

COEN 146 Lab 2

100 Points

1 Goal

To test and provide an empirical evaluation of the performance, specifically the effective bandwidth, of a network link.

2 Description

In this assignment you are being asked to evaluate a network link. Your main deliverable will be a report on your experiment, and it should include a graph showing the effective bandwidth (or transfer time) for different data payloads (total file sizes transferred per run). In other words, you are to attempt to transfer different volumes of data (files/directories of different total size), and you are to calculate the time it takes to transfer each volume. The graph you produce should have an X axis that corresponds to different data volumes. The Y axis should indicate either transfer time or effective bandwidth (and both axes should clearly identify the units being used).

It is possible to complete this assignment with very little (if any) programming, and during the lab we will demonstrate command line tools useful in constructing such an experiment. However, it is important to note that your submission will be graded based on the quality of your report and the accuracy of your measurements and your interpretation. It is therefore important that you consider how often you should take a measurement, as well as whether it would be possible to compare the results you get against a baseline experiment (e.g., is there a way to measure, or estimate, the total time spent in activities other than actually transferring data?).

3 Submission

Your primary deliverable is a report document, accompanying any code or scripts you used and including a graph of your results.

Note: Submissions will be made using the CAMINO drop box. Late submissions will not be accepted. Thank you, and good luck.