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Subject: [PATCH v3 14/16] sunrpc: make rpc\_pipefs be mountable multiple times  
Posted by [Kirill A. Shutemov](#) on Fri, 14 Jan 2011 13:49:12 GMT

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To support containers, allow multiple independent instances of  
rpc\_pipefs. Use '-o newinstance' to create new of the filesystem.  
The same semantics as with devpts.

Signed-off-by: Kirill A. Shutemov <kas@openvz.org>

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net/sunrpc/rpc\_pipe.c | 80 ++++++  
1 files changed, 79 insertions(+), 1 deletions(-)

diff --git a/net/sunrpc/rpc\_pipe.c b/net/sunrpc/rpc\_pipe.c

index b72cb01..02416f1 100644

--- a/net/sunrpc/rpc\_pipe.c

+++ b/net/sunrpc/rpc\_pipe.c

@@ -19,6 +19,7 @@

#include <linux/nsproxy.h>

#include <linux/mnt\_namespace.h>

#include <linux/fs\_struct.h>

+#include <linux/parser.h>

#include <asm/ioctls.h>

#include <linux/fs.h>

@@ -41,6 +42,49 @@ static struct kmem\_cache \*rpc\_inode\_cachep \_\_read\_mostly;

#define RPC\_UPCALL\_TIMEOUT (30\*HZ)

+struct rpc\_mount\_opts {

+ int newinstance;

+};

+

+enum {

+ Opt\_newinstance,

+

+ Opt\_err

+};

+

+static const match\_table\_t tokens = {

+ {Opt\_newinstance, "newinstance"},

+

+ {Opt\_err, NULL}

+};

+

+static int

+parse\_mount\_options(char \*data, struct rpc\_mount\_opts \*opts)

+{

```

+ char *p;
+
+ opts->newinstance = 0;
+
+ while ((p = strsep(&data, ",")) != NULL) {
+   substring_t args[MAX_OPT_ARGS];
+   int token;
+
+   if (!*p)
+     continue;
+
+   token = match_token(p, tokens, args);
+   switch (token) {
+   case Opt_newinstance:
+     opts->newinstance = 1;
+     break;
+   default:
+     return -EINVAL;
+   }
+ }
+
+ return 0;
+}
+
static void rpc_purge_list(struct rpc_inode *rpci, struct list_head *head,
    void (*destroy_msg)(struct rpc_pipe_msg *), int err)
{
@@ -1093,11 +1137,45 @@ rpc_fill_super(struct super_block *sb, void *data, int silent)
    return 0;
}

+static int
+compare_rpc_mnt_sb(struct super_block *s, void *p)
+{
+ if (init_rpc_pipefs)
+   return init_rpc_pipefs->mnt_sb == s;
+ return 0;
+}
+
static struct dentry *
rpc_mount(struct file_system_type *fs_type,
    int flags, const char *dev_name, void *data)
{
- return mount_single(fs_type, flags, data, rpc_fill_super);
+ int error;
+ struct rpc_mount_opts opts;
+ struct super_block *s;
+

```

```

+ error = parse_mount_options(data, &opts);
+ if (error)
+ return ERR_PTR(error);
+
+ if (opts.newinstance)
+ s = sget(fs_type, NULL, set_anon_super, NULL);
+ else
+ s = sget(fs_type, compare_rpc_mnt_sb, set_anon_super, NULL);
+
+ if (IS_ERR(s))
+ return ERR_CAST(s);
+
+ if (!s->s_root) {
+ s->s_flags = flags;
+ error = rpc_fill_super(s, data, flags & MS_SILENT ? 1 : 0);
+ if (error) {
+ deactivate_locked_super(s);
+ return ERR_PTR(error);
+ }
+ s->s_flags |= MS_ACTIVE;
+ }
+
+ return dget(s->s_root);
}

```

```
static void rpc_kill_sb(struct super_block *sb)
```

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1.7.3.4

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Containers mailing list

Containers@lists.linux-foundation.org

<https://lists.linux-foundation.org/mailman/listinfo/containers>

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