

Congestion Control

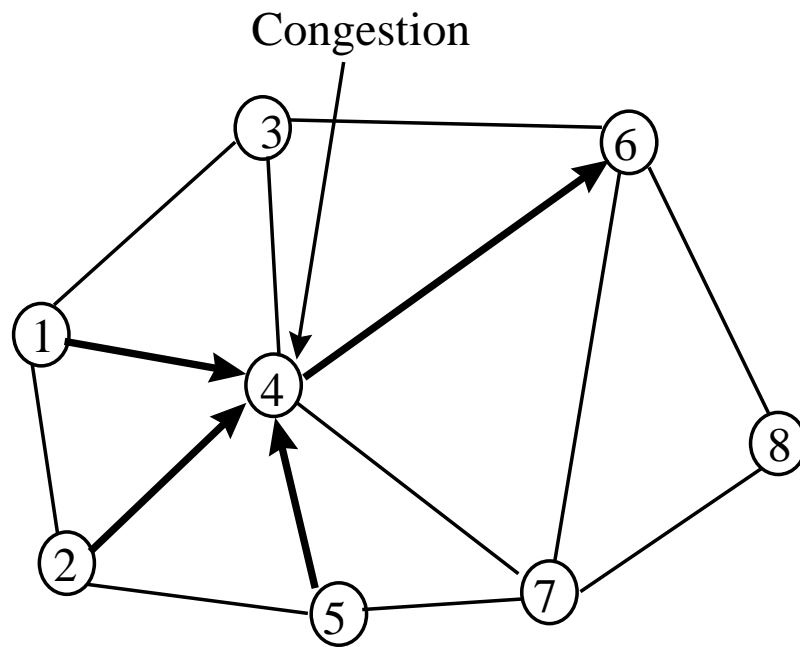
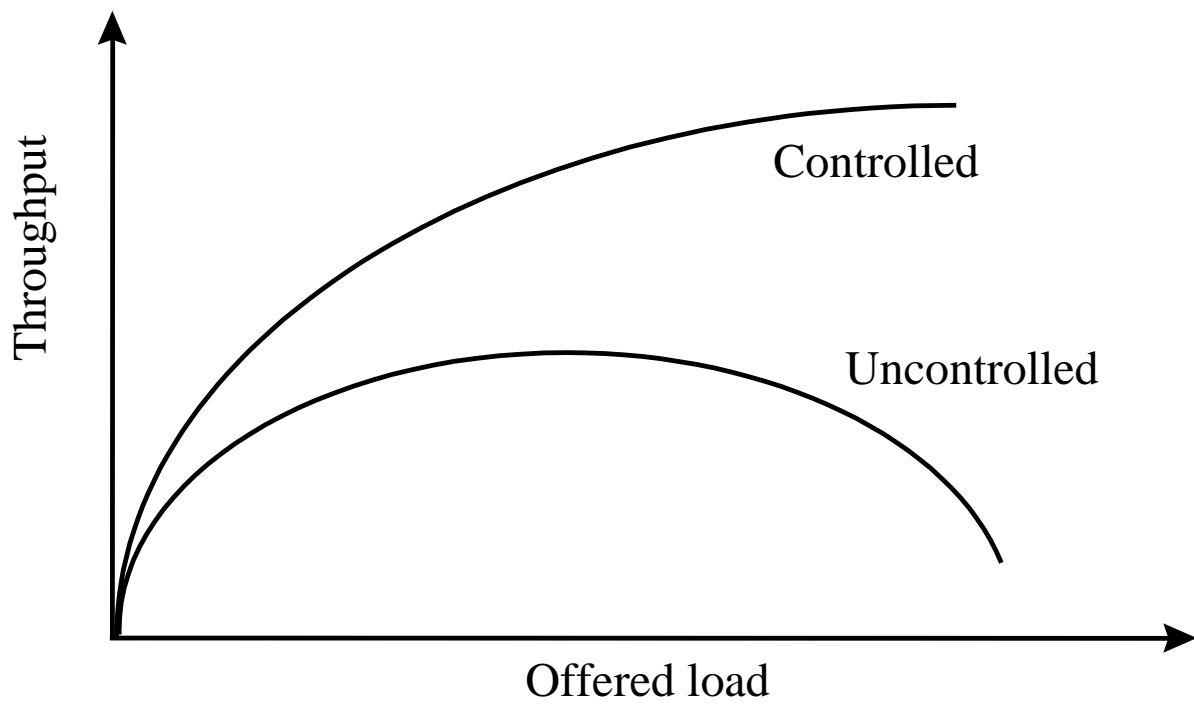


Figure 7.50



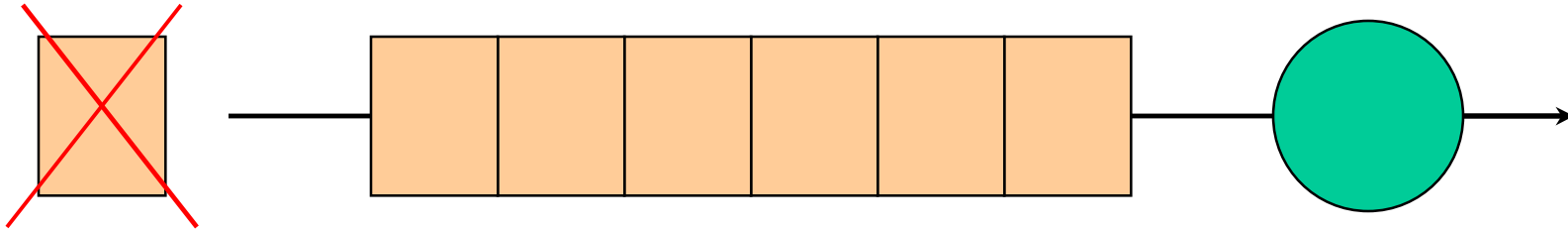
Congestion Control

- Host-Centric
 - TCP Congestion Control Mechanisms
- Router-Centric
 - Queuing Algorithms at the router

Router-Centric Congestion

- Queues at outgoing link drop packets to implicitly signal congestion to TCP sources.
- Choices in queuing algorithms:
 - FIFO (FCFS) Drop-Tail
 - Fair Queuing (FQ)
 - Weighted Fair Queuing (WFQ)
 - Random Early Detection (RED)
 - Explicit Congestion Notification (ECN)

Drop Tail Router



- FIFO queueing mechanism that drops packets when the queue overflows.
- Introduces *global synchronization* when packets are dropped from several connections.

TCP Congestion Control

