RECAP/

Encapsulation and the ethernet frame

Encapsulation

Process of pacing one msg format inside another msg format

De-encapsulation

Process is reversed by the recipient and the letter is removed from the envelope

The ethernet protocol standards define

Aspects of network communication including frame format, size, timing, encoding

Format for ethernet frames specifies the location of the destination and source MAC address, and additional info including preamble for sequencing and timing, start of frame delimiter, length and type of frame, and frame check sequence to detect transmission errors

The access layer

Its the part of the network in which people gain access to other hosts and to shared files and printers

The access layer provides the first line of networking devices that connect hosts to the wired ethernet network

There each host can connect directly to an aaccess layer networking device using an ethernet cable

Ethernet switch is a device that is used at layer 2.

When a host sends msg to other host connected on the same network, the switch accepts and decodes the frames to read MAC address portion of the message

A table on the switch called MAC address table, contains a list of all the active ports and the host MAC addresses that are attached to them

The switch checks to see if the destination MAC address is in the table, if it is the switch builds a temporary connection called a circuit, between the source and destination ports

A switch builds the MAC address table by examining the source MAC address of each frame that is sent between hosts. When a new host sends a message or responds to a flooded message, the switch immediately learns its MAC address and the port to which it is connected. The table is dynamically updated each time a new source MAC address is read by the switch.