Project 5 MPLS with DiffServ

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Implementation

Dijkstra Routing algorithm:

I have implemented a Dijkstra algorithm based routing algorithm. The DijkstraRouting.class accepts the whole graph as a input and set the next-hop routing table in each router.

The testing results show that this algorithm is working on arbitrary connected graph topology.

MPLS RSVP label distribution:

I have implemented the MPLS RSVP label distribution algorithm. The test case in the example shows the path setup and label distribution part is working.

DiffServ:

I have defined the DSCP or traffic class code for different classes:

BE: 0

EF: 1

AF -class n–Drop pref m would be 2nm

Eg. AF-Class 1- Drop pref 2 would be 212

I will reserve the resources in each hop from the DSCP given in the packet.

I have created the topology and set up the traffic. The packets could be received successfully.

I couldn't finish the rest of the project due to limited time. Sorry.