Flow Control

Flow control is a technique for assuring that a sender does not overpower a receiver with data frames at a rate which is faster than the receiver can accept them. The receiving activity typically allocates a data buffer of maximum length for a transfer.

The flow control protocol commonly employed by a Data link layer includes:

- Stop and wait flow control
- Sliding-window flow control.

Stop and wait flow control

It is the simplest form of flow control. In this method the message is broken into multiple frames, & the receiver indicates its readiness to receive a frame of data. The sender waits for a receipt acknowledgement after every frame for a specified time (called a time-out). The receiver sends the acknowledgement to let the sender know the frame of data was received correctly. The sender will then send the next frame only after acknowledgement.

Operations:-

- Sender :- Transmits a single frame at a time.
- Sender :- Waits to receive acknowledgement within timeout.

Reciever :- Transmits acknowledgement as it receives a frame.

Sliding-window flow control

It is a method of flow control in which a receiver gives a transmitter permission to transmit data until a window is full. when the window is full. the transmitters must stop transmitting until the receiver advertise a larger window.