Subject: Re: [patch 0/8] unprivileged mount syscall
Posted by ebiederm on Mon, 16 Apr 2007 15:40:35 GMT
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Miklos Szeredi <miklos@szeredi.hu> writes:

>> Arn't there ways to escape chroot jails? Serge had pointed me to a URL
>> which showed chroots can be escaped. And if that is true than having all
>> user's private mount tree in the same namespace can be a security issue?
>
> No. In fact chrooting the user into /share/$USER will actually
> _grant_ a privilege to the user, instead of taking it away. It allows
> the user to modify it's root namespace, which it wouldn't be able to
> in the initial namespace.
>
> So even if the user could escape from the chroot (which I doubt), s/he
> would not be able to do any harm, since unprivileged mounting would be
> restricted to /share. Also /share/$USER should only have read/search
> permission for $USER or no permissions at all, which would mean, that
> other users' namespaces would be safe from tampering as well.

A couple of points.
- chroot can be escaped, it is just a chdir for the root directory it
  is not a security feature. The only security is that you have to be root to call chdir.
  A carefully done namespace setup won't have that issue.

- While it may not violate security as far as what a user is allowed to modify it may
  violate security as far as what a user is allowed to see.

There are interesting per login cases as well such as allowing a user to replicate
their mount tree from another machine when they log in. When /home is on a network
filesystem this can be very practical and can allow propagation of mounts across
machines not just across a single login session.

Eric

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Subject: Re: [patch 0/8] unprivileged mount syscall
Posted by Miklos Szeredi on Mon, 16 Apr 2007 15:55:39 GMT

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> to modify it may violate security as far as what a user is allowed
> to see.

I think that's just up to the permissions in the global namespace. In this example if you 'chmod 0 /share' there won't be anything for the user to see.

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> user to replicate their mount tree from another machine when they
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> practical and can allow propagation of mounts across machines not
> just across a single login session.

Yeah, sounds interesting, but I think it's better to get the basics working first, and then we can start to think about the extras.

Btw, there's nothing that prevents cloning the namespace _after_ chrooting into the per-user tree. That would still be simpler than doing it the other way round: first creating per-session namespaces and then setting up mount propagation between them.

Miklos

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