
Subject: [RFC][PATCH 3/5] fs: add get_sb_single_ns() helper routine

Posted by [Dave Hansen](#) on Thu, 10 Jul 2008 22:30:50 GMT

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This patch add a helper routine get_sb_single_ns() which allocates a single super_block per instance of namespace. The data parameter is used to differentiate the namespaces.

This is used in subsystems with an internal fs like mqueue.

TODO:

- use in pidns and devpts

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```
linux-2.6.git-dave/fs/super.c      | 37 ++++++
linux-2.6.git-dave/include/linux/fs.h |  4 +++
2 files changed, 41 insertions(+)
```

```
diff -puN fs/super.c~add-get_sb_single_ns-helper fs/super.c
--- linux-2.6.git/fs/super.c~add-get_sb_single_ns-helper 2008-06-24 12:03:17.000000000 -0700
+++ linux-2.6.git-dave/fs/super.c 2008-06-24 12:03:17.000000000 -0700
@@ -882,6 +882,43 @@ int get_sb_single(struct file_system_type
```

```
EXPORT_SYMBOL(get_sb_single);
```

```
+static int compare_sb_single_ns(struct super_block *sb, void *data)
+{
+ return sb->s_fs_info == data;
+}
+
+static int set_sb_single_ns(struct super_block *sb, void *data)
+{
+ sb->s_fs_info = data;
+ return set_anon_super(sb, data);
+}
+
+int get_sb_single_ns(struct file_system_type *fs_type,
+ int flags, void *data,
+ int (*fill_super)(struct super_block *, void *, int),
+ struct vfsmount *mnt)
+{
+ struct super_block *s;
+ int error;
```

```

+
+ s = sget(fs_type, compare_sb_single_ns, set_sb_single_ns, data);
+ if (IS_ERR(s))
+ return PTR_ERR(s);
+ if (!s->s_root) {
+ s->s_flags = flags;
+ error = fill_super(s, data, flags & MS_SILENT ? 1 : 0);
+ if (error) {
+ up_write(&s->s_umount);
+ deactivate_super(s);
+ return error;
+ }
+ s->s_flags |= MS_ACTIVE;
+ }
+ do_remount_sb(s, flags, data, 0);
+ return simple_set_mnt(mnt, s);
+}
+EXPORT_SYMBOL(get_sb_single_ns);
+
struct vfsmount *
vfs_kern_mount(struct file_system_type *type, int flags, const char *name, void *data)
{
diff -puN include/linux/fs.h~add-get_sb_single_ns-helper include/linux/fs.h
--- linux-2.6.git/include/linux/fs.h~add-get_sb_single_ns-helper 2008-06-24 12:03:17.000000000
-0700
+++ linux-2.6.git-dave/include/linux/fs.h 2008-06-24 12:03:17.000000000 -0700
@@ -1502,6 +1502,10 @@ extern int get_sb_nodev(struct file_syst
int flags, void *data,
int (*fill_super)(struct super_block *, void *, int),
struct vfsmount *mnt);
+extern int get_sb_single_ns(struct file_system_type *fs_type,
+ int flags, void *data,
+ int (*fill_super)(struct super_block *, void *, int),
+ struct vfsmount *mnt);
void generic_shutdown_super(struct super_block *sb);
void kill_block_super(struct super_block *sb);
void kill_anon_super(struct super_block *sb);

```

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