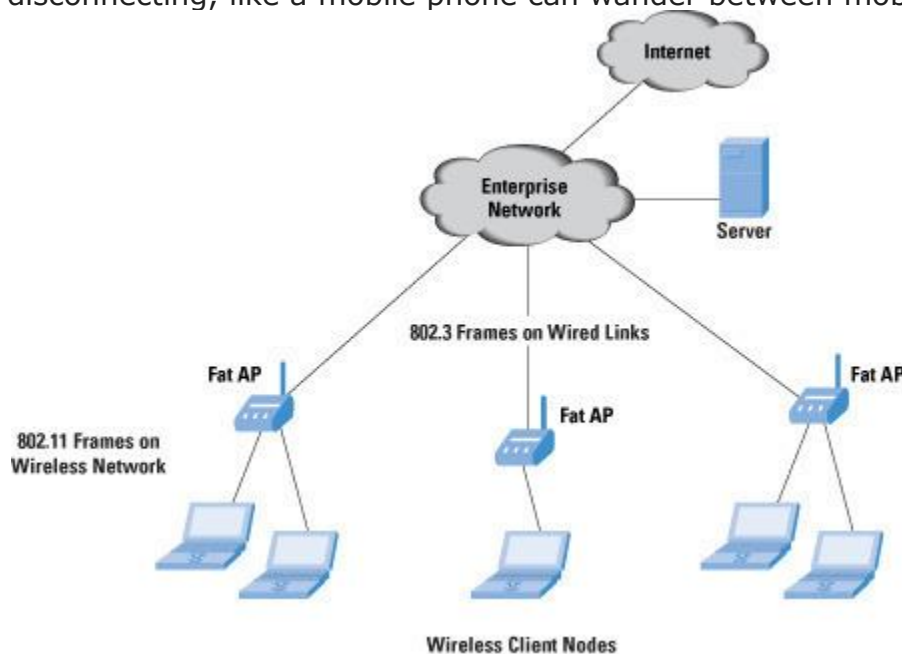


## WLAN (Wireless Local Area Network)

WLAN is a Wireless Local Area Network (LAN) that implements high frequency radio waves instead of wires to communicate and transmit data over a network. It is a supple data communication method put into practice as an expansion to or as a substitute for, a typical wired LAN.

An [Access Point](#) joins wired and wireless networks collectively and facilitates the transmission of data between wireless consumers and the wired network. Implementing several access points enhances overall system capability and scope. Wireless consumers can wander between different access points without disconnecting, like a mobile phone can wander between mobile phone towers.



The wireless [SSID](#), also called as the Network Name, is the Service Set Identification for your wireless network. The Service Set Identifier ([SSID](#)) manages admittance to a particular wireless network. The SSID value must match the SSID of any and all access points and consumers that you want to converse with. If the value does not match, access to the system is denied. The SSID can be up to 32 case sensitive characters.

Wireless networking facilitates the same potential and equivalent speeds of a wired 10BASE-T network without the problems linked with arranging wires, drilling into walls, or stringing [Ethernet](#) cables all the way through an office building or home. Laptop users have the liberty to wander everywhere in the office building or home

without having to look for a connector cable or vacant jack. Every room in a wireless home or office can be connected to the WLAN, hence adding up additional users and increasing a network can be as trouble-free as installing a new wireless network adapter.

WLAN is the most common form of network used in homes today. That's because it's simple to setup, it's flexible and allows multiple devices like laptops, tablet PCs and mobile phones to connect simultaneously without the hassle of wires. Many cities across the globe offer free [wireless Internet](#) connection to people at locations like shopping malls, airports, coffee shops, hospitals, etc.

There are multiple types of WLAN depending on their network architecture and setup.

### **Peer-to-peer Wireless LAN**

Two computers or [wireless clients](#) communicate directly with each other over a wireless connection. There's basically no base station or any other intermediary device to route or control data. 802.11 has two modes of operation – ad hoc and infrastructure. In ad hoc mode, wireless clients transmit or connect directly peer-to-peer. In infrastructure mode, [wireless clients](#) communicate through a common access point that serves as a bridge to a wired network infrastructure.

### **Bridge**

A bridge is typically used to connect two or more networks of different architectural types.

### **Wireless Distribution System**

Wireless distribution system allows to create a wireless network without any backbone of a wired network. The network may use single or multiple access points. More access points can be added to expand the network. Although these access points cannot be used as repeaters.

## **Advantages of WLAN**

- Improves usage experience because there are no wires to create much hassle.
- Setting up wireless network is easier than a wired one. You don't need to lay and drill holes for cables.
- Flexible installation helps reach places where wires cannot go. Like across multiple homes or buildings.

- Decreases expense because WLANs reduce installation expenses as there isn't any cabling cost.
- Network growth, scalability and reconfiguration may be less complex than growing a wired network.

**Source:** <http://www.tech-faq.com/wlan.html>