Subject: Re: [patch 0/8] mount ownership and unprivileged mount syscall (v4)
Posted by ebiederm on Fri, 20 Apr 2007 16:33:13 GMT
View Forum Message <> Reply to Message

"Serge E. Hallyn" <serue@us.ibm.com> writes:

> Quoting Miklos Szeredi (miklos@szeredi.hu):
>> This patchset has now been bared to the "lowest common denominator"
>> that everybody can agree on. Or at least there weren't any objections
>> to this proposal.
>>
>> Andrew, please consider it for -mm.
>>
>> Thanks,
>> Miklos
>> ----
>>
>> v3 -> v4:
>>
>> - simplify interface as much as possible, now only a single option
>>   ("user=UID") is used to control everything
>> - no longer allow/deny mounting based on file/directory permissions,
>>   that approach does not always make sense
>>
>> ----
>> This patchset adds support for keeping mount ownership information in
>> the kernel, and allow unprivileged mount(2) and umount(2) in certain
>> cases.
>>
>> The mount owner has the following privileges:
>>
>>   - unmount the owned mount
>>   - create a submount under the owned mount
>>
>> The sysadmin can set the owner explicitly on mount and remount. When
>> an unprivileged user creates a mount, then the owner is automatically
>> set to the user.
>>
>> The following use cases are envisioned:
>>
>> 1) Private namespace, with selected mounts owned by user.
>>   E.g. /home/$USER is a good candidate for allowing unpriv mounts and
>>   unmounts within.
>>
>> 2) Private namespace, with all mounts owned by user and having the
>>   "nosuid" flag. User can mount and umount anywhere within the
>>   namespace, but suid programs will not work.
>>

>> 3) Global namespace, with a designated directory, which is a mount
>> owned by the user. E.g. /mnt/users/$USER is set up so that it is
>> bind mounted onto itself, and set to be owned by $USER. The user
>> can add/remove mounts only under this directory.
>>
>> The following extra security measures are taken for unprivileged
>> mounts:
>>
>> - usermounts are limited by a sysctl tunable
>> - force "nosuid,nodev" mount options on the created mount
>
> Very nice. I like these semantics.
>
> I'll try to rework my laptop in the next few days to use this patchset
> as a test.

Agreed. It appears the approach of adding owner ship information to
mount points and using that to control what may happen with them
in regards to mount/unmount is the only workable approach in the
unix environment.

Now to dig into the details and ensure that they are correct.

Eric

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