

# 知 3PAR 8200节点无法通过自检并报 Fatal error: Code 37, sub-code 0x80000080

存储系统 硬件相关 崔成男 2020-02-12 发表

## 组网及说明

3PAR8000系列

## 问题描述

3PAR8200 更换节点后，有报PCI Device 告警。具体代码为 Fatal error: Code 37, sub-code 0x80000080。

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[12:47:58] Error in PCI device 00.01.00 (IvyBridge #0 PCIe Root Port 1a):
[12:47:58] PCI-PCI Class Bridge [0604]
[12:47:58] Bar 0 32b Expected = 0000000000, Read = 0000000000
[12:47:58] Bar 1 32b Expected = 0000000000, Read = 0000000000
[12:47:58] Bar 2 [00120100]: Bus Err 00, Sec 01 - 12
[12:47:58] Bar 3 [400000f0]: I/O Register Space None
[12:47:58] Bar 4 [bfff09200]: Mem 32 Space 92000000 - bfffffff
[12:47:58] Bar 5 [00210001]: Mem 64 Space 40000000000 - c40002ffff
[12:47:58] PCI status (0x06) [4010]: Signaled system error (SERR#)
[12:47:58] UNCERRSTS (0x14c) [00004000]: Completion Timeout
[12:47:58] FERRPTR (0x160) [000a]: Completion Timeout
[12:47:58] Secondary PCI status (0x1e) [4000]: Received system error (SERR#)
[12:47:58] RPERRSTS (0x17f) [5c]: Fatal Error Messages Received,
[12:47:58] First Uncorrectable Fatal,
[12:47:58] Multiple Fatal or Non-fatal Error Received,
[12:47:58] Fatal or Non-fatal Error Received
[12:47:58] RPERRSID (0x17c): 02200220
[12:47:58] Fatal_SRC=2.4.0
[12:47:58] XPGLBERRSTS (0x230) [01]: PCIe AER Fatal
[12:47:58] PCIe status (0x9a) [04]: Fatal Error detected
[12:47:58]
[12:47:58] Error in PCI device 01.00.00 (PEX8764 #0):
[12:47:58] PCI-PCI Class Bridge [0604]
[12:47:58] Bar 0 32b Expected = 0092000000, Read = 0092000000
[12:47:58] Bar 1 32b Expected = 0000000000, Read = 0000000000
[12:47:58] Bar 2 [00120201]: Bus Err 01, Sec 02 - 12
[12:47:58] Bar 3 [400001f1]: I/O Register Space None
[12:47:58] Bar 4 [bfff09300]: Mem 32 Space 93000000 - bfffffff
[12:47:58] Bar 5 [00210001]: Mem 64 Space 40000000000 - c40002ffff
[12:47:58] PCI status (0x06) [4010]: Signaled system error (SERR#)
[12:47:58] Secondary PCI status (0x1e) [4000]: Received system error (SERR#)
[12:47:58]
[12:47:58] Error in PCI device 02.04.00 (PEX8764 #0 DS4):
[12:47:58] PCI-PCI Class Bridge [0604]
[12:47:58] Bar 0 32b Expected = 0000000000, Read = 0000000000
[12:47:58] Bar 1 32b Expected = 0000000000, Read = 0000000000
[12:47:58] Bar 2 [00060402]: Bus Err 02, Sec 04 - 06
[12:47:58] Bar 3 [000001f1]: I/O Register Space None
[12:47:58] Bar 4 [93609360]: Mem 32 Space 93600000 - 936fffff
[12:47:58] Bar 5 [00210021]: Mem 64 Space c4000200000 - c40002ffff
[12:47:58] PCI status (0x06) [4010]: Signaled system error (SERR#)
[12:47:58] CORERRSTS (0xfc4) [0001]: Receiver Error
[12:47:58] UNCERRSTS (0xfb8) [00000020]: Surprise Link Down
[12:47:58] FERRPTR (0xfcc) [00a5]: Surprise Link Down
[12:47:58]
[12:47:58] Error in PCI device 00.05.02 (IvyBridge #0 RAS):
[12:47:58] ERRPINST (0xa8) [04]: Error[0] Pin
[12:47:58] GLOBAL Fatal (0x1c4) [00000040]: PCI Express Port 1a
[12:47:59]
[12:47:59] Slots Present: 0 1 2 3 4 5
[12:47:59] At Boot: x x x
[12:47:59] Current: x x x
[12:47:59]
[12:47:59]*** Fatal error: Code 37, sub-code 0x80000080 (0).
[12:48:01]Disabled FSBC boot watchdog.
[12:48:12]
[12:48:12]*** Fatal error: Code 37, sub-code 0x80000080 (0).
[12:48:12]
[12:48:12]*** Fatal error: Code 37, sub-code 0x80000080 (0).
```

## 过程分析

Code 37 通常是指出PCI板卡 校验错误，经过现场核实，这个node有外接一个PCI Card，拔掉后还是无法启动，把PCI Riser Board卡交叉测试后问题依旧。

## 解决方法

最后怀疑是Node 本身的PCI总线异常导致校验错误。更换一个新Node后问题解决。

建议：

1. 优先考虑把node内部的所有外接板卡，内存等部件重新插紧。
2. 如果问题没有解决，拔掉外接板卡（PCI卡，或者PCI riser board)后再测试
3. 更换node。