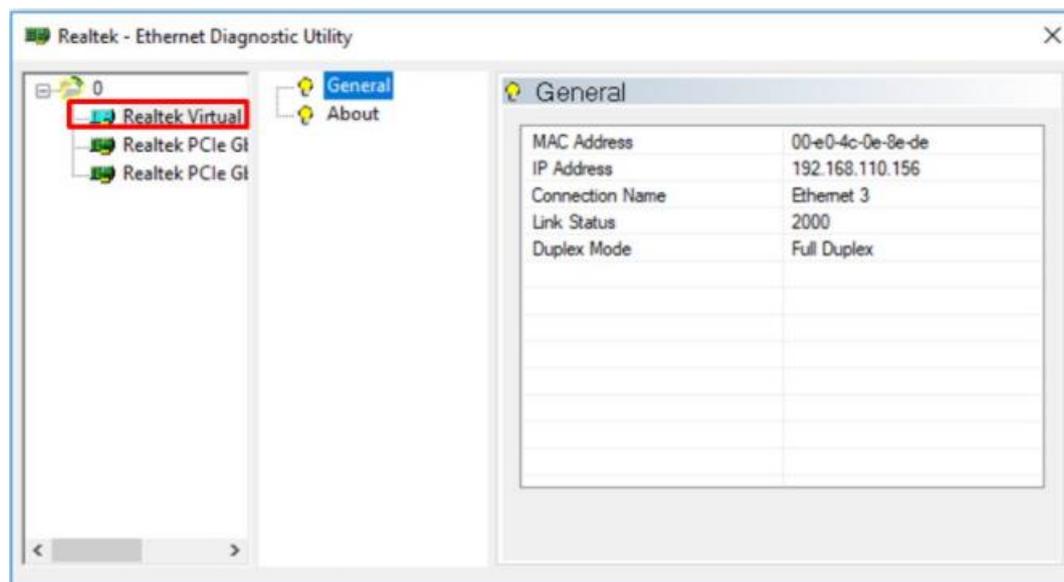
Link Aggregation \ LACP (802.3ad):

Link Aggregation is supported with LACP 802.3ad capable switches.

LACP is similar to FEC/GEC, but LACP doesn't setup which ports are using for teaming. LACP negotiates the ports with the switch that will make up the team.

Advantage: By combining multiple physical adapters to a virtual adapter, it can increase the LAN speed, distribute transmission loading and prevent network disconnection.

5. Realtek Virtual Teaming Adapter appears in the catalog tree once teaming process is completed.



6. You can verify the Link Aggregation function by checking the Ethernet Status. Here we take "Link Aggregation \ LACP (802.3ad)" for example. The LAN speed will be the sum of both LAN ports as picture shown below, and the LAN connection will not be interrupted if error occurs in one of the LAN connections.

The screenshot displays the Windows Network Connections control panel. At the top, the navigation path is "Control Panel > Network and Internet > Network Connections". Below this, three network connections are listed: Ethernet, Ethernet 2, and Ethernet 3. Ethernet 2 and Ethernet 3 are highlighted. Below the list, three status windows are open: Ethernet Status, Ethernet 2 Status, and Ethernet 3 Status. Each window shows connection details and activity. The "Speed" field in each window is highlighted with a red box.

Connection	IPv4 Connectivity	IPv6 Connectivity	Media State	Duration	Speed
Ethernet	Not Connected	Not Connected	Enabled	00:01:04	1.0 Gbps
Ethernet 2	Not Connected	Not Connected	Enabled	00:01:03	1.0 Gbps
Ethernet 3	Internet	No network access	Enabled	00:01:01	2.0 Gbps

Activity data for each connection:

Connection	Sent Bytes	Received Bytes
Ethernet	2,078,849	81,485,978
Ethernet 2	2,512,196	104,643,011
Ethernet 3	4,591,045	186,128,989