Routing

- Desirable properties of routing algorithms
  - Correctness
  - Simple
  - Robust
  - Stable
  - Fair
  - ‘Optimum’

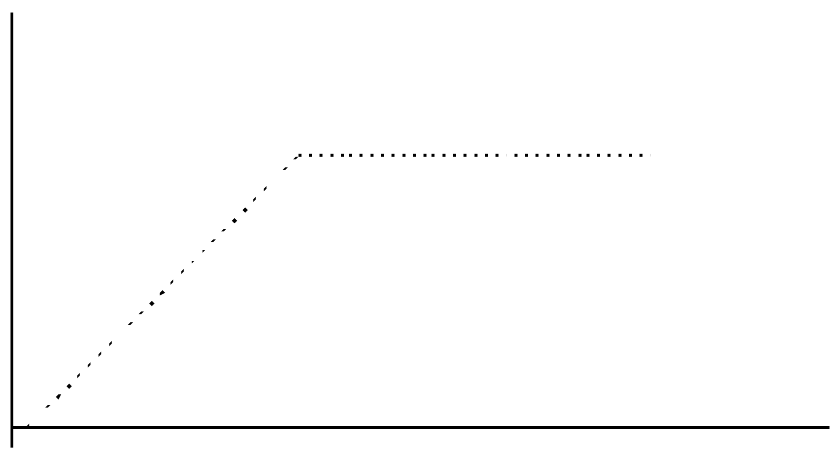
Routing

- Non-adaptive
- Adaptive

Congestion Control

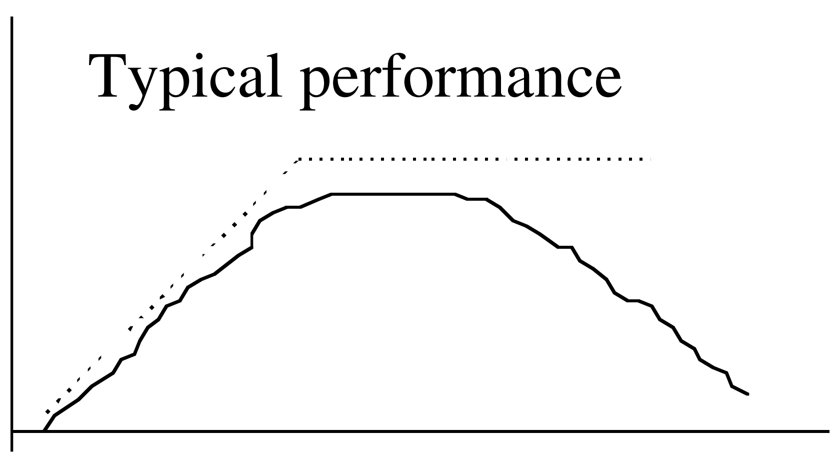
Desired performance

Carried
Load or
Throughput



Offered Load

Carried
Load or
Throughput



Offered Load

Congestion Control

- Global Issue
- Demand for network resources must be controlled, e.g. the number of packets or calls in the systems must be controlled

Congestion Control

- Isarithmic Congestion Control
  - Create N permits to transmit into the network
  - A source ‘gets’ a permit to transmit, transmitts PDU and then destroys the permit
  - A destination receives a PDU and ‘regenerates’ a permit
- Flow control in the DLL and TCP is for one connection, point-to-point, congestion control is global