

## Computer Networks Assignment-2 (Phase II)

# UDP-RDT-with Selective Repeat-Protocol

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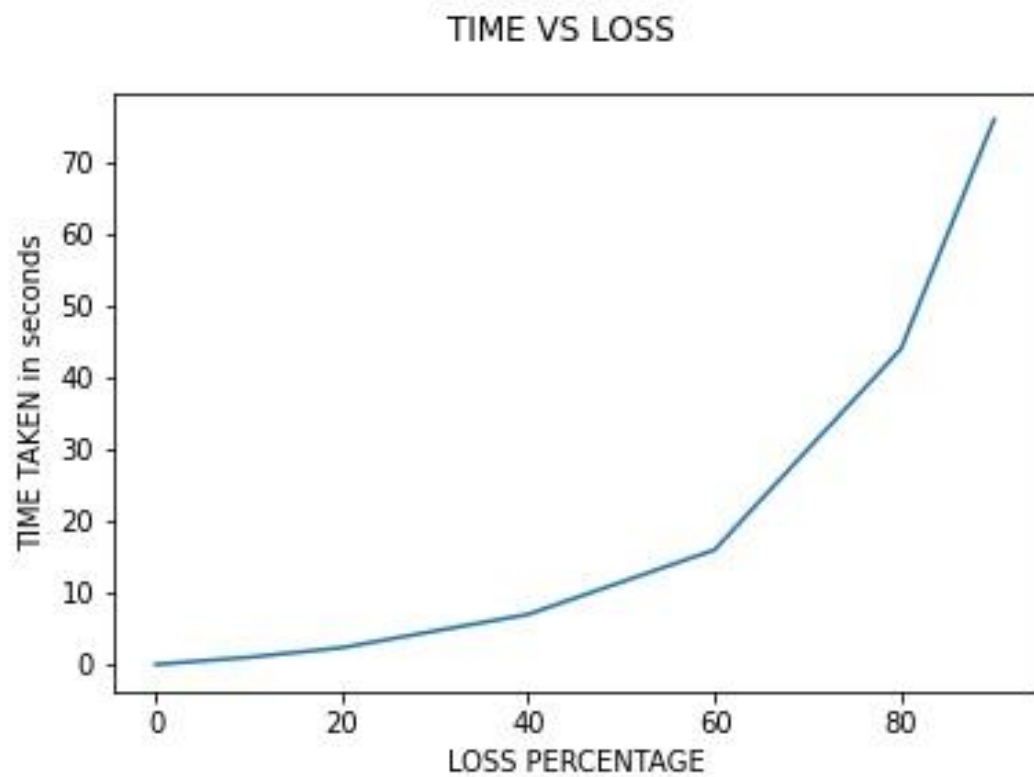
*We are implementing file transfer using UDP as the transport layer protocol, where we have to ensure the reliability of data transfer.*

**Data:** PACKET SIZE = 1024 Bytes; File Size = 8Kb; Window size = 4 for delay, 10 for others.

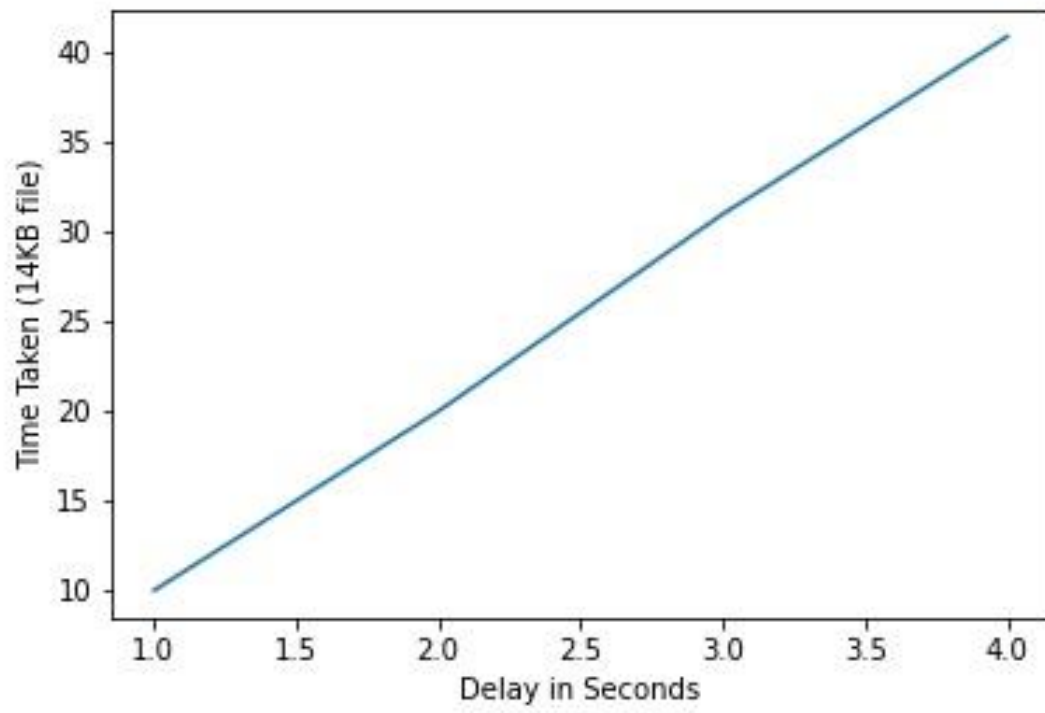
**Results:**

pktloss 0% 3ms	delay 4s 40.9s
pktloss 5% 1.003s	delay 3s 31s
pktloss 10% 1.004s	delay 2s 20s
pktloss 20% 2.347s	delay 1s 10s
pktloss 40% 7.001s	
pktloss 60% 16.002s	
pktloss 80% 44.005s	corrupt 20% 1s
pktloss 90% 76.009s	corrupt 30% 4.02s
	corrupt 50% 6.02s
	corrupt 80% 74s
reorder 25% 0.0025s	corrupt 90% 102s
reorder 50% 1.01s	
reorder 80% 0.0006s	
reorder 90% 0.0006s	

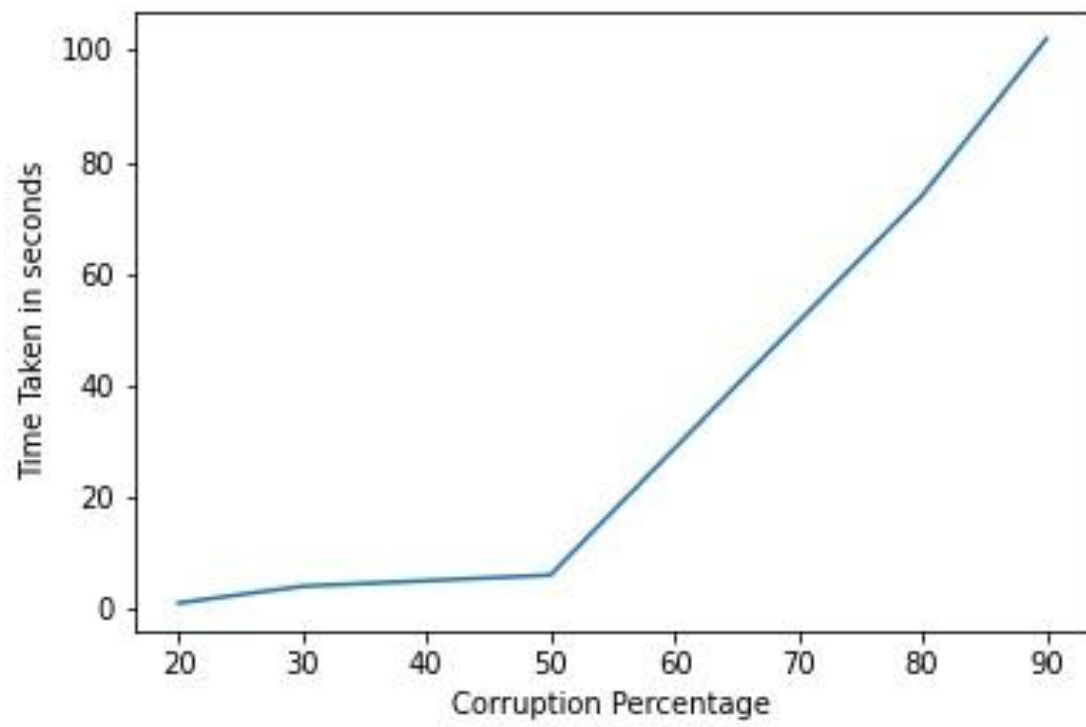
Below are the plots generated using the Netem tool under various network conditions for the above mentioned data:



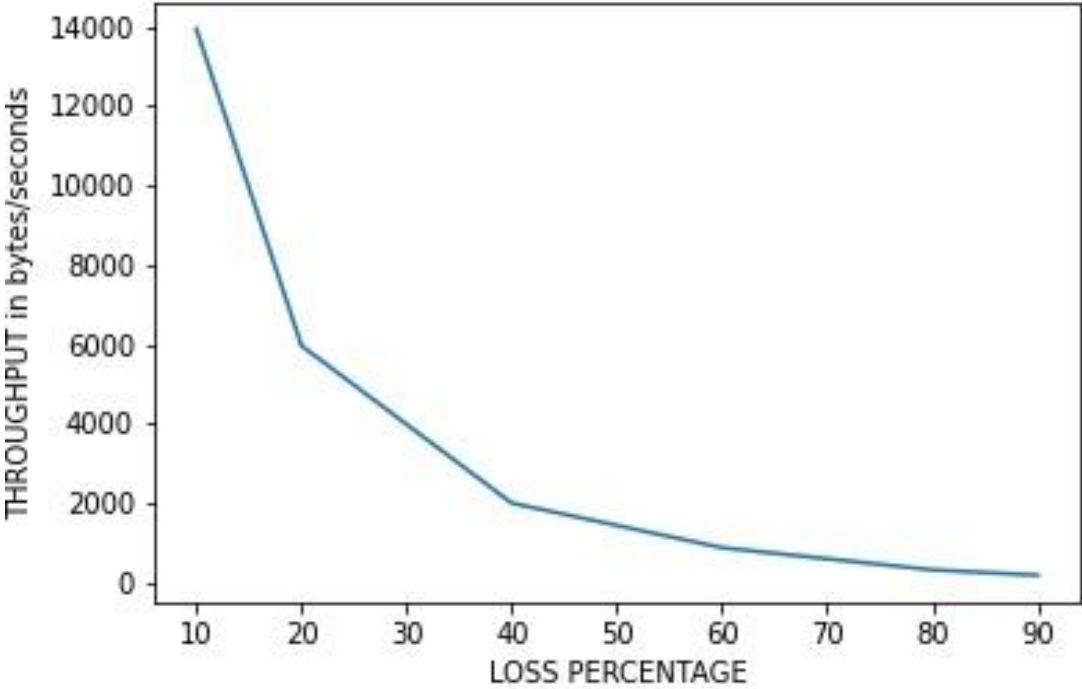
Time vs Delay



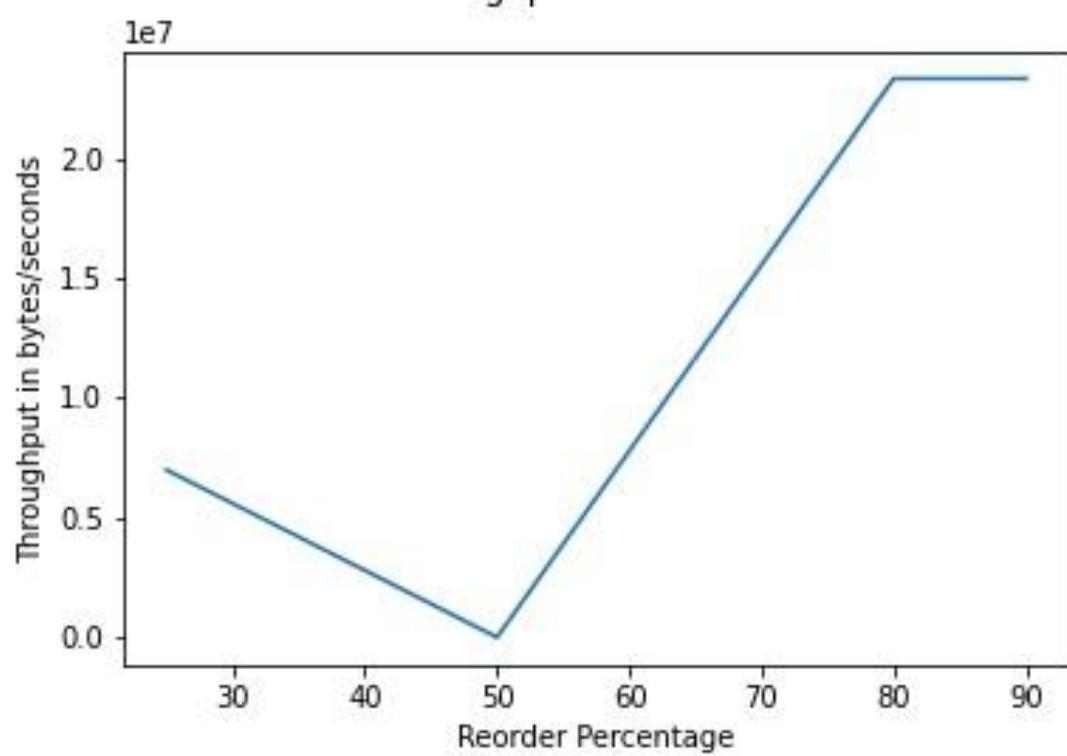
Time vs Corruption



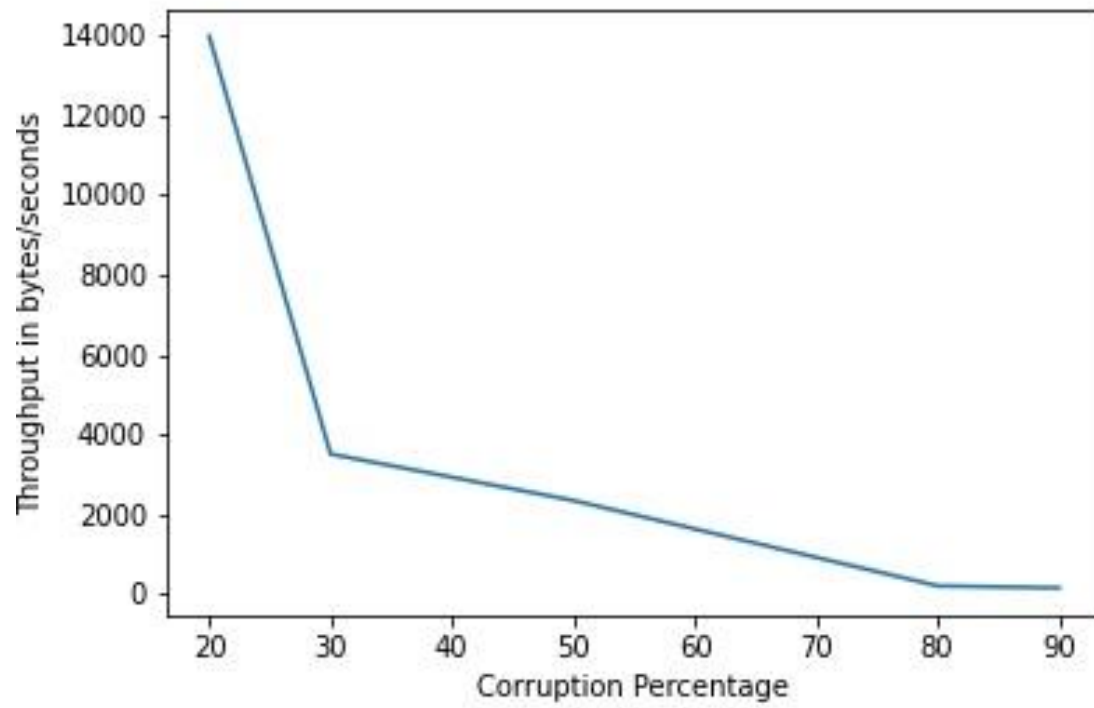
THROUGHPUT VS LOSS



Throughput vs Reorder



Throughput vs Corruption





Time vs Reorder

