



由于 IOM 模块故障导致磁盘冗余失败

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

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适用于

- IOM3
- IOM6 或 IOM6E
- IOM12 或 IOM12E
- IOM12B
- ONTAP 9

问题

- 收到主题为 `DISK REDUNDANCY FAILED` 的 Autosupport
- autosupport 中的 SYSCONFIG-A 将 HA 对中的两个节点显示为混合路径：

```
NetApp Release 9.8P3: Sat Mar 27 04:59:49 EDT 2021
System ID: 0536947201 (node-02); partner ID: 0536947911 (node-01)
System Serial Number: 701441000256 (node-02)
System Rev: B0
System Storage Configuration: Mixed-Path HA
```

- SYSCONFIG-A 在 1 个路径上显示较少的磁盘架：

使用 IOMB 的路径：

```
Shelf 0: DS224-12 Firmware rev. IOM12E A: 0250 IOM12E B: 0250
Shelf 1: DS224-12 Firmware rev. IOM12B A: 0130 IOM12B B: 0130
Shelf 2: DS224-12 Firmware rev. IOM12B A: 0130 IOM12B B: 0130
Shelf 3: DS224-12 Firmware rev. A: ---- IOM12B B: 0130
```

使用 IOMA 的路径：

```
Shelf 1: DS224-12 Firmware rev. IOM12B A: 0130 IOM12B B: 0130
Shelf 2: DS224-12 Firmware rev. IOM12B A: 0130 IOM12B B: 0130
```

- SAS-EXPANDER-MAP 显示缺少一个磁盘架，并且在一条路径上缺少该磁盘架后连接的所有磁盘架都缺失。在这种情况下，磁盘架 52 缺失。

```
node-01:
Expanders on channel 0a:
Level 1: WWN 500a098004cf03ff, ID 50, Serial Number ' SHJMS1441000930',
Product 'DS22412IOM12 ', Rev '0200', Slot B
Level 2: WWN 500a098004df3f7f, ID 51, Serial Number ' SHJMS1441000668',
Product 'DS22412IOM12 ', Rev '0200', Slot B
```

```
Node-02:
Expanders on channel 4d:
Level 1: WWN 500a098004cf11ff, ID 57, Serial Number ' SHJMS1441000951',
Product 'DS22412IOM12 ', Rev '0200', Slot B
Level 2: WWN 500a098004cf00ff, ID 56, Serial Number ' SHJMS1441000944',
Product 'DS22412IOM12 ', Rev '0200', Slot B
Level 3: WWN 500a098004c9aa7f, ID 55, Serial Number ' SHJMS1442000106',
Product 'DS22412IOM12 ', Rev '0200', Slot B
Level 4: WWN 500a098004cdf2bf, ID 54, Serial Number ' SHJMS1442000111',
Product 'DS22412IOM12 ', Rev '0200', Slot B
Level 5: WWN 500a098004d53aff, ID 53, Serial Number ' SHJMS1442000104',
```

Product 'DS22412IOM12', Rev '0200', Slot B