

Table I. Loss, OOO, and RTT for all different tests ran across campus.

| | | | Slow (50 pkt/s) | | | Medium (150 pkt/s) | | | Fast (500 pkt/s) | | |
|-------------------|-----|---------|-----------------|---------|----------|--------------------|---------|----------|------------------|---------|----------|
| | | | Loss (%) | OOO (%) | RTT (ms) | Loss (%) | OOO (%) | RTT (ms) | Loss (%) | OOO (%) | RTT (ms) |
| SAE Chapter House | UDP | Burst | 0 | 0 | 6.953 | 0.093 | 0 | 7.943 | 0 | 0 | 7.356 |
| | | Uniform | 52.8 | 0 | 14.315 | 0 | 0 | 7.398 | 0.806 | 0 | 6.81 |
| | TCP | Burst | 96 | 80 | ??? | 95.933 | 85.246 | ??? | 96.76 | 91.358 | ??? |
| | | Uniform | 5.411 | 0 | 18.006 | 34.212 | 0 | 13.096 | 89.106 | 7.303 | 8.156 |
| Academic East | UDP | Burst | 0 | 0 | 11.099 | 0 | 0 | 16.548 | 0 | 0 | 10.34 |
| | | Uniform | 0 | 0 | 20.43 | 0 | 0 | 11.589 | 0 | 0 | 12.5 |
| | TCP | Burst | 96.6 | 88.235 | ??? | 96.267 | 76.786 | ??? | 96.74 | 90.798 | ??? |
| | | Uniform | 0.401 | 0 | 13.658 | 31.525 | 0 | 13.441 | 91.389 | 4.513 | ??? |
| Our Classroom | UDP | Burst | 0 | 0 | 8.926 | 0 | 0 | 10.471 | 0 | 0 | 9.21 |
| | | Uniform | 0 | 0 | 17.715 | 0 | 0 | 10.06 | 0 | 0 | 8.938 |
| | TCP | Burst | 96.4 | 94.444 | ??? | 96.933 | 95.652 | ??? | 96.8 | 93.75 | ??? |
| | | Uniform | 3.434 | 0 | 18.757 | 30.171 | 0 | 13.462 | 91.084 | 4.138 | ??? |

All data gathered can be seen in Table I. Some important notes about the data collection: for some reason TCP bursted far quicker than UDP, and TCP packets sometimes seemingly had errors in the payload giving non-sensical RTTs. Additionally, both TCP and UDP uniform distributions sometimes could not keep up with the necessary send rate. This resulted in not all packets being sent in time for some configurations. Something similar happened with UDP burst at high bandwidths which was surprising.

Overall, UDP seems much more consistent when bursting, which makes sense since TCP relies on a conversation rather than a stream of packets. That being said, the discrepancy might be largely due to the much faster bursting speed of TCP. Either way, TCP appeared to be less consistent, which was surprising given the reliability built into the protocol. I think there might have been weird things going on with ACKing that made TCP not consistent but that is pure speculation. Uniform TCP data did the best at displaying the differences in speeds. It is clear that higher bandwidth caused more dropping and OOO for this configuration. Finally, transmission delay did not appear to change too drastically between locations.