Demo: Data Infusion based Network Management

P4 Inband Network Telemetry Use Cases: "*Seeing Trees and Leaves to Learn About Forests*"

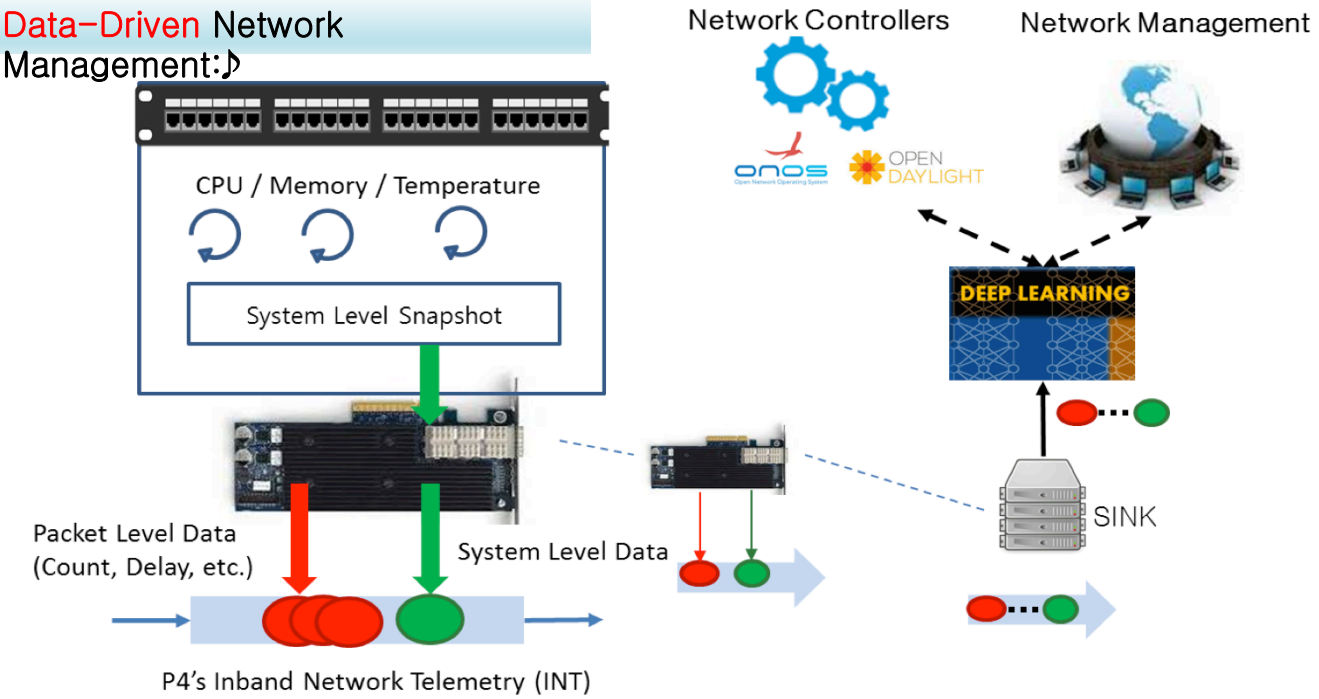
Motivation: Can network problems be cross-referenced each other? ♪

Goal: Learning network problems from the spatiotemporally correlated system and packet level network data.♪

Application-Driven (i.e., failure, SLA, or DoS attack detection) Network Management:♪

- The CPU is too busy … "because a system process is taking too much CPU time? or because it is receiving too many network packets?", "management tools (process MIB, Telnet or SSH) are NOT very useful. Using the switch console for debugging CPU utilization issues is recommended."♪
- The Latency is too high … "localize micro bursts, network problem or not?, what is the root cause?"♪
- Debugging faults and root cause analysis are sequential and redundant processes through different network data granularity.♪

Data-Driven Network Management:♪



Finding a needle in a haystack is really easy with a magnet!