

Group 6: Traceroute Optimization

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6 October 2022

Overview

Traceroute typically spews out results as a somewhat-formatted table of raw data. We aim to build on top of the basic `tracert` algorithm to expand its functionality and hopefully provide deeper insight into the path of the packets.

Feature Ideas

- RTT Analysis
- Path Analysis
- Output Formatting Options

RTT Analysis

As we did in the second assignment, we could provide insight regarding the numerical distribution of roundtrip time such as standard deviation, mean, as well as further numerical analyses as time allows.

Path Analysis

Since the packets may take varied paths throughout the day, another feature idea is to schedule `tracert` calls at given intervals of the day, providing a succinct view of the difference in paths as well as any nodes previously seen that were noticed to have gone offline.

Output Formatting Options

To amend `tracert`'s poorly formatted output, output format options could be provided to lend the output data to further analysis at the user's choice. Some variants of output could be `.csv/.tsv` files and the grouping of columns could be varied with a flag as well.

Code Example