Subject: Re: Re: [PATCH] bluetooth bnep: Convert to kthread API.
Posted by Cedric Le Goater on Fri, 20 Apr 2007 10:20:36 GMT
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Andrew Morton wrote:
> On Thu, 19 Apr 2007 01:58:51 -0600
> "Eric W. Biederman" <ebiederm@xmission.com> wrote:
>
>> From: Eric W. Biederman <ebiederm@xmission.com>
>>
>> This patch starts kbenpd using kthread_run replacing
>> a combination of kernel_thread and daemonize. Making
>> the code a little simpler and more maintainable.
>>
>>
>
> while (!atomic_read(&s->killed)) {
>
> ho hum.

yes. we need something like :

```
-       while (!atomic_read(&s->killed)) {
+       while (1) {
                try_to_freeze();

                set_current_state(TASK_INTERRUPTIBLE);

+               if (atomic_read(&s->killed))
+                       break;
+
```

I have an old patch for this driver. I'll refresh it.

>> + task = kthread_run(bnep_session, s, "kbnepd %s", dev->name);
>
> It's unusual to have a kernel thread which has a space in its name. That
> could trip up infufficient-defensive userspace tools.

but we can't just change it, can we ? i could be used by a user space tool
to check if the thread is running.

C.

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> to check if the thread is running.

here's the refreshed version not taking into account the space in its
kernel thread name.

C.

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

```
 net/bluetooth/bnep/core.c |   15 ++++++++++-----
 1 file changed, 10 insertions(+), 5 deletions(-)

Index: 2.6.21-rc6-mm1/net/bluetooth/bnep/core.c
 ===================================================================
--- 2.6.21-rc6-mm1.orig/net/bluetooth/bnep/core.c
+++ 2.6.21-rc6-mm1/net/bluetooth/bnep/core.c
@@ -47,6 +47,7 @@
 #include <linux/netdevice.h>
 #include <linux/etherdevice.h>
 #include <linux/skbuff.h>
+#include <linux/kthread.h>

 #include <asm/unaligned.h>

@@ -473,16 +474,18 @@ static int bnep_session(void *arg)

  BT_DBG("");

- daemonize("kbnepd %s", dev->name);
  set_user_nice(current, -15);

  init_waitqueue_entry(&wait, current);
  add_wait_queue(sk->sk_sleep, &wait);
- while (!atomic_read(&s->killed)) {
+ while (1) {
   try_to_freeze();

   set_current_state(TASK_INTERRUPTIBLE);

+  if (atomic_read(&s->killed))
+   break;
+
   // RX
   while ((skb = skb_dequeue(&sk->sk_receive_queue))) {
    skb_orphan(skb);
@@ -539,6 +542,7 @@ static struct device *bnep_get_device(st

 int bnep_add_connection(struct bnep_connadd_req *req, struct socket *sock)
 {
+ struct task_struct *task;
  struct net_device *dev;
  struct bnep_session *s, *ss;
  u8 dst[ETH_ALEN], src[ETH_ALEN];
@@ -598,9 +602,10 @@ int bnep_add_connection(struct bnep_conn

  __bnep_link_session(s);
```

```
- err = kernel_thread(bnep_session, s, CLONE_KERNEL);
- if (err < 0) {
-  /* Session thread start failed, gotta cleanup. */
+ task = kthread_run(bnep_session, s, "kbnepd %s", dev->name);
+ if (IS_ERR(task)) {
+   /* Session thread start failed, gotta cleanup. */
+  err = PTR_ERR(task);
   unregister_netdev(dev);
   __bnep_unlink_session(s);
   goto failed;
```

Subject: Re: Re: [PATCH] bluetooth bnep: Convert to kthread API.
Posted by Satyam Sharma on Sat, 21 Apr 2007 16:11:28 GMT
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Hello,

On 4/20/07, Cedric Le Goater <clg@fr.ibm.com> wrote:
> Cedric Le Goater wrote:
> > Andrew Morton wrote:
> >> On Thu, 19 Apr 2007 01:58:51 -0600
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> >> It's unusual to have a kernel thread which has a space in its name. That
> >> could trip up infufficient-defensive userspace tools.

But all kernel threads are supposed to be only *in-kernel*
implementation details. Isn't a userspace tool whose behaviour relies
on the existence (or even the knowledge of the existence) of any
kernel thread *broken by design*?

> > but we can't just change it, can we ? i could be used by a user space tool
> > to check if the thread is running.

Yes, so although userspace shouldn't be bothering with kernel threads
in the first place, that does not mean that such tools do not exist.
So we'll have to live with this (unfortunate) naming for some time,
till we can get rid of it later.

Which is similar to the habit of some kernel threads in there that
actually *do* want to export the knowledge of their existence (and
even a signals-based interface!) to userspace. Eric did receive some
nacks on his patches that tried to remove the signals business from
kernel threads on this account, but perhaps that too is something that
we could get rid of later (hopefully by that time those using signals

in kernel threads would have realized their folly and shifted to something else :-)

Satyam