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Subject: [PATCH] Remove find\_attach\_pid()  
Posted by [Sukadev Bhattiprolu](#) on Fri, 12 Jan 2007 03:27:43 GMT  
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As Eric Biederman pointed out, find\_attach\_pid() is not really necessary.

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From: Sukadev Bhattiprolu <sukadev@us.ibm.com>

Remove find\_attach\_pid() interface and have callers of attach\_pid() pass in a struct pid.

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```
fs/exec.c      | 2 +-
include/linux/pid.h | 11 ++-----
kernel/exit.c   | 4 ++--
kernel/fork.c   | 13 ++++++++-----
kernel/pid.c    | 6 ++++++
kernel/sys.c    | 2 +-
6 files changed, 20 insertions(+), 18 deletions(-)
```

Index: lx26-20-rc2-mm1/fs/exec.c

```
=====
--- lx26-20-rc2-mm1.orig/fs/exec.c 2007-01-10 21:42:43.000000000 -0800
+++ lx26-20-rc2-mm1/fs/exec.c 2007-01-11 19:06:00.260386560 -0800
@@ -701,7 +701,7 @@ static int de_thread(struct task_struct
 */
 detach_pid(tsk, PIDTYPE_PID);
 tsk->pid = leader->pid;
- find_attach_pid(tsk, PIDTYPE_PID, tsk->pid);
+ attach_pid(tsk, PIDTYPE_PID, find_pid(tsk->pid));
 transfer_pid(leader, tsk, PIDTYPE_PGID);
 transfer_pid(leader, tsk, PIDTYPE_SID);
 list_replace_rcu(&leader->tasks, &tsk->tasks);
```

Index: lx26-20-rc2-mm1/kernel/exit.c

```
=====
--- lx26-20-rc2-mm1.orig/kernel/exit.c 2007-01-10 21:43:09.000000000 -0800
+++ lx26-20-rc2-mm1/kernel/exit.c 2007-01-11 18:36:34.000000000 -0800
@@ -301,12 +301,12 @@ void __set_special_pids(pid_t session, p
 if (process_session(curr) != session) {
 detach_pid(curr, PIDTYPE_SID);
```

```

    set_signal_session(curr->signal, session);
- find_attach_pid(curr, PIDTYPE_SID, session);
+ attach_pid(curr, PIDTYPE_SID, find_pid(session));
}
if (process_group(curr) != pgrp) {
    detach_pid(curr, PIDTYPE_PGID);
    curr->signal->pgrp = pgrp;
- find_attach_pid(curr, PIDTYPE_PGID, pgrp);
+ attach_pid(curr, PIDTYPE_PGID, find_pid(pgrp));
}
}

```

Index: lx26-20-rc2-mm1/kernel/fork.c

```

=====
--- lx26-20-rc2-mm1.orig/kernel/fork.c 2007-01-11 18:29:33.000000000 -0800
+++ lx26-20-rc2-mm1/kernel/fork.c 2007-01-11 18:39:09.000000000 -0800
@@ -1245,16 +1245,19 @@ static struct task_struct *copy_process(
    __ptrace_link(p, current->parent);

```

```

    if (thread_group_leader(p)) {
+ pid_t pgid = process_group(current);
+ pid_t sid = process_session(current);
+
    p->signal->tty = current->signal->tty;
- p->signal->pgrp = process_group(current);
- set_signal_session(p->signal, process_session(current));
- find_attach_pid(p, PIDTYPE_PGID, process_group(p));
- find_attach_pid(p, PIDTYPE_SID, process_session(p));
+ p->signal->pgrp = pgid;
+ set_signal_session(p->signal, sid);
+ attach_pid(p, PIDTYPE_PGID, find_pid(pgid));
+ attach_pid(p, PIDTYPE_SID, find_pid(sid));

```

```

    list_add_tail_rcu(&p->tasks, &init_task.tasks);
    __get_cpu_var(process_counts)++;
}
- find_attach_pid(p, PIDTYPE_PID, p->pid);
+ attach_pid(p, PIDTYPE_PID, find_pid(p->pid));
    nr_threads++;
}

```

Index: lx26-20-rc2-mm1/include/linux/pid.h

```

=====
--- lx26-20-rc2-mm1.orig/include/linux/pid.h 2007-01-11 07:18:03.000000000 -0800
+++ lx26-20-rc2-mm1/include/linux/pid.h 2007-01-11 18:41:38.861552952 -0800
@@ -84,18 +84,11 @@ extern struct pid *find_get_pid(int nr);
extern struct pid *find_ge_pid(int nr);

```

```

/*
- * attach_pid(), find_attach_pid() and detach_pid() must be called with the
- * tasklist_lock write-held.
+ * attach_pid() and detach_pid() must be called with the tasklist_lock
+ * write-held.
*/
extern int FASTCALL(attach_pid(struct task_struct *task, enum pid_type type,
    struct pid *pid));
-
-static inline int find_attach_pid(struct task_struct *task, enum pid_type type,
-    int nr)
-{
- return attach_pid(task, type, find_pid(nr));
-}
-
extern void FASTCALL(detach_pid(struct task_struct *task, enum pid_type));
extern void FASTCALL(transfer_pid(struct task_struct *old,
    struct task_struct *new, enum pid_type));
Index: lx26-20-rc2-mm1/kernel/sys.c
=====
--- lx26-20-rc2-mm1.orig/kernel/sys.c 2007-01-10 21:45:01.000000000 -0800
+++ lx26-20-rc2-mm1/kernel/sys.c 2007-01-11 18:40:01.000000000 -0800
@@ -1480,7 +1480,7 @@ asmlinkage long sys_setpgid(pid_t pid, p
    if (process_group(p) != pgid) {
        detach_pid(p, PIDTYPE_PGID);
        p->signal->pgrp = pgid;
-    find_attach_pid(p, PIDTYPE_PGID, pgid);
+    attach_pid(p, PIDTYPE_PGID, find_pid(pgid));
    }

    err = 0;
Index: lx26-20-rc2-mm1/kernel/pid.c
=====
--- lx26-20-rc2-mm1.orig/kernel/pid.c 2007-01-11 07:18:03.000000000 -0800
+++ lx26-20-rc2-mm1/kernel/pid.c 2007-01-11 19:00:09.997634592 -0800
@@ -247,6 +247,9 @@ struct pid * fastcall find_pid(int nr)
}
EXPORT_SYMBOL_GPL(find_pid);

+/*
+ * attach_pid() must be called with the tasklist_lock write-held.
+ */
int fastcall attach_pid(struct task_struct *task, enum pid_type type,
    struct pid *pid)
{
@@ -259,6 +262,9 @@ int fastcall attach_pid(struct task_stru
    return 0;
}

```

```
+/*  
+ * detach_pid() must be called with the tasklist_lock write-held.  
+ */  
void fastcall detach_pid(struct task_struct *task, enum pid_type type)  
{  
    struct pid_link *link;
```

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Containers mailing list

Containers@lists.osdl.org

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