The following 2 graphs show the relationship between Error Rate and transmission.

|  |  |
| --- | --- |
| Error Rate | Date Rate (with data length 500)(Kb/s) |
| 0 | 658.65 |
| 10 | 547.45 |
| 20 | 490.32 |
| 30 | 438.66 |
| 40 | 395.59 |
| 50 | 292.28 |
| 60 | 264.89 |
| 70 | 202.1 |
| 80 | 133.68 |
| 90 | 68.11 |
| 100 | 0 |

As the error rate increases, the throughput drops linearly.

The following graphs show the relationship between package size and transmission.

|  |  |
| --- | --- |
| Date Length (Error rate 0) | Date Rate (Kb/s) |
| 100 | 160.72 |
| 200 | 302.32 |
| 300 | 422.84 |
| 400 | 546.05 |
| 500 | 646.41 |
| 600 | 738.93 |
| 700 | 816.89 |
| 800 | 871.68 |
| 900 | 959.74 |
| 1000 | 1049.31 |

As the package size increases, the time taken to transmit all the data following a negative exponential trend.

Data length versus data rate is different. As data size increase, the number of RTT required is decreasing but there is a limit to that—1, which means as data length grows, data rate will increase as well to a certain limit.

Experiments are done on local machine and therefore network is not the factor that may cause error margin here. However, as CPU usage varies, processing time will be different for each transmission and therefore the usage of CPU when experiment is being conducted will affect the result.