L4S Interop Event @ IETF Hackathon

IETF 127
Nov 14-19, 2026
San Francisco

Greg White, CableLabs



Participants



Altanai Bisht, Cisco	Michael Tüxen, FH-Münster
Ermin Sakic, NVIDIA	Per Kjellander, Google
Ethan Everett, NVIDIA†	Peter Lei, Netflix
Greg White, CableLabs	Scott Danahy, Netflix
Jonathan Lennox, 8x8/Jitsi	Sridhar Majali, NVIDIA
Koen De Schepper	

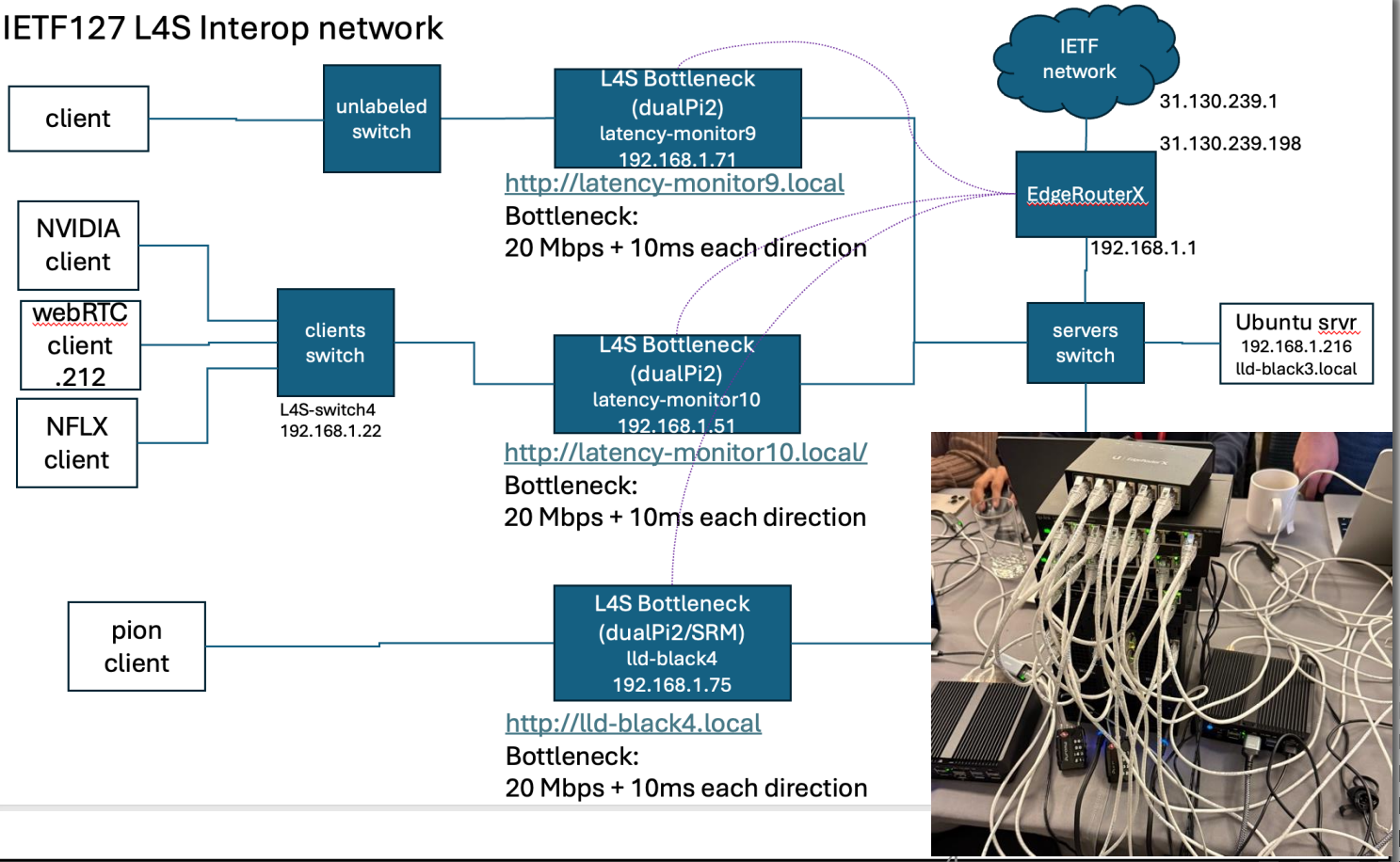
† first time hackathon attendee

Hackathon Plan

- What problem were you working on?
  - L4S Congestion Control coexistence
  - RFC8888 interoperability
- L4S Congestion Control Implementations
  - Chrome libwebrtc SCReAM
  - Netflix Network Delivery Time Control
  - NVIDIA Rate Control
  - Iperf2 PragueCC (UDP-Prague)
  - Linux TCP Prague
- Network Setup for Testing
  - Linux DualPI2
- L4S Congestion Feedback Implementations
  - Google Chrome - libwebrtc (RFC8888)
  - Netflix client (RFC8888)
  - Apple TCP (AccECN – RFC9768)
  - PragueCC (UDP-Prague)
  - Linux TCP Prague (RFC9768)

Relevant RFCs: 8888, 9330, 9331, 9332, 9768
draft-deschepper-tsvwg-srm
draft-ageneau-ccwg-ndtc
draft-ietf-ccwg-rfc8298bis-screamv2
draft-briscoe-iccrg-prague-congestion-control

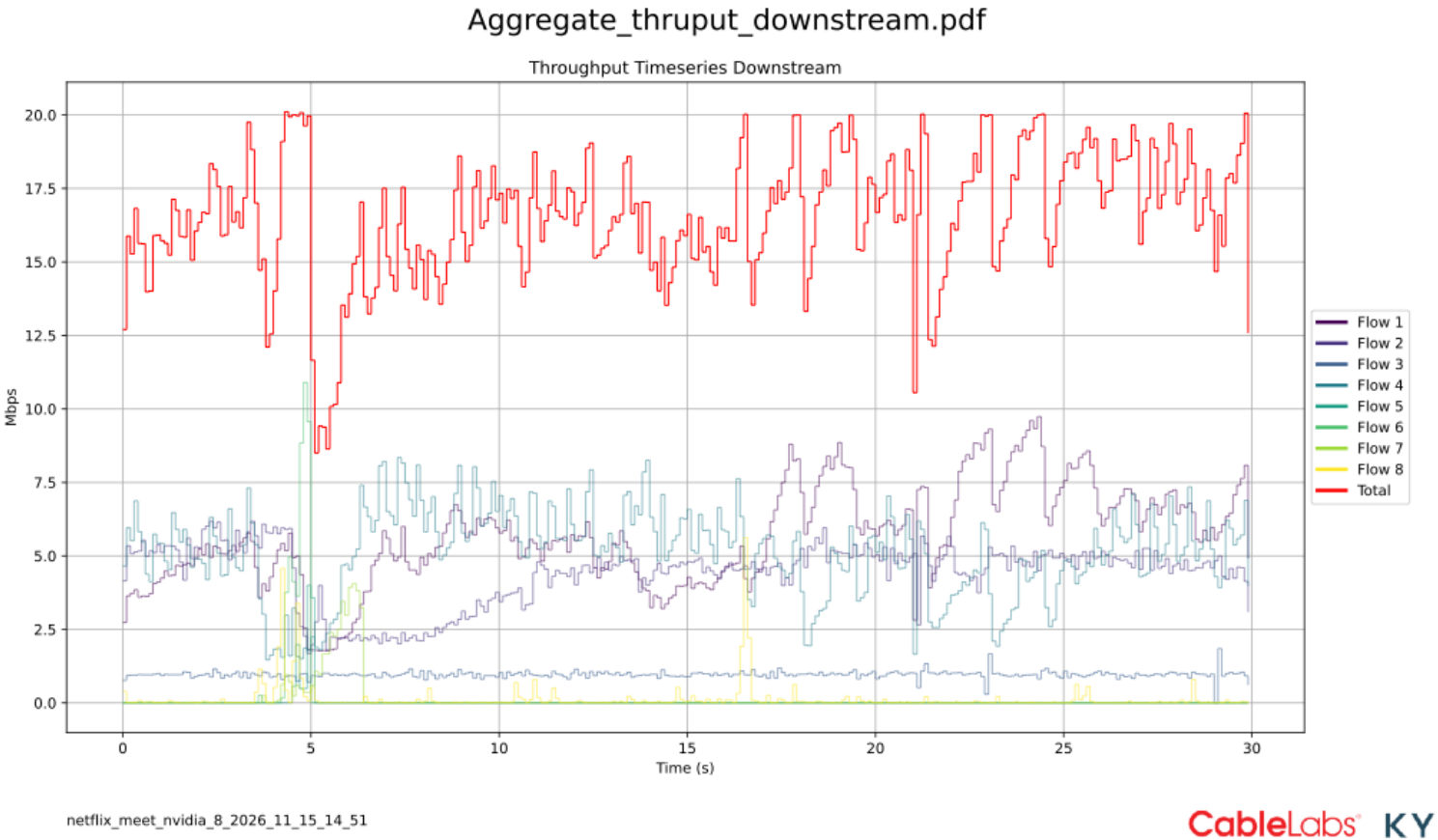
IETF127 L4S Interop network



What was accomplished

- Heterogeneous CCA testing in shared bottleneck
  - Netflix, NVIDIA, Chrome (webrtc)
- Pion (webrtc) + L4S
  - Comparison of GCC and UDP-Prague
  - https://github.com/IETF-Hackathon/pion_congestioncontrol_L4S
- Integration of SCReAMv2 into Jitsi videobridge

Netflix+WebRTC+NVIDIA



Pion baseline test (GCC)

Downstream: VP8 video from sender to my Mac

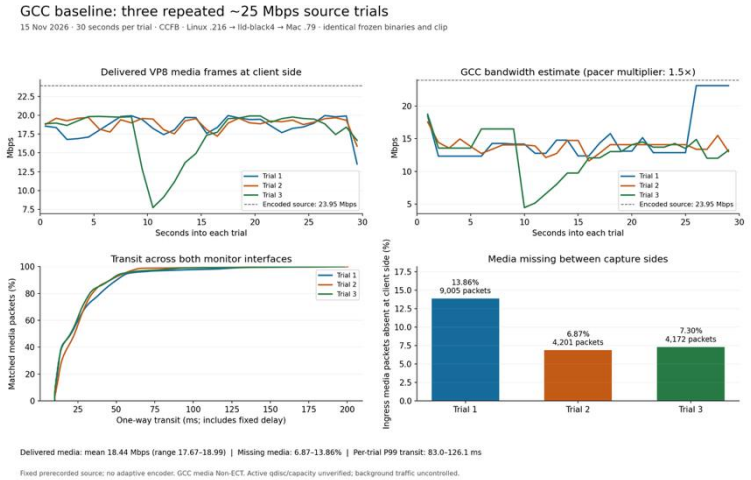
SEND
Lab sender
Pion + GCC or Prague
192.168.1.216
Linux · enp1s0 · Ethernet

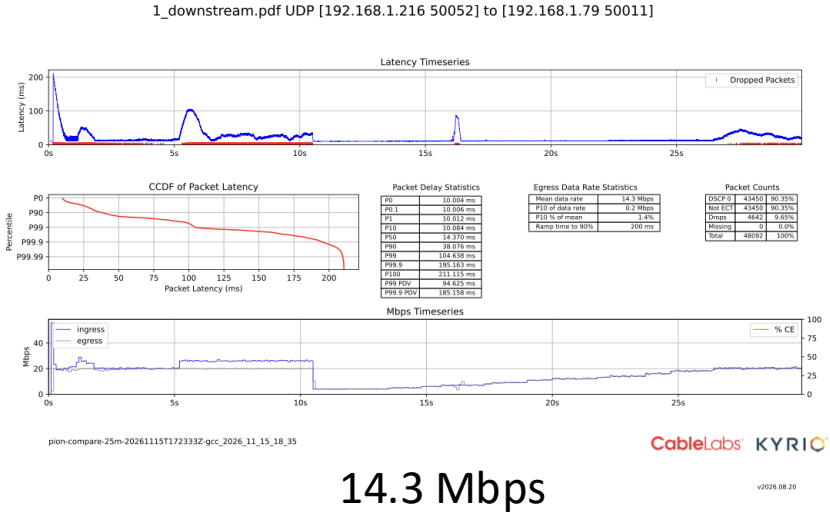
FORWARD
Servers switch
Wired connection
Connects the sender to the test path

SHAPE + OBSERVE
lld-black4
Bottleneck + packet capture
192.168.1.75
Management address

RECEIVE + REPORT
My Mac
Pion receiver
192.168.1.79
macOS · en7 · Ethernet

Upstream: RTCP CCFB feedback from my Mac to the sender



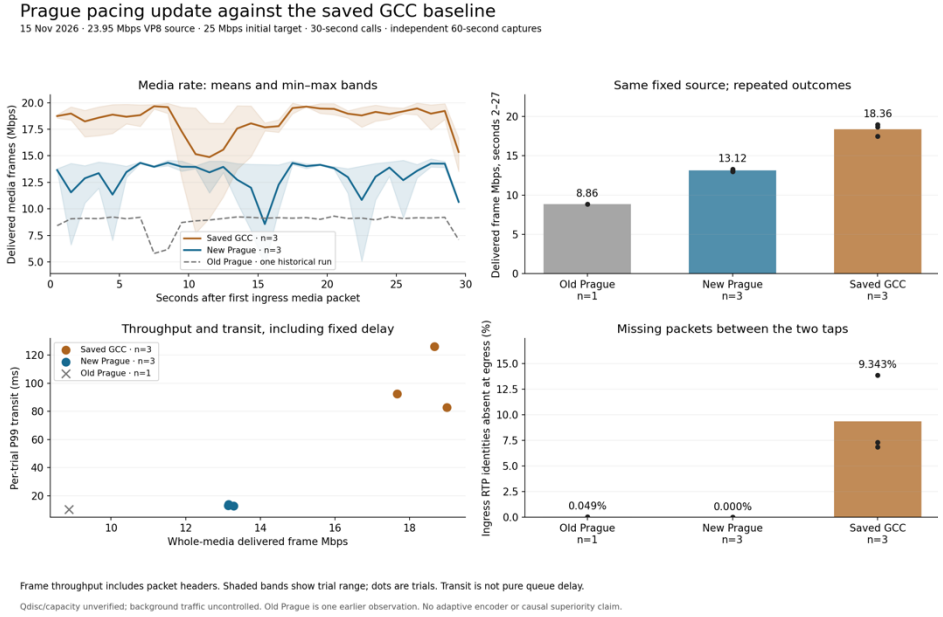


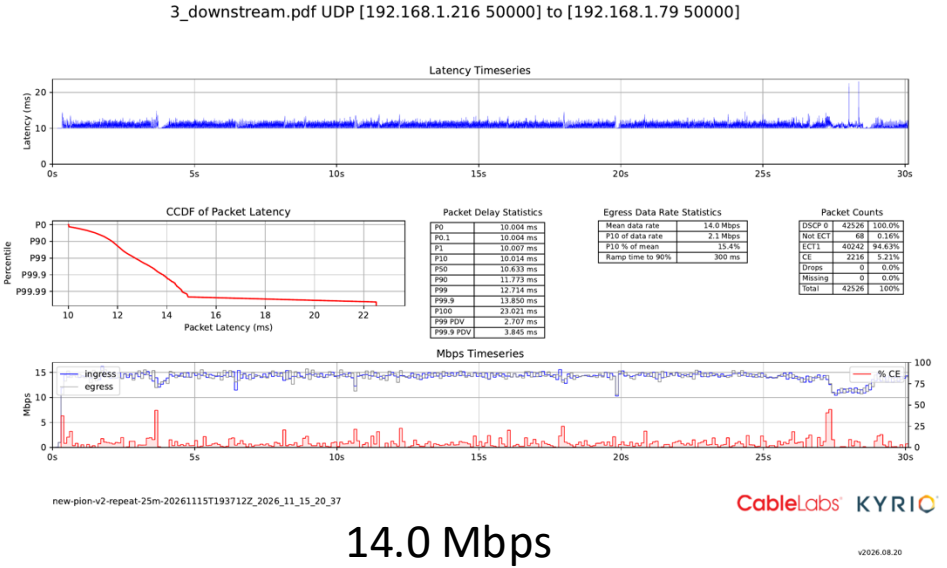
14.3 Mbps
94.6 ms P99PDV

Experiments by Altanai Bisht

Pion UDP-Prague + Custom Pacer

- UDP Prague latency benefits demonstrated





14.0 Mbps

2.7 ms P99PDV

Interop Continues

- Monday-Thursday in Shared Workspace (Continental 2)