TERMINOLOGIES USED IN A WIRELESS LAN NETWORK

1. WIRELESS DEVICE
2. AP (ACCESS POINT)
3. Distribution Network (Wireless channel)

Function of Distribution Network

Differences between Wireless Device and Access Point

1. Wireless Device has mobility, AP, has no mobility
2. AP, is a master control of information, WD, is a client.
3. AP is fixed at a given location, WD, ix not fixed.
4. AP offers services, WD requests for services

Area served by an Access Point (AP)

Resources we have in an area served by an AP (Access Point) ;

1. AP - Controller
2. Several Wireless Devices – User Devices used by human beings (mobile, laptop)
3. Wireless channels –

The whole of the wireless Network, has several Aps interconnected using the distribution network, We also have several wireless devices.

SERVICES OFFERED BY THE WHOLE NETWORK INFRASTRUCTURE

1. NETWORK SERVICES – To enable user services
2. USER SERVICES – Which constitute network applications that are required by the users.

One example is security service, is very crucial, provided by the network infrastructure but support user services.

Network infrastructures like Firewall support user applications.

Another service is authentication. It’s required in a network to only allow verified users access the network.

Web service is also a user service, it is hosted in a network and therefore supported by the network.

NETWORK SERVICES

They include

1. DNS service
2. DHCP Service
3. Authentication and De-authentication
4. Privacy service. (Encryption)
5. Accounting service.
6. Network timestamp service.
7. Network directory service.

Essence of these services is to support user applications

User applications will include

1. Communication services – Messaging services, SMS, MMS, Email, IRC, (Internet relay chat service, i.e. telegram, x)
2. Web service (browsing) ie. http protocol

COMMUNICATION NETWORK

A network used to transport user information from one end to the other end.

A basic communication service has a sender and a receiver.

One reason for communication is exchange of information.

A message is news the other party does not have, so they can make a good informed decision.

Another reason is to enquire, or ask for information.

Feedback will come after you make a command.

SENDER – Message source, i.e. mouth

RECEIVER – Message consumer / sync. I.e. ears

Challenges of communication channel

1. Attenuation
2. Noise
3. Delay
4. Distortion

To enhance communication between the two, we add an Encoder and Decoder, to compensate attenuation in the channel, noise, delay and distortion produced by the channel

The whole of this network is called telecommunication system, and the service provided is the voice service.

If the end user device is not a telephone, then the device will be a computer and the rest will be the communication network

The network here will be called, data/ computer communication network, where the devices involved are computers.

The service provided here is called – data service.

Telecommunication service is where devices in the end network are telephones.

COMPONENTS OF A COMMUNICATION NETWORK.

1. End users
2. Transmission subsystem
3. Switching subsystem
4. End user Devices

In a modern communication network, all parts will connect to another subsystem called the intelligent network

Then from there we shall have the server farm.

They provide data services, and voice service.

For traditional network, there are no intelligent network subsystems, and they only provide voice service, but no data service.

Here we can use two devices (end user) – computer, and telephone.

V.O.I.P service is provided over the data communication network between a telephone and a computer. i.e. (using IRC to use telegram, or other applications.

Infotainment systems include – gaming, listening to music online and other types of web based entertainment

C.R.M – Customer Relationship management system

Is also another type of user service provided by the network

It’s a system provided by the service provider to manage the relationships

Another kind of system is

S.C.M – Supply chain management systems – i.e. online shopping of cars, or anything like that

Work of a AP is to connect all end user devices which are in the same area of the LOCAL AREA NETWORK