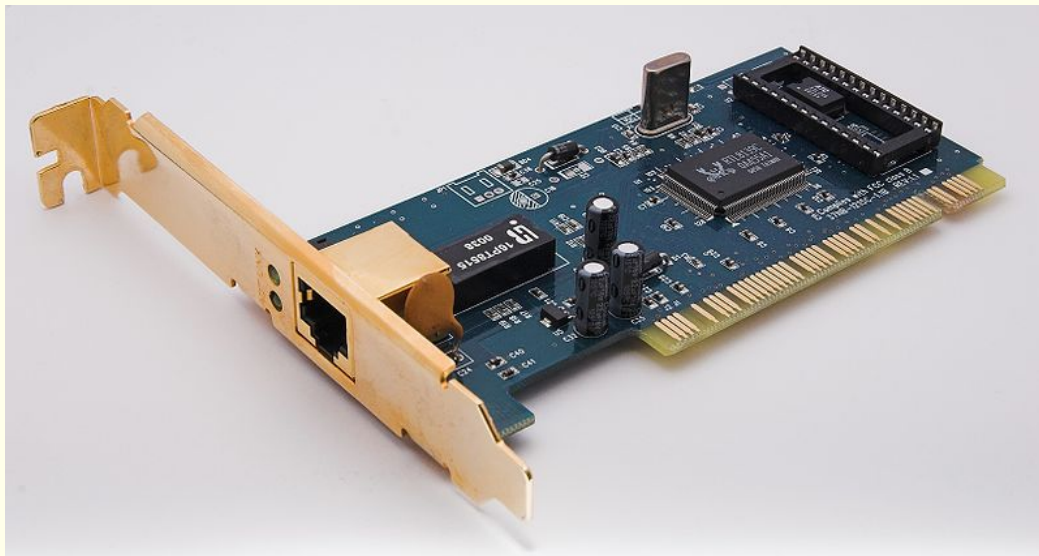


Common Networking Hardware

- A Network interface card (**network interface controller**) connects a computer to a computer network, usually a **LAN**.
- Modern computers support an internal **NIC embedded** on the **motherboard**



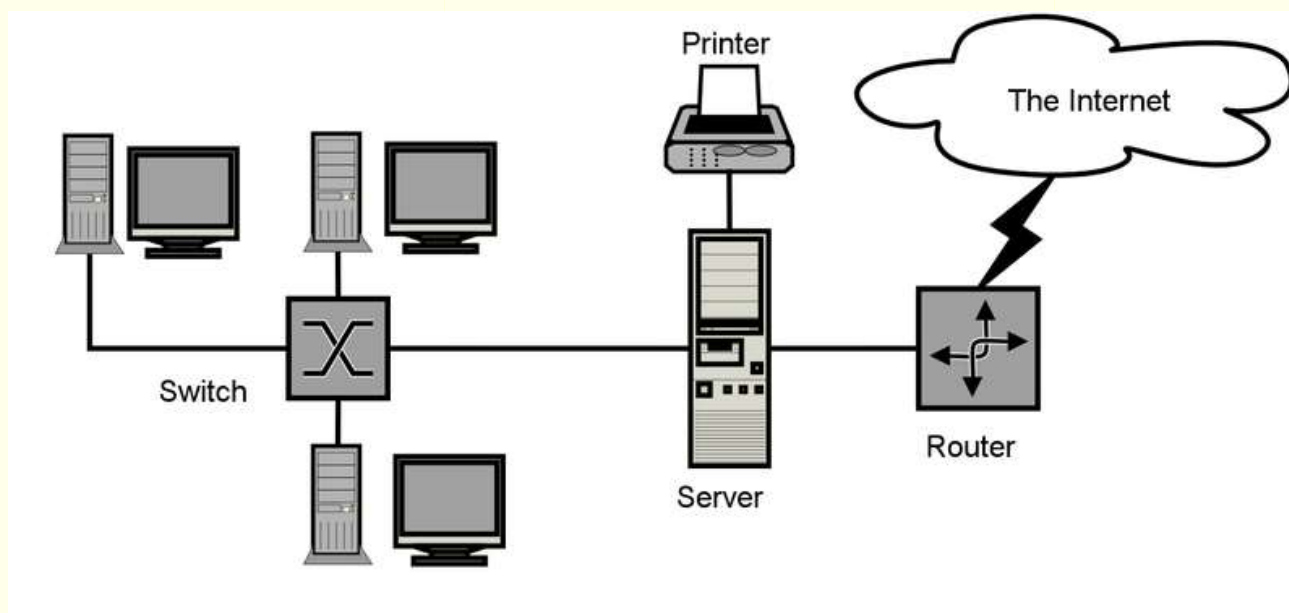
Link: https://commons.wikimedia.org/wiki/File:Ethernet_NIC_100Mbit_PCI.jpg

Description: 100MBit Ethernet NIC PCI card

Author: afrank99

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Conceptual Diagram of a Computer Network



Link: <https://en.wikipedia.org/wiki/File:Sample-network-diagram.png>

Descr: Depicts a sample, hypothetical network diagram.

Author: SilverStartalk

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Network Switch

- **Connects** other devices together.
- Manage the **flow of data** across a network by transmitting only to the **devices addressed**.



https://commons.wikimedia.org/wiki/File:Netgear_Gigabit_Switch_5-port.jpg

Author Simon A. Eugster

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Description: A 5-port gigabit ethernet switch by Netgear. The LED above the red plug indicates an existing link (i.e. it is connected to some other device), the yellow cable is unconnected.

Router

- **At home** provides **Wi-Fi connectivity** and is connected to a **modem**. **Broadcasts** information from the internet to **other devices**, like **computers, phones**, and tablets.
- In the networking scheme of things it **forwards data packets** from one router to another router through the networks based on the **address of the destination**.



Link: <https://commons.wikimedia.org/wiki/File:Netgear-Nighthawk-AC1900-WiFi-Router.jpg>

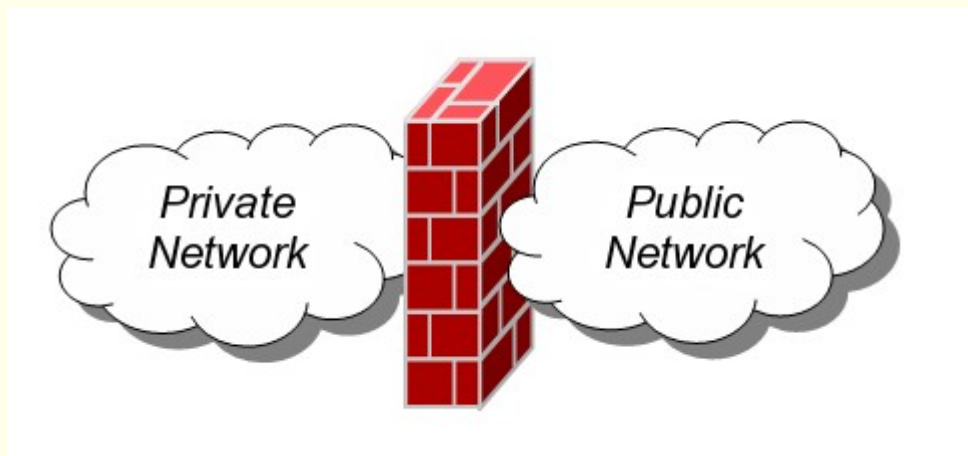
Description: A Netgear Nighthawk WiFi router, model AC1900. This is a wireless router first released in 2013 with a list price of \$249. It is a dual band router with a 1GHz dual core

Author Evan-Amos

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Firewall

- A network security system that **monitors, controls to and from traffic** from the network based on rules of security established. Acts as barrier between a **trusted network** and an **un-trusted network**, like the Internet.



English: Firewall separating zones of trust

Author Luis F. Gonzalez

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[https://commons.wikimedia.org/wiki/File:Firewall_\(networking\).png](https://commons.wikimedia.org/wiki/File:Firewall_(networking).png)

Modem

- Stands for "**modulator-demodulator**" – is a hardware device. Transforms **Analog signals** coming from networks like Telephone, Cables etc to **Digital Signals** and vice versa.



https://commons.wikimedia.org/wiki/File:BSNL-ADSL_Modem.JPG

Description: Picture of BSNL ADSL Modem

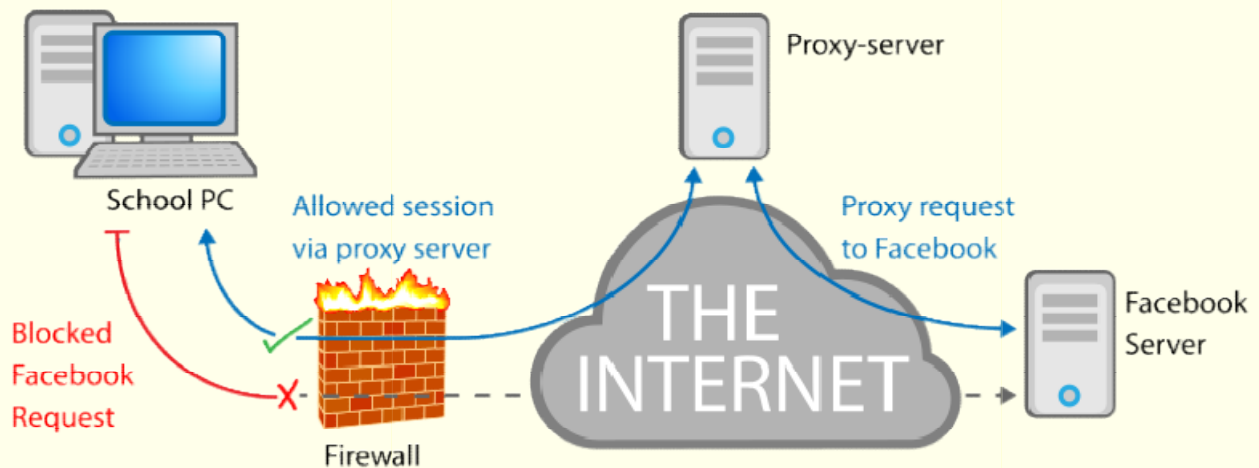
Author: Lijorijo at Malayalam Wikipedia

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Proxy Server

- A **server application** that acts as an **intermediary for requests from clients** seeking resources from **servers** that provides those resources. A proxy server thus functions on behalf of the client when requesting service, **potentially masking** the true **origin of the request** to the resource server.
- Instead of connecting directly to a server that can fulfill a requested resource, the client directs the request to the proxy server, which evaluates the request and performs the required network transactions. With benefits such as **load balancing, privacy, or security***

* Information Courtesy Wikipedia



<https://commons.wikimedia.org/wiki/File:CPT-Proxy.svg>

Author Milesjpool,

Description: Diagram of a blocked web request, and a successful request via a proxy

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