COMP3331 Lab6

Ruofei HUANG

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1 Exercise 1

1.1 Question 1

Node 0 and Node 2.
Node 0 use: 0 - 1 - 4 - 5
Node 2 use: 2 - 3 - 5
No, the route doesn't change over time.

1.2 Quesiton 2

The link 1 - 4 is down. No route between the communicating nodes changed.
Hence some package from node 0 has lost.

1.3 Question 3

There's some additional traffic which is the router tell it's neighbour about it's
distance vector.
The router 1 re-route the traffic from node 0 when the link 1 - 4 is down to node
2.

1.4 Question 4

It affect the traffic from node 0 instead of taking link 1 - 4 by taking link 1 -
2. Because this change increase the cost between 1 - 4 from 1 to 3. This will
make the cost of 1 - 4 - 5 become 4 while 1 - 2 - 3 - 5 is only 3. So, it's cheaper
to take the route 1 - 2 - 3 - 5 by the distance vector algorithm, even the other
route has less link to pass.

1.5 Question 5

Result: The traffic from node 2 take two route : 2 - 1 - 4 - 5 and 2 - 3 - 5
Reason: The setting of multipath is true, and the node will use mutiple paths
to any distination. After this setting, both 2 - 1 - 4 - 5 and 2 - 3 - 5 has same
cost 4, so the node 2 chose two path to send it's traffic to node 5.

2 Exercise 2

2.1 Question 1