

Computer Networks and Distributed Systems Exercise Sheet 10

Exercise 10.1

In the lecture the internals of a router have been presented.

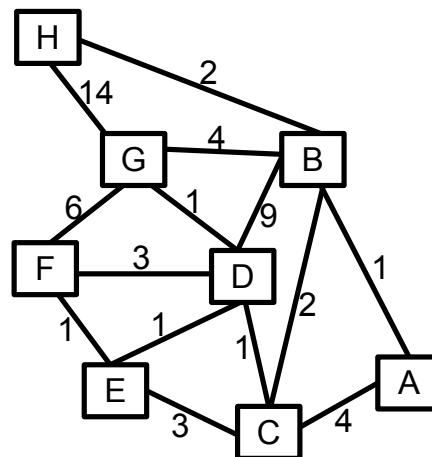
- a) Describe the three different switching fabrics used.
- b) Why are buffers necessary for input *and* output ports?

Exercise 10.2

A 2000 byte datagram is to be transmitted via a connection with a MTU of 500 byte. The original datagram has the ID 422. How many fragments are created? What information is required in their packet headers?

Exercise 10.3

Consider the following network:



Use the Dijkstra algorithm to determine the shortest paths according to the given costs from F to all other nodes of the network. Complete the table for the iterations of the algorithm:

Step	N	D(A)	D(B)	D(C)	D(D)	D(E)	D(G)	D(H)
...