Subject: [PATCH 0/3] Make tasks always have non-zero pids
Posted by Pavel Emelianov on Wed, 03 Oct 2007 14:16:47 GMT
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Some time ago Sukadev noticed that the vmlinux size has grown 5Kb due to merged pid namespaces. One of the big problems with it was fat inline functions. The other thing was noticed by Matt - the checks for task's pid to be not NULL take place and make the kernel grow due to inlining, but these checks are not always needed.

In this series I introduce a static pid (dummy), according to Matt's proposal, which is assigned to tasks during the detach_pid and transfer_pid instead of NULL. This pid lives in the init pid namespace and has the id = 0, so all the task_xid_xnr() calls will still return 0 on a dead task.

Places that get the struct pid from task either get it from the current (in this case they will never get this dummy), or use it to compare with some other value (so they will work the same for both NULL and dummy pids).

This saves up to 340 bytes for i386 kernel with minimal config and probably more with more users of pids.

Tested on i386 and x86_64 boxes. Tasks still live and die, namespaces and proc still work.

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