

# 知 P460阵列卡重建直接完成，没有经历重建过程

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组网及说明

P460系列阵列卡

#### 问题描述

用户进行新机测试，发现在BIOS中创建完raid5之后，插拔硬盘测试raid重建，没有经历重建过程，raid状态直接恢复ok；而在系统下插拔硬盘，可以看到对应的重建进度；需要了解其中原理；

## 过程分析

在实验室中进行相同场景测试，测试情况如下：

测试 (P460-B2):

创建了两个raid5，分别为test和test2:

```
Logical Device number 1
Logical Device name      : test
Disk Name                : /dev/sdc
Block Size of member drives : 512 Bytes
Array                   : 1
RAID level              : 5
Status of Logical Device : Optimal
Parity Initialization Status : Queued
Size                   : 1144586 MB
Stripe-unit size      : 256 KB
Full Stripe Size       : 512 KB
Interface Type         : Serial Attached SCSI
Device Type            : Data
Boot Type              : None
Heads                  : 255
Sectors Per Track     : 32
Cylinders              : 65535
Caching                : Enabled
Mount Points           : Not Applicable
LD Acceleration Method : Controller Cache
Volume Unique Identifier : 600508B1001C345638E20120600C8CF3
-----
Array Physical Device Information
-----
Device 2                : Present (572325MB, SAS, HDD, Channel:0, Device:2) WAF1F0A20000E93305R6
Device 3                : Present (572325MB, SAS, HDD, Channel:0, Device:3) WAF1E0FF0000E933062J
Device 4                : Present (572325MB, SAS, HDD, Channel:0, Device:4) WAF1F0AQ0000E93312S1
-----
Logical Device number 2
Logical Device name      : test2
Disk Name                : /dev/sdd
Block Size of member drives : 512 Bytes
Array                   : 2
RAID level              : 5
Status of Logical Device : Optimal
Parity Initialization Status : Queued
Size                   : 1144586 MB
Stripe-unit size      : 256 KB
Full Stripe Size       : 512 KB
Interface Type         : Serial Attached SCSI
Device Type            : Data
Boot Type              : None
Heads                  : 255
Sectors Per Track     : 32
Cylinders              : 65535
Caching                : Enabled
Mount Points           : Not Applicable
LD Acceleration Method : Controller Cache
Volume Unique Identifier : 600508B1001C3FC6C6150583EE100D91
-----
Array Physical Device Information
-----
Device 5                : Present (572325MB, SAS, HDD, Channel:0, Device:5) WAF1F0B00000E933068M
Device 6                : Present (572325MB, SAS, HDD, Channel:0, Device:6) WAF1F0E0000E93306ZX
Device 7                : Present (572325MB, SAS, HDD, Channel:0, Device:7) WAF1F0CJ0000E93305HH
```

=====测试1=====

在系统下对第一个逻辑盘 (test)进行热插拔:

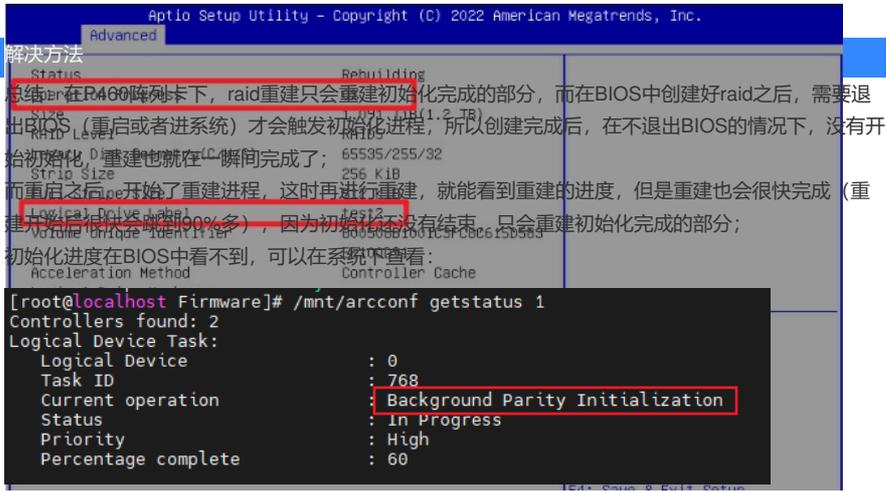
插拔后开始重建:

```
[root@localhost mnt]# ./arccnf getconfig 1 ld 1
Controllers found: 2
-----
Logical device information
-----
Logical Device number 1
Logical Device name      : test
Disk Name                : /dev/sdc
Block Size of member drives : 512 Bytes
Array                   : 1
RAID level              : 5
Status of Logical Device : Rebuilding
Parity Initialization Status : Completed
Size                   : 1144586 MB
Stripe-unit size      : 256 KB
Full Stripe Size       : 512 KB
Interface Type         : Serial Attached SCSI
Device Type            : Data
Boot Type              : None
Heads                  : 255
Sectors Per Track     : 32
Cylinders              : 65535
Caching                : Enabled
Mount Points           : Not Applicable
LD Acceleration Method : Controller Cache
Volume Unique Identifier : 600508B1001C345638E20120600C8CF3
-----
Array Physical Device Information
-----
Device 2                : Present (572325MB, SAS, HDD, Channel:0, Device:2) WAF1F0A20000E93305R6
Device 3                : Present (572325MB, SAS, HDD, Channel:0, Device:3) WAF1E0FF0000E933062J
Device 4                : Present (572325MB, SAS, HDD, Channel:0, Device:4) WAF1F0AQ0000E93312S1
-----
Command completed successfully.
[root@localhost mnt]# ./arccnf getstatus 1
Controllers found: 2
Logical Device Task:
Logical Device          : 1
Task ID                : 769
Current operation       : Rebuild
Status                 : In Progress
Priority                : High
Percentage complete   : 1
-----
Command completed successfully.
```

=====测试2=====

在BIOS下，插拔第二个逻辑盘下的成员盘 (test2)进行插拔:

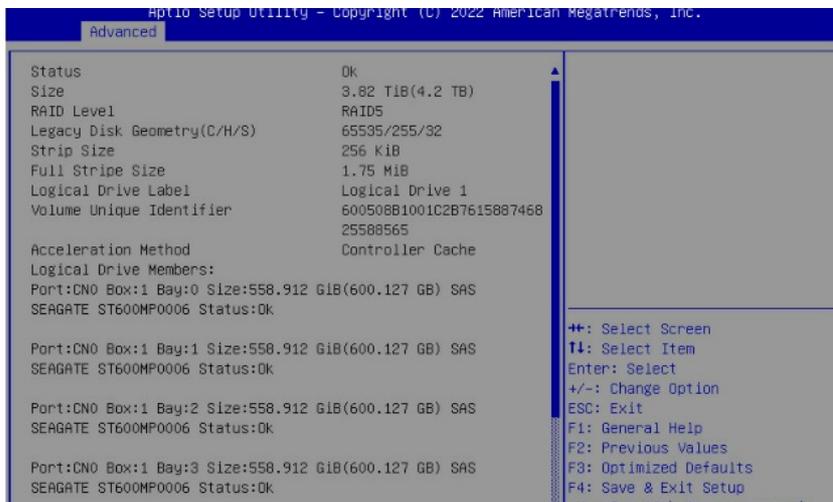
也会显示重建:



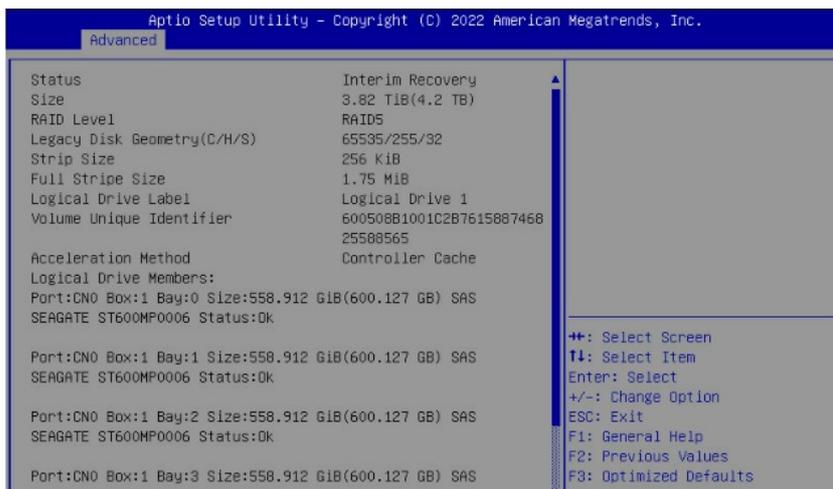
=====测试3=====

直接在BIOS中创建raid5，不重启，插拔硬盘，逻辑盘状态直接恢复（因为直接在BIOS中创建的逻辑盘未进行初始化动作，从硬盘灯的状态也可以看出，硬盘灯没有闪）：

新创建的raid5



拔盘：



插盘后，raid5状态直接恢复为ok：

