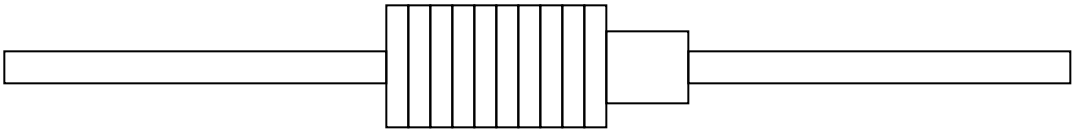
Queuing and Loss Interactive Animation

As we learned in Chapter 1, the most complicated and interesting component of end-to-end delay is queuing delay. In this interactive animation, you specify the packet arrival rate and the link transmission speed. You'll then see packets arrive and queue for service. When the queue becomes full, you'll see the queue overflow--that is, packet loss.

A particularly interesting case is when the emission and transmission rates are the same, for example when both are 500 packets/sec. If you let the interactive animation run for a very long time, you'll eventually see the queue fill up and overflow. Indeed when the two rates are the same (that is, ρ = 1), the queue grows without bound (with random inter-arrival times), as described in the text.

Emission rate 500 packet/s ▼ Transmission rate 1000 packet/s ▼ Start Reset



0.000 msec
0 packets dropped out of 0.