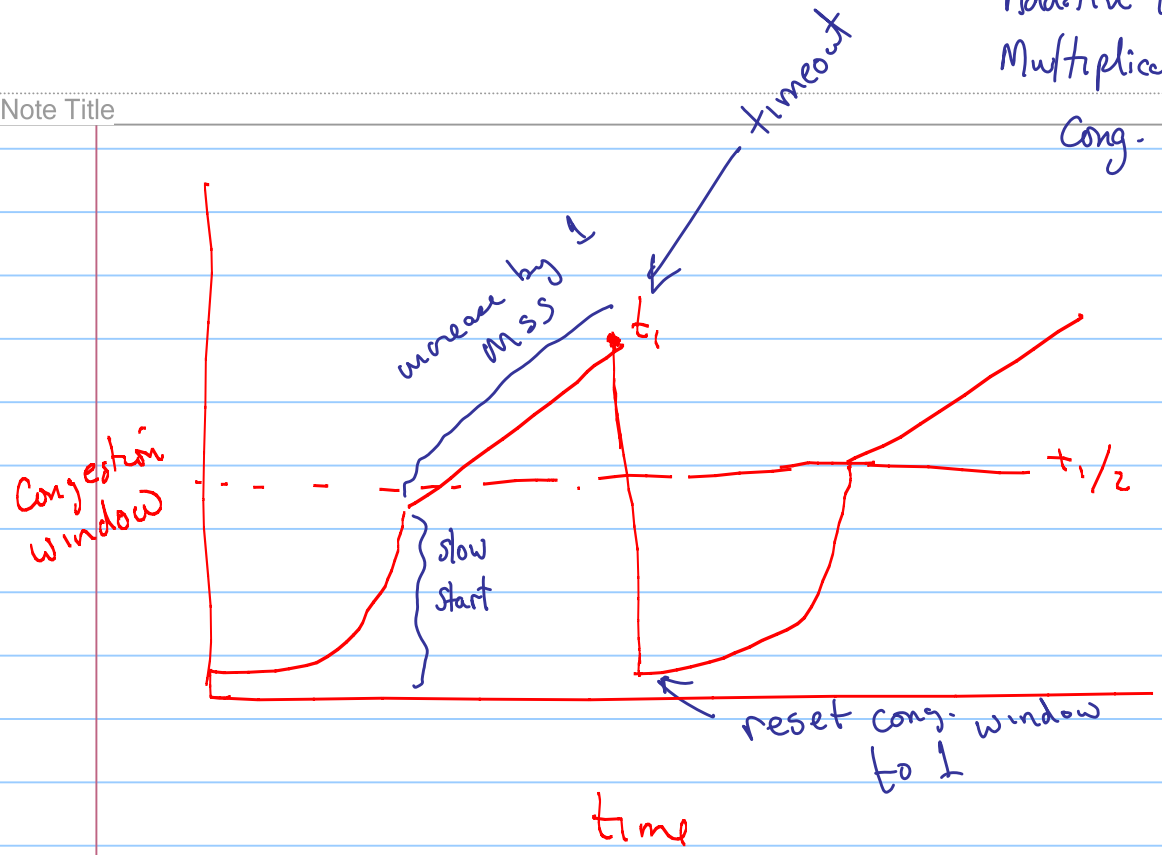
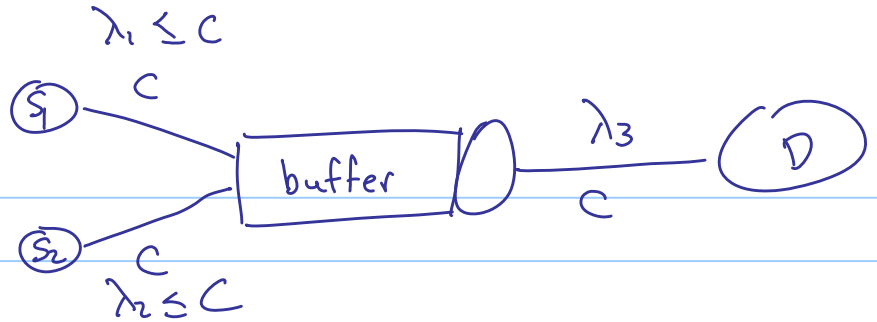
Note Title 11/17/2008

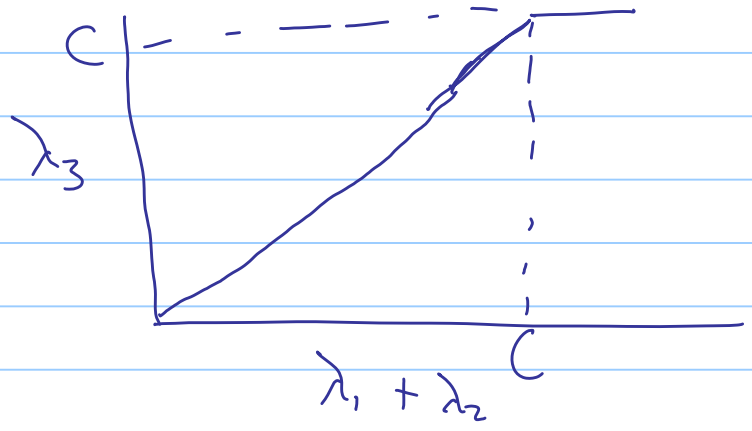
Additive increase
Multiplicative decrease
Cong. window alg.

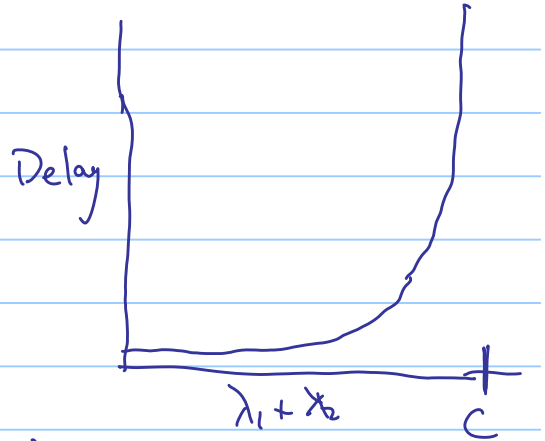




C = capacity or bandwidth

Look at behavior as S_1 and S_2 offer ever-increasing loads of traffic. Load repr. by symbol λ

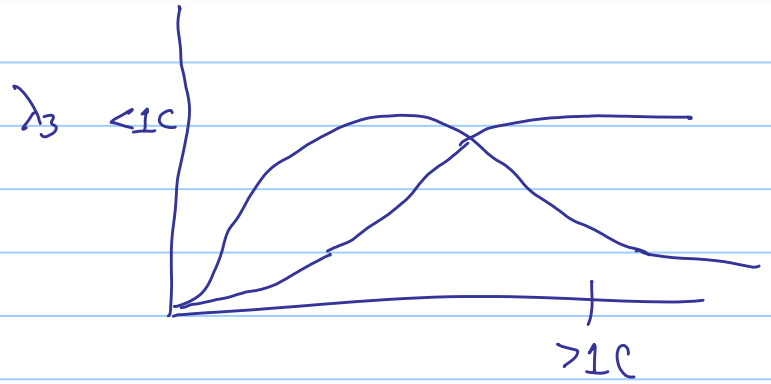




$\lambda_1 = \lambda_2$

infinite buffer case

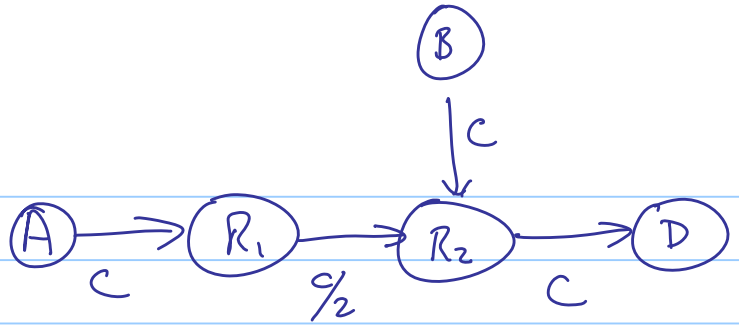
Finite Buffer — dropped packets; some will have to be retransmitted



May have to overload the input queue to get maximum output rate

useful

{ max output rate may be < 1C.



What would you like the behavior to be when multiple flows (TCP connections) compete for a single link.

If if R_L is rate of a link

and K_L is # of connections on the link

then each connection gets $\frac{R_L}{K_L}$ bandwidth.

Therefore: desired behavior is that a TCP connection gets $\min_{i \in T} \frac{R_i}{K_i}$ where T is the set of links being used by the connection

Amazing thing is that the AIMD cong. window algorithm provides this behavior. — Analyzed & worked Van Jacobson