
Subject: Re: [RFC][PATCH 1/3]: Replace pid_t in autofs with struct pid reference.
Posted by [Cedric Le Goater](#) on Thu, 25 Jan 2007 15:30:41 GMT
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comments below,

Sukadev Bhattiprolu wrote:

```
> ChangeLog:
> - Fix Eric Biederman's comments - Use find_get_pid() to hold a
>   reference to oz_pgrp and release while unmounting; separate out
>   changes to autofs and autofs4.
> ---
>
> From: Sukadev Bhattiprolu <sukadev@us.ibm.com>
>
> Subject: Replace pid_t in autofs with struct pid reference.
>
> Make autofs container-friendly by caching struct pid reference rather
> than pid_t.
>
> Signed-off-by: Sukadev Bhattiprolu <sukadev@us.ibm.com>
> Cc: Cedric Le Goater <clg@fr.ibm.com>
> Cc: Dave Hansen <haveblue@us.ibm.com>
> Cc: Serge Hallyn <serue@us.ibm.com>
> Cc: Eric Biederman <ebiederm@xmission.com>
> Cc: containers@lists.osdl.org
>
> ---
> fs/autofs/autofs_i.h | 4 ++--
> fs/autofs/inode.c    | 33 ++++++-----
> fs/autofs/root.c     | 6 ++++--
> 3 files changed, 30 insertions(+), 13 deletions(-)
>
> Index: lx26-20-rc4-mm1/fs/autofs/autofs_i.h
> =====
> --- lx26-20-rc4-mm1.orig/fs/autofs/autofs_i.h 2007-01-24 17:29:32.471909792 -0800
> +++ lx26-20-rc4-mm1/fs/autofs/autofs_i.h 2007-01-24 17:31:10.277041152 -0800
> @@ -101,7 +101,7 @@ struct autofs_symlink {
> struct autofs_sb_info {
>     u32 magic;
>     struct file *pipe;
>     pid_t oz_pgrp;
> + struct pid *oz_pgrp;
>     int catatonic;
>     struct super_block *sb;
>     unsigned long exp_timeout;
> @@ -122,7 +122,7 @@ static inline struct autofs_sb_info *aut
>     filesystem without "magic".) */
```

```

>
> static inline int autofs_oz_mode(struct autofs_sb_info *sbi) {
> - return sbi->catatonic || process_group(current) == sbi->oz_pgrp;
> + return sbi->catatonic || task_pgrp(current) == sbi->oz_pgrp;
> }
>
> /* Hash operations */
> Index: lx26-20-rc4-mm1/fs/autofs/inode.c
> =====
> --- lx26-20-rc4-mm1.orig/fs/autofs/inode.c 2007-01-24 17:29:32.471909792 -0800
> +++ lx26-20-rc4-mm1/fs/autofs/inode.c 2007-01-24 18:39:20.834181944 -0800
> @@ -37,6 +37,8 @@ void autofs_kill_sb(struct super_block *
>  if ( !sbi->catatonic )
>    autofs_catatonic_mode(sbi); /* Free wait queues, close pipe */
>
> + put_pid(sbi->oz_pgrp);
> +
>  autofs_hash_nuke(sbi);
>  for ( n = 0 ; n < AUTOFS_MAX_SYMLINKS ; n++ ) {
>    if ( test_bit(n, sbi->symlink_bitmap) )

```

too many white spaces. may be you could fix those at the same time ?

```

> @@ -69,15 +71,17 @@ static match_table_t autofs_tokens = {
>  {Opt_err, NULL}
> };
>
> -static int parse_options(char *options, int *pipefd, uid_t *uid, gid_t *gid, pid_t *pgrp, int
> *minproto, int *maxproto)
> +static int parse_options(char *options, int *pipefd, uid_t *uid, gid_t *gid,
> + struct pid **pgrp, int *minproto, int *maxproto)
>  {
>    char *p;
>    substring_t args[MAX_OPT_ARGS];
>    int option;
> + pid_t pgid;
>
>    *uid = current->uid;
>    *gid = current->gid;
> - *pgrp = process_group(current);
> + pgid = process_group(current);
>
>    *minproto = *maxproto = AUTOFS_PROTO_VERSION;
>
> @@ -111,7 +115,7 @@ static int parse_options(char *options,
>  case Opt_pgrp:
>    if (match_int(&args[0], &option))
>    return 1;

```

```

> - *pgrp = option;
> + pgid = option;
> break;
> case Opt_minproto:
> if (match_int(&args[0], &option))
> @@ -127,7 +131,13 @@ static int parse_options(char *options,
> return 1;
> }
> }
> - return (*pipefd < 0);
> +
> + if (*pipefd < 0)
> + return 1;
> +
> + *pgrp = find_get_pid(pgid);
> +
> + return (*pgrp == NULL);
> }
>
> int autofs_fill_super(struct super_block *s, void *data, int silent)
> @@ -149,7 +159,7 @@ int autofs_fill_super(struct super_block
> sbi->pipe = NULL;
> sbi->catatonic = 1;
> sbi->exp_timeout = 0;
> - sbi->oz_pgrp = process_group(current);
> + sbi->oz_pgrp = NULL;
> autofs_initialize_hash(&sbi->dirhash);
> sbi->queues = NULL;
> memset(sbi->symlink_bitmap, 0, sizeof(long)*AUTOFS_SYMLINK_BITMAP_LEN);
> @@ -169,7 +179,9 @@ int autofs_fill_super(struct super_block
> goto fail_iput;
>
> /* Can this call block? - WTF cares? s is locked. */
> - if (
> parse_options(data,&pipefd,&root_inode->i_uid,&root_inode->i_gid,&sbi->oz_pgrp,&minproto,&maxproto) ) {
> + if ( parse_options(data, &pipefd, &root_inode->i_uid,
> + &root_inode->i_gid, &sbi->oz_pgrp, &minproto,
> + &maxproto) ) {

```

I would keep the old prototype of parse_options

```

> printk("autofs: called with bogus options\n");
> goto fail_dput;
> }

```

and do the find_get_pid() here. it looks simpler for me.

```

> @@ -178,15 +190,16 @@ int autofs_fill_super(struct super_block
> if ( minproto > AUTOFS_PROTO_VERSION ||
>     maxproto < AUTOFS_PROTO_VERSION ) {
>     printk("autofs: kernel does not match daemon version\n");
> - goto fail_dput;
> + goto fail_put_pid;
> }
>
> - DPRINTK(("autofs: pipe fd = %d, pgrp = %u\n", pipefd, sbi->oz_pgrp));
> + DPRINTK(("autofs: pipe fd = %d, pgrp = %u\n", pipefd,
> +     pid_nr(sbi->oz_pgrp)));
>     pipe = fget(pipefd);
>
>     if ( !pipe ) {
>         printk("autofs: could not open pipe file descriptor\n");
> - goto fail_dput;
> + goto fail_put_pid;
>     }
>     if ( !pipe->f_op || !pipe->f_op->write )
>         goto fail_fput;
> @@ -202,6 +215,8 @@ int autofs_fill_super(struct super_block
> fail_fput:
>     printk("autofs: pipe file descriptor does not contain proper ops\n");
>     fput(pipe);
> +fail_put_pid:
> +     put_pid(sbi->oz_pgrp);
> fail_dput:
>     dput(root);
>     goto fail_free;
> Index: lx26-20-rc4-mm1/fs/autofs/root.c
> =====
> --- lx26-20-rc4-mm1.orig/fs/autofs/root.c 2007-01-24 17:29:32.471909792 -0800
> +++ lx26-20-rc4-mm1/fs/autofs/root.c 2007-01-24 18:39:20.834181944 -0800
> @@ -213,8 +213,10 @@ static struct dentry *autofs_root_lookup
>     sbi = autofs_sbi(dir->i_sb);
>
>
>     oz_mode = autofs_oz_mode(sbi);
> - DPRINTK(("autofs_lookup: pid = %u, pgrp = %u, catatonic = %d, oz_mode = %d\n",
> -     current->pid, process_group(current), sbi->catatonic, oz_mode));
> + DPRINTK(("autofs_lookup: pid = %u, pgrp = %u, catatonic = %d, "
> +     "oz_mode = %d\n", pid_nr(task_pid(current)),
> +     process_group(current), sbi->catatonic,
> +     oz_mode));

```

you can keep current->pid I think

```

> /*

```

> * Mark the dentry incomplete, but add it. This is needed so
> _____
> Containers mailing list
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> https://lists.osdl.org/mailman/listinfo/containers
>

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