HPE ProLiant 系列服务器Redhat Linux系统下安装SSA CLI及基本命令使用

Smart Storage Administrator　Linux系统安装　吕飞　2017-12-13 发表

SSA CLI 工具基本常用命令介绍：

英文缩写对应关系：Chassisname=ch；cOntroller=ctrl；logicaldrive=ld；physicaldrive=pd；drviewritecache=dwc；

进入ssacli工具：在root用户下输入 ssacli

查看阵列配置信息： ctrl all show config

查看详细信息：ctrl all show config detail

查看阵列卡、阵列卡缓存和电池状态 ctrl all show status

查看所有的Logicaldrive：ctrl slot=0 ld all show

收集ADU日志：ctrl slot=0 diag file=\adureport.zip ris=off zip=on（file=文件路径名，文件的扩展名可以为txt或zip，ris表示reserve information sector）

更多命令介绍请参考Smart Storage Administrator 用户指南。

SSACLI 安装：

1.登录HPE官方网站下载SSACLI工具。

2.把SSACLI工具复制到Linux系统下。

3.在Linux系统下使用root用户，使用:chmod 777 SSACLI-xxx.rpm 添加权限。

```
[root@lvfei 桌面]# ls
hponcfg-4.6.0-0.x86_64.rpm                  ssacli-2.65-7.0.x86_64.rpm
kmod-hpilo-1.3-259.43.rhel6u1.x86_64.rpm    ssaducli-2.65-7.0.x86_64.rpm
[root@lvfei 桌面]# chmod 777 ssacli-2.65-7.0.x86_64.rpm
[root@lvfei 桌面]# ls
hponcfg-4.6.0-0.x86_64.rpm                  ssacli-2.65-7.0.x86_64.rpm
kmod-hpilo-1.3-259.43.rhel6u1.x86_64.rpm    ssaducli-2.65-7.0.x86_64.rpm
[root@lvfei 桌面]#
```

给文件添加权限

4.运行rpm –ivh XXX文件名安装SSACLI工具。

```
[root@lvfei 桌面]# rpm -ivh ssacli-2.65-7.0.x86_64.rpm
warning: ssacli-2.65-7.0.x86_64.rpm: Header V3 RSA/SHA256 Signature, key ID 26
Preparing...                ########################################### [100%]
   1:ssacli                 ########################################### [100%]

[root@lvfei 桌面]#
```

安装SSACLI

5.输入ssacli 进入配置。

```
[root@lvfei 桌面]# ssacli
Smart Storage Administrator CLI 2.65.7.0
Detecting Controllers...Done.
Type "help" for a list of supported commands.
Type "exit" to close the console.

=>
```

SSACLI创建阵列：

1.先查看硬盘及阵列信息（如下图2I:6：5硬盘是没有创建阵列的硬盘）。

ctrl slot=0 pd all show

```
[root@lvfei 桌面]# ssacli
Smart Storage Administrator CLI 2.65.7.0
Detecting Controllers...Done.
Type "help" for a list of supported commands.
Type "exit" to close the console.

=> ctrl slot=0 pd all show

Smart Array P440ar in Slot 0 (Embedded)

   Array A

      physicaldrive 1I:6:3 (port 1I:box 6:bay 3, SAS HDD, 300 GB, OK)
      physicaldrive 1I:6:4 (port 1I:box 6:bay 4, SAS HDD, 300 GB, OK)

   Unassigned

      physicaldrive 2I:6:5 (port 2I:box 6:bay 5, SAS HDD, 300 GB, OK)

=>
```

2.由于本次实验用机只有一块硬盘可以创建阵列，做一个RAID0测试，创建后会多一个Array 。

如果有多块硬盘做阵列例如：ctrl slot=0 create type=ld drives=2I:6:3,2I:6:4,2I:6:5raid=5

```
=> ctrl slot=0 create type=ld drives=2I:6:5 raid=0
=> ctrl slot=0 pd all show

Smart Array P440ar in Slot 0 (Embedded)

   Array A

      physicaldrive 1I:6:3 (port 1I:box 6:bay 3, SAS HDD, 300 GB, OK)
      physicaldrive 1I:6:4 (port 1I:box 6:bay 4, SAS HDD, 300 GB, OK)

   Array B

      physicaldrive 2I:6:5 (port 2I:box 6:bay 5, SAS HDD, 300 GB, OK)

=>
```

查看阵列

创建阵列

删除阵列：

1.先查看服务器当前的阵列：

ctrl slot=0 ld all show

```
=> ctrl slot=0 ld all show

Smart Array P440ar in Slot 0 (Embedded)

   Array A

      logicaldrive 1 (558.7 GB,  RAID 0,  OK)

   Array B

      logicaldrive 2 (279.4 GB,  RAID 0,  OK)

=>
```

2.删除阵列B：

ctrl slot=0 ld2 delete

警告信息：删除阵列会导致所有数据丢失，按Y继续。

```
=> ctrl slot=0 ld 2 delete

Warning:  Deleting an array can cause other array letters to become renamed.
          E.g.  Deleting array A from arrays A, B, C will result in two remaining
          arrays A, B ...  not B, C


Warning:  Deleting the specified device(s) will result in data being lost.
          Continue? (y/n) y

=>
```

3.删除阵列后查看阵列，已经删除只剩下一个阵列ArrayA。

ctrl slot=0 ld all show

```
=> ctrl slot=0 ld all show

Smart Array P440ar in Slot 0 (Embedded)

   Array A

      logicaldrive 1 (558.7 GB,  RAID 0,  OK)

=>
```

阵列扩容:

1.查看当前硬盘信息。

ctrl slot=0 pd all show

```
=>
=> ctrl slot=0 pd all show

Smart Array P440ar in Slot 0 (Embedded)

   Array A

      physicaldrive 1I:6:4 (port 1I:box 6:bay 4,  SAS HDD,  300 GB,  OK)

   Unassigned

      physicaldrive 1I:6:3 (port 1I:box 6:bay 3,  SAS HDD,  300 GB,  OK)
```

2.把ArrayA进行扩容。

ctrl slot=0 array A add drives=1I：6:3

```
=> ctrl slot=0 array A add drives=1I:6:3
=>
```

3.查看扩容后的阵列硬盘信息。

```
=> ctrl slot=0 pd all show

Smart Array P440ar in Slot 0 (Embedded)

   Array A

      physicaldrive 1I:6:3 (port 1I:box 6:bay 3,  SAS HDD,  300 GB,  OK)
      physicaldrive 1I:6:4 (port 1I:box 6:bay 4,  SAS HDD,  300 GB,  OK)

=>
```

4.查看阵列配置信息，硬盘正在扩容，3.38%。

```
=> ctrl all show config

Smart Array P440ar in Slot 0 (Embedded)    (sn:  PDNLH0BRH7N7MZ)


   Port Name:  1I

   Port Name:  2I


   Internal Drive Cage at Port 1I,  Box 6,  OK


   Internal Drive Cage at Port 2I,  Box 0,  OK


   Array A (SAS,  Unused Space:  286070  MB)

      logicaldrive 1 (279.4 GB,  RAID 0,  Transforming,  3.38% complete)

      physicaldrive 1I:6:3 (port 1I:box 6:bay 3,  SAS HDD,  300 GB,  OK)
      physicaldrive 1I:6:4 (port 1I:box 6:bay 4,  SAS HDD,  300 GB,  OK)
```

5.等扩容进度已经完毕后再次查看阵列，ArrayA已经变成了两块硬盘，但是logicaldrive没有变化。

ctrl all show config

```
=> ctrl all show config

Smart Array P440ar in Slot 0 (Embedded)    (sn: PDNLH0BRH7N7MZ)

   Port Name: 1I

   Port Name: 2I

   Internal Drive Cage at Port 1I, Box 6, OK


   Internal Drive Cage at Port 2I, Box 0, OK

   Array A (SAS, Unused Space: 286070  MB)

      logicaldrive 1 (279.4 GB, RAID 0, OK)

      physicaldrive 1I:6:3 (port 1I:box 6:bay 3, SAS HDD, 300 GB, OK)
      physicaldrive 1I:6:4 (port 1I:box 6:bay 4, SAS HDD, 300 GB, OK)

=>
```

6.扩容Logicaldriver。

ctrl slot=0 ld 1 modify size=max forced

```
=> ctrl slot=0 ld 1 modify size=max forced
=>
```

lvfei@lvfei:/home/lvf··· | lvfei@lvfei:~/桌面

7.查看扩容后的阵列信息，显示logicaldrive 已经扩容成功。

```
=> ctrl all show config

Smart Array P440ar in Slot 0 (Embedded)    (sn: PDNLH0BRH7N7MZ)

   Port Name: 1I

   Port Name: 2I

   Internal Drive Cage at Port 1I, Box 6, OK


   Internal Drive Cage at Port 2I, Box 0, OK

   Array A (SAS, Unused Space: 0  MB)

      logicaldrive 1 (558.7 GB, RAID 0, OK)

      physicaldrive 1I:6:3 (port 1I:box 6:bay 3, SAS HDD, 300 GB, OK)
      physicaldrive 1I:6:4 (port 1I:box 6:bay 4, SAS HDD, 300 GB, OK)

=>
```

阵列迁移:

1.ctrl slot=0 ld 1 modify raid=* （raid=* 表示想要迁移的raid级别，Raid0 不能往高的RAID级别迁移）。

如下图，把 Raid级别迁移到了RAID0

```
=> ctrl slot=0 ld 1 modify raid=0
=> ctrl all show config

Smart Array P440ar in Slot 0 (Embedded)    (sn: PDNLH0BRH7N7MZ)

   Port Name: 1I

   Port Name: 2I

   Internal Drive Cage at Port 1I, Box 6, OK


   Internal Drive Cage at Port 2I, Box 0, OK

   Array A (SAS, Unused Space: 0  MB)

      logicaldrive 1 (558.7 GB, RAID 0, Transforming, 0.04% complete)

      physicaldrive 1I:6:3 (port 1I:box 6:bay 3, SAS HDD, 300 GB, OK)
      physicaldrive 1I:6:4 (port 1I:box 6:bay 4, SAS HDD, 300 GB, OK)
```