



CXone Mpower EXPERT

存储上的SFP功率低于建议值

https://kb-cn-stage.netapp.com/on-prem/ontap/OHW/OHW-KBs/SFP_power_below_recommended_val...

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执行

适用场景

- FAS/AFA系统
- ONTAP 9
- 光纤通道(FC)

问题描述

- FC链路中断、链路轻拍和/或FCP性能下降。
- Sysconfig -a 将状态显示为"link not connected"或"link disconnected"

```
slot 0: Fibre Channel Target Host Adapter 0h
```

```
(QLogic 8324 (8362) rev. 2, <LINK NOT CONNECTED>)
```

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```
Firmware rev:      8.9.0
Flash rev:         4.1.0
Host Port Addr:    000000
Connection:        No link
Switch Port:       Unknown ? xxxx:41
    SFP Vendor Name:  AVAGO
    SFP Vendor P/N:   AFBR-57F5MZ-NA1
    SFP Vendor Rev:   01
    SFP Connector:    LC
    SFP Capabilities: 4, 8, 16 Gbit/Sec
```

- FCP-ADAPTER.XML 登录ASUP 会将受影响端口的Rx/Tx值显示为0.0 uW。

```
Rx : 0.0 (uWatts)
```

```
Tx : 0.0 (uWatts)
```

- 收到有关NetApp上的存储LIF的以下错误：

```
Service: Interface FCP XXX.FC_LIF State: CRITICAL Time: Wed Mar 15 15:16:13 CET 2023 Description:
CRIT - State: online, 8 Gbit/s (wrong speed, expected 16 Gbit/s(!)), Address x0:0a:09:84:80:74:xy:xx,
Read: 1235654.27, Write: 9303298.57, Read OPS: 71, Write OPS: 138, Latency: 1.15 ms, Read Latency: 0.
03 ms, Write Latency: 1.08ms
```

- 记录了以下EMS 事件-

```
Tue Feb 27 00:20:29 +0000 [netapp: fct_tpd_work_thread_0:
```

```
scsitarget.fct.sfpTxPowerLow:alert]: The SFP in FC target adapter 0f reports that
it is transmitting (TX) at a low level of power. Operating value 263 (uWatts),
Threshold value 317 (uWatts).
```

- network fcp adapter show 在ONTAP命令行界面上显示低TX功率：

```
Received Optical Power 570.7 (uWatts)
```

```
SPF Transmitted Optical Power 123.8 (uWatts)
```

- Rx功率低表示问题描述上游连接到存储端口、即交换机端的缆线和SFP中的硬件有故障 这不是存储上的SFP的问题。
- 低Tx功率表示存储端口上存在问题描述。
- 以下值为近似值：

SFP 版本

光值范围

短波2/4/8GB SFP接收功率范围

-6 dBm (250 uWatt)到-2 dBm (630 uWatt)

SFP 版本

光值范围

短波2/4/8GB SFP传输功率范围	-6 dBm (250 uWatt)到0 dBm (1000 uWatt)
短波4/8/16 Gb SFP接收功率范围	-5.2 dBm (300 uWatt)到0 dBm (1000 uWatt)
短波4/8/16 Gb SFP传输功率范围	-5.2 dBm (300 uWatt)到-1 dBm (790 uWatt)
短波8/16/32 Gb SFP接收功率范围	-4.6 dBm (340 uWatt)到2 dBm (1580 uWatt)
短波8/16/32 Gb SFP传输功率范围	-4.6 dBm (340 uWatt)到2 dBm (1580 uWatt)

- 可能发生关联：

- 增加交换机端口上的错误计数器
- 主机操作系统出现IO故障和/或超时
- 来自主机操作系统的的一个或多个故障路径
- 存储控制器上的FC目标端口处于<OFFLINE >或 <LINK NOT CONNECTED >状态
- 链路重置/端口重置
- 适配器发现挂起错误