Open. Together.
SONiC-
Event Driven Data Plane Telemetry

Aviad Raveh, VP Business Development Technology
Mellanox
Telemetry Data Sources

- Counters
- Statistical Sampling
- Flow Driven
- Event Driven
- Autonomous networks

All data is needed!
Event driven telemetry indications

Statistical Telemetry

Events

Engine Oil Level
## Telemtry Mechanisms Functional Comparison

<table>
<thead>
<tr>
<th>Network Scenario</th>
<th>Statistical Sampling</th>
<th>Event Driven</th>
<th>Flow Driven</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Layer Fault</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application Distribution</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Network utilization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow path</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forwarding Black Holes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incasts</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Micro bursts</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>E2E application latency</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>DOS Attack</td>
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<td></td>
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<tr>
<td>Policy Engine Hits</td>
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<td></td>
<td></td>
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<tr>
<td>Dropped Packets Data</td>
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Network debug is like application debug

**Network Debug**

- Statistical Sampling + counters
- Event Driven Telemetry
- Flow Telemetry

**Application Debug**

- `top`
- `logfile`
- `gdb`
Use Case Examples – Top of the hour congestion

- Event
- Flow
- Remediation
- Prediction
- VM/Container placement
- VM/Container placement
- Time
SONiC and Open Fabric Monitor

- Lets make OFM – Our Fabric Monitor and not One Feature Missing
- All nodes speak the same telemetry language
- SONiC community defines recommended integration with set of open tools (e.g. InfluxDB, Grafana)
- Lesson learned repository – sharing debug scenarios with SONiC as the network NOS, from problem to solution
Call For Action:

- Add event driven infrastructure to SONiC
  - Unified agent on top of SAI that retrieves dataplane events and streams it to a collector
- Define the streaming data format
  - Not the transport
  - Data streamed from SONiC should be consumed by a unified database
  - Standard format (e.g. JSON)