StorCLI commands

StorCLI is the successor of the MegaCLI and allows **Command Line Tools** to manage and control **LSI MegaRAID controllers**. In this article you will find a collection of useful commands to administer your MegaRAID controller.

Server with MegaRAID controller

Contents

Installation

- From the Thomas-Krenn download area:
  - storcli Download
- For Ubuntu from the Thomas-Krenn-Repo
  - Install storcli under Ubuntu

Utilization

Information for general use:

- /cx bzw. /vx stands for the Controller/Virtual Drive Number.

- /ex bzw. /sx stands for the Enclosure/Slot ID.

Additional information is also available in the LSI StorCLI manual.[1]

Firmware Update

```
sudo storcli /cx download file=/path/to/firmware.rom
```

Information on the Controller and Configuration

```
sudo storcli /cx show all
```

Activation of Features (e.g. CacheCade, FastPath,...)

```
 sudo storcli /cx set aso key=AAAAAAAABBBBBBBBCCCCCCCC
```

Information on the existing hard drives and their status (IDs,...)

```
sudo storcli /cx /eall /sall show (all)
```

Information on the existing virtual drives and their status

```
sudo storcli /cx /vall show (all)
```

View current status of all rebuilds

```
sudo storcli /cx /eall /sall show rebuild
```

Creating a Virtual Drive

```
sudo storcli /cx add vd type=[RAID0(r0)|RAID1(r1)|...] drives=[EnclosureID:SlotID|:SlotID-SlotID|:SlotID,SlotID]
```

Example:

```
sudo storcli /cx add vd type=r1 drives=252:0-2
```

Initializing a VD

```
sudo storcli /cx/vx start init (force)
```

Progress can be monitored using the following command:

```
sudo storcli /cx/vx show init
```

Creating a CacheCade device

```
sudo storcli /cx add vd cc type=r[0,1,10] drives=[EnclosureID:SlotID|:SlotID-SlotID|:SlotID,SlotID]  WT|WB (assignvds=0,1,2)
```

Example:

```
sudo storcli /c0 add vd cc type=r1 drives=252:2-3 WB
```

CacheCade activation/deactivation

```
sudo storcli /cx/[vx|vall] set ssdCaching=[on|off]
```

Example:

```
sudo storcli /c0/v1 set ssdCaching=on
```

Removing a CacheCade device

```
sudo storcli /cx/vx del cc
```

Removing a VD

```
sudo storcli /cx/vx del (force)
```

Incorporating an improperly removed device

If an improperly removed device is reconnected to the RAID controller it will be recognized as UBAD (Unconfigured Bad).

```
sudo storcli /c0 /eall /sall show
```

```
Controller = 0
Status = Success
Description = Show Drive Information Succeeded.


Drive Information :
==================

-------------------------------------------------------------------------------
EID:Slt DID State DG       Size Intf Med SED PI SeSz Model                  Sp
-------------------------------------------------------------------------------
252:0     7 Onln   0  465.25 GB SATA HDD N   N  512B WDC WD5003ABYX-01WERA1 U
252:1     6 Onln   1  465.25 GB SATA HDD N   N  512B WDC WD5003ABYX-01WERA1 U
252:2     5 UGood  -  465.25 GB SATA HDD N   N  512B WDC WD5003ABYX-01WERA1 U
252:3     4 UBad   - 223.062 GB SATA SSD N   N  512B INTEL SSDSC2CW240A3    U
-------------------------------------------------------------------------------

EID-Enclosure Device ID|Slt-Slot No.|DID-Device ID|DG-DriveGroup
DHS-Dedicated Hot Spare|UGood-Unconfigured Good|GHS-Global Hotspare
UBad-Unconfigured Bad|Onln-Online|Offln-Offline|Intf-Interface
Med-Media Type|SED-Self Encryptive Drive|PI-Protection Info
SeSz-Sector Size|Sp-Spun|U-Up|D-Down|T-Transition|F-Foreign
UGUnsp-Unsupported
```

This status must be changed to UGOOD.

```
sudo storcli /cx /ex /sx set good
```

```
Controller = 0
Status = Success
Description = Show Drive Information Succeeded.


Drive Information :
==================

-------------------------------------------------------------------------------
EID:Slt DID State DG       Size Intf Med SED PI SeSz Model                  Sp
-------------------------------------------------------------------------------
252:0     7 Onln   0  465.25 GB SATA HDD N   N  512B WDC WD5003ABYX-01WERA1 U
252:1     6 Onln   1  465.25 GB SATA HDD N   N  512B WDC WD5003ABYX-01WERA1 U
252:2     5 UGood  -  465.25 GB SATA HDD N   N  512B WDC WD5003ABYX-01WERA1 U
252:3     4 UGood  F 223.062 GB SATA SSD N   N  512B INTEL SSDSC2CW240A3    U
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Med-Media Type|SED-Self Encryptive Drive|PI-Protection Info
SeSz-Sector Size|Sp-Spun|U-Up|D-Down|T-Transition|F-Foreign
UGUnsp-Unsupported
```

Now the device is foreign in the pool

```
sudo storcli /cx /fall show
```

```
Controller = 0
Status = Success
Description = Operation on foreign configuration Succeeded


FOREIGN CONFIGURATION :
======================

---------------------------------------
DG EID:Slot Type State       Size NoVDs
---------------------------------------
 0 -        Cac0 Frgn  223.062 GB     1
---------------------------------------

NoVDs - Number of VDs in disk group|DG - Diskgroup
Total foreign drive groups = 1
```

Now it can be included in the configuration.

```
sudo storcli /cx /fall import
```

If the device was part of a RAID a rebuild is performed automatically (see the state: Rbld in the overview). The following command progress can be monitored:

```
sudo storcli /cx /ex /sx show rebuild
```

References

1. LSI StorCLI Manual (http://www.lsi.com/downloads/Public/MegaRAID%20Common%20Files/StorCLI_RefMan_revf.pdf) (www.lsi.com)

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