

Re: Migrating to Raid

Source: <http://linux.derkeiler.com/Newsgroups/alt.os.linux.suse/2005-12/msg02995.html>

- *From:* Buck Rogers <buck@xxxxxxxxxx>
 - *Date:* Wed, 28 Dec 2005 09:40:39 -0600
-

David,

My answers are in-line.

On Wed, 28 Dec 2005 10:39:20 +0100, David Wright
<david_c_wright@xxxxxxxxxx> 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,

>> if my objective is possible, any pointers or URLs to guide me would be

>> a great help!

>>

<snip unnecessary comment>

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>> 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.

>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

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>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
>better for testing server environments than dual-booting into the server os
>for specific tasks...

>
>3ware also had some issues in September...

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>http://groups.google.com/group/fa.linux.kernel/browse_thread/thread/f7d33963e67d89d1/1073f243d0aa501d%23107

>

>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

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• *Follow-Ups:*

◆ ***Re: Migrating to Raid***

◇ *From:* David Wright

• *References:*

◆ ***Migrating to Raid***

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◇ *From:* David Wright

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