A YANG Data model for Event Management
draft-wwx-netmod-event-yang-01

Michael Wang (wangzitao@huawei.com)
Qin Wu (bill.wu@huawei.com)
Chongfeng Xie (xiechf@ctbri.com)
Recap

• This draft defines a YANG data model for the ECA based network policy management
  • Provides the ability for the network management function (i.e. a controller, an orchestrator, or a network element) to control the configuration and monitor state change on the network element;
  • Take simple and instant action when a trigger condition on the system state is met.

• This draft was firstly discussed in last NETMOD meeting.
• The WG suggest to coordinate with Smart-filter draft.
Updates since last IETF 103

• Polish the texts
  • Clarify the difference between boolean trigger condition and threshold trigger condition.
  • Synchronize the terms with RFC8328 (a policy-based management framework)

• Split the Event Management model into “ietf-event-trigger.yang” module and “ietf-event.yang” module.
  • make the event-trigger reusable in other YANG models.

• Change “evt-smp-min” and “evt-smp-max” into “min-data-object” and “max-data-object” in the “ietf-event.yang” module.
Model Overview

Before

Reusable Groupings:

After

Reuse the groupings defined in event-trigger module
Next Steps

• Solicit more comments
  • Your comments and suggestions are welcome!
• Improve our solution and document
• Seeking WG adoption
What does the event yang do?

- **Event A**: A TE tunnel (tunnel a2b) is set up between VPN’s site A and site B;
  - **Target**: ../../tunnel [name='a2b']
  - **Trigger**: this tunnel be set up successfully
  - **Action**: trigger a function: enable the performance monitoring of tunnel a2b
- **Event B**: Monitor the tunnel a2b’s loss packets number
  - **Target**: ../../tunnel [name='a2b']/loss-pkts
  - **Trigger**: loss packets number cross the threshold
  - **Action**:
    1. sent a notification—“Loss packets number cross the threshold”,
    2. and automatic set corresponding value, for example switch the path.
- **Event C**: Monitoring the tunnel a2b’s state
  - **Target**: ../../tunnel [name='a2b']/state
  - **Trigger**: tunnel a2b down
  - **Action**:
    1. sent a notification –“a2b down”,
    2. and trigger another event—Event D: active/standby failover.

**Usage Example: Lifecycle management for a VPN service**

1. **Target A**:../../tunnel [name='a2b']
2. **Target B**:../../tunnel [name='a2b']/loss-pkt
3. **Target C**:../../tunnel [name='a2b']/state

**Controller**  
**System**

- **Action A**: Monitor a2b’s loss pkt
- **Action B**: Notif EventB
- **Action C**: Notif EventC

**Measurements**

- **Trigger A**:“../../tunnel [name='a2b']” exist
- **Trigger B**:../../tunnel [name='a2b']/loss-pkt>100
- **Trigger C**:../../tunnel [name='a2b']/state=down