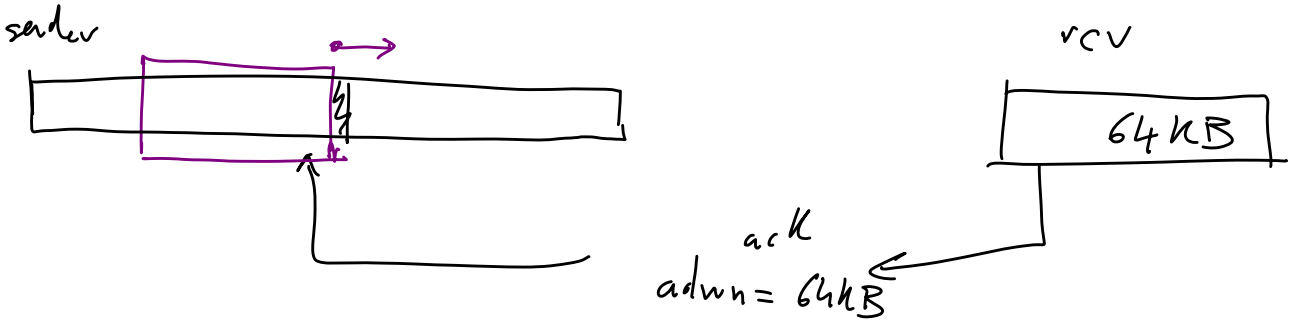
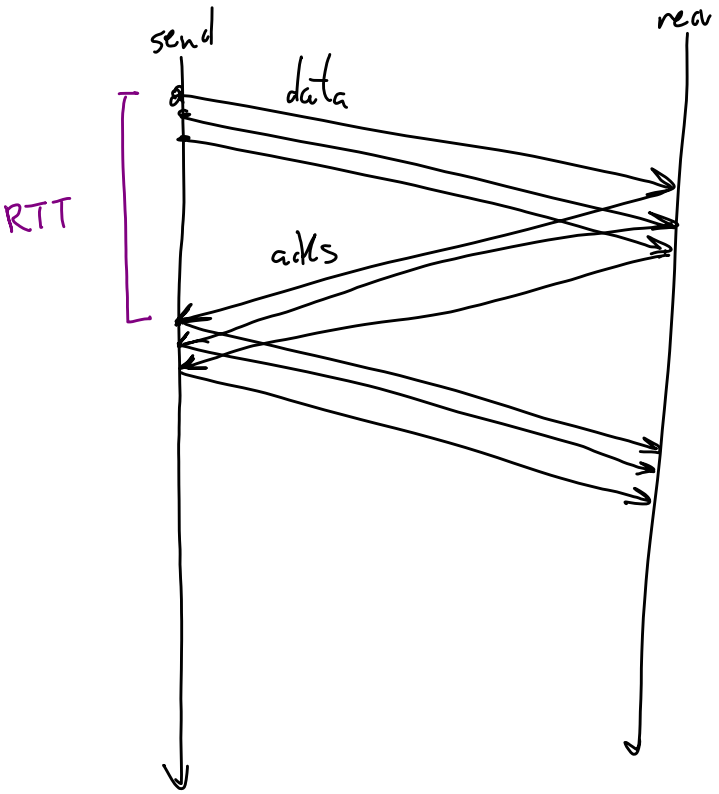
Lecture 7

Note Title 1/26/2005



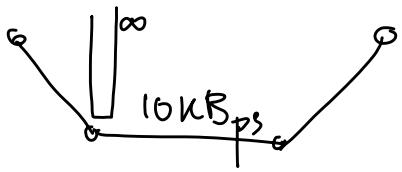


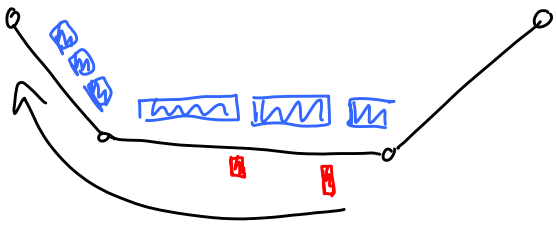
$$\text{throughput} = \frac{w}{RTT}$$

Eg $w = 1KB$ $RTT = 1ms$

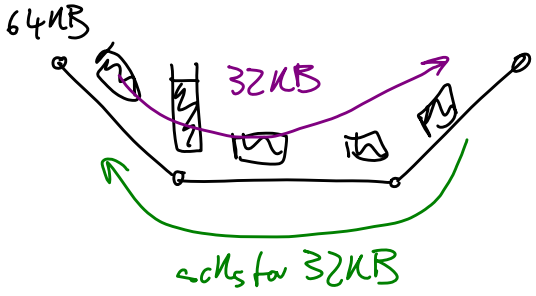
$$\text{throughput} = \frac{1}{0.001} = 1000 KBps$$

but if available bw = 10KBps





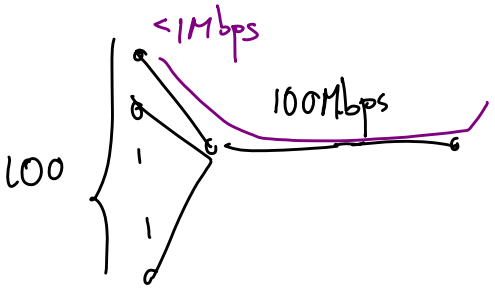
TCP self-clocking.



e2e BDP < 32KB

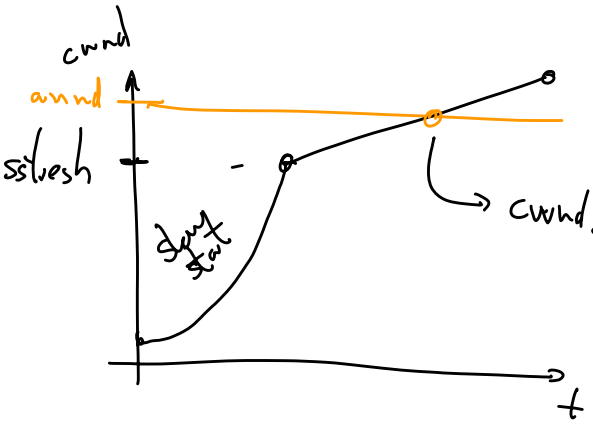
$\Rightarrow q > 0$

$\Rightarrow$ w/ n flows, can fill up the queue,

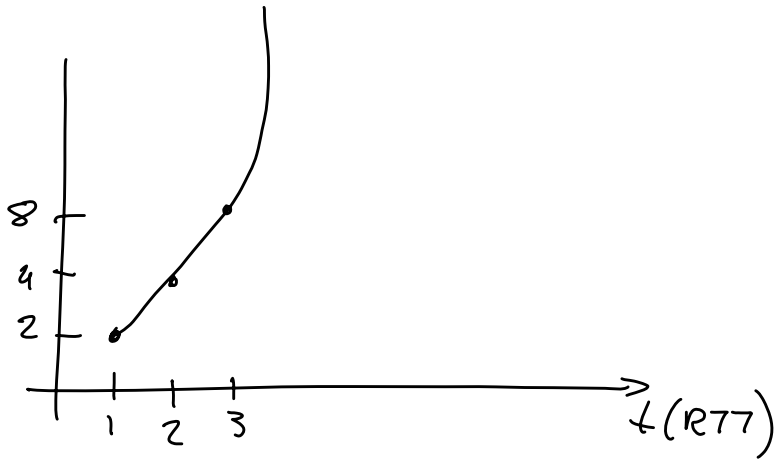


Congestion control

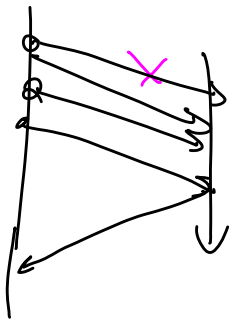
Tahoe cwnd = ~~1~~ 2

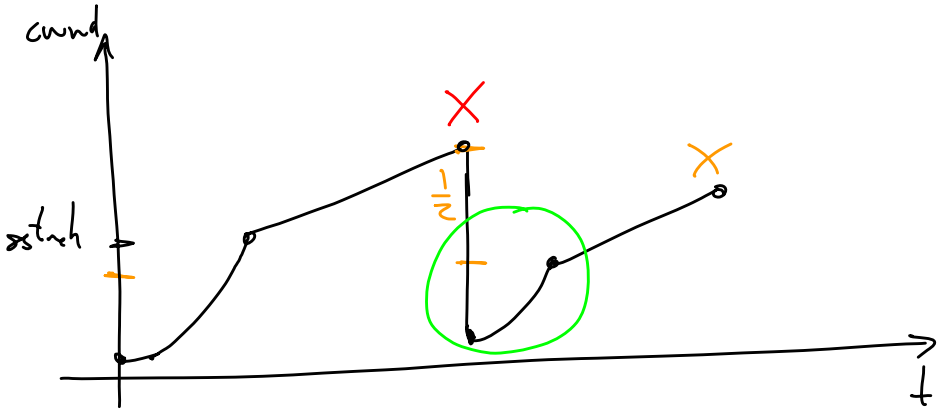


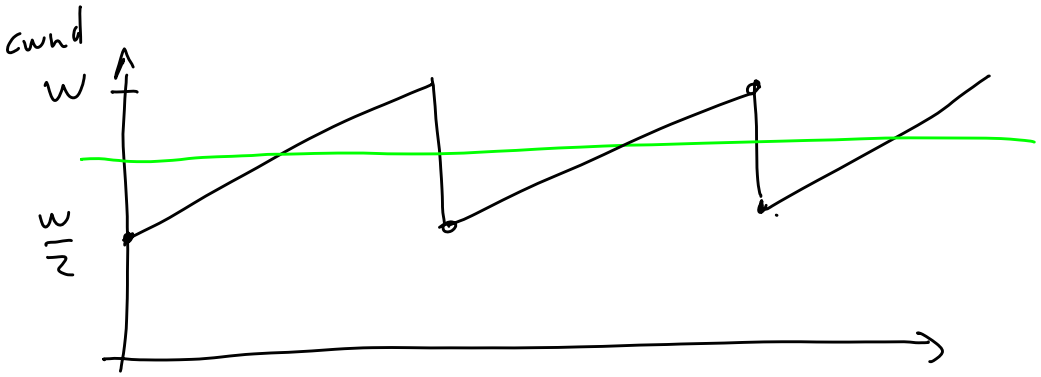
cwnd ← cwnd + 1/cwnd



Use less to detect congestion
- wireless links
- heuristically, time lag

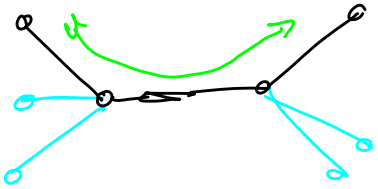






= available end-to-end bw ideally


q_meas
t


t