
Subject: [PATCH 6/6] Define is_global_init() and is_container_init()
Posted by [Sukadev Bhattiprolu](#) on Fri, 06 Jul 2007 05:56:43 GMT
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Subject: [PATCH 6/6] 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/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              | 2 +-
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/signal.c                     | 2 +-
kernel/sysctl.c                     | 2 +-
mm/oom_kill.c                       | 4 +++-
security/commoncap.c                | 3 +-
32 files changed, 52 insertions(+), 37 deletions(-)

```

Index: lx26-22-rc6-mm1/include/linux/sched.h

```

=====
--- lx26-22-rc6-mm1.orig/include/linux/sched.h 2007-07-05 18:57:34.000000000 -0700
+++ lx26-22-rc6-mm1/include/linux/sched.h 2007-07-05 18:59:06.000000000 -0700
@@ -1248,12 +1248,20 @@ 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-rc6-mm1/kernel/pid.c
=====
--- lx26-22-rc6-mm1.orig/kernel/pid.c 2007-07-05 18:53:48.000000000 -0700
+++ lx26-22-rc6-mm1/kernel/pid.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/alpha/mm/fault.c
=====
--- lx26-22-rc6-mm1.orig/arch/alpha/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/alpha/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/arm/mm/fault.c
=====
--- lx26-22-rc6-mm1.orig/arch/arm/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/arm/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
@@ -197,7 +197,7 @@ survive:
    return fault;
}

- if (!is_init(tsk))
+ if (!is_global_init(tsk))
    goto out;

/*
Index: lx26-22-rc6-mm1/arch/arm26/mm/fault.c
=====
--- lx26-22-rc6-mm1.orig/arch/arm26/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/arm26/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/i386/lib/usercopy.c
=====
--- lx26-22-rc6-mm1.orig/arch/i386/lib/usercopy.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/i386/lib/usercopy.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/i386/mm/fault.c
=====
--- lx26-22-rc6-mm1.orig/arch/i386/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/i386/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
@@ -595,7 +595,7 @@ 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-rc6-mm1/arch/ia64/mm/fault.c
=====
--- lx26-22-rc6-mm1.orig/arch/ia64/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/ia64/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
@@ -270,7 +270,7 @@ 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-rc6-mm1/arch/m68k/mm/fault.c

```

```

=====
--- lx26-22-rc6-mm1.orig/arch/m68k/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/m68k/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/mips/mm/fault.c

```

```

=====
--- lx26-22-rc6-mm1.orig/arch/mips/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/mips/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/powerpc/kernel/traps.c

```

```

=====
--- lx26-22-rc6-mm1.orig/arch/powerpc/kernel/traps.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/powerpc/kernel/traps.c 2007-07-05 18:59:06.000000000 -0700
@@ -191,7 +191,7 @@ 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->sighand->siglock);
Index: lx26-22-rc6-mm1/arch/powerpc/mm/fault.c

```

```

=====
--- lx26-22-rc6-mm1.orig/arch/powerpc/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/powerpc/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/powerpc/platforms/pseries/ras.c

```
=====
--- lx26-22-rc6-mm1.orig/arch/powerpc/platforms/pseries/ras.c 2007-07-05 18:53:42.000000000
-0700
```

```
+++ lx26-22-rc6-mm1/arch/powerpc/platforms/pseries/ras.c 2007-07-05 18:59:06.000000000
-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-rc6-mm1/arch/ppc/kernel/traps.c

```
=====
--- lx26-22-rc6-mm1.orig/arch/ppc/kernel/traps.c 2007-07-05 18:53:42.000000000 -0700
```

```
+++ lx26-22-rc6-mm1/arch/ppc/kernel/traps.c 2007-07-05 18:59:06.000000000 -0700
```

```
@@ -121,7 +121,7 @@ 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-rc6-mm1/arch/ppc/mm/fault.c

```
=====
--- lx26-22-rc6-mm1.orig/arch/ppc/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
```

```
+++ lx26-22-rc6-mm1/arch/ppc/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
```

```
@@ -292,7 +292,7 @@ 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-rc6-mm1/arch/s390/lib/uaccess_pt.c

```
=====
--- lx26-22-rc6-mm1.orig/arch/s390/lib/uaccess_pt.c 2007-07-05 18:53:42.000000000 -0700
```

```
+++ lx26-22-rc6-mm1/arch/s390/lib/uaccess_pt.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/s390/mm/fault.c
```

=====
--- lx26-22-rc6-mm1.orig/arch/s390/mm/fault.c 2007-07-05 18:53:42.000000000 -0700

+++ lx26-22-rc6-mm1/arch/s390/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/sh/mm/fault.c
```

=====
--- lx26-22-rc6-mm1.orig/arch/sh/mm/fault.c 2007-07-05 18:53:42.000000000 -0700

+++ lx26-22-rc6-mm1/arch/sh/mm/fault.c 2007-07-05 18:59:06.000000000 -0700

```
@@ -191,7 +191,7 @@ 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-rc6-mm1/arch/sh64/mm/fault.c
```

=====
--- lx26-22-rc6-mm1.orig/arch/sh64/mm/fault.c 2007-07-05 18:53:42.000000000 -0700

+++ lx26-22-rc6-mm1/arch/sh64/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/um/kernel/trap.c
```

```
=====  
--- lx26-22-rc6-mm1.orig/arch/um/kernel/trap.c 2007-07-05 18:53:42.000000000 -0700  
+++ lx26-22-rc6-mm1/arch/um/kernel/trap.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/x86_64/mm/fault.c
```

```
=====  
--- lx26-22-rc6-mm1.orig/arch/x86_64/mm/fault.c 2007-07-05 18:53:42.000000000 -0700  
+++ lx26-22-rc6-mm1/arch/x86_64/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
```

```
@@ -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-rc6-mm1/arch/xtensa/mm/fault.c
```

```
=====  
--- lx26-22-rc6-mm1.orig/arch/xtensa/mm/fault.c 2007-07-05 18:53:42.000000000 -0700  
+++ lx26-22-rc6-mm1/arch/xtensa/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/drivers/char/sysrq.c

```

```

=====
--- lx26-22-rc6-mm1.orig/drivers/char/sysrq.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/drivers/char/sysrq.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/kernel/capability.c

```

=====
--- lx26-22-rc6-mm1.orig/kernel/capability.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/kernel/capability.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/kernel/exit.c

```

=====
--- lx26-22-rc6-mm1.orig/kernel/exit.c 2007-07-05 18:56:53.000000000 -0700
+++ lx26-22-rc6-mm1/kernel/exit.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/kernel/kexec.c

```

=====
--- lx26-22-rc6-mm1.orig/kernel/kexec.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/kernel/kexec.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/kernel/sysctl.c

```

=====
--- lx26-22-rc6-mm1.orig/kernel/sysctl.c 2007-07-05 18:54:29.000000000 -0700
+++ lx26-22-rc6-mm1/kernel/sysctl.c 2007-07-05 18:59:06.000000000 -0700
@@ -1924,7 +1924,7 @@ 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-rc6-mm1/mm/oom_kill.c

```

=====
--- lx26-22-rc6-mm1.orig/mm/oom_kill.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/mm/oom_kill.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/security/commoncap.c

```

=====
--- lx26-22-rc6-mm1.orig/security/commoncap.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/security/commoncap.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/avr32/kernel/traps.c

```

=====
--- lx26-22-rc6-mm1.orig/arch/avr32/kernel/traps.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/avr32/kernel/traps.c 2007-07-05 18:59:06.000000000 -0700
@@ -89,7 +89,7 @@ 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-rc6-mm1/arch/avr32/mm/fault.c

```

=====
--- lx26-22-rc6-mm1.orig/arch/avr32/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
+++ lx26-22-rc6-mm1/arch/avr32/mm/fault.c 2007-07-05 18:59:06.000000000 -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);

```

Index: lx26-22-rc6-mm1/kernel/signal.c

```

=====
--- lx26-22-rc6-mm1.orig/kernel/signal.c 2007-07-05 18:56:53.000000000 -0700
+++ lx26-22-rc6-mm1/kernel/signal.c 2007-07-05 18:59:06.000000000 -0700
@@ -257,7 +257,7 @@ flush_signal_handlers(struct task_struct

```

```

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;

```

Containers mailing list
Containers@lists.linux-foundation.org
<https://lists.linux-foundation.org/mailman/listinfo/containers>

Subject: Re: [PATCH 6/6] Define is_global_init() and is_container_init()
Posted by [Pavel Emelianov](#) on Fri, 13 Jul 2007 05:24:21 GMT
[View Forum Message](#) <> [Reply to Message](#)

sukadev@us.ibm.com wrote:


```

> 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         | 2 +-
> 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/signal.c                | 2 +-
> kernel/sysctl.c                | 2 +-
> mm/oom_kill.c                  | 4 +++-
> security/commoncap.c           | 3 +-
> 32 files changed, 52 insertions(+), 37 deletions(-)

```

>

> Index: lx26-22-rc6-mm1/include/linux/sched.h

```

> =====
> --- lx26-22-rc6-mm1.orig/include/linux/sched.h 2007-07-05 18:57:34.000000000 -0700
> +++ lx26-22-rc6-mm1/include/linux/sched.h 2007-07-05 18:59:06.000000000 -0700
> @@ -1248,12 +1248,20 @@ 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-rc6-mm1/kernel/pid.c
> =====
> --- lx26-22-rc6-mm1.orig/kernel/pid.c 2007-07-05 18:53:48.000000000 -0700
> +++ lx26-22-rc6-mm1/kernel/pid.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/alpha/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/alpha/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/alpha/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/arm/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/arm/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/arm/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
> @@ -197,7 +197,7 @@ survive:
>  return fault;
> }
>
> - if (!is_init(tsk))
> + if (!is_global_init(tsk))
>  goto out;
>
> /*
> Index: lx26-22-rc6-mm1/arch/arm26/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/arm26/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/arm26/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/i386/lib/usercopy.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/i386/lib/usercopy.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/i386/lib/usercopy.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/i386/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/i386/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/i386/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
> @@ -595,7 +595,7 @@ 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-rc6-mm1/arch/ia64/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/ia64/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/ia64/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
> @@ -270,7 +270,7 @@ 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-rc6-mm1/arch/m68k/mm/fault.c
> =====

```

```

> --- lx26-22-rc6-mm1.orig/arch/m68k/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/m68k/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/mips/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/mips/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/mips/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/powerpc/kernel/traps.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/powerpc/kernel/traps.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/powerpc/kernel/traps.c 2007-07-05 18:59:06.000000000 -0700
> @@ -191,7 +191,7 @@ 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->sighand->siglock);
> Index: lx26-22-rc6-mm1/arch/powerpc/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/powerpc/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/powerpc/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/powerpc/platforms/pseries/ras.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/powerpc/platforms/pseries/ras.c 2007-07-05 18:53:42.000000000
-0700
> +++ lx26-22-rc6-mm1/arch/powerpc/platforms/pseries/ras.c 2007-07-05 18:59:06.000000000
-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-rc6-mm1/arch/ppc/kernel/traps.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/ppc/kernel/traps.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/ppc/kernel/traps.c 2007-07-05 18:59:06.000000000 -0700
> @@ -121,7 +121,7 @@ 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-rc6-mm1/arch/ppc/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/ppc/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/ppc/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
> @@ -292,7 +292,7 @@ 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-rc6-mm1/arch/s390/lib/uaccess_pt.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/s390/lib/uaccess_pt.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/s390/lib/uaccess_pt.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/s390/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/s390/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/s390/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/sh/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/sh/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/sh/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
> @@ -191,7 +191,7 @@ 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-rc6-mm1/arch/sh64/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/sh64/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/sh64/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/um/kernel/trap.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/um/kernel/trap.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/um/kernel/trap.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/x86_64/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/x86_64/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/x86_64/mm/fault.c 2007-07-05 18:59:06.000000000 -0700
> @@ -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-rc6-mm1/arch/xtensa/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/xtensa/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/xtensa/mm/fault.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/drivers/char/sysrq.c
> =====
> --- lx26-22-rc6-mm1.orig/drivers/char/sysrq.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/drivers/char/sysrq.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/kernel/capability.c
> =====
> --- lx26-22-rc6-mm1.orig/kernel/capability.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/kernel/capability.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/kernel/exit.c
> =====
> --- lx26-22-rc6-mm1.orig/kernel/exit.c 2007-07-05 18:56:53.000000000 -0700
> +++ lx26-22-rc6-mm1/kernel/exit.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/kernel/kexec.c
> =====
> --- lx26-22-rc6-mm1.orig/kernel/kexec.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/kernel/kexec.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/kernel/sysctl.c
> =====
> --- lx26-22-rc6-mm1.orig/kernel/sysctl.c 2007-07-05 18:54:29.000000000 -0700
> +++ lx26-22-rc6-mm1/kernel/sysctl.c 2007-07-05 18:59:06.000000000 -0700
> @@ -1924,7 +1924,7 @@ 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-rc6-mm1/mm/oom_kill.c
> =====
> --- lx26-22-rc6-mm1.orig/mm/oom_kill.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/mm/oom_kill.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/security/commoncap.c
> =====
> --- lx26-22-rc6-mm1.orig/security/commoncap.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/security/commoncap.c 2007-07-05 18:59:06.000000000 -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-rc6-mm1/arch/avr32/kernel/traps.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/avr32/kernel/traps.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/avr32/kernel/traps.c 2007-07-05 18:59:06.000000000 -0700
> @@ -89,7 +89,7 @@ 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-rc6-mm1/arch/avr32/mm/fault.c
> =====
> --- lx26-22-rc6-mm1.orig/arch/avr32/mm/fault.c 2007-07-05 18:53:42.000000000 -0700
> +++ lx26-22-rc6-mm1/arch/avr32/mm/fault.c 2007-07-05 18:59:06.000000000 -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);
>
> Index: lx26-22-rc6-mm1/kernel/signal.c
> =====
> --- lx26-22-rc6-mm1.orig/kernel/signal.c 2007-07-05 18:56:53.000000000 -0700
> +++ lx26-22-rc6-mm1/kernel/signal.c 2007-07-05 18:59:06.000000000 -0700
> @@ -257,7 +257,7 @@ flush_signal_handlers(struct task_struct
>
> 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;
>
> _____
> Containers mailing list
> Containers@lists.linux-foundation.org
> https://lists.linux-foundation.org/mailman/listinfo/containers
>

```

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