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CS 455 PA2

Sample-output

**Input values**

-- \* Network Simulator v1.0 \* --

Enter number of messages to simulate (> 0): [10] **[20]**

Enter packet loss probability (0.0 for no loss): [0.0] **[0.2]**

Enter packet corruption probability (0.0 for no corruption): [0.0] **[0.2]**

Enter average time between messages from sender's layer 5 (> 0.0): [1000] **[10]**

Enter window size (> 0): [8] **[8]**

Enter retransmission timeout (>0.0) [15.0] **[20]**

Enter trace level (>= 0): [0] **[2]**

Enter random seed: [0] **[2233]**

**Output values**

EVENT time: 9.181188390758996 type: 1 entity: 0

toLayer3: packet being corrupted

Sending packet to B:seqnum: 0 acknum: 0 checksum: 1940 payload: aaaaaaaaaaaaaaaaaaaa

EVENT time: 11.710562456129644 type: 1 entity: 0

Sending packet to B:seqnum: 1 acknum: 0 checksum: 1961 payload: bbbbbbbbbbbbbbbbbbbb

EVENT time: 14.562120426038392 type: 2 entity: 1

B received corrupted packet - ignoring data

EVENT time: 17.07113864558855 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #0 received #1

EVENT time: 29.176305429242838 type: 1 entity: 0

Sending packet to B:seqnum: 2 acknum: 0 checksum: 1982 payload: cccccccccccccccccccc

EVENT time: 29.181188390758997 type: 0 entity: 0

Timer interrupt! Resending window

Resending packet to B:seqnum: 0 acknum: 0 checksum: 1940 payload: aaaaaaaaaaaaaaaaaaaa

Resending packet to B:seqnum: 1 acknum: 0 checksum: 1961 payload: bbbbbbbbbbbbbbbbbbbb

toLayer3: packet being lost

Resending packet to B:seqnum: 2 acknum: 0 checksum: 1982 payload: cccccccccccccccccccc

EVENT time: 31.21677297280801 type: 1 entity: 0

Sending packet to B:seqnum: 3 acknum: 0 checksum: 2003 payload: dddddddddddddddddddd

EVENT time: 38.104831080050054 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #0 received #2

EVENT time: 46.13483077486496 type: 1 entity: 0

Sending packet to B:seqnum: 4 acknum: 0 checksum: 2024 payload: eeeeeeeeeeeeeeeeeeee

EVENT time: 46.49555955687124 type: 2 entity: 1

Sending ACK for packet #0

EVENT time: 48.84252449110385 type: 2 entity: 0

A received ACK for packet #0

EVENT time: 49.181188390759 type: 0 entity: 0

Timer interrupt! Resending window

Resending packet to B:seqnum: 1 acknum: 0 checksum: 1961 payload: bbbbbbbbbbbbbbbbbbbb

Resending packet to B:seqnum: 2 acknum: 0 checksum: 1982 payload: cccccccccccccccccccc

Resending packet to B:seqnum: 3 acknum: 0 checksum: 2003 payload: dddddddddddddddddddd

toLayer3: packet being corrupted

Resending packet to B:seqnum: 4 acknum: 0 checksum: 2024 payload: eeeeeeeeeeeeeeeeeeee

EVENT time: 51.344187749870294 type: 2 entity: 1

Sending ACK for packet #1

EVENT time: 55.99475081637013 type: 1 entity: 0

Sending packet to B:seqnum: 5 acknum: 0 checksum: 2045 payload: ffffffffffffffffffff

EVENT time: 58.93307290871914 type: 1 entity: 0

Sending packet to B:seqnum: 6 acknum: 0 checksum: 2066 payload: gggggggggggggggggggg

EVENT time: 59.03451643421735 type: 2 entity: 0

A received ACK for packet #1

EVENT time: 59.57423627430036 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #2 received #3

EVENT time: 65.72286141544846 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #2 received #4

EVENT time: 69.18118839075899 type: 0 entity: 0

Timer interrupt! Resending window

Resending packet to B:seqnum: 2 acknum: 0 checksum: 1982 payload: cccccccccccccccccccc

Resending packet to B:seqnum: 3 acknum: 0 checksum: 2003 payload: dddddddddddddddddddd

toLayer3: packet being lost

Resending packet to B:seqnum: 4 acknum: 0 checksum: 2024 payload: eeeeeeeeeeeeeeeeeeee

Resending packet to B:seqnum: 5 acknum: 0 checksum: 2045 payload: ffffffffffffffffffff

Resending packet to B:seqnum: 6 acknum: 0 checksum: 2066 payload: gggggggggggggggggggg

EVENT time: 69.78044984282967 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #2 received #1

EVENT time: 73.98168889431439 type: 2 entity: 1

Sending ACK for packet #2

toLayer3: packet being lost

EVENT time: 76.96890163884396 type: 1 entity: 0

Sending packet to B:seqnum: 7 acknum: 0 checksum: 2087 payload: hhhhhhhhhhhhhhhhhhhh

EVENT time: 78.77010406811732 type: 1 entity: 0

toLayer3: packet being corrupted

Sending packet to B:seqnum: 8 acknum: 0 checksum: 2108 payload: iiiiiiiiiiiiiiiiiiii

EVENT time: 80.29868465224158 type: 2 entity: 1

Sending ACK for packet #3

EVENT time: 82.07901242103335 type: 2 entity: 0

A received ACK for packet #3

EVENT time: 85.83892330698568 type: 2 entity: 1

B received corrupted packet - ignoring data

EVENT time: 89.18118839075899 type: 0 entity: 0

Timer interrupt! Resending window

Resending packet to B:seqnum: 4 acknum: 0 checksum: 2024 payload: eeeeeeeeeeeeeeeeeeee

Resending packet to B:seqnum: 5 acknum: 0 checksum: 2045 payload: ffffffffffffffffffff

Resending packet to B:seqnum: 6 acknum: 0 checksum: 2066 payload: gggggggggggggggggggg

Resending packet to B:seqnum: 7 acknum: 0 checksum: 2087 payload: hhhhhhhhhhhhhhhhhhhh

Resending packet to B:seqnum: 8 acknum: 0 checksum: 2108 payload: iiiiiiiiiiiiiiiiiiii

EVENT time: 89.7762077700125 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #4 received #5

EVENT time: 91.16245002594074 type: 1 entity: 0

Sending packet to B:seqnum: 0 acknum: 0 checksum: 2120 payload: jjjjjjjjjjjjjjjjjjjj

EVENT time: 93.78792687765129 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #4 received #6

EVENT time: 94.58906826990571 type: 1 entity: 0

toLayer3: packet being corrupted

Sending packet to B:seqnum: 1 acknum: 0 checksum: 2141 payload: kkkkkkkkkkkkkkkkkkkk

EVENT time: 99.51658680990019 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #4 received #2

EVENT time: 102.11615344706566 type: 1 entity: 0

Sending packet to B:seqnum: 2 acknum: 0 checksum: 2162 payload: llllllllllllllllllll

EVENT time: 105.2743614001892 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #4 received #3

EVENT time: 109.18118839075899 type: 0 entity: 0

Timer interrupt! Resending window

Resending packet to B:seqnum: 4 acknum: 0 checksum: 2024 payload: eeeeeeeeeeeeeeeeeeee

toLayer3: packet being corrupted

Resending packet to B:seqnum: 5 acknum: 0 checksum: 2045 payload: ffffffffffffffffffff

Resending packet to B:seqnum: 6 acknum: 0 checksum: 2066 payload: gggggggggggggggggggg

toLayer3: packet being lost

Resending packet to B:seqnum: 7 acknum: 0 checksum: 2087 payload: hhhhhhhhhhhhhhhhhhhh

Resending packet to B:seqnum: 8 acknum: 0 checksum: 2108 payload: iiiiiiiiiiiiiiiiiiii

Resending packet to B:seqnum: 0 acknum: 0 checksum: 2120 payload: jjjjjjjjjjjjjjjjjjjj

Resending packet to B:seqnum: 1 acknum: 0 checksum: 2141 payload: kkkkkkkkkkkkkkkkkkkk

toLayer3: packet being lost

Resending packet to B:seqnum: 2 acknum: 0 checksum: 2162 payload: llllllllllllllllllll

EVENT time: 109.80382702108828 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #4 received #5

EVENT time: 112.80312509537035 type: 1 entity: 0

EVENT time: 114.44782860805077 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #4 received #6

EVENT time: 116.5202795495468 type: 1 entity: 0

EVENT time: 121.80663472396007 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #4 received #7

EVENT time: 129.181188390759 type: 0 entity: 0

Timer interrupt! Resending window

Resending packet to B:seqnum: 4 acknum: 0 checksum: 2024 payload: eeeeeeeeeeeeeeeeeeee

toLayer3: packet being lost

Resending packet to B:seqnum: 5 acknum: 0 checksum: 2045 payload: ffffffffffffffffffff

Resending packet to B:seqnum: 6 acknum: 0 checksum: 2066 payload: gggggggggggggggggggg

Resending packet to B:seqnum: 7 acknum: 0 checksum: 2087 payload: hhhhhhhhhhhhhhhhhhhh

toLayer3: packet being lost

Resending packet to B:seqnum: 8 acknum: 0 checksum: 2108 payload: iiiiiiiiiiiiiiiiiiii

Resending packet to B:seqnum: 0 acknum: 0 checksum: 2120 payload: jjjjjjjjjjjjjjjjjjjj

Resending packet to B:seqnum: 1 acknum: 0 checksum: 2141 payload: kkkkkkkkkkkkkkkkkkkk

Resending packet to B:seqnum: 2 acknum: 0 checksum: 2162 payload: llllllllllllllllllll

EVENT time: 129.61638233588673 type: 1 entity: 0

EVENT time: 130.2945036164434 type: 1 entity: 0

EVENT time: 131.3127842036195 type: 2 entity: 1

B received corrupted packet - ignoring data

EVENT time: 136.40421765800957 type: 2 entity: 1

Sending ACK for packet #4

toLayer3: packet being corrupted

EVENT time: 138.69157994323555 type: 2 entity: 1

Sending ACK for packet #5

EVENT time: 138.71767326883753 type: 2 entity: 0

A recieves corrupted ACK! Ignoring data.seqnum: 4 acknum: 4 checksum: 8 payload: ?

EVENT time: 140.42658772545548 type: 2 entity: 1

Sending ACK for packet #6

EVENT time: 141.87847529526655 type: 2 entity: 0

A received ACK for packet #5

EVENT time: 149.181188390759 type: 0 entity: 0

Timer interrupt! Resending window

Resending packet to B:seqnum: 6 acknum: 0 checksum: 2066 payload: gggggggggggggggggggg

Resending packet to B:seqnum: 7 acknum: 0 checksum: 2087 payload: hhhhhhhhhhhhhhhhhhhh

Resending packet to B:seqnum: 8 acknum: 0 checksum: 2108 payload: iiiiiiiiiiiiiiiiiiii

toLayer3: packet being corrupted

Resending packet to B:seqnum: 0 acknum: 0 checksum: 2120 payload: jjjjjjjjjjjjjjjjjjjj

Resending packet to B:seqnum: 1 acknum: 0 checksum: 2141 payload: kkkkkkkkkkkkkkkkkkkk

toLayer3: packet being corrupted

Resending packet to B:seqnum: 2 acknum: 0 checksum: 2162 payload: llllllllllllllllllll

Sending packet to B:seqnum: 3 acknum: 0 checksum: 2183 payload: mmmmmmmmmmmmmmmmmmmm

Sending packet to B:seqnum: 4 acknum: 0 checksum: 2204 payload: nnnnnnnnnnnnnnnnnnnn

EVENT time: 149.68443861201817 type: 2 entity: 1

Sending ACK for packet #7

EVENT time: 149.75249488814967 type: 1 entity: 0

EVENT time: 149.87670522171695 type: 2 entity: 0

A received ACK for packet #6

EVENT time: 151.7432782982879 type: 2 entity: 0

A received ACK for packet #7

EVENT time: 155.2859279152806 type: 2 entity: 1

Sending ACK for packet #8

toLayer3: packet being lost

EVENT time: 156.38096255378886 type: 2 entity: 1

Sending ACK for packet #0

EVENT time: 157.4438612018189 type: 2 entity: 0

A received ACK for packet #0

EVENT time: 159.00396740623188 type: 2 entity: 1

B received corrupted packet - ignoring data

EVENT time: 163.49003570665607 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #1 received #2

EVENT time: 163.75988036744286 type: 1 entity: 0

toLayer3: packet being corrupted

Sending packet to B:seqnum: 8 acknum: 0 checksum: 2288 payload: rrrrrrrrrrrrrrrrrrrr

EVENT time: 169.181188390759 type: 0 entity: 0

Timer interrupt! Resending window

Resending packet to B:seqnum: 1 acknum: 0 checksum: 2141 payload: kkkkkkkkkkkkkkkkkkkk

Resending packet to B:seqnum: 2 acknum: 0 checksum: 2162 payload: llllllllllllllllllll

toLayer3: packet being lost

Resending packet to B:seqnum: 3 acknum: 0 checksum: 2183 payload: mmmmmmmmmmmmmmmmmmmm

Resending packet to B:seqnum: 4 acknum: 0 checksum: 2204 payload: nnnnnnnnnnnnnnnnnnnn

Resending packet to B:seqnum: 5 acknum: 0 checksum: 2225 payload: oooooooooooooooooooo

Sending packet to B:seqnum: 6 acknum: 0 checksum: 2246 payload: pppppppppppppppppppp

Sending packet to B:seqnum: 7 acknum: 0 checksum: 2267 payload: qqqqqqqqqqqqqqqqqqqq

Sending packet to B:seqnum: 8 acknum: 0 checksum: 2288 payload: rrrrrrrrrrrrrrrrrrrr

EVENT time: 172.3001800592059 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #1 received #4

EVENT time: 179.7424237800226 type: 1 entity: 0

EVENT time: 182.26310007019256 type: 2 entity: 1

B received corrupted packet - ignoring data

EVENT time: 184.223761711478 type: 1 entity: 0

EVENT time: 188.91463972899564 type: 2 entity: 1

B received a packet out of order - ignoring data. Expecting #1 received #6

EVENT time: 189.181188390759 type: 0 entity: 0

Timer interrupt! Resending window

Resending packet to B:seqnum: 1 acknum: 0 checksum: 2141 payload: kkkkkkkkkkkkkkkkkkkk

toLayer3: packet being corrupted

Resending packet to B:seqnum: 2 acknum: 0 checksum: 2162 payload: llllllllllllllllllll

toLayer3: packet being lost

Resending packet to B:seqnum: 3 acknum: 0 checksum: 2183 payload: mmmmmmmmmmmmmmmmmmmm

toLayer3: packet being corrupted

Resending packet to B:seqnum: 4 acknum: 0 checksum: 2204 payload: nnnnnnnnnnnnnnnnnnnn

toLayer3: packet being corrupted

Resending packet to B:seqnum: 5 acknum: 0 checksum: 2225 payload: oooooooooooooooooooo

toLayer3: packet being lost

Resending packet to B:seqnum: 6 acknum: 0 checksum: 2246 payload: pppppppppppppppppppp

Resending packet to B:seqnum: 7 acknum: 0 checksum: 2267 payload: qqqqqqqqqqqqqqqqqqqq

toLayer3: packet being lost

Resending packet to B:seqnum: 8 acknum: 0 checksum: 2288 payload: rrrrrrrrrrrrrrrrrrrr

EVENT time: 195.22751548814355 type: 1 entity: 0

Simulator terminated at time 195.22751548814355

+------------------------------------------------+

+-----------------Report-----------------------+

Seed #2233

Window Size: 8

Total packets sent = 70

Number of original data packets sent: 18

Number of ACK packets sent: 10

Total number of packets delivered to Layer 5: 10

Number of retransmissions: 52

Number of packets corrupted: 6

The probability of geting a corrupted packet: 0.094

Number of packets lost: 46

The probability of geting a lost packet: 0.66

Average RTT for packets: 108.04878383739738 ms