Replacing a failed drive that reports Predictive Failure Analysis (PFA) events in 2073-720

If a drive on the storage system reports PFA events, mark the drive as offline and replace the drive.

Procedure

1. Log in to CLI as privileged user.

2. To make a note of the node ID that has the failed drive, check for the PFA log event by running the **lslog** CLI command. For example:

```
#lslog | more

Host name     Severity Event id   Date received     Component First Occurrer
mgmt002st001    SEVERE    EFS0E0096C 6/15/16 6:17 PM    GUI          1224923684
```

The location code is written in hexadecimal numbers. In this example, the drive with Device ID 62 is placed in slot 1.

3. Send a query to the controller to retrieve enclosure and slot information:

```
/opt/MegaRAID/MegaCli/MegaCli64 -PDlist -a0 | grep -e '^Enclosure Device

Enclosure Device ID: 62
Slot Number: 0
Enclosure Device ID: 62
Slot Number: 1
```

4. Use the drive information to set the drive in slot 1 to the offline mode by using the following command: `MegaCli -PDOffline -PhysDrv [E:S] -aN`
   For example:

```
/opt/MegaRAID/MegaCli/MegaCli64 -PDOffline -PhysDrv [62:1] -a0

Adapter: 0: EnclId-62 SlotId-1 state changed to OffLine.
Exit Code: 0x00
```

5. Mark the drive Missing by using the following command: `MegaCli64 -PDMarkMissing -PhysDrv [E:S] -aN`
   For example:

```
/opt/MegaRAID/MegaCli/MegaCli64 -PDMarkMissing -PhysDrv [62:1] -a0

EnclId-62 SlotId-1 is marked Missing.
Exit Code: 0x00
```

6. Prepare the drive for removal by using the following command: `MegaCli64 -PDPrpRmv -PhysDrv [E:S] -aN`

   For example:

```
/opt/MegaRAID/MegaCli/MegaCli64 -PDPrpRmv -PhysDrv [62:1] -a0

Prepare for removal Success
Exit Code: 0x00
```

7. Replace the drive.

8. Add the new drive to the RAID virtual drive and start the rebuilding by using the following command:

   `MegaCli64 -PdReplaceMissing -PhysDrv [E:S] -ArrayN -rowN -aN`

   `MegaCli64 -PDRbld -Start -PhysDrv [E:S] -aN`

   For example:

```
/opt/MegaRAID/MegaCli/MegaCli64 -PdReplaceMissing -PhysDrv [62:1] -Array0

Adapter: 0: Missing PD at Array 0, Row 1 is replaced.
Exit Code: 0x00

[root@V7KU3.mgmt001st001 ~]# /opt/MegaRAID/MegaCli/MegaCli64 -PDRbld -Sta

Started rebuild progress on device(Encl-62 Slot-1)
Exit Code: 0x00
```

9. Monitor the rebuild progress by using the following command:

```
/opt/MegaRAID/MegaCli/MegaCli64 -pdrbld -showprog -physdrv [62:1] -a0

Rebuild Progress on Device at Enclosure 62, Slot 1 Completed 5% in 6 Minu
Exit Code: 0x00
```

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