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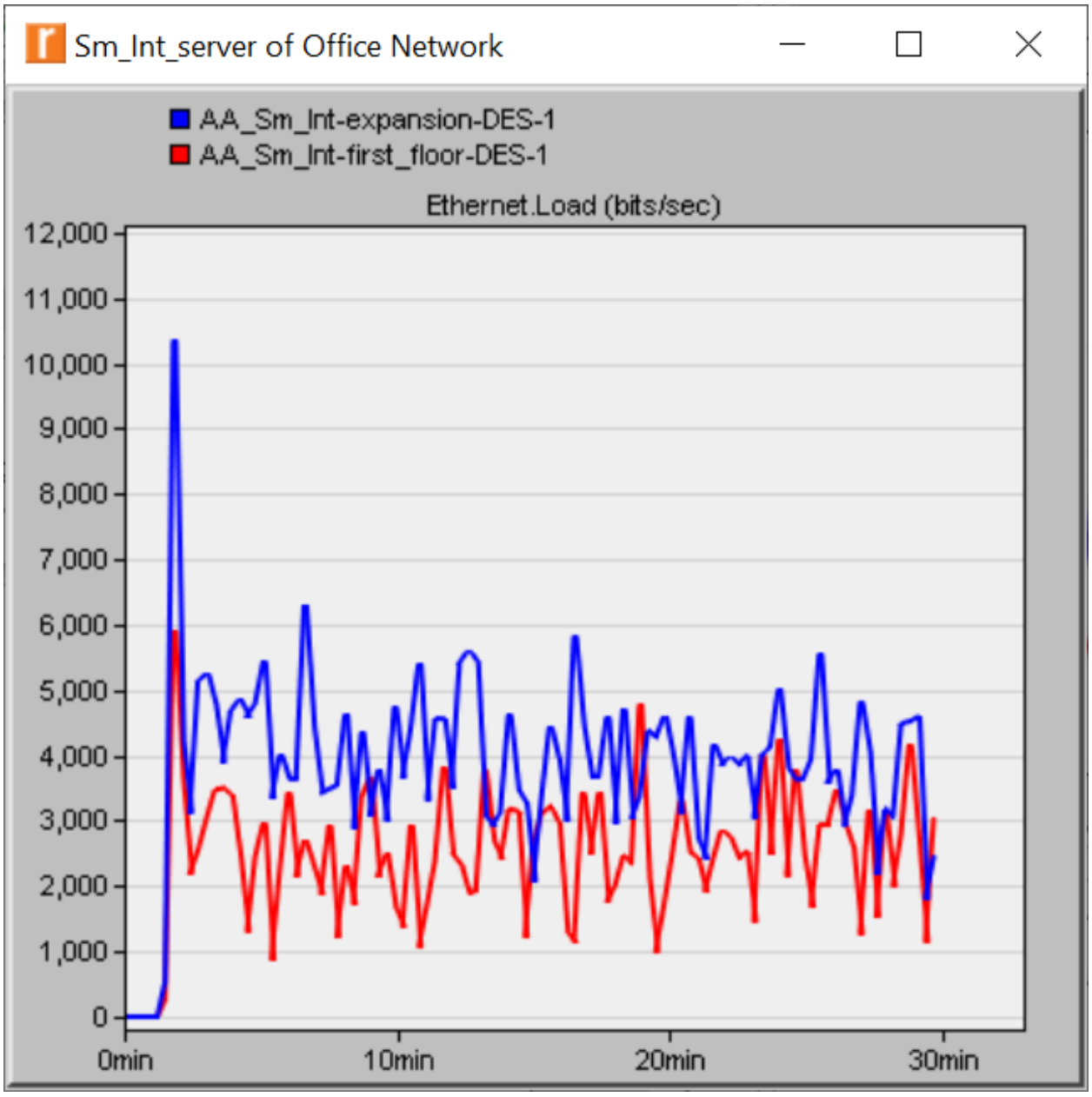
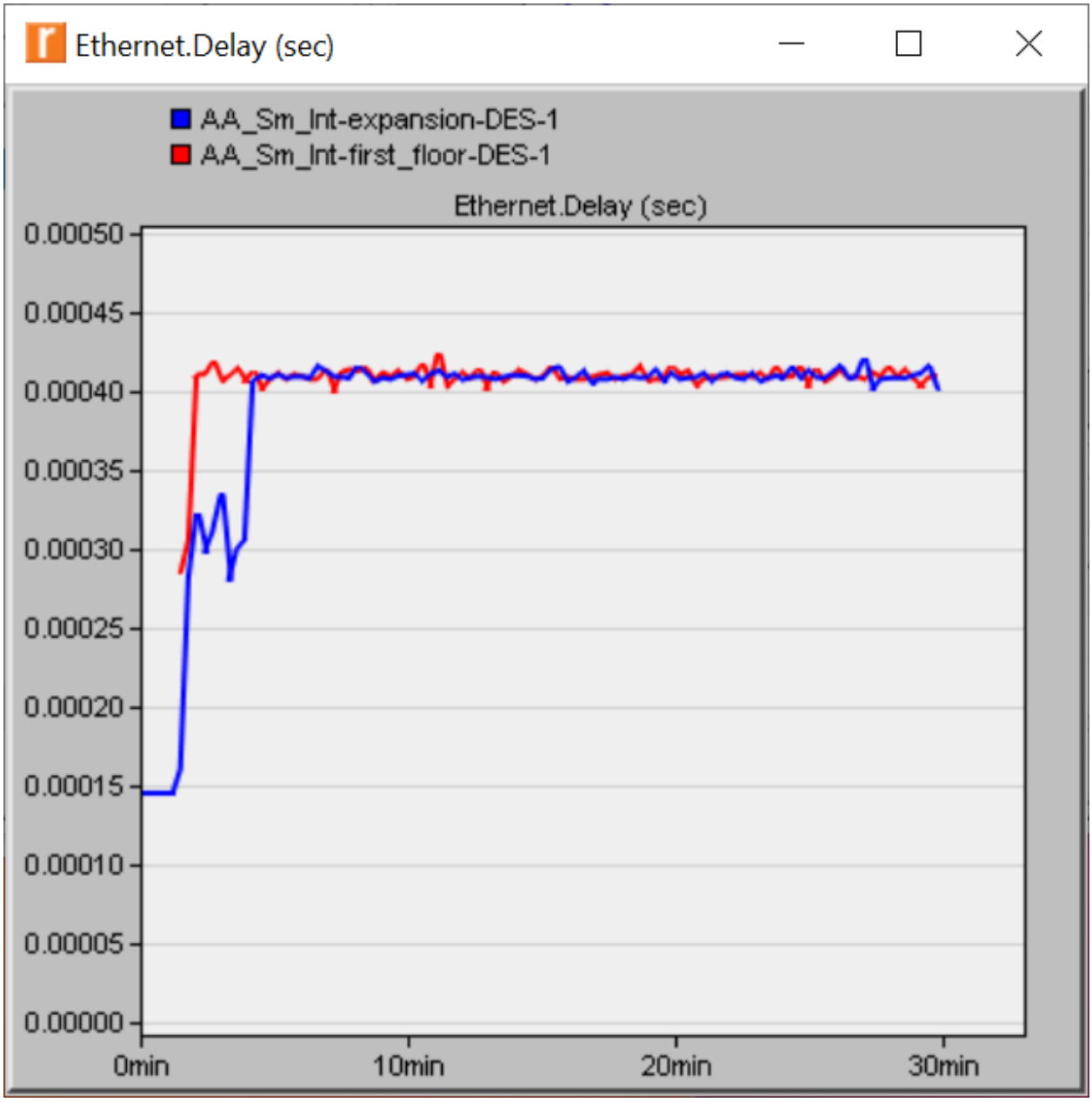
CS 2600 - X01
Lab 2
3/4/2021

Riverbed Modeler Lab Exercise 2: Small Internetworks

Comparison Graphs:



Ethernet Loads Compared



Ethernet Delay Compared

Questions:

1. When you added the second star network in the expansion scenario, the Ethernet load on the shared server peaked at around 10Kbps, and then stabilized at around 4Kbps. Explain why that load is or is not a problem.

   The expansion increased the stabilized load from 2Kbps to 4Kbps. And also increased the peak from 6Kbps to 10Kbps. Fortunately, 10Mbps Ethernet is more than capable of satisfying the expansion needs.

2. Refer to Figure 16. In this graph, this Ethernet delay measurement is a global statistic that represents the average propagation delay incurred crossing each individual link, for all packets received by all nodes.
   a. What effect did adding the second network have on Ethernet delay?

      Both scenarios' delays stabilize around 0.00040 seconds. The expansion does not have a significant effect on the delay.

   b. List the element that influences this statistic.

      Distance and Media type

   c. Speculate on why this behavior was observed.

      We did not add a significant distance to the system, and the media type did not change to alter the delay.