
Subject: [PATCH 5/6] fuse: rework fuse_perform_write()
Posted by [Maxim Patlasov](#) on Fri, 07 Sep 2012 17:41:49 GMT
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The patch allocates as many page pointers in fuse_req as needed to cover interval [pos .. pos+len-1]. FUSE_WR_PAGES macro is introduced to hide this cumbersome arithmetics.

```
---
fs/fuse/file.c | 15 ++++++++-----
1 files changed, 11 insertions(+), 4 deletions(-)

diff --git a/fs/fuse/file.c b/fs/fuse/file.c
index 9a6dcc6..84cc83c 100644
--- a/fs/fuse/file.c
+++ b/fs/fuse/file.c
@@ -815,7 +815,8 @@ static ssize_t fuse_send_write_pages(struct fuse_req *req, struct file *file,

static ssize_t fuse_fill_write_pages(struct fuse_req *req,
    struct address_space *mapping,
-    struct iov_iter *ii, loff_t pos)
+    struct iov_iter *ii, loff_t pos,
+    unsigned nr_pages)
{
    struct fuse_conn *fc = get_fuse_conn(mapping->host);
    unsigned offset = pos & (PAGE_CACHE_SIZE - 1);
@@ -875,11 +876,16 @@ static ssize_t fuse_fill_write_pages(struct fuse_req *req,
    if (!fc->big_writes)
        break;
    } while (iov_iter_count(ii) && count < fc->max_write &&
-    req->num_pages < FUSE_MAX_PAGES_PER_REQ && offset == 0);
+    req->num_pages < nr_pages && offset == 0);

    return count > 0 ? count : err;
}

#define FUSE_WR_PAGES(pos, len) min_t(unsigned, \
+    ((pos + len - 1) >> PAGE_CACHE_SHIFT) - \
+    (pos >> PAGE_CACHE_SHIFT) + 1, \
+    FUSE_MAX_PAGES_PER_REQ)
+
static ssize_t fuse_perform_write(struct file *file,
    struct address_space *mapping,
    struct iov_iter *ii, loff_t pos)
@@ -895,14 +901,15 @@ static ssize_t fuse_perform_write(struct file *file,
do {
    struct fuse_req *req;
    ssize_t count;
+    unsigned nr_pages = FUSE_WR_PAGES(pos, iov_iter_count(ii));
```

```
- req = fuse_get_req_multipage(fc, FUSE_MAX_PAGES_PER_REQ);
+ req = fuse_get_req_multipage(fc, nr_pages);
  if (IS_ERR(req)) {
    err = PTR_ERR(req);
    break;
  }

- count = fuse_fill_write_pages(req, mapping, ii, pos);
+ count = fuse_fill_write_pages(req, mapping, ii, pos, nr_pages);
  if (count <= 0) {
    err = count;
  } else {
```
