

6 Important Roles that Your IP Address Plays

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In brief

Your IP address is a unique numerical identifier that plays six key roles in your online experience: it identifies your device as a host on a network, provides your location within that network, links networks together so data can travel between them, distinguishes your computer from others on the same network, reveals.

An IP address is a unique identifier that computers use to communicate with each other on the Internet. Even though it may seem like a small sequence of numbers with little importance, your IP address plays a important role in how you use technology. It comes to be especially important when you are concerned about your security and privacy while surfing the Internet. To have an answer to the question "How to find my IP address?", you need to know your computer and router's MAC address. As a result, you can find this information on the back of your computer or router. However, there is more to an IP address than how it looks and where to find it. There are plenty of things you should find out about its usage and why it is important for your security online. This article will cover the six important roles that IP address plays and why they are worth mentioning.

1. Identifies The Host

Every device connecting to the Internet is assigned an IP address by a specific DNS or routing service known as a router, which ensures devices can correctly connect to other networks. An IP address directly tells the router where a device is located on a network and identifies each in the memory so computers can easily find it. In addition, the computer needs an IP address to communicate with other computers on the same network.

2. Provide The Location Of The Host In The Network

It is the first task of an IP address. It is used to identify a network device and to locate it in a network. A host must know where it is to communicate with other devices on the network. The IP address also provides a way for information to be delivered to a host on a network. It is how packets are routed from one computer to another on the Internet through routers. If that router gets lost or there are no more routers available, data packets will not get from one computer to another, which means that information cannot be delivered. As a result, people cannot communicate with each other.

3. Provide Identification for Links Between Networks

It is a unique IP address assigned to devices so they can communicate with each other on the Internet. For example, if you are accessing a website from your phone, how do you identify your IP, so your server will know where you are coming from?

4. Identify Computers On A Network

An IP address is used by network devices to identify one another and establish communication paths across a network. It also captures information about measurements such as signal strength, routing data, and user location. For example, if you have an Ethernet cable plugged into an outlet in your house, the router within the router will use that cable to communicate with each device connected to that router. The router's IP address will identify which computer it communicates with over the cable. This information is typically stored in a database for easy reference later on. For example, if you were to move someplace else, your computer would still use its IP address because it recognizes its own MAC address (media access control).

5. Identifies The Internet Service Provider (ISP)

It identifies the people who are responsible for providing your connection to the Internet. For example, if you have an internet service provider (ISP) such as AT&T in the United States, your IP address would be 198.51.100.1. Your ISP would be responsible for managing your connection to the Internet, assigning IP addresses, and providing other necessary services to keep your computer connected to the Internet.

6. Identifies The Name of Your Connection

It identifies your connection (e.g., cable, DSL, wireless router). For example, if you have an internet service provider (ISP), your IP address would be 198.51.100.1. The number will come in handy when you need it for specific requirements.

Bottom Line

An IP address is a numerical label assigned to devices so they can communicate on a computer network. An IP address has two parts: A network ID (also called a subnet) and an end-user ID (or host ID). An IP address helps computers find the correct destination for data sent over the Internet or any other type of local computer network. And if you have cable TV service from Comcast in your area, your IP address would be 72.30.128.123; and if you have wireless internet service from Verizon in your area, then your IP address would be 204.11.59.22; etc., if you don't know which ISP or router/modem you use for your area's Internet access.

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