Subject: [PATCH][DOCUMENTATION] The namespaces compatibility list doc
Posted by Pavel Emelianov on Fri, 16 Nov 2007 09:34:44 GMT
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>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>

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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      X
+
+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 shmem/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
+   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, beloging to user 10 in another
+   namespace. But currently this is not so.
+
```

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