# Difference Between LAN, MAN, and WAN

These networks are reliant on the internet's availability and speed. These three networks, LAN, MAN, WAN, are all used to provide internet access to users. We have provided the difference between LAN, MAN, and WAN in the table given below.

| LAN vs MAN vs WAN | | |
|---|---|---|
| **LAN** | **MAN** | **WAN** |
| A local area network (LAN) is a network that links a small group of computers in a certain geographic region. | MAN is a much larger network that spans significant areas such as towns and cities. | The WAN network reaches out to a much greater area. It has the ability to link a number of countries. The Internet, for example, is a WAN. |
| The speed of LAN is high. | The speed of MAN is average. | The speed of WAN is low. |
| The ownership of LAN is private. | The ownership of MAN can be private or public. | The ownership of WAN can be private or public. |
| It is used in schools, colleges, and hospitals. | It is used for small towns/ cities. | It is used for countries/ continents. |
| It is easier and less expensive to design and maintain a LAN than it is to manage a WAN. | MAN design and maintenance is more difficult and expensive than LAN. | WAN design and maintenance is more difficult and expensive than LAN and MAN. |

**What is LAN?**

LAN stands for Local Area Network. It's a combination of network devices that allow several linked devices to communicate with one another. Rather than the public, private ownership has authority over the local area network. It applies to smaller regions such as colleges, schools, and hospitals.

Computers in schools are one of the most common examples of LAN. All of the computers are wired together and share a single database. It has wired networks

such that all the computers and printers are connected via wires. The most important example of LAN is the computers in schools.

**What is MAN?**

MAN stands for Metropolitan Area Network. It covers a greater region than LAN, including small towns, cities, and other urban areas. MAN is a network that links two or more computers in the same or other cities. MAN is costly, and it is debatable whether it should or should not be held by a single institution.

MAN can be used with wires/cables or a modem. A common example of MAN is a telephone company network, which provides users with high-speed DSL lines. The interconnection of numerous links/networks in a metropolitan region is its key characteristic. In MAN, point-to-point connections are employed. The MAN network size ranges from 5 to 50 kilometers.

**What is WAN?**

WAN stands for Wide Area Network. It covers a larger area than LAN as well as MAN. The WAN is not tied to a certain place. It facilitates communication and information exchange among the links. In comparison to MAN and LAN, WAN is the biggest network. A WAN can encompass an entire nation, continent, or even the entire world. Broadband services, 3G or 4G connections, and other WAN services are examples.

**Key Difference Between LAN, MAN, and WAN**

The key difference between LAN, MAN, and WAN are given below.

- WAN spans the largest geographic area, while MAN covers a somewhat wide area and LAN covers a minor amount.
- Devices for data transfer include:
    - LAN: Ethernet cables and WiFi.
    - MAN: Wire/Cable and Modem
    - WAN: Satellites, microwaves, and optical cables.
- In comparison to MAN and WAN, LANs transmit data more quickly.
- LAN maintenance is simpler than MAN and WAN maintenance.
- In comparison to MAN and WAN, the transmission bandwidth available in LAN is higher.
- Errors and noise in data transmission are lowest in LAN, intermediate in MAN, and highest in WAN.