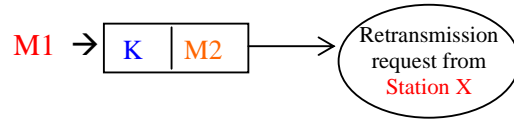


This method is called forward error correction method.

Case 2



Station Y

At station Y, check the **K** bits, and if they are not correct the message **M2** will be discarded and station Y will request station X to retransmit the message,

This application does not need more bits to be appended as **K**, hence good bandwidth and less power could be used at the transmitter. However this method can be adopted only in a bi directional transmission. This method is used very widely in telephone signaling information transmission where retransmission of the message is possible and in packet switching networks.

This is called Backward Error Correction method (BEC) or Automatic Repeat Request (ARQ).

Constraints

The above method requires an additional field appended to the message **M1** to maintain a sequence numbering of messages. Hence sequence control field has to be appended, which will give two basic information.

- (i) The transmitted message – sequence number
- (ii) The last correctly received sequence number (from station Y).

When transmitting a message a sequence control field will contain the respective message number, also in the sequence control field will contain additional information with regard to a message received from the other station (whether it is correctly received or not).