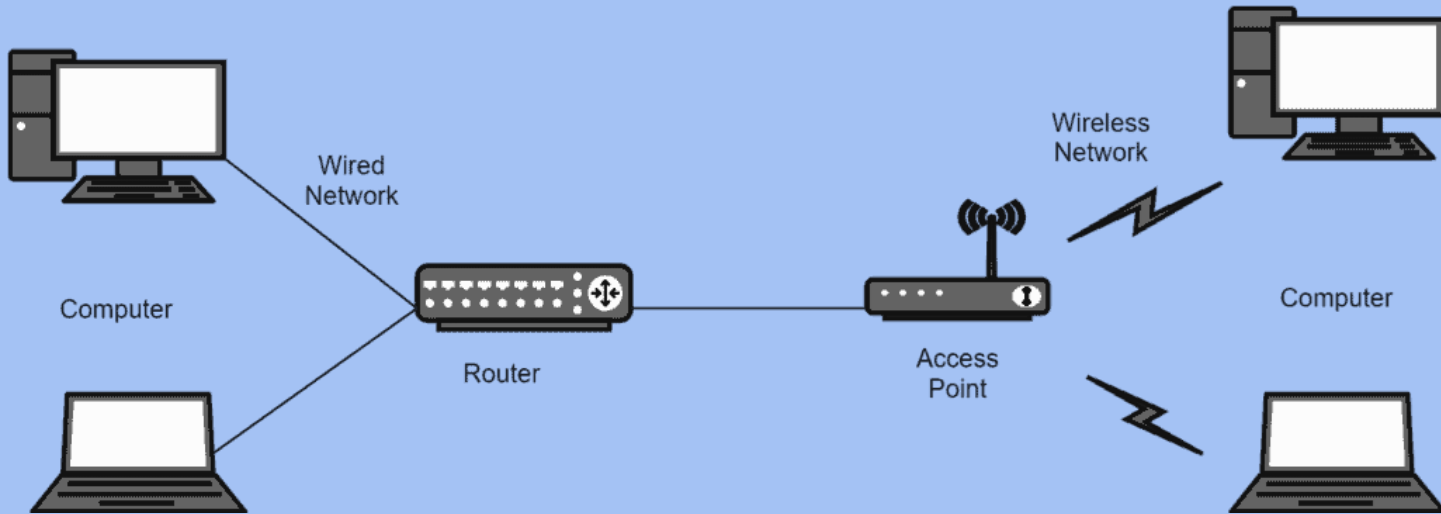


Access Point (Network Device)

Elementrix Classes

Access Point

- ❑ An access point (AP) acts as a wireless bridge between wired and wireless devices. It's like a dedicated Wi-Fi hotspot, allowing devices to connect to a network without needing a physical cable.



How Access Point Works?

- ❑ **Wired Connection:** An access point connects to a wired network, typically through an Ethernet cable, receiving data from the network.
- ❑ **Wireless Signal Transmission:** The AP then broadcasts this data as radio waves, creating a Wireless Local Area Network (WLAN) or Wi-Fi network. This network is accessible to any device within its range that has Wi-Fi capabilities.

- ❑ **Device Communication:** Devices like laptops, smartphones, and tablets can connect to the access point's Wi-Fi network by entering the appropriate credentials (usually a password). Once connected, these devices can exchange data with the wired network through the access point.

Key Points About Access Points:

- ❑ **Extends Network Coverage:** Access points are often used to extend the reach of a wired network, allowing wireless devices to connect even in areas where running cables is impractical.
- ❑ **Multiple Access Points:** In large buildings or campuses, multiple access points can be deployed to create a wider and more robust Wi-Fi network coverage.
- ❑ **Security Features:** Modern access points typically offer security features like WPA2 encryption to protect your network from unauthorized access and data breaches.

Benefits of Using Access Points:

- ❑ **Improved Mobility:** Enables wireless connectivity for various devices, enhancing user mobility and flexibility within the network.
- ❑ **Scalability:** Easy to expand the network coverage by adding more access points as needed.
- ❑ **Cost-effective:** Compared to running cables throughout a large area, access points can be a cost-effective solution for providing wireless access.

Example:

- ❑ Imagine a coffee shop equipped with an access point. Customers can connect their laptops, smartphones, or tablets to the coffee shop's Wi-Fi network (created by the access point) to access the internet, check emails, or browse the web.

In essence, access points bridge the gap between wired and wireless worlds, enabling wireless devices to connect and interact with the broader network infrastructure.

पढ़िए और पढ़ाइये

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