
Subject: Re: [RFC PATCH 4/6] IPC/sem: next operations for /proc/pid/semundo
Posted by [Nadia Derby](#) on Thu, 26 Jun 2008 05:35:27 GMT
[View Forum Message](#) <> [Reply to Message](#)

Serge E. Hallyn wrote:

> Quoting Nadia.Derbey@bull.net (Nadia.Derbey@bull.net):
>
>>PATCH [04/06]
>>
>>This patch introduces the .next seq operation for /proc/pid/semundo.
>>
>>What should be mentioned here is that the undo_list lock is released between
>>between each iteration.
>>Doing this, we only guarantee to access some valid data during the .show,
>
>
> Ok so you count on an item sticking around for the duration of the
> rcu_read_cycle(). exit_sem() is therefore not an issue. The other
> possible racer is freeary() as called from IPC_RMID, but while that
> could remove this entry from the undo_list->list_proc, it will wait
> an rcu cycle before it actually frees it.

Yes, the sem_undo structure is freed in an rcu callback in freeary() too.

>
> Am I reading that all right? If so, then:
>
>
>>not to have a full coherent view of the whole list. But, oth, this reduces the
>>the performance impact on the access to the undo_list.
>>
>>Signed-off-by: Pierre Peiffer <pierre.peiffer@bull.net>
>>Signed-off-by: Nadia Derby <Nadia.Derbey@bull.net>
>
>
> Aacked-by: Serge Hallyn <serue@us.ibm.com>
>
>>---
>> ipc/sem.c | 23 ++++++
>> 1 file changed, 22 insertions(+), 1 deletion(-)
>>
>>Index: linux-2.6.26-rc5-mm3/ipc/sem.c
>>=====

>>--- linux-2.6.26-rc5-mm3.orig/ipc/sem.c 2008-06-24 12:32:36.000000000 +0200
>>+++ linux-2.6.26-rc5-mm3/ipc/sem.c 2008-06-24 12:54:40.000000000 +0200
>>@@ -1440,7 +1440,28 @@ static void *semundo_start(struct seq_file
>>
>> static void *semundo_next(struct seq_file *m, void *v, loff_t *ppos)

```

>> {
>>- return NULL;
>>+ struct sem_undo *undo = v;
>>+ struct undo_list_data *data = m->private;
>>+ struct sem_undo_list *ulp = data->undo_list;
>>+
>>+ /*
>>+  * No need to protect against ulp being NULL, if we are here,
>>+  * it can't be NULL.
>>+  */
>>+ spin_lock(&ulp->lock);
>>+
>>+ do {
>>+  undo = list_entry(rcu_dereference(undo->list_proc.next),
>>+    struct sem_undo, list_proc);
>>+
>>+ } while (&undo->list_proc != &ulp->list_proc && undo->semid == -1);
>>+
>>+ ++*ppos;
>>+ spin_unlock(&ulp->lock);
>>+
>>+ if (&undo->list_proc == &ulp->list_proc)
>>+  return NULL;
>>+ return undo;
>> }
>>
>> static void semundo_stop(struct seq_file *m, void *v)
>>
>>--
>
>
>

```

--

=====

Name..... Nadia DERBEY

Organization.. BULL/DT/OSwR&D/Linux

Email..... mailto:Nadia.Derbey@bull.net

Address..... BULL, B.P. 208, 38432 Echirolles Cedex, France

Tel..... (33) 76 29 77 62 [Internal Bull: (229) 77 62]

Telex,Fax..... 980648 F - (33) 76 29 76 00

Internal Bull. Mail: FREC-B1208

=====

Containers mailing list

