

Re: Creating Clean LV on HACMP VG

Source: <http://unix.derkeiler.com/Mailing-Lists/AIX-L/2005-03/0256.html>

From: Green, Simon (*Simon.Green_at_EU.ALTRIA.COM*)

Date: 03/29/05

Date: Tue, 29 Mar 2005 12:58:48 +0200
To: aix-l@Princeton.EDU

Further to what Urs said, I would **strongly** encourage you to use smitty, at least to start with. As well as smit.script, which shows exactly what it's done, pressing "F6" will show you the command that's about to be run.

Using smit/smitty will help you avoid mistakes and can be a valuable learning tool.

One error in particular: you should not edit /etc/filesystems directly, but use the crfs command (or smit). If you don't, then should you ever export the volume group and then re-import it – highly likely if you're using HACMP – you'll lose the filesystem information. By using the appropriate AIX commands all of the filesystem information gets added to /etc/filesystems and also to the VGDA, so that an importvg will add it back automatically.

(Unlike other UNIXes, with AIX you don't tend to edit configuration files so much, but use commands instead. A lot of the information is also stored in the ODM, and if you edit the file directly it doesn't get put into the ODM. You need to be careful until you understand a bit more about what's going on. If you use smit you don't need to worry about it.)

Also, the JFSlog *MUST* be in the same volume group. If you don't specify the log, LVM will use an existing log or create a new one if necessary.

Generally, I'd create a new filesystem with commands similar to these:

```
mklv -t jfs -a e -y new_lv_name my_vg01 100 hdisk10
crfs -v jfs -d new_lv_name -m /my/new/filesystem -A yes -a nbpi=16384 -a
bf=true
mount /my/new/filesystem
```

That's creating a new LV with 100 partitions on the outer edge of hdisk10 from volume group "my_vg01", then using that LV to create a new filesystem "/my/new/filesystem", which will be mounted automatically at start-up, with an NBPI of 16384 (instead of the default 4096) and which is large-file enabled.

You can actually do everything with just the crfs command, but then you

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can't control the LV name or where exactly it is placed.

But once again: use smitty for now.

```
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Simon Green
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AIX-L Archive at https://new-lists.princeton.edu/listserv/aix-l.html
New to AIX? http://publib-b.boulder.ibm.com/redbooks.nsf/portals/UNIX
N.B. Unsolicited email from vendors will not be appreciated.
Please post all follow-ups to the list.
> -----Original Message-----
> From: IBM AIX Discussion List [mailto:aix-l@Princeton.EDU] On
> Behalf Of Rene' Pelligrino
> Sent: 28 March 2005 16:13
> To: aix-l@Princeton.EDU
> Subject: Creating Clean LV on HACMP VG
>
>
> Hello,
>
> I have read a lot of documentation on how to create a
> new LV on our
> existing volume group, and would like somebody to critique my plan for
> deploying a new 40GB LV. I am experienced with UNIX/linux, but new to
> AIX.
<SNIP>
> To make the desired LVM LV inside of numtwovg, I plan
> to use the
> following commands...
>
>     mklv -Y /dev/numtwolog numtwovg 40G
>     mkdir /bi01
>     mount -o log=/dev/hd8 /dev/bilv01 /bi01
>
> Questions:
>
>     #1 How do I force a device name of /dev/bilv01? Or do
> I just peek errpt
> to see what new block device came up...
>     #2 The LV is already JFS? Do I have to mkfs or
> something like that?
>
> Finally, Add the following entry into /etc/filesystems...
> /bi01:
>     dev           = /dev/bilv01
>     vfs           = jfs
>     log           = /dev/numtwolog
>     mount         = true
>     check         = false
>     options       = rw
>     account       = false
```