Aussie Storage Blog

Storwize V3700 – First impressions

Posted on February 6, 2013

The IBM Storwize V7000 has a new stable mate: IBM's hot new seller, the Storwize V3700. I recently got a chance to try one out and I liked what I saw. I have always tried to share useful information on this blog, so here are four things you may find useful about IBM's new little midrange storage offering:

Node Canisters

The Node Canisters (Controllers) are side by side and both right way up. I really like this change. Hopefully all future models will follow this pattern and avoid upside down components. One thing you will spot from the picture is that the Fibre Cards are optional. What you might think are Fibre Ports in this picture are actually SAS ports. The fibre card goes where that large black square is on the right hand side of each canister.

Environmentals

The Storwize V3700 can report power consumption and operating temperature via both the GUI and CLI. This is a great extra piece of information.

Being able to get this information via CLI is also critical as it allows you to script it for those shops where rack

power consumption is constrained so check out the **lsenclosurestats** command.

```
IBM_2072:Cluster:anthonyv>lsenclosurestats
enclosure_id stat_name stat_current stat_peak stat_peak_time
1            power_w   124          125       130128230402
1            temp_c    19           19        130128230707
1            temp_f    66           66        130128230707
```

License Tab

I looked for the license tab.... but there isn't one! This is because Flashcopy is included, external virtualization (as a migration tool) is included and remote copy is not possible. This makes for very simple purchasing; all you need to do is decide what disks, RAM and adapters you want. Nice!

I did find one (tiny) bug that is easily corrected, but is stealing 40 MB of your cache! If you display the bitmap memory, you may find 20MB dedicated to remote copy, despite the fact that you cannot create remote copies.

```
IBM_2072:Cluster:anthonyv>lsiogrp 0
id 0
name io_grp0
node_count 2
vdisk_count 3
host_count 1
flash_copy_total_memory 20.0MB
flash_copy_free_memory 20.0MB
remote_copy_total_memory 20.0MB
remote_copy_free_memory 20.0MB
mirroring_total_memory 20.0MB
mirroring_free_memory 20.0MB
raid_total_memory 40.0MB
raid_free_memory 39.3MB
maintenance no
compression_active no
accessible_vdisk_count 3
compression_supported no
```

You can easily correct this by running the following command that drops that bitmap to zero. You can run this command at any time, there is no risk in doing so. You will get 40MB of cache back (20MB per node canister).

```
chiogrp -feature remote -size 0 io_grp0
```

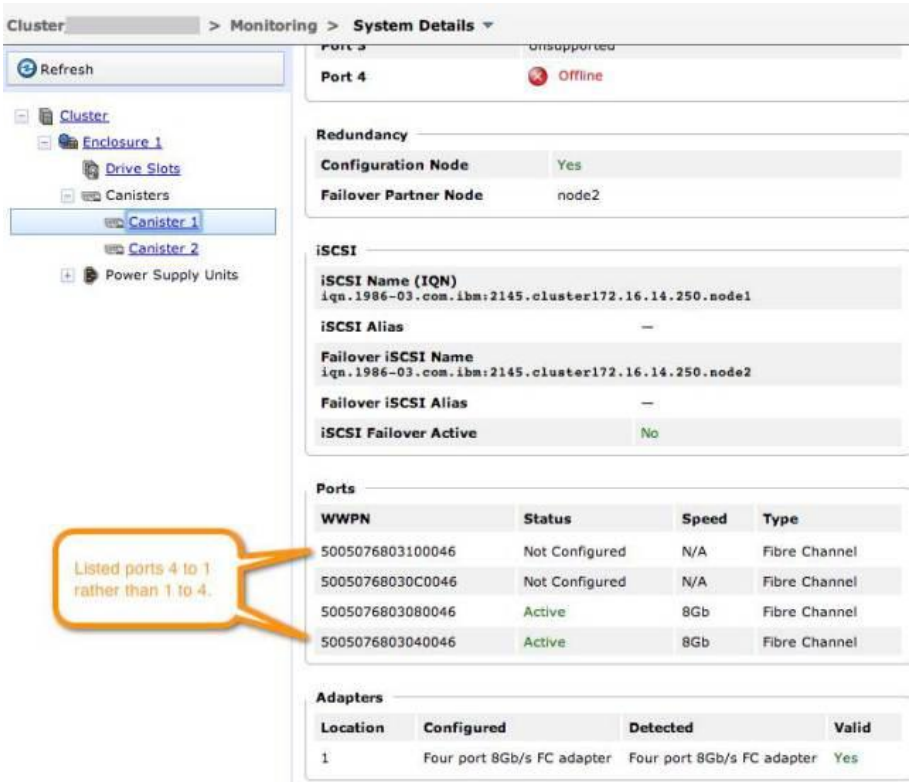
WWPN Determination

I spotted two interesting things about the WWPNs for the Storwize V3700 ports. Firstly IBM has broken with the 1,2,3,4 pattern we found with Storwize V7000 and gone to 04,08,0C,10. Frankly this is not a big deal and given the Node Canisters are side by side, it is just a case of knowing the pattern. The WWPN is based on: 50:05:07:68:03:YY:xx:xx where xx:xx is unique for each node canister and the YY value is taken from the port position as per the image below. I suspect these values may go up to 05, 09,0D,11 over time as they exhaust the serial number range possibilities of 00:00 to FF:FF

I did spot what I think is a great new command in V6.4.1 that also lets you display the WWPNs. It is **lsportfcid**. Try it out on your machine.

```
IBM_2072:Cluster_1:anthonyv>lsportfcid
fc_io_port_id port_id type port_speed node_id node_name WWPN             nportid status
0  1          1       fc   8Gb        1       node1     5005076803040046 010500  active
1  2          2       fc   8Gb        1       node1     5005076803080046 010000  active
2  3          3       fc   N/A        1       node1     50050768030C0046 000000  inactive_unconfigu
3  4          4       fc   N/A        1       node1     5005076803100046 000000  inactive_unconfigu
6  1          1       fc   8Gb        2       node2     5005076803040047 010400  active
7  2          2       fc   8Gb        2       node2     5005076803080047 010100  active
8  3          3       fc   N/A        2       node2     50050768030C0047 000000  inactive_unconfigu
9  4          4       fc   N/A        2       node2     5005076803100047 000000  inactive_unconfigu
```

I did spot one thing when displaying the FC ports in the GUI. They are currently listed back to front, just something to be aware of:



So are you running a V3700? How is it working out for you?

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About Anthony Vandewerdt

I am an IT Professional who lives and works in Melbourne Australia. This blog is totally my own work. It does not represent the views of any corporation. Constructive and useful comments are very very welcome.

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5 Responses to *Storwize V3700 – First impressions*

Chris Dadswell (@chrisdadswell) *says:*
February 7, 2013 at 1:28 am

Hey Anthony,

Another great post and very timely !
Our stack of v3700 turned up on site this week and we are currently setting it up to work behind the SVC that we have.
Really looking forward to putting into production use.

Thanks again,
Christian.

Reply

Bracken *says:*
February 7, 2013 at 1:37 am

The changes in the FC WWPNs are actually to accommodate FCoE ports, which show up in the lsportfc command alongside FC ports if you have the 10Gb/s Ethernet option. The lsportip command shows IP addresses used for iSCSI.

Reply

Anthony Vandewerdt *says:*
February 9, 2013 at 11:31 am

Nice…. can you tell me we would decode the FCoE ports WWPNs?

Reply

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