A YANG Data Model for Client Signal Performance Monitoring

CCAMP WG, IETF106, Singapore

draft-zheng-ccamp-client-pm-yang-00

Authors:
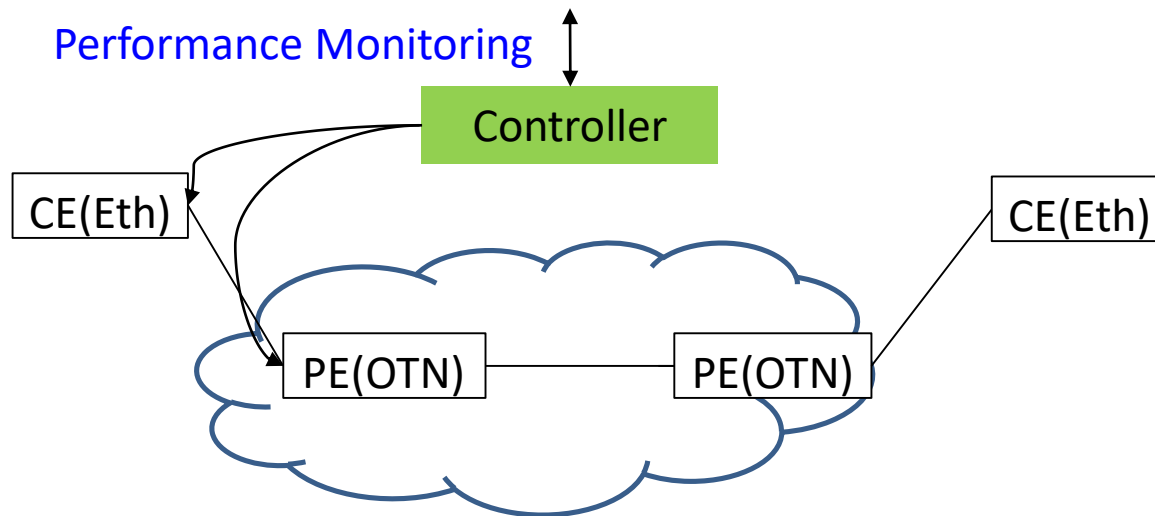Haomian Zheng (zhenghaomian@huawei.com)
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Why the model is needed?

- Motivation:
  - Services(*) are configured on TE tunnels (e.g., OTN);
    - Ethernet service;
    - Transparent client signals;
  - Performance need to be monitored for operation need;

Performance Monitoring

Controller

CE(Eth)

CE(Eth)

PE(OTN)

PE(OTN)

*: https://tools.ietf.org/html/draft-ietf-ccamp-client-signal-yang-01

Model Relationship

General Framework for OAM/Alarm: Reference as Guidance

RFC8531(OAM)   RFC8632 (Alarm)

Draft-ietf-ccamp-client-signal-yang   This Document

ietf-eth-tran-service → ietf-eth-service-pm

ietf-trans-client-service → ietf-trans-client-svc-pm

Other PM-related Documents:
- draft-ietf-teas-actn-pm-telemetry-autonomics: focus on the PM mainly on VN and Tunnels, instead of service (covered in this document);
- draft-www-bess-yang-vpn-service-pm: focus on the VPN level, especially among overlay VPN sites;

What parameters are in scope?

```
module: ietf-eth-service-pm
  +--rw performance-monitoring
    +--rw service-pm* [service-name]
      +--rw service-name           leafref
      +--rw pm-enable?             boolean
      +--rw latency-monitoring
      |  +--rw latency-measure-enable?   boolean
      +--ro service-pm-state
        +--ro start-time?          yang:date-and-time
        +--ro last-update-time?    yang:date-and-time
        +--ro latency?             uint32
        +--ro error-message?       string
        +--ro service-oper-status?  identityref
```

Setting the latency monitoring

Get the latency data

Parameters	Layer2	Layer1	Layer0	Status
Delay/Latency	✓	✓	✓	In the draft
Bit Error Rate(BER)	?	✓	✓	Planning
Packet Loss	✓	✗	✗	Planning
Jitter	✓	✓	✓	Planning
Bandwidth	✓	✓	✓	Planning
Byte/Packet number	✓	✓	✓	Planning
Power	✗	✗	✓	Planning

Discussion

- ## To move forward:
  - Confirm the work is useful;
  - Agree on the scope, especially technology-specific;
  - Agree on the model relationship;
  - Continue working on bring other parameters for monitoring.