

Re: panic after removing usb flash disk

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- *From:* "Kevin Oberman" <[oberman@xxxxxx](mailto:oberman@xxxxxx)>
  - *Date:* Thu, 16 Aug 2007 10:26:45 -0700
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Date: Thu, 16 Aug 2007 10:08:17 -0700  
From: Jeremy Chadwick <[koitsu@xxxxxxxxxxx](mailto:koitsu@xxxxxxxxxxx)>

On Thu, Aug 16, 2007 at 09:31:32AM -0700, Kevin Oberman wrote:

To further complicate things, many of the major contributors to FreeBSD are only interested in it for its use as a server or embedded OS. This means that they are willing to commit resources to SMP, which they need, but not so willing for hot-removal of storage, which is of only slight value in the server and embedded OS world.

Really? Hmm. This got me thinking: it would benefit Juniper greatly if they 1) stopped using single disks in their multi-thousand-dollar routers (try dual disks with RAID 1), 2) stopped using ATA disks and went with SCSI, and 3) put in a hot-swap backplane of some sort.

Nothing like paying US\$20K for a ""enterprise"" product that uses single ATA disks with no hotswap capability. My point is that it WOULD benefit some of the major contributors to rank this issue as serious.

I have no idea whether Juniper is a contributor to FreeBSD. Just because they use it does not mean that they contribute. (Then again, you may know that they do.)

That said, all of the higher end Juniper boxes really run off Compact Flash which is ATA. The hard drive is used for backup, distributions, logging, etc. If properly set up, the system will run fine without a hard drive. (OK Maybe it limps a bit and you want to get it fixed very quickly.)

That said, I am quite a ware of the pain caused by hard drive failures on Junipers. RAID and hot-swap are interesting approaches, but the ability to pull out a mounted media is probably not too significant. I hot swap ATA drives in my laptop all of the time. I just umount and use atacontrol to detach the controller.

In this day of SATA, I'm not sure I see an advantage to SCSI in the

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Juniper but there is a need for higher-end drives. They exist in both 3.5 and 2.5 in. form factors and have reliability specs similar to SCSI. Disk performance is really not an issue for a Juniper router.

I am sure that a lot of people who have no professional interest in fixing this do have a strong personal interest and I suspect that it will happen before too long, but complaining about it is not really going to help as almost every FreeBSD desktop and mobile user has been bitten by this at one time or another and wants it fixed.

The problem is that as computing changes and the hardware evolves, the underlying OS design being discussed here has not. There have been many real-life examples given where one cannot do anything about the circumstances that induce the panic (USB hub losing power due to a cat pulling the AC cord, laptops going into S1/S3 sleep mode, or server admins who need to go to the co-lo and perform some realtime data copying who simply forgot to umount).

Amen! No argument. I think everyone acknowledges that FreeBSD really needs to get this fixed. I have tickled this problem in several ways and it really has a painful bite! (Forgetting to umount a disk on a server is pretty inexcusable, if human.)

—

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