
Subject: [PATCH 1/4] Pidns: make full use of xxx_vnr() calls
Posted by [Pavel Emelianov](#) on Mon, 28 Jan 2008 15:05:37 GMT
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Some time ago the xxx_vnr() calls (e.g. pid_vnr or find_task_by_vpid) were `_all_` converted to operate on the current pid namespace. After this each call like `xxx_nr_ns(foo, current->nsproxy->pid_ns)` is nothing but a `xxx_vnr(foo)` one.

Switch all the xxx_nr_ns() callers to use the xxx_vnr() calls where appropriate.

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```
fs/fcntl.c    | 2 +-  
fs/locks.c   | 5 +++--  
ipc/mqueue.c | 3 +--  
kernel/exit.c | 6 +++---  
kernel/fork.c | 8 +-----  
kernel/sys.c  | 7 ++-----  
kernel/sysctl.c | 2 +-  
kernel/timer.c | 2 +-  
8 files changed, 12 insertions(+), 23 deletions(-)
```

```
diff --git a/fs/fcntl.c b/fs/fcntl.c
```

```
index 603732a..e632da7 100644
```

```
--- a/fs/fcntl.c
```

```
+++ b/fs/fcntl.c
```

```
@@ -309,7 +309,7 @@ pid_t f_getown(struct file *filp)
```

```
{  
    pid_t pid;  
    read_lock(&filp->f_owner.lock);  
- pid = pid_nr_ns(filp->f_owner.pid, current->nsproxy->pid_ns);  
+ pid = pid_vnr(filp->f_owner.pid);  
    if (filp->f_owner.pid_type == PIDTYPE_PGID)  
        pid = -pid;  
    read_unlock(&filp->f_owner.lock);
```

```
diff --git a/fs/locks.c b/fs/locks.c
```

```
index bc3ceb3..5b8bfd8 100644
```

```
--- a/fs/locks.c
```

```
+++ b/fs/locks.c
```

```
@@ -685,8 +685,7 @@ posix_test_lock(struct file *filp, struct file_lock *fl)
```

```
    if (cfl) {  
        __locks_copy_lock(fl, cfl);  
        if (cfl->fl_nspid)
```

```

- fl->fl_pid = pid_nr_ns(cfl->fl_nspid,
-   task_active_pid_ns(current));
+ fl->fl_pid = pid_vnr(cfl->fl_nspid);
} else
  fl->fl_type = F_UNLCK;
  unlock_kernel();
@@ -2098,7 +2097,7 @@ static void lock_get_status(struct seq_file *f, struct file_lock *fl,
  unsigned int fl_pid;

```

```

  if (fl->fl_nspid)
- fl_pid = pid_nr_ns(fl->fl_nspid, task_active_pid_ns(current));
+ fl_pid = pid_vnr(fl->fl_nspid);
  else
    fl_pid = fl->fl_pid;

```

```

diff --git a/ipc/mqueue.c b/ipc/mqueue.c
index 7d1b8aa..eb3f489 100644

```

```

--- a/ipc/mqueue.c
+++ b/ipc/mqueue.c
@@ -332,8 +332,7 @@ static ssize_t mqueue_read_file(struct file *filp, char __user *u_data,
  (info->notify_owner &&
  info->notify.sigev_notify == SIGEV_SIGNAL) ?
  info->notify.sigev_signo : 0,
- pid_nr_ns(info->notify_owner,
-   current->nsproxy->pid_ns));
+ pid_vnr(info->notify_owner));
  spin_unlock(&info->lock);
  buffer[sizeof(buffer)-1] = '\0';
  slen = strlen(buffer)+1;

```

```

diff --git a/kernel/exit.c b/kernel/exit.c
index 56098de..44cc032 100644

```

```

--- a/kernel/exit.c
+++ b/kernel/exit.c
@@ -1170,7 +1170,7 @@ static int wait_task_zombie(struct task_struct *p, int noreap,
  {
  unsigned long state;
  int retval, status, traced;
- pid_t pid = task_pid_nr_ns(p, current->nsproxy->pid_ns);
+ pid_t pid = task_pid_vnr(p);

```

```

  if (unlikely(noreap)) {
  uid_t uid = p->uid;
@@ -1365,7 +1365,7 @@ unlock_sig:
  * possibly take page faults for user memory.
  */
  get_task_struct(p);
- pid = task_pid_nr_ns(p, current->nsproxy->pid_ns);
+ pid = task_pid_vnr(p);

```

```

why = (p->ptrace & PT_PTRACED) ? CLD_TRAPPED : CLD_STOPPED;
read_unlock(&tasklist_lock);

@@ -1424,7 +1424,7 @@ static int wait_task_continued(struct task_struct *p, int noreap,
    p->signal->flags &= ~SIGNAL_STOP_CONTINUED;
    spin_unlock_irq(&p->sigband->siglock);

- pid = task_pid_nr_ns(p, current->nsproxy->pid_ns);
+ pid = task_pid_vnr(p);
  uid = p->uid;
  get_task_struct(p);
  read_unlock(&tasklist_lock);
diff --git a/kernel/fork.c b/kernel/fork.c
index 16d98d4..40c87cc 100644
--- a/kernel/fork.c
+++ b/kernel/fork.c
@@ -1460,13 +1460,7 @@ long do_fork(unsigned long clone_flags,
    if (!IS_ERR(p)) {
        struct completion vfork;

- /*
-  * this is enough to call pid_nr_ns here, but this if
-  * improves optimisation of regular fork()
-  */
- nr = (clone_flags & CLONE_NEWPID) ?
- task_pid_nr_ns(p, current->nsproxy->pid_ns) :
- task_pid_vnr(p);
+ nr = task_pid_vnr(p);

    if (clone_flags & CLONE_PARENT_SETTID)
        put_user(nr, parent_tidptr);
diff --git a/kernel/sys.c b/kernel/sys.c
index 5a61f80..a626116 100644
--- a/kernel/sys.c
+++ b/kernel/sys.c
@@ -991,17 +991,14 @@ asmlinkage long sys_getpgid(pid_t pid)
    else {
        int retval;
        struct task_struct *p;
- struct pid_namespace *ns;
-
- ns = current->nsproxy->pid_ns;

        read_lock(&tasklist_lock);
- p = find_task_by_pid_ns(pid, ns);
+ p = find_task_by_vpid(pid);
        retval = -ESRCH;
        if (p) {

```

```

    retval = security_task_getpgid(p);
    if (!retval)
-   retval = task_pgrp_nr_ns(p, ns);
+   retval = task_pgrp_vnr(p);
}
    read_unlock(&tasklist_lock);
    return retval;
diff --git a/kernel/sysctl.c b/kernel/sysctl.c
index 62e971d..3b63246 100644
--- a/kernel/sysctl.c
+++ b/kernel/sysctl.c
@@ -2477,7 +2477,7 @@ static int proc_do_cad_pid(struct ctl_table *table, int write, struct file
*filp
    pid_t tmp;
    int r;

- tmp = pid_nr_ns(cad_pid, current->nsproxy->pid_ns);
+ tmp = pid_vnr(cad_pid);

    r = __do_proc_dointvec(&tmp, table, write, filp, buffer,
        lenp, ppos, NULL, NULL);
diff --git a/kernel/timer.c b/kernel/timer.c
index e8662eb..4f9827b 100644
--- a/kernel/timer.c
+++ b/kernel/timer.c
@@ -979,7 +979,7 @@ asmlinkage long sys_getppid(void)
    int pid;

    rcu_read_lock();
- pid = task_tgid_nr_ns(current->real_parent, current->nsproxy->pid_ns);
+ pid = task_tgid_vnr(current->real_parent);
    rcu_read_unlock();

    return pid;
--

```

1.5.3.4
