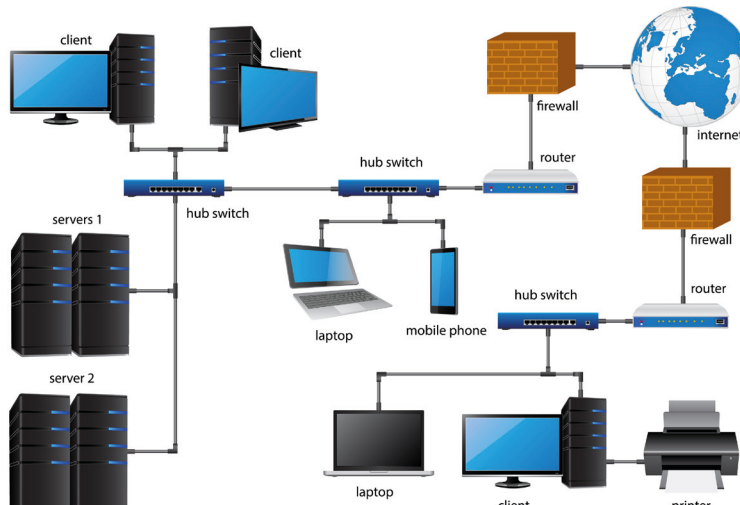


2.1.4. Network Equipment

The server is the central computer that shares resources and manages the network. The client is the computer that uses the resources and is managed by the server.



NIC (Network Interface Card) is used to include the computer into the network. Each card on the NIC (Network Interface Card) has a unique MAC (Media Access Control) number. In order to communicate on the network, computers need a unique IP (Internet Protocol) address and a MAC (Media Access Control) address. The oldest element used to set up a network of two or more computers is called a hub. The hub has left its place to devices called switches because it blocks the network traffic too much. Access Point device is used to increase the signal strength in wireless network connections. Access Point devices can be used to convert a wired connection to a wireless one, to carry the signal to a longer distance with the repeater feature, and to connect two networks wirelessly with the Bridge Mode feature. A router is used to connect two or more LANs to each other. Firewall devices are automatically used to block network traffic from a fake, unauthorized, suspicious or unknown source and protect it from attacks.

TCP/IP protocol is used to communicate over the internet. In the TCP/IP protocol, two protocols are used in communication, the unreliable UDP (User Datagram Protocol) is for audio and video transmission, and TCP (Transmission Control Protocol) is for lossless data transmission over the internet.

2.1.5. Network Devices

Network Interface Card(NIC), Media Access Control(MAC), Internet Protocol(IP), Hub, Switch, Access Point, Bridge, Router, Firewall, Transmission Control Protocol (TCP), UDP (User Datagram Protocol)