

iSLIP results

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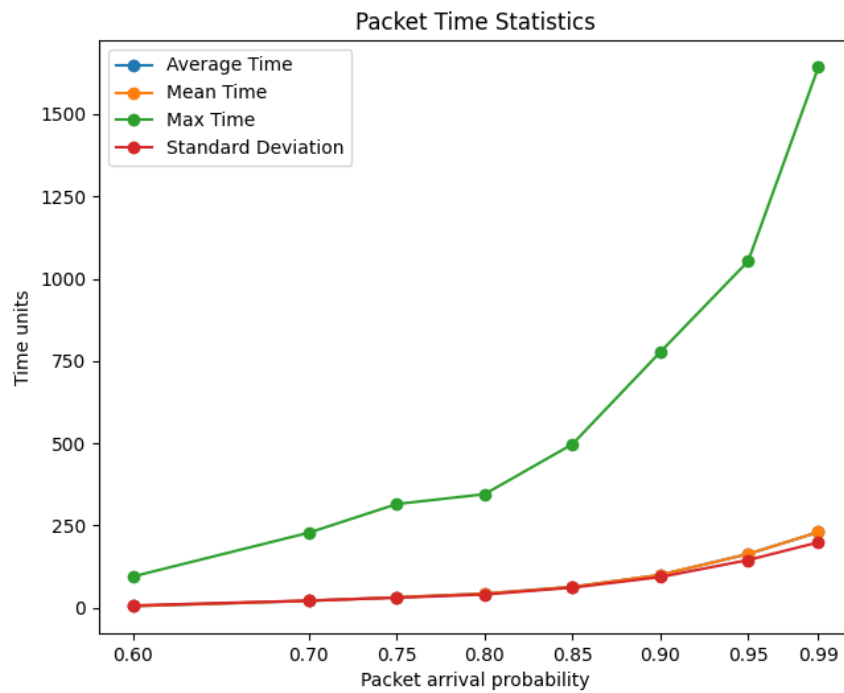
Computer communications

TAU Faculty of Engineering

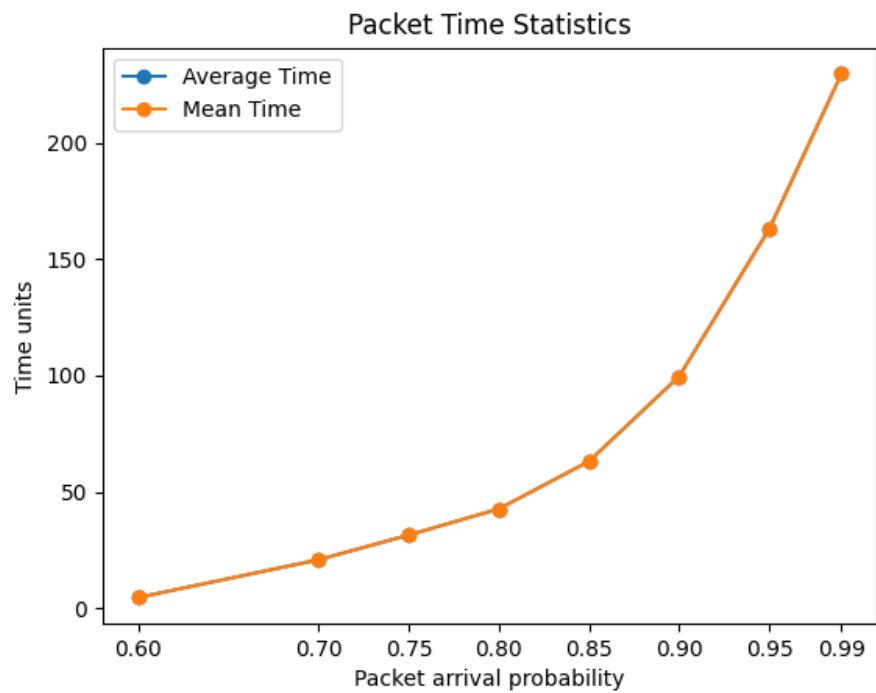
2nd semester, 2022-2023

Runs 1-8

Average \ Mean \ Max \ stdev Packet waiting time

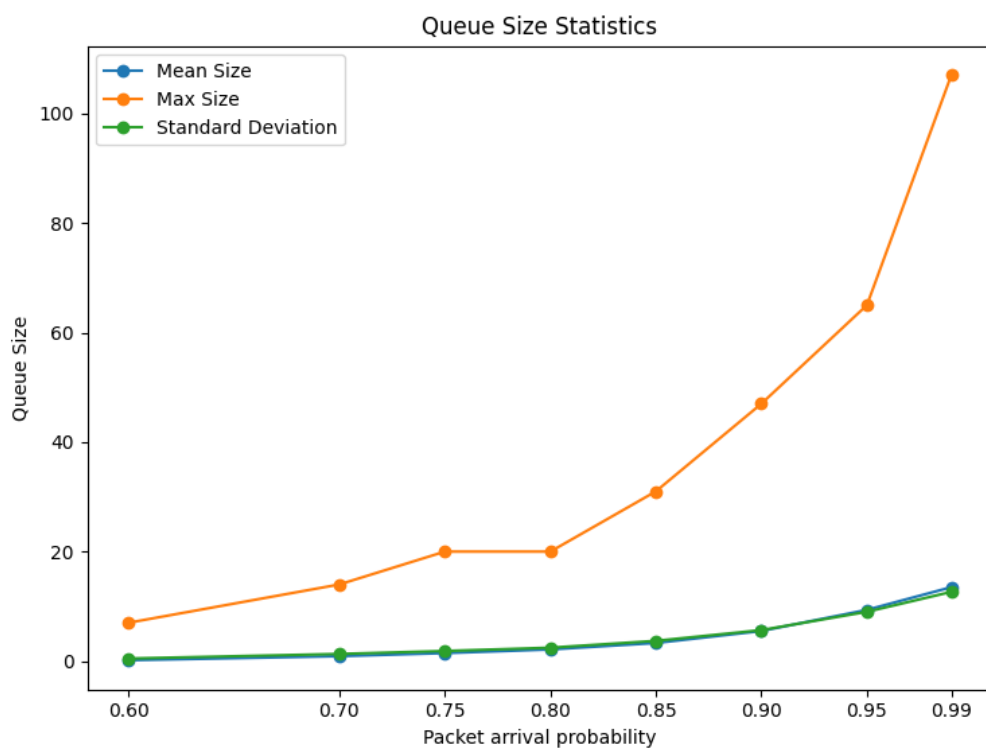


We observe that the mean and average values are the same:



And increases as the packet probability increases.

Buffer sizes statistics



From the previous graph we see that the max waiting time is as expected: approximately.

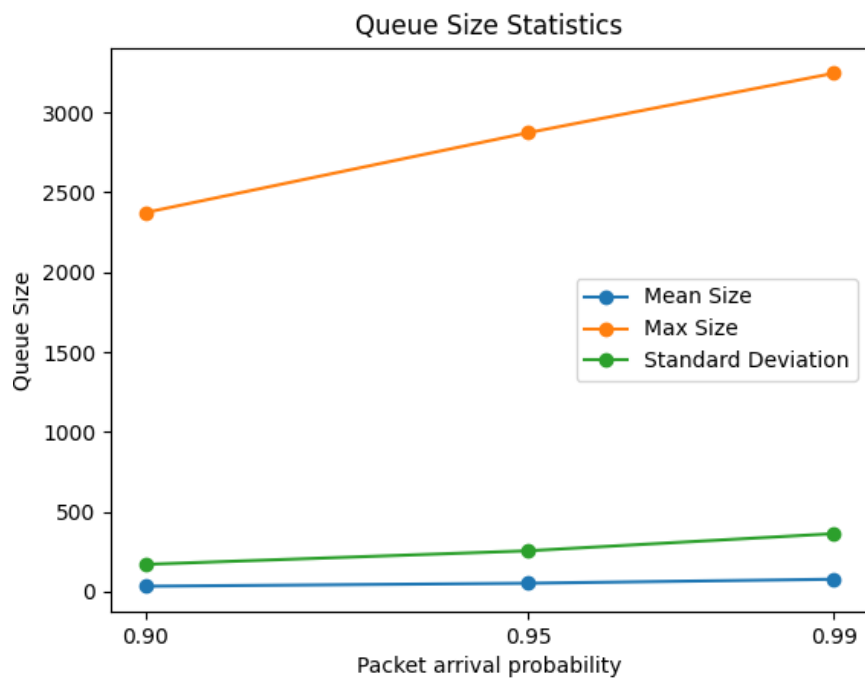
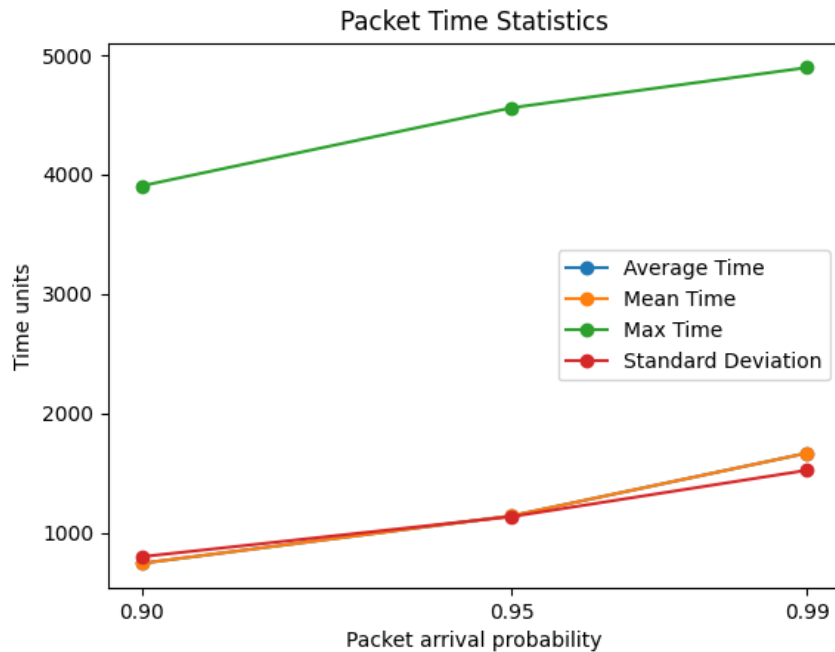
$$\text{max waiting time} \approx \text{max size} \cdot \text{average waiting time}$$

We see that as the packet arrival probability increases (more packets arrive at each time step), the average waiting time of a packet increases.

Furthermore, the mean queue size and maximal queue size increases, which directly affects the maximal\mean\average waiting time of the packets.

Runs 9-11

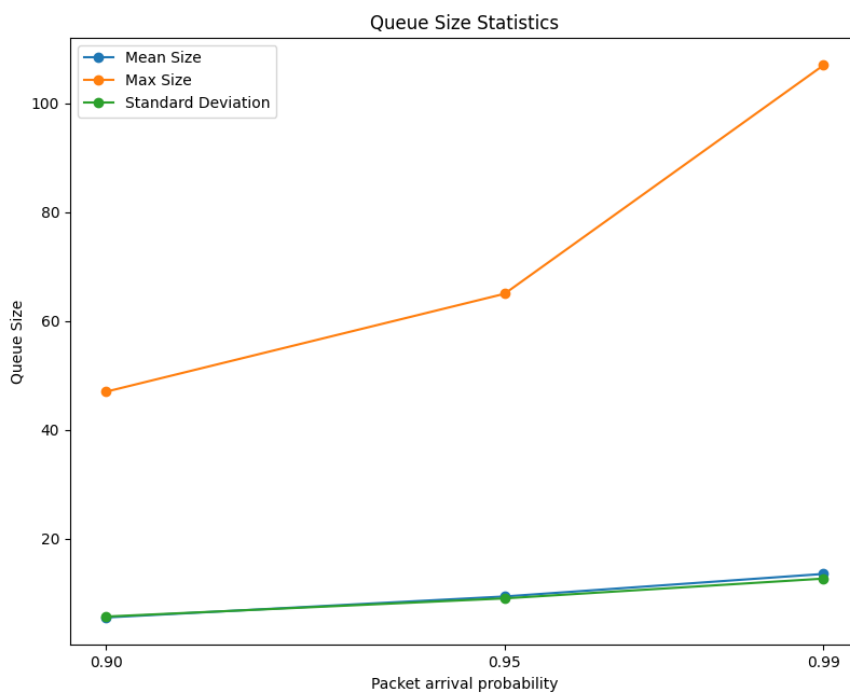
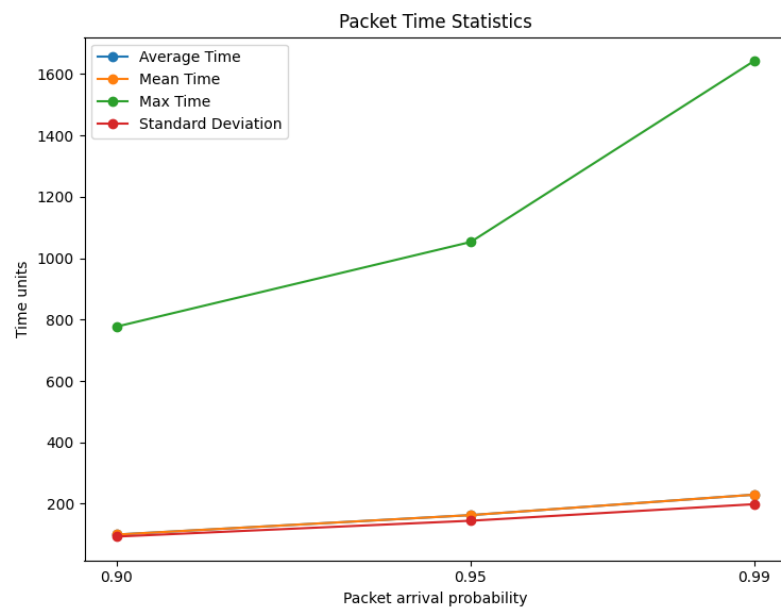
Average \ Mean \ Max \ stdev Packet waiting time



We observe that with the flag -d, the max queue size and mean size, average packet waiting time and maximal waiting time is overall higher than without the -d flag. (Since every input port has 2 ports available to it instead of the entire N ports)

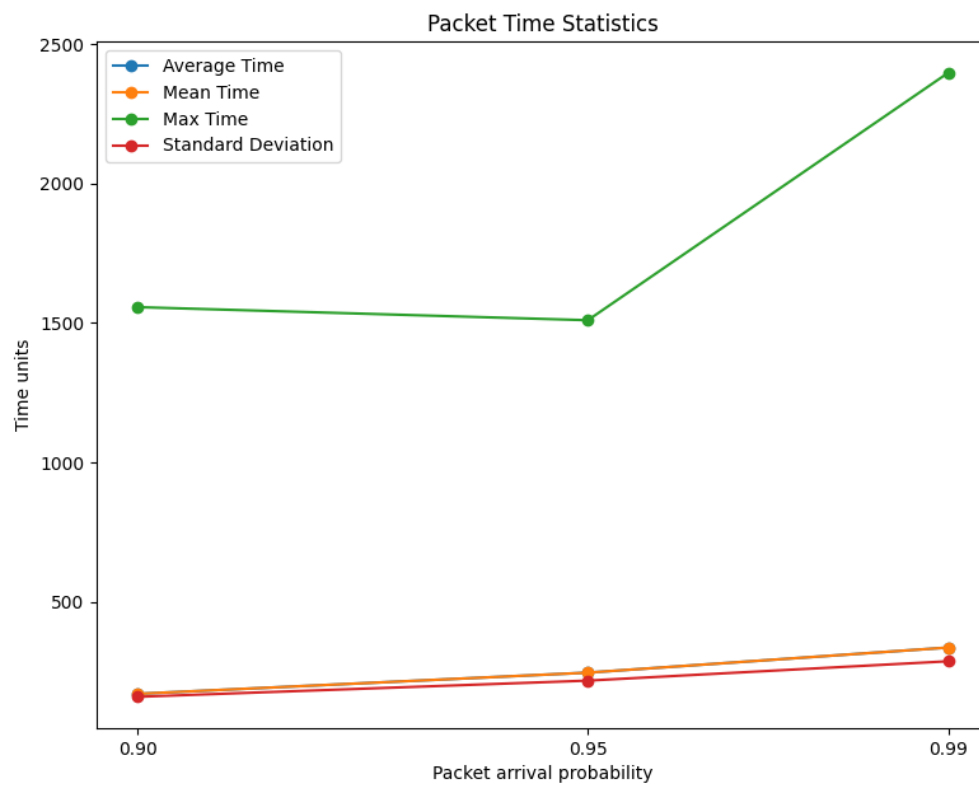
However, the increase from 0.9 load to 0.99 load is linear and not parabolic\exponential as we see before in runs 1-8

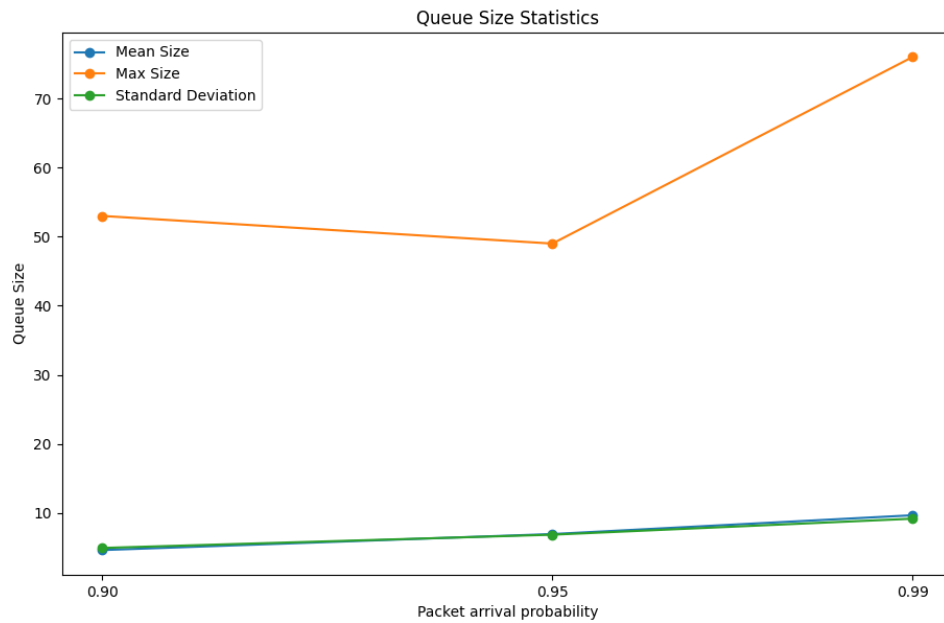
Runs 12 – 14



We see than when running 3 iterations of the islip algorithm with the 12-14 runs configuration, the results mainly stay the same.

Runs 15-17





Increasing the ports from 16 to 32, results in a reduces average \ maximal queue size,

But also results in a higher average \maximal packet waiting time. even though the number of buffers increased as well as the number of packets arriving, there's an increase in lag.