

1. Suppose that, when a TCP segment is sent more than once, we take SampleRTT to be the time between original transmission and the ACK. Show that if a connection with a 1-packet window loses every other packet, (i.e each pack is transmitted twice) then EstimatedRTT increases to infinity. Assume $TimOut = Estimated\ RTT$. What happens if we have $TimeOut = 2 * Estimated\ RTT$, as talked in class.

2. Peterson explains three sequences of state transitions during TCP connection teardown. There is a fourth possible sequence, which traverses the arc from FIN_WAIT_1 to TIME_WAIT labeled ACK+FIN/ACK. Explain the circumstances that result in this fourth teardown sequence.

