Lab 1 Report

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2/1/17

1 Two Nodes

In this first section we explored a simple network consisting of two nodes and one bidirectional link. We explored the following scenarios:

1. Set the bandwidth of the links to 1 Mbps, with a propagation delay of 1 second. Send one packet with 1000 bytes from n1 to n2 at time 0.
2. Set the bandwidth of the links to 100 bps, with a propagation delay of 10 ms. Send one packet witih 1000 bytes from n1 to n2 at time 0.
3. 3. Set the bandwidth of the links to 1 Mbps, with a propagation delay of 10 ms. Send three packets from n1 to n2 at time 0 seconds, then one packet at time 2 seconds. All packets should have 1000 bytes.

Our findings for each of the above scenarios, include the following:

1. Our network configuration
2. The output of the simulation
3. The calculations we used in order to verify the output was correct.

The results of running the simulator for each of the scenarios are below:

1.
2. The output of the simulation
3. The calculations we used in order to verify the output was correct.

2 Three Nodes

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Setting	Result
1	1.0
2	3.45
3	7.85
4	15.89

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1. Item.
2. Another item.

3 Queueing Theory

4 Section Name

d_{trans} is the transmission delay. d_{prop} is the propagation delay.

$$\begin{aligned} d &= d_{trans} + d_{prop} \\ &= (1000 * 8)/1000000 + 0.05 \\ &= 0.058 \end{aligned}$$