

Re: Migrating to Raid

Source: <http://linux.derkeiler.com/Newsgroups/alt.os.linux.suse/2006-01/msg02248.html>

- *From:* Buck Rogers <buck@xxxxxxxxxxx>
 - *Date:* Tue, 24 Jan 2006 10:24:23 -0600
-

On Wed, 28 Dec 2005 09:40:39 -0600, Buck Rogers <buck@xxxxxxxxxxx> wrote:

>
>David,
>
>My answers are in-line.
>
>
>On Wed, 28 Dec 2005 10:39:20 +0100, David Wright
><david_c_wright@xxxxxxxxxxx> wrote:
>
>>Buck Rogers wrote:
>>
>>> Hello,
>>>
>>> My present test computer situation:
>>>
>>> MB = ASUS P4P800 Deluxe
>>> CPU = 2.6 P4
>>> RAM = 1GIG
>>> HDD = 2 x 200 gig SATA drives, non RAID
>>> OS = Win 2003 SBS, WinXP Pro, SUSE 10.0 (/, /boot) on HD0
>>> FC4 (/, /boot), Win 2003 SBS Data, WinXP Pro Data, Swap on HD1
>>>
>>> Presently boot to Win XP Pro boot menu to access all OSes.
>>>
>>> What I want to do is:
>>>
>>> Add a 3Ware 9500S-4LP SATA controller, and add 2 x 250 SATA drives, to
>>> eventually come up with the same configuration I presently have but in
>>> a RAID Mirroring environment.
>>>
>>> Is there a way I can accomplish this without having to re-install
>>> everything from scratch? I have Ghost images of all but FC4. I have
>>> a tar backup of FC4.
>>>
>>> My guess is, No, but I want to hear from the Guru's first. However,

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>>> if my objective is possible, any pointers or URLs to guide me would be
>>> a great help!
>>>
><snip unnecessary comment>
>
>>> Any input on whether I can or can't accomplish my objective is
>>> appreciated.
>>>
>>> Regards,
>>>
>>> Buck
>>
>>Because of the mixed OS environments, I don't know what hardware level 1
>>RAID would do... You should be able to duplicate the partition sizes (the
>>extra 50GB on each new drive would be redundant) and set up the RAID 1
>>mirroring in each OS so that it mirrored its own partitions...
>>
>>It is unclear whether you want to migrate the two existing 200GB drives into
>>the array and mirror then, or just use the two new 250GB drives and
>>replicate the structure on them... Best bet, if you are going to use all 4
>>drives is to replicate the structure of one of the 200GB drives on one of
>>the 250GB drives, incorporating the extra 50GB somewhere...
>
>My intent is to have a total of 4 drives, winding up with the same
>setup I presently have but Raid 1.
>
>>Also, I note you do not have shared partitions for /home /usr etc. in your
>>current scheme, which means any data you have in one Linux isn't available
>>in the other, and you need to set-up your desktop environment twice. Using
>>shared partitions would make life a lot easier – also makes
>>upgrades/re-installs etc. easier because you don't need to rebuild
>>your /home /usr etc. from backups afterwards.
>
>Good question. This machine is a test for three customers I have. One
>uses FC4 as a file server, one uses SUSE as a web server, and one is
>planning on upgrading to Win 2003 SBS from their existing NT4 setup.
>I set up an identical scenario of each office on my test computer. I
>could (and probably should) combine /home and /usr. However, I started
>out wanting everything separate because of the different customers and
>haven't changed since.....If I go the Raid 1 route, and I have to
>re-install from scratch, I'll set the system up as you suggest.
>>
>>A few further questions:
>>
>>1) Why do you need 2 versions of Linux? You say you mainly use SUSE, do you
>>still need FC4? If not you can reclaim its space, if you do, look at
>>sharing the non-core partitions between the two OS's to reduce your
>>redundant space and to save time configuring them both.
>
>Hopefully, answered above.
>

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>>2) Why do you have XP and SBS on the one machine? SBS only runs as a PDC and >>won't let any other servers onto the network, and any workstations on the >>network need to be in the Domain to access the shares, therefore it sounds >>like it is pretty redundant, unless the machine is running as a standalone >>machine and you are using the SBS install to test your server development >>code or help customers with configuration changes etc.

>
>Only reason to have XP is to troubleshoot (offsite) any troubles my >customers' workstations are having. This OS is, really, not >necessary.

>
>>If you need SBS, it would make more sense to break it out onto a dedicated >>server – and a cheap box for that would cost less than your RAID card!

>
>The nice thing about my NT4 customer is they are paying for the RAID >card. They're presently using an eight year old Adaptec SCSI RAID >card that is running 4 x SCSI hard disks. They want to change to SATA >disks because of the reduced expense, similar warranty (as SCSI), and >MTF specs it provides. If the 3ware works well, I'll put the card in >the new system I build for them to run SBS. The client is looking at >March 06 to implement the new system.....should be enough time for me >to get the bugs out. The present server will eventually become an >archive server.

>
>>3) Why do you need the RAID 1 in the first place? It doesn't provide a >>backup solution for anything other than a minor disk failure. RAID doesn't >>help against user error, virus and trojan infections etc. or catastrophic >>failure, fire etc. in which case you are back to removable media backups >>with offsite storage.

>
>Only to familiarize myself with it in a SATA environment and to learn >the card. I'll still use my normal backup routine.

>
>>Do you really need so many OS's and moving SBS to its own machine would make >>more sense if you really need it...

>
>Agreed. But, hopefully, my explanation above clarifies the situation.

>
>>I'm not sure how Windows and Linux will react to being shared on the raid >>controller in a partition scheme like yours, best bet would be to contact >>3ware customer support with that query before laying out the cash for the >>controller... Theoretically it is possible to have multiple partitions and >>OS's, but don't know how it would work out in practice.

>
>Will do with contacting 3ware. I may ultimately be forced into a >separate box for the SBS.

>
>>
>>With the card priced around \$400, it is a big investment, you could buy a >>second, machine for that money and slap in a couple of drives to mirror >>your environment or have it running as a server in the background – much

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>>better for testing server environments than dual-booting into the server os
>>for specific tasks...
>>
>>3ware also had some issues in September...
>>http://groups.google.com/group/fa.linux.kernel/browse_thread/thread/f7d33963e67d89d1/1073f243d0aa501d%2310
>>
>>You might want to check this problem won't affect you.
>
>Thanks for that URL. Good read. I'll check out the throughput in a
>RAID 1 environment rather than the article's RAID 5.
>>
>>As to having to rebuild the partitions on the RAID... Not sure but possibly.
>>If you have images it isn't so bad. It might be possible to insert your
>>disks into the array and use them as masters to mirror onto the new drives
>>– but again, think about mapping one of the 200's onto the 250 to make use
>>of the extra space, or just get a new pair of 200's...
>
>On this machine, I have the ability to experiment all I want. It's
>great to have good backups that allow one to "go back" to the way it
>was. Further reading shows that I'm probably going to need a separate
>box for the SBS.
>
>>Also it might be a good opportunity to re-work your partitioning strategy to
>>share home and data partitions between SUSE and FC if you really need both
>>of them.
>
>Agreed!
>
>>Dave
>
>Thank you very much for the input...it has been very helpful. I'll
>report back my successes/failures on this subject.
>
>Buck

Hello

As promised, I'm reporting back on my final results for anyone who might find this helpful.

I was able to eventually move SUSE, SBS, XP, and all Data to the new drives by using Ghost 9.0. I made sure to run each OS prior to ghosting to recognize and load the 3Ware drivers. NOTE: Ghost 2003 saw all drives but didn't work...tons of read/write errors.

Also, for some reason doing a disk copy didn't work. Only a restore of an image worked properly. I Ghosted everything to an external HD.

I can't address FC4 yet. I have a tar backup but haven't restored to the new environment. Shouldn't be a problem.

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Seems easy when typed, but took many days of toil to get it right. Suprisingly the hardest part was maintaing the proper drive designation in each environment after a restore. That's a story in itself.

I've not noticed any transfer speed problems with the 3ware controller, yet. Still to early. I hope to check it out after I'm done with the Fedora restore.

Regards,

Buck

- *Follow-Ups:*

- ◆ ***Re: Migrating to Raid***

- ◇ *From:* David Wright

- Prev by Date: ***Re: Help when updateing system***
- Next by Date: ***Re: Sound Issue 9.3***
- Previous by thread: ***Re: Perle Specialix and terminals***
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