**In class activity - Ch.4 (4.3 Switching/forwarding inside a router)**

1. Made ofhdw (ports and switching fabric) + sftw (routing processor) (Fig. 4.6)
2. Has
   1. input ports
   2. switching fabric
   3. output ports
   4. routing processor
3. Uses lookup fwd tables (longest prefix match in a datagram network)
4. 3 main types of switching fabric (Fig. 4.8)

* memory – a small CPU selects correct op. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* bus – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* crossbar network – multiple busses \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Queuing and packet loss (Fig. 4.10)
   1. There are queuing buffers in both ip. and op. ports
   2. To avoid packet loss, set bufferSize = 1 RTT \* Link Capacity
   3. HOL blocking (Fig. 4.11)
   4. AQM algorithms

Ex. RED

1. Cisco 1984 dominates the market