

	S_n	Sequence #	Send Window Size	Receive Window size	Timer	ACK policy	Duplicate frames at receiver	Out-of-order frames at receiver
Stop-and-Wait ARQ	After a frame (say 0) is transmitted, S_n keeps 0 until ACK is back (which changes S_n to 1)	1 bit	1	1	Set up upon each data frame transmission or retransmission. Stopped upon ACK. Resend the outstanding frame upon a timeout.	ACK is issued when a frame (either expected or duplicate) is successfully received. If the expected frame (R_n) arrives, slide the receive window by one frame.	Discarded. But an ACK is issued.	No out-of-order frames
Go-back-N ARQ	The next frame to send (not sent yet)	m bits	$2^m - 1$	1	When a frame is sent/re-sent, if timer is not running, then set up the timer. Timer is stopped when an ACK is received and there is no outstanding frame. (only one timer). Resend all outstanding frames upon a timeout.	ACK is issued only when the “expected” frame (R_n) arrives. Then slide the receive window by one frame.	Discarded. No ACK is issued.	Discarded. No ACK is issued.
Selective Repeat ARQ	The next frame to send (not sent yet)	m bits	2^{m-1}	2^{m-1}	Set up a timer upon each data frame transmission or retransmission, and stop a timer when the sender knows (by ACK reception) the corresponding data frame has been received. Resend the corresponding frame upon a timeout.	ACK is issued when frame R_n arrives. Then those consecutive received frames (starting from R_n) are delivered to the upper layer. Slide the receive window by one or more frames.	(here a duplicate frame is a frame that is NOT inside the receive window) Discarded. No ACK is issued.	(here an out-of-order frame is a frame that is inside the receive window but NOT R_n) Accepted. An NAK is issued for frame R_n if no NAK was sent for frame R_n before. Upon reception of the NAK, the sender resends frame R_n , and restarts the corresponding timer.