A YANG model to manage the optical interface parameters for an external transponder in a WDM network

draft-dharini-netmod-dwdm-if-yang-00

Former draft-dharini-netmod-g-698-2-yang-04

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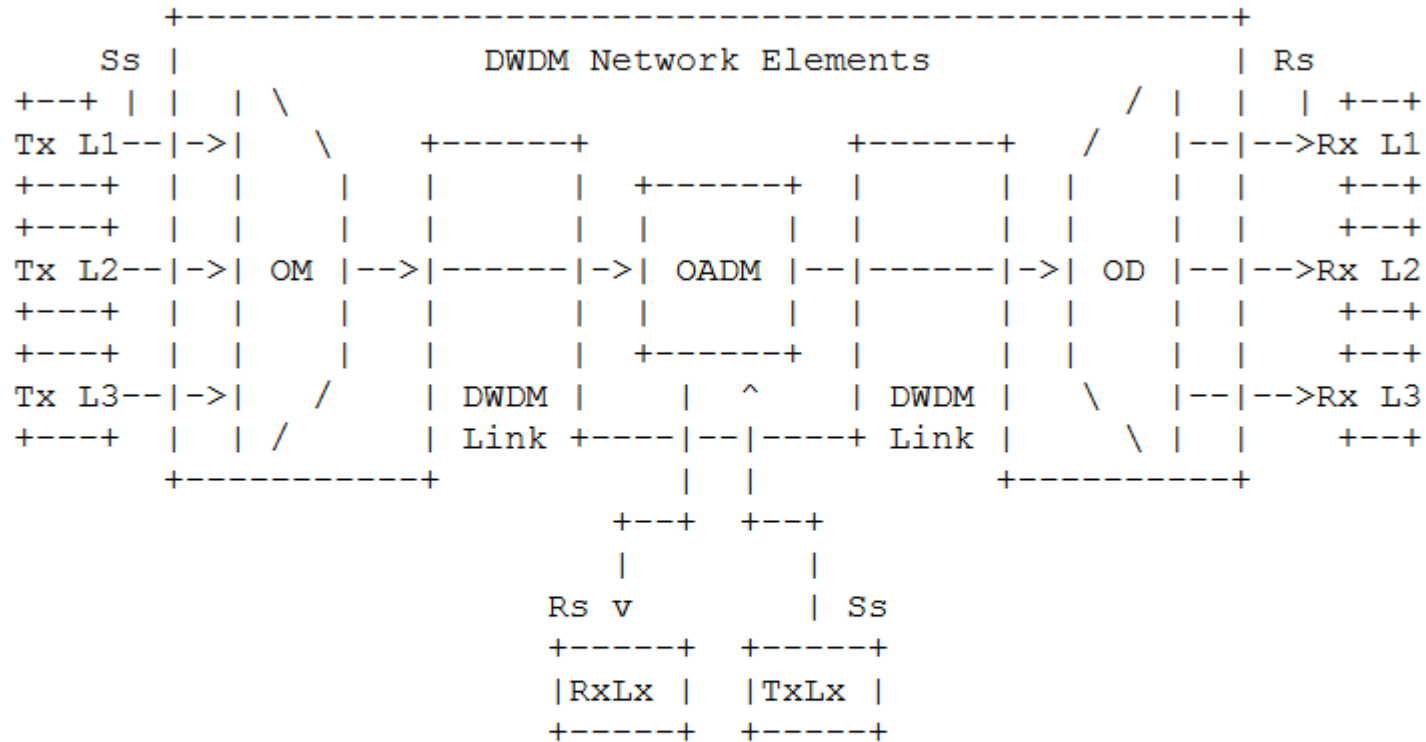
Document History

- IETF 90:   First Draft presented to netmod WG
- IETF 91:   Align yang model with SNMP draft
- IETF 92:   incorporate Yang doctor's suggestions
- IETF 93:   Alignment with discussions at IETF 92
- IETF 93:   replaced draft-dharini-netmod-g-698-2-yang-04 by
  draft-dharini-netmod-dwdm-if-yang-00 for a more generic approach

External Transponder Model

```
                 +------------------------------------------------+
       Ss  |                 DWDM Network Elements          |  Rs
+--+ |  |   | \                                    / |  |   | +--+
Tx L1--|->|    \        +------+                +------+   /    |--|-->Rx L1
+---+  |  |    |    |      |          | +------+    |       |  |    |    |  +--+
+---+  |  |    |    |      |          | |      |    |       |  |    |    |  +--+
Tx L2--|->|  OM |-->|------|->|  OADM |--|------|->|  OD |--|-->Rx L2
+---+  |  |    |    |      |          | |      |    |       |  |    |    |  +--+
+---+  |  |    |    |      |          | +------+    |       |  |    |    |  +--+
Tx L3--|->|    /     | DWDM |      |  ^       | DWDM |    \   |--|-->Rx L3
+---+  |  | /        | Link +----|--|----+ Link |      \ |  |    +--+
       +----------+              |  |         +----------+
                              +--+  +--+
                              |        |
                         Rs v          | Ss
                         +-----+    +-----+
                         |RxLx |    |TxLx |
                         +-----+    +-----+
Ss = reference point at the DWDM network element tributary output
Rs = reference point at the DWDM network element tributary input
Lx = Lambda x
OM = Optical Mux
OD = Optical Demux
OADM = Optical Add Drop Mux
```

Motivation & Problem statement

Problem:
- External Transponders used in several applications
- Interface model for colored side of transponders not defined

Motivation:
- Provide a standard way to operate wavelength Interfaces with netconf/yang

I E T F ®

Status

- Yang Module "ietf-ext-xponder-wdm-if " is defined as an extension to ietf interfaces.
- Changes since IETF93
  - ITU-T SG15 agreed on the use case: added use case aligned with draft-dharinigert-ccamp-DWDM-if-Imp-00
  - Authors extended the OTN Information Model of G.874.1 to include power measurement and control.
  - Modified wavelength central frequency definition
  - Fixed minor syntax issues

Next Steps

- Keep alignment with related effort in CCAMP
- Focus on operations aspects