
Subject: [patch -mm 4/4] mqueue namespace: adapt sysctl
Posted by [Cedric Le Goater](#) on Wed, 28 Nov 2007 16:37:32 GMT
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Largely inspired from ipc/ipc_sysctl.c. This patch isolates the mqueue sysctl stuff in its own file.

Signed-off-by: Cedric Le Goater <clg@fr.ibm.com>

```
---  
include/linux/mq_namespace.h | 10 +++  
init/Kconfig                 | 6 ++  
ipc/Makefile                 | 1  
ipc/mq_sysctl.c              | 117 +++++++++++++++++++++++++++++++++++++  
ipc/mqueue.c                 | 56 -----  
5 files changed, 135 insertions(+), 55 deletions(-)
```

Index: 2.6.24-rc3-mm2/ipc/mqueue.c

```
=====  
--- 2.6.24-rc3-mm2.orig/ipc/mqueue.c  
+++ 2.6.24-rc3-mm2/ipc/mqueue.c  
@@ -1230,60 +1230,6 @@ struct file_system_type mqueue_fs_type =  
.kill_sb = kill_litter_super,  
};  
  
-static int msg_max_limit_min = DFLT_MSGMAX;  
-static int msg_max_limit_max = HARD_MSGMAX;  
-  
-static int msg_maxsize_limit_min = DFLT_MSGSIZEMAX;  
-static int msg_maxsize_limit_max = INT_MAX;  
-  
-static ctl_table mq_sysctls[] = {  
- {  
- .procname = "queues_max",  
- .data = &init_mq_ns.queues_max,  
- .maxlen = sizeof(int),  
- .mode = 0644,  
- .proc_handler = &proc_dointvec,  
- },  
- {  
- .procname = "msg_max",  
- .data = &init_mq_ns.msg_max,  
- .maxlen = sizeof(int),  
- .mode = 0644,  
- .proc_handler = &proc_dointvec_minmax,  
- .extra1 = &msg_max_limit_min,  
- .extra2 = &msg_max_limit_max,
```

```

- },
- {
- .procname = "msgsize_max",
- .data = &init_mq_ns.msgsize_max,
- .maxlen = sizeof(int),
- .mode = 0644,
- .proc_handler = &proc_dointvec_minmax,
- .extra1 = &msg_maxsize_limit_min,
- .extra2 = &msg_maxsize_limit_max,
- },
- { .ctl_name = 0 }
-};
-
-static ctl_table mq_sysctl_dir[] = {
- {
- .procname = "mqueue",
- .mode = 0555,
- .child = mq_sysctls,
- },
- { .ctl_name = 0 }
-};
-
-static ctl_table mq_sysctl_root[] = {
- {
- .ctl_name = CTL_FS,
- .procname = "fs",
- .mode = 0555,
- .child = mq_sysctl_dir,
- },
- { .ctl_name = 0 }
-};
-
static int __init init_mqueue_fs(void)
{
int error;
@@ -1295,7 +1241,7 @@ static int __init init_mqueue_fs(void)
return -ENOMEM;

/* ignore failues - they are not fatal */
- mq_sysctl_table = register_sysctl_table(mq_sysctl_root);
+ mq_sysctl_table = mq_register_sysctl_table();

error = register_filesystem(&mqueue_fs_type);
if (error)
Index: 2.6.24-rc3-mm2/init/Kconfig
=====
--- 2.6.24-rc3-mm2.orig/init/Kconfig
+++ 2.6.24-rc3-mm2/init/Kconfig

```

@@ -139,6 +139,12 @@ config POSIX_MQUEUE

If unsure, say Y.

```
+config POSIX_MQUEUE_SYSCTL
+ bool
+ depends on POSIX_MQUEUE
+ depends on SYSCTL
+ default y
+
```

```
config BSD_PROCESS_ACCT
bool "BSD Process Accounting"
help
```

Index: 2.6.24-rc3-mm2/ipc/Makefile

```
=====
--- 2.6.24-rc3-mm2.orig/ipc/Makefile
+++ 2.6.24-rc3-mm2/ipc/Makefile
@@ -9,4 +9,5 @@ obj_mq-$(CONFIG_COMPAT) += compat_mq.o
obj-$(CONFIG_POSIX_MQUEUE) += mqueue.o msgutil.o $(obj_mq-y)
obj-$(CONFIG_IPC_NS) += namespace.o
obj-$(CONFIG_MQ_NS) += mq_namespace.o
+obj-$(CONFIG_POSIX_MQUEUE_SYSCTL) += mq_sysctl.o
```

Index: 2.6.24-rc3-mm2/ipc/mq_sysctl.c

```
=====
--- /dev/null
+++ 2.6.24-rc3-mm2/ipc/mq_sysctl.c
@@ -0,0 +1,117 @@
+/*
+ * Copyright (C) 2007 IBM Corporation
+ *
+ * Author: Cedric Le Goater <clg@fr.ibm.com>
+ *
+ * This program is free software; you can redistribute it and/or
+ * modify it under the terms of the GNU General Public License as
+ * published by the Free Software Foundation, version 2 of the
+ * License.
+ */
+
+#include <linux/nsproxy.h>
+#include <linux/mq_namespace.h>
+#include <linux/sysctl.h>
+
+static void *get_mq(ctl_table *table)
+{
+ char *which = table->data;
+ struct mq_namespace *mq_ns = current->nsproxy->mq_ns;
```

```

+ which = (which - (char *)&init_mq_ns) + (char *)mq_ns;
+ return which;
+}
+
+#ifdef CONFIG_PROC_FS
+static int proc_mq_dointvec(ctl_table *table, int write, struct file *filp,
+ void __user *buffer, size_t *lenp, loff_t *ppos)
+{
+ struct ctl_table mq_table;
+ memcpy(&mq_table, table, sizeof(mq_table));
+ mq_table.data = get_mq(table);
+
+ return proc_dointvec(&mq_table, write, filp, buffer, lenp, ppos);
+}
+
+static int proc_mq_dointvec_minmax(ctl_table *table, int write,
+ struct file *filp, void __user *buffer, size_t *lenp, loff_t *ppos)
+{
+ struct ctl_table mq_table;
+ memcpy(&mq_table, table, sizeof(mq_table));
+ mq_table.data = get_mq(table);
+
+ return proc_dointvec_minmax(&mq_table, write, filp, buffer,
+ lenp, ppos);
+}
+#else
+static int proc_mq_dointvec(ctl_table *table, int write, struct file *filp,
+ void __user *buffer, size_t *lenp, loff_t *ppos)
+{
+ return -ENOSYS;
+}
+
+static int proc_mq_dointvec_minmax(ctl_table *table, int write,
+ struct file *filp, void __user *buffer, size_t *lenp, loff_t *ppos)
+{
+ return -ENOSYS;
+}
+#endif
+
+static int msg_max_limit_min = DFLT_MSGMAX;
+static int msg_max_limit_max = HARD_MSGMAX;
+
+static int msg_maxsize_limit_min = DFLT_MSGSIZEMAX;
+static int msg_maxsize_limit_max = INT_MAX;
+
+static ctl_table mq_sysctls[] = {
+ {
+ .procname = "queues_max",

```

```

+ .data = &init_mq_ns.queues_max,
+ .maxlen = sizeof(int),
+ .mode = 0644,
+ .proc_handler = proc_mq_dointvec,
+ },
+ {
+ .procname = "msg_max",
+ .data = &init_mq_ns.msg_max,
+ .maxlen = sizeof(int),
+ .mode = 0644,
+ .proc_handler = proc_mq_dointvec_minmax,
+ .extra1 = &msg_max_limit_min,
+ .extra2 = &msg_max_limit_max,
+ },
+ {
+ .procname = "msgsize_max",
+ .data = &init_mq_ns.msgsize_max,
+ .maxlen = sizeof(int),
+ .mode = 0644,
+ .proc_handler = proc_mq_dointvec_minmax,
+ .extra1 = &msg_maxsize_limit_min,
+ .extra2 = &msg_maxsize_limit_max,
+ },
+ { .ctl_name = 0 }
+};
+
+static ctl_table mq_sysctl_dir[] = {
+ {
+ .procname = "mqueue",
+ .mode = 0555,
+ .child = mq_sysctls,
+ },
+ { .ctl_name = 0 }
+};
+
+static ctl_table mq_sysctl_root[] = {
+ {
+ .ctl_name = CTL_FS,
+ .procname = "fs",
+ .mode = 0555,
+ .child = mq_sysctl_dir,
+ },
+ { .ctl_name = 0 }
+};
+
+struct ctl_table_header *mq_register_sysctl_table(void)
+{
+ return register_sysctl_table(mq_sysctl_root);

```

```
+}
Index: 2.6.24-rc3-mm2/include/linux/mq_namespace.h
=====
--- 2.6.24-rc3-mm2.orig/include/linux/mq_namespace.h
+++ 2.6.24-rc3-mm2/include/linux/mq_namespace.h
@@ -70,4 +70,14 @@ static inline void put_mq_ns(struct mq_n

#endif /* CONFIG_POSIX_MQUEUE */

#ifdef CONFIG_POSIX_MQUEUE_SYSCTL
+struct ctl_table_header;
+extern struct ctl_table_header *mq_register_sysctl_table(void);
+#else
+static inline struct ctl_table_header *mq_register_sysctl_table(void)
+{
+ return NULL;
+}
#endif /* CONFIG_POSIX_MQUEUE_SYSCTL */
+
#endif /* _LINUX_MQ_H */

--
```

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