
Subject: Re: Kernel Panic after booting to openvz2.6 kernel

Posted by [vaverin](#) on Wed, 13 Jun 2018 15:03:57 GMT

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In our case userspace application dmidecde tried to access virtual memory address 7f6b1bccc000

CPU translated virtual memory address to physical by using few levels of page table directories, It finds address of top-level directory, reads its content, analyses it, found address of next-level directory, and so on. Finally it found page table entry that points to physical memory address.

Message below shows content of these directories.

"User PGD 10641e5067 PUD 10641aa067 PMD 1065da1067 PTE ffffffff8b235225"

I've checked what means these numbers, and found that 3 first entries (PGD. PUD and PMD) looks correct, but last one (PTE) looks incorrect. Some bits in this entry are reserved and should be set to 0, but in our case all of them are set into 1.

So as far as I understand CPU worked correctly and incident was caused by memory corruption.

Unfortunately I can say nothing about reason of this memory corruption, it can be both software and hardware-related.

We do not have such bugreports from other nodes, so if it is software-related issue -- it can be caused by some rarely used driver, for example self-complied btrfs driver is guilty here.

On the other hand I cannot exclude hardware-related issue, over-clocked node can corrupt the memory.

Thank you,
Vasily Averin
