Distance Vector Routing

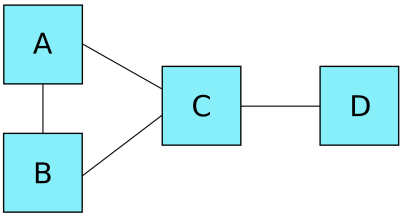
The basic idea is that each node periodically sends its own distance vector estimate to neighbors When a node x receives a new vector estimate from its neighbor, then it updates its own vector using the Bellman-Ford equation. A very simple way of describing this kind of routing is to think of it as a graph with a number of nodes.

Testing

To test our solution we have used the graphs in the lab sheet. The tests were performed with the change of link-costs and without the change of link-costs, with and without poison reverse.

Poison Reverse may fail

A network with four nodes, A, B, C and D. If node D breaks, then node C will send an update to nodes A and B. Imagine that node B gets the update first, which makes it believe that the best route to node D is through node A. Node C then thinks D is reachable through node B and tells that to node A, thus creating an infinite loop



Solution

By using “Split Horizon” technique. Nodes A and B will immediately stop updating and broadcasting the routes to each other, which makes the nodes gets rid of the loops as soon as a route times out.