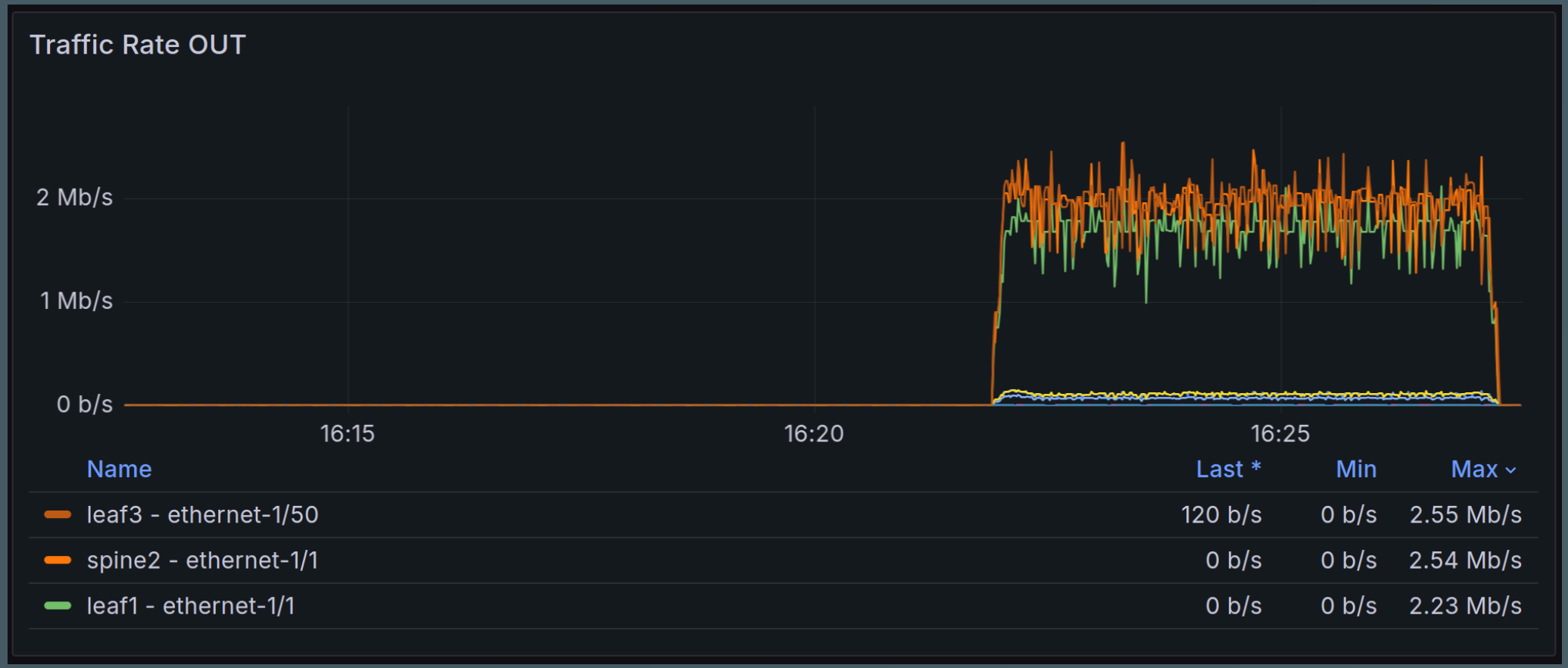
Streaming Telemetry

See and Understand

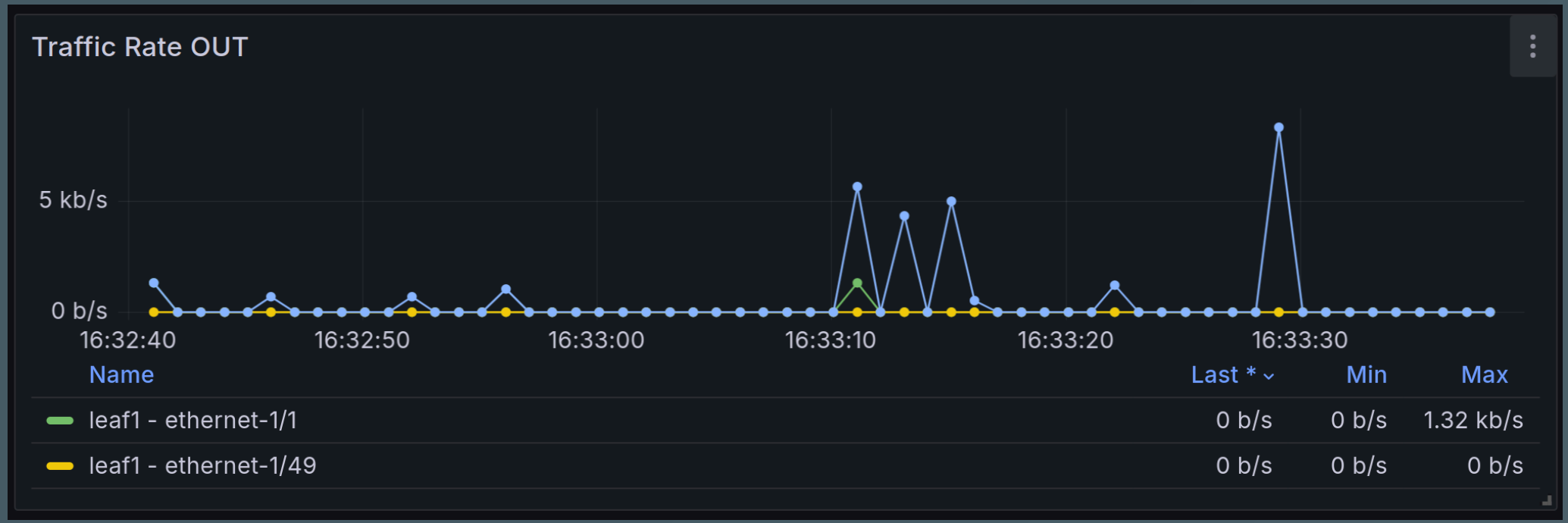
Live Demo

Demo - Interface statistics



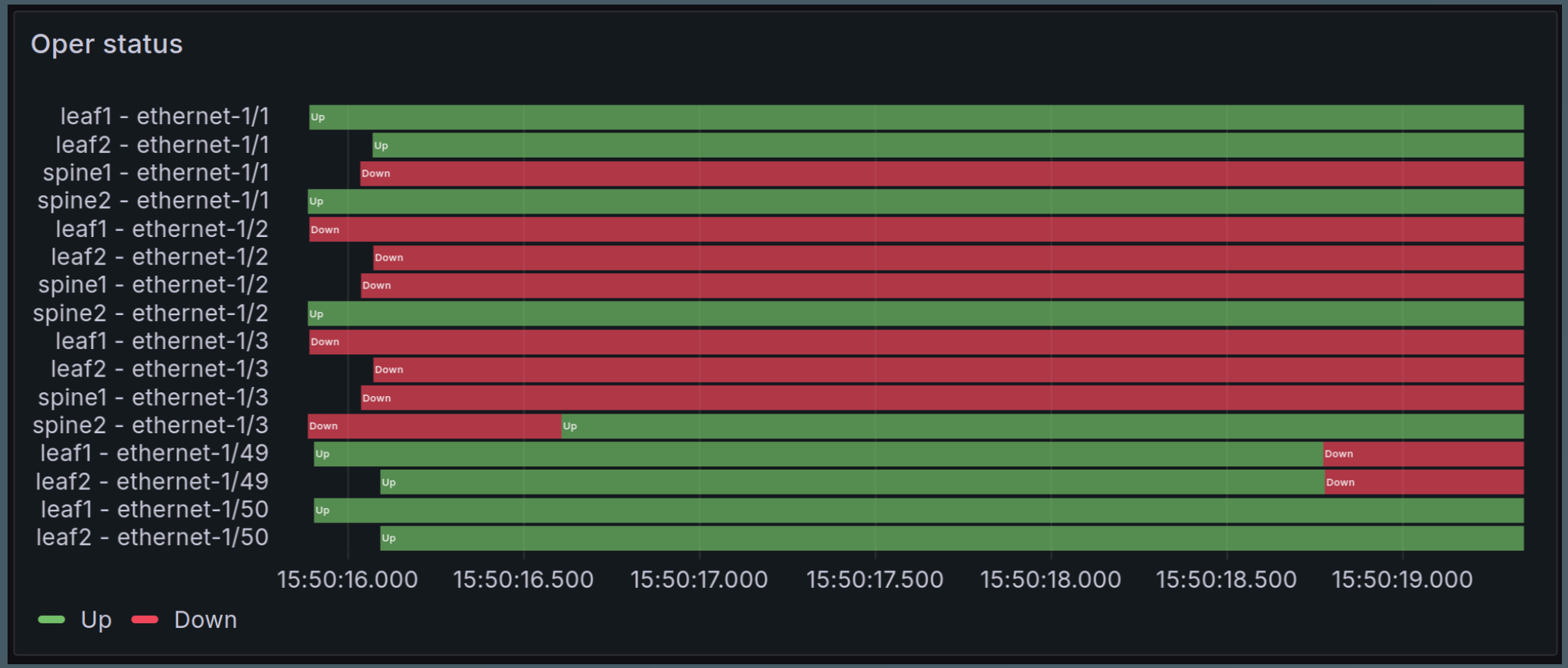
Demo - Granularity

`ping -i 2 -s 500 -c 3` && `ping -i 2 -s 1000 -c 1`



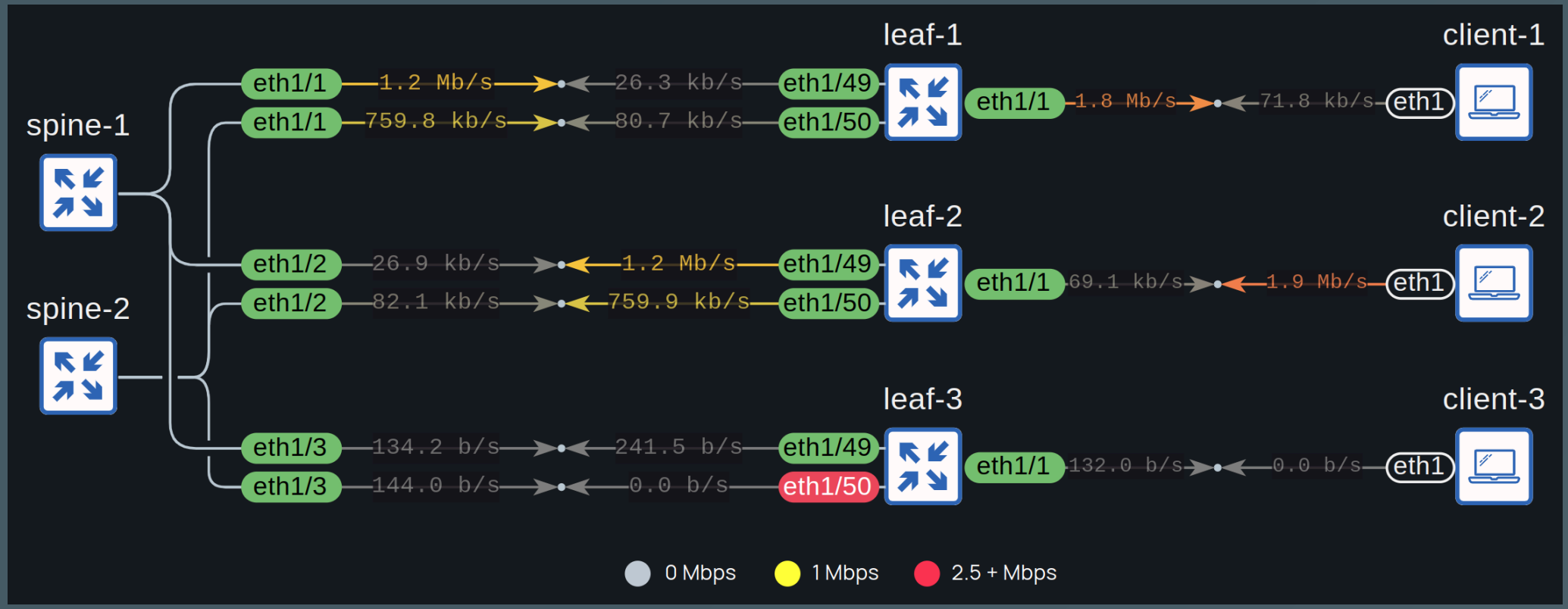
One second interval!

Demo - Interface status



*String values

Demo - Network Map



Demo - BGP statistics

Possibility: Table views

Prefix	Nexthops	Interface	Protocol
0.0.0.0/0	10.255.1.1	Null0	Static
10.0.1.0/24	10.255.1.1		BGP
10.0.123.0/24	10.255.1.6		BGP
192.168.0.0/23	10.255.1.1		BGP

See content of any table in a given point in time (RIB, ARP, MAC etc...)

Possibility: Table view comparison

Prefix	Nexthops	Interface	Protocol	Action
172.16.250.1/32	10.255.100.2		Static	Added
172.16.250.2/32	10.255.100.2		Static	Added
192.168.0.0/23	10.255.1.1		BGP	Removed
192.168.1.0/23	10.255.1.1		BGP	Added

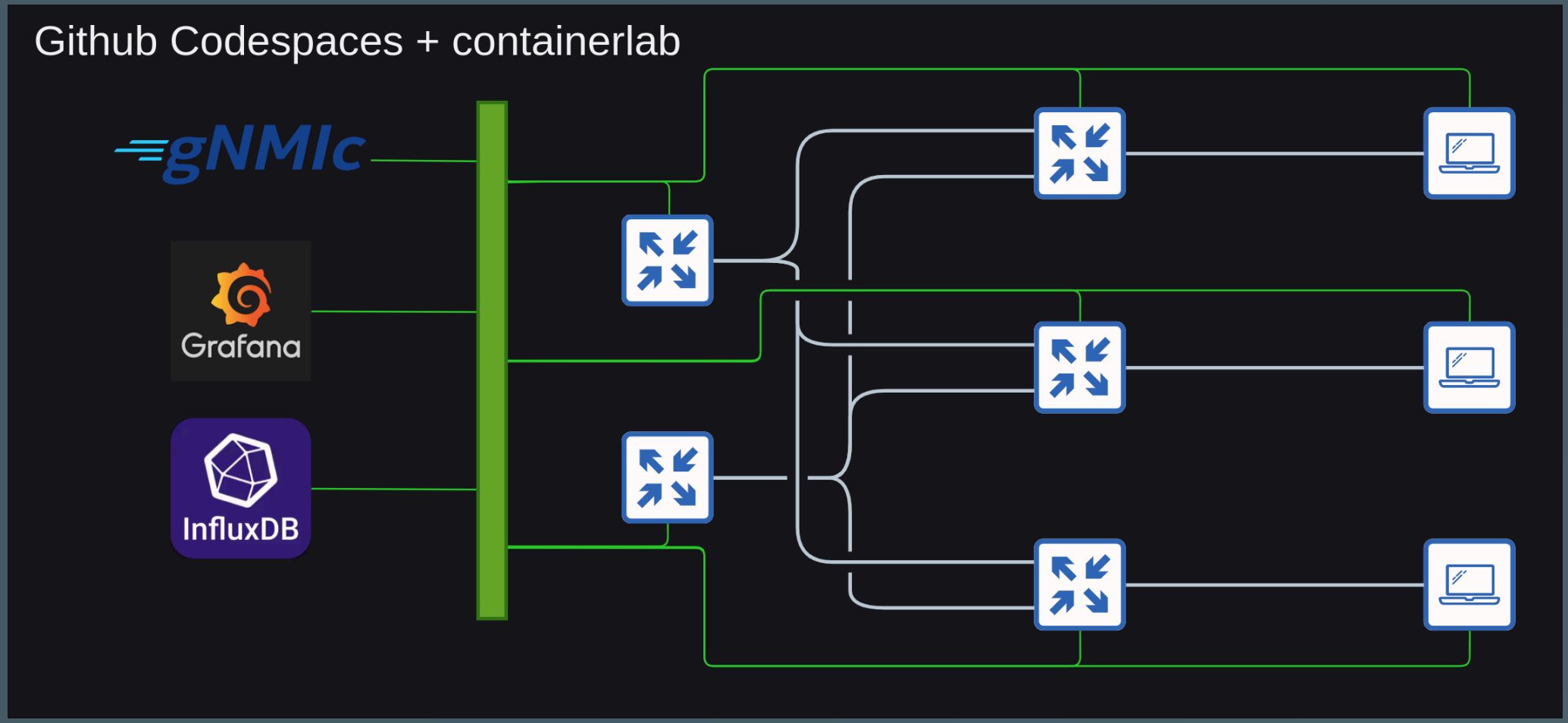
Compare two timestamps (i.e. 30 mins ago)

gNMI

Characteristics:

- Uses **gRPC** protocol
  - highly efficient (binary protocol, efficient encoding)
  - secure (TLS)
- Can be used both to **configure** and **monitor** network devices
- **YANG** Based data models (standard & vendor specific)

How demo was made?



Play it yourself

1) Open: https://github.com/JaakkoRautanen/telemetry-demo

2) Click **Run in Codespaces** button

3) Type `sudo clab deploy` in the terminal in browser

Keep streaming - stop polling!