**Networking Fundamentals Logbook Week 3**

**Summary**

We went over and discussed our results from last week’s network tests. Unfortunately I misunderstood the questions and thought they were a lot easier than they were.

**Implementation**

We discussed our results as a group to get a better understanding of how data is sent across a network and some of the calculations involved during these transfers

**Results**

**Questions For your Lab books – Week Two**

1. How much traffic does each node generate?

A packet is sent every 0.02 seconds.

Therefore the number of packets sent every second is 50

Each packet is 1500 bytes big

Therefore, the traffic for each node is 75,000 bytes per second

1 byte = 8 bits

Therefore, the traffic for each node is 600,000 bits per second (bps)

1kbps = 1000 bps

Therefore the traffic produced by each node is 600kbps

1. How much traffic is transmitted in the network?

Each node generates 600kbps of traffic

There are 16 nodes

Therefore the network generates 9600 kbps in total

1Mbps = 1000 kbps

Therefore the traffic for the network is 9.6 Mbps

3. Is there anything unexpected in your results? Why is this happening?

I would have expected the traffic for sent and received to be slightly different due to packet loss in transmission but they are practically the same. This is because I entered an incorrect value during setup! I sent a packet once every 0.2 seconds not once every 0.02 seconds which would have reduced traffic and therefore collisions to practically 0. We also lose data because we produce more than we receive, the hub generates more data than it receives and cannot receive and send at the same time therefore increasing the data that collides.

**Conclusion**

1 byte = bits

1kbps = 1000bps

1Mbps = 1000kbps