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Subject: Re: User namespaces and keys

Posted by [ebiederm](#) on Wed, 23 Feb 2011 15:45:49 GMT

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David Howells <dhowells@redhat.com> writes:

> Serge E. Hallyn <serge@hallyn.com> wrote:

>

>> > I guess we need to look at how to mix keys and namespaces again.

>>

>> From strictly kernel pov, at the moment, keys are strictly usable only

>> by the user in your own user namespace.

>

> I'm not sure that's currently completely true. Key quota maintenance is

> namespaced, and the key's owner UID/GID belong to that namespace, so that's

> okay, but:

>

> (\*) key\_task\_permission() does not distinguish UIDs and GIDs from different  
> namespaces.

>

> (\*) A key can be referred to by its serial number, no matter whose namespace

> it is in, and will yield up its given UID/GID, even if these aren't

> actually meaningful in your namespace.

>

> This means request\_key() can successfully upcall at the moment.

>

> I wonder if I should make the following changes:

>

> (1) If the key and the accessor are in different user namespaces, then skip  
> the UID and GID comparisons in key\_task\_permission(). That means that to  
> be able to access the key you'd have to possess the key and the key would  
> have to grant you Possessor access, or the key would have to grant you  
> Other access.

>

> (2) If the key and someone viewing the key description are in different  
> namespaces, then indicate that the UID and the GID are -1, irrespective of  
> the actual values.

>

> (3) When an upcall is attempting to instantiate a key, it is allowed to access  
> the keys of requestor using the requestor's credentials (UID, GID, groups,  
> security label). Ensure that this will be done in the requestor's user  
> namespace.

>

> Nothing should need to be done here, since search\_process\_keyrings()  
> switches to the requestor's creds.

>

> Oh, and are security labels user-namespaced?

Not at this time. The user namespace as currently merged is little more than a place holder for a proper implementation. Serge is busily fleshing out that proper implementation.

Until we reach the point where all checks that have historically been "if (uid1 == uid2)" become "if ((uidns1 == uidns2) && (uid1 == uid2))" there will be problems.

The security labels and probably lsm's in general need to be per user namespace but we simply have not gotten that far. For the short term I will be happy when we get a minimally usable user namespace.

Eric

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Containers mailing list

Containers@lists.linux-foundation.org

<https://lists.linux-foundation.org/mailman/listinfo/containers>

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