

Computer and network hardware

[Technology](#), [Information Technology](#)



Introduction Establishing a LAN that seeks to link several library services presents numerous opportunities to individuals utilizing this set up. Several expansion services are introduced through implementation of a LAN within these libraries. Additionally, these libraries acquire certain benefits that improve service delivery.

The library realizes considerable liberty in providing Wi-Fi to its clients more so the students and other parties that obtain various services from these libraries. Shifting from hard line to wireless network services offers numerous benefits to clients since most people possess laptops and other gadgets that can utilize wireless networks (Contreras, 2005). Additionally, utilizing wireless network is simpler than utilizing cable network that has its own complexities. Hardwired systems have the tendency of backing up individuals in waiting to utilize computers. Consequently, this presents time limitations for individuals utilizing these systems.

Fast Ethernet enable clients to receive augmented transmission speeds. The Ethernet protocol has implemented a novel standard that sustains 100 Mbps. Fast Ethernet necessitates utilization of dissimilar and expensive network hubs, in addition to network interface cards (Spurgeon, 2000). Furthermore, this category of Ethernet necessitates utilization of five twisted pair cable (Contreras, 2005). This category of Ethernet has considerable use in learning institutions to ensure that these institutions obtain reliable internet services, considering the huge populace that utilizes the internet.

Bus and Star are the best topologies for library systems although the Star functions best in offering library services. Star topology requires easier maintenance relative to Bus topology. Additionally, it is easily installed and

offers little difficulties during troubleshooting network-related problems (Bangia, 2005). Backbone entails huge transmissions that deliver information obtained from miniature lines that are linked to these transmission lines. These lines link LAN to WAN depending on the distance of transmission.

References

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