Encapsulation and the ethernet frame

The fields of the ethernet frame video

Ethernet technology commonly used in local area networks

Devices access the ethernet LAN using an Ethernet network interface card (NIC)

Each NIC has a unique address permanently embedded on the card known as a Media Access Control (MAC) address

The MAC address for both the source and destination are fields in an ethernet frame

Encapsulation

When seding a letter, the letter writer uses an accepted format to ensure that the letter is delivered and understood by the recipient

In the same way, a msg that is sent over a network follows specific format rules in order for it to be delivered and processed.

**The process of placing one message format (the letter) inside another message format (the envelope) is called encapsulation**

De-encapsulation occurs when the process is reversed by the recipient and the letter is removed from the envelope.

Each computer msg is encapsulated in a specific format, called a frame, before it is sent over the network

**A frame acts like an envelope it provides the address of the intended destination and the address of the source host**

**The format and contents of a frame are determined by the type of message being sent and the channel over which it is communicated**