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Subject: [PATCH 0/5] A config option to compile out some namespaces code  
Posted by [Pavel Emelianov](#) on Wed, 26 Sep 2007 15:39:57 GMT

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There were some questions like "do I need this on my cellphone" in reply to different namespaces patches. Indeed, the namespaces are not useful for most of the embedded systems, but the code creating and releasing them weights a lot.

So I propose to add a config option which will help embedded people to reduce the vmlinux size. This option simply compiles out the namespaces cloning and releasing code \*only\*, but keeps all the other logic untouched (e.g. the notion of init\_ns).

When someone tries to clone some namespace with their support turned off, he will receive an EINVAL error.

This patchset can save more than 2KB from the vmlinux when turning the config option "NAMESPACES" to "n":

```
$ scripts/bloat-o-meter vmlinux-no-ns vmlinux-with-ns
add/remove: 27/0 grow/shrink: 11/7 up/down: 2477/-340 (2137)
function          old    new   delta
copy_pid_ns        -    537  +537
copy_user_ns       -    181  +181
copy_ipcs          -    149  +149
zap_pid_ns_processes  -    130  +130
copy_utsname        -    120  +120
shm_exit_ns         -    106  +106
sem_exit_ns         -    106  +106
msg_exit_ns         -    106  +106
freeary             -    100  +100
release_uids        -     95  +95
freeque              -     92  +92
free_nsproxy         48    123  +75
create_new_namespaces 300    358  +58
free_pid_ns          -     56  +56
pid_namespaces_init  -     48  +48
__sem_init_ns        -     45  +45
shm_init_ns          -     42  +42
sem_init_ns          -     42  +42
msg_init_ns          -     42  +42
__shm_init_ns        -     38  +38
__msg_init_ns        -     31  +31
sysvipc_proc_release 5     35  +30
proc_kill_sb          5     35  +30
free_ipc_ns           -     30  +30
do_shm_rmid          -     29  +29
```

|                                 |      |      |     |
|---------------------------------|------|------|-----|
| proc_set_super                  | 13   | 38   | +25 |
| shm_release                     | 18   | 39   | +21 |
| put_pid                         | 75   | 95   | +20 |
| alloc_pid                       | 687  | 706  | +19 |
| pid_caches_mutex                | -    | 16   | +16 |
| free_user_ns                    | -    | 16   | +16 |
| sysvipc_proc_open               | 100  | 111  | +11 |
| do_shmat                        | 778  | 787  | +9  |
| pid_caches_lh                   | -    | 8    | +8  |
| free_uts_ns                     | -    | 5    | +5  |
| pid_ns_cachep                   | -    | 4    | +4  |
| __initcall_pid_namespaces_init6 | -    | 4    | +4  |
| do_exit                         | 1855 | 1856 | +1  |
| show_stat                       | 1665 | 1661 | -4  |
| sys_shmctl                      | 1934 | 1907 | -27 |
| msg_init                        | 82   | 47   | -35 |
| shm_init                        | 92   | 47   | -45 |
| sem_init                        | 99   | 44   | -55 |
| sys_msgctl                      | 1394 | 1311 | -83 |
| sys_semctl                      | 2123 | 2032 | -91 |

This set was reviewed and approved by Serge, Cedric and Eric.

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

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