

**Hard Drive in a CIVS-MSP shows up as
'Unconfigured(bad)'
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It's possible a hard drive may show up as 'unconfigured(bad)' within the raid configuration. This could be experienced when replacing a drive that has failed, or simply show up because a single drive encountered errors and did not properly recover. Below is a procedure I have captured to add the 'unconfigured(bad)' drive back to the existing array.



List all drive info to identify slot:

```
linux-yk2y:/opt/MegaRAID/MegaCli # ./MegaCli -pdlist -a0
```

Once slot 4 in enclosure 16 has been identified you can list single drive info:

```
linux-yk2y:/opt/MegaRAID/MegaCli # ./MegaCli -pdinfo -physdrv[16:4] -a0
```

```
Enclosure Device ID: 16
Slot Number: 4
Device Id: 22
Sequence Number: 6
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Last Predictive Failure Event Seq Number: 0
Raw Size: 715404MB [0x575466f0 Sectors]
Non Coerced Size: 714892MB [0x574466f0 Sectors]
Coerced Size: 714302MB [0x5731f000 Sectors]
Firmware state: Unconfigured(bad)
SAS Address(0): 0x50030480001cfc48
Connected Port Number: 0(path0)
Inquiry Data: ATA      ST3750330NS      SN06      9QK0J21J
This Drive Is Foreign.
```

Make the drive 'Unconfigured(good)':

```
linux-yk2y:/opt/MegaRAID/MegaCli # ./MegaCli -PDMakeGood -Physdrv "[16:4]" -a0
Adapter: 0: EnclId-16 SlotId-4 state changed to Unconfigured-Good.
```

Check the status of [16:4] to make sure it is 'Unconfigured(good)':

```
linux-yk2y:/opt/MegaRAID/MegaCli # ./MegaCli -pdinfo -physdrv[16:4] -a0
Enclosure Device ID: 16
Slot Number: 4
Device Id: 22
Sequence Number: 7
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Last Predictive Failure Event Seq Number: 0
Raw Size: 715404MB [0x575466f0 Sectors]
Non Coerced Size: 714892MB [0x574466f0 Sectors]
Coerced Size: 714302MB [0x5731f000 Sectors]
Firmware state: Unconfigured(good)
SAS Address(0): 0x50030480001cfc48
Connected Port Number: 0(path0)
Inquiry Data: ATA      ST3750330NS      SN06      9QK0J21J
This Drive Is Foreign.
```

We will need to clear the 'foreign config':

```
linux-yk2y:/opt/MegaRAID/MegaCli # ./MegaCli -cfgforeign -clear -a0
```

Once 'Foreign' configuration is cleared, set drive as hotspare:

```
linux-yk2y:/opt/MegaRAID/MegaCli # ./MegaCli -pdhsp -set -physdrv "[16:4]" -a0
Adapter: 0: Set Physical Drive at EnclId-16 SlotId-4 as Hot Spare Success.
```

You will notice below by listing the info of the drive, it has automatically started to rebuild at this point.

```
linux-yk2y:/opt/MegaRAID/MegaCli # ./MegaCli -pdinfo -physdrv[16:4] -a0
Enclosure Device ID: 16
Slot Number: 4
Device Id: 22
Sequence Number: 9
Media Error Count: 0
Other Error Count: 0
Predictive Failure Count: 0
Last Predictive Failure Event Seq Number: 0
Raw Size: 715404MB [0x575466f0 Sectors]
Non Coerced Size: 714892MB [0x574466f0 Sectors]
Coerced Size: 714302MB [0x5731f000 Sectors]
Firmware state: Rebuild
SAS Address(0): 0x50030480001cfc48
Connected Port Number: 0(path0)
Inquiry Data: ATA          ST3750330NS          SN06          9QK0J21J
```

The status of the rebuild can be checked:

```
linux-yk2y:/opt/MegaRAID/MegaCli # ./MegaCli -pdrbld -showprog -physdrv "[16:4]" -a0
Rebuild Progress on Device at Enclosure 16, Slot 4 Completed 39% in 156
Minutes.
```

If the drive fails to start rebuilding after being set as a hotspare, the rebuild process can be manually started.

```
linux-yk2y:/opt/MegaRAID/MegaCli # ./MegaCli -pdrbld -start -physdrv "[16:4]" -a0
```

Please note that this procedure will not recover a drive that has truly failed. If the drive can't be added back to the array with this procedure the drive will need to be replaced.