

# California State University, Monterey Bay

## Week 6 - Homework 7

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*CST311*

*Introduction to Computer Networks*

*SUMMER 2015*

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Problem

This problem is taken from 'Computer Networking: A Top-Down Approach', 6/E by Kurose and Ross.

Perform a traceroute between source and destination on the same continent at three different hours of the day.

- a) Find the average of the round-trip delays at each of the three hours.

The delays were 25ms, 25ms and 68ms, with an average of 31.08ms

- b) Find the number of routers in the path at each of the three hours. Did the path change during any of the hours?

I used the remote address facebook.com on the continent North America and traced its route from the source to its destination today, Saturday June 6, 2015 at the times of 1:13 p.m., 2:32 p.m., and 3:23 p.m.

The number of the routers for the first two passes were 19 and 22 for the third. It should be noted that on one of the runs there was “no response” on the route points 17 and 18

- c) Try and identify the number of ISP networks that the Traceroute packets pass from source to destination. Routers with similar names and/or IP addresses should be considered part of the same ISP

Traceroute packets passed through 5 ISP networks from source to destination.

- d) Repeat the above for a source and destination on different continents. Compare the intra-continent and inter-continent results.

Traceroutes from Sacramento Comcast to www.stella-net.net (France). And the round-trip delays at each of the three hours are 173 ms, 166 ms and 200 ms, respectively, with an average of 179.66.

In this example, Traceroute packets passed four ISP networks from source to destination