Computer Network

A computer network is a group of computer systems and other computing hardware devices that are linked together through communication channels to facilitate communication and resource-sharing among a wide range of users. Networks are commonly categorized based on their characteristics.

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One of the earliest examples of a computer network was a network of communicating computers that functioned as part of the U.S. military's Semi-Automatic Ground Environment (SAGE) radar system. In 1969, the University of California at Los Angeles, the Stanford Research Institute, the University of California at Santa Barbara and the University of Utah were connected as part of the Advanced Research Projects Agency Network (ARPANET) project. It is this network that evolved to become what we now call the internet.

Networks are used to:

* Facilitate communication via email, video conferencing, instant messaging, etc.
* Enable multiple users to share a single hardware device like a printer or scanner
* Enable file sharing across the network
* Allow for the sharing of software or operating programs on remote systems
* Make information easier to access and maintain among network users

There are many types of networks, including:

* Local Area Networks (LAN)
* Personal Area Networks (PAN)
* Home Area Networks (HAN)
* Wide Area Networks (WAN)
* Campus Networks
* Metropolitan Area Networks (MAN)
* Enterprise Private Networks
* Internetworks
* Backbone Networks (BBN)
* Global Area Networks (GAN)
* The Internet

**Computer network**, two or more [computers](https://www.britannica.com/technology/computer) that are connected with one another for the purpose of communicating data electronically. Besides physically connecting computer and communication devices, a [network](https://www.britannica.com/topic/network-sociology) system serves the important function of establishing a [cohesive](https://www.merriam-webster.com/dictionary/cohesive) [architecture](https://www.britannica.com/topic/architecture) that allows a variety of equipment types to transfer information in a near-seamless fashion. Two popular architectures are ISO Open Systems Interconnection (OSI) and [IBM’s](https://www.britannica.com/topic/International-Business-Machines-Corporation) Systems Network Architecture (SNA).

Two basic network types are [local-area networks](https://www.britannica.com/technology/local-area-network) (LANs) and wide-area networks (WANs). LANs connect computers and [peripheral devices](https://www.britannica.com/technology/input-output-device) in a limited physical area, such as a business office, laboratory, or college campus, by means of links (wires, [Ethernet](https://www.britannica.com/technology/Ethernet) cables, [fibre optics](https://www.britannica.com/science/fiber-optics), [Wi-Fi](https://www.britannica.com/technology/Wi-Fi)) that transmit data rapidly. A typical [LAN](https://www.britannica.com/technology/local-area-network) consists of two or more [personal computers](https://www.britannica.com/technology/personal-computer), printers, and high-capacity disk-storage devices called file servers, which enable each computer on the network to access a common set of files. LAN [operating system](https://www.britannica.com/technology/operating-system) [software](https://www.britannica.com/technology/software), which interprets input and instructs networked devices, allows users to communicate with each other; share the printers and storage equipment; and simultaneously access centrally located processors, data, or [programs](https://www.britannica.com/technology/computer-program) (instruction sets). LAN users may also access other LANs or tap into WANs. LANs with similar architectures are linked by “bridges,” which act as transfer points. LANs with different architectures are linked by “gateways,” which convert data as it passes between systems.

[WANs](https://www.britannica.com/technology/wide-area-network) connect computers and smaller networks to larger networks over greater geographic areas, including different continents. They may link the computers by means of cables, [optical fibres](https://www.britannica.com/science/fiber-optics), or [satellites](https://www.britannica.com/science/satellite), but their users commonly access the networks via a [modem](https://www.britannica.com/technology/modem) (a device that allows computers to communicate over [telephone](https://www.britannica.com/technology/telephone) lines). The largest [WAN](https://www.britannica.com/technology/wide-area-network) is the [Internet](https://www.britannica.com/technology/Internet), a collection of networks and gateways linking billions of computer users on every continent.

Reference

1. [https://www.techopedia.com/definition/25597/computer-network accessed on 02/08/2019](https://www.techopedia.com/definition/25597/computer-network%20accessed%20on%2002/08/2019)
2. [https://www.britannica.com/technology/computer-network accessed on 02/08/2019](https://www.britannica.com/technology/computer-network%20accessed%20on%2002/08/2019)