

# Wide Area Network

a communications network that spans a large geographic area such as across cities, states, or countries

## Hardware Requirements

- A connection between various nodes
- A data service unit at each end which will connect to telecommunications lines, if that solution is used
- A router at each end to connect to the local area network

## Software Requirements

- Server software is required to facilitate communication over the WAN
  - Some examples include Windows Server and Mac OS X Server

Pros	Cons
Allow for larger scale of communication, spanning or cities and countries	Slower data transfer speeds when compared to LAN
Allows for remote access of network resources	Can become costly to implement due to infrastructure need to run it
	May cross regional and international boundaries, which

## When to use a WAN?

A WAN would primarily be used in a situation where there are multiple nodes which span across radius of a half a mile (0.8 km) or more.

## When is a WAN unsuitable?

The use of WAN would not be suitable in a situation where the various nodes are in close proximity to each other, where they could be connected directly to one another or wirelessly over Wi-Fi. Using a WAN in such a situation would be inefficient and very costly.

## References

Hughes, A. *How to Set Up a WAN Between Sites in a Business*. Retrieved 24 March 2017, from <http://smallbusiness.chron.com/set-up-wan-between-sites-business-46497.html>

Mitchell, B. (2017). *A WAN Is a Wide Area Network. Here's How They Work*. Retrieved 24 March 2017, from <https://www.lifewire.com/wide-area-network-816383>

Walton, A. *How Do WAN & LAN Servers Work?*. Retrieved 24 March 2017, from <http://smallbusiness.chron.com/wan-lan-servers-work-71077.html>

Walton, A. *The Advantages of a WAN Over a LAN*. Retrieved 24 March 2017, from <http://smallbusiness.chron.com/advantages-wan-over-lan-70852.html>