
Subject: [PATCH 06/17] Pid-NS(V3) Define is_global_init() and is_container_init().
Posted by [Sukadev Bhattiprolu](#) on Sat, 16 Jun 2007 23:00:47 GMT
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Subject: [PATCH 06/17] Pid-NS(V3) Define is_global_init() and is_container_init().

From: Serge E. Hallyn <serue@us.ibm.com>

is_init() is an ambiguous name for the pid==1 check. Split it into is_global_init() and is_container_init().

A container init has it's tsk->pid == 1.

A global init also has it's tsk->pid == 1 and it's active pid namespace is the init_pid_ns. But rather than check the active pid namespace, compare the task structure with 'init_pid_ns.child_reaper', which is initialized during boot to the /sbin/init process and never changes.

Changelog:

2.6.22-rc4-mm2-pidns1:

- Use 'init_pid_ns.child_reaper' to determine if a given task is the global init (/sbin/init) process. This would improve performance and remove dependence on the task_pid().

2.6.21-mm2-pidns2:

- [Sukadev Bhattiprolu] Changed is_container_init() calls in {powerpc, ppc,avr32}/traps.c for the _exception() call to is_global_init(). This way, we kill only the container if the container's init has a bug rather than force a kernel panic.

Signed-off-by: Serge E. Hallyn <serue@us.ibm.com>

Signed-off-by: Sukadev Bhattiprolu <sukadev@us.ibm.com>

arch/alpha/mm/fault.c		2 +-
arch/arm/mm/fault.c		2 +-
arch/arm26/mm/fault.c		2 +-
arch/avr32/kernel/traps.c		2 +-
arch/avr32/mm/fault.c		6 +++---
arch/i386/lib/usercopy.c		2 +-
arch/i386/mm/fault.c		2 +-
arch/ia64/mm/fault.c		2 +-
arch/m32r/mm/fault.c		2 +-
arch/m68k/mm/fault.c		2 +-
arch/mips/mm/fault.c		2 +-
arch/powerpc/kernel/traps.c		2 +-

```

arch/powerpc/mm/fault.c          | 2 +-
arch/powerpc/platforms/pseries/ras.c | 2 +-
arch/ppc/kernel/traps.c          | 2 +-
arch/ppc/mm/fault.c              | 2 +-
arch/s390/lib/uaccess_pt.c       | 2 +-
arch/s390/mm/fault.c             | 2 +-
arch/sh/mm/fault.c               | 2 +-
arch/sh64/mm/fault.c            | 6 +++---
arch/um/kernel/trap.c            | 2 +-
arch/x86_64/mm/fault.c           | 4 +++-
arch/xtensa/mm/fault.c           | 2 +-
drivers/char/sysrq.c             | 2 +-
include/linux/sched.h            | 12 ++++++++
kernel/capability.c              | 3 +-
kernel/exit.c                    | 2 +-
kernel/kexec.c                   | 2 +-
kernel/pid.c                      | 5 +++++
kernel/sysctl.c                  | 2 +-
mm/oom_kill.c                    | 4 +++-
security/commoncap.c             | 3 +-
32 files changed, 53 insertions(+), 38 deletions(-)

```

Index: lx26-22-rc4-mm2/include/linux/sched.h

```

=====
--- lx26-22-rc4-mm2.orig/include/linux/sched.h 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/include/linux/sched.h 2007-06-14 11:46:25.000000000 -0700
@@ -1231,12 +1231,20 @@ static inline int pid_alive(struct task_
 }

/**
- * is_init - check if a task structure is init
+ * is_global_init - check if a task structure is init
+ * @tsk: Task structure to be checked.
+ *
+ * Check if a task structure is the first user space task the kernel created.
+ *
+ * TODO: We should inline this function after some cleanups in pid_namespace.h
+ */
+extern int is_global_init(struct task_struct *tsk);
+
+/**
+ * is_container_init:
+ * check whether in the task is init in it's own pid namespace.
+ */
-static inline int is_init(struct task_struct *tsk)
+static inline int is_container_init(struct task_struct *tsk)
{
    return tsk->pid == 1;

```

```
}
```

```
Index: lx26-22-rc4-mm2/kernel/pid.c
```

```
=====  
--- lx26-22-rc4-mm2.orig/kernel/pid.c 2007-06-14 11:46:00.000000000 -0700
```

```
+++ lx26-22-rc4-mm2/kernel/pid.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -71,6 +71,11 @@ struct pid_namespace init_pid_ns = {  
    .child_reaper = &init_task  
};
```

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

```
+{
```

```
+ return tsk == init_pid_ns.child_reaper;
```

```
+}
```

```
+
```

```
/*
```

```
 * Note: disable interrupts while the pidmap_lock is held as an
```

```
 * interrupt might come in and do read_lock(&tasklist_lock).
```

```
Index: lx26-22-rc4-mm2/arch/alpha/mm/fault.c
```

```
=====  
--- lx26-22-rc4-mm2.orig/arch/alpha/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
```

```
+++ lx26-22-rc4-mm2/arch/alpha/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -192,7 +192,7 @@ do_page_fault(unsigned long address, uns
```

```
/* We ran out of memory, or some other thing happened to us that
```

```
made us unable to handle the page fault gracefully. */
```

```
out_of_memory:
```

```
- if (is_init(current)) {
```

```
+ if (is_global_init(current)) {
```

```
    yield();
```

```
    down_read(&mm->mmap_sem);
```

```
    goto survive;
```

```
Index: lx26-22-rc4-mm2/arch/arm/mm/fault.c
```

```
=====  
--- lx26-22-rc4-mm2.orig/arch/arm/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
```

```
+++ lx26-22-rc4-mm2/arch/arm/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -197,7 +197,7 @@ survive:
```

```
    return fault;
```

```
}
```

```
- if (!is_init(tsk))
```

```
+ if (!is_global_init(tsk))
```

```
    goto out;
```

```
/*
```

```
Index: lx26-22-rc4-mm2/arch/arm26/mm/fault.c
```

```
=====  
--- lx26-22-rc4-mm2.orig/arch/arm26/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
```

```
+++ lx26-22-rc4-mm2/arch/arm26/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -185,7 +185,7 @@ survive:
```

```

}

fault = -3; /* out of memory */
- if (!is_init(tsk))
+ if (!is_global_init(tsk))
    goto out;

/*
Index: lx26-22-rc4-mm2/arch/i386/lib/usercopy.c
=====
--- lx26-22-rc4-mm2.orig/arch/i386/lib/usercopy.c 2007-06-14 11:43:18.000000000 -0700
+++ lx26-22-rc4-mm2/arch/i386/lib/usercopy.c 2007-06-14 11:46:25.000000000 -0700
@@ -748,7 +748,7 @@ survive:
    retval = get_user_pages(current, current->mm,
        (unsigned long)to, 1, 1, 0, &pg, NULL);

- if (retval == -ENOMEM && is_init(current)) {
+ if (retval == -ENOMEM && is_global_init(current)) {
    up_read(&current->mm->mmap_sem);
    congestion_wait(WRITE, HZ/50);
    goto survive;
Index: lx26-22-rc4-mm2/arch/i386/mm/fault.c
=====
--- lx26-22-rc4-mm2.orig/arch/i386/mm/fault.c 2007-06-14 11:43:18.000000000 -0700
+++ lx26-22-rc4-mm2/arch/i386/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
@@ -576,7 +576,7 @@ no_context:
    */
out_of_memory:
    up_read(&mm->mmap_sem);
- if (is_init(tsk)) {
+ if (is_global_init(tsk)) {
    yield();
    down_read(&mm->mmap_sem);
    goto survive;
Index: lx26-22-rc4-mm2/arch/ia64/mm/fault.c
=====
--- lx26-22-rc4-mm2.orig/arch/ia64/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/arch/ia64/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
@@ -266,7 +266,7 @@ ia64_do_page_fault (unsigned long address

    out_of_memory:
    up_read(&mm->mmap_sem);
- if (is_init(current)) {
+ if (is_global_init(current)) {
    yield();
    down_read(&mm->mmap_sem);
    goto survive;
Index: lx26-22-rc4-mm2/arch/m32r/mm/fault.c

```

```

=====
--- lx26-22-rc4-mm2.orig/arch/m32r/mm/fault.c 2007-06-14 11:43:18.000000000 -0700
+++ lx26-22-rc4-mm2/arch/m32r/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
@@ -272,7 +272,7 @@ no_context:
 */
out_of_memory:
up_read(&mm->mmap_sem);
- if (is_init(tsk)) {
+ if (is_global_init(tsk)) {
yield();
down_read(&mm->mmap_sem);
goto survive;
Index: lx26-22-rc4-mm2/arch/m68k/mm/fault.c

```

```

=====
--- lx26-22-rc4-mm2.orig/arch/m68k/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/arch/m68k/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
@@ -181,7 +181,7 @@ good_area:
 */
out_of_memory:
up_read(&mm->mmap_sem);
- if (is_init(current)) {
+ if (is_global_init(current)) {
yield();
down_read(&mm->mmap_sem);
goto survive;
Index: lx26-22-rc4-mm2/arch/mips/mm/fault.c

```

```

=====
--- lx26-22-rc4-mm2.orig/arch/mips/mm/fault.c 2007-06-14 11:43:18.000000000 -0700
+++ lx26-22-rc4-mm2/arch/mips/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
@@ -174,7 +174,7 @@ no_context:
 */
out_of_memory:
up_read(&mm->mmap_sem);
- if (is_init(tsk)) {
+ if (is_global_init(tsk)) {
yield();
down_read(&mm->mmap_sem);
goto survive;
Index: lx26-22-rc4-mm2/arch/powerpc/kernel/traps.c

```

```

=====
--- lx26-22-rc4-mm2.orig/arch/powerpc/kernel/traps.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/arch/powerpc/kernel/traps.c 2007-06-14 11:46:25.000000000 -0700
@@ -190,7 +190,7 @@ void _exception(int signr, struct pt_reg
 * generate the same exception over and over again and we get
 * nowhere. Better to kill it and let the kernel panic.
 */
- if (is_init(current)) {
+ if (is_global_init(current)) {

```

```
__sighandler_t handler;
```

```
spin_lock_irq(&current->sigband->siglock);
```

```
Index: lx26-22-rc4-mm2/arch/powerpc/mm/fault.c
```

```
=====  
--- lx26-22-rc4-mm2.orig/arch/powerpc/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
```

```
+++ lx26-22-rc4-mm2/arch/powerpc/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -374,7 +374,7 @@ bad_area_nosemaphore:
```

```
*/
```

```
out_of_memory:
```

```
up_read(&mm->mmap_sem);
```

```
- if (is_init(current)) {
```

```
+ if (is_global_init(current)) {
```

```
yield();
```

```
down_read(&mm->mmap_sem);
```

```
goto survive;
```

```
Index: lx26-22-rc4-mm2/arch/powerpc/platforms/pseries/ras.c
```

```
=====  
--- lx26-22-rc4-mm2.orig/arch/powerpc/platforms/pseries/ras.c 2007-06-14 11:43:19.000000000  
-0700
```

```
+++ lx26-22-rc4-mm2/arch/powerpc/platforms/pseries/ras.c 2007-06-14 11:46:25.000000000  
-0700
```

```
@@ -332,7 +332,7 @@ static int recover_mce(struct pt_regs *r
```

```
err->disposition == RTAS_DISP_NOT_RECOVERED &&
```

```
err->target == RTAS_TARGET_MEMORY &&
```

```
err->type == RTAS_TYPE_ECC_UNCORR &&
```

```
- !(current->pid == 0 || is_init(current)) {
```

```
+ !(current->pid == 0 || is_global_init(current)) {
```

```
/* Kill off a user process with an ECC error */
```

```
printk(KERN_ERR "MCE: uncorrectable ecc error for pid %d\n",
```

```
current->pid);
```

```
Index: lx26-22-rc4-mm2/arch/ppc/kernel/traps.c
```

```
=====  
--- lx26-22-rc4-mm2.orig/arch/ppc/kernel/traps.c 2007-06-14 11:43:19.000000000 -0700
```

```
+++ lx26-22-rc4-mm2/arch/ppc/kernel/traps.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -120,7 +120,7 @@ void _exception(int signr, struct pt_reg
```

```
* generate the same exception over and over again and we get
```

```
* nowhere. Better to kill it and let the kernel panic.
```

```
*/
```

```
- if (is_init(current)) {
```

```
+ if (is_global_init(current)) {
```

```
__sighandler_t handler;
```

```
spin_lock_irq(&current->sigband->siglock);
```

```
Index: lx26-22-rc4-mm2/arch/ppc/mm/fault.c
```

```
=====  
--- lx26-22-rc4-mm2.orig/arch/ppc/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
```

```
+++ lx26-22-rc4-mm2/arch/ppc/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
```

@@ -291,7 +291,7 @@ bad_area:

*/

out_of_memory:

```
up_read(&mm->mmap_sem);
- if (is_init(current)) {
+ if (is_global_init(current)) {
    yield();
    down_read(&mm->mmap_sem);
    goto survive;
```

Index: lx26-22-rc4-mm2/arch/s390/lib/uaccess_pt.c

--- lx26-22-rc4-mm2.orig/arch/s390/lib/uaccess_pt.c 2007-06-14 11:43:19.000000000 -0700

+++ lx26-22-rc4-mm2/arch/s390/lib/uaccess_pt.c 2007-06-14 11:46:25.000000000 -0700

@@ -65,7 +65,7 @@ out:

out_of_memory:

```
up_read(&mm->mmap_sem);
- if (is_init(current)) {
+ if (is_global_init(current)) {
    yield();
    down_read(&mm->mmap_sem);
    goto survive;
```

Index: lx26-22-rc4-mm2/arch/s390/mm/fault.c

--- lx26-22-rc4-mm2.orig/arch/s390/mm/fault.c 2007-06-14 11:43:18.000000000 -0700

+++ lx26-22-rc4-mm2/arch/s390/mm/fault.c 2007-06-14 11:46:25.000000000 -0700

@@ -211,7 +211,7 @@ static int do_out_of_memory(struct pt_re
struct mm_struct *mm = tsk->mm;

```
up_read(&mm->mmap_sem);
- if (is_init(tsk)) {
+ if (is_global_init(tsk)) {
    yield();
    down_read(&mm->mmap_sem);
    return 1;
```

Index: lx26-22-rc4-mm2/arch/sh/mm/fault.c

--- lx26-22-rc4-mm2.orig/arch/sh/mm/fault.c 2007-06-14 11:43:19.000000000 -0700

+++ lx26-22-rc4-mm2/arch/sh/mm/fault.c 2007-06-14 11:46:25.000000000 -0700

@@ -196,7 +196,7 @@ no_context:

*/

out_of_memory:

```
up_read(&mm->mmap_sem);
- if (is_init(current)) {
+ if (is_global_init(current)) {
    yield();
    down_read(&mm->mmap_sem);
    goto survive;
```

Index: lx26-22-rc4-mm2/arch/sh64/mm/fault.c

```
=====
--- lx26-22-rc4-mm2.orig/arch/sh64/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/arch/sh64/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
@@ -276,7 +276,7 @@ bad_area:
     show_regs(regs);
 #endif
 }
- if (is_init(tsk)) {
+ if (is_global_init(tsk)) {
     panic("INIT had user mode bad_area\n");
 }
     tsk->thread.address = address;
@@@ -318,14 +318,14 @@@ no_context:
 * us unable to handle the page fault gracefully.
 */
out_of_memory:
- if (is_init(current)) {
+ if (is_global_init(current)) {
     panic("INIT out of memory\n");
     yield();
     goto survive;
 }
     printk("fault:Out of memory\n");
     up_read(&mm->mmap_sem);
- if (is_init(current)) {
+ if (is_global_init(current)) {
     yield();
     down_read(&mm->mmap_sem);
     goto survive;
```

Index: lx26-22-rc4-mm2/arch/um/kernel/trap.c

```
=====
--- lx26-22-rc4-mm2.orig/arch/um/kernel/trap.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/arch/um/kernel/trap.c 2007-06-14 11:46:25.000000000 -0700
@@ -120,7 +120,7 @@ out_nosemaphore:
 * us unable to handle the page fault gracefully.
 */
out_of_memory:
- if (is_init(current)) {
+ if (is_global_init(current)) {
     up_read(&mm->mmap_sem);
     yield();
     down_read(&mm->mmap_sem);
```

Index: lx26-22-rc4-mm2/arch/x86_64/mm/fault.c

```
=====
--- lx26-22-rc4-mm2.orig/arch/x86_64/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/arch/x86_64/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
@@@ -223,7 +223,7 @@@ static int is_errata93(struct pt_regs *r
```



```

int unhandled_signal(struct task_struct *tsk, int sig)
{
- if (is_init(tsk))
+ if (is_global_init(tsk))
    return 1;
    if (tsk->ptrace & PT_PTRACED)
        return 0;
@@ -558,7 +558,7 @@ no_context:
    */
out_of_memory:
    up_read(&mm->mmap_sem);
- if (is_init(current)) {
+ if (is_global_init(current)) {
    yield();
    goto again;
}

```

Index: lx26-22-rc4-mm2/arch/xtensa/mm/fault.c

```

=====
--- lx26-22-rc4-mm2.orig/arch/xtensa/mm/fault.c 2007-06-14 11:43:18.000000000 -0700
+++ lx26-22-rc4-mm2/arch/xtensa/mm/fault.c 2007-06-14 11:46:25.000000000 -0700

```

```

@@ -144,7 +144,7 @@ bad_area:
    */

```

```

out_of_memory:
    up_read(&mm->mmap_sem);
- if (is_init(current)) {
+ if (is_global_init(current)) {
    yield();
    down_read(&mm->mmap_sem);
    goto survive;

```

Index: lx26-22-rc4-mm2/drivers/char/sysrq.c

```

=====
--- lx26-22-rc4-mm2.orig/drivers/char/sysrq.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/drivers/char/sysrq.c 2007-06-14 11:46:25.000000000 -0700

```

```

@@ -250,7 +250,7 @@ static void send_sig_all(int sig)
    struct task_struct *p;

```

```

    for_each_process(p) {
- if (p->mm && !is_init(p))
+ if (p->mm && !is_global_init(p))
        /* Not swapper, init nor kernel thread */
        force_sig(sig, p);
    }

```

Index: lx26-22-rc4-mm2/kernel/capability.c

```

=====
--- lx26-22-rc4-mm2.orig/kernel/capability.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/kernel/capability.c 2007-06-14 11:46:25.000000000 -0700

```

```

@@ -12,6 +12,7 @@

```

```
#include <linux/module.h>
#include <linux/security.h>
#include <linux/syscalls.h>
+#include <linux/pid_namespace.h>
#include <asm/uaccess.h>
```

```
unsigned securebits = SECUREBITS_DEFAULT; /* systemwide security settings */
@@ -135,7 +136,7 @@ static inline int cap_set_all(kernel_cap
    int found = 0;
```

```
    do_each_thread(g, target) {
-       if (target == current || is_init(target))
+       if (target == current || is_container_init(target))
            continue;
        found = 1;
        if (security_capset_check(target, effective, inheritable,
Index: lx26-22-rc4-mm2/kernel/exit.c
```

```
=====
--- lx26-22-rc4-mm2.orig/kernel/exit.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/kernel/exit.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -231,7 +231,7 @@ static int will_become_orphaned_pgrp(str
    do_each_pid_task(pgrp, PIDTYPE_PGID, p) {
        if (p == ignored_task
            || p->exit_state
-           || is_init(p->real_parent))
+           || is_global_init(p->real_parent))
            continue;
        if (task_pgrp(p->real_parent) != pgrp &&
            task_session(p->real_parent) == task_session(p)) {
Index: lx26-22-rc4-mm2/kernel/kexec.c
```

```
=====
--- lx26-22-rc4-mm2.orig/kernel/kexec.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/kernel/kexec.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -42,7 +42,7 @@ struct resource crashk_res = {

    int kexec_should_crash(struct task_struct *p)
    {
-   if (in_interrupt() || !p->pid || is_init(p) || panic_on_oops)
+   if (in_interrupt() || !p->pid || is_global_init(p) || panic_on_oops)
        return 1;
        return 0;
    }
Index: lx26-22-rc4-mm2/kernel/sysctl.c
```

```
=====
--- lx26-22-rc4-mm2.orig/kernel/sysctl.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/kernel/sysctl.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -1855,7 +1855,7 @@ int proc_dointvec_bset(ctl_table *table,
    return -EPERM;
```

```
}
```

```
- op = is_init(current) ? OP_SET : OP_AND;  
+ op = is_global_init(current) ? OP_SET : OP_AND;  
  return do_proc_dointvec(table,write,filp,buffer,lenp,ppos,  
    do_proc_dointvec_bset_conv,&op);  
}
```

Index: lx26-22-rc4-mm2/mm/oom_kill.c

```
=====  
--- lx26-22-rc4-mm2.orig/mm/oom_kill.c 2007-06-14 11:43:19.000000000 -0700
```

```
+++ lx26-22-rc4-mm2/mm/oom_kill.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -222,7 +222,7 @@ static struct task_struct *select_bad_pr
```

```
  if (!p->mm)  
    continue;  
  /* skip the init task */  
- if (is_init(p))  
+ if (is_global_init(p))  
  continue;
```

```
/*
```

```
@@ -275,7 +275,7 @@ static struct task_struct *select_bad_pr  
*/
```

```
static void __oom_kill_task(struct task_struct *p, int verbose)
```

```
{  
- if (is_init(p)) {  
+ if (is_global_init(p)) {  
  WARN_ON(1);  
  printk(KERN_WARNING "tried to kill init!\n");  
  return;
```

Index: lx26-22-rc4-mm2/security/commoncap.c

```
=====  
--- lx26-22-rc4-mm2.orig/security/commoncap.c 2007-06-14 11:43:19.000000000 -0700
```

```
+++ lx26-22-rc4-mm2/security/commoncap.c 2007-06-14 11:46:25.000000000 -0700
```

```
@@ -23,6 +23,7 @@
```

```
#include <linux/xattr.h>  
#include <linux/hugetlb.h>  
#include <linux/mount.h>  
+#include <linux/sched.h>
```

```
int cap_netlink_send(struct sock *sk, struct sk_buff *skb)
```

```
{  
@@ -261,7 +262,7 @@ void cap_bprm_apply_creds (struct linux_  
  /* For init, we want to retain the capabilities set  
   * in the init_task struct. Thus we skip the usual  
   * capability rules */  
- if (!is_init(current)) {  
+ if (!is_global_init(current)) {  
  current->cap_permitted = new_permitted;
```

```
current->cap_effective =
    cap_intersect (new_permitted, bprm->cap_effective);
Index: lx26-22-rc4-mm2/arch/avr32/kernel/traps.c
```

```
=====
--- lx26-22-rc4-mm2.orig/arch/avr32/kernel/traps.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/arch/avr32/kernel/traps.c 2007-06-14 11:46:25.000000000 -0700
@@ -88,7 +88,7 @@ void _exception(long signr, struct pt_re
 * generate the same exception over and over again and we get
 * nowhere. Better to kill it and let the kernel panic.
 */
- if (is_init(current)) {
+ if (is_global_init(current)) {
    __sighandler_t handler;
```

```
    spin_lock_irq(&current->sighand->siglock);
Index: lx26-22-rc4-mm2/arch/avr32/mm/fault.c
```

```
=====
--- lx26-22-rc4-mm2.orig/arch/avr32/mm/fault.c 2007-06-14 11:43:19.000000000 -0700
+++ lx26-22-rc4-mm2/arch/avr32/mm/fault.c 2007-06-14 11:46:25.000000000 -0700
@@ -161,7 +161,7 @@ bad_area:
 if (exception_trace && printk_ratelimit())
    printk("%s%s[%d]: segfault at %08lx pc %08lx "
           "sp %08lx ecr %lu\n",
-       is_init(tsk) ? KERN_EMERG : KERN_INFO,
+       is_global_init(tsk) ? KERN_EMERG : KERN_INFO,
        tsk->comm, tsk->pid, address, regs->pc,
        regs->sp, ecr);
    _exception(SIGSEGV, regs, code, address);
@@ -210,7 +210,7 @@ no_context:
 */
out_of_memory:
    up_read(&mm->mmap_sem);
- if (is_init(current)) {
+ if (is_global_init(current)) {
    yield();
    down_read(&mm->mmap_sem);
    goto survive;
@@ -232,7 +232,7 @@ do_sigbus:
 if (exception_trace)
    printk("%s%s[%d]: bus error at %08lx pc %08lx "
           "sp %08lx ecr %lu\n",
-       is_init(tsk) ? KERN_EMERG : KERN_INFO,
+       is_global_init(tsk) ? KERN_EMERG : KERN_INFO,
        tsk->comm, tsk->pid, address, regs->pc,
        regs->sp, ecr);
```

```
--
```

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