
Subject: Re: [PATCH 2/2] Replace pid_t in autofs with struct pid reference
Posted by [Ian Kent](#) on Fri, 16 Mar 2007 04:04:52 GMT
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On Mon, 12 Mar 2007, sukadev@us.ibm.com wrote:

>
> From: Sukadev Bhattiprolu <sukadev@us.ibm.com>
> Subject: [PATCH 2/2] Replace pid_t in autofs with struct pid reference.
>
> Make autofs container-friendly by caching struct pid reference rather
> than pid_t and using pid_nr() to retrieve a task's pid_t.
>
> 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.

What changes to autofs4?

Do you intend this change to be made for autofs4 also?

Perhaps you expected me to do them, in which case you probably should ask me to do the patch.

> - Fix Cedric's comments: retain old prototype of parse_options()
> and move necessary change to its caller.

>
> 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
> Acked-by: Eric W. Biederman <ebiederm@xmission.com>

>
> ---
> fs/autofs/autofs_i.h | 4 ++--
> fs/autofs/inode.c | 20 ++++++-----
> fs/autofs/root.c | 6 ++++--
> 3 files changed, 22 insertions(+), 8 deletions(-)
>
> Index: lx26-21-rc3-mm2/fs/autofs/autofs_i.h
> =====
> --- lx26-21-rc3-mm2.orig/fs/autofs/autofs_i.h 2007-03-12 17:12:05.000000000 -0700
> +++ lx26-21-rc3-mm2/fs/autofs/autofs_i.h 2007-03-12 17:18:55.000000000 -0700
> @@ -101,7 +101,7 @@ struct autofs_symlink {
> struct autofs_sb_info {
> u32 magic;
> struct file *pipe;

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> - 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: lx26-21-rc3-mm2/fs/autofs/inode.c
> =====
> --- lx26-21-rc3-mm2.orig/fs/autofs/inode.c 2007-03-12 17:18:48.000000000 -0700
> +++ lx26-21-rc3-mm2/fs/autofs/inode.c 2007-03-12 17:18:55.000000000 -0700
> @@ -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))
> @@ -139,6 +141,7 @@ int autofs_fill_super(struct super_block
> int pipefd;
> struct autofs_sb_info *sbi;
> int minproto, maxproto;
> + pid_t pgid;
>
> sbi = kzalloc(sizeof(*sbi), GFP_KERNEL);
> if (!sbi)
> @@ -150,7 +153,6 @@ int autofs_fill_super(struct super_block
> sbi->pipe = NULL;
> sbi->catatonic = 1;
> sbi->exp_timeout = 0;
> - sbi->oz_pgrp = process_group(current);
> autofs_initialize_hash(&sbi->dirhash);
> sbi->queues = NULL;
> memset(sbi->symlink_bitmap, 0, sizeof(long)*AUTOFS_SYMLINK_BITMAP_LEN);
> @@ -171,7 +173,7 @@ int autofs_fill_super(struct super_block
>
> /* 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,

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> + &root_inode->i_gid, &pgid, &minproto,
> &maxproto)) {
> printk("autofs: called with bogus options\n");
> goto fail_dput;
> @@ -184,13 +186,21 @@ int autofs_fill_super(struct super_block
> goto fail_dput;
> }
>
> - DPRINTK(("autofs: pipe fd = %d, pgrp = %u\n", pipefd, sbi->oz_pgrp));
> + DPRINTK(("autofs: pipe fd = %d, pgrp = %u\n", pipefd, pgid));
> + sbi->oz_pgrp = find_get_pid(pgid);
> +
> + if (!sbi->oz_pgrp) {
> + printk("autofs: could not find process group %d\n", pgid);
> + goto fail_dput;
> + }
> +
> 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;
> sbi->pipe = pipe;
> @@ -205,6 +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: lx26-21-rc3-mm2/fs/autofs/root.c
> =====
> --- lx26-21-rc3-mm2.orig/fs/autofs/root.c 2007-03-12 17:18:48.000000000 -0700
> +++ lx26-21-rc3-mm2/fs/autofs/root.c 2007-03-12 17:18:55.000000000 -0700
> @@ -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, "

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> + "oz_mode = %d\n", pid_nr(task_pid(current)),
> + process_group(current), sbi->catatonic,
> + oz_mode));
>
> /*
>  * Mark the dentry incomplete, but add it. This is needed so
>  -
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