

Sample Output Trace (SR with Cumulative ACK)

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-- * Network Simulator v1.0 * --
Enter number of messages to simulate (> 0): [10] 1000
Enter packet loss probability (0.0 for no loss): [0.0] 0.1
Enter packet corruption probability (0.0 for no corruption): [0.0] 0.1
Enter average time between messages from sender's layer 5 (> 0.0): [1000] 200
Enter window size (> 0): [8] 8
Enter retransmission timeout (>0.0) [15.0] 30
Enter trace level (>= 0): [0] 3
Enter random seed: [0] 1234
SR timer interval is:30.0
generateNextArrival(): called
generateNextArrival(): time is 0.0
generateNextArrival(): future time for event 1 at entity 0 will be 43.4339426862392

EVENT time: 43.4339426862392 type: 1 entity: 0
generateNextArrival(): called
generateNextArrival(): time is 43.4339426862392
generateNextArrival(): future time for event 1 at entity 0 will be 67.36045411542099
Upper layer MSG at A:aaaaaaaaaaaaaaaaaaaaa
Current msg_buffer size:1
toLayer3: seqnum: 0 acknum: 0 checksum: 424844876 payload: aaaaaaaaaaaaaaaaaaaaaa
toLayer3: scheduling arrival on other side
A Found empty slot in window, sending packet from buffer:seqnum: 0 acknum: 0 checksum: 424844876
payload: aaaaaaaaaaaaaaaaaaaaaa
stopTimer: stopping timer at 43.4339426862392
stopTimer: Warning: Unable to cancel your timer
startTimer: starting timer at 43.4339426862392

EVENT time: 45.66060365611743 type: 2 entity: 1
bInput(): B getting aaaaaaaaaaaaaaaaaaaaaa
bInput(): Correct seq num. Expecting pkt0, got pkt0
Moving window_base_b forward to:1 from 0
toLayer3: seqnum: 0 acknum: 1 checksum: 1 payload:
toLayer3: scheduling arrival on other side

EVENT time: 47.569475386822106 type: 2 entity: 0
A got ACK from B, packet is:seqnum: 0 acknum: 1 checksum: 1 payload:
ACK for seq. no.:0 to 0

Also dumping index 0:seqnum: 0 acknum: 0 checksum: 424844876 payload: aaaaaaaaaaaaaaaaaaaaaa
stopTimer: stopping timer at 47.569475386822106
first non-empty index in window is:-1

EVENT time: 67.36045411542099 type: 1 entity: 0
generateNextArrival(): called
generateNextArrival(): time is 67.36045411542099
generateNextArrival(): future time for event 1 at entity 0 will be 83.31553086947233
Upper layer MSG at A:bbbbbbbbbbbbbbbbbbbb
Current msg_buffer size:1
toLayer3: seqnum: 1 acknum: 0 checksum: 296390681 payload: bbbbbbbbbbbbbbbbbbbbbbb
toLayer3: packet being lost
A Found empty slot in window, sending packet from buffer:seqnum: 1 acknum: 0 checksum: 296390681
payload: bbbbbbbbbbbbbbbbbbbbbbb
stopTimer: stopping timer at 67.36045411542099
stopTimer: Warning: Unable to cancel your timer
startTimer: starting timer at 67.36045411542099

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toLayer3: seqnum: 5 acknum: 0 checksum: -731242883 payload: jjjjjjjjjjjjjjjjjj
toLayer3: scheduling arrival on other side
A Found empty slot in window, sending packet from buffer:seqnum: 5 acknum: 0 checksum: -731242883
payload: jjjjjjjjjjjjjjjjjj
stopTimer: stopping timer at 32424.29273354289
startTimer: starting timer at 32424.29273354289

Sending seq. no. 5

EVENT time: 32424.582598345893 type: 2 entity: 1
bInput(): B getting iiiiiiiiiiiiiiiiiii
bInput(): Expecting pkt3, got pkt4
putting packet into rcv_buffer[4]
Sending ACK:2
toLayer3: seqnum: 2 acknum: 1 checksum: 3 payload:
toLayer3: scheduling arrival on other side

Expecting seq. no. 3, got
seq. no. 4. Sending
duplicate ACK

EVENT time: 32429.08294930875 type: 2 entity: 1
bInput(): B getting jjjjjjjjjjjjjjjjjj
bInput(): Expecting pkt3, got pkt5
putting packet into rcv_buffer[5]
Sending ACK:2
toLayer3: seqnum: 2 acknum: 1 checksum: 3 payload:
toLayer3: scheduling arrival on other side

Expecting seq. no. 3, got
seq. no. 5. Sending
duplicate ACK

EVENT time: 32434.240638447212 type: 2 entity: 0
A got ACK from B, packet is:seqnum: 2 acknum: 1 checksum: 3 payload:
Duplicate ACK, resend the next unACK'ed packet: seqnum: 3 acknum: 0 checksum: -
474334493 payload: hhhhhhhhhhhhhhhhhhhhh
toLayer3: seqnum: 3 acknum: 0 checksum: -474334493 payload: hhhhhhhhhhhhhhhhhhhhh
toLayer3: scheduling arrival on other side

Duplicate ACK.
Sending seq. no 3

EVENT time: 32437.282509842214 type: 2 entity: 0
A got ACK from B, packet is:seqnum: 2 acknum: 1 checksum: 3 payload:
Duplicate ACK, resend the next unACK'ed packet: seqnum: 3 acknum: 0 checksum: -
474334493 payload: hhhhhhhhhhhhhhhhhhhhh
toLayer3: seqnum: 3 acknum: 0 checksum: -474334493 payload: hhhhhhhhhhhhhhhhhhhhh
toLayer3: scheduling arrival on other side

Duplicate ACK.
Sending seq. no 3

EVENT time: 32442.9249855037 type: 2 entity: 1
bInput(): B getting hhhhhhhhhhhhhhhhhhhhh
bInput(): Correct seq num. Expecting pkt3, got pkt3
Moving window_base_b forward to:6 from 3
toLayer3: seqnum: 5 acknum: 1 checksum: 6 payload:
toLayer3: scheduling arrival on other side

Expecting Seq. no. 3,
and got seq. no. 3.
Sending cumulative
ACK till seq. no 5.

EVENT time: 32443.998596148558 type: 2 entity: 0
A got ACK from B, packet is:seqnum: 5 acknum: 1 checksum: 6 payload:
ACK for seq. no.:3 to 5
Commulative ACK: ACKing packet with seq. no. 3 on receiving ACK 5
Commulative ACK: ACKing packet with seq. no. 4 on receiving ACK 5

Got cumulative ACK
with seq. no 5. Moving
window from 3 to 5
by ACKing packet
with seq. no. 3,4, and
5

Also dumping index 2:seqnum: 5 acknum: 0 checksum: -731242883 payload: jjjjjjjjjjjjjjjjjj
stopTimer: stopping timer at 32443.998596148558
first non-empty index in window is:-1

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...
...
...
EVENT time: 198272.52943510227 type: 2 entity: 0

