

组网及说明

使用LSI阵列卡的ONESTor集群或者X10000集群

问题描述

HDD盘要求阵列卡缓存开启并开启掉电保护模式，当看到Current Cache Policy: WriteBack, ReadAhead, Direct, No Write Cache if Bad BBU，这种模式指的是HDD盘缓存开启的阵列卡缓存为回写且开启了掉电保护模式，但是当我们查看到缓存为Current Cache Policy: WriteThrough, ReadAhead, Direct, No Write Cache if Bad BBU，如下图所示，则表示为阵列卡缓存未开启回写模式，需要打开回写模式

```
Sector Size      : 512
Is VD emulated   : Yes
Parity Size      : 0
State            : Optimal
Strip Size       : 64 KB
Number Of Drives : 1
Span Depth       : 1
Default Cache Policy: WriteThrough, ReadAheadNone, Direct, No Write Cache if Bad BBU
Current Cache Policy: WriteThrough, ReadAheadNone, Direct, No Write Cache if Bad BBU
Default Access Policy: Read/Write
Current Access Policy: Read/Write
Disk Cache Policy : Disk's Default
Encryption Type  : None
Default Power Savings Policy: Controller Defined
Current Power Savings Policy: None
Can spin up in 1 minute: No
LD has drives that support T10 power conditions: No
LD's IO profile supports MAX power savings with cached writes: No
Bad Blocks Exist: No
PI type: No PI
```

过程分析

HDD盘阵列卡缓存开启有加速读写的功能，但是要开启掉电保护，当我们巡检的时候，我们可以看到这个盘是1.8T，可以简单判断此盘为HDD盘，若不确定，可以使用命令 megacli -cfgdsply -aALL 可以查看硬盘的PD Type，若为SAS，则代表此盘为HDD，如下图所示，图中为megacli -cfgdsply -aALL命令看到的内容

```
DISK GROUP: 3
Number of Spans: 1
SPAN: 0
Span Reference: 0x03
Number of PDs: 1
Number of VDs: 1
Number of dedicated Hotspares: 0
Virtual Drive Information:
Virtual Drive: 3 (Target Id: 3)
Name :
RAID Level : Primary-0, Secondary-0, RAID Level Qualifier-0
Size : 1.818 TB
Sector Size : 512
Is VD emulated : No
Parity Size : 0
State : Optimal
Strip Size : 64 KB
Number Of Drives : 1
Span Depth : 1
Default Cache Policy: WriteBack, ReadAheadNone, Cached, No Write Cache if Bad BBU
Current Cache Policy: WriteBack, ReadAheadNone, Cached, No Write Cache if Bad BBU
Default Access Policy: Read/Write
Current Access Policy: Read/Write
Disk Cache Policy : Disk's Default
Encryption Type : None
Default Power Savings Policy: None
Current Power Savings Policy: None
Can spin up in 1 minute: Yes
LD has drives that support T10 power conditions: Yes
LD's IO profile supports MAX power savings with cached writes: No
Bad Blocks Exist: No
PI type: No PI

Is VD Cached: No
Physical Disk Information:
Physical Disk: 0
Enclosure Device ID: 32
Slot Number: 4
Drive's position: DiskGroup: 3, Span: 0, Arm: 0
Enclosure position: 1
Device Id: 4
WWN: 5000C500A69442E8
Sequence Number: 2
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Last Predictive Failure Event Seq Number: 0
PD Type: SAS
```

解决方法

使用megacli -LDSetProp -WB -L1 -aALL，此处的-L1中的1指的是逻辑盘1，所以我们实际操作的时候

要找到逻辑盘序列号，然后执行设置命令，WB指的是将盘设置为WriteBack

```
Virtual Drive: 1 (Target Id: 1)
Name :
RAID Level : Primary-0, Secondary-0, RAID Level Qualifier-0
Size : 446.625 GB
Sector Size : 512
Is VD emulated : Yes
Parity Size : 0
State : Optimal
Strip Size : 64 KB
Number Of Drives : 1
Span Depth : 1
Default Cache Policy: WriteThrough, ReadAheadNone, Direct, No Write Cache if Bad BBU
Current Cache Policy: WriteThrough, ReadAheadNone, Direct, No Write Cache if Bad BBU
Default Access Policy: Read/Write
Current Access Policy: Read/Write
Disk Cache Policy : Disk's Default
Encryption Type : None
Default Power Savings Policy: Controller Defined
Current Power Savings Policy: None
Can spin up in 1 minute: No
LD has drives that support T10 power conditions: No
LD's IO profile supports MAX power savings with cached writes: No
Bad Blocks Exist: No
PI type: No PI
```

设置完成后，再次执行megacli -ldinfo -lall -a0查看对应的HDD阵列卡缓存是否设置正确