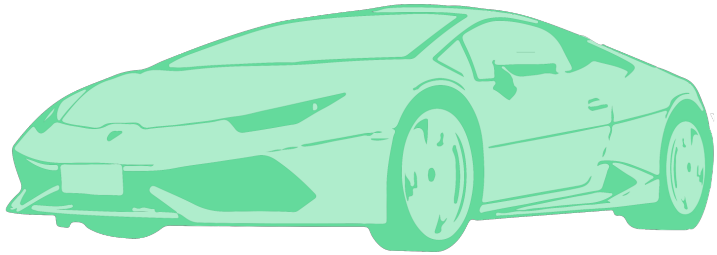MAY 18-20
2021 P4
Workshop
Hosted by ONF

Measuring Broadband Experience using
P4-push Telemetry

Himal Kumar
Co-Founder & CTO
Canopus Networks

Speed ≠ Experience

Mph/Mbps   Depends

Everything is a Ferrari…

		Key Metrics
Download.		Speed
Streaming Video.		Speed
Live Video.		Speed
Gaming.		Speed
Conferencing.		Speed

FALSE

Experience .. depends

		Key Metrics	
Download.		Download Speed	Upload Speed
Streaming Video.		Resolution	Rebuffering
Live Video.		Grainy	Jumpy
Gaming.		Latency	Jitters
Conferencing.		Dropout	Stutter

FlowPulse™

Classification & Experience

1. Isolate each flow of interest
2. Extract push-based time-series "Postcard"
3. Aggregate and extract behavioral profile
4. Process FlowPulse through ML pipeline

Power of P4 + Tofino

Push based

Highly Programmable
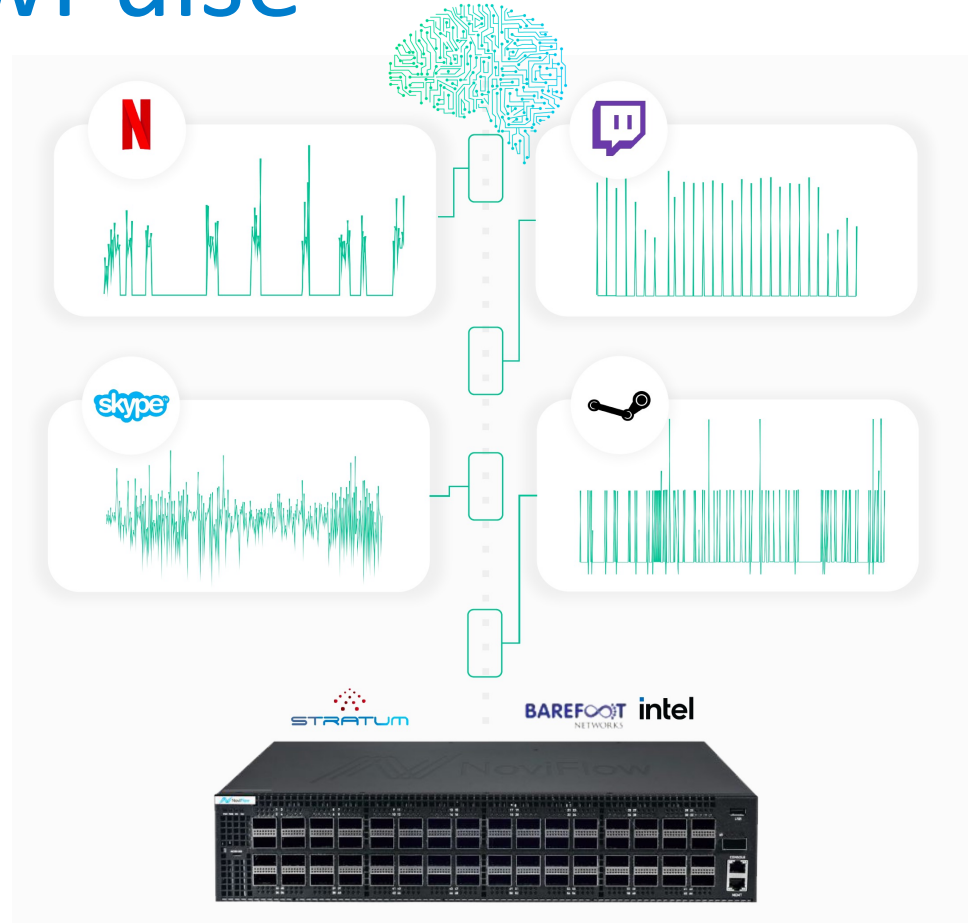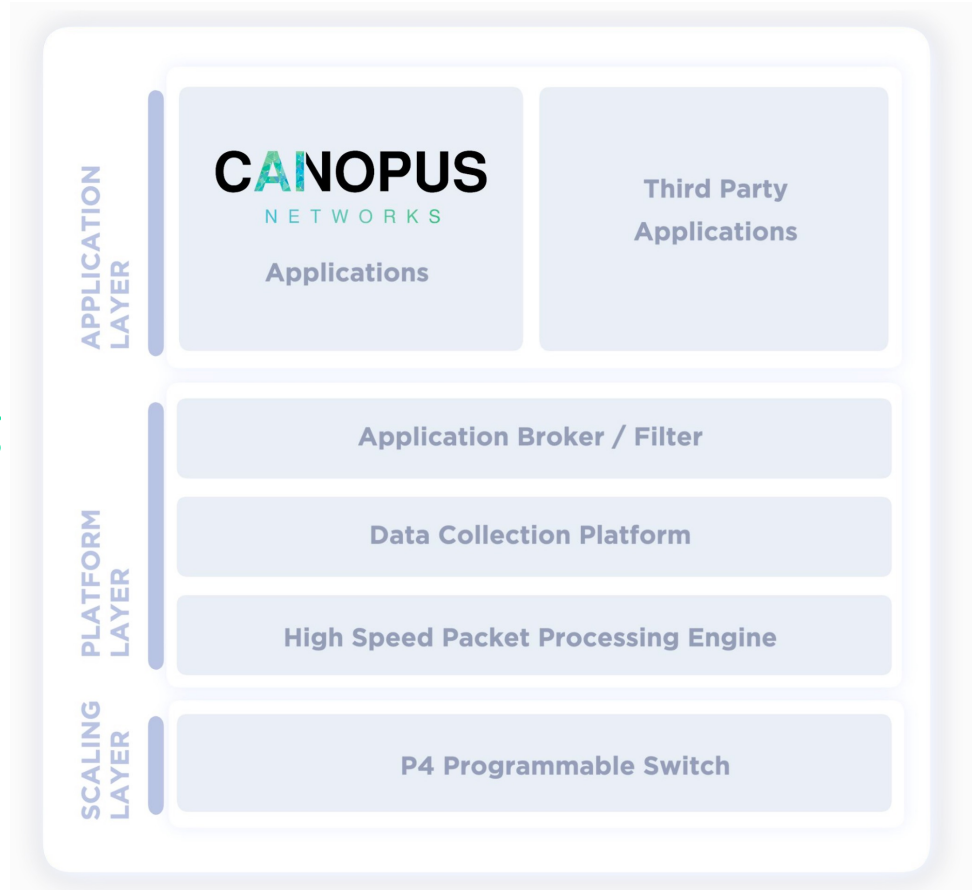
Rapid Development/Release

Mirroring

Registers

Architecture & Use-Cases

- UX Assurance
- Forecasting
- Network Optimisation
- Premium Services - Gaming
- Customer Segmentation
- Self Driving Networks

MAY 18-20

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Thank You

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