Streaming Telemetry Isn't Better

Internet2 Tech Exchange

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Wait, What? What, Wait?

- These are results from a pilot that was run on the Pacific Wave Internet Exchange

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Pacific Wave

But!!!

- Yes, many other presentations have highlighted Streaming Telemetry's benefit
- Deployment, hardware and config dependent
- This is a cautionary tail

Two Juniper Export Methods

- **OpenConfig**
  - Single TCP session
  - Juniper Telegraf modules with recent commits published via Github
    - Supports the MX10K's we were using
 - Easy how-to can be found using Telegraf, InfluxDB & Grafana

- **gRPC**
  - Direct export of UDP
  - Juniper modules that don't work with current hardware on Github
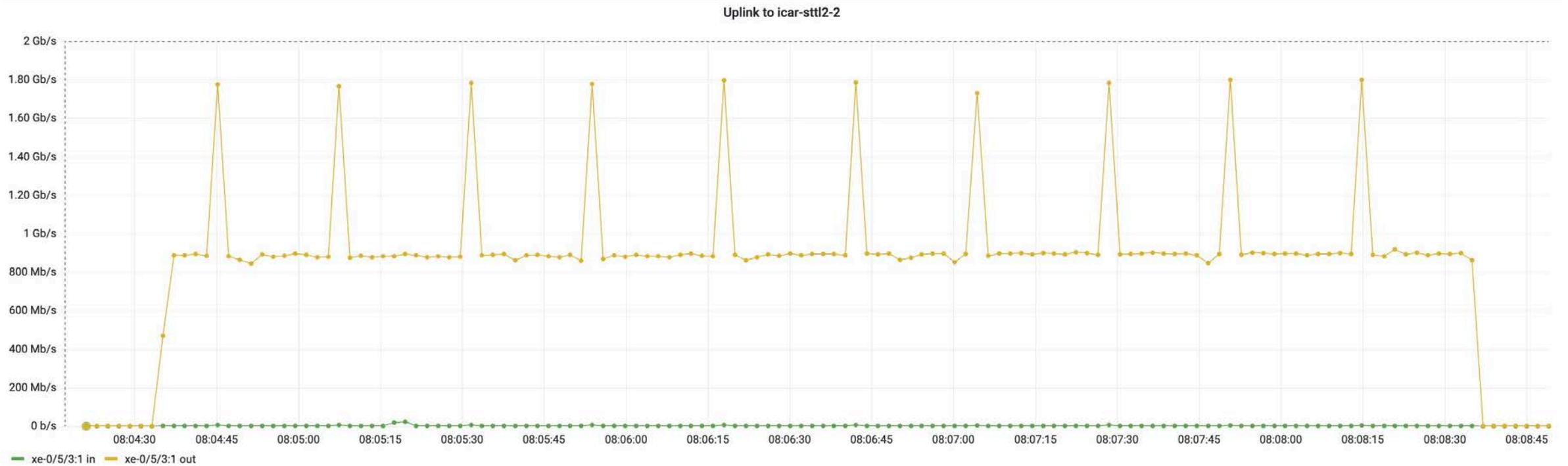
Interfaces

- **Hardware doesn't[*] know about virtual interfaces**
  - No statistics on bond interfaces
  - Need backend tracking of component interfaces to combine into virtual view

* – Except for commodity single chip systems

Fidelity

Fidelity

Uplink to icar-sttl2-2
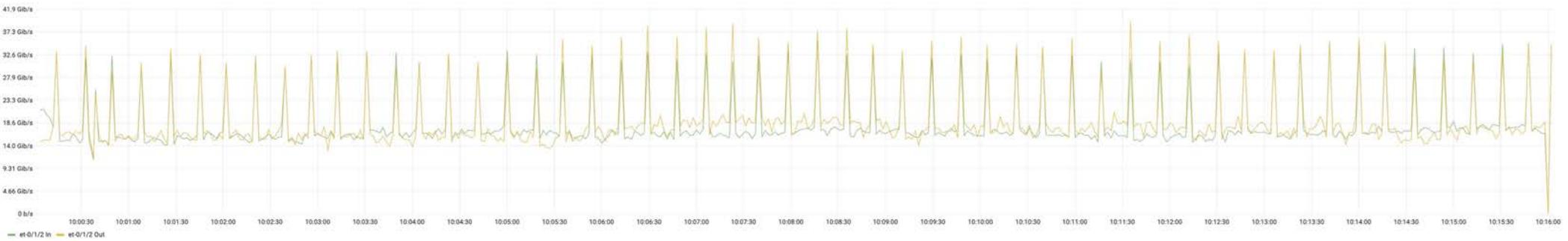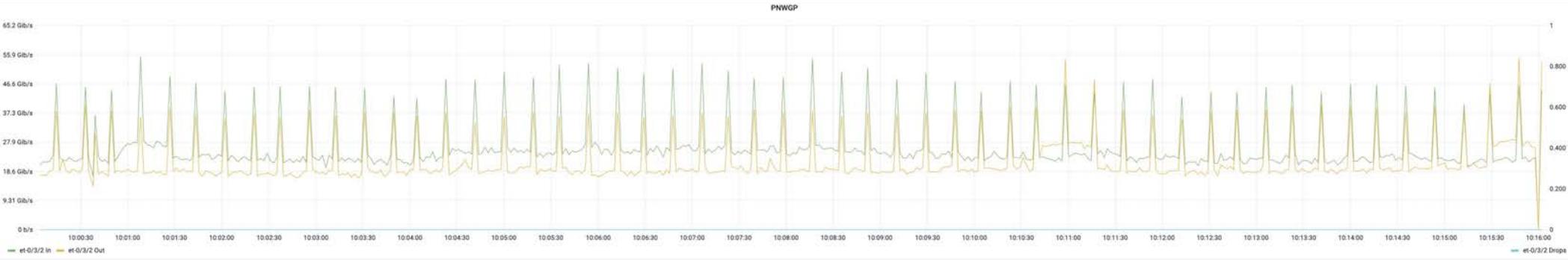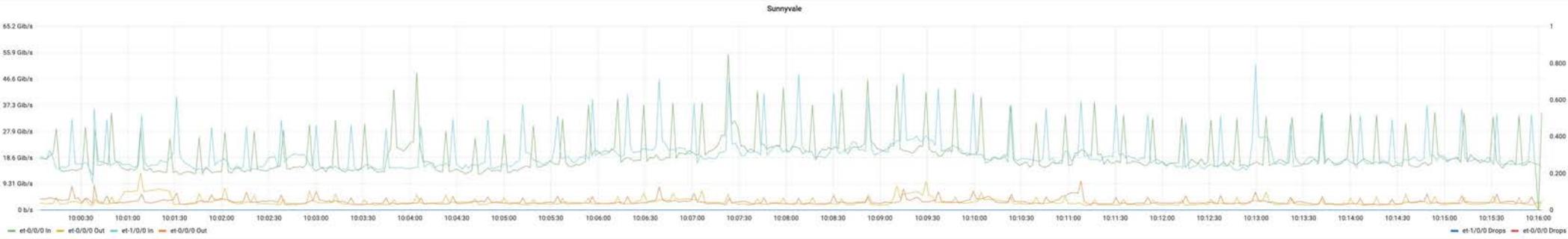
Juniper Recommendations

- Opened up a JTAC case
- Confirmed in their documentation
  - Recommendation of averaging over 30 seconds

- So why not just request 30 second updates
  - Removes the back-end complexity

Really Better?

- **SNMP**
  - Much better implementations today
  - 30s is doable
    - Direct MIB polling
  - Functional load is equal
  - Don't loose Virtual Interfaces, nor need backend

UDP

- **Don't do OpenConfig**

- **UDP**
  - Open question on fidelity
  - Help the community?

Thank You

Questions?