UIS cvk主机自动故障重启

小亦 2023-12-27 发表

组网及说明

不涉及

告警信息

不涉及

问题描述

一个月有2台cvk主机异常重启，服务器硬件查看发现没有硬件告警，服务器是戴尔的服务器。重启时生成了dump文件。

```
[root@NH3C-10 127.0.0.1-2023-12-16-05:11:56]# pwd
/vms/crash/127.0.0.1-2023-12-16-05:11:56
[root@NH3C-10 127.0.0.1-2023-12-16-05:11:56]# ls
vmcore  vmcore-dmesg.txt
[root@NH3C-10 127.0.0.1-2023-12-16-05:11:56]# cd ..
[root@NH3C-10 crash]# ls
127.0.0.1-2023-12-16-05:11:56  last-ccpp  last-via-server  oops-2023-10-01-22:07:10-3483690-0
[root@NH3C-10 crash]#
```

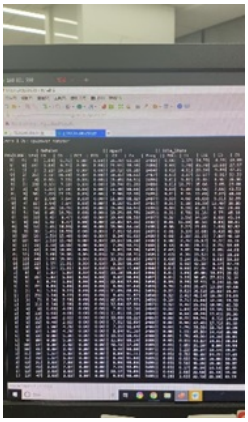
Vmcore-dmesg打印如下：

```
[13530833.196602] EXT4-fs (sdg1): mounted filesystem with ordered data mode. Opts: (null)
[13530900.094135] BUG: unable to handle kernel paging request at 0000000000000008
[13530900.094149] IP: intel_idle+0xde/0x130
[13530900.094151] PGD 0 P4D 0
[13530900.094155] Oops: 0002 [#1] SMP PTI
[13530900.094158] Modules linked in: fuse(E) btrfs(E) zstd_compress(E) xor(E) raid6_pq(E) ufs(E) qnx4(E) hfsplus(E) hfs(E) minix(E) ntfs(E) msdos(E) jfs(E) reiserfs(E) nls_utf8(E) isofs(E) cls_u32(E) sch_sfq(E)
[13530900.094204]  ib_iser(E) libiscsi(E) scsi_transport_iscsi(E) nls_iso8859_1(E) ib_srpt(E) target_core_mod(E) ib_srp(E) scsi_transport_srp(E) ib_ipoib(E) rdma_ucm(E) ib_uverbs(E) ib_umad(E) rdma_cm(E) ib_cm(
[13530900.094257]  x_tables(E) ext4(E) mbcache(E) jbd2(E) sr_mod(E) cdrom(E) md_mod(E) mpagp200(E) i2c_algo_bit(E) qla2xxx(OE) dcm_kmx_helper(E) sysscopyarea(E) sysfillrect(E) nvme_fc(E) sysimgblt(E) nvme_fabrics
[13530900.094288] CPU: 14 PID: 0 Comm: swapper/14 Tainted: G          W  OE   4.14.131-generic #462.el7
[13530900.094290] Hardware name: Dell Inc. PowerEdge R730/0WCJNT, BIOS 2.1.7 06/16/2016
[13530900.094292] task: ffff8fca35892000 task.stack: ffffa20e80178000
[13530900.094294] RIP: 0010:intel_idle+0xde/0x130
[13530900.094298] RSP: 0018:ffffa20e8017be40 EFLAGS: 00010002
[13530900.094300] RAX: 0000000000000008 RBX: ffffc2740200b0c0 RCX: 0000000000000001
[13530900.094301] RDX: 0000000000000000 RSI: ffffffff86970cc0 RDI: 0000000000000010
[13530900.094303] RBP: ffffa20e8017be58 R08: 0000000000000004 R09: 000000000000d34c
[13530900.094305] R10: 000000000000946d R11: 0000000000000018 R12: 0000000000000002
[13530900.094307] R13: 0000000000000001 R14: 0000000000000001 R15: 003012485d48f40a
[13530900.094309] FS:  0000000000000000(0000) GS:ffff8fca35fa0000(0000) knlGS:0000000000000000
[13530900.094311] CS:  0010 DS: 0000 ES: 0000 CR0: 0000000080050033
[13530900.094313] CR2: 0000000000000008 CR3: 0000002f04e0a005 CR4: 00000000003626e0
[13530900.094315] DR0: 0000000000000000 DR1: 0000000000000000 DR2: 0000000000000000
[13530900.094316] DR3: 0000000000000000 DR6: 00000000fffe0ff0 DR7: 0000000000000400
[13530900.094319] Call Trace:
[13530900.094328]  cpuidle_enter_state+0xa4/0x2b0
[13530900.094333]  cpuidle_enter+0x17/0x20
[13530900.094336]  call_cpuidle+0x23/0x40
[13530900.094339]  do_idle+0x17e/0x1f0
[13530900.094342]  cpu_startup_entry+0x73/0x80
[13530900.094348]  start_secondary+0x1b9/0x210
[13530900.094352]  secondary_startup_64+0xa5/0xb0
[13530900.094355] Code: 00 f0 80 40 02 df 0f ae f0 48 8b 00 a8 08 74 0b 65 81 25 6a 41 13 7a ff ff ff 7f 85 1d ac f1 a8 00 75 07 31 ff e8 03 49 83 ff 5b <44> 89 e0 41 5c 41 5d 41 5e 5d c3 65 48 8b 04 25 80 5c 0
[13530900.094382] RIP: intel_idle+0xde/0x130 RSP: ffffa20e8017be40
[13530900.094383] CR2: 0000000000000008
```

过程分析

watch -n 1 cpupower monitor 命令用于监控 CPU 的性能信息。

现在看是bios里面 cpu状态设置不对，cpu pstate 节能功能全部disable掉，c state 节能设置也全部disable掉，c状态设置保持c0/c1。然后重启后按照下面图查询，idle_state c6 一直是0 就对了。可以有问题的先改下观察下 watch -n 1 cpupower monitor



解决方法

涉及到公告，意思是开反复调解电压的模式，可能小概率触发cpu的问题。说明intel的cpu是存在这个问题的，软件上是crash 在cpu idle state上，所以请安装uis的第三方软件参考手册关闭这些。

附件下载：

新华三技支函【2019】071号--关于部分服务器由于开启Intel处理器节能功能导致机器异常重启的技术公告.pdf