



无法访问ESXi数据存储库、并显示错误"device enters the all paths down state"

https://kb-cn.netapp.com/hybrid/FlexPod/ESXi_datastores_not_accessible_with_error_device_entered_...

Updated: 周五, 19 4月 2024 22:39:57 GMT

适用场景

- VMware ESXi所有版本
- ONTAP 9

问题描述

- 主机报告所有路径均已关闭、并且无法访问存储
- 在主机日志中显示错误消息：
 - `cpu34:33313)StorageApdHandler: 982: APD Handle Created with lock[StorageApd-0x43041149xxb0]`

- [APDCorrelator]:[vob.storage.apd.start] Device or filesystem with identifier [x] has entered the All Paths Down state.
- [APDCorrelator]:[esx.problem.storage.apd.start] Device or filesystem with identifier [x] has entered the All Paths Down state.
- ESX 数据存储库发现存储设备的大量路径冗余 naa.600a0980383x363644xxf41354x6773 已降级。路径 vmxbal:C0:Tx44:L100 已关闭。受影响的数据存储库：EsxHxxPrdVxiOs900_ushouxxor1011
- 受影响主机启动程序的EMS日志中观察到的以下登录事件：

```
Tue Nov 14 07:08:14 -0600 [ushouxxor10-09: fct_tpd_work_thread_0:
scsitarget.fct.portLogin:notice]: Login at target FC port: '2a' by
initiator port: '20:0x:0x:25:bx:02:a0:76' address 0xe80xx6. The target
virtual port is: 'NetApp FC Target Port (LPe32000)
ushoxxor1011-EsxVxi:ushoxxor10-0x_fx_lif_1'.
Tue Nov 14 07:08:14 -0600 [ushouxxor10-09: fct_tpd_work_thread_0:
scsitarget.fct.portLogin:notice]: Login at target FC port: '4a' by
initiator port: '20:0x:0x:2x:bx:02:a0:76' address 0xe80xx6. The target
virtual port is: 'NetApp FC Target Port (LPe32000)
ushoxxor1011-EsxVxi:ushoustor10-0x_fx_lif_3
```

- IO WQE 在EMS日志中观察到扩展状态为16的错误：

```
Tue Nov 14 07:08:19 -0600 [ushxxstor10-09: fct_tpd_work_thread_0:
fcp.io.status:debug]: STIO Adapter:2b IO WQE failure, Handle 0x3, Type 8,
S_ID: C8xx92, VPI: 279, OX_ID: 472A, Status 0x3 Ext_Status 0x16
```

- 从 vobd 主机日志路径已从观察到的死错误中更改：

```
2023-11-14T14:16:43.461Z: [scsiCorrelator] 6940447943826us:
[vob.scsi.scsipath.pathstate.on] scsiPath vmhba2:C0:T14x:L100 changed
state from dead
2023-11-14T14:16:43.485Z: [scsiCorrelator] 6940447967687us:
[vob.scsi.scsipath.add] Add path: vmhba2:C0:T16x:L100
2023-11-14T14:16:43.492Z: [scsiCorrelator] 6940447974351us:
[vob.scsi.scsipath.pathstate.on] scsiPath vmhba2:C0:T16x:L100 changed
state from dead
2023-11-14T14:16:43.540Z: [scsiCorrelator] 6940448022605us:
[vob.scsi.scsipath.add] Add path: vmhba2:C0:T14x:L100
2023-11-14T14:16:43.551Z: [scsiCorrelator] 6940448033745us:
[vob.scsi.scsipath.pathstate.on] scsiPath vmhba2:C0:T14x:L100 changed
state from dead
```

- 可以验证以下步骤、这些步骤可能会触发存储设备的APD状态：
 - 可能的网络结构问题
 - 验证端到端连接
 - 验证所有终端端口状态
 - 检查潜在性能问题