Optical: Digital Optical Monitoring (DOM)

Information

Digital Optical Monitoring (DOM) is an industry wide standard, intended to define a digital interface to access real-time operating parameters such as:

- Optical Tx Power - light level transmitted
- Optcal Rx Power - light level received
- Laser Bias Current
- Temperature
- Transceiver Supply Voltage

With the use of DOM, we are able to perform transceiver monitoring and troubleshooting operations in regards to SFPs that WiscNet deploys on CPE or hub devices.

We strive to use optics that support DOM on all vendors devices, such as FlexOptix when programmed appropriately.

Commands

Cisco

Digital Optical Monitoring - DOM

```
show interfaces transceiver
```

Fortigate

```
get sys interface transceiver
```

Juniper

```
show interfaces diagnostics optics
```

Brocade

ⓘ   Requires 'optical-monitor' to be in the interface config. It only lets you put it in if it likes the optic. Also will only show DOM when an interface is already linked AND after a minute or so.

```
show optic 1/1/x
```

HP

```
show interfaces transceiver <> detail
```

Opengear

```
sfp_info
```

Graphing

Both Observium and GNMIS will trend DOM data over time.

- Observium
  - Find the device and interface, it should show up as a sensor.
  - Direct link to all DOM sensors in observium

- GNMIS
  - Uses the SNMP MIB name as the dataset, so varies by vendor.
  - Juniper
    - jnxDomCurrentRxLaserPower / jnxDomCurrentTxLaserPower (native) OR jnxUtilReceivePowerdBm if SLAX script based
    - GNMIS link to these datasets
  - Cisco
    - entSensorValue
    - GNMIS link to these datasets