TCP Analysis

Tcp Analysis

Plot of average throughput:

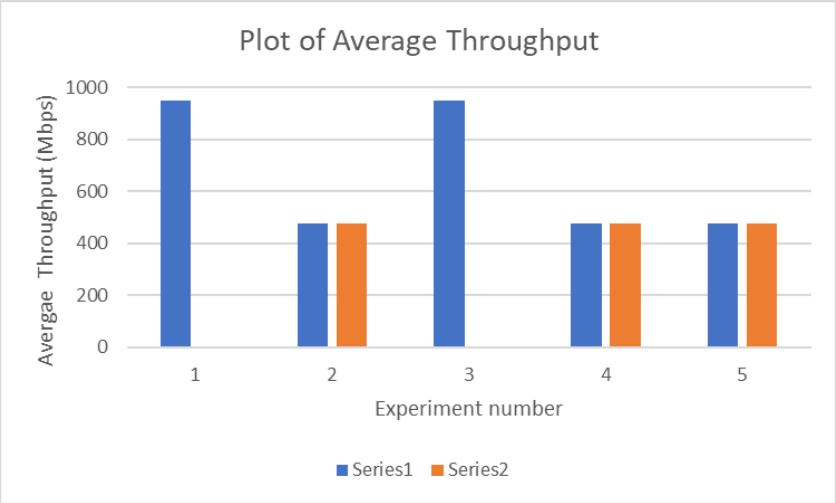

Fig. 1: Plot of average throughput (Mbps) for different experiments

Analysis:

When comparing the average throughput values between Bic and Dctcp between experiments 1 and 3 plus experiments 2 and 4, the values are extremely similar and only differ by a value that is less than 1. Dctcp throughput is always slightly lower than Bic throughput in similar experiments, but not by much. When comparing between both senders in experiment 5, 475.151758 for sender 1 and 475.143127 for sender 2, we note that Dctcp has slightly lower throughput than Bic. We also conclude that from looking at the flow monitor xml data, the packet size increase during the exponential part of the protocol is slightly lower in the Dctcp case when compared to Bic. Bic has 40, 180, 420, 500, 540, 580 and Dctcp has 40, 140, 320, 500, 540, 580.

Plot of average flow completion time:

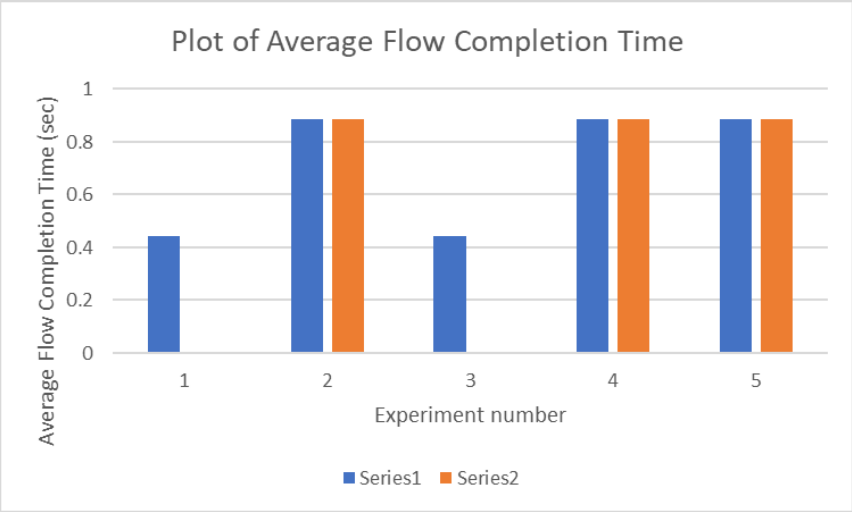

Fig. 2: Plot of average flow completion time (sec) for different experiments

Analysis:

Looking at the excel data, when we compare between experiments 1 and 3 plus experiments 2 and 4, we note that the average flow completion time is always shorter in Bic than Dctcp by a small margin. However in experiment 5, the average flow completion time for sender 1, which was using Bic, was higher than the average flow completion time for sender 2, which was using Dctcp.