Megacli使用

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查看RAID卡信息　megacli -AdpAllInfo -aALL > /tmp/1.log
查看物理磁盘信息　megacli pdlist a0 >/tmp/2.log
查看虚拟磁盘信息　megacli ldinfo lall a0 >/tmp/4.log
查看RAID卡日志（可以查看rebuild进度）　megacli -FwTermLog -Dsply -aALL > /tmp/3.log

一　MegaCli -cfgforeign -scan -a0　　扫描外来配置的个数

二　MegaCli -cfgforeign -preview -a0 查看当前的磁盘在normal时的位置

三　MegaCli -cfgforeign -import -a0　来导入配置，恢复虚拟磁盘组

四　MegaCli -cfgforeign -clear -a0　　清除外来配置

五　MegaCli -cfgforeign -dsply -a0　　显示出现外来配置(磁盘插入的顺序)的过程

更换硬盘后，查看新盘是否有error & Rebuild进度
[root@storage02 ~]# megacli pdlist a0 | grep 'Count:' ; megacli -FwTermLog -Dsply -aALL | tail
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
11/05/20 6:02:40: EVT#03424-11/05/20 6:02:40: 103=Rebuild progress on PD 00(e0x20/s0) is 51.97%(7514s)
11/05/20 6:05:04: EVT#03425-11/05/20 6:05:04: 103=Rebuild progress on PD 00(e0x20/s0) is 52.97%(7658s)
11/05/20 6:07:32: EVT#03426-11/05/20 6:07:32: 103=Rebuild progress on PD 00(e0x20/s0) is 53.97%(7806s)
11/05/20 6:11:00: EVT#03427-11/05/20 6:11:00: 103=Rebuild progress on PD 00(e0x20/s0) is 54.97%(8014s)
11/05/20 6:13:33: EVT#03428-11/05/20 6:13:33: 103=Rebuild progress on PD 00(e0x20/s0) is 55.97%(8167s)
11/05/20 6:15:59: EVT#03429-11/05/20 6:15:59: 103=Rebuild progress on PD 00(e0x20/s0) is 56.96%(8313s)

11/05/20 6:18:26: EVT#03430-11/05/20 6:18:26: 103=Rebuild progress on PD 00(e0x20/s0) is 57.96%(8460s)
11/05/20 6:21:12: EVT#03431-11/05/20 6:21:12: 103=Rebuild progress on PD 00(e0x20/s0) is 58.96%(8626s)

RAID组与物理磁盘对应关系
[root@compute39 ~]# megacli -cfgdsply -aALL | grep -E 'DISK GROUP|Slot Number|Raw Size' |sed -e 's/^S/\tS/' -e 's/^R/\tR/'
Number of DISK GROUPS: 7
DISK GROUP: 0
    Slot Number: 0
    Raw Size: 838.362 GB [0x68cb9e30 Sectors]
    Slot Number: 1
    Raw Size: 838.362 GB [0x68cb9e30 Sectors]
DISK GROUP: 1
    Slot Number: 2
    Raw Size: 1.746 TB [0xdf8fe2b0 Sectors]
DISK GROUP: 2
    Slot Number: 3
    Raw Size: 5.458 TB [0x2baa0f4b0 Sectors]
DISK GROUP: 3
    Slot Number: 4
    Raw Size: 5.458 TB [0x2baa0f4b0 Sectors]
DISK GROUP: 4
    Slot Number: 6
    Raw Size: 5.458 TB [0x2baa0f4b0 Sectors]
DISK GROUP: 5
    Slot Number: 7
    Raw Size: 5.458 TB [0x2baa0f4b0 Sectors]
DISK GROUP: 6
    Slot Number: 5
    Raw Size: 5.458 TB [0x2baa0f4b0 Sectors]

RAID组与盘符对应关系
[root@compute39 ~]# ls -l /dev/disk/by-path/ | grep 'pci-0000:03:00.0-scsi-0:2:' | grep -v 'part'
lrwxrwxrwx 1 root root 9 Apr 2 14:56 pci-0000:03:00.0-scsi-0:2:0:0 -> ../../sda
lrwxrwxrwx 1 root root 9 Sep 18 09:17 pci-0000:03:00.0-scsi-0:2:1:0 -> ../../sdb
lrwxrwxrwx 1 root root 9 Apr 2 14:56 pci-0000:03:00.0-scsi-0:2:2:0 -> ../../sdc
lrwxrwxrwx 1 root root 9 Apr 2 14:56 pci-0000:03:00.0-scsi-0:2:3:0 -> ../../sdd
lrwxrwxrwx 1 root root 9 Sep 18 09:17 pci-0000:03:00.0-scsi-0:2:4:0 -> ../../sdh
lrwxrwxrwx 1 root root 9 Apr 2 14:56 pci-0000:03:00.0-scsi-0:2:5:0 -> ../../sdf
lrwxrwxrwx 1 root root 9 Apr 2 14:56 pci-0000:03:00.0-scsi-0:2:6:0 -> ../../sdg

盘符与osd对应关系
[root@compute39 ~]# for i in `ls /var/lib/ceph/osd | grep -v bak`; do echo $i ; lsblk | grep -B1 $(ls -l /var/lib/ceph/osd/$i/block | awk -F '-' '{print $NF}') | awk '{print "\t"$1}' |grep -v ceph ;done
ceph-120
    sdc
ceph-121
    sdd
ceph-122
    sdh
ceph-123

```
        sdf
ceph-124
        sdg
```

修改RAID组读写属性
[root@compute23 ~]# MegaCli -cfgdsply -aALL | grep -E 'DISK GROUP|Slot Number|Raw Size|Virtual Drive:|Current Cache Policy:' |sed -e 's/^S/\tS/' -e 's/^R/\tR/' -e "s/^V/\tV/" -e "s/^Current/\tCurrent/"
Number of DISK GROUPS: 7
DISK GROUP: 0
DISK GROUP: 1
DISK GROUP: 2
DISK GROUP: 3
DISK GROUP: 4
DISK GROUP: 5
DISK GROUP: 6 (osd44)
        Virtual Drive: 6 (Target Id: 6)
        Current Cache Policy: WriteBack, ReadAdaptive, Direct, No Write Cache if Bad BBU
        Slot Number: 7
        Raw Size: 5.458 TB [0x2baa0f4b0 Sectors]
[root@compute23 ~]# MegaCli -LDSetProp -Cached -L6 -a0

Set Cache Policy to Cached on Adapter 0, VD 6 (target id: 6) success

Exit Code: 0x00
[root@compute23 ~]# MegaCli -cfgdsply -aALL | grep -E 'DISK GROUP|Slot Number|Raw Size|Virtual Drive:|Current Cache Policy:' |sed -e 's/^S/\tS/' -e 's/^R/\tR/' -e "s/^V/\tV/" -e "s/^Current/\tCurrent/"
Number of DISK GROUPS: 7
DISK GROUP: 0
DISK GROUP: 1
DISK GROUP: 2
DISK GROUP: 3
DISK GROUP: 4
DISK GROUP: 5
DISK GROUP: 6
        Virtual Drive: 6 (Target Id: 6)
        Current Cache Policy: WriteBack, ReadAdaptive, Cached, No Write Cache if Bad BBU
        Slot Number: 7
        Raw Size: 5.458 TB [0x2baa0f4b0 Sectors]
[root@compute23 ~]# MegaCli -LDSetProp RA -L6 -a0

Set Read Policy to ReadAhead on Adapter 0, VD 6 (target id: 6) success

Exit Code: 0x00
[root@compute23 ~]# MegaCli -cfgdsply -aALL | grep -E 'DISK GROUP|Slot Number|Raw Size|Virtual Drive:|Current Cache Policy:' |sed -e 's/^S/\tS/' -e 's/^R/\tR/' -e "s/^V/\tV/" -e "s/^Current/\tCurrent/"
Number of DISK GROUPS: 7
DISK GROUP: 0
DISK GROUP: 1
DISK GROUP: 2
DISK GROUP: 3
DISK GROUP: 4

DISK GROUP: 5

DISK GROUP: 6

  Virtual Drive: 6 (Target Id: 6)

  Current Cache Policy: WriteBack, <mark>ReadAhead</mark>, Cached, No Write Cache if Bad BBU

  Slot Number: 7

  Raw Size: 5.458 TB [0x2baa0f4b0 Sectors]

Megacli磁盘操作 做raid
该工具只支持部分磁盘设备
安装Megacli的rpm包
去LSI官网搜索9260-8i**，**
（http://www.lsi.com/products/raid-controllers/pages/megaraid-sas-9260-8i.aspx），在"SOFTWARE DOWNLOADS"中找到
"LSISAS2108/2208 MegaCLI - Linux Patch"，然后下载
直接rpm -ivh安装，默认会安装到/opt/MegaRAID/MegaCli/目录下，MegaCli64应用64位操作系统，MegaCli适用于32位操作系统，根据自己系统自行选择，为了方便调用，链接到/usr/local/bin/目录下。

ln -s /opt/MegaRAID/MegaCli/MegaCli64 /usr/local/bin/megacli

查看当前的磁盘设备
megacli -PDlist -a0 | grep -e 'Enclosure Device ID:' -e '^Slot Number:' -e 'Device Id'
查看当前磁盘的状态
megacli -pdlist -aall |grep 'Firmware state'
查看本机的raid配置和磁盘信息
megacli -cfgdsply -aALL|less
查看所有硬盘状态
megacli -PDList -aAll -NoLog
查看所有virtual disk的状态
megacli -LdPdInfo -aAll -NoLog
做raid0
megacli -CfgLdAdd -R0 [32:2] WB RA Cached -strpsz64 -a0

如果报错:The specified physical disk does not have the appropriate attributes to complete the requested command.

执行:

megacli -CfgForeign -Scan -a0 然后: megacli -CfgForeign -Clear -a0 然后再次:

megacli -CfgLdAdd -R0 [32:2] WB RA Cached -strpsz64 -a0

megacli -CfgLdAdd -r0[32:7] WB Direct -a0

做raid
做raid5（不指定热备盘）
megacli -CfgLdAdd -r5 [32:2,32:3,32:4,32:5,32:6,32:7] WB Direct -a0
做raid10（6块盘）
megacli -CfgSpanAdd -r10 -Array0[32:0,32:1] -Array1[32:2,32:3] -Array2[32:4,32:5] WB Direct -a0
做raid5指定热备盘为32：5
megacli -CfgLdAdd -r5 [32:2,32:3,32:4] WB Direct -Hsp[32:5] -a0
删除raid阵列
megacli -CfgLdDel -L1 -force -a0
-L为指定阵列组号，通过查看本机raid信息获取
-a为指定控制器
删除全局热备
megacli -PDHSP -rmv -PhysDrv[32:2] -a0
报错
若在服务器上拔下raid盘然后又插入，报错"The current operation is not allowed because the controller has data in cache for offline or missing virtual drives."
解决办法：
原因为控制器已经有了此盘的缓存，需要清理缓存，使用命令行工具清除12的缓存信息
megacli -discardpreservedcache -l2 -a0

megacli -DiscardPreservedCache -L1 -a0

-l：指定raid组id号，若盘符为8，则指定-l7
磁盘定位
megacli -PdLocate -start -physdrv[32:7] -a0
停止点亮磁盘
megacli -PdLocate -stop -physdrv[32:7] -a0