LIME Connection-Oriented OAM Base YANG Model Work Update

draft-ietf-lime-yang-oam-model-03

Deepak Kumar
Qin WU
Zitao WANG
T. Senevirathne
N. Finn
S. Salam
Design Goal

• Look for common structure for Connection-Oriented OAM technologies (eg. Trill OAM, MPLS-TP OAM) to provide consistent representation
• Using configuration model to provide consistent configuration and representation
• Using RPC blocks for Connection-Oriented OAM command (e.g.,) to provide consistent reporting and representation.
• Using Notification model to provide consistent reporting and representation.
• Look for better reusability and extensibility.
Document Update of Lime base model: 01 to 02

- Split the lime model into two: Connection-Oriented OAM (this draft) & Connectionless OAM (draft-kumar-lime-yang-connectionless-oam)
- Modify some descriptions and use cases to conform to the scope of connection-oriented OAM.
- Change the model name to ietf-conn-oam.
  
  module: ietf-gen-oam ietf-conn-oam

- Remove the identity ipv4 & identity ipv6 from the connection-oriented oam model.

  identity ipv4 { 
  base technology-types: 
  description 
  “technology of ipv4"; 
}

  identity ipv6 { 
  base technology-types: 
  description 
  “technology of ipv6"; 
}

- Modify the rpc out blocks to make it more general.
Document Update of Lime base model: 02 to 03

• Remove the identity icmp-rfc792 from the connection-oriented oam model

```plaintext
identity icmp-rfc792 {
   base command-sub-type:
   description
   "Defines the command subtypes for ICMP ping";
   reference "RFC 792";
}
```

• Delete the connectionless oam technologies in the description of technology-types and command-sub-type.

• Change the typedef Interval type to decimal 64 to satisfied the 3.3ms.

```plaintext
typedef Interval {
   type uint32;
   units "milliseconds";
   default "1000";
   description
   "Interval between packets in milliseconds. 0 means no packets are sent."
}
```

• Change the interval to transmit-interval
Usage of Connection-oriented OAM model

- How to extend to technology specific connection-oriented oam?
  - E.g., Trill oam:
    • easy extend to trill oam (draft-ietf-trill-yang-pm-00 & draft-ietf-trill-yang-00 )
  - E.g., MPLS-TP oam:
    • mpls-tp oam adopt the MD/MA/MEP’s structure
    • Lime connection-oriented yang model can well describe the MPLS-TP OAM structure:
      – Md-name -> Global_ID(Autonomous System Number) ;
      MA-name -> MEG_IDs; MEP-name -> ME_IDs(RFC6370).
    • related YANG models: draft-zhang-mpls-tp-yang-oam
    • We will discuss with author of mpls-tp oam yang to make the connection-oriented oam base model more generic and satisfy the mpls-tp oam’s requirements.
Next Step

• Fix the open issues raised on the list
• Solicit more comments and reviews on the draft