

知 HPE ProLiant服务器使用hpssascripting批量配置Raid

SmartStart

Smart Storage Administrator

程鹏

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目前hpssascripting 工具存在于hpssacli中

```
[root@ML350p_Gen8 ~]# ls
anaconda-ks.cfg  hp-scripting-tools-10.40-69.rhel6.x86_64.rpm  hpssacli-2.40-13.0.x86_64.rpm  install.log  install.log.syslog
[root@ML350p_Gen8 ~]# ^C
[root@ML350p_Gen8 ~]#
```

1、安装hpssacli

```
[root@ML350p_Gen8 ~]# rpm -ivh hpssacli-2.40-13.0.x86_64.rpm
warning: hpssacli-2.40-13.0.x86_64.rpm: Header V3 RSA/SHA1 Signature, key ID b1275ea3: NOKEY
Preparing... ##### [100%]
package hpssacli-2.40-13.0.x86_64 is already installed
[root@ML350p_Gen8 ~]#
```

2、安装后进入如下目录

```
[root@ML350p_Gen8 bld]# ls
array@_raid@_spare.ini  error.ini  hprmrstr  hpssacli  hpssacli-2.40-13.0.x86_64.txt  hpssacli.license  hpssascripting  mklocks.sh  output.txt  ssaoutput.ini
[root@ML350p_Gen8 bld]# pwd
/opt/hp/hpssacli101014
[root@ML350p_Gen8 bld]#
```

3、运行命令查看当前可用配置参数

```
[root@ML350p_Gen8 bld]# ./hpssascripting
usage: ( [-c filename] | [-i filename] ) [-e filename] [-internal | -external] [ -reset ]
  -c  Captures configuration to filename. Default output file is ssaoutput.ini
  -i  Creates configuration from filename. Default input file is ssainput.ini
  -e  Sets the error filename. Default error file is error.ini
  -internal  Restricts operations to internal controllers
  -external  Restricts operations to external controllers
  -reset  Resets the controller configuration before applying a new one. Used with -i option

[root@ML350p_Gen8 bld]#
```

4、抓取当前配置文件 命名为config.ini

```
[root@ML350p_Gen8 bld]# ./hpssascripting -c config.ini
[root@ML350p_Gen8 bld]#
```

```
[root@ML350p_Gen8 bld]# cat config.ini
; Date captured: Thu Sep 15 09:48:29 2016

; Version: 2.40.13.0

Action= Configure
Method= Custom

; _____ Controller Specifications SLOT 0 _____
;
; Controller HPE Smart Array P420i, FirmwareVersion 7.02, License Keys Supported
; SerialNumber 0014380217F5E20
; DriverName hpsa
; DriverVersion 3.4.4
; SSDSmartPath Supported
Controller= SLOT 0
ReadCache= 10
WriteCache= 90
RebuildPriority= High
ExpandPriority= Medium
SurfaceScanMode= Idle
SurfaceScanDelay= 3
DriveWriteCache= Disabled
NoBatteryWriteCache= Disabled
LicenseKey= 32406-JDL97-JMQDK-7XMQQ-DSSJ6
; LicenseKeyType= Flex License
MNPDelay= 60
IPEnable= Disabled
DPOEnable= Disabled
ElevatorSortEnable= Enabled
QueueDepth= Automatic
PredictiveSpareActivation= Disable

; Array Specifications
Array= A
; Array Drive Type is Solid State SATA
; Array Free Space 0 Gbytes
; Z1:1:1 (120.0 GB, Solid State SATA)
Drive= Z1:1:1
SSDSmartPath= Enable
OnlineSpare= No

; Logical Drive Specifications
LogicalDrive= 1
RAID= 0
Size= 114439
; SizeBlocks= 234371520
Sectors= 32
StripSize= 256
```

```
; Logical Drive Specifications
LogicalDrive= 1
RAID= 0
Size= 114439
; SizeBlocks= 234371520
Sectors= 32
StripSize= 256
; VolumeUniqueID= 600508B1001C9161B6D3BD0DA9631251
```

```
; Array Specifications
Array= B
; Array Drive Type is SAS
; Array Free Space      0 GBytes
; 2I:1:3 (300 GB, SAS), 2I:1:4 (300 GB, SAS)
Drive= 2I:1:3, 2I:1:4
OnlineSpare= 1I:1:5
```

```
; Logical Drive Specifications
LogicalDrive= 2
RAID= 1
Size= 286070
; SizeBlocks= 585871360
Sectors= 32
StripSize= 256
Caching= Enabled
; VolumeUniqueID= 600508B1001C67B63E97E8CD8A75E97A
```

5. 将配置导出修改配置如下，增加array B和spare盘。

```
; Date captured: Wed Sep 14 17:28:45 2016
; Version: 2.40.13.0
Action= Configure
Method= Custom
; _____ Controller Specifications SLOT 0
_____
;
; Controller HPE Smart Array P420i, FirmwareVersion 7.02, License Keys Supported
; SerialNumber 0014380217F5E20
; DriverName hpsa
; DriverVersion 3.4.4
; SSDSmartPath Supported
COntroller= SLOT 0
ReadCache= 10
WriteCache= 90
RebuildPriority= High
ExpandPriority= Medium
SurfaceScanMode= Idle
SurfaceScanDelay= 3
DriveWriteCache= Disabled
NoBatteryWriteCache= Disabled
LicenseKey= 324Q6-JDL97-JMQDK-7XW2Q-DS5J6
; LicenseKeyType= Flex License
MNPDelay= 60
IRPEnable= Disabled
DPOEnable= Disabled
ElevatorSortEnable= Enabled
QueueDepth= Automatic
PredictiveSpareActivation= Disable
; Array Specifications
;Array= A
; Array Drive Type is Solid State SATA
; Array Free Space 0 GBytes
; 2I:1:1 (120.0 GB, Solid State SATA)
;Drive= 2I:1:1
;SSDSmartPath= Enable
```

```
;OnlineSpare= No
; Logical Drive Specifications
;LogicalDrive= 1
;RAID= 0
;Size= 114439
;SizeBlocks= 234371520
;Sectors= 32
;StripSize= 256
; VolumeUniqueID= 600508B1001C9161B6D3BD0DA9631251
; Array Specifications
Array= B
; Array Drive Type is SAS
; Array Free Space 0 GBytes
; 2l:1:3 (300 GB, SAS), 2l:1:4 (300 GB, SAS)
Drive= 2l:1:3, 2l:1:4
OnlineSpare= 1l:1:5
; Logical Drive Specifications
LogicalDrive= 2
RAID= 1
Size= 286070
;SizeBlocks= 585871964
Sectors= 32
StripSize= 256
Caching= Enabled
; VolumeUniqueID= 600508B1001C3DFF457C263420D9C2C7
```

6. 再将配置改名后，上传到服务器

 arrayB_raid1_spare.ini	1KB	配置设置	2016/9/14, 17:41	-rw-r--r--	root
 config.ini	1KB	配置设置	2016/9/15, 9:48	-rw-r--r--	root

之后将新的阵列配置文件改名为arrayB_raid_spare，使用如下命令创建当前配置。

```
[root@ML350p_Gen8 bld]# ./hpssascripting -i arrayB_raid1_spare.ini
[root@ML350p_Gen8 bld]# █
```

7. 之后验证当前结果，进入hpssacli中输入如下命令

```
[root@ML350p_Gen8 bld]# ./hpssacli
HPE Smart Storage Administrator CLI 2.40.13.0
Detecting Controllers...Done.
Type "help" for a list of supported commands.
Type "exit" to close the console.
```

```
=> █
```

```
=> controller slot=0 array b show
```

```
Smart Array P420i in Slot 0 (Embedded)
```

```
Array: B
  Interface Type: SAS
  Unused Space: 0 MB (0.0%)
  Used Space: 558.7 GB (100.0%)
  Status: OK
  Array Type: Data      Spare Type: dedicated
  HPE SSD Smart Path: disable
```

```
=> controller slot=0 array a show
```

```
Smart Array P420i in Slot 0 (Embedded)
```

```
Array: A
  Interface Type: Solid State SATA
  Unused Space: 0 MB (0.0%)
  Used Space: 111.8 GB (100.0%)
  Status: OK
  Array Type: Data      HPE SSD Smart Path: enable
```

```
=> controller slot=0 logicaldrive 1 show
```

```
Smart Array P420i in Slot 0 (Embedded)
```

```
array A
  Logical Drive: 1
    Size: 111.8 GB
    Fault Tolerance: 0
    Heads: 255
    Sectors Per Track: 32
    Cylinders: 28722
    Strip Size: 256 KB
    Full Stripe Size: 256 KB
    Status: OK
    Caching: Disabled
    Unique Identifier: 600508B1001C9161B603B00DA9631251
    Disk Name: /dev/sda
    Mount Points: /boot 1000 MB Partition Number 2, / 106.8 GB Partition Number 4
    OS Status: LOCKED
    Logical Drive Label: 021ADC6A0014380217F5E205E65
    Drive Type: Data
    LD Acceleration Method: HPE SSD Smart Path
```

```
=> controller slot=0 logicaldrive 2 show
```

```
Smart Array P420i in Slot 0 (Embedded)
```

```
array B
  Logical Drive: 2
    Size: 279.4 GB
    Fault Tolerance: 1
    Heads: 255
    Sectors Per Track: 32
    Cylinders: 65535
    Strip Size: 256 KB
    Full Stripe Size: 256 KB
    Status: OK
    Caching: Enabled
    Unique Identifier: 600508B1001C67B63E97E8CD8A75E97A
    Disk Name: /dev/sdb
    Mount Points: None
    Logical Drive Label: 061D1ACA0014380217F5E2065D9
    Mirror Group 1:
      physicaldrive 2I:1:3 (port 2I:box 1:bay 3, SAS, 300 GB, OK)
    Mirror Group 2:
      physicaldrive 2I:1:4 (port 2I:box 1:bay 4, SAS, 300 GB, OK)
    Drive Type: Data
    LD Acceleration Method: Controller Cache
```

8. 配置成功，通过此配置文件，可以批量配置其他机器。