

Check List

Assignment 4

CPSC 441

Note: *This is not a comprehensive check list of the tests that the TAs will perform. It is only intended to give you some guidance on what scenarios and configurations you should consider when testing your program.*

Basic case

Use the following typical values for various parameters:

- Server Loss = 0.0
- Router Update Interval = 1000
- Network Configuration: use a single topology with 5 nodes

Run the routers and server on the same machine. Let the routers run for about 15 seconds. Then quit the server and check the routing tables.

Expected outcome:

- The router runs without any errors.
- The router terminates without any errors.
- The routing table is computed correctly.

Additional cases:

Use the default values specified above. Change the value of some of the parameters as follows:

1. Server host name is not hard coded
 - a. Run routers with a host name different than “localhost”
2. Update messages are exchanged between direct neighbors
 - a. Check the server log based on the topology information
3. Link cost change implemented
 - a. After a few seconds of starting routers, issues the command “update” on the server. Let the routers run for about 15 seconds. Check the routing tables.
4. Server loss probability
 - a. Change the loss probability at the server to 0.5 and run the basic case.
5. Router update interval
 - a. Change the update interval to 100 and run the basic case.

General features:

1. HELLO message sent and received correctly.
2. QUIT message handled properly.
3. Updates are scheduled correctly (using a timer).

4. Link cost change implemented correctly.
5. Update messages are sent to all direct neighbors, and only direct neighbors.
6. The routing table and next hop is computed correctly.