

知 HPE Gen10、Gen10plus服务器出现关于Bank9/10/11相关的UMCE相关错误

固件升级 BIOS 谢海涛 2021-11-28 发表

组网及说明

DL580 Gen10

问题描述

服务器宕机，在IML日志中伴随出现UMCE打印：

11/15/2021 09:02:31,301: Uncorrectable Error Detected on the Previous Boot. Error information logged to the Integrated Management Log. ACTION:Check the Integrated Management Log (IML) for additional information.

11/15/2021 09:02:31,302: Uncorrectable Machine Check Exception (Processor 1, APIC ID 0x00000000, Bank 0x0000000A, Status 0xBE200000"00C110A", Address 0x00000000"E0202000, Misc 0x00207AA6"00C00086). ACTION:Update the system firmware. If the issue persists, contact support.

过程分析

关于此告警，HPE官网已发布过技术公告，为Intel CPU微码问题，需要升级BIOS版本到2.42以上：

https://support.hpe.com/hpesc/public/docDisplay?docLocale=en_US&docId=a00110879en_us

Intel has released new specification updates to their Xeon Scalable Processors (Skylake) and Second Generation Xeon Scalable Processors (Cascade Lake) in January 2021 that detail two new errata which are resolved, except for the HPE ProLiant e910/e910t Server Blade, by applying the System ROM version 2.42.

Failure Symptom 1

This failure only affects the Xeon Second Generation Scalable Processors. A failure will be logged in the Integrated Management Log (IML) similar to the following:

Uncorrectable Machine Check Exception (Processor 2, APIC ID 0x00000070, Bank 0x00000003, Status 0x8E000000**00800400**, Address 0x0000000006EF5128, Misc 0x0000000006EF5128). ACTION: Update the system firmware. If the issue persists, contact support.

The following conditions are necessary to be considered a match for this issue:

- The Bank value must have a value of 0x00000003
- The lower 8 characters of the Status field must exactly match the value "00800400" (see bold characters in Status field above).

This will be the only error logged for the failure in most instances. However, it is possible for one additional UMCE to be logged for Bank 0x00000004 with a Status field identical to the Status field of the Bank 3 error. This failure is defined as Errata CLX53 in the Intel Xeon Second Generation Scalable Processor specification update.

Failure Symptom 2

This failure affects both Xeon Scalable Processors and Xeon Second Generation Scalable Processors. One or more failures will be logged in the Integrated Management Log similar to the following for a failure event:

Uncorrectable Machine Check Exception (Processor 2, APIC ID 0x00000070, Bank 0x00000009, Status 0xFE200000**00C110A**, Address0x0000000006EF5128, Misc 0x0044412600544086). ACTION: Update the system firmware. If the issue persists, contact support.

The following conditions are necessary to be considered a match for this issue:

- The Bank must be either 0x00000009 or 0x0000000B.
- The lower 8 characters of the Status field must exactly match the value "00C110A" (see bold characters in Status field above).

In addition, posted interrupts must be enabled in the operating system. Posted interrupts are often used in virtualized environments to increase performance.

This failure is defined as errata CLX52 in the Xeon Second Generation Scalable Processors specification update and as SKX123 in the Xeon Scalable Processors specification update.

SCOPE

Any of the HPE ProLiant Gen10, Apollo Gen10, Synergy Gen10 Compute Modules or Edgeline systems mentioned in the Platforms Affected below.

RESOLUTION

A Microcode update from Intel addresses the problem, the microcode is included in System ROM 2.42(or later). Update to System ROM version 2.42 (or later) to resolve the above issues.

解决方法

升级BIOS到2.42以上，以修复此问题。

