## Subject: Re: [PATCH 06/14] sysfs: Rewrite sysfs\_get\_dentry Posted by ebiederm on Tue, 31 Jul 2007 19:24:37 GMT

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Tejun Heo <htejun@gmail.com> writes:

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> On Tue, Jul 31, 2007 at 08:34:47PM +0900, Tejun Heo wrote:
>> > If sysfs_mutex nested the other way things would be easier,
>> > and we could grab all of the i mutexes we wanted. I wonder if we can
>> > be annoying in sysfs lookup and treat that as the lock inversion
>> > case using mutex trylock etc. And have sysfs mutex be on the
>> > outside for the rest of the cases?
>>
>> The problem with treating sysfs_lookup as inversion case is that vfs
>> layer grabs i_mutex outside of sysfs_lookup. Releasing i_mutex from
>> inside sysfs_lookup would be a hacky layering violation.
>>
>> Then again, the clean up which can come from the new sysfs looukp dentry
>> is very significant. I'll think about it a bit more.
> How about something like this? __sysfs_get_dentry() never creates any
> dentry, it just looks up existing ones. sysfs get dentry() calls
> __sysfs_get_dentry() and if it fails, it builds a path string and look
> up using regular vfs_path_lookup(). Once in the creation path,
> sysfs_get_dentry() is allowed to fail, so allocating path buf is fine.
>
> It still needs to retry when vfs_path_lookup() returns -ENOENT or the
> wrong dentry but things are much simpler now. It doesn't violate any
> VFS locking rule while maintaining all the benefits of
> sysfs_get_dentry() cleanup.
> Something like LOOKUP_KERNEL is needed to ignore security checks;
> otherwise, we'll need to resurrect lookup_one_len_kern() and open code
> look up.
>
```

> The patch is on top of all your patches and is in barely working form.

Thanks. I need to look some more. I've got a case where \_\_sysfs\_get\_dentry called from sysfs\_drop\_dentry is not successfully walking of the sysfs\_dirent tree to the initial root directory. (This is with deleted sysfs\_dirents but that expected from the context).

I haven't yet had a chance to dig in and see what is going on yet.

Your patch doesn't touch that part of my logic so I don't know yet what is going on.

Eric

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