
Subject: Problem: LTP linkat01 test fails on nfs directory (NFS v3)

Posted by [gblond](#) on Fri, 21 Sep 2007 10:16:33 GMT

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Hello.

Tested kernels: 2.6.18, 2.6.22, 2.6.23-rc2

Steps to reproduce: Suppose that we have mounted some directory from nfs v3 server with default options. Also we have the two directories in this mountpoint and each directory has hard linked file. Try to open those files and write to one and read from another. Data will not be equal. (Testcase: attached `hardlink_test.c`)

Analysis: Although these hard linked files have same `nfs_fattr::fileid` but have different `nfs_fh` handle. In this case `nfs_find_actor()` function (`fs/nfs/inode.c`) returns false during opening each file:

```
nfs_find_actor()
{
...
if (nfs_compare_fh(NFS_FH(inode), fh))
    return 0;
...
}
```

Therefore for each of hard links new struct `inode` is allocated. It leads to cache aliasing.

Please explain why `nfs_find_actor()` function compares file handles?

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Thanks,
Vitaliy Gusev

File Attachments

1) [hardlink_test.c](#), downloaded 254 times
