

Categories of Network

LAN (Local Area Network):

- **Full Form:** Local Area Network
- **Definition:** A network that usually connects a small group of computers in a given geographical area.
- **Network Ownership:** Private
- **Maintenance and Designing:** Very easy to design and maintain.
- **Speed:** Offers a very high Internet speed.
- **Fault Tolerance:** Exhibits better fault tolerance than the rest of the networks.
- **Congestion:** Very low network congestion.

MAN (Metropolitan Area Network):

- **Full Form:** Metropolitan Area Network
- **Definition:** A comparatively wider network that covers large regions—like towns, cities, etc.
- **Network Ownership:** Can be both private or public.
- **Maintenance and Designing:** Comparatively difficult to design and maintain.
- **Speed:** Offers a moderate Internet speed.
- **Fault Tolerance:** Exhibits lesser fault tolerance.
- **Congestion:** Exhibits higher network congestion.

WAN (Wide Area Network):

- **Full Form:** Wide Area Network
- **Definition:** Spans an even larger locality, with the capacity to connect various countries together.
- **Network Ownership:** Can be both private or public.
- **Maintenance and Designing:** Very difficult to design and maintain.
- **Speed:** Offers a low Internet speed.
- **Fault Tolerance:** Also exhibits lesser fault tolerance.
- **Congestion:** Exhibits higher congestion in the network.

Wireless Network:

- **Full Form:** Wireless Local Area Network
- **Definition:** A network that uses radio waves to transmit data between devices.
- **Network Ownership:** Can be both private or public.
- **Maintenance and Designing:** Moderate difficulty to design and maintain.
- **Speed:** Varies depending on the technology and distance.
- **Fault Tolerance:** Exhibits low fault tolerance.
- **Congestion:** Exhibits moderate network congestion.

Internet

- **Full Form:** Interconnected Network
- **Definition:** A global system of interconnected computer networks that use the Internet protocol suite (TCP/IP) to link billions of devices worldwide.
- **Network Ownership:** Public
- **Maintenance and Designing:** Managed by various organizations worldwide.
- **Speed:** Varies depending on the connection type and location.
- **Fault Tolerance:** Exhibits moderate fault tolerance.
- **Congestion:** Exhibits high network congestion.