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Subject: [PATCH v3 4/7] SUNRPC: pipefs dentry lookup helper introduced  
Posted by [Stanislav Kinsbursky](#) on Mon, 26 Dec 2011 11:41:06 GMT  
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In all places, where pipefs dentries are created, only directory inode is actually required to create new dentry. And all this directories has root pipefs dentry as their parent. So we actually don't need this pipefs mount point at all if some pipefs lookup method will be provided.  
IOW, all we really need is just superblock and simple lookup method to find root's child dentry with appropriate name. And this patch introduces this method.

Note, that no locking implemented in `rpc_d_lookup_sb()`. So it can be used only in case of assurance, that pipefs superblock still exist. IOW, we can use this method only in pipefs mount-umount notification subscribers callbacks.

Signed-off-by: Stanislav Kinsbursky <[skinsbursky@parallels.com](mailto:skinsbursky@parallels.com)>

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```
include/linux/sunrpc/rpc_pipe_fs.h | 3 +++
net/sunrpc/rpc_pipe.c               | 16 ++++++++
2 files changed, 19 insertions(+), 0 deletions(-)
```

```
diff --git a/include/linux/sunrpc/rpc_pipe_fs.h b/include/linux/sunrpc/rpc_pipe_fs.h
index 733ef50..4585985 100644
```

```
--- a/include/linux/sunrpc/rpc_pipe_fs.h
+++ b/include/linux/sunrpc/rpc_pipe_fs.h
@@ -51,6 +51,9 @@ enum {
    RPC_PIPEFS_UMOUNT,
};
```

```
+extern struct dentry *rpc_d_lookup_sb(const struct super_block *sb,
+    const unsigned char *dir_name);
+
+extern ssize_t rpc_pipe_generic_upcall(struct file *, struct rpc_pipe_msg *,
+    char __user *, size_t);
+extern int rpc_queue_upcall(struct inode *, struct rpc_pipe_msg *);
```

```
diff --git a/net/sunrpc/rpc_pipe.c b/net/sunrpc/rpc_pipe.c
```

```
index 07fb7dd..1de840d 100644
```

```
--- a/net/sunrpc/rpc_pipe.c
+++ b/net/sunrpc/rpc_pipe.c
@@ -1008,6 +1008,22 @@ static const struct rpc_filelist files[] = {
    },
};
```

```
+/*
+ * This call can be used only in RPC pipefs mount notification hooks.
+ */
+struct dentry *rpc_d_lookup_sb(const struct super_block *sb,
```

```
+      const unsigned char *dir_name)
+{
+ struct qstr dir = {
+  .name = dir_name,
+  .len = strlen(dir_name),
+  .hash = full_name_hash(dir_name, strlen(dir_name)),
+ };
+
+ return d_lookup(sb->s_root, &dir);
+}
+EXPORT_SYMBOL_GPL(rpc_d_lookup_sb);
+
+static int
+rpc_fill_super(struct super_block *sb, void *data, int silent)
+{
```

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