## Subject: [RFC] [PATCH 0/3] user ns and vfs: Introduction Posted by serue on Wed, 15 Nov 2006 17:40:19 GMT

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

Subject: [RFC] [PATCH 0/3] user ns and vfs: Introduction

Cedric has previously sent out a patchset (http://lists.osdl.org/pipermail/containers/2006-August/000078.html) impplementing the very basics of a user namespace. It ignores filesystem access checks, so that uid 502 in one namespace could access files belonging to uid 502 in another namespace, if the containers were so set up.

This isn't necessarily bad, since proper container setup should prevent problems. However there has been concern, so here is a patchset which takes one course in addressing the concern.

This patchset adds assigns each vfsmount to the user namespace of the process which did the mount. It introduces a userns-shared mount flag mainly to allow a filesystem to be used by a container while it is setting up. It could also be used along with read-only bind mounts to share, for instance, /usr among mutiple containers.

This patchset replaces the previous one, which annotated the superblock.

Is this direction in which we want to go? For instance, would we want to allow the notion of a uidmap so that user 500 (hallyn)'s files on the host system are owned by uid 0 in a container which hallyn started? It's my impression that that could only be cleanly done with either a stackable filesystem to give us fresh inodes inside the container. Also, would a uidmap map uid's as stored on disk to the mapped uids, or would we want to only support a uidmap for the whole user namespace?

My own impression is that we are better off enfocing isolation than trying to provide actual uid mapping, but please argue and discuss.

thanks, -serge

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