57. Flow Control

Outcomes of this session are –

1. Recall Data Link Layer services.
2. Understand Flow Control.
3. Know the Flow Control Protocols.

The data link layer is responsible for moving data (Frames) from one node to another.

The various services provided by the data link layer are –

1. Framing.
2. Error Control.
3. Flow Control.
4. Physical Addressing.
5. Access Control.

Flow Control –

* When the sender sends the data in a fast pace, more than the receiver to accept the data frames, some of the data is lost during the transmission process.
* To avoid this the receiver establishes a connection with the sender to inform the speed of the data it can receive.
* This speed is mutually decided by both the sender and the receiver and the sender takes care that the speed of transmission matches the rate to receive the data to be properly processed.
* This is known as Speed Matching Mechanism.
* Flow control controls the number of data packets which are to be sent to the receiver before receiving the acknowledgement.
* The receiver’s side is basically checked for the speed since it depends on the receiver to receive the data. Even if the sender is the slow one in the communication process, the data cannot be lost. But if the roles are reversed, the data might be lost since the receiver will not match the speed.

Protocols in the Flow Control are –

1. Noisy Channel-

* Stop and wait ARQ.
* Go back N ARQ.
* Selective repeat ARQ.

1. Noiseless Channel-

* Simplest.
* Stop and wait.

ARQ – Automatic Repeat Request.