

## Topic 4A: Compare Network Types Notes:

**LAN:** Roughly 1 or 2 kilometers. Organization who owns it manages the cabling that make it work. Built on the standard **802.3 Ethernet**. Mainly use **Copper Cables** and **Fiber Optic Cables**.

**100BASE-T:** Means it can send 100Mbps using **Copper-Twisted Pair cables**. Here 100 Means the data it can send over a time and T means cable type.

**1000BASE-T:** Means it can send 1000Mbps (1Gbps) at a time using Copper -Twisted Pair Cables.

**10GBASE-T:** Even faster. 10Gbps with Copper-Twisted Cables.

**WLANs:** Regular LAN but without the cables. Like the **Wi-Fi**. Most Wi-Fi follows the standard **IEEE 802.11** standards.

**WAN:** Officially the **Internet**. No geographical limitations.

**MAN:** Cities, or Large town. Universities with multiple campuses.

**SOHO:** Small Home Office Networks. Like small office with a few employees.

**Enterprise Networks:** Support larger organizations, such as corporations or universities with many employees and devices. Has work areas, server rooms, workgroup switches, firewalls and routers. Often uses **Screened Subnets** and **VPNs** for security. Has workgroup switches for client and users and separate server rooms for data protection.

**Screened Subnets:** Means the areas where the actual **Internet** are separated from the private LANs that ensures external and internal traffic are strictly filtered and monitored.

**Data Centers:** Specialized facility dedicated to server resources for larger organizations. It has its own dedicated high-speed network, own power management in case of power failure, own cooling systems, and physical security.

**Storage Area Networks (SANs):** Specialized network that provides shared pool of storage devices for servers. Features includes server access only, fiber channel for high speed.

**PANs:** Small network for short-ranges. Uses Bluetooth, Infrared like TV and remote, and Wi-Fi Direct means connecting two phones without wifi.