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Subject: [PATCH 6/20] Add support for pid namespaces hierarchy

Posted by [Pavel Emelianov](#) on Fri, 10 Aug 2007 11:48:01 GMT

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Each namespace has a parent and is characterized by its "level".

Level is the number of the namespace generation. E.g. init namespace has level 0, after cloning new one it will have level 1, the next one - 2 and so on and so forth. This level is not explicitly limited.

True hierarchy must have some way to find each namespace's children, but it is not used in the patches, so this ability is not added (yet).

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```
include/linux/pid_namespace.h | 2 ++
kernel/pid.c                  | 3 ++-
2 files changed, 4 insertions(+), 1 deletion(-)
```

--- ./include/linux/pid\_namespace.h.ve5 2007-08-09 17:54:49.000000000 +0400

+++ ./include/linux/pid\_namespace.h 2007-08-10 12:39:22.000000000 +0400

@@ -21,6 +21,8 @@ struct pid\_namespace {

```
    int last_pid;
    struct task_struct *child_reaper;
    struct kmem_cache *pid_cache;
+ int level;
+ struct pid_namespace *parent;
};
```

```
extern struct pid_namespace init_pid_ns;
```

--- ./kernel/pid.c.ve5 2007-08-09 17:54:51.000000000 +0400

+++ ./kernel/pid.c 2007-08-10 12:39:57.000000000 +0400

```
@@ -67,7 +67,8 @@ struct pid_namespace init_pid_ns = {
    [ 0 ... PIDMAP_ENTRIES-1 ] = { ATOMIC_INIT(BITS_PER_PAGE), NULL }
},
    .last_pid = 0,
- .child_reaper = &init_task
+ .level = 0,
+ .child_reaper = &init_task,
};
```

```
int is_global_init(struct task_struct *tsk)
```

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