

# 知 R4900 G3服务器 MCA告警, 服务器重启

CPU 全书杰 2022-04-29 发表

## 组网及说明

装配组件-H3C UniServer R4900 G3 25SFF-RS3Z8R4900C-CTO服务器-国内海外合一版

告警信息

NA

## 问题描述

客户两台R4900 G3服务器 MCA告警，服务器重启

## 过程分析

### 【第一台】

328 Critical 1 0 0 2021-11-30 20:29:39 2021-11-30 12:29:39 SensorType: Processor, SensorName: CPU1\_Status, EventType: Discrete, Event: Machine Check Exception, Data3: 0 CPU 1 triggered an uncorrectable error. ——cpu1触发UCE报错

332 Warning 193 0 1 2021-11-30 20:29:40 2021-11-30 12:29:40 "Socket Address[48] MCA Error Src Log Info: 00h 14h 00h 00h 40h  
MCA\_ERR\_SRC\_LOG : 0x00140000  
[20] MSMI internal  
[18] MSMI\_MCERR internal" ——内部错误

334 Warning 193 0 1 2021-11-30 20:29:40 2021-11-30 12:29:40"Socket Address[48] MCE Error Log Reg Info: 00h 00h 03h c6h 40h  
MCERRLOGGINGREG : 0x000003c6  
[9] FirstMCerrSrcFromCbo  
[8] FirstMCerrSrcValid  
[7:0] FirstMCerrSrcId = 0xc6" ——cpu1内部错误指向core 6 bank 9 (后方无此bank具体报错信息)

342 Warning 193 0 1 2021-11-30 20:29:40 2021-11-30 12:29:40 "Socket Address[49] MCA Error Src Log Info: 00h a0h 00h 00h 40h  
MCA\_ERR\_SRC\_LOG : 0x00a00000  
[23] MSMI External  
[21] MSMI\_MCERR External" ——cpu2表明外部错误

344 Warning 193 0 1 2021-11-30 20:29:40 2021-11-30 12:29:40 "Socket Address[49] MCE Error Log Reg Info: 00h 00h 01h 44h 40h  
MCERRLOGGINGREG : 0x00000144  
[8] FirstMCerrSrcValid  
[7:0] FirstMCerrSrcId = 0x44" ——cpu2的FirstMCerrSrcId自证清白  
从sds日志查看大概率为cpu1出现错误——更换cpu1解决

### 【第二台】

576 Caution 1 0 0 2021-12-13 12:11:59 2021-12-13 04:11:59 SensorType: Memory, SensorName: CPU1\_DIMM\_A11, EventType: Discrete, Event: Correctable ECC or other correctable memory error, Data2: 66, Data3: 17 CPU1 A11 triggered a correctable error ——A11 CE内存可修复错误

579 Warning 193 0 1 2021-12-13 12:12:00 2021-12-13 04:12:00 "Socket Address[48] MCA Error Src Log Info: 00h 18h 00h 00h 40h  
MCA\_ERR\_SRC\_LOG : 0x00180000  
[20] MSMI internal  
[19] MSMI\_IERR internal"

581 Warning 193 0 1 2021-12-13 12:12:00 2021-12-13 04:12:00 "Socket Address[48] MCE Error Log Reg Info: 00h 00h 01h 44h 40h  
MCERRLOGGINGREG : 0x00000144  
[8] FirstMCerrSrcValid  
[7:0] FirstMCerrSrcId = 0x44"

586 Warning 193 0 1 2021-12-13 12:12:00 2021-12-13 04:12:00 "Socket Address[48] Comm Bank[16]--IMC1 Chan1:[Status] 8ch 00h 00h 40h 00h 08h 00h c1h 40h:[Address] 00h 00h 00h 1bh 8ch 44h d3h 40h 40h:[Misc] 12h 21h 00h 00h 00h 00h 86h 40h

Channel Num 2 Memory Scrubbing Error. This error indicates the patrol scrubber has detected an error.

MC16\_STATUS : 0x8c000040000800c1  
[63] Valid  
[59] MC\_MISC is valid  
[58] MC\_ADDR is valid  
[52:38] Corrected Err Count = 0x0001  
[31:16] Model Specific Error Code = 0x0008

解决方法

见过程分析

MC16\_ADDR : 0x0000001b8c44d340

[45:0] ADDRESS = 0x001b8c44d340

MC16\_MISC : 0x1221000000000086

[63:9] EXTRA\_ERR\_INFO = 0x09108000000000

[8:6] ADDR\_MODE = 0x02

[5:0] REC\_ERR\_LSB = 0x06" -指向IMC2 CHANNEL2与之前得A11内存清洗错误对应, 因此需要更换此内存

589 Warning 193 0 1 2021-12-13 12:12:00 2021-12-13 04:12:00 "Socket Address[49] MCA Error Src

Log Info: 00h c0h 00h 00h 40h

MCA\_ERR\_SRC\_LOG : 0x00c00000

[23] MSMI External

[22] MSMI\_IERR External"

591 Warning 193 0 1 2021-12-13 12:12:00 2021-12-13 04:12:00 "Socket Address[49] MCE Error Log

Reg Info: 00h 00h 01h 44h 40h

MCERRLOGGINGREG : 0x00000144

[8] FirstMCerrSrcValid

[7:0] FirstMCerrSrcId = 0x44" ——cpu2自证清白

592 Warning 193 0 1 2021-12-13 12:12:00 2021-12-13 04:12:00"Socket Address[49] PCU First IERR

Tsc Lo Info: 00h 00h 00h 00h 40h

PCU\_FIRST\_IERR\_TSC\_LO : 0x00000000" 593 Warning 193 0 1 2021-12-13 12:12:00 2021-12-13 0

4:12:00 "Socket Address[49] PCU First IERR Tsc Hi Info: 00h 00h 00h 00h 40h

PCU\_FIRST\_IERR\_TSC\_HI : 0x00000000"

594 Warning 193 0 1 2021-12-13 12:12:00 2021-12-13 04:12:00 "Socket Address[49] PCU First MCE

RR Tsc Lo Info: 00h 00h 00h 00h 40h

PCU\_FIRST\_MCEERR\_TSC\_LO : 0x00000000"

595 Warning 193 0 1 2021-12-13 12:12:00 2021-12-13 04:12:00 "Socket Address[49] PCU First MCE

RR Tsc Hi Info: 00h 00h 00h 00h 40h

PCU\_FIRST\_MCEERR\_TSC\_HI : 0x00000000" ——cpu2时间触发为0, 另一侧为故障侧

