
Subject: [PATCH 3/4] fuse: re-work fuse_direct_io() to operate on iovec[]

Posted by [Maxim Patlasov](#) on Fri, 20 Jul 2012 11:50:45 GMT

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The patch transparently passes iovec[] argument from fuse_direct_io() to fuse_get_user_pages() hoping that the latter would fill req with some part of iovec[].

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fs/fuse/file.c | 17 ++++++++-----

1 files changed, 13 insertions(+), 4 deletions(-)

diff --git a/fs/fuse/file.c b/fs/fuse/file.c

index d84416d..6c8e24f 100644

--- a/fs/fuse/file.c

+++ b/fs/fuse/file.c

```
@@ -1089,8 +1089,9 @@ static int fuse_get_user_pages(struct fuse_req *req,
    return 0;
}
```

```
-ssize_t fuse_direct_io(struct file *file, const char __user *buf,
```

```
-    size_t count, loff_t *ppos, int write)
```

```
+static ssize_t __fuse_direct_io(struct file *file, const struct iovec *iov,
```

```
+    unsigned long nr_segs, size_t count,
```

```
+    loff_t *ppos, int write)
```

```
{
    struct fuse_file *ff = file->private_data;
```

```
    struct fuse_conn *fc = ff->fc;
```

```
@@ -1098,6 +1099,7 @@ ssize_t fuse_direct_io(struct file *file, const char __user *buf,
    loff_t pos = *ppos;
```

```
    ssize_t res = 0;
```

```
    struct fuse_req *req;
```

```
+    size_t iov_offset = 0;
```

```
    req = fuse_get_req(fc);
```

```
    if (IS_ERR(req))
```

```
@@ -1107,7 +1109,8 @@ ssize_t fuse_direct_io(struct file *file, const char __user *buf,
    size_t nres;
```

```
    fl_owner_t owner = current->files;
```

```
    size_t nbytes = min(count, nmax);
```

```
-    int err = fuse_get_user_pages(req, buf, &nbytes, write);
```

```
+    int err = fuse_get_user_pages(req, &iov, &nr_segs, &iov_offset,
```

```
+        &nbytes, write);
```

```
    if (err) {
        res = err;
```

```
        break;
```

```
@@ -1130,7 +1133,6 @@ ssize_t fuse_direct_io(struct file *file, const char __user *buf,
```

```

    count -= nres;
    res += nres;
    pos += nres;
-   buf += nres;
    if (nres != nbytes)
        break;
    if (count) {
@@ -1147,6 +1149,13 @@ ssize_t fuse_direct_io(struct file *file, const char __user *buf,

    return res;
}
+
+ssize_t fuse_direct_io(struct file *file, const char __user *buf,
+    size_t count, loff_t *ppos, int write)
+{
+   struct iovec iov = { .iov_base = (void *)buf, .iov_len = count };
+   return __fuse_direct_io(file, &iov, 1, count, ppos, write);
+}
EXPORT_SYMBOL_GPL(fuse_direct_io);

static ssize_t fuse_direct_read(struct file *file, char __user *buf,

```
