
Subject: [PATCH 5/9] namespaces: utsname: use init_utsname when appropriate
Posted by [serue](#) on Thu, 18 May 2006 15:49:56 GMT

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In some places, particularly drivers and __init code, the init_utsns is the appropriate one to use. This patch replaces those with a the init_utsname helper.

Changes: Removed several uses of init_utsname(). Hope I picked all the right ones in net/ipv4/ipconfig.c. These are now changed to utsname() (the per-process namespace utsname) in the previous patch (2/7)

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

```
arch/arm/kernel/setup.c          |  2 +-
arch/arm26/kernel/setup.c        |  2 +-
arch/cris/kernel/setup.c         |  2 +-
arch/i386/kernel/process.c       |  6 +++---
arch/i386/kernel/traps.c         |  6 +++---
arch/powerpc/kernel/process.c    |  2 +-
arch/powerpc/kernel/setup_64.c   |  2 +-
arch/powerpc/platforms/pseries/setup.c |  2 +-
arch/sh/kernel/setup.c          |  2 +-
arch/um/kernel/um_arch.c         |  6 +++---
arch/um/sys-x86_64/sysrq.c       |  2 +-
arch/x86_64/kernel/process.c     |  6 +++---
drivers/infiniband/hw/ipath/ipath_verbs.c |  2 +-
drivers/parisc/led.c             |  2 +-
drivers/scsi/lpfc/lpfc_ct.c      |  8 ++++----
drivers/usb/core/hcd.c           |  4 ++--
drivers/usb/gadget/ether.c       |  2 +-
drivers/usb/gadget/file_storage.c |  2 +-
drivers/usb/gadget/serial.c     |  2 +-
drivers/usb/gadget/zero.c       |  2 +-
include/asm-i386/bugs.h         |  2 +-
include/asm-sh/bugs.h           |  2 +-
kernel/power/snapshot.c         | 10 +++++-----
net/ipv4/ipconfig.c             |  2 +-
sound/core/info_oss.c           | 10 +++++-----
25 files changed, 45 insertions(+), 45 deletions(-)
```

```
9d66fd897bde2b3180d9646b5f559c72d494115d
diff --git a/arch/arm/kernel/setup.c b/arch/arm/kernel/setup.c
index 9fc9af8..b610568 100644
--- a/arch/arm/kernel/setup.c
```

```

+++ b/arch/arm/kernel/setup.c
@@ -319,7 +319,7 @@ static void __init setup_processor(void)
    cpu_name, processor_id, (int)processor_id & 15,
    proc_arch[cpu_architecture()]);

- sprintf(system_utsname.machine, "%s%c", list->arch_name, ENDIANNESS);
+ sprintf(init_utsname()->machine, "%s%c", list->arch_name, ENDIANNESS);
  sprintf(elf_platform, "%s%c", list->elf_name, ENDIANNESS);
  elf_hwcap = list->elf_hwcap;
  #ifndef CONFIG_ARM_THUMB
diff --git a/arch/arm26/kernel/setup.c b/arch/arm26/kernel/setup.c
index 4eb329e..8e6a441 100644
--- a/arch/arm26/kernel/setup.c
+++ b/arch/arm26/kernel/setup.c
@@ -144,7 +144,7 @@ static void __init setup_processor(void)

  dump_cpu_info();

- sprintf(system_utsname.machine, "%s", list->arch_name);
+ sprintf(init_utsname()->machine, "%s", list->arch_name);
  sprintf(elf_platform, "%s", list->elf_name);
  elf_hwcap = list->elf_hwcap;

diff --git a/arch/cris/kernel/setup.c b/arch/cris/kernel/setup.c
index 619a6ee..1974c01 100644
--- a/arch/cris/kernel/setup.c
+++ b/arch/cris/kernel/setup.c
@@ -161,7 +161,7 @@ static void __init setup_arch(char **cmdline_p)
  show_etrax_copyright();

  /* Setup utsname */
- strcpy(system_utsname.machine, cris_machine_name);
+ strcpy(init_utsname()->machine, cris_machine_name);
  }

static void *c_start(struct seq_file *m, loff_t *pos)
diff --git a/arch/i386/kernel/process.c b/arch/i386/kernel/process.c
index 6259afe..da2e439 100644
--- a/arch/i386/kernel/process.c
+++ b/arch/i386/kernel/process.c
@@ -297,9 +297,9 @@ void show_regs(struct pt_regs * regs)
  if (user_mode_vm(regs))
    printk(" ESP: %04x:%08lx", 0xffff & regs->xss, regs->esp);
  printk(" EFLAGS: %08lx  %s (%s %s)\n",
-    regs->eflags, print_tainted(), system_utsname.release,
-    (int)strcspn(system_utsname.version, " "),
-    system_utsname.version);
+    regs->eflags, print_tainted(), init_utsname()->release,

```

```

+ (int)strncpy(init_utsname()->version, " "),
+ init_utsname()->version);
printk("EAX: %08lx EBX: %08lx ECX: %08lx EDX: %08lx\n",
regs->eax,regs->ebx,regs->ecx,regs->edx);
printk("ESI: %08lx EDI: %08lx EBP: %08lx",
diff --git a/arch/i386/kernel/traps.c b/arch/i386/kernel/traps.c
index 2d22f57..c029749 100644
--- a/arch/i386/kernel/traps.c
+++ b/arch/i386/kernel/traps.c
@@ -260,9 +260,9 @@ void show_registers(struct pt_regs *regs
printk(KERN_EMERG "CPU: %d\nEIP: %04x:[<%08lx>] %s VLI\n"
"EFLAGS: %08lx (%s %.*s) \n",
smp_processor_id(), 0xffff & regs->xcs, regs->eip,
- print_tainted(), regs->eflags, system_utsname.release,
- (int)strncpy(system_utsname.version, " "),
- system_utsname.version);
+ print_tainted(), regs->eflags, init_utsname()->release,
+ (int)strncpy(init_utsname()->version, " "),
+ init_utsname()->version);
print_symbol(KERN_EMERG "EIP is at %s\n", regs->eip);
printk(KERN_EMERG "eax: %08lx ebx: %08lx ecx: %08lx edx: %08lx\n",
regs->eax, regs->ebx, regs->ecx, regs->edx);
diff --git a/arch/powerpc/kernel/process.c b/arch/powerpc/kernel/process.c
index 2dd47d2..6ce9e10 100644
--- a/arch/powerpc/kernel/process.c
+++ b/arch/powerpc/kernel/process.c
@@ -425,7 +425,7 @@ void show_regs(struct pt_regs * regs)
printk("NIP: "REG" LR: "REG" CTR: "REG"\n",
regs->nip, regs->link, regs->ctr);
printk("REGS: %p TRAP: %04lx %s (%s)\n",
- regs, regs->trap, print_tainted(), system_utsname.release);
+ regs, regs->trap, print_tainted(), init_utsname()->release);
printk("MSR: "REG" ", regs->msr);
printbits(regs->msr, msr_bits);
printk(" CR: %08lx XER: %08lx\n", regs->ccr, regs->xer);
diff --git a/arch/powerpc/kernel/setup_64.c b/arch/powerpc/kernel/setup_64.c
index 4467c49..c124e0a 100644
--- a/arch/powerpc/kernel/setup_64.c
+++ b/arch/powerpc/kernel/setup_64.c
@@ -435,7 +435,7 @@ void __init setup_system(void)
smp_release_cpus();
#endif

- printk("Starting Linux PPC64 %s\n", system_utsname.version);
+ printk("Starting Linux PPC64 %s\n", init_utsname()->version);

printk("-----\n");
printk("ppc64_pft_size = 0x%lx\n", ppc64_pft_size);

```

```
diff --git a/arch/powerpc/platforms/pseries/setup.c b/arch/powerpc/platforms/pseries/setup.c
index 5eb55ef..58b7a74 100644
--- a/arch/powerpc/platforms/pseries/setup.c
+++ b/arch/powerpc/platforms/pseries/setup.c
@@ -255,7 +255,7 @@ static int __init pSeries_init_panel(voi
{
    /* Manually leave the kernel version on the panel. */
    ppc_md.progress("Linux ppc64\n", 0);
- ppc_md.progress(system_utsname.version, 0);
+ ppc_md.progress(init_utsname()->version, 0);

    return 0;
}
```

```
diff --git a/arch/sh/kernel/setup.c b/arch/sh/kernel/setup.c
index bb229ef..024401e 100644
--- a/arch/sh/kernel/setup.c
+++ b/arch/sh/kernel/setup.c
@@ -481,7 +481,7 @@ static int show_cpuinfo(struct seq_file
    seq_printf(m, "machine\t\t: %s\n", get_system_type());

    seq_printf(m, "processor\t: %d\n", cpu);
- seq_printf(m, "cpu family\t: %s\n", system_utsname.machine);
+ seq_printf(m, "cpu family\t: %s\n", init_utsname()->machine);
    seq_printf(m, "cpu type\t: %s\n", get_cpu_subtype());

    show_cpuflags(m);
```

```
diff --git a/arch/um/kernel/um_arch.c b/arch/um/kernel/um_arch.c
index 7d51dd7..b49dd7d 100644
--- a/arch/um/kernel/um_arch.c
+++ b/arch/um/kernel/um_arch.c
@@ -167,7 +167,7 @@ static char *usage_string =

static int __init uml_version_setup(char *line, int *add)
{
- printf("%s\n", system_utsname.release);
+ printf("%s\n", init_utsname()->release);
    exit(0);

    return 0;
@@ -278,7 +278,7 @@ static int __init Usage(char *line, int
{
    const char **p;

- printf(usage_string, system_utsname.release);
+ printf(usage_string, init_utsname()->release);
    p = &__uml_help_start;
    while (p < &__uml_help_end) {
        printf("%s", *p);
```

```

@@ -400,7 +400,7 @@ int linux_main(int argc, char **argv)
/* Reserve up to 4M after the current brk */
uml_reserved = ROUND_4M(brk_start) + (1 << 22);

- setup_machinename(system_utsname.machine);
+ setup_machinename(init_utsname()->machine);

#ifdef CONFIG_CMDLINE_ON_HOST
    argv1_begin = argv[1];
diff --git a/arch/um/sys-x86_64/sysrq.c b/arch/um/sys-x86_64/sysrq.c
index d0a25af..ce3e07f 100644
--- a/arch/um/sys-x86_64/sysrq.c
+++ b/arch/um/sys-x86_64/sysrq.c
@@ -16,7 +16,7 @@ void __show_regs(struct pt_regs * regs)
    printk("\n");
    print_modules();
    printk("Pid: %d, comm: %.20s %s %s\n",
-        current->pid, current->comm, print_tainted(), system_utsname.release);
+        current->pid, current->comm, print_tainted(), init_utsname()->release);
    printk("RIP: %04lx:[<%016lx>] ", PT_REGS_CS(regs) & 0xffff,
        PT_REGS_RIP(regs));
    printk("\nRSP: %016lx EFLAGS: %08lx\n", PT_REGS_RSP(regs),
diff --git a/arch/x86_64/kernel/process.c b/arch/x86_64/kernel/process.c
index fb903e6..113d4ac 100644
--- a/arch/x86_64/kernel/process.c
+++ b/arch/x86_64/kernel/process.c
@@ -292,9 +292,9 @@ void __show_regs(struct pt_regs * regs)
    print_modules();
    printk("Pid: %d, comm: %.20s %s %s %.s\n",
        current->pid, current->comm, print_tainted(),
-    system_utsname.release,
-    (int)strcspn(system_utsname.version, " "),
-    system_utsname.version);
+    init_utsname()->release,
+    (int)strcspn(init_utsname()->version, " "),
+    init_utsname()->version);
    printk("RIP: %04lx:[<%016lx>] ", regs->cs & 0xffff, regs->rip);
    printk_address(regs->rip);
    printk("\nRSP: %04lx:%016lx EFLAGS: %08lx\n", regs->ss, regs->rsp,
diff --git a/drivers/infiniband/hw/ipath/ipath_verbs.c b/drivers/infiniband/hw/ipath/ipath_verbs.c
index cb9e387..b4ddd70 100644
--- a/drivers/infiniband/hw/ipath/ipath_verbs.c
+++ b/drivers/infiniband/hw/ipath/ipath_verbs.c
@@ -1029,7 +1029,7 @@ static void *ipath_register_ib_device(in
    dev->process_mad = ipath_process_mad;

    snprintf(dev->node_desc, sizeof(dev->node_desc),
-    IPATH_IDSTR " %s kernel_SMA", system_utsname.nodename);

```

```

+ IPATH_IDSTR " %s kernel_SMA", init_utsname()->nodename);

    ret = ib_register_device(dev);
    if (ret)
diff --git a/drivers/parisc/led.c b/drivers/parisc/led.c
index 298f2dd..1d778d2 100644
--- a/drivers/parisc/led.c
+++ b/drivers/parisc/led.c
@@ -684,7 +684,7 @@ int __init led_init(void)
    int ret;

    snprintf(lcd_text_default, sizeof(lcd_text_default),
- "Linux %s", system_utsname.release);
+ "Linux %s", init_utsname()->release);

    /* Work around the buggy PDC of KittyHawk-machines */
    switch (CPU_HVERSION) {
diff --git a/drivers/scsi/lpfc/lpfc_ct.c b/drivers/scsi/lpfc/lpfc_ct.c
index b65ee57..83f53fb 100644
--- a/drivers/scsi/lpfc/lpfc_ct.c
+++ b/drivers/scsi/lpfc/lpfc_ct.c
@@ -961,8 +961,8 @@ lpfc_fdm_i_cmd(struct lpfc_hba * phba, st
    ae = (ATTRIBUTE_ENTRY *) ((uint8_t *) rh + size);
    ae->ad.bits.AttrType = be16_to_cpu(OS_NAME_VERSION);
    sprintf(ae->un.OsNameVersion, "%s %s %s",
- system_utsname.sysname, system_utsname.release,
- system_utsname.version);
+ init_utsname()->sysname, init_utsname()->release,
+ init_utsname()->version);
    len = strlen(ae->un.OsNameVersion);
    len += (len & 3) ? (4 - (len & 3)) : 4;
    ae->ad.bits.AttrLen = be16_to_cpu(FOURBYTES + len);
@@ -1080,7 +1080,7 @@ lpfc_fdm_i_cmd(struct lpfc_hba * phba, st
    size);
    ae->ad.bits.AttrType = be16_to_cpu(HOST_NAME);
    sprintf(ae->un.HostName, "%s",
- system_utsname.nodename);
+ init_utsname()->nodename);
    len = strlen(ae->un.HostName);
    len += (len & 3) ? (4 - (len & 3)) : 4;
    ae->ad.bits.AttrLen =
@@ -1168,7 +1168,7 @@ lpfc_fdm_i_tmo_handler(struct lpfc_hba *p
    ndlp = lpfc_findnode_did(phba, NLP_SEARCH_ALL, FDMI_DID);
    if (ndlp) {
- if (system_utsname.nodename[0] != '\0') {
+ if (init_utsname()->nodename[0] != '\0') {
    lpfc_fdm_i_cmd(phba, ndlp, SLI_MGMT_DHBA);

```

```

    } else {
        mod_timer(&phba->fc_fdmitmo, jiffies + HZ * 60);
diff --git a/drivers/usb/core/hcd.c b/drivers/usb/core/hcd.c
index e2e00ba..3260688 100644
--- a/drivers/usb/core/hcd.c
+++ b/drivers/usb/core/hcd.c
@@ -318,8 +318,8 @@ static int rh_string (

    // id 3 == vendor description
    } else if (id == 3) {
-   snprintf (buf, sizeof buf, "%s %s %s", system_utsname.sysname,
-   system_utsname.release, hcd->driver->description);
+   snprintf (buf, sizeof buf, "%s %s %s", init_utsname()->sysname,
+   init_utsname()->release, hcd->driver->description);

    // unsupported IDs --> "protocol stall"
    } else
diff --git a/drivers/usb/gadget/ether.c b/drivers/usb/gadget/ether.c
index 9c4422a..76ad9b4 100644
--- a/drivers/usb/gadget/ether.c
+++ b/drivers/usb/gadget/ether.c
@@ -2242,7 +2242,7 @@ eth_bind (struct usb_gadget *gadget)
    return -ENODEV;
}
    snprintf (manufacturer, sizeof manufacturer, "%s %s/%s",
-   system_utsname.sysname, system_utsname.release,
+   init_utsname()->sysname, init_utsname()->release,
    gadget->name);

    /* If there's an RNDIS configuration, that's what Windows wants to
diff --git a/drivers/usb/gadget/file_storage.c b/drivers/usb/gadget/file_storage.c
index 6f88747..53d9581 100644
--- a/drivers/usb/gadget/file_storage.c
+++ b/drivers/usb/gadget/file_storage.c
@@ -3985,7 +3985,7 @@ static int __init fsg_bind(struct usb_ga
    usb_gadget_set_selfpowered(gadget);

    snprintf(manufacturer, sizeof manufacturer, "%s %s with %s",
-   system_utsname.sysname, system_utsname.release,
+   init_utsname()->sysname, init_utsname()->release,
    gadget->name);

    /* On a real device, serial[] would be loaded from permanent
diff --git a/drivers/usb/gadget/serial.c b/drivers/usb/gadget/serial.c
index b992546..a2f905b 100644
--- a/drivers/usb/gadget/serial.c
+++ b/drivers/usb/gadget/serial.c
@@ -1496,7 +1496,7 @@ static int __init gs_bind(struct usb_gad

```

```

return -ENOMEM;

snprintf(manufacturer, sizeof(manufacturer), "%s %s with %s",
- system_utsname.sysname, system_utsname.release,
+ init_utsname()->sysname, init_utsname()->release,
  gadget->name);

memset(dev, 0, sizeof(struct gs_dev));
diff --git a/drivers/usb/gadget/zero.c b/drivers/usb/gadget/zero.c
index 68e3d8f..4c888bc 100644
--- a/drivers/usb/gadget/zero.c
+++ b/drivers/usb/gadget/zero.c
@@ -1243,7 +1243,7 @@ autoconf_fail:
  EP_OUT_NAME, EP_IN_NAME);

snprintf (manufacturer, sizeof manufacturer, "%s %s with %s",
- system_utsname.sysname, system_utsname.release,
+ init_utsname()->sysname, init_utsname()->release,
  gadget->name);

return 0;
diff --git a/include/asm-i386/bugs.h b/include/asm-i386/bugs.h
index 50233e0..6cb79fe 100644
--- a/include/asm-i386/bugs.h
+++ b/include/asm-i386/bugs.h
@@ -190,6 +190,6 @@ static void __init check_bugs(void)
  check_fpu();
  check_hlt();
  check_popad();
- system_utsname.machine[1] = '0' + (boot_cpu_data.x86 > 6 ? 6 : boot_cpu_data.x86);
+ init_utsname()->machine[1] = '0' + (boot_cpu_data.x86 > 6 ? 6 : boot_cpu_data.x86);
  alternative_instructions();
}
diff --git a/include/asm-sh/bugs.h b/include/asm-sh/bugs.h
index a6de3d0..d09933c 100644
--- a/include/asm-sh/bugs.h
+++ b/include/asm-sh/bugs.h
@@ -18,7 +18,7 @@ static void __init check_bugs(void)
{
  extern char *get_cpu_subtype(void);
  extern unsigned long loops_per_jiffy;
- char *p= &system_utsname.machine[2]; /* "sh" */
+ char *p= &init_utsname()->machine[2]; /* "sh" */

  cpu_data->loops_per_jiffy = loops_per_jiffy;

diff --git a/kernel/power/snapshot.c b/kernel/power/snapshot.c
index 3eedbb..1ca6f95 100644

```

```

--- a/kernel/power/snapshot.c
+++ b/kernel/power/snapshot.c
@@ -524,7 +524,7 @@ static void init_header(struct swsusp_in
    memset(info, 0, sizeof(struct swsusp_info));
    info->version_code = LINUX_VERSION_CODE;
    info->num_physpages = num_physpages;
- memcpy(&info->uts, &system_utsname, sizeof(system_utsname));
+ memcpy(&info->uts, init_utsname(), sizeof(struct new_utsname));
    info->cpus = num_online_cpus();
    info->image_pages = nr_copy_pages;
    info->pages = nr_copy_pages + nr_meta_pages + 1;
@@ -663,13 +663,13 @@ static int check_header(struct swsusp_in
    reason = "kernel version";
    if (info->num_physpages != num_physpages)
        reason = "memory size";
- if (strcmp(info->uts.sysname, system_utsname.sysname))
+ if (strcmp(info->uts.sysname, init_utsname()->sysname))
        reason = "system type";
- if (strcmp(info->uts.release, system_utsname.release))
+ if (strcmp(info->uts.release, init_utsname()->release))
        reason = "kernel release";
- if (strcmp(info->uts.version, system_utsname.version))
+ if (strcmp(info->uts.version, init_utsname()->version))
        reason = "version";
- if (strcmp(info->uts.machine, system_utsname.machine))
+ if (strcmp(info->uts.machine, init_utsname()->machine))
        reason = "machine";
    if (reason) {
        printk(KERN_ERR "swsusp: Resume mismatch: %s\n", reason);
diff --git a/net/ipv4/ipconfig.c b/net/ipv4/ipconfig.c
index b9bdf0f..4c13acb 100644
--- a/net/ipv4/ipconfig.c
+++ b/net/ipv4/ipconfig.c
@@ -367,7 +367,7 @@ static int __init ic_defaults(void)
    */

    if (!lic_host_name_set)
- sprintf(system_utsname.nodename, "%u.%u.%u.%u", NIPQUAD(ic_myaddr));
+ sprintf(init_utsname()->nodename, "%u.%u.%u.%u", NIPQUAD(ic_myaddr));

    if (root_server_addr == INADDR_NONE)
        root_server_addr = ic_servaddr;
diff --git a/sound/core/info_oss.c b/sound/core/info_oss.c
index f9ce854..35662bb 100644
--- a/sound/core/info_oss.c
+++ b/sound/core/info_oss.c
@@ -94,11 +94,11 @@ static void snd_sndstat_proc_read(struct
{

```

```
    snd_iprintf(buffer, "Sound Driver:3.8.1a-980706 (ALSA v" CONFIG_SND_VERSION " emulation
code)\n");
    snd_iprintf(buffer, "Kernel: %s %s %s %s %s\n",
-   system_utsname.sysname,
-   system_utsname.nodename,
-   system_utsname.release,
-   system_utsname.version,
-   system_utsname.machine);
+   init_utsname()->sysname,
+   init_utsname()->nodename,
+   init_utsname()->release,
+   init_utsname()->version,
+   init_utsname()->machine);
    snd_iprintf(buffer, "Config options: 0\n");
    snd_iprintf(buffer, "\nInstalled drivers: \n");
    snd_iprintf(buffer, "Type 10: ALSA emulation\n");
--
1.1.6
```
