P4 程序参考

1 开源程序

（0）Barefoot Network, "Behavioral model repository," https://github.com/p4lang/behavioral-model, 2019, [Online; accessed 23-January-2019].

（1）Sonata: Query-driven streaming network telemetry

queries：https://github.com/sonata-queries/sonata-queries

Sonata-dev：https://github.com/Sonata-Princeton/SONATA-DEV

架构：
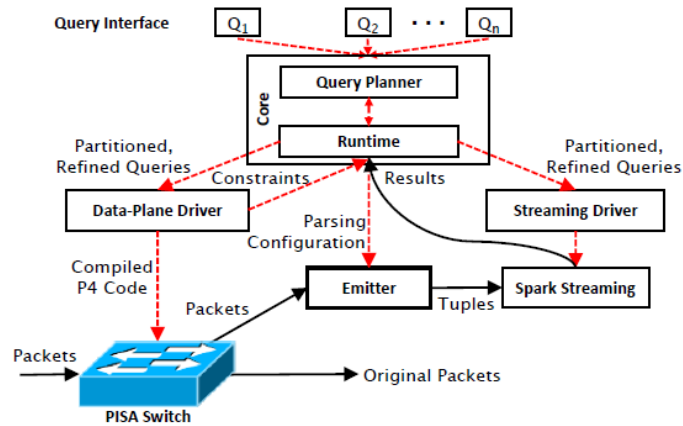
（2）P4i/o: Intent-based networking with p4

地址：https://github.com/riftadi/p4io
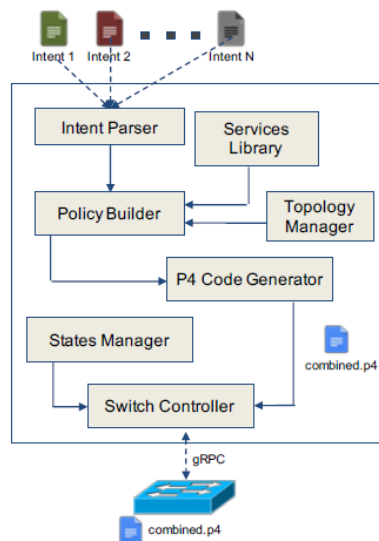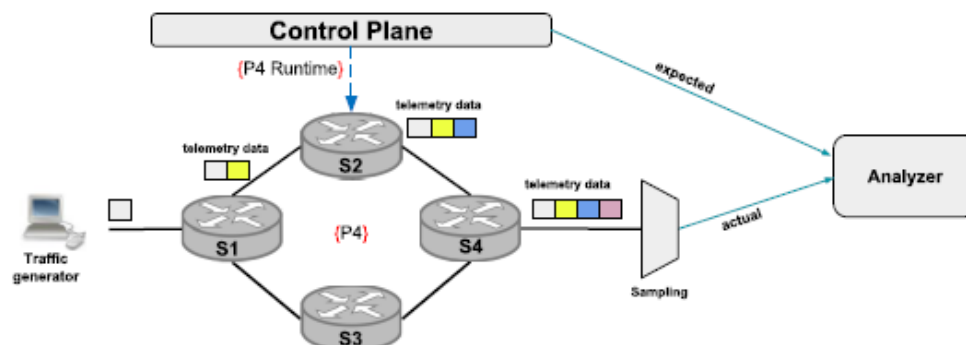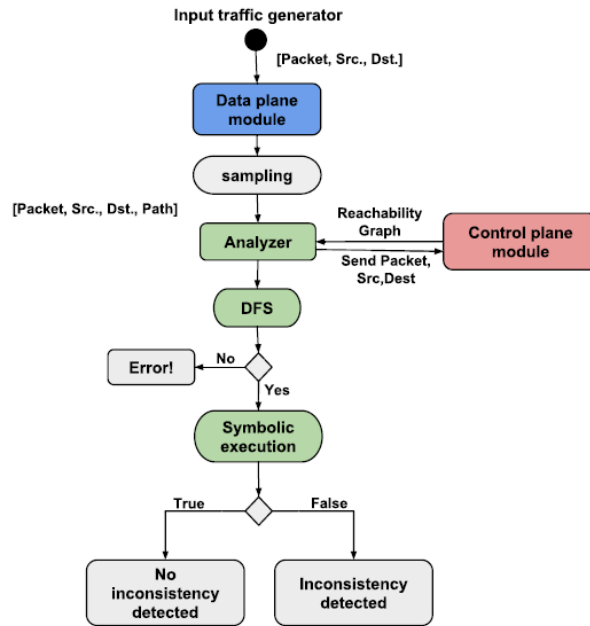

Figure 1. P4I/O architecture.

（3）PI2 for P4: An Active Queue Management Scheme for Programmable Data Planes

地址：https://github.com/acnbell/pi2forp4

Figure 1: PI2 AQM in V1model

（4）Runtime Verification of P4 Switches with Reinforcement Learning（无法访问）

地址：https://gitlab.inet.tu-berlin.de/apoorv/P4ML

（5）Using P4 on Fixed-Pipeline and Programmable Stratum Switches

地址：https://github.com/opennetworkinglab/stratum-onos-demo

（6）P4CONSIST: Toward Consistent P4 SDNs（无法访问）

地址：https://gitlab.inet.tu-berlin.de/apoorv/P4CONSIST

（7）P4-MACsec: Dynamic Topology Monitoring and Data Layer Protection With MACsec in P4-Based SDN

地址：https://github.com/uni-tue-kn/p4-macsec
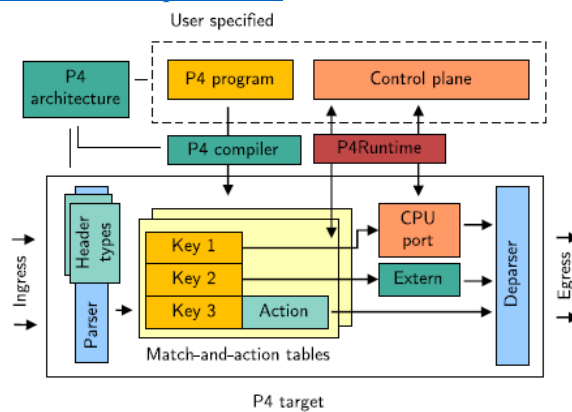
（8）P4-IPsec: Site-to-Site and Host-to-Site VPN with IPsec in P4-Based SDN

地址：https://github.com/uni-tue-kn/p4-ipsec
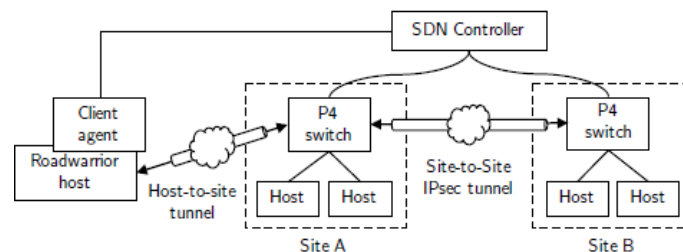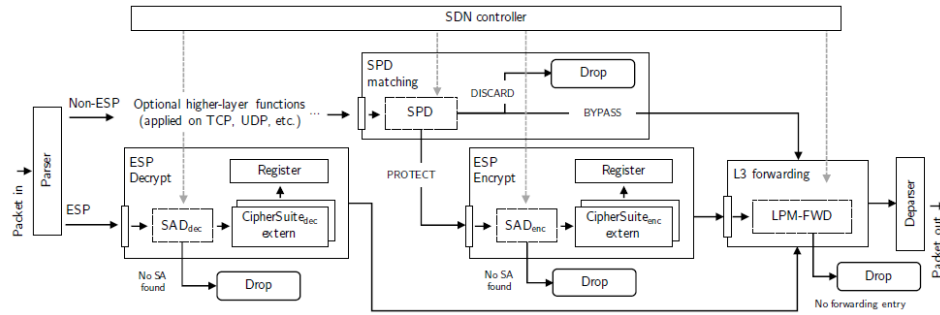
（9）Relaxing state-access constraints in stateful programmable data planes

地址：https://github.com/ccascone/opp-sim
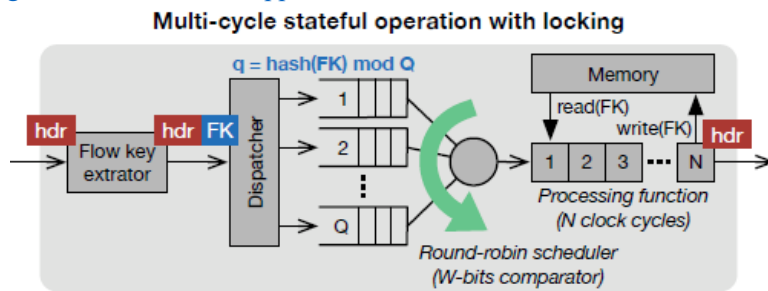
（10）NS4: enabling programmable data plane simulation

地址：https://github.com/P4Simulator
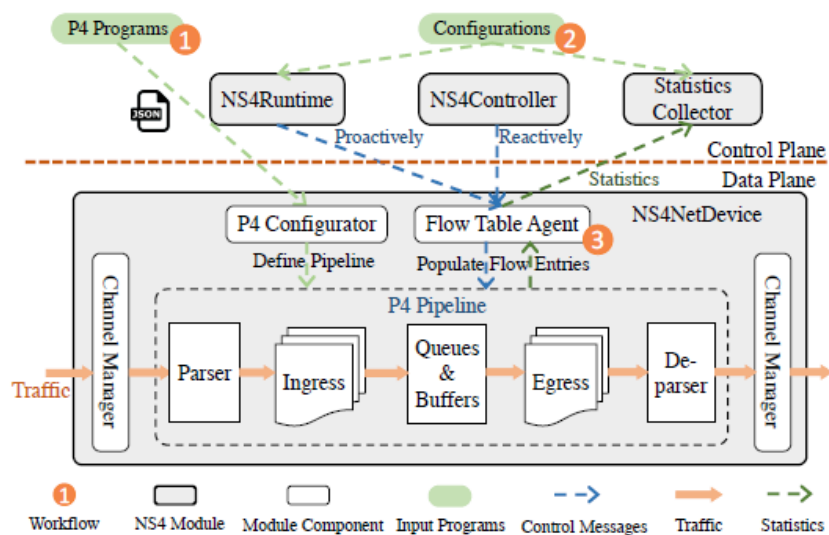
Figure 1: NS4 architecture.

（11）How to measure the speed of light with programmable data plane hardware

地址：https://github.com/ralfkundel/P4STA
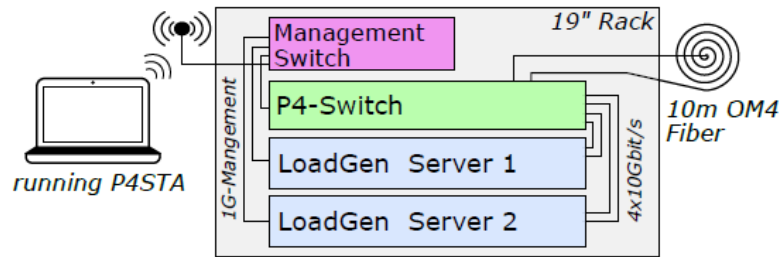
（12）DataPlane Broker: Open WAN control for multi-site service orchestration

地址：https://github.com/DataPlaneBroker/DPB/
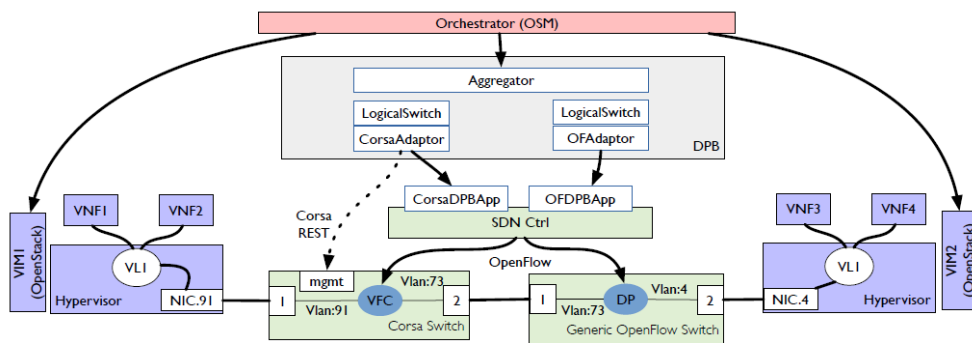
（13）Towards Low Latency Industrial Robot Control in Programmable Data Planes

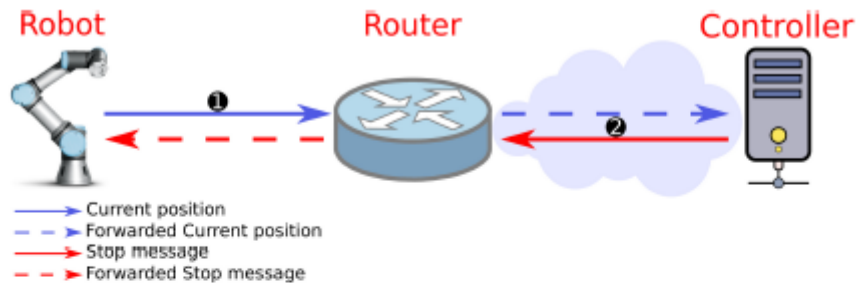地址：https://github.com/ecwolf/p4_robot
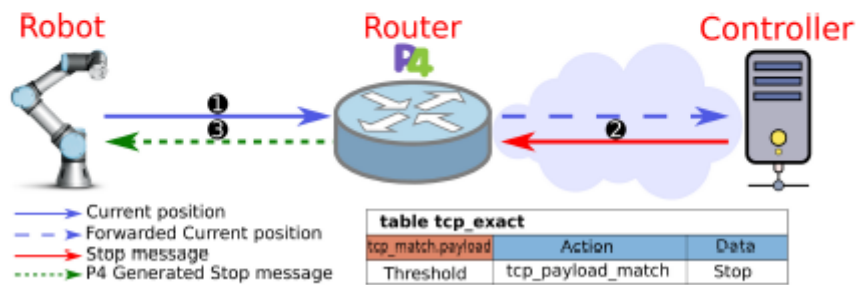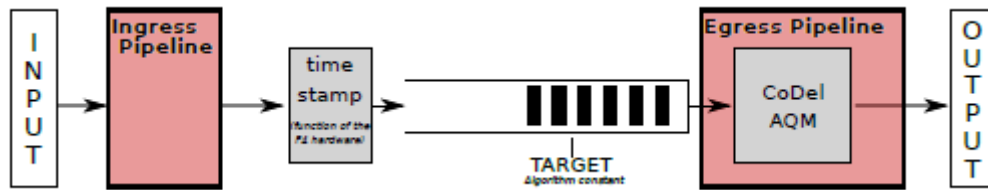

Fig. 4: Traditional scenario without in-network control.

Fig. 5: In-network P4-based implementation.

（14）P4-CoDel: Active Queue Management in Programmable Data Planes

地址：https://github.com/ralfkundel/p4-codel

（15）Offloading Real-time DDoS Attack Detection to Programmable Data Planes

地址：https://github.com/aclapolli/ddosd-p4
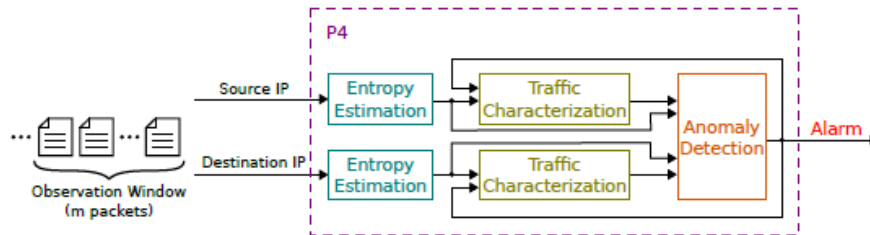
（16）OmniMon: Re-architecting Network Telemetry with Resource Efficiency and Full Accuracy

地址：https://github.com/N2-Sys/OmniMon
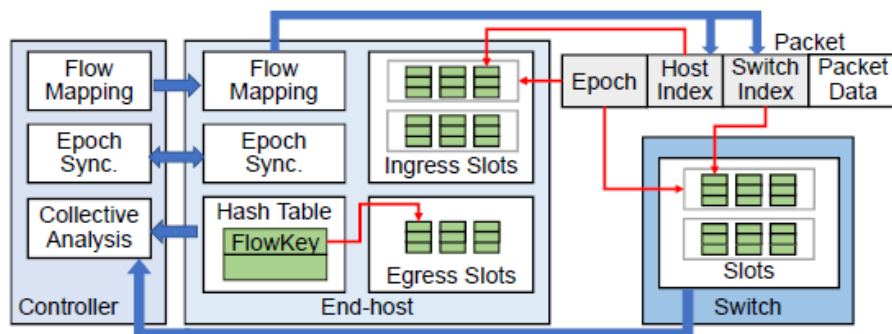
（17）Elastic Sketch: Adaptive and Fast Network-wide Measurements

地址：https://github.com/BlockLiu/ElasticSketchCode
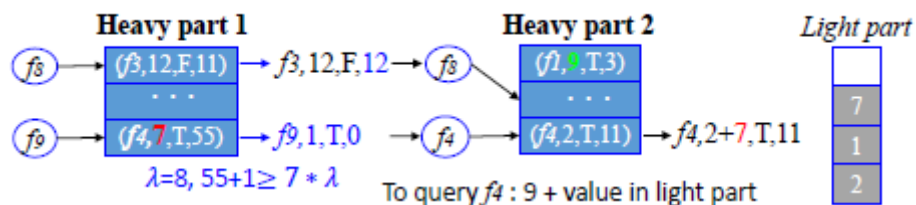
（18）BeauCoup: Answering Many Network Traffic Queries, One Memory Update at a Time

地址：https://github.com/Princeton-Cabernet/BeauCoup
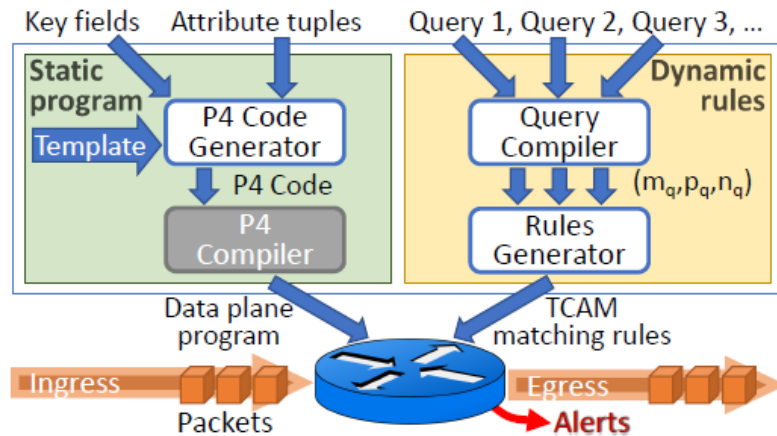
（19）CocoSketch: High-Performance Sketch-based Measurement over Arbitrary Partial Key Query

地址：https://github.com/yindazhang/CocoSketch
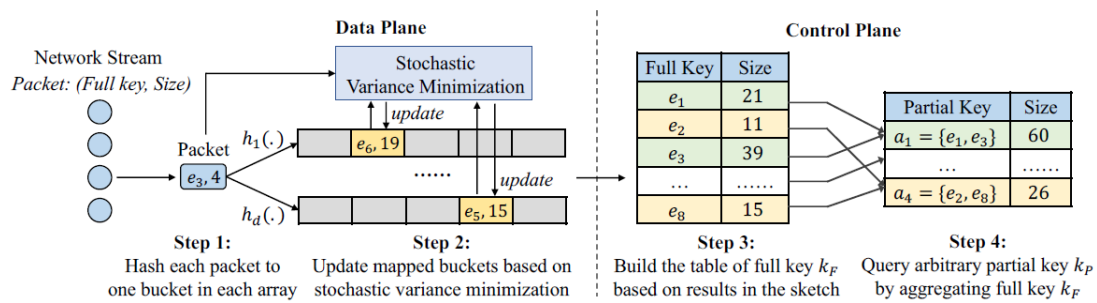
（20）Programmable Packet Scheduling with a Single Queue

地址：https://github.com/netx-repo/AIFO
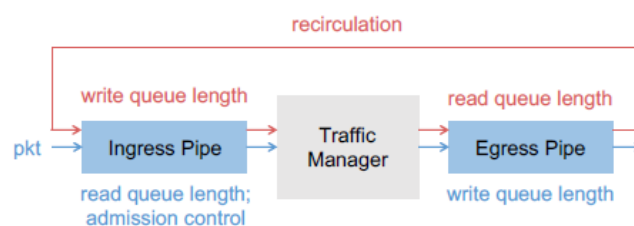
（21）RedPlane: Enabling Fault-Tolerant Stateful In-Switch Applications

地址：https://github.com/daehyeok-kim/redplane-public
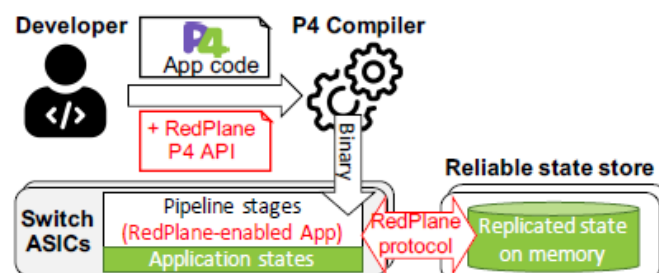
（22）Mantis: Reactive Programmable Switches

地址：<u>https://github.com/eniac/Mantis</u>