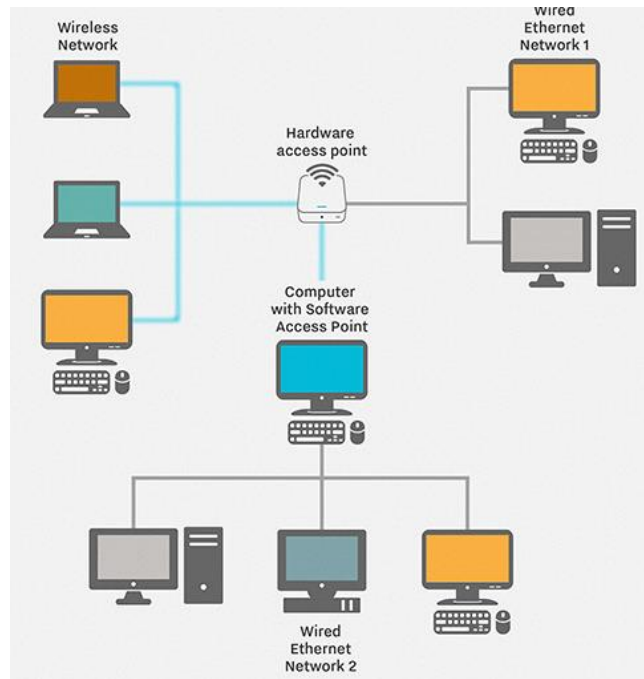


Networks: LAN (Local Area Network)

Description

A LAN or a local area network is a group of computers or devices which share a common communication link to a server. Typically, a local area network covers a distinct geographic area (such as an office or commercial building) with all its computers and peripherals included.



Software requirements

- Network software (such as Hamachi or Ping)
- Security Protocols (Encryption and firewall)

Hardware requirements

- Network adapter
- Network medium
- Cable connectors
- Power supply
- Hub/Switch/Router

Advantages

- **Speed** of data transfer between users in a LAN is significantly faster than wireless
- Local networks are generally very **stable** and do not require much maintenance if configured properly

- LANs are relatively **inexpensive** to install and maintain
- LANs can be extremely **secure** from external threats as it does not need to be connected to the internet.

Disadvantages

- Hardware components in LANs have low mobility to move from one area to another. For example, to change computers and devices, cables may need to be added or removed
- For larger LANs, a high capacity server may be required to store and centralize information that are created, transferred and processed by the network. This may add to cost.

Suitable uses of LAN

- In small, enclosed and localized areas such as home or offices where data can be accessed by all devices directly
- Areas which demand high rate of data transfer (such as gaming)

Reference

Khan, K. (2016, April 28). What are the pros of LAN? Retrieved March 26, 2017, from <https://www.quora.com/What-are-the-pros-and-cons-of-LAN>

Lou, M. (2011, August 04). What Is LAN Used For? Retrieved March 26, 2017, from <http://smallbusiness.chron.com/lan-used-for-26613.html>

TechTarget. (n.d.). What is local area network (LAN)? - Definition from WhatIs.com. Retrieved March 26, 2017, from <http://searchnetworking.techtarget.com/definition/local-area-network-LAN>