

StorNext: LINUX: StorNext file system will not mount - messages file shows "cvfs error ' File is busy'"

Symptom:

If a Linux StorNext client is attached to any other kind of fibre-attached storage where multipathing software is used to regulate paths, the StorNext file system(s) will not mount. The resulting messages appear in the `/var/log/messages` file:

```
Jan 26 23:54:35 snclient1 kernel: MdOpenDisks: label DATA1 con 2 lun 0 unit 0.0 state 0x4 dev 0x43f0
devname </dev/sdb1>
Jan 26 23:54:35 snclient1 kernel: MdOpenDisks: OpenFailed! mi 0x000001040cd72000 unit 0.0 error 6 name
</dev/sdb1>
Jan 26 23:54:35 snclient1 kernel: MdOpenDisks: label DATA2 con 2 lun 1 unit 1.0 state 0x4 dev 0x44b0
devname </dev/sdbx>
Jan 26 23:54:35 snclient1 kernel: MdOpenDisks: OpenFailed! mi 0x000001040cd72000 unit 1.0 error 6 name
</dev/sdbx>
.
.
.
Jan 26 23:54:36 snclient1 kernel: Could not mount filesystem Reelz_SAN, cvfs error ' File is busy' (6)
```

Cause:

A configuration that causes the Linux device mapper to open StorNext LUNs will prevent StorNext from opening the LUNs. Thus, if a StorNext LUN is configured as part of a multipath device, then the kernel will open the LUN and prevent anything else from accessing the block device of that LUN directly (in the kernel). User/OS space processes can access the LUN without a problem, but if a StorNext thread tries to open the device it gets an EBUSY, prompting the messages listed above.

Solution:

To disable multipathing for the StorNext devices when other devices connected to the host require device mapping, create (if not already created) a `multipath.conf` file, listing all StorNext devices under the "blacklist" section (see the man page for "`multipath.conf`").

This example shows the StorNext devices listed by `wwid`. Other options are `devnode` (a regular expression of the device nodes to be excluded) or `device` (a subsection for the device description that recognizes the vendor and product keywords; full description of these keywords in the devices section description of the man page for "`multipath.conf`").

```
.  
.br/>devnode_blacklist {  
    wwid "36000393000019e6001000000d581111b"  
    wwid "36000393000019f3701000000d9411119e"  
    wwid "36000393000019e1201000000d58111127"  
    wwid "3600039300001d79501000000d5211115f"  
    wwid "36000393000019e6d01000000d58111163"  
    wwid "36000393000019ea001000000d58111136"  
    wwid "3600039300001cde901000000d52111130"  
    wwid "3600039300001cd0c01000000d52111151"  
    wwid "3600039300001930f01000000d581111ba"  
    wwid "36000393000019e2801000000d58111104"  
    wwid "3600039300001d6cd01000000d521111c1"  
    wwid "36000393000019dc201000000d58111184"  
    wwid "3600039300001cdd701000000d52111174"  
    wwid "36000393000019e9a01000000d5811111f"  
    wwid "3600039300001cd4b01000000d52111179"  
    wwid "36000393000019e9901000000d581111f9"  
    wwid "3600039300001923401000000d581111ca"  
    devnode "^hd[a-z]"  
    devnode "^(ram|raw|loop|fd|md|dm-|sr|scd|st) [0-9]*"  
    devnode "^cciss!c[0-9]d[0-9]*[p[0-9]*]"  
}  
.br/>.
```