Difference between WAN port and LAN port

If you look at your wireless router, you may see the abbreviations LAN and WAN, usually located next to some ports on the device. LAN stands for Local Area Network and WAN stands for Wide Area Network. So what is the difference between these two types of ports? Let's find out with TipsMake.com through the following article!

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What is a LAN port? What is the LAN port used for?

Router LAN ports are intended to connect multiple computer devices in a single access point to share data and files between devices connected by Ethernet cable or wireless connection.

A home router usually has 4 LAN ports of the same type and color on the back of the router. This means it can host a network of up to 4 devices connected by connecting these identical jacks.

A LAN port is required if you want a group network connection to connect several computers at short distances to each other and to the Internet. If you want to create a network covering an area of ??several kilometers, you need to buy high-bandwidth cables.

For example, computers or mobile phones on the same LAN can often see shared files with each other and printers. If you want to create a huge local network, you will have to use a switch (or a network hub), which is

specifically designed to add more LAN ports to the switch.

To access the Internet through the LAN port, the router must have a WAN port.

What is a WAN port? What is the WAN port used for?

The WAN port located on the back of the router is used to connect to the modem to access the Internet from the ISP provider to take advantage of the Internet on all devices associated with it.

In any router, the WAN port is always separate from the LAN ports and often has a different color for easy identification. Because LAN covers a small limited area while WAN connects multiple LANs, covering a large area across a city, country or even a continent.

In general, each router usually has a WAN port. Some have dual WAN ports for business, so one can use them to connect two different modems, often from different Internet providers, simultaneously.

The router validates the unique public IP address your Internet service provider assigns to you, and it provides security features such as a firewall with port forwarding and QoS, which prioritizes Internet traffic.

The LAN port can also connect to a wireless AP to allow laptops, smartphones, tablets, etc. to connect to the LAN. The router will then route between the LAN and WAN, applying NAT and firewall policies in the process.

On any router, the WAN port is always separated from the LAN ports. To distinguish the two types of ports, the WAN port is often a different color and marked with a name.

Compare LAN port and WAN port

	LAN port	WAN port
Write full	Local Area Network port	Wide Area Network Port
Define	The LAN port is used to connect computers and other clients.	The WAN port is used to establish a conn to an external network such as the Interne
Quantity	Depends on the type and structure of the router.	Most routers only have one WAN port.

To summarize, LAN ports are used to connect clients, servers, and network devices in the local network. The WAN port is used to establish a connection to an external network such as the Internet.

Some frequently asked questions about LAN and WAN ports

Can a LAN port be used as a WAN port?

The LAN ports on the modem are designed to connect to a local network, but they can always be turned into WAN ports, in the modem settings, if needed. You may need some professional help depending on the device you have and the type of service your provider performs.

Can a WAN port be used as a LAN port?

No, the WAN port cannot be used as a LAN port. Although the ports may look identical, they are designed to provide different functions. If you really need to add more LAN ports to your network, you will need to get a switch. A quality switch requires no configuration and you will be able to add more LAN ports to your network with ease.

However, the LAN port can be used as a WAN adapter, as shown above.

Can you configure your router?

All router functions are provided by the firmware that controls the router. If the firmware used by the router manufacturer does not allow you to configure advanced networking features, you can often install third-party open source firmware, which provides full access to the router's capabilities. .

What is the use of router firmware?

The router firmware will allow the user to configure the Internet connection, using the IPv4 or IPv6 protocol, and once the network protocol has been selected, the user can choose to obtain the IP via DHCP, PPPoE or by other methods.

How many ports does the router have?

The number of ports on a specific router depends on the model. As a rule, the standard layout is 4 LAN and 1 WAN for home and small office level devices. There are more expensive devices that have up to 8 ports for LAN connections and up to 2 ports for WAN connections.

How to increase the number of LAN connections on the router?

If the number of devices you want to connect increases and the LAN ports on the router are not enough, you can increase the number of connected devices by purchasing a network hub. It connects multiple LAN cables and acts as a network component.

What is the topology of LAN and WAN?

LAN allows only direct topology, while WAN is based on mixed hierarchical topology.

Should I connect the router to LAN or WAN?

If you want to connect to the Internet, you should connect your router to the WAN port, because the LAN port only allows computers to connect to each other and exchange data. In case your ISP provides you with an additional router when you already have one or when you buy an additional router, you need to take a few more steps. To connect both routers, you will need to use the LAN port instead of the WAN port.

The WAN port on the ISP router or router connected to the modem is the port that brings the Internet to the network. Therefore, there is no way you can use the WAN port to connect a second router and still be able to access the Internet. Connecting the second router via the LAN port will allow the ISP router to share data and Internet access with the second router. You will be able to access the Internet on both routers that way.

Additionally, many people mistake WAN to stand for Wireless Area Network. As the article noted at the beginning, WAN stands for Wide Area Network, not Wireless Area Network. On the other hand, WLAN stands for Wireless Local Area Network. In other words, it's a LAN but with wireless capabilities instead of an Ethernet cable, so when you connect your device to the router using WiFi, you're using a WLAN.

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