

TCP - Reliability Mechanisms

Sender: Sequence number (seqno) ensures order is maintained. Allows for commutative delivery - meaning the order of delivery doesn't affect the final output. This also helps detect lost data (gaps in seqnos).

Receiver: Acknowledgement number (ackno) confirms receipt of all prior data and helps a sender decide when to retransmit messages

All messages are **idempotent!** multiple transmissions of the same data produce the same result! retransmissions do not create duplicate messages or inconsistencies.