

**Transmission Media:**

It refers to the physical media or path through which a data is transmitted from one device to another within a network. It can be wired or wireless. The choice of medium depends on factors like distance, speed, and interference.

It is classified into two types:

a. **Guided Media:**

Referred to as wired or bounded transmission media. Signals are transmitted in a physical links.

**Features:** High speed, secured, and used for shorter distances.

**3 major types:**

Twisted pair cable, Coaxial cable, and Optical Fibre cable.

b. **Unguided Media:**

Referred to as Wireless media or unbounded transmission media. No physical medium is required for the transmission of electromagnetic signals.

**Features:** Signal is broadcasted through air, less secure, and used for larger distances.

**3 major types:**

Radio waves, Microwaves, and Infrared.

**Transmission Impairment:**

Transmission impairment refers to the loss or distortion of signals during data transmission, leading to errors or reduced quality in communication. Common causes include signal distortion, attenuation, and noise all of which can affect the clarity and reliability of transmitted data.