

Re: Need help installing OS6 on Dell PowerEdge 2600 with PERC4/Di RAID

Source: <http://unix.derkeiler.com/Newsgroups/comp.unix.sco.misc/2007-03/msg00065.html>

- *From:* "Steve M. Fabac, Jr." <smfabac@xxxxxxx>
 - *Date:* Sat, 10 Mar 2007 16:45:10 GMT
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Steve M. Fabac, Jr. wrote:

In the previous thread on Re: Openserver
6.0 wc -l /usr/adm/syslog reboots system

Steve M. Fabac, Jr. wrote:

> Bela Lubkin wrote:

>> Steve M. Fabac, Jr. wrote:

>>

>>> Just returned from a new client with problems.

>>> I was called when the Backup Edge Verify pass

>>> was causing the machine to reboot.

>>>

>>> When I arrived, I checked the system and found it

>>> running OS 6.0 with MP1 and some package add

>>> patch.

>>>

>>> While surveying the system I used less /usr/adm/syslog

>>> to view the system log file. Pressing shift G to

>>> go to the bottom of the file took a long time.

>>> So long that I gave up and pressed del to interrupt.

>>>

>>> When I executed l -l /usr/adm/syslog it showed it

>>> at 108+ megabytes. I tried wc -l /usr/adm/syslog and

>>> within .5 to 1 second the screen went blank and the

>>> system was rebooting.

>>>

>>> I brought it up in single user mode and ran fsck -ofull

>>> several times with no unusual problems reported.

>>>

>>> In single user mode the wc -l /usr/adm/syslog would

>>> still cause the system to reboot.

>>>

>>> Funny thing: With the system back up in single user mode,

>>> running cat /usr/adm/syslog > /dev/null worked without

>>> problems.

>>>

>>> And, cat /usr/adm/syslog | wc -l reported 1.5+ million lines.

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```
>>> But wc -l /usr/adm/syslog (or /usr/adm/messages) will
>>> trigger the reboot.
>>>
>>> No panic messages, the monitor just goes black and
>>> then the boot up screen is displayed.
>>>
>>> Any suggestions on what to check first? I plan to install
>>> a new IDE hard drive tomorrow and use recovery media
>>> on the Backup Edge overnight backup to restore the system
>>> to the new drive.
>>
>> You say that both /usr/adm/syslog and /usr/adm/messages trigger the
>> problem. And `wc -l /usr/adm/syslog` crashes while `cat /usr/adm/syslog
>> | wc -l` doesn't. Peculiar.
>>
>> I don't have an OS6 system here, but a quick `truss` test on OS506
>> shows that `cat` does 1KB reads while `wc` does 16KB. OS6 userland is
>> mostly OS5, so this is probably the same.
>>
>> See if:
>>
>> dd if=/usr/adm/syslog of=/dev/null bs=16k
>
> Good to hear from you Bela. I give dd a try when I get back on site
> today.
>
> I just talked to the client. I had sent him out to pick up a hard disk
> so that we can eliminate the disk by replacing it. He suggested that
> he pick up a new machine so that we can restore the backup to it
> and leave the current system in production for today's business operations
> (front counter POS, 8 stations two remote locations).
>
> He called back from his preferred used computer supplier and they have
> a Dell PowerEdge 2600 with 1G RAM, unspecified RAID controller, and three
> 73G disks for $325. So I will be attempting to use the boot loadable
> drivers for Backup Edge RE2 to transfer last night's backup to the
> new hardware. Once that's accomplished, I test wc again prior to installing
> MP2 and other recommended patches.
>
> I've done this before on OS5 but not OS6 so I'll likely need
> recommendations on how to reconfigure the NIC (reconfigure?)
>
>
> Whoops. Just checked with Microlite tech support, and BackupEdge on OS6
> does not support moving to non-identical hardware (no btld support). So it looks
> like a fresh install and porting their application and data to the new system.
> Rats.
```

As feared, this is not a cake walk. The client picked up a Dell Power Edge 2600 with 1G RAM 2.8GHz Xeon CPU, three 73G SCSI disks, PERC4/Di RAID on the motherboard, Dell DLT tape drive, Dell slimline

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CD & floppy drive on a single cable (not your standard PATA cable), and Adaptec 39160 SCSI card.

The first plan was to install a IDE PCI controller in the available 32B PCI slot and connect a temporary PATA HD and DVD drive to attempt a bare-metal restore of the Backup Edge bootable DVD media. This of course failed as the PCI IDE card was a SATA RAID card with PATA connector usable for two PATA drives. The card would boot a PATA hard drive that I brought in and contained Windows 98. But if I connected the IDE DVD/RW drive, the PCI SATA/PATA card would no longer boot the PATA drive.

Plan 2: Fresh install of OS6 on the PERC RAID with an HP USB DVD writer connected to the system during ISL. Then install Backup Edge and dump the nightly backup media to a mounted /oldsys file system and move data and programs as needed.

After downloading drivers from both SCO and Dell to create the necessary (?) HBA driver disk for the PERC4/Di and booting the SCO 6.0 installation CD and reading in the downloaded drivers, all attempts to install on the PERC4/Di failed with the message "no root disk found." (Driving home after 6 hours, I realized that I had not tried the OS6 boot disk without additional HBA drivers.)

When the failure occurs, the HBA drivers "identified" are IDA. Perhaps, I should edit the drive list and remove the IDA driver from the available HBA adapters to prevent miss identifying the PERC as IDA?

I found the following post on

http://www.dellcommunity.com/supportforums/board/message?board.id=pes_harddrive&thread.id=8079&view=by_dat

>>>>>>

---- quote

I am trying to install SCO 5.0.5 on a power edge 2800 with the perc 4e/Di raid controller. I have obtained the raid drivers from the dell site, created by btld disk and started the install, however boot up tells me that no PERC adapter was found and no root disk controller was found.

what did you have to do to overcome these problems (if you had any) ?

regards

---- end quote

Mike,

The key to getting SCO 5.0.5 to load with the new RAID cards rely in the initial boot instructions (known as defbootstr) that you pass to SCO at the boot prompt when you start the install. Essentially you need

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to turn off SCSI and IDE scanning and tell SCO exactly where each device connects to a controller, this includes the hard drive, tape drive and CD.

>Also in the Server's BIOS

>if you want to RAID with this card you need to set BOTH

>channels on the controller to RAID. For example:

```
defbootstr link=perc disable=dptr,piiop,efp,wdex,mdac  
Srom=wd(0,0,0,0) Stp0=perc(0,1,6,0) Sdsk=perc(0,0,0,0)
```

Hope this helps

Al Collier

>>>>>>>>

The above recommends setting both channels to RAID. I know that I have not tried that. All failures to date have been with channel 1 set to RAID and channel 2 set to SCSI. I'll reset channel 2 to RAID the next time I'm on site on this install.

Now, can anyone translate that defbootstr instruction above for use on SCO 6.0?

In desperation to get the new hardware up in advance of catastrophic failure of the old system, I used the Dell BIOS and changed the PERC4/Di ONMB setting from "RAID" to "SCSI" which allowed installation of OS6 with the HBA drivers included on the OS6 installation CD (as LSI MPT HBA).

On an Openserver 5.0.7 system I would now try btldinstall to add the PERC drivers to the system and run mkdev hd to configure the kernel to include the PERC drivers.

What is the equivalent steps on SCO 6.0?

Since the Dell PowerEdge 2600 has two SCSI channels that can be configured as PERC4/Di RAID or LSI SCSI, I plan to move the single disk on the first SCSI channel to the second channel, reset BIOS from SCSI to RAID and reconfigure the kernel to add the PERC4/Di drivers to the kernel.

Any suggestions, warnings, or other comments?