Team Fizz Buzz

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Routing Algorithm

- Custom Routing algorithm based on the beloved Dijkstra
  - Loops until all nodes and LSPs get connected
  - Every loop is a run of Dijkstra
  - Once a Dijkstra run finds an optimized ‘path’ / LSP we start sending traffic through that LSP
  - We grab the new stats and feed back into algorithm, to compute another new route
  - and so on...
- This ensures the best optimized routes because we are listening to the network with every breath it takes
- For **edge weights** we take into account LSP latency, and Bytes/sec going both ways

The FIZZBUZZ Web App

- View Traffic Stats in real-time
  - Inbound / Outbound on each LSP / node, etc
  - In Bytes/sec and the Latency on each LSP both ways
- Adjust LSPs in real-time
- Click interface to **ADJUST, DELETE, ADD** LSPs from East VM to West

Traffic Generators

We made 2 of these!!!

1. We created a 10GB file! Using ` **dd**` on macOS and then just **scp**'d it between the East and West servers in parallel

It's a dumb way of implying many users streaming media on the network and to watch the network transfer the many gazillion bytes.

Traffic Generators

2. A `**python**` server on both East and West VMs sending requests to each other to simulate traffic in both directions every few ***ms!***

- We did this to simulate normal network activity, like browsing on the internet, loading web-pages, clicking buttons that make **http** requests and etc.
- Also adding multiple generators gives your network the ability to better predict breakings and congestions