Status Report

Overall, I feel this assessment has been completed satisfactorily. The program completes, to the best of my knowledge, all required functionality outlined in the guidelines. The program is able to calculate distance vector tables for all nodes in a network and it can recalculate these routes, whenever changes to links occur. There is also the option to turn on and off the use of split horizon. The routing code can be imported as a library, providing functions which can be used to write scripts. This is the case for the two example programs I have included. There is also the option to run the application, which provides a text based environment and allows the user to update the network in real time and see the effects. The code appears to work correctly with no known bugs or issues.

Admittedly there is still room for improvement. For this assignment, I focused on demonstrating my understanding of network systems and routing, instead of normal software practices like testing and error handling. While the application never crashes, it only gives a basic error message through the use of try catch blocks. This error messaging is not ideal, especially for any novice users of the system. In the future, I imagine this would be better implemented, perhaps even offering the user potential “fixes” to their errors. Aside from that, I also feel extensive testing should be carried out on this application. All testing was done on the fly and never formalised. I am sure there must be weird corner cases that could prove to be a problem. With my own ad lib testing, I could not find any issue but that is definitely not to say there might not be ones. Finally, I think a GUI could be made for this program, perhaps alongside a network map displaying the network dynamically, for when new nodes are added or links are broken. Again, I focused on the logic and “internals” of the system rather than the aesthetics. I do still think the application is quiet usable as command prompt tool.

I have not included an executable file. With python, the language is “interpreted” during runtime as opposed to compiled. Converting python to .exe or similar is not easy to do and often doesn’t work. As discussed with Prof MacKenzie, it was decided it was okay to just provide the python script for running

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