

## Drives Appearing Offline in Linux

Some users are experiencing multiple drives in an 'Offline' status with Linux systems containing host bus adapters. This may also present drives not on the HBA as 'Offline' or with 'Write Errors'.

In these cases it is necessary to determine the proper cause. If restarting the server service in the past has shown the drives are 'Healthy' and recording for some time before returning to this state it may be caused by a link speed issue, wherein the write speeds to the drive have lowered and the server service eventually displays the drives in a non-Healthy status.

Please note that this does not cause drives to display 'Failed Drive: Replace Now'.

Limiting link speeds will not appear in the syslogs or the exported support diagnostics, these are going to be found in the Kern logs. To search for limiting link speeds, perform the following in Terminal:

```
cd /var/log  
sudo zgrep -i "limiting sata" kern.log*
```

Anything that returns, regardless of the speed that is reported, is a limiting speed. This means the system lowered the SATA link speed to be able to write to disk.

After the link speed lowers, we should be able to find write errors in the exacqVision server logs:

```
cd /usr/local/exacq/server/logs
```

The command below will search for write errors on 2/13/2018, you can edit this for a specific day or range of dates

```
sudo grep -i ". ps error ." 20180213.txt
```