NETWORKING DEVICES

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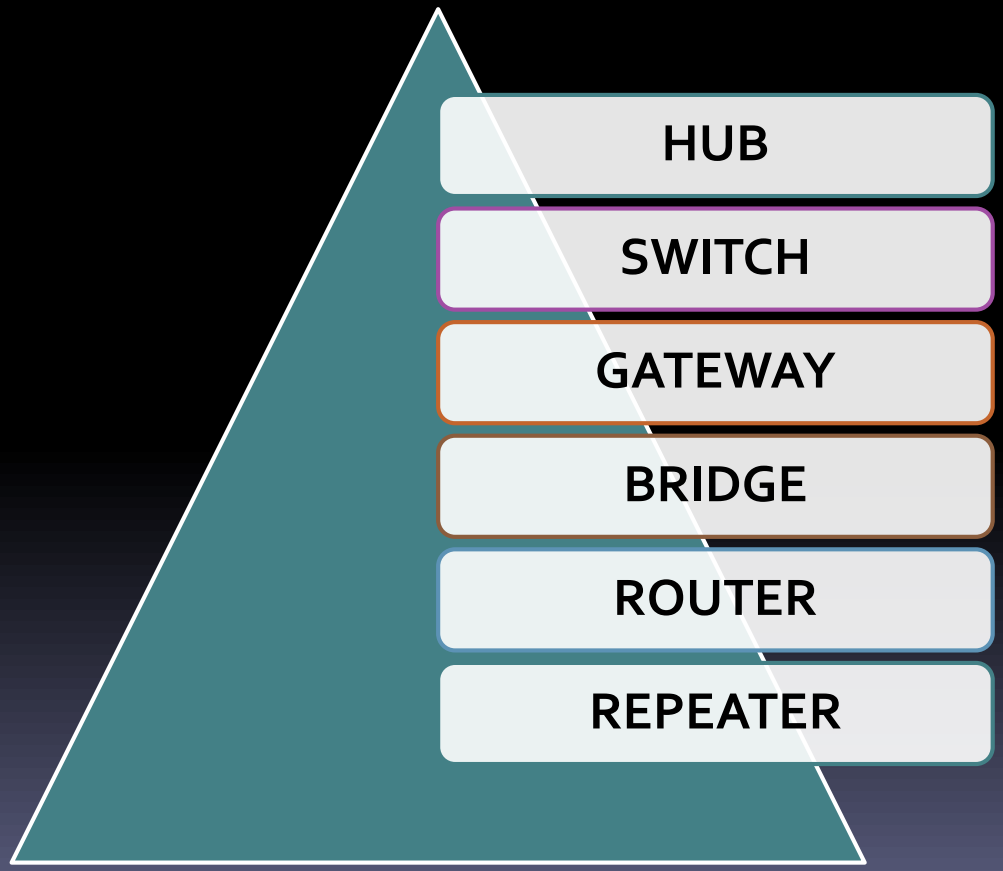
Networking Devices

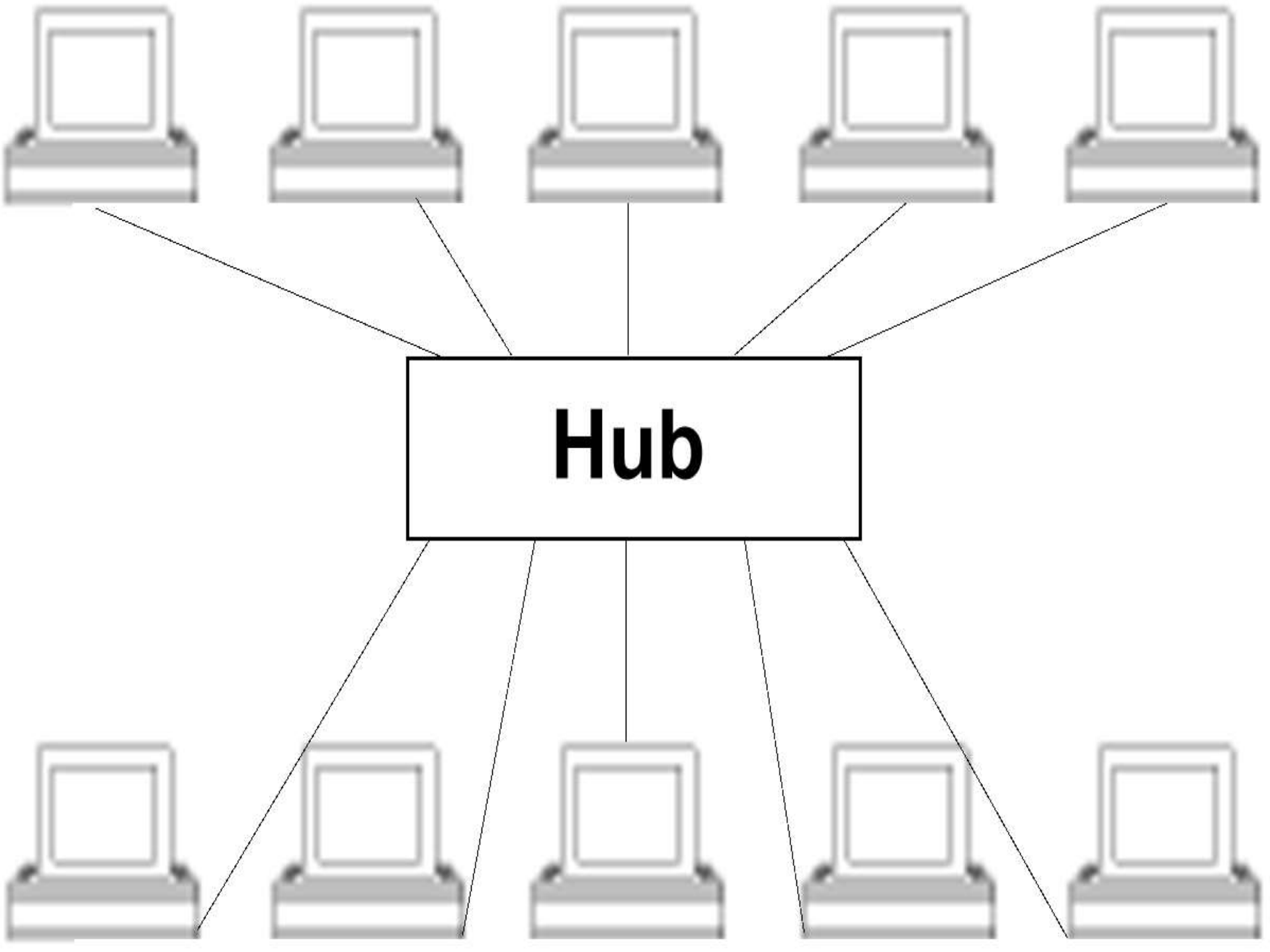
Network devices are components used to connect computers or other electronic devices together so that they can share files or resources like printers or fax machines.

Different Networking Devices



HUB

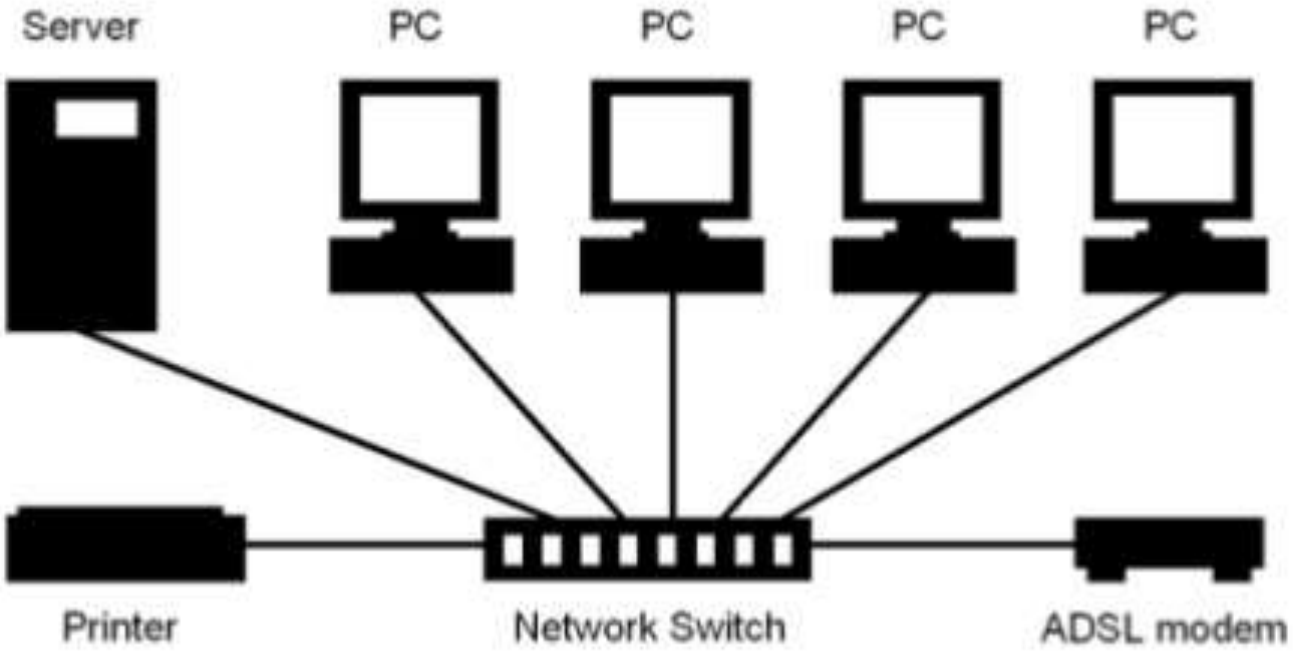
A hub is a common connection point for devices in a network. Hubs are commonly used to connect segments of a LAN.
A hub contains multiple ports. When a packet arrives at one port, it is copied to the other ports so that all segments of the LAN can see all packets.


Hub

SWITCH

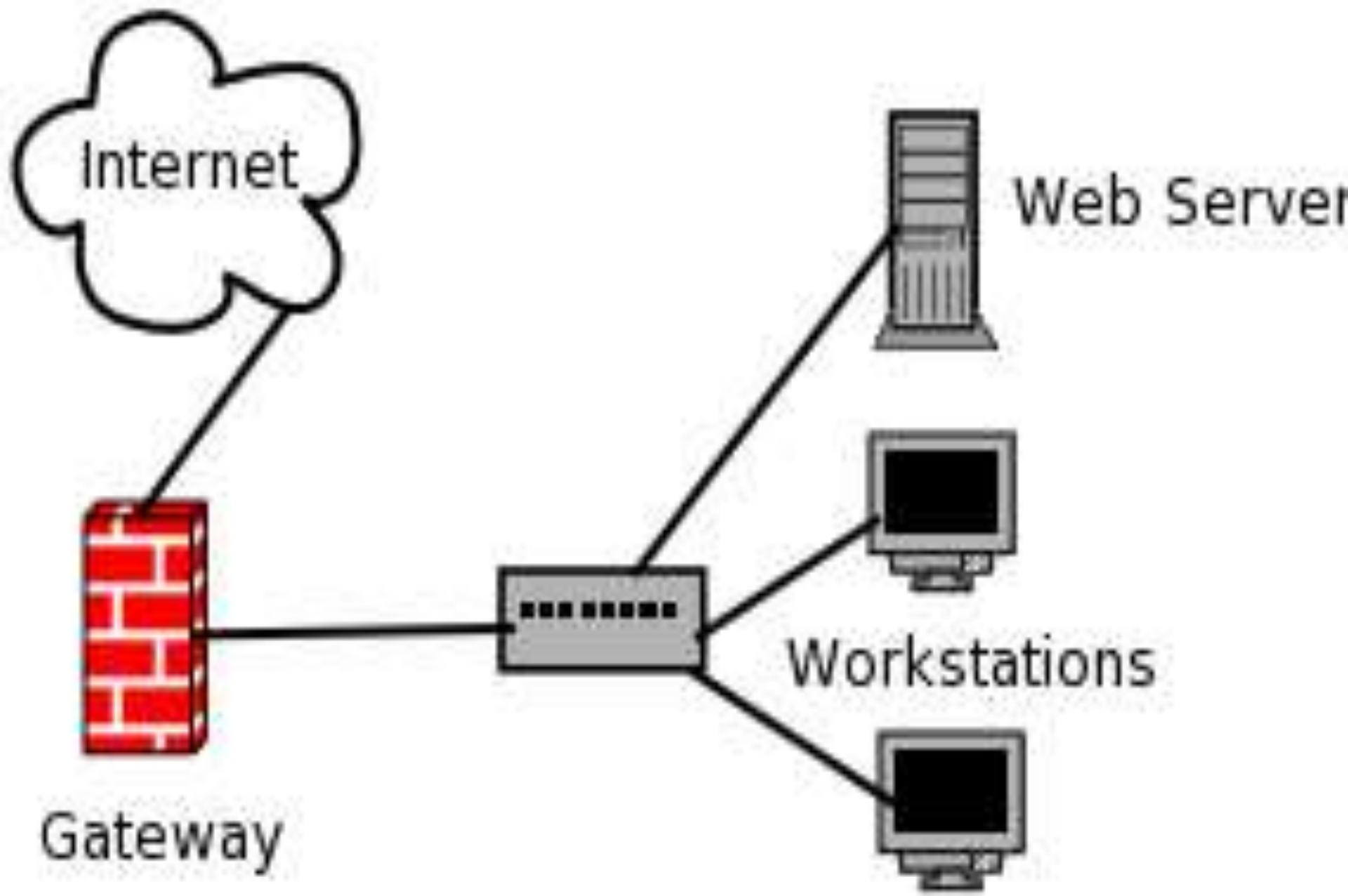
A network switch (also called switching hub, bridging hub, officially MAC bridge) is a computer networking device that connects devices together on a computer network by using packet switching to receive, process, and forward data to the destination device.

Network Switch



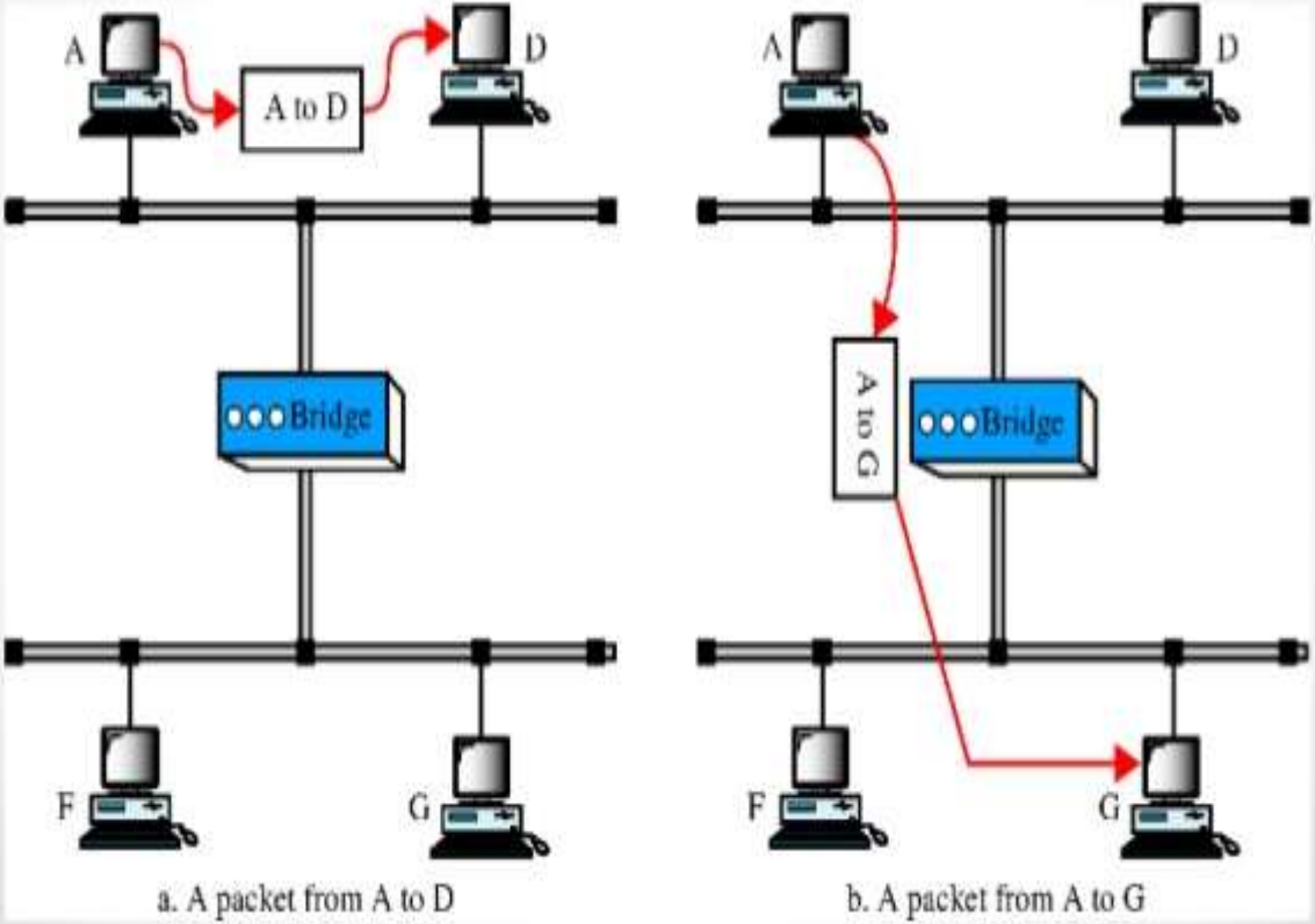
GATEWAY

A network gateway is an *internetworking* system capable of joining together two networks that use different base protocols. A network gateway can be implemented completely in software, completely in hardware, or as a combination of both. Depending on the types of protocols they support, network gateways can operate at any level of the OSI model.


Internet
Web Server
Workstations
Gateway

BRIDGE

A network bridge is a computer networking device that creates a single aggregate network from multiple communication networks or network segments. This function is called network bridging.

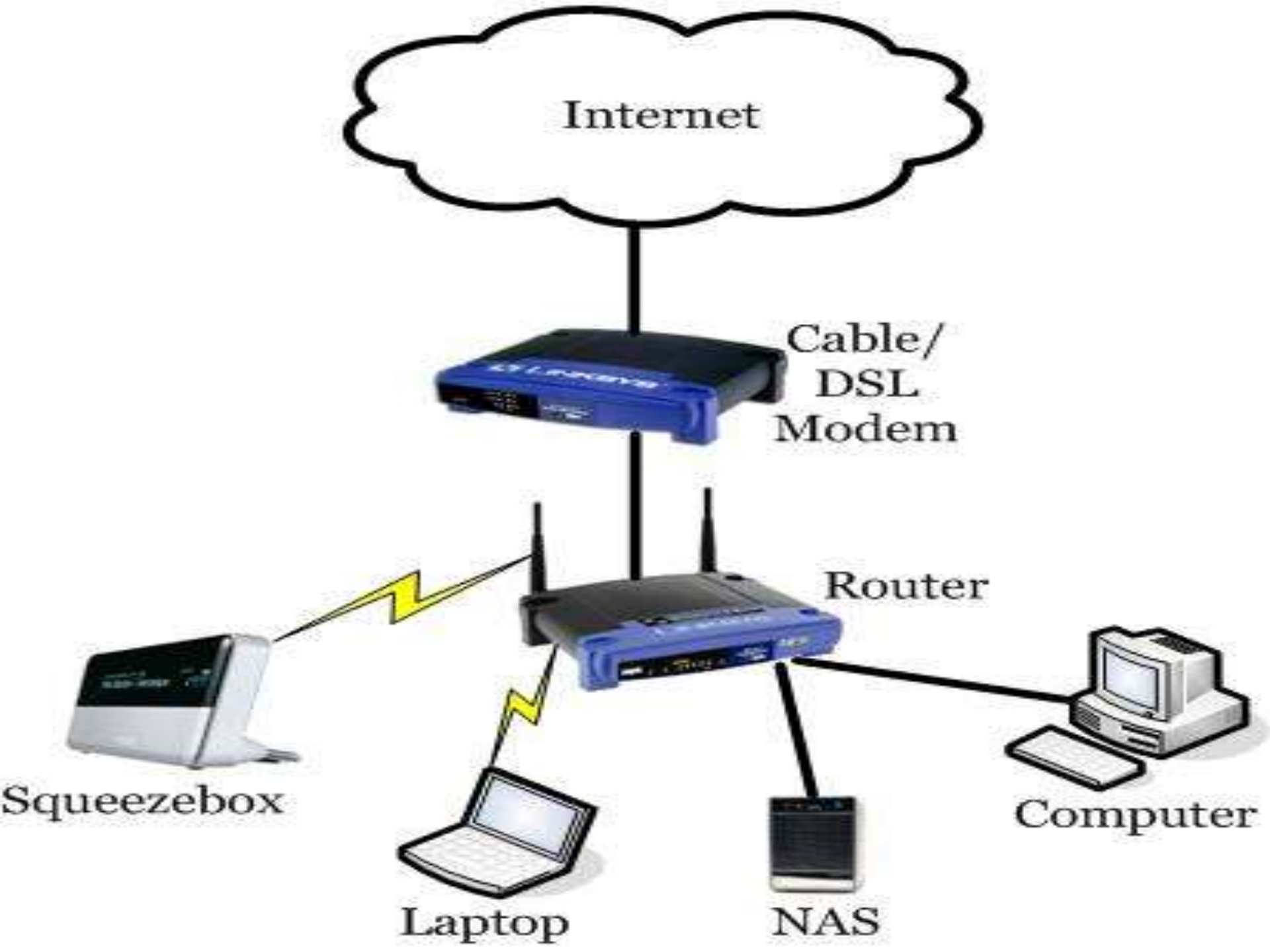


a. A packet from A to D

b. A packet from A to G

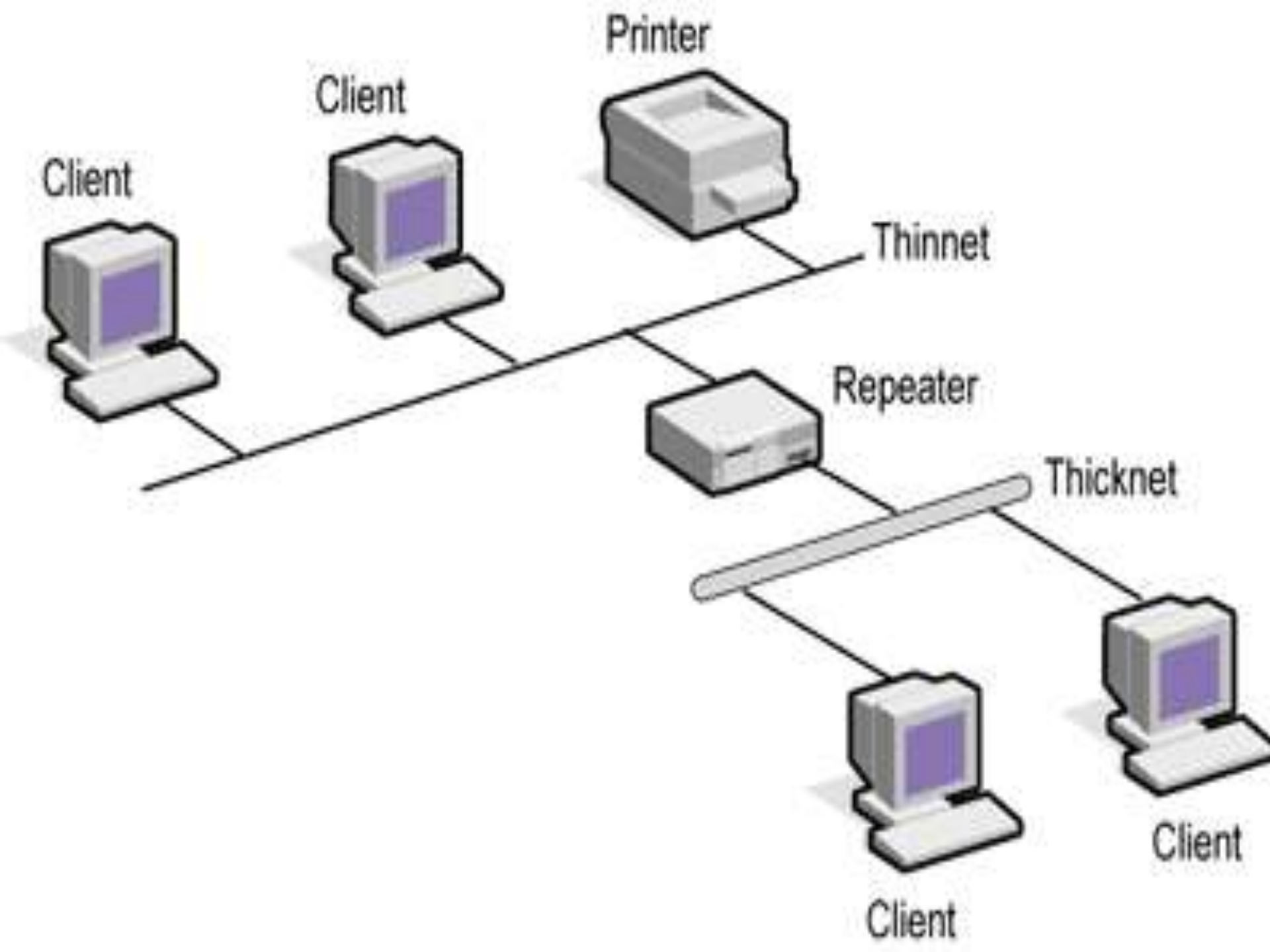
ROUTER

A router is a networking device that forwards data packets between computernetworks. Routers perform the traffic directing functions on the Internet. A data packet is typically forwarded from one router to another router through the networks that constitute the internetwork until it reaches its destination node.


Internet
Cable/
DSL
Modem
Router
Squeezebox
Laptop
NAS
Computer

REPEATER

A network device used to regenerate or replicate a signal. Repeaters are used in transmission systems to regenerate analog or digital signals distorted by transmission loss.


Printer
Client
Client
Thinnet
Repeater
Thicknet
Client
Client
Client

Thank you