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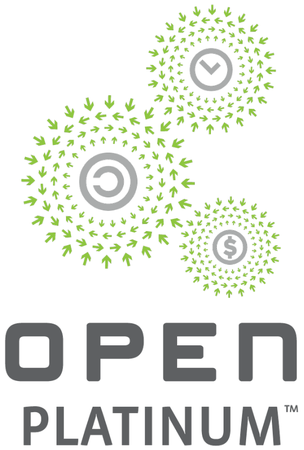
OCP SUMMIT

Advanced Network Telemetry and Analytics Over SONIC

Eli Karpilovski, Director Of Marketing , Broadcom



Industry Trends

Network Operators Asking for **Increased Visibility** and **Control**

Unified Language Interface for Controlling heterogeneous networks

Customers and OEMs Have Increased Focus On **Network Analytics**

BroadView™ Instrumentation Software

Standard Telemetry API

- Increased visibility into network telemetry through platform-agnostic open API

Highly Scalable

- Industry's first and most scalable instrumentation agent

Unique Silicon Telemetry

- Leverages unique telemetry capabilities of Trident2, Tomahawk™ and Qumran-MX silicon

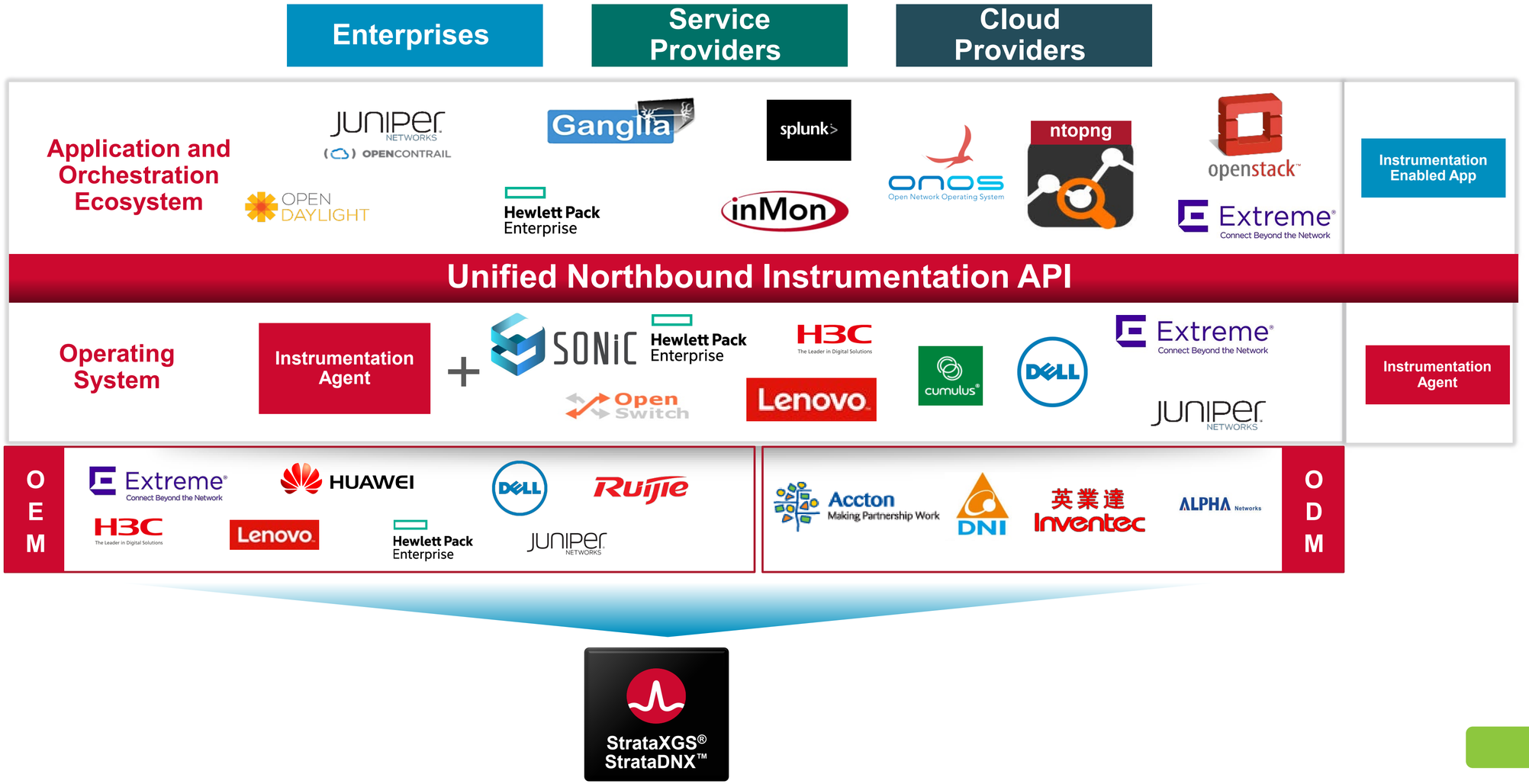
Reference Implementations

- Faster TTM with reference implementations for CORD, OpenDaylight, OpenStack, Ganglia etc.

BroadView™ Ecosystem –Intro

- launched in November 2015
- Targeted for all market segments
  - Advnace feature set for datacenter networks
  - Expanding into Service Provider networks
  - Enabling storage networks
- Accelerating the SDN management model
  - Being deployed at end-customers
  - More Network OS & OEM partners
  - Extended support for DNX silicon
  - GUI application “BroadView Analytics”

BroadView Ecosystem – 5 Years of Telemetry Innovation

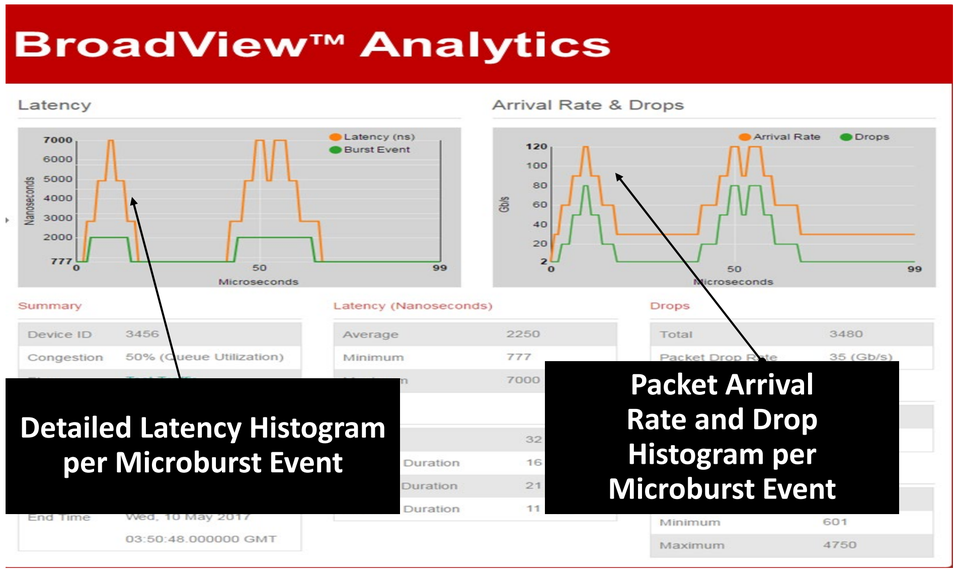


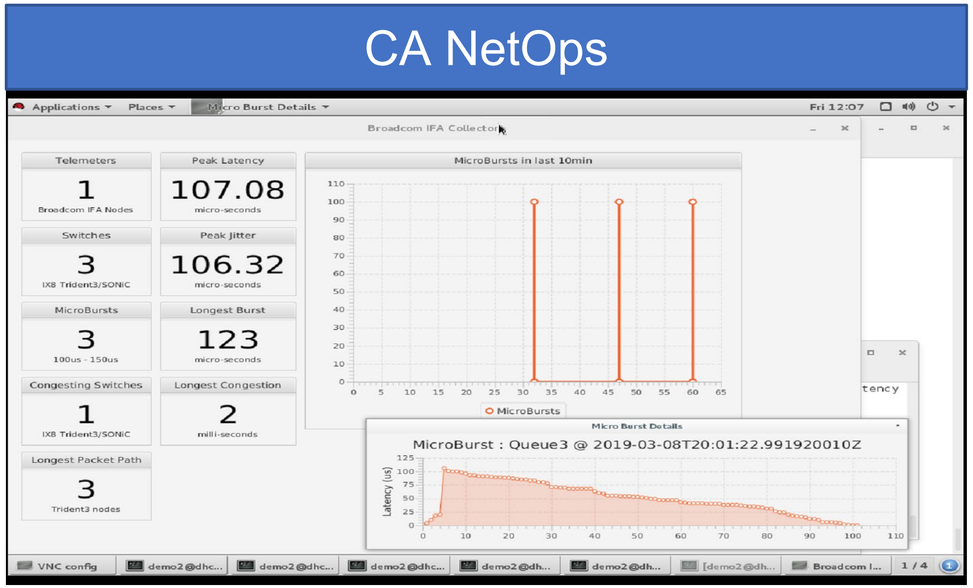
NETWORKING

Inband Flow Analyzer (IFA)

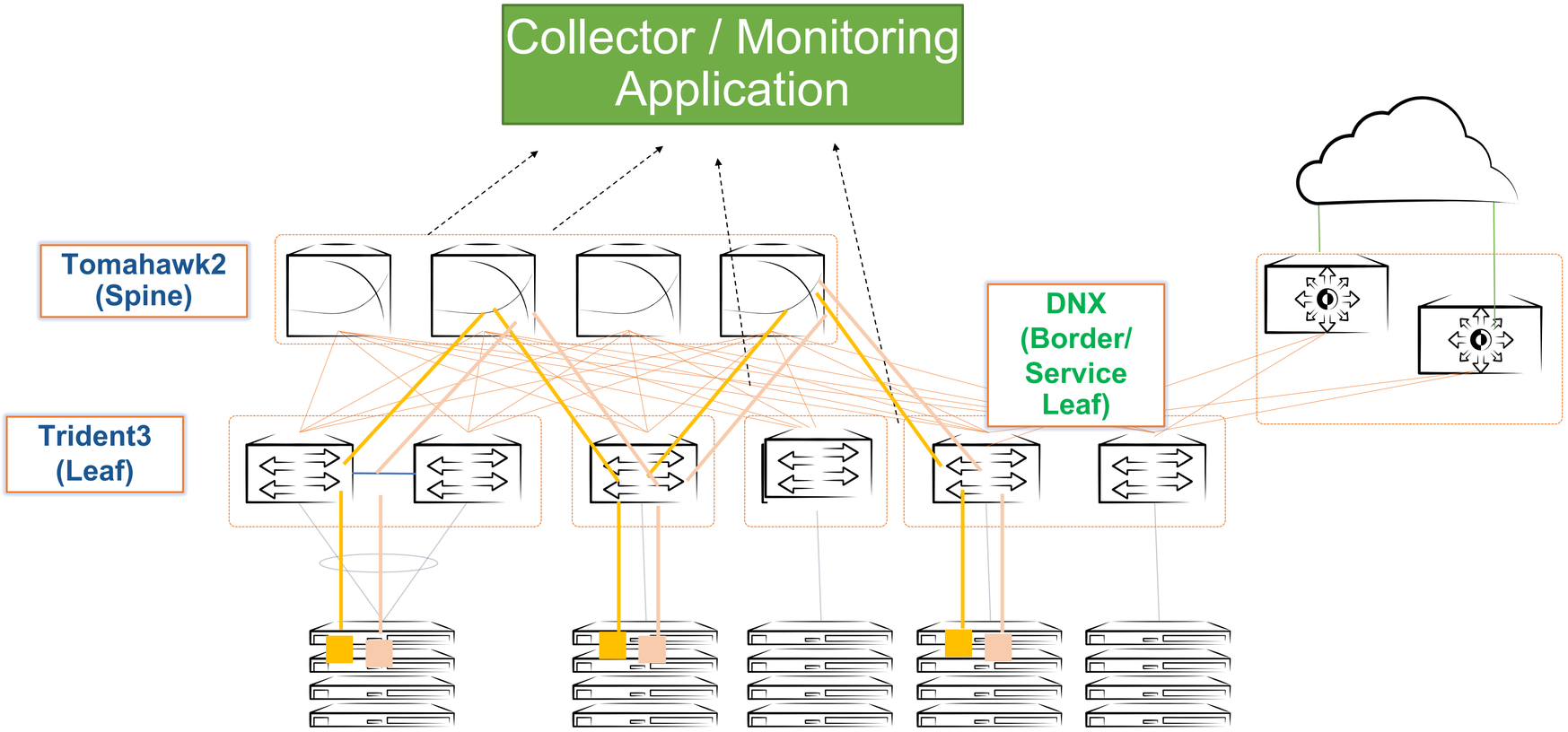
NETWORKING

1. **In-band Telemetry Based Flow Monitoring Solution**
2. **Scalable Network Monitoring for Large Datacenters**
3. **Configurable & Flexible Sampling, Flow Selection Criterion**
4. **Network level solution w/ TH2, TH3 & TD3 Switches**





SONiC Datacenter With BroadView Agent Example



Broadview Agent offer Open, Easy to Integrate and Extend Telemetry in SONIC network

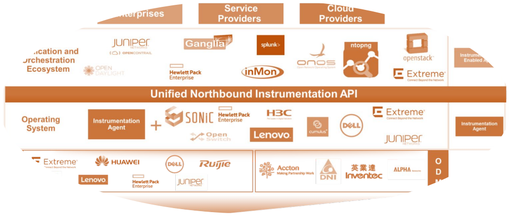
1) Inband Telemetry enabled

2) Flow Aware Congestion Monitoring & First Packet Of the Flow

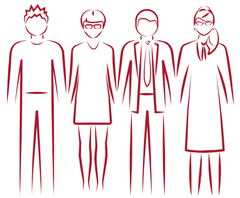
3) Deep Visibility Into Packet Drops

4) Enables an intelligent and flexible triggering mechanism to detect and report events in real time

Broadcom BroadView Contribution Dashboard

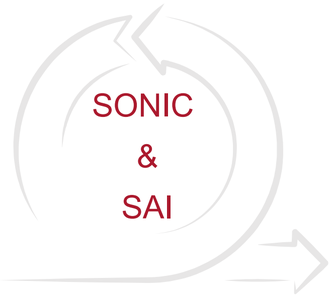


- Innovations across the entire ecosystem stack w/ applications (AI Ops, Splunk, IMS, NtopNg, Ganglia etc)



- 100+ Contributors across the ecosystem with real world deployments

- Enabling Innovative Advance Telemetry use cases:
- Inband Telemetry
- Packet Drop Analysis
- Flow Aware
- Microburst Detection



- Enabling open-source to move at the speed of silicon innovation
- SAI TAM 2.x (Packet Drop Monitoring)
- Supported Over 20 platforms
- Radis Plugin for configuration of IFA trough SONIC

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