EPON YANG module

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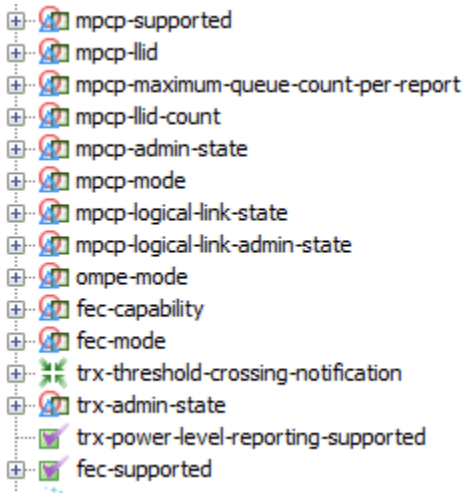
Summary

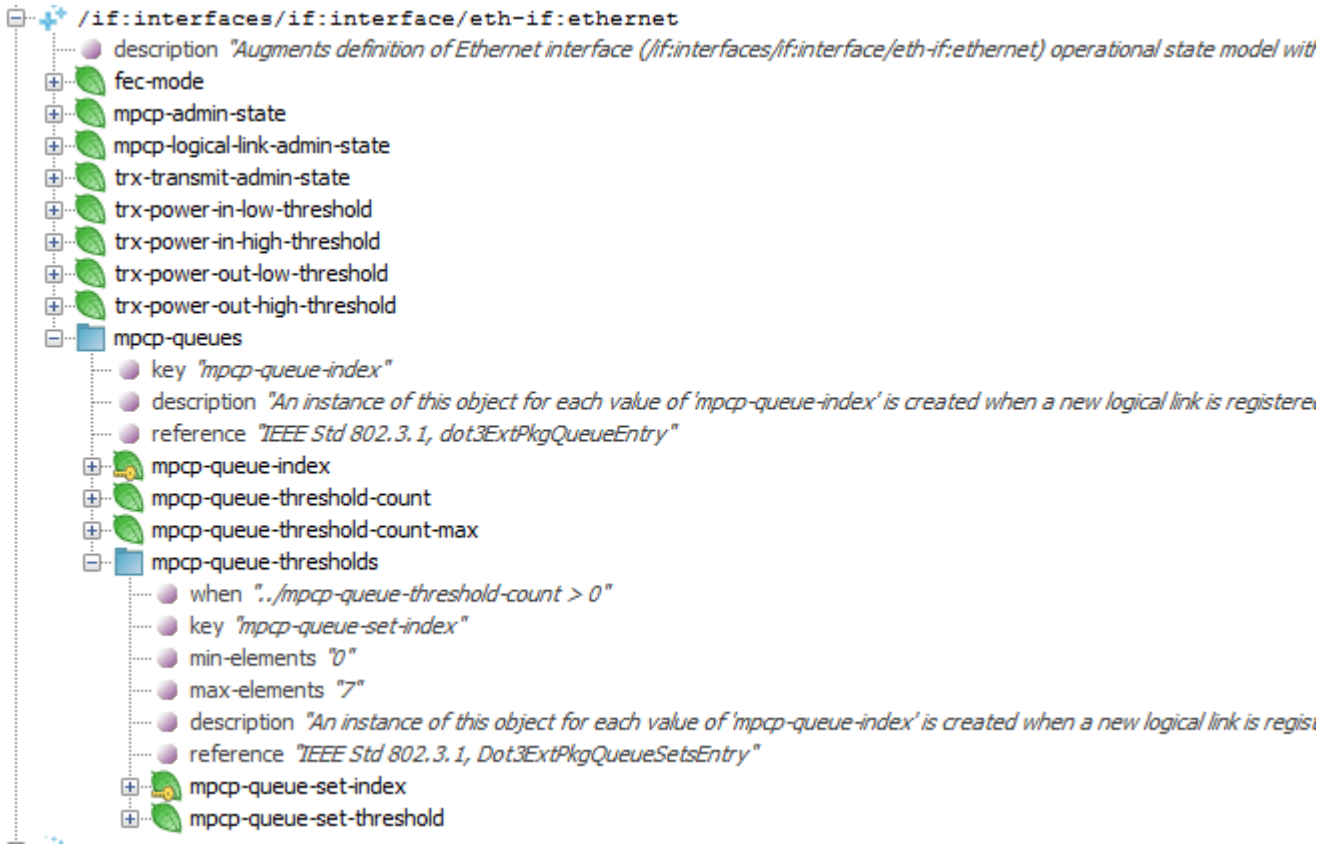
- Extends Ethernet YANG module to add support for EPON
  - EPON = Ethernet Passive Optical Network
  - MPCP = Multi Point Control Protocol
  - High level tutorial on EPON available online HERE
  - Support for IEEE Std 802.3ah/Std 802.3av (1G-EPON/10G-EPON) today (Clauses 60, 64, 65, 75, 76, 77 and associated annexes)
  - Support for IEEE P802.3ca (NG-EPON) to be added in the future
- First version of YANG module posted on GIT at HERE
  - No comments on the module received to date
  - Once base version is accepted, it will be moved to main fork of Ethernet YANG module
- Current functionality derived from Clause 9 of IEEE Std 802.3.1
  - Derived != Translated – description follows existing Ethernet YANG module
  - Similar functionality is provided to EPON SNMP MIB
  - Extensions are provided as enabled by YANG syntax / module structure
  - Details on the following slides

New data types and features @ top level



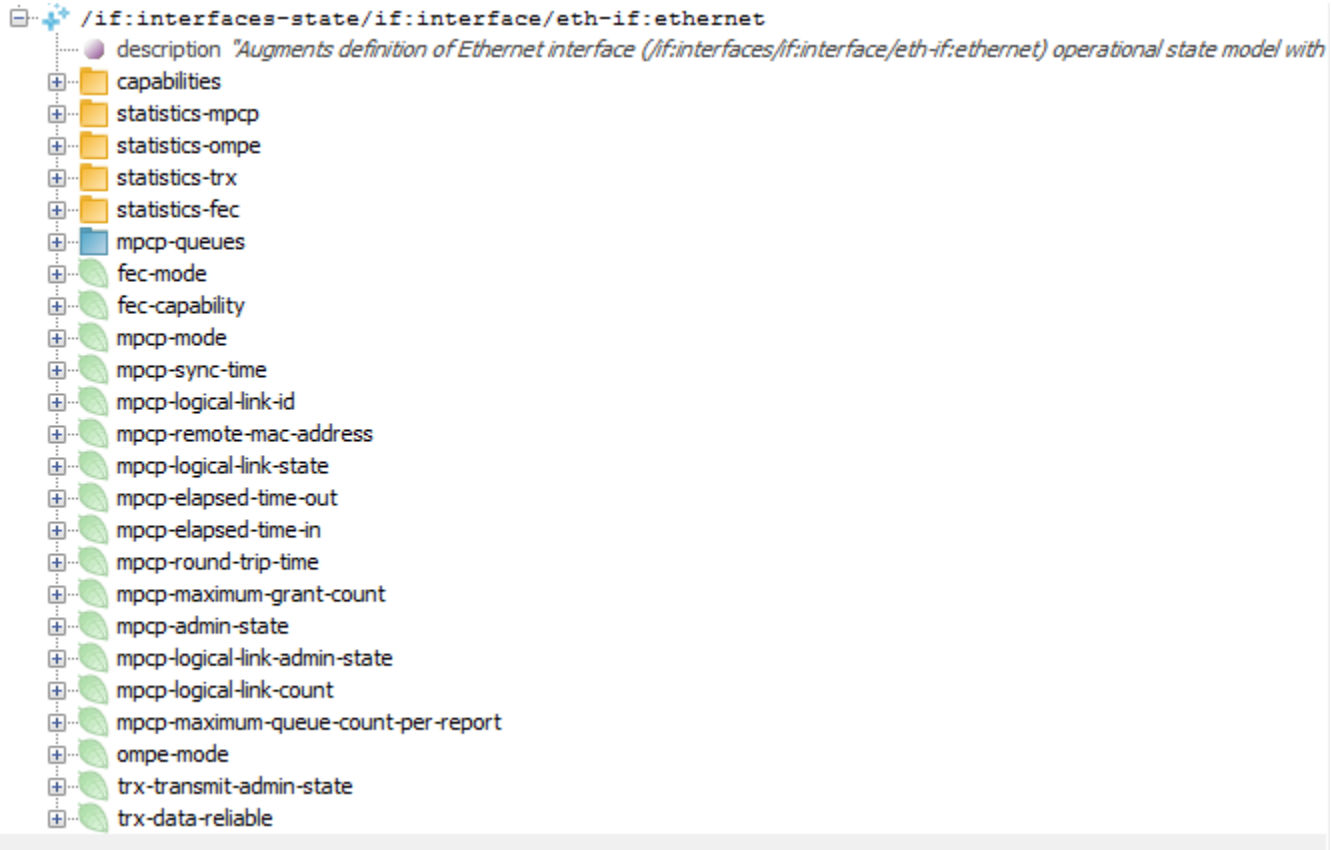
- New EPON-specific data types for MPCP, OMPE, and FEC nodes
- FEC support and transceiver power level monitoring support capabilities were added at top level to facilitate feature discovery for EPON links

if:interfaces/if:interface/eth-if:ethernet node



- New EPON-specific nodes to add control for MPCP link state, MPCP queue sets, and transceiver monitoring power levels

if:interfaces-state/if:interface/eth-if:ethernet node



- New EPON-specific nodes to add statistics for MPCP link state elements, OMPE, FEC, transceiver power levels, and general capabilities (see next slides)

capabilities / statistics-mpcp / statistics-ompe

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