
Subject: Re: [patch 1/2] [RFC] Simple tamper-proof device filesystem.

Posted by [serue](#) on Tue, 18 Dec 2007 01:55:57 GMT

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Quoting Serge E. Hallyn (serue@us.ibm.com):

> Quoting Tetsuo Handa (penguin-kernel@i-love.sakura.ne.jp):

> > Hello.

> >

> > Serge E. Hallyn wrote:

> > > CAP_MKNOD will be removed from its capability

> > I think it is not enough because the root can rename/unlink device files

> > (mv /dev/sda1 /dev/tmp; mv /dev/sda2 /dev/sda1; mv /dev/tmp /dev/sda2).

>

> Sure but that doesn't bother us :)

>

> The admin in the container has his own /dev directory and can do what he

> likes with the devices he's allowed to have. He just shouldn't have

> access to others. If he wants to rename /dev/sda1 to /dev/sda5 that's

> his choice.

>

> > > To use your approach, i guess we would have to use selinux (or tomoyo)

> > > to enforce that devices may only be created under /dev?

> > Everyone can use this filesystem alone.

>

> Sure but it is worthless alone.

>

> No?

Oh, no, I'm sorry - I was thinking in terms of my requirements again.

But your requirements are to ensure that an application accessing a device at a well-known location get what it expect.

So then the main quesiton is still the one I think Al had asked - what keeps a rogue CAP_SYS_MOUNT process from doing
mount --bind /dev/hda1 /dev/null ?

thanks,

-serge

> What will keep the container admin from doing 'mknod /root/hda1 b 3 1'?

>

> > But use with MAC (or whatever access control mechanisms that prevent

> > attackers from unmounting/overlaying this filesystem) is recomennded.

>

> -serge

Containers mailing list

Containers@lists.linux-foundation.org

