
Subject: [PATCH 1/4] sysctl: Simplify sysctl_uts_string
Posted by [ebiederm](#) on Mon, 27 Nov 2006 05:05:08 GMT
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This patch introduces get_uts and put_uts (used later)
and removes most of the special cases for when UTS namespace is compiled in.

Signed-off-by: Eric W. Biederman <ebiederm@xmission.com>

kernel/sysctl.c | 128 ++++++-----
1 files changed, 26 insertions(+), 102 deletions(-)

diff --git a/kernel/sysctl.c b/kernel/sysctl.c

index 09e569f..0521884 100644

--- a/kernel/sysctl.c

+++ b/kernel/sysctl.c

@@ -162,6 +162,28 @@ #ifdef HAVE_ARCH_PICK_MMAP_LAYOUT

int sysctl_legacy_va_layout;

#endif

+static void *get_uts(ctl_table *table, int write)

{

+ char *which = table->data;

+ #ifdef CONFIG_UTS_NS

+ struct uts_namespace *uts_ns = current->nsproxy->uts_ns;

+ which = (which - (char *)&init_uts_ns) + (char *)uts_ns;

+ #endif

+ if (!write)

+ down_read(&uts_sem);

+ else

+ down_write(&uts_sem);

+ return which;

+ }

+

+static void put_uts(ctl_table *table, int write, void *which)

{

+ if (!write)

+ up_read(&uts_sem);

+ else

+ up_write(&uts_sem);

+ }

+

/* /proc declarations: */

#ifdef CONFIG_PROC_SYSCTL

@@ -228,7 +250,6 @@ #endif

};

```

static ctl_table kern_table[] = {
#ifndef CONFIG_UTS_NS
{
    .ctl_name = KERN_OSTYPE,
    .procname = "ostype",
@@ -274,54 +295,6 @@ #ifndef CONFIG_UTS_NS
    .proc_handler = &proc_do_uts_string,
    .strategy = &sysctl_string,
},
#else /* !CONFIG_UTS_NS */
- {
-   .ctl_name = KERN_OSTYPE,
-   .procname = "ostype",
-   .data = NULL,
-   /* could maybe use __NEW_UTS_LEN here? */
-   .maxlen = FIELD_SIZEOF(struct new_utsname, sysname),
-   .mode = 0444,
-   .proc_handler = &proc_do_uts_string,
-   .strategy = &sysctl_string,
- },
- {
-   .ctl_name = KERN_OSRELEASE,
-   .procname = "osrelease",
-   .data = NULL,
-   .maxlen = FIELD_SIZEOF(struct new_utsname, release),
-   .mode = 0444,
-   .proc_handler = &proc_do_uts_string,
-   .strategy = &sysctl_string,
- },
- {
-   .ctl_name = KERN_VERSION,
-   .procname = "version",
-   .data = NULL,
-   .maxlen = FIELD_SIZEOF(struct new_utsname, version),
-   .mode = 0444,
-   .proc_handler = &proc_do_uts_string,
-   .strategy = &sysctl_string,
- },
- {
-   .ctl_name = KERN_NODENAME,
-   .procname = "hostname",
-   .data = NULL,
-   .maxlen = FIELD_SIZEOF(struct new_utsname, nodename),
-   .mode = 0644,
-   .proc_handler = &proc_do_uts_string,
-   .strategy = &sysctl_string,
- },
- {

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- .ctl_name = KERN_DOMAINNAME,
- .procname = "domainname",
- .data = NULL,
- .maxlen = FIELD_SIZEOF(struct new_utsname, domainname),
- .mode = 0644,
- .proc_handler = &proc_do_uts_string,
- .strategy = &sysctl_string,
- },
-#endif /* !CONFIG_UTS_NS */
{
    .ctl_name = KERN_PANIC,
    .procname = "panic",
@@ -1755,66 +1728,17 @@ int proc_dostring(ctl_table *table, int
    * Special case of dostring for the UTS structure. This has locks
    * to observe. Should this be in kernel/sys.c ???
    */
-
-#ifndef CONFIG_UTS_NS
-static int proc_do_uts_string(ctl_table *table, int write, struct file *filp,
-    void __user *buffer, size_t *lenp, loff_t *ppos)
-{
-    int r;

-    if (!write) {
-        down_read(&uts_sem);
-        r=proc_dostring(table,0,filp,buffer,lenp, ppos);
-        up_read(&uts_sem);
-    } else {
-        down_write(&uts_sem);
-        r=proc_dostring(table,1,filp,buffer,lenp, ppos);
-        up_write(&uts_sem);
-    }
-    return r;
-}
-#else /* !CONFIG_UTS_NS */
static int proc_do_uts_string(ctl_table *table, int write, struct file *filp,
    void __user *buffer, size_t *lenp, loff_t *ppos)
{
    int r;
-    struct uts_namespace* uts_ns = current->nsproxy->uts_ns;
-    char* which;
-
-    switch (table->ctl_name) {
-    case KERN_OSTYPE:
-        which = uts_ns->name.sysname;
-        break;
-    case KERN_NODENAME:
-        which = uts_ns->name.nodename;

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- break;
- case KERN_OSRELEASE:
-   which = uts_ns->name.release;
-   break;
- case KERN_VERSION:
-   which = uts_ns->name.version;
-   break;
- case KERN_DOMAINNAME:
-   which = uts_ns->name.domainname;
-   break;
- default:
-   r = -EINVAL;
-   goto out;
- }
-
- if (!write) {
-   down_read(&uts_sem);
-   r=_proc_do_string(which,table->maxlen,0,filp,buffer,lenp, ppos);
-   up_read(&uts_sem);
- } else {
-   down_write(&uts_sem);
-   r=_proc_do_string(which,table->maxlen,1,filp,buffer,lenp, ppos);
-   up_write(&uts_sem);
- }
- out:
+ void *which;
+ which = get_uts(table, write);
+ r = _proc_do_string(which, table->maxlen,write,filp,buffer,lenp, ppos);
+ put_uts(table, write, which);
+   return r;
+ }
-#endif /* !CONFIG_UTS_NS */

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static int do_proc_dointvec_conv(int *negp, unsigned long *lvalp,
    int *valp,

```

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1.4.2.rc3.g7e18e-dirty

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<https://lists.osdl.org/mailman/listinfo/containers>
