SUBJECT: COMPUTER NETWORKS

Gateway
(Network Device)

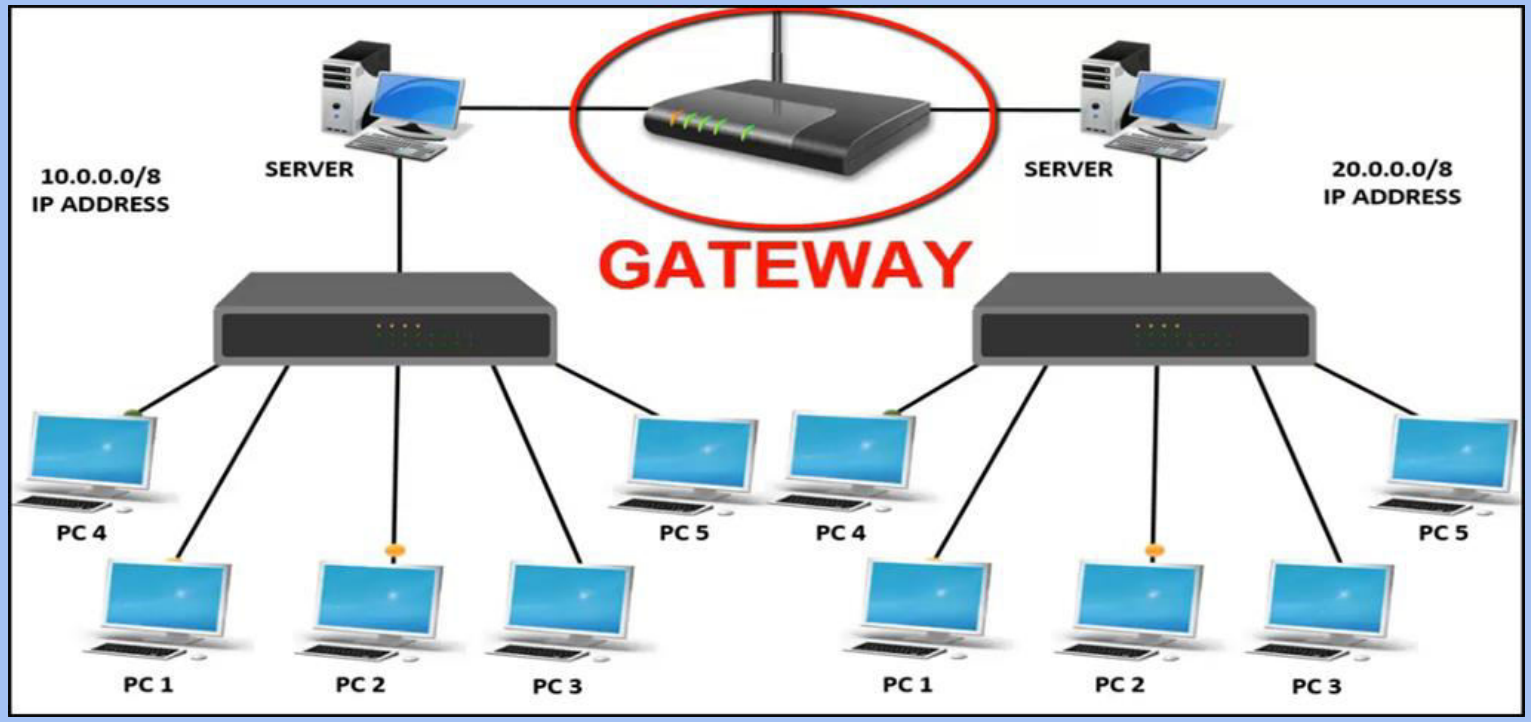
Elementrix Classes

Gateway

- A gateway is a network device. It functions at the network layer (layer 3) of the OSI model, acting as a translator and traffic director between different networks.

Key Functions of Gateway:

- **Connecting Networks:** Gateways connect two networks that might use different protocols or technologies. Imagine a gateway as an adapter that allows devices speaking different languages to communicate.


10.0.0.0/8
IP ADDRESS
SERVER
GATEWAY
SERVER
20.0.0.0/8
IP ADDRESS
PC 4
PC 5
PC 1
PC 2
PC 3
PC 4
PC 5
PC 1
PC 2
PC 3

- **Routing Traffic:** When a device on your network wants to reach a device on another network, the data packet travels to the gateway. The gateway analyzes the destination address in the packet and determines the most efficient route to send it.

- **Security:** Gateways can act as security guards for your network. They can filter traffic, blocking unauthorized access and potential security threats.

- **Protocol Conversion (sometimes):** In some cases, gateways can translate data between different protocols, ensuring devices using different languages can understand each other.

पढ़िए और पढ़ाइये

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