DRAFT YANG FOR CFM P802.1Qcx

Scott Mansfield
scott.mansfield@ericsson.com

IEEE 802 Plenary, July, 2017, Berlin
INTRODUCTION

› Update to Ericsson’s draft of CFM YANG
› Modifications to the structure of the Maintenance Domain hierarchy
› Separate the Read/Write Configuration from the Read Only Operation trees
› Review of other modifications
› Future work
HIERARCHY CHANGE

From:
› +md
› +ma
› +mep

To:
› +md
› +ma
› +mep

Hierachy change:

```yaml
+--rw cfm
    +--rw default-md
        | +--rw entry* [component-name primary-vid]
        +--rw cfm-vlan* [component-name vid]
    +--rw md* [format md-name]
        +--rw format cfm:maint-domain-name-type
        +--rw md-name cfm:maint-domain-name
    +--rw ma* [format ma-name]
        +--rw format cfm:maint-assoc-name-type
        +--rw ma-name cfm:maint-assoc-name
        +--rw ma-comp* [component-name]
            +--rw component-name -> /dot1q:bridges/bridge/component/name
        +--rw mep* [mep-identifier]
            | +--rw mep-identifier cfm:mep-id
        +--rw mep-list* [mep-list-identifier]
            +--rw mep-list-identifier cfm:mep-id
```
Augment the “cfm-state” from /dot1q:bridges/dot1q:bridge-state, and use the same hierarchy to create the RO tree

```
augment /dot1q:bridges-state/dot1q:bridge:
  +--ro cfm-state
    +--ro default-md
      |    +--ro entry* [component-name primary-vid]
      |    | +--ro status? boolean
      |    +--ro md* [format md-name]
      |    | +--ro ma* [format ma-name]
      |    |    +--ro ma-comp* [component-name]
      |    |    | +--ro comp-number-of-vids? uint32
      |    |    +--ro mep* [mep-identifier]
      |    |    |    +--ro fng-state? cfm:fng-state
      |    |    |    +--ro cci-enabled? boolean
      |    |    |    +--ro mep-db* [rmep-identifier]
      |    |    |    | +--ro rmeip-state? cfm:remote-mep-state
      |    |    +--ro config-error-list* [vid if-index]
      |    +--ro stack* [if-index vlanid-or-none md-level direction]
```
OTHER CHANGES

› MD key update
  – Update the md key from md-index to {format, md-name}, as md-index is specific to MIB.

› MA key update
  – Update the md key from ma-index to {format, ma-name}, as ma-index is specific to MIB.

› Component ID handling
  – More research needed
  – Current Draft
    › Removes the definition of CfmPbbComponentIdentifier.
    › Replaces the component-ID by component name and refers it to the Bridge.
      - component-name -> /dot1q:bridges/bridge/component/name

› Reference section update according to IEEE 802.1q 2014.

› Add the leaf-list active-rmep under mep
  – covers the gap from 802.1ag 2007 ->IEEE 802.1q 2014.
  – dot1agCfmMepDbRMeplsIsActive is newly introduced

› Removed parent identifier-string from child node according to RFC 6087bis (5.3. Identifiers)

› Removed intermediate node to reduce the complexity of hierarchy
FUTURE WORK

› Continue refinement based on further research and comments
› Continue to monitor other IEEE YANG efforts
› Support
  – Loopback
  – Link Trace
 MODELS

› YANG

ieee802-dot1ag-cfm.yang

› TREE

ieee802-dot1ag-cfm.tree

NOTE: In Powerpoint double-click on the icon above
In PDF the files are attachments (View->Show/Hide->Navigation Panes->Attachments)