Supplemental Slides for Chapter 6 Addressing and Routing

These slides help describe the algorithms through animation and some of the other embedded concepts:

- Dijkstra Algorithm
- Max Flow Min Cut Algorithm Through Animation
- Minimum Spanning Tree Algorithm

Dijkstra's Shortest Path Algorithm

This algorithm finds shortest paths from a node to all the nodes in the network.

OSPF protocol which is based on this algorithm is one of the protocols used by routers for intra-AS routing of packets.

Animation site:

http://optlab-server.sce.carleton.ca/POAnimations2007/DijkstrasAlgo.html

Maximum Flow Minimum Cut Algorithm

- This algorithm can be used to see where the congestion is and which links need more capacity
- For animation, go to:

http://www.cse.yorku.ca/~aaw/Wang/MaxFlowMinCutHelp.html

- On Algorithm in pseudo code and how to use this Applet, go to:

http://www.cse.yorku.ca/~aaw/Wang/MaxFlowStart.htm

Minimum Spanning Tree Algorithm Animation

This algorithm helps design a network which is connected and has minimal total cost

Source:

http://optlab-server.sce.carleton.ca/POAnimations2007/MinSpanTree.html

Source for Animation of Various Routing Algorithms

http://optlab-server.sce.carleton.ca/POAnimations2007