A YANG Data Model for Optical Resource Performance Monitoring

CCAMP WG, IETF119

draft-yu-ccamp-optical-resource-pm-yang-03

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Currently all the functionalities of MTOSI PM interfaces have been covered by our draft.

This model is harmonized with existing IETF data models, e.g. RFC8345(network topology) and inventory.
Updates After Last IETF Meeting

Some use cases and corresponding examples are designed in appendix:

- Get the Performance Monitoring Capabilities of A Specific Resource
- Creating & Deleting a Performance Monitoring Task
- Get the Current Performance Monitoring Data of Resources
- Get the History Performance Monitoring Data of Resources
- TCA
  - Create a TCA Profile
  - Get All the TCA Profiles
  - TCA Configuration on Resource
  - Notification of TCA
  - Get All the Resources Associated with A Specific TCA Profile
Next Step

- Call for Working Group Adoption
- Collaborate with the service PM draft
A YANG Data Model for Transport Network Client Signals

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The Latest Update

- Indicate the relationship between optical resource PM draft;
  - The YANG data model is operated on different level of objects;
  - The calculation of Service PM data can be based on the resource PM data;
- Introduce two new use cases of service PM;
  - Automatic Service Acceptance Test
  - Private Line Service SLA Assurance
- Update the section of parameter consideration;
  - Service Latency Measurement
UCs for Service PM

1) The traditional approach is human intensive and take more time to market;
2) Service PM can make the acceptance test more automatic

UC1. Automatic Service Acceptance Test

UC2. Private Line Service SLA Assurance

- SLA (Service Level Agreement) could be visible for the user;
- Operators can do the maintenance work proactively;
Service Latency Measurement

- The latency value can be measured by several overheads sent from source node and looped back by the destination node. More detailed information can reference to section 15.8.2.1.6 in ITU-T G.709.

**Single-Domain Scenario**
- Orchestrator
- Domain Controller

**Multi-Domain Scenario**
- Orchestrator
- Domain Controller
- Domain Controller1
- Domain Controller2

- The overhead cannot be sent from the source node before the destination is looped back.
- For single-domain scenario, the domain controller can do the orchestration
- For multi-domain scenario, an orchestrator is needed to do the orchestration
Next Step

- Try to define more service performance monitoring parameters and corresponding measurement mechanism;
- Collaborate with Optical resource PM draft.
Thank You