Subject: [PATCH] pidns: make pid->level and pid_ns->level unsigned
Posted by Pavel Emelianov on Tue, 26 Feb 2008 16:11:30 GMT
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These values represent the nesting level of a namespace and
pids living in it, and it's always non-negative.

Turning this from int to unsigned int saves some space in
pid.c (11 bytes on x86 and 64 on ia64) by letting the compiler
optimize the pid_nr_ns a bit. E.g. on ia64 this removes the
sign extension calls, which compiler adds to optimize access
to pid->nubers[ns->level].

Signed-off-by: Pavel Emelyanov <xemul@openvz.org>

```
diff --git a/include/linux/pid.h b/include/linux/pid.h
index c798081..03573e3 100644
--- a/include/linux/pid.h
+++ b/include/linux/pid.h
@@ -60,7 +60,7 @@ struct pid
  /* lists of tasks that use this pid */
  struct hlist_head tasks[PIDTYPE_MAX];
  struct rcu_head rcu;
- int level;
+ unsigned int level;
  struct upid numbers[1];
 };

diff --git a/include/linux/pid_namespace.h b/include/linux/pid_namespace.h
index fcd61fa..caff528 100644
--- a/include/linux/pid_namespace.h
+++ b/include/linux/pid_namespace.h
@@ -20,7 +20,7 @@ struct pid_namespace {
  int last_pid;
  struct task_struct *child_reaper;
  struct kmem_cache *pid_cachep;
- int level;
+ unsigned int level;
  struct pid_namespace *parent;
 #ifdef CONFIG_PROC_FS
  struct vfsmount *proc_mnt;
diff --git a/kernel/pid_namespace.c b/kernel/pid_namespace.c
index 6d792b6..cb17497 100644
--- a/kernel/pid_namespace.c
+++ b/kernel/pid_namespace.c
@@ -66,7 +66,7 @@ err_alloc:
```

```
 return NULL;
}

-static struct pid_namespace *create_pid_namespace(int level)
+static struct pid_namespace *create_pid_namespace(unsigned int level)
{
 struct pid_namespace *ns;
 int i;
```