
Subject: Re: [PATCH][DOCUMENTATION] The namespaces compatibility list doc
Posted by [Daniel Lezcano](#) on Fri, 16 Nov 2007 15:52:34 GMT
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Pavel Emelyanov wrote:

```
>>From time to time people begin discussions about how the
> namespaces are working/going-to-work together.
>
> Ted T'so proposed to create some document that describes what
> problems user may have when he/she creates some new namespace,
> but keeps others shared. I liked this idea, so here's the
> initial version of such a document with the problems I currently
> have in mind and can describe somewhat audibly - the "namespaces
> compatibility list".
>
> The Documentation/namespaces/ directory is about to contain more
> docs about the namespaces stuff.
>
> Thanks to Cedirc for notes and spell checks on the doc.
>
> Signed-off-by: Pavel Emelyanov <xemul@openvz.org>
>
> ---
>
> commit 83061c56e1c4dcd54d48a62b108d219a7f5279a0
> Author: Pavel <pavel@xemulnb.sw.ru>
> Date: Fri Nov 16 12:25:53 2007 +0300
>
>   Namespaces compatibility list
>
> diff --git a/Documentation/00-INDEX b/Documentation/00-INDEX
> index 910e511..3ead06b 100644
> --- a/Documentation/00-INDEX
> +++ b/Documentation/00-INDEX
> @@ -262,6 +262,8 @@ mtrr.txt
>  - how to use PPro Memory Type Range Registers to increase performance.
>  mutex-design.txt
>  - info on the generic mutex subsystem.
> +namespaces/
> + - directory with various information about namespaces
>  nbd.txt
>  - info on a TCP implementation of a network block device.
>  netlabel/
> diff --git a/Documentation/namespaces/compatibility-list.txt
> b/Documentation/namespaces/compatibility-list.txt
> new file mode 100644
> index 0000000..9c9e5c1
> --- /dev/null
```

```

> +++ b/Documentation/namespaces/compatibility-list.txt
> @@ -0,0 +1,33 @@
> + Namespaces compatibility list
> +
> +This document contains the information about the problems user
> +may have when creating tasks living in different namespaces.
> +
> +Here's the summary. This matrix shows the known problems, that
> +occur when tasks share some namespace (the columns) while living
> +in different other namespaces (the rows):
> +
> + UTS IPC VFS PID User Net
> +UTS X
> +IPC X 1
> +VFS X
> +PID 1 1 X
> +User 2 X
> +Net
> +

```

```

    UTS IPC VFS PID User Net
UTS X
IPC X 1          3
VFS X
PID 1 1 1 X
User 2 X
Net

```

```

> +1. Both the IPC and the PID namespaces provide IDs to address
> + object inside the kernel. E.g. semaphore with ipcid or
> + process group with pid.
> +
> + In both cases, tasks shouldn't try exposing this id to some
> + other task living in a different namespace via a shared filesystem
> + or IPC shmем/message. The fact is that this ID is only valid
> + within the namespace it was obtained in and may refer to some
> + other object in another namespace.
> +
> +2. Intentionnaly, two equal user ids in different user namespaces
    Intentionaly
> + should not be equal from the VFS point of view. In other
> + words, user 10 in one user namespace shouldn't have the same
> + access permissions to files, belonging to user 10 in another
        belonging
> + namespace. But currently this is not so.
> +

```

3. IPC and User

Two processes running in different user namespaces but with the same uids can access with the same permissions to the IPC created by one or other process

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