

# Introduction to Networking

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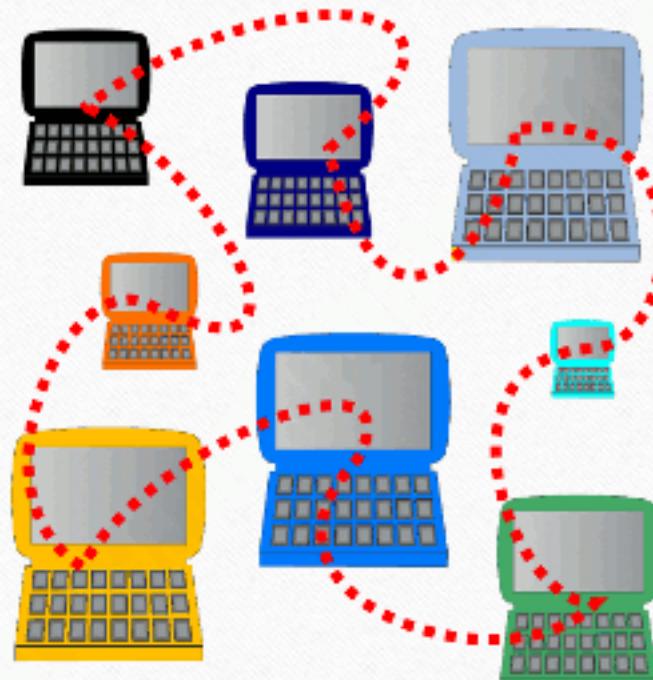
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## Computer Networks

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.



[www.explainthatstuff.com](http://www.explainthatstuff.com)

## **Q1. What is a computer network?**

- A. One computer
- B. Two or more computers
- C. A series of telephone lines

**B. Two or more computers**

## **Q2. What is the key benefit of working in a network?**

- A. Sharing information and resources
- B. It's cheap
- C. Security

**A. Sharing information and resources**

# Types of Networks

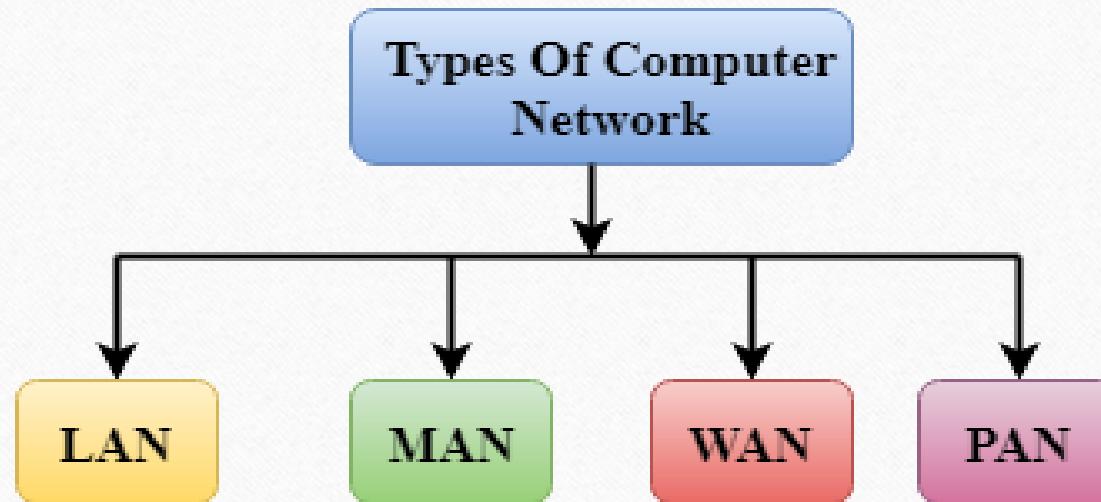
A computer network is mainly of four types:

**LAN(Local Area Network)**

**PAN(Personal Area Network)**

**MAN(Metropolitan Area Network)**

**WAN(Wide Area Network)**

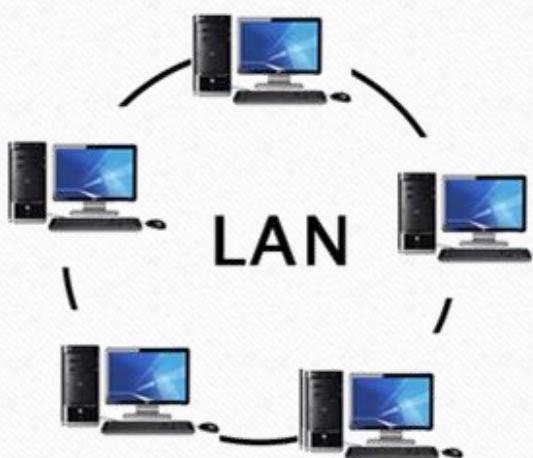
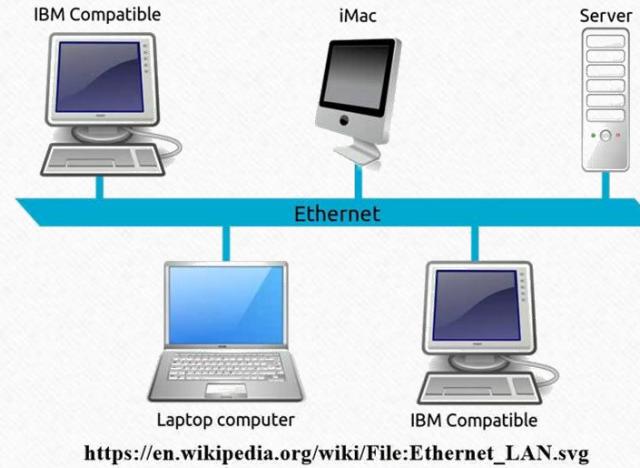


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## LAN

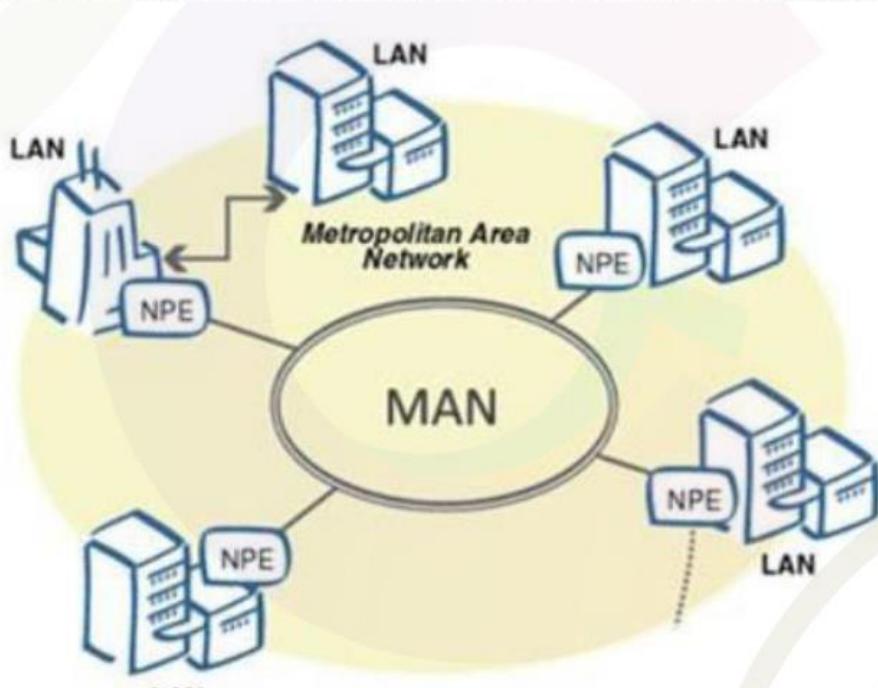
Group of computers connected to each other in a small area such as building, office.

Used for connecting two or more personal computers through a communication medium such as twisted pair, coaxial cable, etc.



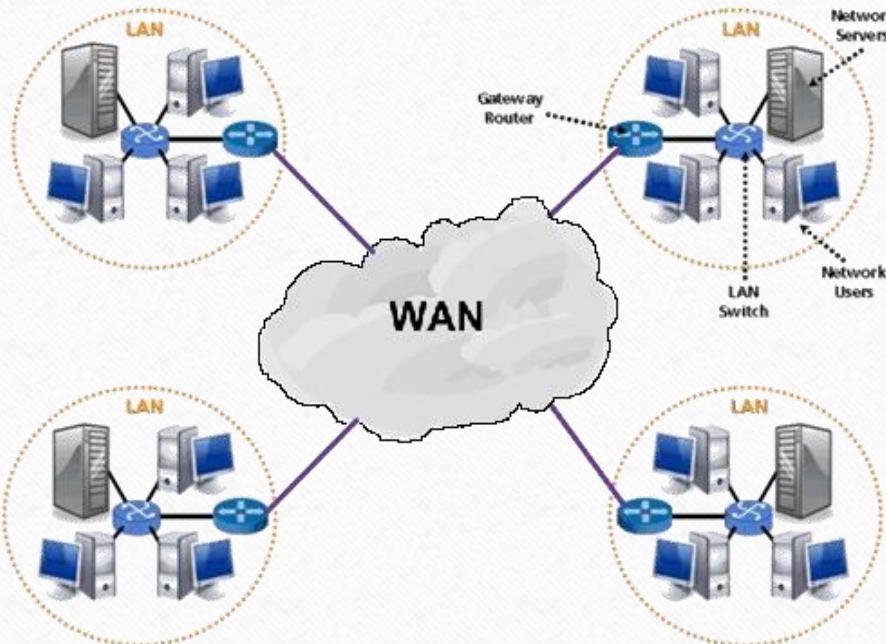
## MAN

- o A metropolitan area network is a network that covers a larger geographic area by interconnecting a different LAN to form a larger network.



## WAN

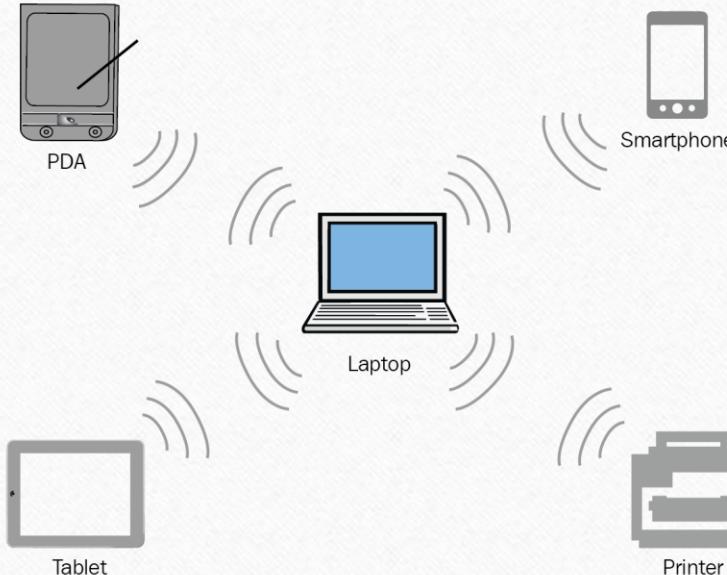
- o A Wide Area Network is a network that extends over a large geographical area such as states or countries.



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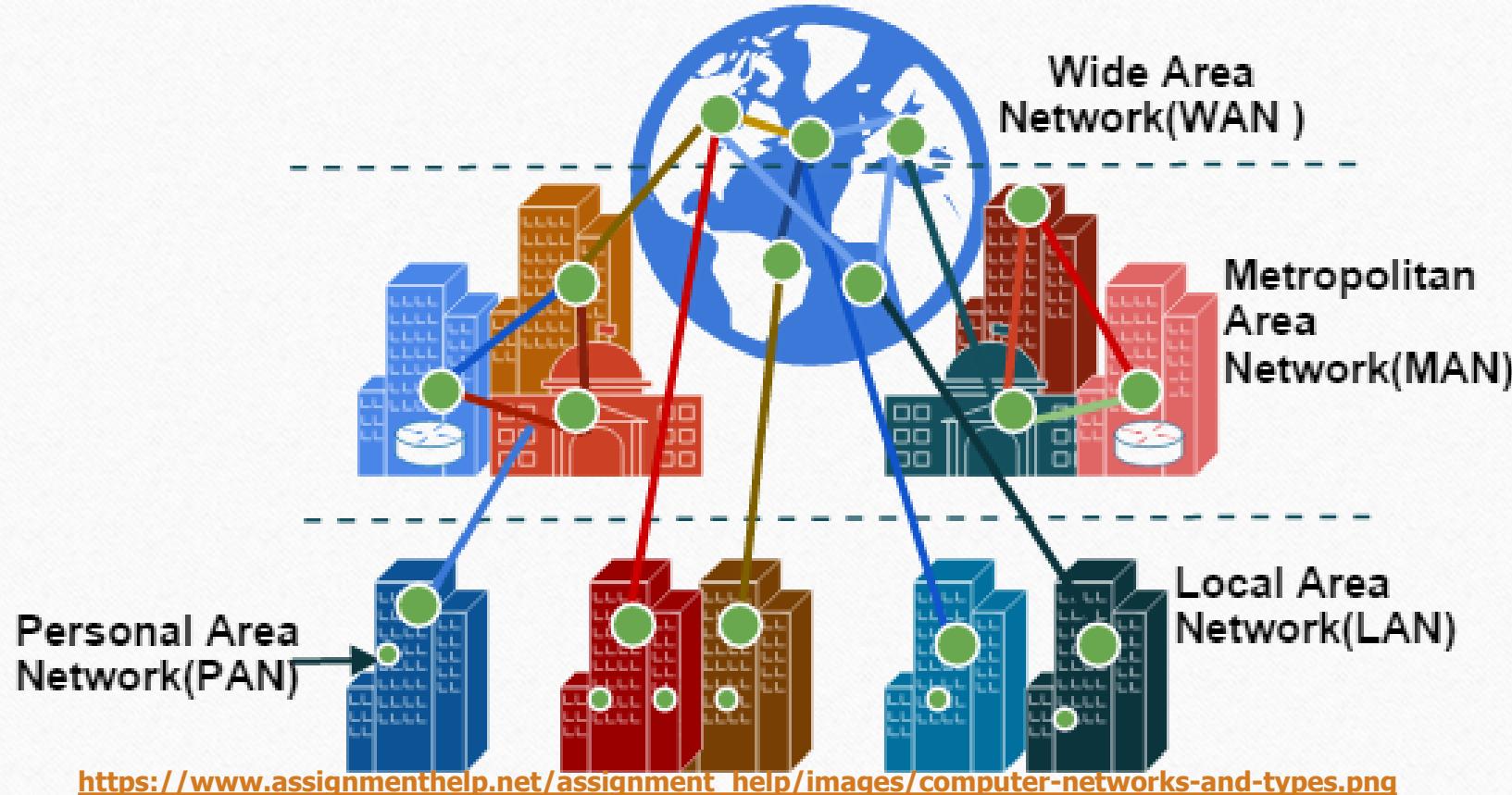
## PAN

- o Personal Area Network is a network arranged within an individual person, typically within a range of 10 meters.



[https://subscription.packtpub.com/book/networking\\_and\\_servers/9781788621434/1/ch01lvl1sec12/types-of-computer-networks](https://subscription.packtpub.com/book/networking_and_servers/9781788621434/1/ch01lvl1sec12/types-of-computer-networks)

# LAN MAN WAN and PAN



# LAN MAN WAN

Parameter	LAN	MAN	WAN
1. Ownership of network	Private	Private or public	Private or public
2. Area covered	Small	Moderate (City)	Very large (states or countries)
3. Design and maintenance	Easy	Not Easy	Not Easy
4. Communication medium	Coaxial cable	Coaxial cables, PSTN, Optical fiber cables, wireless	PSTN or Satellite links
5. Data rates	High	Moderate	Low
6. Mode of communication	Each station can transmit and receive	Each station can transmit or receive	Each station cannot transmit

Data communication system spanning states, countries, or the whole world is \_\_\_\_\_

- a) LAN
- b) WAN
- c) MAN
- d) PAN

**WAN**

Data communication system within a building or campus is \_\_\_\_\_

- a) LAN
- b) WAN
- c) MAN
- d) CAN

**CAN**

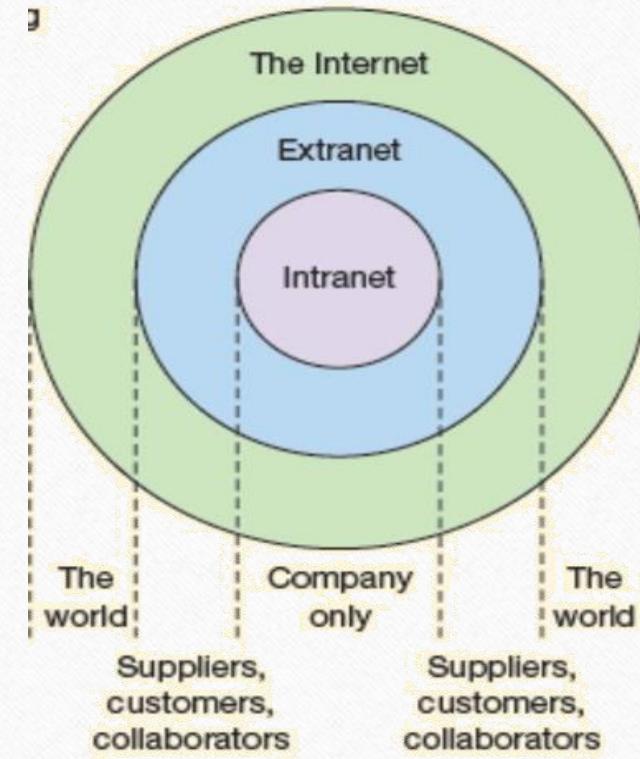
# INTERNET, INTRANET, EXTRANET

Internet is a  
worldwide

An extranet can be  
viewed as part of a  
company's intranet  
that is extended to  
users outside the  
company

An intranet is a  
private network

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<https://theintactone.files.wordpress.com/2019/07/topic-4.jpg>



**PROF. AMIT K. NERURKAR**

# Thank You

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