

# What Is Ethernet?

Ethernet is a standardized way of connecting computers to create a network.

You can think of Ethernet as a kind of municipal building code for networks: It specifies what kind of cables to use, how to connect the cables, how long the cables can be, how computers transmit data to one another by using the cables, and more.



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Although Ethernet is now the overwhelming choice for networking, that wasn't always the case. In ye olde days, Ethernet had two significant competitors:

- » **Token Ring:** This IBM standard for networking is still used in some organizations (especially where IBM mainframe or midrange systems are in use).
- » **ARCnet:** This standard is still sometimes used for industrial network applications, such as building automation and factory robot control.

But these older networks are now pretty much obsolete, so you don't need to worry about them. Ethernet is now the only real networking choice.

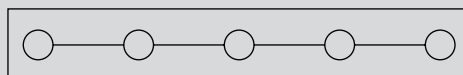
## OBLIGATORY INFORMATION ABOUT NETWORK TOPOLOGY



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A networking book wouldn't be complete without the usual textbook description of the three basic network topologies: bus, ring, and star.

In a bus topology, network nodes (that is, computers) are strung together in a line, like this:



A *bus* is the simplest type of topology, but it has some drawbacks. If the cable breaks somewhere in the middle, the whole network breaks.